

CALENDAR FOR WATER YEAR 1988

1987

OCTOBER

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1988

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Water Resources Data Indiana

Water Year 1988

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



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT IN-88-1
Prepared in cooperation with the State of Indiana
and with other agencies

DEPARTMENT OF THE INTERIOR
MANUEL LUJAN, JR., Secretary
U.S. GEOLOGICAL SURVEY
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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 water quality 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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FOR WHICH RECORDS ARE PUBLISHED

v11

(d-discharge, e-gage heights, c-chemical, t-temperature, s-sediment,
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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 1988 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 176 gaging stations, stage at 4 gaging stations, stage and contents at 1 reservoir, water quality at 3 stream sites and 2 observation wells, water levels at 79 lakes, peak flows at 23 crest-stage partial-record sites, and water levels at 88 observation wells. Locations of the streamflow and water-quality sites, crest-stage partial-record sites, and ground-water observation wells are shown on figures 4, 5, and 7. The number of lakes by county having 1988 water-level records are shown on figure 6. 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). Additional lake data were published in Open-File Report 88-331, "Annual maximum and minimum lake levels for Indiana, water years 1942-85," by Kathleen K. Fowler (1988). 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 quantity and quality of surface and ground water.

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-88-1." 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.

Every five years since 1950 the Geological Survey has compiled data on water use in the United States. During 1987, this effort was completed again for 1985 use in Indiana primarily through the auspices of the Water Management Branch, Division of Water, Indiana Department of Natural Resources. The Water Management Branch found that in 1985 more than 8 billion gallons per day were withdrawn from the surface- and ground-water resources of Indiana to meet the needs of its citizens. Approximately 92 percent of this withdrawal was from surface-water sources. The largest single source was Lake Michigan, which accounted for about 40 percent of the water withdrawn.

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) 290-3333.

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, Patrick R. Ralston, Director, through the Bureau of Water and Mineral Resources, John N. Simpson, Acting Deputy Director

State of Indiana, Department of Environmental Management, Kathy Prosser, Commissioner, and Charles Bardonner, Assistant Commissioner

State of Indiana, Department of Highways, Christine W. Letts, 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 differ seasonally and geographically. Although some precipitation falls each month, the greatest amounts usually fall during February, March, and April. Average annual amounts (fig. 1) range from about 34 inches in northeastern Indiana to about 46 inches in south-central Indiana. Consumption due to evapotranspiration is relatively uniform throughout the State 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 parts of the State to about 18 inches in the extreme southern part.

Precipitation and runoff amounts during the 1988 water year departed significantly from normal throughout most of Indiana. Precipitation ranged from about 5 inches below normal in the northeastern part of the State to about 11 inches below normal in the east-central part. Runoff departures ranged from nearly zero in a small area of extreme northwestern Indiana south of Lake Michigan to almost 9 inches below normal in the extreme south-central part of the State.

The effects of less-than-normal precipitation on average discharges are shown on figure 3, which compares 1988 water year monthly and annual means at the three Indiana index stations to monthly and annual median discharges for the period 1951-80. Although some of the monthly means at those stations were close to or greater than the median discharges, most of the monthly means and all of the annual means were significantly less than the medians. The annual means at the index stations reflected the generally dry year and ranged from 50 to about 70 percent of their respective medians.

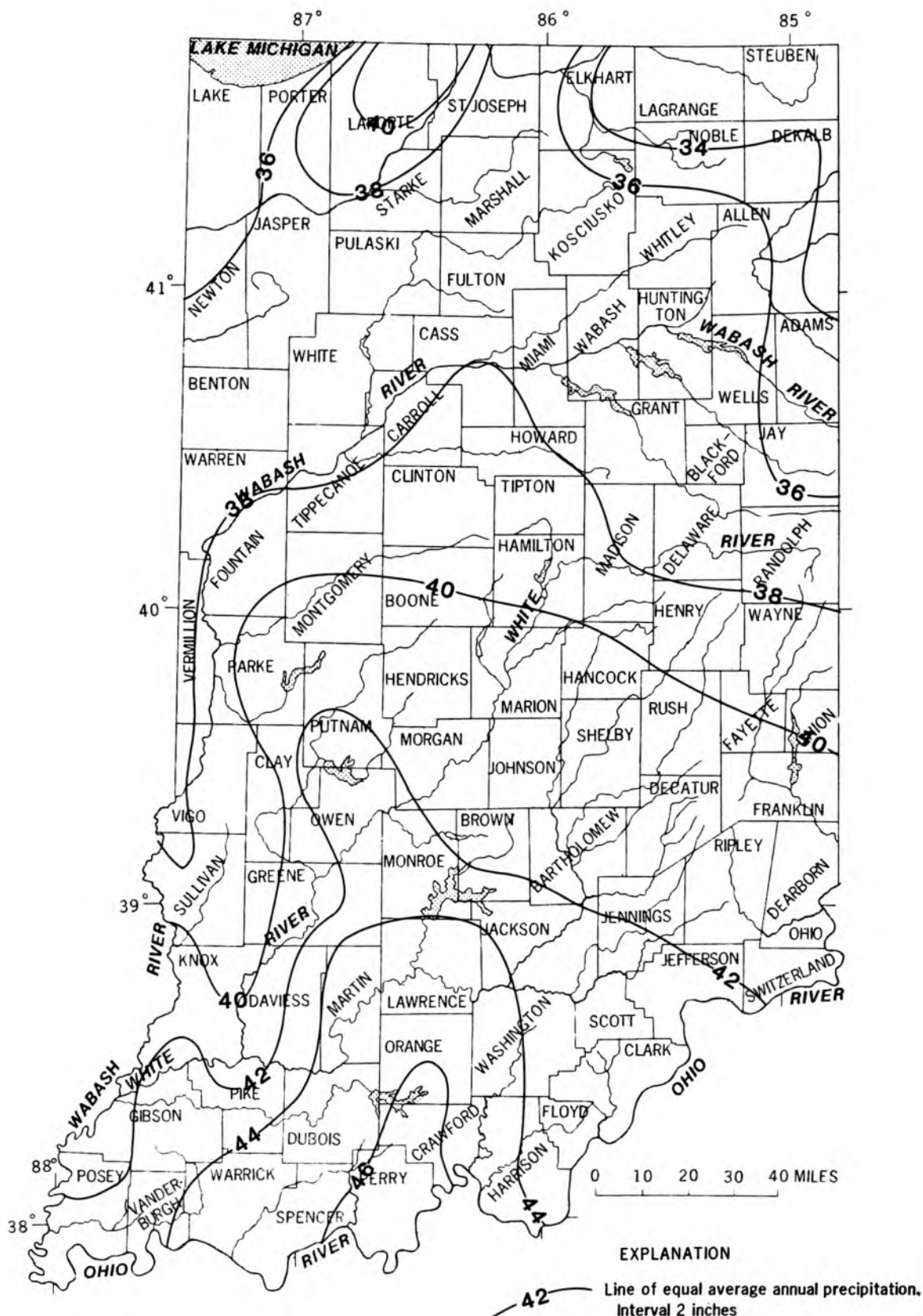


Figure 1.— Average annual precipitation in Indiana, 1951-80.

(Data from National Oceanic and Atmospheric Administration, 1983.)

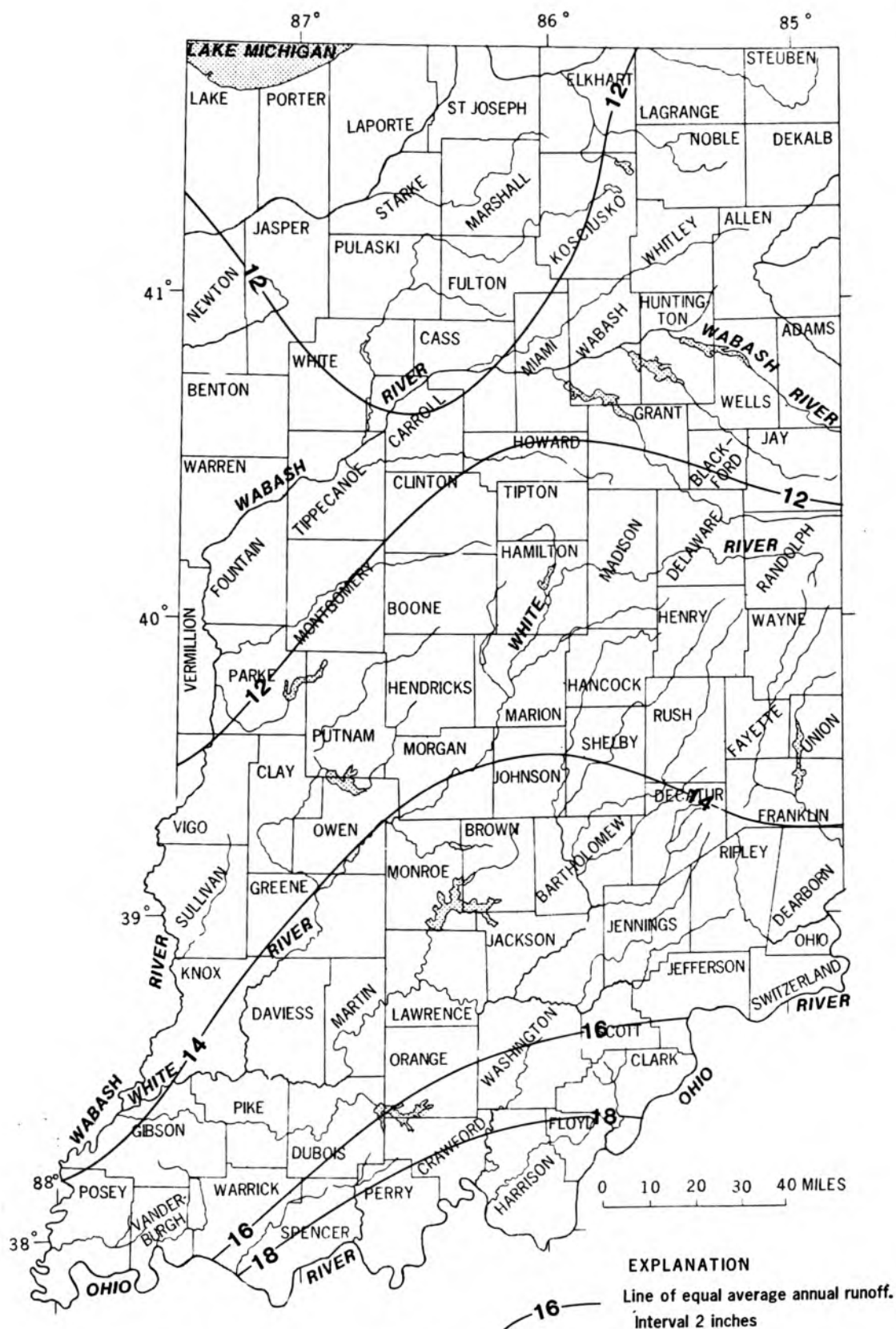


Figure 2.- Average annual runoff in Indiana, 1951-80.

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

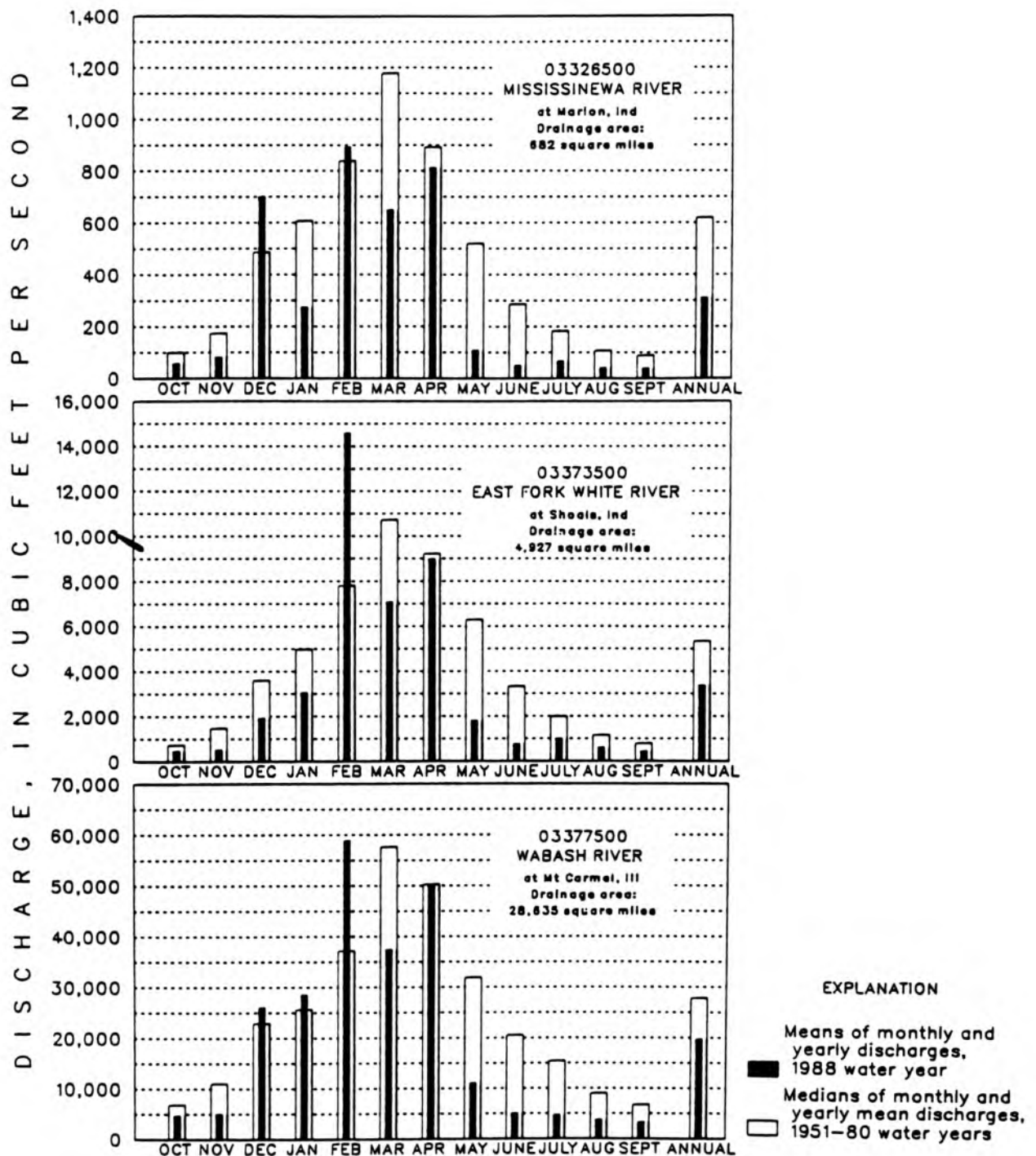


Figure 3. -- Mean discharges at Indiana index stations during 1988 water year and median discharges for period 1951-80.

October 1987 precipitation amounts ranged from below normal to much below normal throughout Indiana. Precipitation ranged from about 0.3 inch below normal in the northeastern part of the State to more than 1.5 inches below normal in the southeastern part. Monthly mean discharges at the three index stations ranged from 58 to 68 percent of the monthly medians.

During November, the northeastern part of the State received about 0.4 inch more precipitation than normal, while the remainder of the State received from near normal in the north- and west-central parts to more than 1.0 inch below normal in the south-central part. Monthly mean discharges at the index stations ranged from 34 to 46 percent of the monthly medians.

During December, precipitation amounts for all of Indiana were greater than normal. Precipitation ranged from about 0.6 inch above normal in the southeastern and east-central parts of the State to about 2.9 inches above normal in the west-central part. Monthly mean discharges at the index stations ranged from 53 to 144 percent of the monthly medians.

January 1988 precipitation in northwestern Indiana was near normal; however, the remainder of the State received from almost 0.3 inch below normal in the southwestern part to about 1.4 inches below normal in the east-central part. Monthly mean discharges at the index stations ranged from 45 to 111 percent of the monthly medians.

During February, the northern part of the State received near normal amounts of precipitation; however, precipitation in the central and southern parts was greater than normal, ranging from about 0.4 inch above normal in west-central to almost 2.0 inches above normal in southwestern and south-central Indiana. Monthly mean discharges at the index stations ranged from 106 to 187 percent of the monthly medians.

March precipitation amounts were above normal only in the west-central and northwestern parts of the State, with about 0.4 inch above normal in both parts. The remainder of the State received less-than-normal precipitation, ranging from about 0.1 inch below normal in north-central to about 1.5 inches below normal in south-central Indiana. Monthly mean discharges at the index stations ranged from 55 to 66 percent of the monthly medians.

Although the central and southeastern parts of Indiana received near normal precipitation during April, precipitation over the remainder of the State was more than 1.0 inch below normal. The monthly mean discharges at the index stations were normal or slightly less than normal.

May precipitation amounts were significantly less than normal for the entire State. Precipitation ranged from almost 2.0 inches below normal in the northwestern part of the State to almost 3.0 inches below normal in the central and east-central part. Monthly mean discharges at the index stations reflected the relatively low precipitation and ranged from 21 to 35 percent of the monthly medians.

June precipitation departures from normal were more negative than during May. Precipitation ranged from more than 3.0 inches below normal in the northeastern part of the State to almost 4.2 inches below normal in the west-central part. Monthly mean discharges at the index stations ranged from 17 to 24 percent of the monthly medians.

During July, the eastern and southern areas of Indiana received from near normal precipitation to more than 1.5 inches above normal; most precipitation occurred as a result of thunderstorms during the middle of the month. The remainder of the State was missed by the majority of those storms and continued receiving precipitation that ranged from about 0.2 inch below normal in the central part of the State to more than 1.7 inches below normal in the northwestern part. The monthly mean discharges at the index stations ranged from 36 to 50 percent of the monthly medians.

August precipitation amounts in northern Indiana ranged from near normal to almost 0.8 inch greater than normal. Precipitation in the remainder of the State ranged from about 0.1 inch below normal in the southeastern part to more than 1.4 inches below normal in the east-central part. Monthly mean discharges at the index stations continued to be below normal and ranged from 37 to 51 percent of the monthly medians.

During September, precipitation amounts in the western part of Indiana were slightly more than 0.9 inch below normal; however, precipitation in the remainder of the State was near normal to more than 0.5 inch above normal. Monthly mean discharges at the index stations ranged from 43 to 55 percent of the monthly medians.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a nationwide network of 57 sites in small drainage basins around the country whose purposes are to provide consistent data on the hydrology, water quality, and related factors in undeveloped watersheds, 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 of approximately 500 sites 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. NASQAN sites generally are 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 to: (1) 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; (2) describe the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs; (3) detect changes or trends with time in the pattern of occurrence of water-quality characteristics; and (4) provide a nationally consistent data base useful for water-quality assessment and hydrologic research.

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1988 water year that began October 1, 1987, and ended September 30, 1988. 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, with digital recorders that punch stage values on paper tapes at selected time intervals, or with data collection platforms that store stage data electronically. 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 (TWRI), Book 3, Chap. 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 ft³/s; to the nearest tenth between 1.0 and 10 ft³/s; to whole numbers between 10 and 1,000 ft³/s; and to 3 significant figures for more than 1,000 ft³/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.

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 usually is 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 cost, most data are obtained monthly or less frequently.

Records of surface-water quality in this report are for continuing-record stations only. These stations are part of the Hydrologic Bench-Mark Network or the National Stream Quality Accounting Network (NASQAN). Locations of stations for which records on the quality of surface water appear in this report are shown on figure 4.

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.

Onsite Measurements and Sample Collection

The major concern in obtaining water-quality data is assuring that the data represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, specific conductance, alkalinity, and dissolved oxygen, are 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. Detailed information on collecting, treating, and shipping samples also may be obtained from the U.S. Geological Survey, Indiana District Office.

One sample can define adequately the water quality at a given time only if the mixture of solutes and sediment throughout the stream cross section is homogeneous. However, the concentration of solutes and sediment at different locations in the cross section can vary widely with different rates of water discharge, depending on the sources of the solutes and sediment, the turbulence and mixing of the stream, and other factors. Most streams must be sampled through several vertical sections using a depth-integrating sampler to obtain a representative sample. All samples obtained for the National Stream Quality Accounting Network and the Hydrologic Bench-Mark Network are obtained from at least several verticals.

Laboratory Measurements

Specific conductance, pH, air and water temperatures, dissolved oxygen, barometric pressure, and alkalinity are measured onsite. Fecal coliform and fecal streptococci bacteria are analyzed in the Indiana District laboratory. Suspended sediment and particle-size distribution are analyzed in the U.S. Geological Survey laboratory in Iowa City, Iowa. All other samples are analyzed in the U.S. Geological Survey National Water-Quality Laboratory in Arvada, Colorado. Methods used in analyzing sediment samples are given in TWRI, Book 5, Chap. C1. Methods used by the National Water-Quality Laboratory are given in TWRI, Book 5, Chap. A1, A4, and A5.

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, and type of data available.

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.

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

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.

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)

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 6.

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 one-hundredth of a foot.

Data Presentation

Each lake record consists of two parts, the station description, and the data table of water levels observed during the year. 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.

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 7.

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 one-hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to one-hundredth of a foot, but some are given to one-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 forth), 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.

Records of Ground-Water Quality

Records of ground-water quality in this report differ from other types of records in that they consist of only one set of measurements for the water year. Ground-water quality is sampled immediately after installation and development of a new observation well. As new observation wells are usually installed late in the water year, records of ground-water quality are typically published in the first water year with complete records for ground-water levels.

Sample Collection and Analysis

Measurements of specific conductance, pH, water temperature, dissolved oxygen, and alkalinity are measured onsite. Other constituents and properties are analyzed in the U.S. Geological Survey National Water-Quality Laboratory in Arvada, Colorado. Methods used in collecting and analyzing ground-water-quality samples are given in TWRI, Book 1, Chap. D2, and Book 5, Chap. A1.

Data Presentation

Records of ground-water quality immediately follow records of ground-water levels.

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. Also, see 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.

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.

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 $44.5^{\circ}\text{C} \pm 0.2^{\circ}\text{C}$ 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 $35^{\circ}\text{C} \pm 1.0^{\circ}\text{C}$ 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.

Bottom material: See Bed material.

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, canal, or lake that is used to regulate the flow or stage 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 [$(\text{ft}^3/\text{s})/\text{mi}^2$] 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 commonly is 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.

Micrograms per gram ($\mu\text{g/g}$) 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 ($\mu\text{g/L}$, $\mu\text{G/L}$) 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.

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:

<u>Classification</u>	<u>Size (mm)</u>	<u>Method of analysis</u>
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.

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.

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: $\text{Concentration (mg/L)} \times \text{discharge (ft}^3/\text{s)} \times 0.0027$.

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.

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- μ m 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- μ m 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- μ m 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.

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

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

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

Table 2.--Factors for conversion of sediment 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 mg/L and a specific gravity of sediment of 2.65.

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.

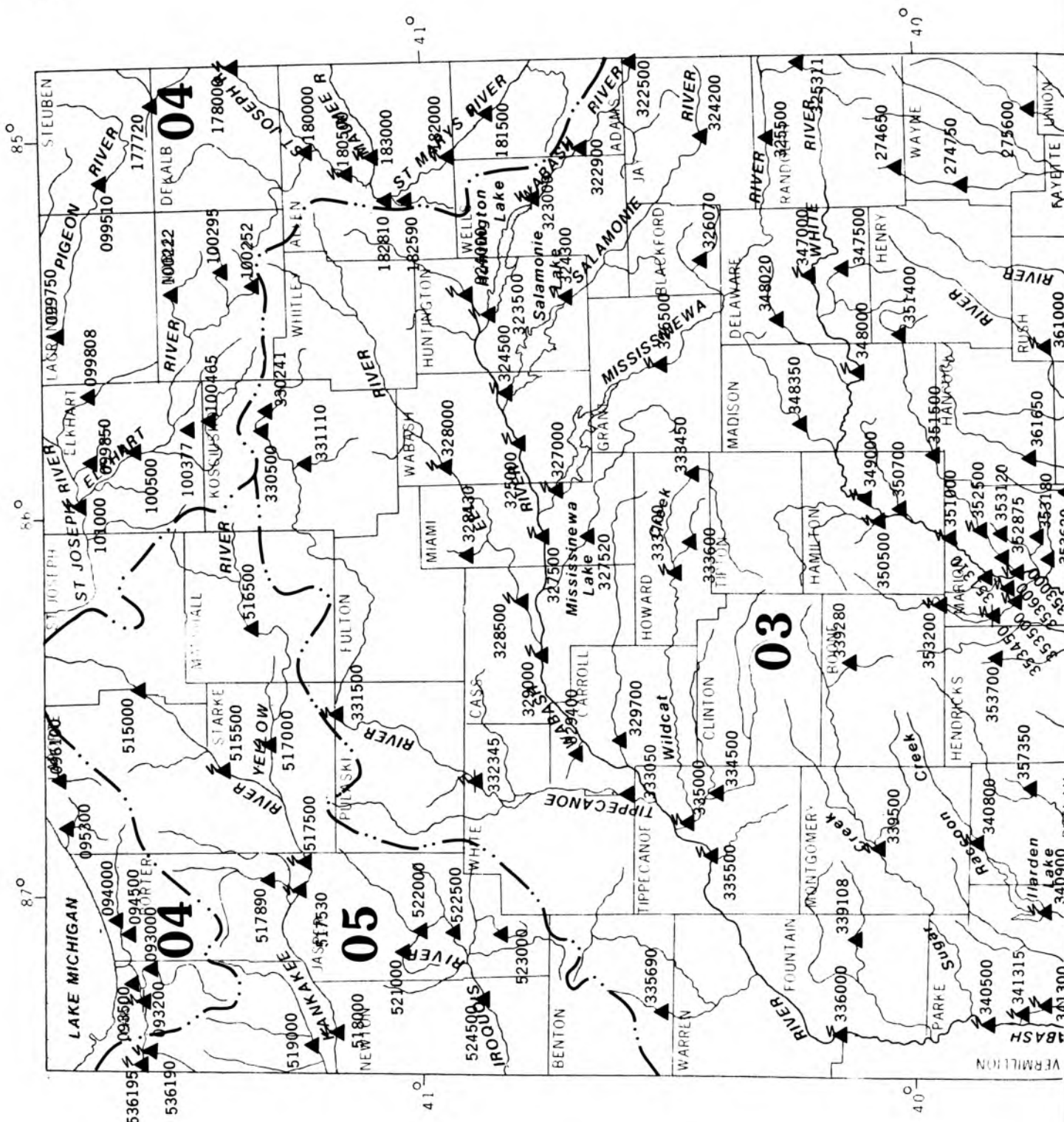
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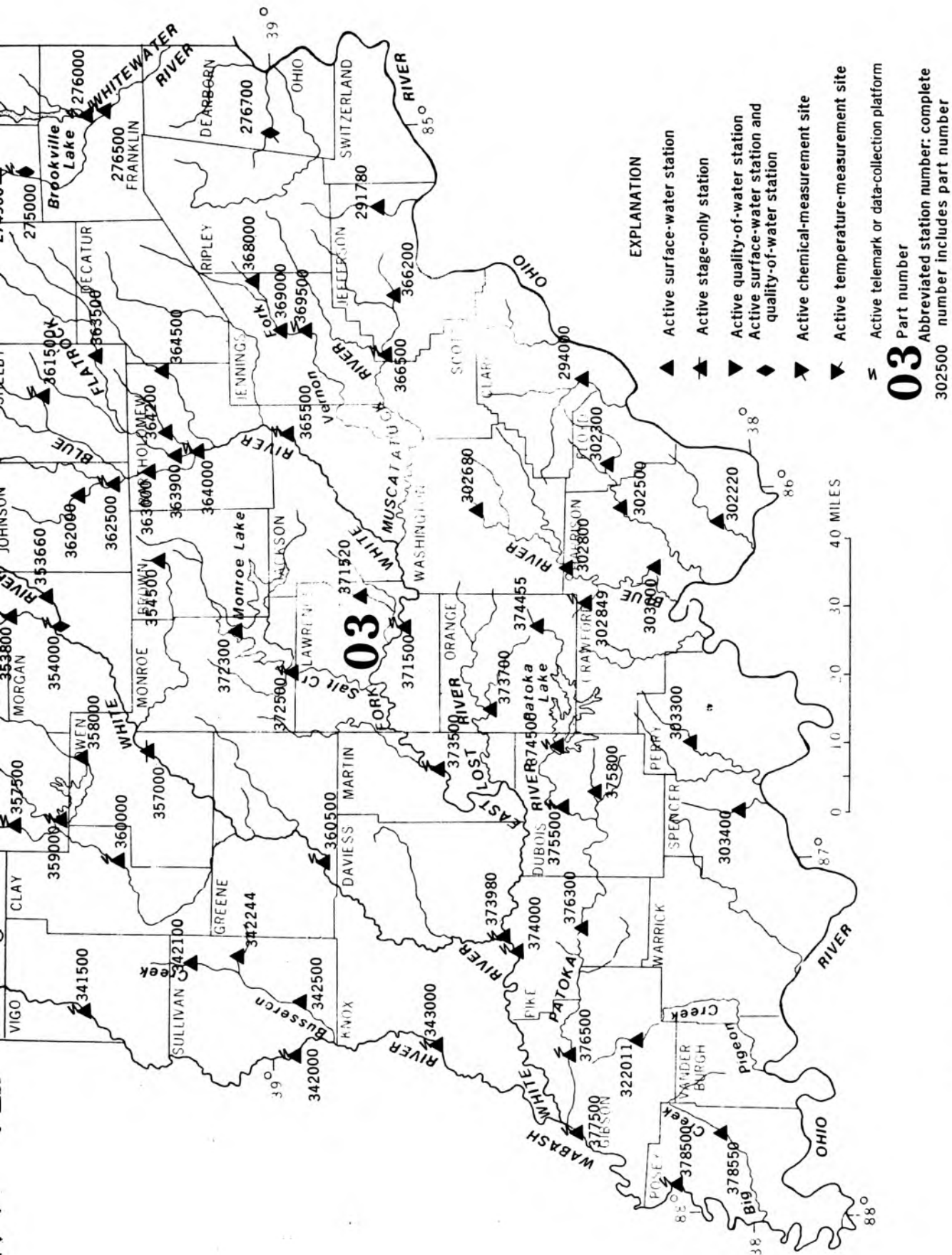


Figure 4.-- Locations of stream flow and water-quality gaging stations in Indiana.

03274750 WHITEWATER RIVER NEAR HAGERSTOWN, IN

LOCATION.--Lat 39°52'25", long 85°09'47", in NE 1/4 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 mi².

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.--18 years, 66.3 ft³/s, 15.34 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,300 ft³/s Jan. 26, 1976, gage height, 10.89 ft; maximum gage height, 11.31 ft Oct. 4, 1986; minimum daily discharge, 5.3 ft³/s Aug. 5, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 2	0400	*825	*7.49	Apr. 7	0900	*825	*7.49

Minimum daily discharge, 6.4 ft³/s Aug. 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	16	19	39	209	38	41	30	16	12	13	6.6
2	13	17	18	33	459	39	41	29	16	11	12	6.6
3	13	16	19	32	155	63	44	28	16	11	12	9.0
4	12	16	20	30	111	78	69	27	15	10	11	7.8
5	14	16	18	24	74	79	53	27	15	11	11	7.4
6	14	16	17	21	50	132	124	26	15	10	11	7.7
7	15	16	19	20	43	151	492	26	15	10	10	7.2
8	15	16	18	20	39	124	166	26	15	9.8	9.6	6.9
9	15	18	20	19	36	103	106	29	16	9.4	9.3	6.9
10	16	16	19	17	33	85	82	26	15	9.0	9.0	7.3
11	16	16	19	16	32	68	67	25	14	9.1	8.7	7.2
12	16	16	18	18	30	110	58	25	14	9.1	8.6	12
13	15	17	17	18	26	112	53	24	15	9.0	8.6	11
14	15	16	17	16	26	72	49	24	15	9.1	8.0	9.1
15	15	16	61	16	127	60	45	22	14	8.9	8.0	8.1
16	15	16	59	16	58	54	42	22	16	8.2	7.5	8.4
17	15	17	38	22	55	51	40	21	18	8.7	7.1	9.9
18	14	16	32	32	63	50	41	21	16	15	6.8	8.8
19	15	16	31	55	236	49	38	21	15	20	7.0	11
20	15	16	51	147	242	46	37	23	15	22	7.2	12
21	15	16	56	47	99	42	36	22	14	26	6.8	9.8
22	15	16	42	33	77	41	39	21	14	19	6.6	11
23	16	16	36	29	104	41	37	26	14	16	8.4	10
24	16	18	33	26	72	39	35	21	13	14	7.5	9.0
25	16	22	121	24	56	53	34	19	13	14	6.6	8.9
26	17	21	130	21	49	56	34	19	13	15	6.5	8.2
27	21	21	82	20	45	48	33	18	13	13	6.4	7.9
28	18	24	67	20	41	43	33	17	13	13	9.2	7.7
29	17	26	60	21	40	42	31	17	14	12	8.1	7.6
30	17	20	47	24	---	41	30	16	14	12	7.2	7.9
31	16	---	44	28	---	40	---	16	---	19	6.8	---
TOTAL	475	525	1248	904	2687	2050	2030	714	441	395.3	265.5	258.9
MEAN	15.3	17.5	40.3	29.2	92.7	66.1	67.7	23.0	14.7	12.8	8.56	8.63
MAX	21	26	130	147	459	151	492	30	18	26	13	12
MIN	12	16	17	16	26	38	30	16	13	8.2	6.4	6.6
CFSM	.26	.30	.69	.50	1.58	1.13	1.15	.39	.25	.22	.15	.15
IN.	.30	.33	.79	.57	1.70	1.30	1.29	.45	.28	.25	.17	.16

CAL YR 1987	TOTAL	15784	MEAN	43.2	MAX	744	MIN	12	CFSM	.74	IN.	10.00
WTR YR 1988	TOTAL	11993.7	MEAN	32.8	MAX	492	MIN	6.4	CFSM	.56	IN.	7.60

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 Connerville, and 2.6 mi upstream from mouth.

DRAINAGE AREA.--9.16 mi².

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. 15 to Jan. 16, Jan. 21-30, Feb. 6-14, 16-18, Feb. 23 to Mar. 2, Mar. 5-31, and Apr. 4, 5, 8-21. Records fair except for estimated daily discharges, which are poor. Peak flows affected by ponding at abandoned railroad culvert 0.5 mi upstream.

AVERAGE DISCHARGE.--20 years, 9.78 ft³/s, 14.50 in./yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,560 ft³/s June 22, 1974, gage height, 10.13 ft; minimum daily, no flow on many days in 1988.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 1	2200	*507	*5.31

Minimum daily discharge, no flow on many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.46	.90	1.3	3.4	109	6.2	5.7	4.1	.99	.25	.24	.00
2	.47	.89	1.5	3.1	170	6.6	5.4	4.0	.97	.21	.06	.00
3	.56	.87	1.5	2.8	37	14	7.6	3.8	.98	.13	.00	.47
4	.61	.91	1.8	2.7	26	15	10	3.8	.98	.07	.00	.37
5	.52	.89	1.5	2.6	16	12	8.6	3.7	.95	.08	.07	.18
6	.53	.85	1.3	2.4	12	15	12	3.5	.89	.02	.11	.09
7	.59	.93	1.5	2.3	10	19	52	3.1	.80	.02	.0	.08
8	.62	1.0	1.4	2.2	9.0	16	17	3.1	.67	.00	.04	.0
9	.62	1.1	1.5	2.1	8.0	14	14	3.2	.70	.00	.00	.00
10	.68	1.0	1.3	2.0	7.0	12	12	3.0	.72	.00	.00	.00
11	.85	1.0	1.3	2.0	6.5	11	10	2.8	.71	.00	.00	.00
12	.74	1.0	1.3	2.3	6.0	17	9.0	2.7	.69	.00	.00	.07
13	.65	1.0	1.3	2.3	5.7	13	8.2	2.6	.60	.01	.00	.31
14	.70	1.0	1.3	2.2	6.0	11	7.6	2.6	.55	.02	.00	.21
15	.68	1.0	3.5	2.0	16	9.5	7.2	2.4	.49	.00	.00	.12
16	.65	1.0	3.0	2.6	11	8.4	6.6	2.3	.67	.00	.00	.06
17	.69	1.1	2.5	3.6	9.0	7.8	6.2	2.2	.64	.00	.00	.13
18	.78	1.1	1.7	3.3	12	7.5	6.1	2.0	.59	.05	.00	.11
19	.78	1.1	1.7	6.6	31	7.2	6.0	2.0	.51	.48	.00	.13
20	.76	1.1	3.0	18	22	7.0	5.9	2.1	.49	.83	.00	.18
21	.85	1.1	2.6	9.0	13	6.5	5.9	1.9	.39	.57	.00	.13
22	.82	1.0	2.3	5.5	13	6.3	7.6	1.9	.33	.28	.00	.15
23	.78	1.1	2.2	4.8	14	6.2	6.0	2.4	.31	.29	.00	.14
24	.88	1.2	2.2	4.0	11	6.0	5.4	1.9	.30	.24	.00	.12
25	.94	1.5	4.5	3.4	9.5	9.4	5.2	1.7	.29	.20	.00	.13
26	.91	1.6	15	3.3	8.0	8.2	5.0	1.6	.23	.23	.00	.10
27	1.1	1.7	9.0	3.2	7.4	7.6	4.7	1.5	.24	.23	.00	.07
28	.89	1.7	6.6	3.1	6.8	7.3	4.7	1.4	.00	.16	.00	.05
29	.99	1.9	5.2	3.2	6.5	7.0	4.5	1.3	.22	.12	.00	.03
30	.93	1.3	4.0	3.5	---	6.4	4.3	1.2	.41	.02	.00	.00
31	.90	---	3.7	4.4	---	6.0	---	1.1	---	.46	.00	---
TOTAL	22.93	33.84	92.5	117.9	618.4	306.1	270.4	76.9	17.31	4.97	0.52	3.43
MEAN	.74	1.13	2.98	3.80	21.3	9.87	9.01	2.48	.58	.16	.017	.11
MAX	1.1	1.9	15	18	170	19	52	4.1	.99	.83	.24	.47
MIN	.46	.85	1.3	2.0	5.7	6.0	4.3	1.1	.00	.00	.00	.00
CFSM	.08	.12	.33	.42	2.33	1.08	.98	.27	.06	.02	.00	.01
IN.	.09	.14	.38	.48	2.51	1.24	1.10	.31	.07	.02	.00	.01

CAL YR 1987 TOTAL 1293.63 MEAN 3.54 MAX 58 MIN .24 CFSM .39 IN. 5.25
WTR YR 1988 TOTAL 1565.20 MEAN 4.28 MAX 170 MIN .00 CFSM .47 IN. 6.36

03275000 WHITEWATER RIVER NEAR ALPINE, IN

(National stream-quality accounting network station)

LOCATION.--Lat 39°34'46", long 85°09'29", in SE1/4 sec. 14, T.13 N., R.12 E., Fayette County, Hydrologic Unit 05080003, on right bank at Mullettown, 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.

WATER-DISCHARGE RECORDS

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: Jan. 3-16, 27, 28, and Apr. 26-29. Records good except for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--60 years, 551 ft³/s, 14.14 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,100 ft³/s Jan. 14, 1937, gage height, 16.61 ft (at site then in use); maximum gage height 17.50 ft, Oct. 5, 1986; minimum daily discharge, 3.0 ft³/s Aug. 6, 1934.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 2	0600	*7,240	*14.47

Minimum daily discharge, 51 ft³/s Sept. 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	111	131	271	1060	371	391	237	134	102	82	56
2	101	112	128	232	6360	365	407	229	130	98	77	55
3	97	112	129	210	2750	502	478	222	127	94	72	65
4	97	110	136	190	1720	950	691	218	125	92	70	63
5	98	109	137	180	1040	667	622	218	121	92	68	58
6	99	107	132	170	705	841	656	214	119	90	66	56
7	98	106	133	160	608	1050	2230	207	115	87	63	56
8	99	106	135	155	535	957	1910	201	116	86	62	56
9	100	109	135	150	478	843	1030	208	118	84	62	54
10	101	110	133	145	441	738	778	221	119	82	61	53
11	103	107	133	140	407	633	645	207	113	79	60	51
12	103	106	133	152	375	635	558	195	111	79	60	56
13	103	108	131	150	321	870	490	188	111	81	62	62
14	102	108	129	140	338	741	447	182	111	81	60	63
15	103	106	165	140	639	614	412	176	109	81	60	61
16	101	107	225	140	677	540	378	174	110	78	58	60
17	102	108	211	159	555	496	359	166	119	79	57	61
18	98	110	183	172	591	479	365	166	116	87	55	60
19	98	110	172	207	963	465	344	159	110	98	55	61
20	100	110	172	497	2690	441	321	166	109	117	55	61
21	102	106	220	378	1250	406	307	168	108	114	56	60
22	103	103	230	268	866	379	361	163	108	102	57	59
23	104	105	207	227	875	367	334	182	109	90	61	59
24	104	108	191	209	866	358	301	174	110	89	58	58
25	104	116	244	193	642	436	283	163	115	90	55	58
26	104	125	560	172	536	559	275	153	113	86	53	58
27	116	129	517	160	489	510	270	148	113	85	53	55
28	119	135	399	160	437	449	270	147	109	84	63	53
29	115	140	370	167	402	421	260	142	106	82	62	53
30	114	140	330	174	---	404	244	138	107	81	60	55
31	113	---	301	187	---	375	---	135	---	100	57	---
TOTAL	3203	3379	6552	6055	29616	17862	16417	5667	3441	2770	1900	1736
MEAN	103	113	211	195	1021	576	547	183	115	89.4	61.3	57.9
MAX	119	140	560	497	6360	1050	2230	237	134	117	82	65
MIN	97	103	128	140	321	358	244	135	106	78	53	51
CFSM	.20	.22	.40	.37	1.96	1.10	1.05	.35	.22	.17	.12	.11
IN.	.23	.24	.47	.43	2.11	1.27	1.17	.40	.25	.20	.14	.12

CAL YR 1987 TOTAL 132120 MEAN 362 MAX 8200 MIN 97 CFSM .69 IN. 9.42
WTR YR 1988 TOTAL 98598 MEAN 269 MAX 6360 MIN 51 CFSM .52 IN. 7.03

GREAT MIAMI RIVER BASIN

03275000 WHITEWATER RIVER NEAR ALPINE, IN --Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL ANALYSIS: October 1986 to current year.

SEDIMENT DISCHARGE: July 1968 to September 1976, October 1986 to current year (partial-record station).

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	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)	HARD- NESS TOTAL (MG/L AS CACO3)
NOV												
04...	1345	135	692	8.3	--	15.3	0.3	12.2	742	K10	K30	360
MAR												
02...	1310	362	649	8.4	14.0	6.3	1.5	11.1	746	190	540	340
30...	1500	404	639	8.4	15.0	13.5	0.5	12.6	752	K27	K120	330
MAY												
18...	1000	87	673	7.9	22.0	16.9	0.6	10.7	743	K50	200	330
JUL												
27...	1300	84	661	8.2	32.5	24.3	1.2	11.1	752	K150	K30	330
SEP												
13...	1230	62	713	8.0	29.0	20.8	2.0	9.1	748	1800	68	330

DATE	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3	BICAR- BONATE WAT DIS DIS IT FIELD MG/L AS HCO3	CAR- BONATE WAT DIS DIS IT FIELD MG/L AS CO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV												
04...	0	89	33	16	9	0.4	2.5	439	536	0	43	28
MAR												
02...	64	85	32	11	6	0.3	2.0	280	342	0	45	23
30...	71	79	31	11	7	0.3	1.7	254	310	0	51	23
MAY												
18...	64	79	32	12	7	0.3	1.9	265	323	0	51	23
JUL												
27...	73	79	32	20	12	0.5	2.5	256	264	24	51	32
SEP												
13...	0	79	32	24	14	0.6	2.4	350	427	0	53	--

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
NOV												
04...	0.3	5.4	390	142	0.07	2.7	0.07	0.08	0.6	0.06	0.05	0.05
MAR												
02...	0.3	7.9	398	389	0.01	4.3	0.13	0.11	0.4	0.08	0.07	0.06
30...	0.3	3.4	374	407	0.02	3.6	0.09	0.09	<0.2	0.05	0.04	0.02
MAY												
18...	0.4	3.4	384	90.1	0.10	2.7	0.19	0.18	0.2	0.05	0.07	0.04
JUL												
27...	0.2	8.4	398	90.2	0.04	2.6	0.02	0.03	1.5	0.23	0.23	0.19
SEP												
13...	0.2	6.9	406	67.9	0.03	2.2	0.21	0.25	0.6	0.13	0.11	0.08

DATE	ALUM- INIUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	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)
NOV												
04...	<10	<1	89	<0.5	<1	--	<3	<1	5	<5	9	4
MAR												
02...	--	--	--	--	--	--	--	--	--	--	--	--
30...	<10	<1	72	<0.5	<1	<1	<3	4	6	<5	10	9
MAY												
18...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
27...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
13...	<10	1	77	<0.5	<1	<1	<3	<1	10	<5	8	13

GREAT MIAMI RIVER BASIN

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03275000 WHITEWATER RIVER NEAR ALPINE, IN --Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	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- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 04...	<0.1	<10	13	3	<1	350	<6	9	46	17	48
MAR 02...	--	--	--	--	--	--	--	--	17	17	67
30...	<0.1	<10	7	<1	<1	370	<6	9	7	7.6	94
MAY 18...	--	--	--	--	--	--	--	--	6	1.4	72
JUL 27...	--	--	--	--	--	--	--	--	8	1.8	96
SEP 13...	<0.1	10	14	<1	<1	280	<6	18	26	4.3	32

03275600 EAST FORK WHITEWATER RIVER AT ABINGTON, IN

LOCATION.--Lat 39°43'57", long 84°57'35", in NE1SW1 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 mi².

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. 2-17, 27, 28. Records good.

AVERAGE DISCHARGE.--23 years, 225 ft³/s, 15.28 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,400 ft³/s July 20, 1969, gage height, 16.18 ft; minimum daily, 11 ft³/s Aug. 18, 19, 1988.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 2	0500	*3,910	*10.43

Minimum daily discharge, 11 ft³/s Aug. 18, 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	30	52	83	834	136	157	74	33	20	32	13
2	22	31	48	62	2810	140	171	73	31	19	26	17
3	23	31	68	57	779	249	271	70	30	17	24	49
4	23	29	74	52	569	367	339	70	31	16	27	31
5	23	29	54	48	373	282	259	69	30	15	23	18
6	25	29	47	47	283	352	313	67	30	15	29	16
7	26	29	55	46	242	381	458	63	28	14	22	15
8	26	30	48	44	205	323	327	61	26	14	20	15
9	27	39	50	43	172	300	265	89	32	13	19	14
10	31	33	46	42	148	268	229	83	27	12	18	13
11	41	31	46	40	135	229	205	70	26	12	17	12
12	32	30	47	42	126	254	178	64	26	14	16	19
13	30	31	41	42	104	285	160	60	25	15	15	46
14	29	30	40	38	121	245	148	58	24	16	14	23
15	29	29	121	37	288	210	136	55	23	14	13	18
16	29	28	83	38	247	181	124	54	27	13	13	19
17	29	31	63	45	226	166	115	51	31	21	12	40
18	29	30	55	57	263	164	133	49	25	33	11	20
19	29	29	53	72	559	158	110	48	23	43	11	21
20	29	28	78	165	894	151	96	53	22	43	20	24
21	27	29	69	107	382	137	92	49	22	49	14	17
22	26	31	65	75	304	125	116	47	20	28	12	17
23	27	31	65	66	326	124	105	62	19	24	20	19
24	27	32	61	62	301	119	90	55	18	21	20	16
25	34	59	121	56	240	241	86	51	18	20	14	15
26	31	61	206	46	199	287	83	44	17	21	13	15
27	47	65	172	43	183	222	82	41	16	19	12	15
28	35	60	148	43	157	184	84	39	16	19	35	14
29	32	90	149	47	147	167	78	37	19	19	26	14
30	32	56	115	53	---	156	75	36	23	18	16	14
31	31	---	95	79	---	141	---	35	---	92	14	---
TOTAL	904	1121	2435	1777	11617	6744	5085	1777	738	709	578	599
MEAN	29.2	37.4	78.5	57.3	401	218	169	57.3	24.6	22.9	18.6	20.0
MAX	47	90	206	165	2810	381	458	89	33	92	35	49
MIN	22	28	40	37	104	119	75	35	16	12	11	12
CFSM	.15	.19	.39	.29	2.00	1.09	.85	.29	.12	.11	.09	.10
IN.	.17	.21	.45	.33	2.16	1.25	.95	.33	.14	.13	.11	.11

CAL YR 1987 TOTAL 45803 MEAN 125 MAX 1800 MIN 21 CFSM .63 IN. 8.52
WTR YR 1988 TOTAL 34084 MEAN 93.1 MAX 2810 MIN 11 CFSM .47 IN. 6.34

03276000 EAST FORK WHITEWATER RIVER AT BROOKVILLE, IN

LOCATION.--Lat 39°26'02", long 85°00'12", in NE¼ 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 mi².

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

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

GAGE.--Water-stage recorder. Datum of gage is 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 same site and datum. Oct. 1, 1981 to Sept. 30, 1986, daily discharge provided by U.S. Army Corps of Engineers.

REMARKS.--No estimated daily discharges. Records good. Water temperature probe connected to a Data Collection Platform since Nov. 5, 1986. Flow regulated by Brookville Lake since January 1974.

AVERAGE DISCHARGE.--34 years, 396 ft³/s, 14.15 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,100 ft³/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, 2,140 ft³/s Feb. 5; minimum daily, 11 ft³/s July 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	425	267	222	188	50	53	82	51	29	27	26
2	47	425	155	166	250	50	55	82	50	28	27	27
3	47	425	103	79	1060	63	57	83	50	28	27	28
4	47	425	68	79	1950	55	55	83	50	28	27	27
5	38	425	68	79	2140	52	51	64	50	28	27	26
6	33	425	67	79	2100	53	57	44	52	25	27	85
7	33	422	67	61	2060	53	32	45	55	24	26	116
8	33	422	67	52	2040	53	29	99	56	24	26	125
9	33	419	68	42	1170	53	52	63	40	24	26	125
10	33	419	68	36	311	53	52	65	33	24	26	125
11	33	418	68	36	169	53	51	78	33	21	26	125
12	33	418	69	36	165	54	45	72	34	23	26	125
13	33	418	68	36	178	54	51	63	34	12	26	99
14	33	418	69	35	179	54	49	204	34	11	26	79
15	95	418	74	35	182	54	53	61	35	31	26	79
16	208	418	72	36	567	54	53	62	34	31	26	80
17	207	425	72	36	751	54	54	62	33	30	26	80
18	207	420	72	59	432	54	48	57	33	16	26	79
19	206	419	72	80	438	54	48	59	33	15	27	80
20	206	419	73	140	648	54	54	59	32	37	26	79
21	209	419	72	221	911	54	52	59	31	27	26	79
22	208	418	72	219	917	55	361	58	28	27	26	79
23	333	418	72	219	909	55	241	54	28	27	26	79
24	432	294	73	218	906	55	403	53	28	27	26	80
25	432	128	81	218	639	62	191	43	27	27	26	80
26	432	126	160	142	264	60	79	50	27	27	26	76
27	432	337	231	100	187	58	79	50	27	27	26	72
28	432	432	362	102	186	58	75	49	21	27	26	72
29	432	432	444	68	124	52	81	49	30	27	26	72
30	429	432	443	50	---	51	81	50	29	27	26	74
31	427	---	357	50	---	51	---	50	---	27	26	---
TOTAL	5850	11859	4074	3031	22021	1685	2642	2052	1098	786	813	2378
MEAN	189	395	131	97.8	759	54.4	88.1	66.2	36.6	25.4	26.2	79.3
MAX	432	432	444	222	2140	63	403	204	56	37	27	125
MIN	33	126	67	35	124	50	29	43	21	11	26	26

CAL YR 1987 TOTAL 74741 MEAN 205 MAX 2250 MIN 13
WTR YR 1988 TOTAL 58289 MEAN 159 MAX 2140 MIN 11

03276500 WHITEWATER RIVER AT BROOKVILLE, IN

(Former National stream-quality accounting network station)

LOCATION.--Lat 39°24'24", long 85°00'46", in NE 1/4 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.

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.--Estimated daily discharges: Jan. 4-16 and Apr. 25 to June 14. Records good except for estimated daily discharges, which are poor. Flow regulated by Brookville Lake since January 1974.

AVERAGE DISCHARGE.--67 years (water years 1916-17, 1924 to current year), 1,266 ft³/s, 14.05 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, 16,700 ft³/s Feb. 2, gage height, 11.59 ft; minimum daily, 76 ft³/s July 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	156	553	468	793	3290	723	733	465	270	115	147	93
2	152	553	323	611	13600	687	856	455	260	112	139	93
3	149	553	286	455	5870	1490	915	440	255	108	131	117
4	149	553	252	420	5070	2830	1200	435	252	104	125	119
5	143	555	257	300	4010	1600	1150	420	246	101	122	121
6	140	553	249	280	3200	1510	1210	390	245	98	127	156
7	144	553	245	265	2950	1600	4570	380	240	96	147	186
8	143	544	243	255	2870	1560	3200	425	242	96	128	193
9	144	544	245	250	2100	1430	1890	400	210	94	119	191
10	150	544	245	245	1190	1290	1460	425	185	93	115	189
11	158	544	241	237	939	1140	1220	415	177	88	115	189
12	155	536	244	235	850	1130	1050	370	170	89	112	192
13	148	533	240	250	786	1610	933	370	165	82	171	209
14	149	534	238	230	770	1390	847	500	160	76	136	180
15	200	534	312	230	1640	1160	777	350	159	94	116	167
16	319	534	424	240	1860	1000	718	340	155	92	110	169
17	325	547	386	244	1840	904	683	330	148	90	104	166
18	325	544	339	279	1530	857	672	325	145	84	100	160
19	325	544	315	345	2150	832	655	316	141	102	141	160
20	325	544	322	1410	4110	787	620	327	141	490	292	162
21	325	544	364	984	3020	731	605	330	139	538	142	154
22	325	542	394	720	2410	686	1060	322	137	214	115	160
23	446	542	367	617	2230	664	1030	350	133	174	113	155
24	548	428	347	569	2300	641	1010	334	126	155	108	155
25	550	256	527	517	1860	1120	700	310	122	144	102	155
26	544	267	1760	410	1300	1410	530	300	117	136	98	150
27	552	488	1230	343	1120	1100	520	290	111	129	96	142
28	553	622	1260	343	1010	916	515	290	104	129	101	139
29	553	655	1360	308	898	821	500	280	114	126	106	139
30	553	653	1140	296	---	768	480	275	115	123	103	141
31	553	---	981	314	---	710	---	270	---	154	97	---
TOTAL	9401	15896	15604	12995	76773	35097	32309	11229	5184	4326	3878	4702
MEAN	303	530	503	419	2647	1132	1077	362	173	140	125	157
MAX	553	655	1760	1410	13600	2830	4570	500	270	538	292	209
MIN	140	256	238	230	770	641	480	270	104	76	96	93
CFSM	.25	.43	.41	.34	2.16	.92	.88	.30	.14	.11	.10	.13
IN.	.29	.48	.47	.39	2.33	1.07	.98	.34	.16	.13	.12	.14

CAL YR 1987 TOTAL 260556 MEAN 714 MAX 7300 MIN 140 CFSM .58 IN. 7.92
WTR YR 1988 TOTAL 227394 MEAN 621 MAX 13600 MIN 76 CFSM .51 IN. 6.91

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 mi².

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: Jan. 3-18, 27, 28. Records good except for Jan. 3-18, which are poor.

AVERAGE DISCHARGE.--27 years, 42.0 ft³/s, 14.97 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft³/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 ft³/s on basis of contracted-opening measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 2	0245	*3,220	*7.17

Minimum daily discharge, no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.43	3.3	30	1360	12	17	5.3	.45	.00	.02	.09
2	.00	.37	2.3	15	1530	11	35	4.0	.29	.00	.02	.05
3	.00	.29	1.6	9.0	185	355	91	3.8	.19	.00	.02	.22
4	.01	.26	1.4	6.0	239	441	90	3.4	.16	.00	2.0	36
5	.04	.23	1.4	4.0	82	96	39	3.4	.12	.00	1.4	5.9
6	.04	.22	1.6	2.4	41	60	231	3.0	.09	.00	58	1.9
7	.05	.19	1.4	1.8	29	43	512	2.7	.06	.00	9.2	1.0
8	.04	.20	1.1	1.6	22	33	96	2.5	.04	.00	2.2	.62
9	.03	.22	1.2	1.5	17	29	47	3.1	.04	.00	.89	.44
10	.03	.22	1.4	1.5	15	28	31	3.2	.02	.00	.45	.27
11	.10	.22	1.4	1.4	13	22	23	2.5	.00	.00	.33	.23
12	.25	.24	1.4	1.3	12	21	18	1.9	.00	.00	45	.18
13	.43	.26	1.3	1.3	12	38	14	1.5	.00	.00	34	.15
14	.41	.22	1.4	1.3	13	27	11	3.8	.00	.00	4.1	.10
15	.30	.22	12	1.3	93	22	9.4	3.5	.00	.00	1.4	.07
16	.29	.24	18	1.7	38	19	7.8	2.2	.00	.00	.59	.16
17	.25	.28	9.1	2.0	30	17	6.9	1.4	.00	.00	.30	.50
18	.23	.30	4.9	3.5	28	16	8.8	1.1	.00	.00	.19	.34
19	.19	.30	3.6	330	146	18	9.9	1.1	.00	.06	.11	.22
20	.17	.30	4.0	284	143	18	7.2	1.2	.00	48	5.9	.28
21	.19	.30	5.6	53	46	15	6.5	1.3	.00	61	2.2	.46
22	.22	.30	5.2	25	31	13	29	1.2	.00	5.7	.76	.62
23	.20	.30	4.4	17	31	13	26	3.2	.00	1.8	.60	.50
24	.19	.32	3.7	13	32	11	17	4.0	.00	.90	1.5	.41
25	.20	.79	14	9.8	21	69	12	3.5	.00	.53	1.1	.62
26	.20	3.7	153	8.4	18	64	9.7	2.4	.00	.36	.57	.45
27	.34	5.8	32	7.7	17	31	8.1	1.6	.00	.24	.31	.49
28	.53	6.4	58	7.4	14	22	6.9	1.2	.00	.18	.19	.37
29	.62	7.9	45	7.2	13	19	5.9	.90	.00	.12	.20	.27
30	.65	4.6	17	8.9	---	16	5.4	.76	.00	.09	.18	.22
31	.57	---	15	60	---	14	---	.56	---	.07	.12	---
TOTAL	6.77	35.62	426.7	918.0	4271	1613	1431.5	75.22	1.46	119.05	173.85	74.91
MEAN	.22	1.19	13.8	29.6	147	52.0	47.7	2.43	.049	3.84	5.61	2.50
MAX	.65	7.9	153	330	1530	441	512	5.3	.45	61	58	36
MIN	.00	.19	1.1	1.3	12	11	5.4	.56	.00	.00	.02	.05
CFSM	.01	.03	.36	.78	3.87	1.37	1.25	.06	.00	.10	.15	.07
IN.	.01	.03	.42	.90	4.17	1.57	1.40	.07	.00	.12	.17	.07

CAL YR 1987	TOTAL 6751.12	MEAN 18.5	MAX 728	MIN .00	CFSM .49	IN. 6.59
WTR YR 1988	TOTAL 9147.08	MEAN 25.0	MAX 1530	MIN .00	CFSM .66	IN. 8.93

03276700 SOUTH HOGAN CREEK NEAR DILLSBORO, IN --Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL ANALYSES: October 1968 to current year.

SEDIMENT DISCHARGE: August 1969 to current year (partial-record station).

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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)	HARD- NESS TOTAL (MG/L AS CaCO3)
NOV 03...	1330	0.29	606	8.3	--	15.7	0.8	9.7	739	K91	430	270
MAR 31...	1040	15	460	8.3	--	9.9	1.3	10.9	757	K10	K160	210
MAY 19...	1030	1.2	526	8.0	--	19.8	2.2	9.0	--	K18	3000	220
JUL 26...	1500	0.34	460	8.4	35.0	28.6	2.3	10.0	752	--	--	220
27...	0830	--	--	--	--	--	--	--	--	360	430	--

[illegible][illegible][illegible]

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03276700 SOUTH HOGAN CREEK NEAR DILLSBORO, IN --Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

[illegible]

DATE	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. STEVE DIAM. % FINER THAN .062 MM
MOV 03...	0.6	<0.4	8.0	<0.4	6.0	<0.4	0.07	0.28	21	0.02	63
MAR 31...	--	--	--	--	--	--	--	--	5	0.20	99
MAY 19...	--	--	--	--	--	--	--	--	8	0.03	100
JUL 26...	1.4	<0.4	7.7	<0.4	5.8	<0.4	0.08	0.29	--	--	--
27...	--	--	--	--	--	--	--	--	9	--	96

03291780 INDIAN-KENTUCK CREEK NEAR CANAAN, IN

LOCATION.--Lat 38°52'41", long 85°15'26", in SW¼ 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 mi².

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: Jan. 2-18, 25-28, and Feb. 5-14. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--19 years, 33.2 ft³/s, 16.39 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,240 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	2015	1,870	7.14	Feb. 2	0145	*2,580	*7.88

Minimum daily discharge, no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	1.7	19	659	9.1	19	7.1	.47	.00	.09	.01
2	.00	.00	1.0	11	930	10	31	6.6	2.1	.00	.07	.00
3	.00	.00	.81	7.0	137	153	62	6.0	7.4	.00	.22	4.8
4	.00	.00	.72	5.0	155	201	63	5.7	1.5	.00	.30	4.3
5	.00	.00	.55	3.0	50	66	37	5.3	.74	.00	.12	.81
6	.00	.00	.47	1.8	30	42	235	4.7	.41	.00	.09	.32
7	.00	.00	.47	1.3	24	30	358	4.2	.26	.00	.06	.17
8	.00	.00	.41	1.2	17	24	91	3.9	.16	.00	.05	.10
9	.00	.00	.54	1.1	14	23	51	5.9	.13	.00	.03	.07
10	.00	.00	.57	1.1	11	20	35	4.5	.07	.00	.03	.06
11	.00	.00	.77	1.0	10	16	27	3.9	.04	.00	.02	.05
12	.00	.00	.95	.95	8.8	16	21	3.3	.03	.00	4.0	.05
13	.00	.00	.84	.98	8.8	17	17	19	.02	.00	2.0	.05
14	.00	.00	.97	.96	9.5	14	15	33	.01	.00	.39	.04
15	.00	.00	9.2	.98	66	13	12	9.8	.0	.00	.15	.03
16	.00	.00	11	1.2	29	12	11	6.5	.0	.00	.07	2.1
17	.00	.00	6.1	1.5	23	11	10	4.7	.0	.00	.04	1.8
18	.00	.00	4.3	2.5	22	12	15	3.6	.00	.00	.03	.35
19	.00	.00	3.5	298	81	13	12	2.9	.00	.00	.88	.21
20	.00	.00	4.1	125	81	12	9.9	2.5	.00	190	.22	.29
21	.00	.00	6.5	25	36	10	9.7	2.1	.00	39	.10	.18
22	.00	.00	6.0	15	26	9.2	45	1.8	.00	5.6	.06	.10
23	.00	.00	4.7	12	24	9.2	26	5.6	.00	2.2	.05	.08
24	.00	.00	4.3	10	19	8.7	19	4.7	.00	1.1	.04	.08
25	.00	.00	11	8.0	17	82	15	3.2	.00	.66	.03	.11
26	.00	.00	120	6.5	18	59	13	2.0	.00	.47	.02	.10
27	.00	.00	19	5.8	13	32	11	1.5	.00	.33	.02	.08
28	.00	.00	44	5.7	11	24	9.9	1.2	.00	.23	.03	.07
29	.00	3.8	24	5.6	10	20	8.8	1.0	.00	.15	.03	.06
30	.00	2.8	12	6.5	---	17	7.5	.84	.00	.12	.02	.05
31	.00	---	11	19	---	15	---	.65	---	.11	.01	---
TOTAL	0.00	6.60	311.47	603.67	2540.1	1000.2	1296.8	167.69	13.34	239.97	9.27	16.52
MEAN	.00	.22	10.0	19.5	87.6	32.3	43.2	5.41	.44	7.74	.30	.55
MAX	.00	3.8	120	298	930	201	358	33	7.4	190	4.0	4.8
MIN	.00	.00	.41	.95	8.8	8.7	7.5	.65	.00	.00	.01	.00
CFSM	.00	.01	.37	.71	3.19	1.17	1.57	.20	.02	.28	.01	.02
IN.	.00	.01	.42	.82	3.44	1.35	1.75	.23	.02	.32	.01	.02

CAL YR 1987 TOTAL 5131.27 MEAN 14.1 MAX 394 MIN .00 CFSM .51 IN. 6.94
WTR YR 1988 TOTAL 6205.63 MEAN 17.0 MAX 930 MIN .00 CFSM .62 IN. 8.39

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 mi².

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. 2 to Nov. 3, June 30 to July 11, Aug. 31 to Sept. 10, and Sept. 17-30. Records fair except for estimated daily discharges, which are poor. Some regulation by Deam Lake.

AVERAGE DISCHARGE.--34 years, 216 ft³/s, 15.52 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,600 ft³/s Jan. 22, 1959, gage height, 30.89 ft, from floodmarks, from rating curve extended above 6,300 ft³/s on basis of contracted-opening measurements of peak flow, at site 5.2 mi upstream, drainage area, 165 mi², adjusted to gage site; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 3	0300	*4,050	*18.70	Apr. 7	1700	3,500	17.49

Minimum daily discharge, 0.40 ft³/s July 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.97	.85	2.8	66	946	82	137	28	7.2	.85	7.3	1.2
2	.90	.84	1.7	57	2970	82	344	25	6.6	.78	5.6	1.1
3	.83	.83	1.2	35	2860	462	279	22	6.5	.72	4.3	1.5
4	.80	.82	1.4	32	863	1120	303	25	5.8	.65	4.1	1.3
5	.78	.82	1.4	24	534	611	222	37	4.2	.60	6.9	1.2
6	.77	.82	1.2	16	328	392	531	32	3.8	.55	54	1.1
7	.76	.82	.98	13	248	301	3090	22	3.8	.51	24	1.0
8	.76	.82	.95	11	202	234	1380	18	3.5	.47	7.5	.92
9	.75	.98	.95	11	170	197	533	24	4.2	.43	5.5	.85
10	1.3	1.1	1.1	9.2	144	177	385	33	5.4	.40	5.1	.80
11	.90	1.1	1.2	8.5	131	142	297	24	4.1	1.5	4.2	3.8
12	.76	1.1	1.2	8.0	124	131	229	18	3.0	6.3	3.8	2.9
13	.73	1.1	1.1	8.3	108	145	180	15	2.5	6.1	2.8	2.2
14	.71	1.1	1.3	8.1	105	116	147	21	2.4	5.4	3.9	2.5
15	.70	.99	8.5	8.1	595	101	120	21	2.2	4.4	3.4	2.4
16	.70	.95	13	9.8	410	88	98	14	2.7	3.8	2.7	2.2
17	1.3	1.0	23	12	292	82	87	11	2.9	3.7	2.2	2.0
18	1.1	1.1	14	23	247	80	90	9.9	2.7	3.7	2.2	2.5
19	.98	1.0	9.0	299	257	87	112	18	2.1	4.8	2.6	2.1
20	.90	.97	15	2220	475	81	90	42	2.0	79	2.9	2.5
21	.84	.85	14	499	287	72	78	40	2.1	107	2.5	2.0
22	.78	.82	9.2	277	218	66	71	32	1.9	49	1.9	1.7
23	.75	.89	7.7	192	190	62	66	32	1.8	19	3.7	1.6
24	.73	1.5	7.2	147	164	62	60	41	1.6	9.8	11	5.0
25	.71	2.5	41	116	137	239	54	47	1.4	6.4	4.1	4.0
26	.70	4.0	276	83	117	639	48	35	1.4	6.0	10	2.8
27	.68	11	163	69	114	292	45	26	1.3	7.1	9.4	2.2
28	1.0	6.2	168	65	101	193	39	24	1.1	4.1	3.7	1.9
29	.95	11	244	62	91	155	35	27	.96	2.8	2.3	1.8
30	.90	5.0	95	66	---	129	31	16	.93	5.6	1.6	1.7
31	.87	---	65	73	---	107	---	8.9	---	4.6	1.4	---
TOTAL	26.31	62.87	1191.08	4528.0	13428	6727	9181	788.8	92.09	346.06	206.6	60.77
MEAN	.85	2.10	38.4	146	463	217	306	25.4	3.07	11.2	6.66	2.03
MAX	1.3	11	276	2220	2970	1120	3090	47	7.2	107	54	5.0
MIN	.68	.82	.95	8.0	91	62	31	8.9	.93	.40	1.4	.80
CFSM	.00	.01	.20	.77	2.45	1.15	1.62	.13	.02	.06	.04	.01
IN.	.01	.01	.23	.89	2.64	1.32	1.81	.16	.02	.07	.04	.01

CAL YR 1987	TOTAL 37444.46	MEAN 103	MAX 3090	MIN .53	CFSM .54	IN. 7.37
WTR YR 1988	TOTAL 36638.58	MEAN 100	MAX 3090	MIN .40	CFSM .53	IN. 7.21

03302220 BUCK CREEK NEAR NEW MIDDLETOWN, IN

LOCATION.--Lat 38°07'13", long 86°05'16", in SE¼ 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 mi², of which 28.1 mi² 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 to Dec. 25, Jan. 2-18, 25-28, Feb. 6-14, and Aug. 3-5, 8-10. Records fair except for estimated daily discharges and daily discharges for August and September, which are poor.

AVERAGE DISCHARGE.--19 years, 75.5 ft³/s, 15.73 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,700 ft³/s Apr. 2, 1970, gage height, 14.40 ft; minimum daily, 0.52 ft³/s July 10, 1988.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	2030	*3,590	*8.75	Aug. 6	0945	2,920	8.07
Feb. 2	1015	1,910	6.64				

Minimum daily discharge, 0.52 ft³/s July 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.70	.86	8.0	68	189	31	34	16	3.6	.69	3.1	4.0
2	.65	.84	6.0	50	948	31	51	16	3.2	.65	3.1	4.1
3	.64	1.2	5.0	37	356	93	54	15	2.8	.64	2.5	5.8
4	.63	1.1	4.0	25	247	158	57	26	2.5	.65	1.7	7.7
5	.62	1.1	3.7	18	182	113	49	29	2.2	.63	2.0	4.6
6	.61	.84	3.4	14	140	91	139	22	2.0	.56	706	3.5
7	.61	.82	3.1	12	100	76	264	20	1.8	.57	183	3.1
8	.60	.82	3.0	10	80	69	133	20	1.8	.56	70	3.0
9	.60	2.0	3.0	9.0	74	67	80	44	3.0	.53	30	3.0
10	1.0	1.2	2.8	8.5	70	58	61	51	2.5	.52	15	3.0
11	.80	.90	2.7	7.8	67	44	52	36	1.8	.21	9.8	4.0
12	.70	.85	2.6	7.3	65	40	44	29	1.6	4.6	7.9	5.8
13	.66	.82	2.5	6.8	64	35	36	24	1.5	1.3	6.3	3.9
14	.65	.82	10	6.5	64	31	29	20	1.3	.75	5.0	3.1
15	.64	.82	35	6.2	258	29	23	18	1.2	.60	4.6	2.6
16	.66	1.0	20	7.0	153	26	20	16	1.1	.60	3.7	2.5
17	.72	1.5	14	10	110	24	17	15	1.2	.64	2.8	2.8
18	.68	1.1	9.0	15	89	25	49	14	1.2	.72	2.6	2.8
19	.67	.92	7.0	845	95	23	54	11	1.1	2.3	15	2.7
20	.66	.87	5.8	526	110	21	41	9.9	1.0	.84	6.0	5.3
21	.66	.82	5.2	230	86	18	35	8.9	1.0	44	4.3	4.6
22	.65	.81	4.9	164	79	16	30	8.2	.92	5.1	3.2	3.4
23	.65	.80	4.7	128	74	16	26	9.0	.90	2.6	33	3.0
24	.64	5.0	10	99	63	16	21	9.8	.93	1.8	18	3.3
25	.64	4.0	150	76	57	60	18	9.9	.89	1.5	6.7	4.6
26	.64	13	259	70	52	78	17	6.9	.87	2.7	5.2	3.3
27	2.0	12	86	64	48	53	16	5.9	.76	1.9	5.0	2.6
28	1.3	17	174	62	42	43	18	5.1	.68	1.4	5.5	2.2
29	1.1	12	125	60	39	38	17	4.6	.76	1.6	6.2	2.1
30	1.0	9.0	79	59	---	32	17	4.1	.81	2.3	5.2	2.1
31	.90	---	71	59	---	28	---	3.8	---	2.5	4.5	---
TOTAL	23.68	94.81	1119.4	2760.1	4001	1483	1502	528.1	46.92	189.91	1176.9	108.5
MEAN	.76	3.16	36.1	89.0	138	47.8	50.1	17.0	1.56	6.13	38.0	3.62
MAX	2.0	17	259	845	948	158	264	51	3.6	.84	706	7.7
MIN	.60	.80	2.5	6.2	39	16	16	3.8	.68	.52	1.7	2.1
CFSM	.01	.05	.55	1.37	2.12	.73	.77	.26	.02	.09	.58	.06
IN.	.01	.05	.64	1.57	2.28	.85	.86	.30	.03	.11	.67	.06

CAL YR 1987 TOTAL 12064.55 MEAN 33.1 MAX 936 MIN .60 CFSM .51 IN. 6.88
WTR YR 1988 TOTAL 13034.32 MEAN 35.6 MAX 948 MIN .52 CFSM .55 IN. 7.44

03302300 LITTLE INDIAN CREEK NEAR GALENA, IN

LOCATION.--Lat 38°19'19", long 85°55'53", in NE1/4 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 mi².

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: Jan. 3-17, 24-29, and Feb. 5-14. Records fair except for estimated daily discharges and daily discharges below 1.0 ft³/s, which are poor.

AVERAGE DISCHARGE.--20 years, 22.6 ft³/s, 19.06 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,500 ft³/s July 21, 1973, gage height, 9.30 ft; from rating curve extended above 3,100 ft³/s on basis of contracted-opening measurement at 7.34 ft; no flow for many days in 1969, 1975, 1976, 1983, 1984, 1985, 1987, and 1988.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1900	*2,760	*7.11

Minimum daily discharge, no flow for many days in October, November, May, June, and July.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.75	7.7	136	10	21	2.2	.00	.00	1.0	.24
2	.00	.00	.50	5.7	376	12	32	2.0	.00	.00	.95	.14
3	.00	.00	.31	3.5	81	76	27	1.8	.01	.00	.91	1.2
4	.00	.00	.21	2.2	54	108	22	2.7	.00	.00	.87	1.5
5	.00	.00	.18	1.3	26	48	19	3.0	.00	.00	.93	.74
6	.00	.00	.13	.95	19	33	114	2.3	.00	.00	13	.48
7	.00	.00	.13	.85	17	26	157	2.0	.00	.00	4.1	.26
8	.00	.00	.13	.80	15	21	51	1.8	.00	.00	2.1	.18
9	.00	.00	.19	.75	14	19	29	6.0	.06	.00	1.4	.13
10	.00	.00	.20	.70	12	16	20	3.2	.00	.00	1.0	.10
11	.00	.02	.15	.65	11	15	15	2.3	.00	.00	.90	.24
12	.00	.02	.13	.62	10	15	11	1.8	.00	.00	.82	1.3
13	.00	.03	.07	.57	10	14	8.9	2.2	.00	.00	.75	.67
14	.00	.03	.34	.54	15	13	7.1	2.5	.00	.00	.67	.37
15	.00	.03	5.1	.50	62	12	5.6	1.6	.00	.00	.56	.20
16	.00	.02	2.7	.65	32	10	4.8	1.2	.00	.00	.50	.19
17	.00	.04	1.4	1.0	25	9.5	4.5	1.0	.00	.00	.44	.92
18	.00	.05	.80	13	21	10	9.5	.92	.00	.00	.38	.65
19	.00	.07	.70	445	29	10	7.6	.76	.00	.00	2.4	.48
20	.00	.22	1.2	101	31	9.4	5.8	.65	.00	86	1.3	.35
21	.00	.14	1.0	35	23	8.5	5.3	.61	.00	14	.71	.21
22	.00	.06	.72	24	20	7.6	5.0	.39	.00	5.3	.31	.13
23	.00	.03	.60	19	19	7.2	4.8	.58	.00	3.6	1.2	.10
24	.00	.07	.59	15	18	6.9	4.0	.54	.00	3.1	1.4	.27
25	.00	.14	35	12	16	40	3.6	.77	.00	2.5	.62	.75
26	.00	.51	44	9.5	14	32	3.5	.51	.00	2.2	.35	.59
27	.00	2.2	10	7.6	14	22	3.1	.27	.00	2.6	.21	.37
28	.00	3.3	35	7.4	12	18	2.7	.16	.00	1.6	.40	.25
29	.00	3.2	14	8.2	11	16	2.4	.08	.00	1.3	.86	.24
30	.00	1.3	8.0	9.2	---	13	2.3	.02	.00	1.2	.77	.27
31	.00	---	7.3	11	---	13	---	.00	---	1.1	.41	---
TOTAL	0.00	11.48	171.53	745.88	1143	671.1	608.5	45.86	0.07	124.50	42.22	13.52
MEAN	.00	.38	5.53	24.1	39.4	21.6	20.3	1.48	.002	4.02	1.36	.45
MAX	.00	3.3	44	445	376	108	157	6.0	.06	86	13	1.5
MIN	.00	.00	.07	.50	10	6.9	2.3	.00	.00	.00	.21	.10
CFSM	.00	.02	.34	1.49	2.45	1.34	1.26	.09	.00	.25	.08	.03
IN.	.00	.03	.40	1.72	2.64	1.55	1.41	.11	.00	.29	.10	.03

CAL YR 1987 TOTAL 4657.33 MEAN 12.8 MAX 766 MIN .00 CFSM .79 IN. 10.76
WTR YR 1988 TOTAL 3577.66 MEAN 9.78 MAX 445 MIN .00 CFSM .61 IN. 8.27

03302500 INDIAN CREEK NEAR CORYDON, IN

LOCATION.--Lat 38°16'35", long 86°06'35", in SW¼ 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: Jan. 4-17, 26-28, Feb. 6-14, and June 5-17. Records fair except for estimated daily discharges and daily discharges below 2.0 ft³/s, which are poor.

AVERAGE DISCHARGE.--45 years, 167 ft³/s, 17.58 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, 1987, and 1988.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 20	0300	*4,610	*13.69

Minimum daily discharge, no flow June 28, July 4-10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	.57	16	72	823	74	134	26	5.7	.37	3.2	2.4
2	.51	.48	13	64	2590	73	204	25	5.4	.29	2.9	1.7
3	.71	.56	9.9	50	1020	267	211	23	5.1	.16	2.3	5.1
4	.59	.68	8.3	36	610	735	210	26	4.9	.00	2.2	8.4
5	.47	.68	7.2	30	407	461	177	30	4.5	.00	2.0	9.3
6	.43	.57	6.5	27	190	326	424	27	4.2	.00	33	7.2
7	.43	.74	6.2	20	160	255	1310	23	4.0	.00	43	5.9
8	.41	.86	5.7	18	150	206	571	22	3.7	.00	18	3.9
9	.37	1.1	5.9	17	135	184	358	27	3.5	.00	11	2.3
10	.50	.88	5.5	16	120	166	260	34	3.2	.00	7.4	1.6
11	.57	.49	5.1	15	110	139	199	27	3.0	.42	5.3	2.0
12	.49	.90	5.1	14	95	131	154	22	2.8	2.0	4.1	3.4
13	.38	.93	4.9	13	85	138	120	20	2.5	2.5	3.3	1.4
14	.29	.89	6.0	12	80	117	97	18	2.3	2.2	2.6	.76
15	.29	.94	13	12	389	108	79	18	2.0	1.7	1.7	.65
16	.26	1.3	26	15	329	97	66	17	1.9	1.9	1.1	1.0
17	.35	2.0	28	20	240	89	59	14	1.6	1.9	.85	1.6
18	.40	2.0	17	30	191	88	65	13	1.0	2.9	.69	.68
19	.42	1.9	13	754	193	92	81	12	1.0	3.5	17	.65
20	.43	1.1	11	1950	292	85	61	12	1.0	168	16	.67
21	.32	1.0	10	427	221	78	55	11	.86	229	8.9	.69
22	.32	1.0	9.3	265	184	72	50	10	.80	49	7.9	.99
23	.36	1.1	9.1	196	164	69	46	12	.53	22	7.6	.84
24	.31	1.4	9.0	157	138	66	42	12	.45	13	9.3	2.8
25	.24	2.4	46	126	118	193	38	14	.49	9.2	7.8	5.3
26	.18	3.4	406	80	104	383	36	14	.26	7.2	7.3	2.3
27	.43	6.5	139	73	102	249	34	11	.03	5.4	5.7	2.1
28	.39	13	151	71	90	189	31	9.6	.00	4.6	5.2	1.6
29	.31	23	196	70	82	159	29	8.2	.04	4.3	5.1	1.3
30	.43	17	93	69	---	137	27	7.0	.37	5.0	4.5	2.4
31	.58	---	68	67	---	118	---	6.2	---	4.0	3.8	---
TOTAL	12.67	89.37	1349.7	4786	9412	5544	5228	551.0	67.13	540.54	250.74	80.93
MEAN	.41	2.98	43.5	154	325	179	174	17.8	2.24	17.4	8.09	2.70
MAX	.71	23	406	1950	2590	735	1310	34	5.7	229	43	9.3
MIN	.18	.48	4.9	12	80	66	27	6.2	.00	.00	.69	.65
CFSM	.00	.02	.34	1.20	2.52	1.39	1.35	.14	.02	.14	.06	.02
IN.	.00	.03	.39	1.38	2.71	1.60	1.51	.16	.02	.16	.07	.02

CAL YR 1987 TOTAL 29661.59 MEAN 81.3 MAX 2190 MIN .00 CFSM .63 IN. 8.55
WTR YR 1988 TOTAL 27912.08 MEAN 76.3 MAX 2590 MIN .00 CFSM .59 IN. 8.05

03302680 WEST FORK BLUE RIVER AT SALEM, IN

LOCATION.--Lat 38°36'19", long 86°05'40", in SW 1/4 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 mi².

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: Jan. 3-17, 26-28. Records good except for Jan. 3-17, which are poor.

AVERAGE DISCHARGE.--18 years, 23.9 ft³/s, 17.08 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,880 ft³/s July 20, 1988, gage height, 14.24 ft from rating curve extended above 900 ft³/s by a step-backwater analysis; minimum daily, 0.02 ft³/s Sept. 24, 1970, and July 9, 10, 1988.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1900	927	6.46	July 20	1945	*6,880	*14.24
Feb. 2	0145	1,620	8.22	Sept. 16	1645	1,520	7.99

Minimum daily discharge, 0.02 ft³/s July 9, 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	.17	2.1	14	329	9.5	19	4.1	.19	.04	3.8	.26
2	.09	.17	1.5	11	787	11	20	4.0	.15	.04	3.1	.21
3	.09	.17	1.3	9.0	200	85	21	3.8	.12	.03	2.6	11
4	.09	.17	1.1	7.0	151	95	29	4.4	.11	.03	4.1	5.2
5	.09	.15	.90	5.8	84	56	18	4.3	.11	.03	6.9	1.7
6	.10	.12	.86	3.8	48	43	207	3.6	.12	.04	21	1.1
7	.13	.12	.87	3.7	31	33	294	3.3	.11	.04	7.7	1.1
8	.11	.12	.79	3.6	22	27	119	3.1	.10	.03	4.5	.71
9	.11	.15	.90	3.1	17	26	73	5.8	.29	.02	3.4	.47
10	.46	.12	.83	2.8	15	21	47	3.0	.10	.02	2.5	.41
11	.36	.12	.79	2.6	14	18	35	2.2	.09	.56	1.9	.33
12	.11	.12	.76	2.4	11	26	27	1.8	.08	.07	1.6	.31
13	.10	.12	.62	2.2	12	27	22	1.6	.09	.06	1.4	.31
14	.10	.12	1.4	1.9	15	24	18	1.5	.08	.06	1.2	.27
15	.10	.14	9.9	1.8	49	21	15	1.2	.07	.05	1.0	.24
16	.10	.20	6.4	1.9	30	17	13	1.1	.07	.04	.87	225
17	.11	.29	3.6	2.5	27	15	12	1.1	.07	.04	.75	37
18	.10	.17	2.5	4.0	26	17	14	.96	.06	.88	.58	12
19	.10	.17	2.5	183	58	16	11	.89	.06	.22	.57	7.6
20	.10	.13	2.9	112	73	14	9.2	.82	.06	1730	.55	8.1
21	.11	.12	2.5	51	44	12	8.5	.74	.06	142	.52	4.9
22	.12	.12	2.0	33	34	11	7.8	1.0	.06	44	.45	3.4
23	.13	.28	1.8	25	27	11	7.5	1.2	.06	26	2.0	2.7
24	.17	.71	2.1	20	20	11	6.1	.73	.06	18	1.3	2.7
25	.15	1.3	13	14	17	38	5.7	.66	.05	13	.56	3.0
26	.13	4.9	51	12	15	38	5.4	.52	.05	11	.37	1.9
27	.23	4.3	20	10	14	28	5.1	.46	.04	8.2	.29	1.4
28	.12	11	44	9.0	12	23	4.7	.40	.04	6.7	1.0	1.1
29	.14	7.7	29	8.6	11	20	4.4	.34	.04	5.0	.73	1.4
30	.16	3.2	17	8.1	---	17	4.3	.27	.04	4.3	.50	1.4
31	.16	---	15	10	---	17	---	.24	---	5.2	.33	---
TOTAL	4.27	36.67	239.92	578.8	2193	827.5	1082.7	59.13	2.63	2037.48	78.07	337.22
MEAN	.14	1.22	7.74	18.7	75.6	26.7	36.1	1.91	.088	65.7	2.52	11.2
MAX	.46	11	51	183	787	95	294	5.8	.29	1730	21	225
MIN	.09	.12	.62	1.8	11	9.5	4.3	.24	.04	.02	.29	.21
CFSM	.01	.06	.41	.98	3.98	1.40	1.90	.10	.00	3.46	.13	.59
IN.	.01	.07	.47	1.13	4.29	1.62	2.12	.12	.01	3.99	.15	.66

CAL YR 1987	TOTAL 3021.08	MEAN 8.28	MAX 246	MIN .04	CFSM .44	IN. 5.91
WTR YR 1988	TOTAL 7477.39	MEAN 20.4	MAX 1730	MIN .02	CFSM 1.08	IN. 14.64

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 mi², of which 76.9 mi² 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. 1-5, 15-19, Jan. 2-18, 26-28, Feb. 12-14, Mar. 26 to Apr. 4, and Apr. 10 to May 17. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--20 years, 319 ft³/s, 15.31 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,500 ft³/s May 2, 1983, gage height, 24.37 ft; minimum daily, 2.9 ft³/s Oct. 6, 1987.

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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 2	1600	*8,430	*-----a	July 21	0700	5,920	15.37

Minimum daily discharge, 2.9 ft³/s Oct. 6.

a Estimate

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	6.4	35	153	1190	141	240	60	15	4.2	183	11
2	4.5	5.9	26	130	6880	128	300	56	14	4.2	59	9.6
3	3.8	12	23	110	2990	146	310	53	12	4.1	45	10
4	3.4	8.1	19	95	1600	458	318	57	10	3.8	38	32
5	3.2	5.1	17	75	1050	591	333	60	9.5	3.8	61	33
6	2.9	4.4	15	57	653	585	462	54	8.8	3.8	544	19
7	4.0	6.2	14	57	503	461	2870	50	8.1	3.3	305	14
8	3.8	7.6	13	52	407	368	1530	46	8.0	3.2	147	11
9	3.2	7.9	14	45	322	319	952	54	7.9	3.0	92	9.5
10	4.6	6.7	14	42	269	293	630	55	8.3	3.0	67	7.1
11	7.0	5.8	14	38	235	253	430	53	8.9	3.0	53	5.5
12	18	5.0	14	37	200	229	320	47	9.3	3.4	46	5.1
13	11	4.2	13	35	180	318	260	40	9.2	4.9	39	4.5
14	7.1	4.8	14	33	160	299	220	36	9.5	6.3	34	4.6
15	6.2	4.7	23	33	540	264	190	32	9.0	6.4	31	4.5
16	5.4	4.9	49	32	557	226	160	28	8.6	5.9	25	195
17	5.6	7.6	53	34	404	192	150	26	8.8	5.5	22	989
18	5.2	6.4	37	45	331	183	145	25	8.5	5.1	20	183
19	4.9	5.4	28	350	356	183	142	23	8.1	6.8	18	89
20	4.7	7.7	27	2820	754	181	140	22	7.9	1460	16	59
21	6.2	7.3	25	727	538	175	125	20	7.8	3050	15	46
22	4.2	6.2	24	441	418	170	117	19	7.7	402	14	33
23	3.5	6.4	23	322	353	165	110	19	7.6	227	13	27
24	7.0	7.0	22	254	283	159	104	21	6.7	155	17	23
25	5.9	9.0	33	199	232	179	98	21	6.0	111	20	22
26	6.0	25	341	160	202	530	90	21	5.6	90	15	19
27	13	34	297	130	188	410	82	21	5.5	74	12	16
28	5.8	38	281	110	176	340	77	20	5.2	63	12	14
29	19	62	407	100	153	280	71	19	4.8	54	15	13
30	6.9	54	226	98	---	260	65	17	4.5	47	15	12
31	5.5	---	162	96	---	230	---	17	---	44	12	---
TOTAL	196.7	375.7	2303	6910	22124	8716	11041	1092	250.8	5860.7	2005	1920.4
MEAN	6.35	12.5	74.3	223	763	281	368	35.2	8.36	189	64.7	64.0
MAX	19	62	407	2820	6880	591	2870	60	15	3050	544	989
MIN	2.9	4.2	13	32	153	128	65	17	4.5	3.0	12	4.5
CFSM	.02	.04	.26	.79	2.70	.99	1.30	.12	.03	.67	.23	.23
IN.	.03	.05	.30	.91	2.91	1.15	1.45	.14	.03	.77	.26	.25

CAL YR 1987 TOTAL 42454.8 MEAN 116 MAX 3960 MIN 2.9 CFSM .41 IN. 5.58
WTR YR 1988 TOTAL 62795.3 MEAN 172 MAX 6880 MIN 2.9 CFSM .61 IN. 8.25

03302849 WHISKEY RUN AT MARENGO, IN

LOCATION.--Lat 38°22'32", long 86°20'41", in SW¼SW¼ sec.6, T.2 S., R.2 E., Crawford County, Hydrologic Unit 05140104, on left (north) bank about 100 ft upstream from bridge and intersection of North Main Street and North Water Street in Marengo, known as Old Town.

DRAINAGE AREA.--7.02 mi².

PERIOD OF RECORD.--October 1986 to current year.

GAGE.--Water-stage recorder. Datum of gage is 561.446 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 4-6, Jan. 3-5, 7, Feb. 11, 12, and May 19-21. Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 682 ft³/s Feb. 2, 1988, gage height, 4.96 ft; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1979 appears to be highest known from reports of local residents, and reached a stage of 15.89 ft from levels of high-water mark located in Old Town grocery store just downstream and across bridge from gage.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
1987:							
Nov. 26	0230	219	3.59	July 13	1345	339	4.05
Feb. 28	1445	*494	*4.51				
1988:							
Jan. 19	1745	338	4.04	Aug. 6	0430	153	3.21
Feb. 2	0430	*682	*4.96				

No flow on many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.02	2.4	79	.95	8.2	.71	.06	.00	.00	.00
2	.00	.00	.02	1.6	213	1.2	11	.69	.05	.00	.00	.00
3	.00	.00	.02	.52	24	21	8.0	.63	.05	.00	.00	.06
4	.00	.00	.02	.22	18	16	5.8	.79	.03	.00	.00	.06
5	.00	.00	.02	.13	9.1	8.6	4.5	.71	.02	.00	.03	.03
6	.00	.00	.01	.11	5.1	6.2	27	.63	.02	.00	16	.04
7	.00	.00	.01	.09	3.4	4.7	30	.56	.01	.00	1.4	.01
8	.00	.00	.01	.08	2.5	3.8	13	.55	.01	.00	.53	.00
9	.00	.00	.01	.06	2.0	3.5	8.2	1.4	.01	.00	.23	.00
10	.00	.00	.01	.06	1.6	3.1	5.9	.94	.0	.00	.09	.00
11	.00	.00	.01	.07	1.3	2.5	4.6	.71	.0	.00	.07	.00
12	.00	.00	.01	.07	1.0	7.2	3.5	.61	.00	.00	.05	.00
13	.00	.00	.01	.07	1.1	8.5	2.7	.61	.00	.00	.04	.00
14	.00	.00	.01	.06	1.3	5.7	2.2	.54	.00	.00	.02	.00
15	.00	.00	.06	.06	14	4.3	1.8	.42	.00	.00	.01	.00
16	.00	.00	.06	.06	6.8	3.3	1.5	.35	.00	.00	.00	5.4
17	.00	.00	.05	.06	4.6	2.7	1.3	.25	.00	.10	.00	2.6
18	.00	.00	.04	.07	3.6	2.7	1.9	.18	.00	.03	.00	.54
19	.00	.00	.03	44	7.4	2.7	2.0	.14	.00	.01	.00	.24
20	.00	.00	.03	19	9.1	2.4	1.7	.11	.00	7.6	.00	.15
21	.00	.00	.04	6.7	5.2	2.0	1.6	.10	.00	2.7	.00	.08
22	.00	.00	.04	3.9	4.0	1.7	1.4	.45	.00	.40	.00	.07
23	.00	.00	.03	2.7	3.2	1.6	1.3	1.0	.00	.08	.00	.06
24	.00	.00	.03	2.1	2.4	1.5	1.1	.97	.00	.05	.00	.12
25	.00	.00	1.5	1.6	2.0	8.4	.96	.68	.00	.23	.00	.12
26	.00	.00	11	1.1	1.7	8.6	.89	.41	.00	.42	.00	.05
27	.00	.00	3.0	.71	1.6	6.0	.84	.35	.00	.08	.00	.03
28	.00	.00	9.2	.61	1.3	4.5	.76	.27	.00	.04	.04	.02
29	.00	.01	4.8	.56	1.1	3.8	.70	.16	.00	.02	.03	.02
30	.00	.02	2.1	.55	---	3.0	.71	.09	.00	.02	.01	.02
31	.00	---	1.8	1.1	---	3.3	---	.08	---	.01	.00	---
TOTAL	0.00	0.03	34.00	90.42	430.4	155.45	155.06	16.09	0.26	11.79	18.55	9.72
MEAN	.00	.001	1.10	2.92	14.8	5.01	5.17	.52	.009	.38	.60	.32
MAX	.00	.02	11	44	213	21	30	1.4	.06	7.6	16	5.4
MIN	.00	.00	.01	.06	1.0	.95	.70	.08	.00	.00	.00	.00
CFSM	.00	.00	.16	.42	2.11	.71	.74	.07	.00	.05	.09	.05
IN.	.00	.00	.18	.48	2.28	.82	.82	.09	.00	.06	.10	.05

CAL YR 1987 TOTAL 636.46 MEAN 1.74 MAX 111 MIN .00 CFSM .25 IN. 3.37
WTR YR 1988 TOTAL 921.77 MEAN 2.52 MAX 213 MIN .00 CFSM .36 IN. 4.88

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.--No estimated daily discharges. Records good.

AVERAGE DISCHARGE.--58 years, 628 ft³/s, 17.92 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 (ft ³ /s)	Gage height (ft)
Feb. 3	0300	*11,300	*13.46

Minimum daily discharge, 18 ft³/s Oct. 4, 5, 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	40	134	474	1380	448	614	189	69	27	83	52
2	20	38	102	433	8580	428	792	176	69	28	189	48
3	19	28	79	386	8430	782	864	165	62	27	99	59
4	18	23	67	336	3390	2320	873	177	57	26	81	75
5	18	20	57	272	2530	1970	813	189	54	27	137	75
6	19	19	50	196	1740	1410	1130	169	50	27	1360	76
7	20	20	46	198	1310	1150	4540	158	49	26	1550	77
8	19	25	44	188	1070	945	3390	143	48	26	656	73
9	18	25	44	156	912	825	1940	169	54	26	389	66
10	19	23	42	147	791	761	1440	175	54	26	263	59
11	20	23	40	131	703	680	1170	168	49	29	198	54
12	20	22	39	128	647	622	965	147	46	50	162	51
13	21	23	39	125	568	758	801	126	45	44	139	48
14	20	23	41	113	503	788	681	114	45	36	121	45
15	30	23	72	113	958	693	590	108	44	33	106	42
16	32	21	88	108	1470	623	515	101	43	32	94	40
17	28	22	89	116	1130	557	461	95	41	34	85	773
18	23	22	121	153	932	522	453	89	39	33	76	668
19	19	22	115	982	884	512	448	82	39	42	79	290
20	21	21	98	4820	1310	507	430	77	37	505	78	183
21	21	20	76	2280	1400	474	389	72	36	4580	77	130
22	20	21	65	1280	1100	435	365	71	36	1510	67	107
23	22	21	62	937	954	409	349	96	36	671	65	93
24	22	21	59	767	807	392	326	117	34	404	74	85
25	21	24	185	644	692	540	300	141	33	270	69	87
26	20	29	781	541	615	1090	278	117	33	205	66	75
27	21	33	903	439	567	1090	260	99	29	162	63	67
28	22	63	836	380	532	840	238	90	27	129	64	61
29	25	133	993	369	486	728	218	82	27	107	66	59
30	27	121	761	340	---	660	201	77	28	111	61	60
31	36	---	527	332	---	596	---	73	---	105	55	---
TOTAL	683	969	6655	17884	46391	24555	25834	3852	1313	9358	6672	3678
MEAN	22.0	32.3	215	577	1600	792	861	124	43.8	302	215	123
MAX	36	133	993	4820	8580	2320	4540	189	69	4580	1550	773
MIN	18	19	39	108	486	392	201	71	27	26	55	40
CFSM	.05	.07	.45	1.21	3.36	1.66	1.81	.26	.09	.63	.45	.26
IN.	.05	.08	.52	1.40	3.63	1.92	2.02	.30	.10	.73	.52	.29

CAL YR 1987 TOTAL 108969 MEAN 299 MAX 6820 MIN 18 CFSM .63 IN. 8.52
WTR YR 1988 TOTAL 147844 MEAN 404 MAX 8580 MIN 18 CFSM .85 IN. 11.55

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 mi².

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: Jan. 4-14. Records good except for estimated daily discharges, which are poor. Flow regulated by Forest Service and Middle Fork Anderson River Conservancy District control structures beginning June 1967.

AVERAGE DISCHARGE.--27 years, 57.0 ft³/s, 19.45 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,360 ft³/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 ft³/s, from rating curve extended above 7,000 ft³/s. This is the maximum flood since 1905, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 808 ft³/s Jan. 19, gage height, 13.93 ft; minimum daily, no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.66	1.4	33	224	16	41	6.5	1.3	1.4	2.3	.40
2	.00	1.4	.94	22	599	17	58	6.0	1.0	1.1	2.1	.44
3	.00	1.9	.71	14	423	109	67	5.6	1.0	1.3	2.5	.89
4	.00	1.8	.48	8.0	405	167	70	6.8	1.1	1.4	7.3	1.3
5	.00	1.8	.31	5.4	337	117	52	7.7	1.2	1.4	15	1.2
6	.00	1.8	.26	4.1	198	79	174	6.7	1.2	1.4	35	.84
7	.00	1.8	.18	3.6	72	57	277	5.7	1.2	1.4	34	.70
8	.00	2.0	.11	3.4	52	50	178	5.4	1.2	1.2	19	.42
9	.00	2.3	.17	3.3	44	43	105	32	2.0	1.6	8.8	.24
10	.00	2.0	.10	3.1	34	35	70	26	1.6	1.6	5.6	.19
11	.00	1.9	.08	3.0	30	27	52	16	1.4	61	4.1	.25
12	.00	2.1	.08	3.0	27	40	44	11	1.2	16	3.2	.18
13	.00	2.2	.10	2.9	24	60	36	8.4	.72	5.0	2.6	.12
14	.00	2.2	.40	2.9	25	58	27	6.9	.44	2.8	2.1	.04
15	.00	2.2	1.1	2.9	119	50	21	5.7	1.1	1.8	1.7	.00
16	.00	2.2	1.4	3.0	107	42	17	4.9	1.4	1.5	1.6	.00
17	.00	2.5	1.5	3.7	76	31	15	4.3	.60	1.3	1.5	.00
18	.00	1.8	1.5	5.9	58	26	25	3.9	.50	2.9	1.4	.00
19	.00	3.4	1.3	262	69	25	29	3.2	1.0	3.7	1.5	.02
20	.00	2.8	1.5	457	101	22	23	2.7	.37	234	1.3	.08
21	.00	1.5	1.3	340	79	19	19	2.0	.20	142	1.2	.00
22	.00	1.3	1.3	162	61	17	17	1.9	.04	50	1.2	.00
23	.00	1.2	1.2	68	52	16	15	2.4	.04	26	1.6	.00
24	.00	.77	1.4	51	45	14	13	2.7	.00	9.8	1.3	.08
25	.00	.66	30	37	34	59	12	2.5	.00	6.6	1.0	.10
26	.00	.60	104	23	26	91	11	2.2	.00	5.7	.78	.01
27	.00	.45	55	18	23	69	9.8	2.0	.00	4.7	.76	.00
28	.00	.90	74	15	20	51	8.6	1.7	.18	3.8	1.5	.00
29	.00	1.3	63	14	18	45	7.8	1.5	1.3	3.1	1.7	.00
30	.00	1.6	44	14	---	39	7.2	1.5	1.4	2.7	.94	.00
31	.02	---	26	15	---	33	---	1.3	---	2.5	.57	---
TOTAL	0.02	51.04	414.82	1603.2	3382	1524	1501.4	197.1	24.69	600.7	165.15	7.50
MEAN	.001	1.70	13.4	51.7	117	49.2	50.0	6.36	.82	19.4	5.33	.25
MAX	.02	3.4	104	457	599	167	277	32	2.0	234	35	1.3
MIN	.00	.45	.08	2.9	18	14	7.2	1.3	.00	1.1	.57	.00
CFSM	.00	.04	.34	1.30	2.93	1.24	1.26	.16	.02	.49	.13	.01
IN.	.00	.05	.39	1.50	3.16	1.42	1.40	.18	.02	.56	.15	.01

CAL YR 1987 TOTAL 9603.37 MEAN 26.3 MAX 497 MIN .00 CFSM .66 IN. 8.98
WTR YR 1988 TOTAL 9471.62 MEAN 25.9 MAX 599 MIN .00 CFSM .65 IN. 8.85

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 mi².

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: Oct. 1 to Nov. 25, Dec. 6-13, Jan. 3-17, Feb. 5-14, Apr. 23 to May 8, May 11-22, May 26 to July 3, July 28 to Aug. 2, Aug. 9-22, and Sept. 10-30. Records fair except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--19 years, 11.0 ft³/s, 19.01 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,100 ft³/s Apr. 28, 1970, gage height, 9.74 ft, from rating curve extended above 450 ft³/s on basis of two indirect measurements of peak flow at site 1.6 mi downstream, drainage area, 16.0 mi², adjusted to gage site; no flow many days most years.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1722	*974	*9.11	July 20	1000	860	9.03
Feb. 1	2330	929	9.08				

Minimum daily discharge, no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.20	3.6	219	3.3	40	.27	.00	.00	.01	.09
2	.00	.00	.14	1.8	296	3.2	30	.22	.00	.00	.00	.08
3	.00	.00	.14	1.0	54	68	17	.19	.00	.00	3.2	6.4
4	.00	.00	.49	.70	47	22	11	.40	.00	.00	1.6	.63
5	.00	.00	.14	.45	10	11	6.9	.20	.00	.00	11	.28
6	.00	.00	.05	.33	5.5	7.3	116	.10	.00	.00	4.2	.18
7	.00	.00	.01	.29	3.7	5.6	36	.08	.00	.00	1.5	.14
8	.00	.00	.00	.27	2.5	5.1	14	.07	.00	.00	.93	.11
9	.00	.00	.00	.26	1.8	4.8	7.6	1.6	.00	.00	.45	.08
10	.00	.00	.00	.25	1.9	4.0	5.7	.51	.00	.00	.25	.05
11	.00	.00	.00	.24	2.5	3.2	4.9	.10	.00	42	.10	.03
12	.00	.00	.00	.29	3.6	20	3.9	.02	.00	8.9	.05	.01
13	.00	.00	.00	.31	2.8	11	3.1	.02	.00	2.2	.02	.01
14	.00	.00	1.5	.30	10	6.2	2.7	.01	.00	.57	.01	.00
15	.00	.00	4.0	.28	53	4.6	2.4	.01	.00	.44	.00	.00
16	.00	.00	.74	.35	12	3.5	2.1	.01	.00	.24	.00	.00
17	.00	.00	.36	.52	7.9	2.9	1.8	.00	.00	.19	.00	.00
18	.00	.00	.15	1.7	6.8	2.8	3.3	.00	.00	3.8	.00	.00
19	.00	.00	.35	199	35	2.9	2.8	.00	.00	4.1	.00	.00
20	.00	.00	1.7	51	19	2.7	2.2	.00	.00	190	.00	.00
21	.00	.00	.66	15	8.5	2.4	1.9	.00	.00	19	.00	.00
22	.00	.00	.45	7.5	7.3	2.1	1.6	.00	.00	11	.00	.00
23	.00	.00	.35	5.0	6.5	2.0	1.3	.66	.00	6.5	.77	.00
24	.00	.00	1.6	3.9	5.5	1.8	1.1	.39	.00	2.8	.35	.00
25	.00	.10	63	2.7	4.9	28	.90	.41	.00	7.3	.17	.00
26	.00	1.2	31	1.9	4.5	12	.72	.05	.00	4.5	.12	.00
27	.00	.50	5.9	1.3	4.2	5.9	.60	.01	.00	2.0	.09	.00
28	.00	6.2	33	1.4	3.9	4.1	.50	.00	.00	.60	.51	.00
29	.00	.86	3.9	1.7	3.6	3.9	.40	.00	.00	.20	.28	.00
30	.00	.33	1.9	1.8	---	3.8	.33	.00	.00	.05	.17	.00
31	.00	---	6.7	14	---	3.7	---	.00	---	.02	.11	---
TOTAL	0.00	9.19	158.43	319.14	842.9	263.8	322.75	5.33	0.00	306.41	25.89	8.09
MEAN	.00	.31	5.11	10.3	29.1	8.51	10.8	.17	.00	9.88	.84	.27
MAX	.00	6.2	63	199	296	68	116	1.6	.00	190	11	6.4
MIN	.00	.00	.00	.24	1.8	1.8	.33	.00	.00	.00	.00	.00
CFSM	.00	.04	.65	1.31	3.70	1.08	1.37	.02	.00	1.26	.11	.03
IN.	.00	.04	.75	1.51	3.99	1.25	1.53	.03	.00	1.45	.12	.04

CAL YR 1987 TOTAL 2093.35 MEAN 5.74 MAX 264 MIN .00 CFSM .73 IN. 9.91
WTR YR 1988 TOTAL 2261.93 MEAN 6.18 MAX 296 MIN .00 CFSM .79 IN. 10.71

03322011 PIGEON CREEK NEAR FORT BRANCH, IN

LOCATION.--Lat 38°15'08", long 87°31'11", in NW¼SW¼ sec.15, T.3 S., R.10 W., Gibson County, Hydrologic Unit 05140202, on right bank 20 ft downstream from bridge on State Highway 168, 1.1 mi upstream from West Fork Pigeon Creek and 2.6 mi east of intersection of U.S. Highway 41 at Fort Branch.

DRAINAGE AREA.--35.4 mi².

PERIOD OF RECORD.--October 1986 to current year.

GAGE.--Water-stage recorder. Datum of gage is 400.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 3-15, 26, 27, and Feb. 6, 7, 12. Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,350 ft³/s Feb. 28, 1987, gage height, 13.77 ft; minimum daily, 0.64 ft³/s Oct. 3, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1930	*1,320	*13.63	July 20	0400	1,200	12.94
Feb. 2	0115	1,250	13.30				

Minimum daily discharge, 0.64 ft³/s Oct. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.65	.85	1.7	12	705	5.8	108	1.7	2.2	.72	7.3	.83
2	.66	.86	1.4	7.0	809	12	38	1.7	2.1	.71	1.5	.82
3	.64	.88	1.4	5.0	206	218	23	1.8	2.0	.75	1.2	1.1
4	.70	.93	1.3	4.0	164	48	15	2.0	1.8	.76	6.0	1.0
5	.76	.90	1.2	3.0	34	23	11	1.8	1.7	.76	6.8	1.0
6	.76	.91	1.3	2.3	25	19	168	1.6	1.6	.77	13	.84
7	.79	.98	1.3	1.8	19	16	48	1.5	1.8	.94	1.8	.89
8	.73	1.0	1.3	1.7	15	14	20	1.7	1.8	.88	1.2	.89
9	.71	1.1	1.7	1.6	13	13	13	3.3	4.0	.81	1.1	.93
10	2.3	1.0	1.5	1.5	12	10	11	1.7	1.8	.92	1.0	.93
11	2.3	.98	1.4	1.8	12	8.5	8.6	1.4	1.5	1.9	.99	.90
12	.77	.99	1.3	2.0	9.5	15	7.0	1.5	1.5	1.5	1.0	.90
13	.69	1.0	1.2	1.8	10	11	5.4	1.5	1.4	1.3	.97	1.0
14	.70	1.0	1.7	1.5	12	8.6	4.3	1.6	1.4	.97	.93	1.0
15	.74	1.0	.77	2.0	20	7.4	3.5	1.6	1.2	1.4	.87	.85
16	.74	1.1	6.3	9.9	12	6.5	3.1	1.8	1.2	.89	.91	34
17	.80	1.2	3.3	94	11	6.5	3.2	2.0	1.2	3.8	.89	12
18	.78	1.1	2.4	26	14	7.8	10	2.2	1.1	17	.93	1.4
19	.81	1.1	2.2	409	57	7.4	5.8	2.5	1.1	123	4.8	1.0
20	.80	1.1	4.5	165	33	6.7	4.0	2.8	1.0	838	1.6	7.6
21	.80	1.0	2.7	30	17	5.9	3.5	2.9	.93	61	1.0	1.3
22	.80	1.2	2.3	21	16	5.5	3.3	2.8	.89	4.7	.90	.86
23	.80	1.4	2.0	18	12	5.7	2.9	4.7	.88	2.8	1.0	.80
24	.91	1.3	2.9	17	9.2	5.5	2.2	3.4	.84	2.0	1.1	.89
25	.89	2.3	44	12	8.2	11	2.3	2.8	.76	62	.93	.79
26	.90	4.6	147	10	7.7	8.1	2.4	2.4	.70	24	.92	.66
27	1.2	2.6	26	8.0	7.7	6.4	2.0	2.4	.67	3.1	.96	.70
28	.92	19	178	6.9	6.5	6.0	1.8	2.5	.67	2.1	21	.72
29	.84	8.4	23	7.0	6.2	8.1	1.8	2.4	.77	1.6	1.9	.69
30	.85	2.2	13	9.0	---	12	1.8	2.4	.91	1.7	1.1	.68
31	.83	---	14	27	---	20	---	2.2	---	1.7	.90	---
TOTAL	27.57	63.98	570.3	918.8	2283.0	558.4	533.9	68.6	41.42	1164.48	86.50	77.97
MEAN	.89	2.13	18.4	29.6	78.7	18.0	17.8	2.21	1.38	37.6	2.79	2.60
MAX	2.3	19	178	409	809	218	168	4.7	4.0	838	21	34
MIN	.64	.85	1.2	1.5	6.2	5.5	1.8	1.4	.67	.71	.87	.66
CFSM	.03	.06	.52	.84	2.22	.51	.50	.06	.04	1.06	.08	.07
IN.	.03	.07	.60	.97	2.40	.59	.56	.07	.04	1.22	.09	.08

CAL YR 1987	TOTAL 4663.94	MEAN 12.8	MAX 558	MIN .64	CFSM .36	IN. 4.90
WTR YR 1988	TOTAL 6394.92	MEAN 17.5	MAX 838	MIN .64	CFSM .49	IN. 6.72

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 mi².

PERIOD OF RECORD.--April 1951 to September 1988. Discontinued.

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. 3, Nov. 19, Dec. 31 to Jan. 18, Jan. 25-29, and Feb. 5 to Mar. 7. Records good except 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 Canals.

AVERAGE DISCHARGE.--37 years, 200 ft³/s, 10.37 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,720 ft³/s Jan. 22, 1959; gage height, 20.47 ft, from floodmarks; minimum daily, 0.8 ft³/s Dec. 22, 23, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 21	----	----	*14.81	Mar. 8	2400	*1,520	14.67

Minimum daily discharge, 2.5 ft³/s July 8.

a Ice affected.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	7.4	57	65	353	73	82	26	8.9	6.1	20	7.6
2	6.0	6.4	62	54	1000	72	85	25	11	6.4	11	5.7
3	6.2	6.4	58	35	422	77	219	25	13	6.2	8.8	12
4	5.6	222	107	25	207	72	909	25	11	4.9	8.4	31
5	5.0	208	72	22	120	70	356	22	9.5	4.9	9.9	12
6	5.4	208	47	21	70	80	420	19	9.3	4.1	17	8.6
7	6.0	205	50	23	65	130	1150	19	8.2	2.7	12	6.6
8	7.0	204	74	24	66	907	593	18	9.1	2.5	7.4	5.3
9	8.0	206	83	24	64	1270	285	23	13	5.3	6.5	5.3
10	7.5	200	85	23	52	653	204	40	11	4.2	6.4	5.5
11	7.0	197	63	23	49	351	156	20	8.4	5.1	6.4	5.5
12	7.0	195	89	24	47	352	130	16	8.4	4.5	6.4	5.8
13	8.0	194	66	24	43	427	109	14	7.3	3.6	6.1	36
14	7.3	192	47	24	37	266	94	14	6.6	4.2	6.0	16
15	7.0	191	706	23	110	200	81	13	6.8	4.1	6.0	8.2
16	7.0	190	666	22	350	170	71	12	9.2	4.3	5.6	6.1
17	7.0	175	210	26	260	157	65	12	11	6.5	5.4	9.1
18	7.0	25	122	95	400	160	61	12	8.1	37	6.1	8.1
19	7.0	14	97	85	600	164	59	13	7.6	186	57	9.7
20	7.5	14	607	296	700	151	52	13	6.4	118	18	78
21	7.5	15	387	207	850	142	50	13	6.7	322	8.7	37
22	7.0	16	194	85	720	136	51	12	6.8	76	7.6	17
23	6.5	14	131	57	640	122	52	12	10	35	7.7	11
24	7.0	16	103	50	350	79	36	17	7.3	24	11	9.4
25	8.3	49	245	27	180	119	37	14	5.8	14	7.7	8.5
26	8.8	92	338	26	150	245	36	13	6.3	28	7.2	7.2
27	12	41	241	24	110	162	32	12	5.3	18	6.8	5.7
28	15	52	237	25	86	124	27	12	4.7	11	25	6.0
29	14	104	387	27	78	109	26	11	5.1	9.3	32	7.1
30	10	71	200	41	---	94	26	10	5.4	9.6	11	6.9
31	8.2	---	100	46	---	82	---	9.2	---	58	8.4	---
TOTAL	240.8	3330.2	5931	1573	8179	7216	5554	516.2	247.2	1025.5	363.5	397.9
MEAN	7.77	111	191	50.7	282	233	185	16.7	8.24	33.1	11.7	13.3
MAX	15	222	706	296	1000	1270	1150	40	13	322	57	78
MIN	5.0	6.4	47	21	37	70	26	9.2	4.7	2.5	5.4	5.3
CFSM	.03	.42	.73	.19	1.08	.89	.71	.06	.03	.13	.04	.05
IN.	.03	.47	.84	.22	1.16	1.02	.79	.07	.04	.15	.05	.06

CAL YR 1987 TOTAL 44505.3 MEAN 122 MAX 2190 MIN 5.0 CFSM .47 IN. 6.32
WTR YR 1988 TOTAL 34574.3 MEAN 94.5 MAX 1270 MIN 2.5 CFSM .36 IN. 4.91

03322900 WABASH RIVER AT LINN GROVE, IN

LOCATION.--Lat 40°39'22", long 85°01'58", in SE 1/4 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 mi².

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: Nov. 20-26, Dec. 31 to Jan. 21, Jan. 25-29, Feb. 5-21, 26, 27, and Mar. 4-6. Records fair except 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 Canals.

AVERAGE DISCHARGE.--24 years, 368 ft³/s, 11.03 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,560 ft³/s Mar. 17, 1978, gage height, 13.87 ft; minimum daily, 4.3 ft³/s July 9, 1988.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in April 1964 reached a stage of 13.13 ft, from floodmark, discharge, 6,900 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft³/s and maximum(*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 21	0900	----	*a8.38	Apr. 8	1600	*1,930	*8.38

Minimum daily discharge, 4.3 ft³/s July 9.

a Ice affected.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	13	200	110	254	126	163	39	12	5.8	65	8.1
2	10	11	195	95	1280	123	233	39	12	6.0	27	7.2
3	11	11	154	80	1330	135	232	38	13	6.1	13	8.6
4	10	39	235	47	664	125	1050	38	13	6.1	10	8.7
5	9.8	187	244	40	210	120	1130	37	12	5.8	8.8	20
6	11	196	141	36	140	135	699	36	10	6.0	9.0	13
7	12	196	95	38	115	232	1630	33	9.7	5.4	9.6	8.7
8	12	197	155	42	110	1040	1900	30	10	4.7	12	6.8
9	14	203	200	42	105	1660	1510	31	10	4.3	8.4	6.1
10	13	200	243	40	95	1780	767	36	10	4.5	6.8	5.6
11	12	197	176	40	85	1430	439	52	11	5.5	6.6	5.5
12	12	196	184	41	80	848	298	35	9.8	5.7	6.8	5.6
13	14	196	194	42	70	883	236	29	8.8	5.5	6.5	6.5
14	13	196	121	40	65	679	190	25	8.5	5.7	5.9	20
15	12	196	874	39	150	435	156	21	8.2	5.5	5.8	18
16	12	196	1790	38	600	328	131	20	8.1	6.1	6.0	9.3
17	12	196	1480	45	520	278	109	19	7.5	6.4	5.8	7.4
18	12	153	736	140	700	269	102	20	9.0	6.6	5.9	6.2
19	12	36	392	230	950	278	98	19	9.2	60	7.5	8.7
20	13	25	1180	500	1200	266	88	20	8.0	249	36	13
21	13	25	1460	560	1500	236	81	20	7.6	409	21	57
22	12	25	849	305	1270	213	75	19	7.6	343	9.6	39
23	11	25	449	150	1250	205	75	19	7.5	98	7.0	17
24	12	25	294	105	1090	178	71	22	6.8	40	6.7	11
25	14	27	350	60	578	203	55	22	7.5	22	7.6	8.3
26	15	130	566	45	250	411	55	20	6.9	15	7.6	7.4
27	20	122	515	42	200	386	55	15	6.0	19	6.2	6.8
28	27	87	457	43	171	263	53	14	5.7	18	7.4	6.3
29	25	320	855	47	135	210	44	12	6.1	12	11	5.9
30	19	346	606	53	---	187	41	12	6.0	11	26	5.6
31	14	---	250	69	---	151	---	11	---	21	12	---
TOTAL	419.8	3972	15640	3204	15167	13813	11766	803	267.5	1418.7	384.5	357.3
MEAN	13.5	132	505	103	523	446	392	25.9	8.92	45.8	12.4	11.9
MAX	27	346	1790	560	1500	1780	1900	52	13	409	65	57
MIN	9.8	11	95	36	65	120	41	11	5.7	4.3	5.8	5.5
CFSM	.03	.29	1.11	.23	1.15	.98	.87	.06	.02	.10	.03	.03
IN.	.03	.33	1.28	.26	1.25	1.13	.97	.07	.02	.12	.03	.03

CAL YR 1987 TOTAL 78061.8 MEAN 214 MAX 1800 MIN 9.8 CFSM .47 IN. 6.41
WTR YR 1988 TOTAL 67212.8 MEAN 184 MAX 1900 MIN 4.3 CFSM .41 IN. 5.52

03323000 WABASH RIVER AT BLUFFTON, IN

LOCATION.--Lat 40°44'30", long 85°10'19", in NW¼NE¼ sec.4, T.26 N., R.12 E., Wells County, Hydrologic Unit 05120101, on downstream side of left abutment of Main Street (State Highway 1) bridge in Bluffton, 2 mi downstream from Sixmile Creek, and at mile 434.5.

DRAINAGE AREA.--532 mi².

PERIOD OF RECORD.--October 1930 to September 1971 (discharge). October 1987 to current year (stage only).
Gage-height records collected at same site since December 1910 are contained in reports of National Weather Service.

GAGE.--Data-Collection Platform with Ultrasonic Ranger. Datum of gage is 793.01 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Gage-height accuracy to tenths of a foot for stage-only period.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 16.07 ft Feb. 15, 1950; minimum gage height, 0.61 ft July 21, 1932.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 7.4 ft Apr. 7, 8; minimum gage height, 0.8 ft Oct. 13, June 24, July 6, 7.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.4	2.2	2.2	3.2	2.1	2.7	1.4	1.2	1.2	2.0	1.2
2	1.2	1.3	2.2	2.5	5.6	2.2	2.8	1.6	1.2	.9	1.7	1.3
3	1.2	1.2	2.2	2.4	5.2	2.1	2.7	1.4	1.2	1.0	1.4	1.3
4	1.2	1.2	2.5	2.1	3.3	2.1	5.2	1.4	1.2	.9	1.4	1.3
5	1.3	2.5	2.5	2.1	2.5	2.1	4.6	1.6	1.2	.9	1.3	1.3
6	1.4	2.5	2.1	1.7	2.7	2.2	5.5	1.6	1.2	.9	1.2	1.3
7	1.2	2.5	2.1	1.6	2.4	3.2	7.4	1.4	1.2	1.0	1.2	1.2
8	1.3	2.5	2.4	1.7	2.2	6.5	6.9	1.6	1.2	.9	1.2	1.3
9	1.3	2.5	2.5	1.6	2.1	6.7	5.9	1.6	1.2	.9	1.3	1.2
10	1.2	2.4	2.5	1.6	2.1	6.5	4.0	1.4	1.2	1.2	1.2	1.2
11	1.2	2.4	2.4	1.7	1.7	5.2	2.9	1.6	1.2	.9	1.2	1.0
12	1.0	2.4	2.4	1.6	1.8	4.3	2.8	1.6	1.3	.9	1.2	1.2
13	1.2	2.5	2.4	1.6	1.7	4.6	2.7	1.4	1.2	1.2	1.2	1.2
14	1.0	2.5	2.1	1.6	1.8	3.7	2.4	1.3	1.2	.9	1.2	1.2
15	1.2	2.5	---	1.4	2.9	2.9	2.4	1.3	1.2	1.1	1.3	1.4
16	1.2	2.7	---	1.4	3.6	2.7	2.1	1.4	1.2	1.4	1.2	1.3
17	1.3	2.7	---	2.1	3.7	2.5	2.0	1.3	1.2	1.2	1.2	1.3
18	1.0	2.4	---	2.4	4.4	2.7	1.8	1.3	1.2	1.4	1.4	1.3
19	1.3	1.6	---	2.5	5.4	2.7	2.0	1.3	1.2	1.2	1.2	1.4
20	1.2	1.2	---	3.9	6.2	2.7	2.0	1.3	1.2	2.8	1.4	1.2
21	1.3	1.3	---	3.5	6.2	2.4	2.0	1.3	1.2	3.5	1.4	1.7
22	1.3	1.3	4.4	2.7	6.2	2.4	1.8	1.3	1.2	2.8	1.2	1.7
23	1.3	1.2	3.0	2.2	5.6	2.4	1.8	1.3	1.2	2.1	1.2	1.4
24	1.2	1.6	2.7	2.0	4.7	2.8	1.8	1.4	1.2	1.7	1.2	1.2
25	1.0	1.7	3.1	1.8	3.3	3.3	1.8	1.4	1.2	1.4	1.2	1.2
26	1.2	2.2	3.5	1.6	2.8	3.5	1.6	1.3	1.2	1.4	1.2	1.2
27	1.4	2.2	3.3	1.7	2.7	2.9	1.8	1.3	1.2	1.2	1.2	1.2
28	1.6	2.1	3.7	1.4	2.2	2.7	1.6	1.2	1.2	1.4	1.2	1.2
29	1.4	3.1	4.4	1.7	2.2	2.5	1.7	1.2	1.2	1.4	1.2	1.0
30	1.4	2.7	3.5	1.7	---	2.4	1.4	1.2	1.2	2.1	1.4	1.2
31	1.4	---	2.8	1.8	---	2.2	---	1.2	---	1.4	1.2	---
MEAN	1.2	2.1	---	2.0	3.5	3.2	2.9	1.4	1.2	1.4	1.3	1.3
MAX	1.6	3.1	---	3.9	6.2	6.7	7.4	1.6	1.3	3.5	2.0	1.7
MIN	1.0	1.2	---	1.4	1.7	2.1	1.4	1.2	1.2	.9	1.2	1.0

03323500 WABASH RIVER AT HUNTINGTON, IN

LOCATION.--Lat 40°51'20", long 85°29'53", in SW1/4 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 mi².

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.--37 years, 590 ft³/s, 11.11 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,900 ft³/s Feb. 10, 1959; maximum gage height, 23.20 ft Feb. 10, 1959 (backwater from ice); minimum daily discharge, 2.4 ft³/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, 2,980 ft³/s Mar. 10; minimum daily discharge, 11 ft³/s Nov. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	169	113	371	350	135	191	304	25	43	21	97	45
2	164	47	351	223	1120	196	440	25	43	21	62	44
3	166	16	254	188	1810	230	478	25	43	21	44	44
4	167	17	155	198	1440	208	513	26	43	21	44	45
5	153	17	197	152	630	178	572	26	43	21	44	72
6	120	17	191	118	245	183	651	26	43	21	44	86
7	86	264	168	113	202	237	710	26	38	21	44	85
8	64	241	111	88	229	908	407	26	35	21	44	56
9	58	44	193	74	197	1460	627	26	26	21	44	44
10	58	17	65	85	129	2980	1520	26	21	21	44	44
11	65	22	117	87	107	2730	2950	26	21	21	44	44
12	67	12	359	72	126	1440	2970	26	21	21	44	44
13	66	11	371	78	119	519	2900	26	21	21	44	44
14	65	663	102	83	115	525	1470	27	21	21	44	44
15	40	628	178	58	126	532	258	27	21	21	44	44
16	16	242	671	48	553	528	258	27	21	21	44	44
17	37	168	2040	75	620	510	257	27	21	21	33	71
18	59	14	2450	156	451	795	256	27	21	21	36	84
19	27	13	2140	220	914	584	255	23	21	21	40	84
20	16	53	1910	347	1880	242	253	21	21	21	40	84
21	16	365	1110	677	2130	241	251	21	21	21	40	84
22	16	46	922	567	2120	218	248	21	21	22	28	83
23	16	12	1800	272	2370	151	245	21	21	86	28	83
24	52	12	1720	168	2270	234	136	21	21	149	28	83
25	78	16	728	128	1390	1220	65	24	21	160	28	83
26	36	22	467	80	590	1450	34	27	21	134	28	83
27	17	24	626	55	394	496	25	27	21	55	28	82
28	17	99	539	82	283	499	25	33	21	22	28	82
29	16	268	844	112	239	480	25	41	21	22	28	67
30	17	307	1060	117	---	387	25	35	21	25	40	60
31	53	---	726	117	---	272	---	43	---	68	45	---
TOTAL	1997	3790	22936	5188	22934	20824	19128	828	798	1184	1273	1942
MEAN	64.4	126	740	167	791	672	638	26.7	26.6	38.2	41.1	64.7
MAX	169	663	2450	677	2370	2980	2970	43	43	160	97	86
MIN	16	11	65	48	107	151	25	21	21	21	28	44

CAL YR 1987 TOTAL 108744 MEAN 298 MAX 2700 MIN 11
WTR YR 1988 TOTAL 102822 MEAN 281 MAX 2980 MIN 11

03324000 LITTLE RIVER NEAR HUNTINGTON, IN

LOCATION.--Lat 40°54'14", long 85°24'22", in NE1/4 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 mi².

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. 31 to Jan. 20, Jan. 24-30, Feb. 4-21, 25-27, Mar. 4-6, and May 6-10. Records good except for estimated daily discharges, which are poor. During periods of extreme high water in the 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.--45 years, 228 ft³/s, 11.77 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,990 ft³/s Jan. 4, 1950; maximum gage height, 19.50 ft Feb. 25, 1985; minimum daily discharge, 1.1 ft³/s Oct. 8, 1946, site then in use.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 7	0700	*3,580	*14.90

Minimum daily discharge, 14 ft³/s Sept. 16-18, 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	28	469	240	724	176	306	59	24	17	164	19
2	21	28	407	210	648	181	492	57	27	17	77	18
3	21	29	283	180	377	193	778	51	34	18	49	22
4	22	30	276	150	150	130	1560	51	30	17	33	64
5	21	27	228	82	110	120	659	52	30	17	28	55
6	21	25	170	72	88	130	1360	50	26	16	37	32
7	24	25	225	54	84	193	3460	49	24	15	24	28
8	24	26	484	60	85	428	2900	49	23	15	18	26
9	24	39	569	65	88	546	1510	57	22	15	21	22
10	23	38	531	66	88	413	696	68	21	17	55	18
11	26	33	297	70	87	280	446	52	23	19	49	17
12	27	31	317	75	82	255	316	46	26	19	31	15
13	21	30	246	72	82	307	240	42	23	17	23	15
14	22	29	170	70	90	220	192	40	20	18	21	15
15	24	27	1480	72	200	169	157	42	21	40	20	15
16	23	26	2150	90	350	137	134	40	21	46	25	14
17	25	27	980	200	255	121	123	37	22	67	22	14
18	25	33	450	600	320	117	120	37	21	68	19	14
19	22	32	317	350	400	120	106	36	21	343	41	22
20	22	32	1380	850	320	118	96	36	21	128	42	97
21	23	30	1140	528	270	103	91	37	23	69	27	63
22	24	28	520	232	547	90	84	37	22	41	20	45
23	25	28	344	157	1680	92	83	35	20	50	93	36
24	27	26	278	110	737	538	80	146	18	55	127	28
25	30	380	321	90	240	1880	72	79	18	56	49	22
26	30	678	314	80	210	1620	66	46	18	38	32	18
27	59	285	257	75	190	627	68	38	17	28	24	15
28	70	252	439	75	169	338	70	33	16	22	64	15
29	47	887	855	80	171	261	63	34	18	19	51	14
30	37	687	445	150	---	329	60	31	18	22	29	16
31	30	---	270	295	---	273	---	28	---	576	22	---
TOTAL	861	3876	16612	5500	8842	10505	16388	1495	668	1905	1337	814
MEAN	27.8	129	536	177	305	339	546	48.2	22.3	61.5	43.1	27.1
MAX	70	887	2150	850	1680	1880	3460	146	34	576	164	97
MIN	21	25	170	54	82	90	60	28	16	15	18	14
CFSM	.11	.49	2.04	.67	1.16	1.29	2.08	.18	.08	.23	.16	.10
IN.	.12	.55	2.35	.78	1.25	1.49	2.32	.21	.09	.27	.19	.12

CAL YR 1987 TOTAL 56927 MEAN 156 MAX 2150 MIN 15 CFSM .59 IN. 8.05
WTR YR 1988 TOTAL 68803 MEAN 188 MAX 3460 MIN 14 CFSM .71 IN. 9.73

03324200 SALAMONIE RIVER AT PORTLAND, IN

LOCATION.--Lat 40°25'40", long 85°02'20", in NE 1/4 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 mi².

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: Jan. 2, 4-16, 25-26, and Feb. 4-8, 12-14. Records good except for estimated daily discharges, which are poor. Natural flow partially affected by sewage effluent.

AVERAGE DISCHARGE.--29 years, 71.9 ft³/s, 11.41 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,460 ft³/s Mar. 5, 1963, gage height, 16.96 ft; minimum daily, 0.4 ft³/s Sept. 27, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 7	1400	*1,140	*9.13

Minimum daily discharge, 1.3 ft³/s Oct. 16 and Sept. 11, 26-27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	2.0	8.9	25	238	22	20	5.8	3.2	2.1	2.0	1.6
2	6.5	2.1	8.1	16	476	25	22	5.6	3.3	2.3	1.8	1.6
3	7.5	2.6	7.5	11	142	30	178	5.6	3.3	1.9	1.9	4.2
4	7.1	2.6	12	7.2	76	31	232	5.6	3.2	1.8	1.9	2.6
5	5.8	2.2	11	4.8	66	29	89	5.7	2.8	2.0	2.0	1.5
6	6.4	2.4	6.1	3.3	56	28	147	5.6	2.8	2.1	2.3	1.6
7	9.3	2.6	7.7	4.0	50	86	797	5.4	3.0	1.9	1.8	1.6
8	5.3	2.3	16	5.3	44	475	239	5.1	3.1	2.2	1.9	1.4
9	2.0	4.1	21	5.4	39	386	104	5.6	4.8	2.0	1.9	1.5
10	2.4	2.7	26	5.2	32	170	65	7.8	3.5	2.0	2.1	1.6
11	3.5	2.5	14	5.2	28	96	46	6.6	2.9	1.9	2.0	1.3
12	1.7	2.4	24	5.4	26	132	35	5.6	2.6	2.0	2.0	9.4
13	1.7	2.3	16	5.4	26	183	27	5.3	2.5	2.0	2.1	8.4
14	2.0	2.7	8.0	5.0	27	86	23	5.3	2.7	2.0	2.0	2.6
15	1.5	2.0	421	5.2	150	56	18	4.8	2.8	1.8	2.1	1.7
16	1.3	1.8	237	6.2	128	41	15	4.8	2.7	2.5	2.0	1.7
17	2.5	2.4	66	26	153	36	13	5.0	2.5	6.0	1.8	2.3
18	2.2	2.4	32	88	207	36	15	4.7	2.5	13	6.9	1.6
19	1.5	2.4	26	51	266	37	12	4.6	2.5	48	20	5.8
20	1.6	2.4	278	174	493	33	10	4.6	2.4	92	3.1	12
21	1.9	2.7	156	84	164	27	10	4.7	2.5	161	1.8	3.1
22	1.9	2.3	66	35	114	22	9.4	4.4	2.5	30	1.4	2.6
23	2.0	2.2	41	23	281	21	8.9	5.1	2.6	7.4	1.7	2.4
24	2.7	3.1	31	18	120	21	8.6	22	2.6	3.8	2.0	1.8
25	3.9	17	124	15	62	46	7.3	7.6	2.6	2.5	1.7	1.5
26	1.5	8.4	144	12	45	61	7.3	5.0	2.5	2.6	2.0	1.3
27	12	4.8	86	11	36	42	7.2	4.3	2.5	2.0	1.9	1.3
28	2.8	5.3	92	11	25	31	7.3	3.7	2.6	1.6	7.0	1.5
29	2.0	23	151	11	24	27	6.9	3.2	2.6	1.5	2.9	1.6
30	2.1	14	64	13	---	25	6.4	2.9	2.7	1.8	2.3	1.9
31	2.5	---	39	16	---	19	---	3.3	---	3.7	1.8	---
TOTAL	113.6	131.7	2240.3	707.6	3594	2360	2186.3	175.3	84.8	409.4	90.1	85.0
MEAN	3.66	4.39	72.3	22.8	124	76.1	72.9	5.65	2.83	13.2	2.91	2.83
MAX	12	23	421	174	493	475	797	22	4.8	161	20	12
MIN	1.3	1.8	6.1	3.3	24	19	6.4	2.9	2.4	1.5	1.4	1.3
CFSM	.04	.05	.84	.27	1.45	.89	.85	.07	.03	.15	.03	.03
IN.	.05	.06	.97	.31	1.56	1.03	.95	.08	.04	.18	.04	.04

CAL YR 1987 TOTAL 15278.2 MEAN 41.9 MAX 1750 MIN 1.3 CFSM .49 IN. 6.64
WTR YR 1988 TOTAL 12178.1 MEAN 33.3 MAX 797 MIN 1.3 CFSM .39 IN. 5.29

03324300 SALAMONIE RIVER NEAR WARREN, IN

LOCATION.--Lat 40°42'45", long 85°27'13", in SE¼ 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 mi².

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: Jan. 3-16, 27-28, Feb. 7-11, 20, May 30 to June 4, June 7 to July 19, July 27 to Aug. 1, and Aug. 3, 4, 13-21. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--31 years, 380 ft³/s, 12.14 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,200 ft³/s Feb. 10, 1959, gage height, 17.05 ft; minimum daily, 5.1 ft³/s Jan. 2, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 20	0735	(a)	----	Apr. 7	1735	*3,940	10.34

Minimum daily discharge, 8.8 ft³/s Aug. 4, 7.

(a) Backwater from ice jam.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	21	168	276	484	161	395	41	19	12	23	20
2	14	17	135	175	1720	162	560	39	19	11	13	22
3	14	12	89	140	1320	182	745	36	18	10	10	22
4	13	10	70	122	537	183	979	33	19	10	8.8	41
5	15	12	85	100	284	155	667	33	24	10	10	25
6	18	13	53	86	186	163	971	32	23	9.8	9.4	18
7	21	13	32	70	160	226	3630	31	19	9.7	8.8	17
8	19	15	35	64	140	1290	3140	32	20	9.7	9.9	16
9	20	18	90	56	120	2250	1290	36	25	9.8	8.9	15
10	21	16	143	50	103	1330	616	41	22	9.8	11	13
11	24	16	92	45	90	677	414	37	18	10	9.0	12
12	21	15	75	42	81	480	304	34	16	10	13	13
13	20	17	76	42	76	639	231	36	14	10	9.0	14
14	19	18	48	40	74	528	185	31	16	10	15	16
15	17	18	1150	38	280	325	153	33	15	11	16	25
16	18	20	2650	58	664	240	129	31	15	15	15	38
17	17	19	1210	104	530	196	113	29	14	20	15	24
18	16	17	340	279	781	185	109	25	14	26	18	19
19	28	16	180	356	1060	186	98	24	14	34	23	28
20	14	16	1700	910	2130	184	88	26	14	89	33	57
21	9.1	16	1960	981	1440	159	80	35	14	214	37	45
22	11	15	801	430	806	138	73	40	15	340	28	46
23	10	15	475	234	1480	133	66	37	15	130	23	37
24	12	16	359	169	1010	374	62	33	15	65	19	24
25	14	51	436	123	474	702	57	32	15	34	16	20
26	12	151	646	99	294	720	53	50	15	14	15	18
27	25	123	562	94	266	438	52	42	14	12	13	16
28	43	96	574	90	200	286	51	31	14	10	16	14
29	50	379	1130	88	170	230	47	16	14	11	15	15
30	38	328	703	113	---	225	42	21	13	14	16	15
31	27	---	391	166	---	201	---	20	---	18	18	---
TOTAL	617.1	1509	16458	5640	16960	13348	15400	1017	502	1198.8	494.8	705
MEAN	19.9	50.3	531	182	585	431	513	32.8	16.7	38.7	16.0	23.5
MAX	50	379	2650	981	2130	2250	3630	50	25	340	37	57
MIN	9.1	10	32	38	74	133	42	16	13	9.7	8.8	12
CFSM	.05	.12	1.25	.43	1.38	1.01	1.21	.08	.04	.09	.04	.06
IN.	.05	.13	1.44	.49	1.48	1.17	1.35	.09	.04	.10	.04	.06

CAL YR 1987 TOTAL 75728.1 MEAN 207 MAX 4740 MIN 9.1 CFSM .49 IN. 6.63
WTR YR 1988 TOTAL 73849.7 MEAN 202 MAX 3630 MIN 8.8 CFSM .47 IN. 6.46

03324500 SALAMONIE RIVER AT DORA, IN

LOCATION.--Lat 40°48'42", long 85°41'02", in NE 1/4 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 mi².

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 since May 1, 1986. Datum of gage is 673.96 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to Oct. 1, 1951, non-recording 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). Oct. 9, 1961, to Sept. 30, 1974, water-stage recorder at site described in "LOCATION" paragraph.

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.--64 years (1924 to current year), 507 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,500 ft³/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 ft³/s Oct. 30, 1968, result of abnormal regulation.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,960 ft³/s Dec. 23; minimum daily, 18 ft³/s May 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	319	360	783	449	648	332	62	48	26	26	26	26
2	318	358	590	194	600	266	62	48	26	26	26	33
3	431	356	468	155	802	246	63	48	26	26	26	43
4	316	354	248	184	1710	247	63	48	26	26	26	43
5	397	352	245	192	1120	197	64	48	26	26	26	43
6	433	350	251	172	380	173	65	48	26	26	26	133
7	431	348	202	143	207	213	68	48	26	26	26	176
8	430	346	174	129	222	662	695	48	26	26	26	181
9	428	344	243	112	252	937	1520	48	26	26	26	181
10	426	342	404	113	238	1330	1260	48	26	26	26	181
11	424	339	345	128	123	1470	649	48	26	26	26	181
12	422	337	278	140	118	1420	348	48	26	26	26	181
13	420	334	226	139	167	792	955	48	26	26	26	227
14	418	331	190	134	203	494	1700	48	26	26	26	300
15	417	328	490	120	305	495	821	48	26	26	26	326
16	415	326	742	112	502	491	125	48	26	26	62	325
17	413	323	795	135	748	485	95	48	26	26	26	324
18	411	320	1550	358	732	408	83	48	26	26	26	323
19	409	318	1730	468	992	359	95	48	26	26	26	323
20	407	335	1420	732	1430	356	95	36	26	26	26	322
21	405	342	1460	1190	1650	302	95	26	26	26	26	322
22	403	338	1850	712	1620	129	95	26	26	26	26	321
23	401	335	1960	353	1630	53	95	18	26	26	26	320
24	398	331	1220	253	1640	54	95	26	26	26	26	319
25	338	368	1010	171	1070	56	64	26	26	26	26	318
26	148	408	950	107	423	59	48	26	26	26	26	318
27	220	494	648	120	302	60	48	26	26	26	26	317
28	293	548	543	135	303	60	48	26	26	26	26	307
29	341	763	904	170	337	61	48	26	26	26	26	315
30	363	911	990	199	---	61	48	26	26	26	26	314
31	362	---	718	276	---	61	---	26	---	26	26	---
TOTAL	11757	11639	23627	7995	20474	12329	9572	1226	780	806	842	7043
MEAN	379	388	762	258	706	398	319	39.5	26.0	26.0	27.2	235
MAX	433	911	1960	1190	1710	1470	1700	48	26	26	62	326
MIN	148	318	174	107	118	53	48	18	26	26	26	26

CAL YR 1987 TOTAL 100960 MEAN 277 MAX 1960 MIN 21
WTR YR 1988 TOTAL 108090 MEAN 295 MAX 1960 MIN 18

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 mi².

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: Jan. 2-20, 25-30, Feb. 5-21, and Mar. 4-6. Records good except for estimated daily discharges, which are fair. Flow regulated by Huntington Lake and Salamonie Lake.

AVERAGE DISCHARGE.--65 years, 1,485 ft³/s, 11.41 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,600 ft³/s May 18, 1943; maximum gage height, 24.44 ft Feb. 11, 1959 (ice jam); minimum daily discharge, 19 ft³/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 ft³/s, from rating curve extended above 49,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,500 ft³/s Apr. 7, gage height, 15.85 ft; minimum daily, 48 ft³/s July 8, 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	525	483	2470	1630	2180	1040	1160	196	108	56	545	89
2	517	596	2040	900	2560	901	1670	191	105	55	271	87
3	642	486	1650	770	3000	917	2280	189	99	53	163	114
4	572	449	1100	700	4120	820	3720	181	105	53	122	137
5	625	441	971	670	2000	650	2190	176	105	54	103	150
6	672	437	941	480	800	600	4750	175	103	52	97	211
7	635	448	1010	390	620	863	11000	175	101	51	95	283
8	606	990	1300	360	580	1820	5380	172	98	48	88	281
9	552	648	1520	320	640	3000	4530	176	87	48	81	251
10	539	473	1810	310	600	4470	3700	186	80	52	96	227
11	537	445	1120	330	420	4970	4540	190	73	61	108	221
12	535	433	1320	350	400	4020	3910	172	70	58	115	221
13	539	433	1380	340	440	2400	3740	168	71	53	97	239
14	537	543	1080	330	480	1650	3040	163	70	57	88	349
15	532	1400	3470	310	600	1510	1010	157	70	56	92	391
16	509	893	5110	290	1500	1450	735	157	70	58	119	439
17	483	725	4350	660	1850	1410	641	155	70	74	86	392
18	490	466	4840	1650	1800	1430	632	152	75	97	82	417
19	517	418	5020	1350	2600	1550	605	148	70	200	107	477
20	497	444	5770	2700	4000	1010	579	144	67	362	89	535
21	477	625	5340	3230	4500	897	571	120	72	174	95	544
22	471	1020	3910	2410	4720	732	553	116	68	118	80	504
23	472	509	4390	1260	6690	488	546	112	70	91	77	479
24	477	450	4060	907	5610	1070	522	109	68	149	198	460
25	474	1080	3020	550	3900	3730	335	224	64	236	174	449
26	432	2050	2320	400	1850	4820	262	147	63	246	105	441
27	444	1310	2120	350	1410	2130	226	119	60	206	85	438
28	445	1330	2180	330	1180	1410	220	106	60	122	80	426
29	472	2900	3260	400	1030	1250	212	105	65	70	100	429
30	484	2880	3260	450	---	1330	200	111	62	62	104	415
31	465	---	2590	1040	---	1160	---	110	---	309	89	---
TOTAL	16174	25805	84722	26167	62080	55498	63459	4802	2349	3381	3831	10096
MEAN	522	860	2733	844	2141	1790	2115	155	78.3	109	124	337
MAX	672	2900	5770	3230	6690	4970	11000	224	108	362	545	544
MIN	432	418	941	290	400	488	200	105	60	48	77	87
CFSM	.30	.49	1.55	.48	1.21	1.01	1.20	.09	.04	.06	.07	.19
IN.	.34	.54	1.78	.55	1.31	1.17	1.34	.10	.05	.07	.08	.21

CAL YR 1987 TOTAL 334300 MEAN 916 MAX 5770 MIN 69 CFSM .52 IN. 7.03
WTR YR 1988 TOTAL 358364 MEAN 979 MAX 11000 MIN 48 CFSM .55 IN. 7.54

03325311 LITTLE MISSISSINAWA RIVER AT UNION CITY, IN

LOCATION.--Lat 40°11'46", long 84°49'45", in SE½SE¼ 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 mi².

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: Jan. 2-19, 26-30, Feb. 6-8, 11, 12, and Mar. 5. Records fair except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--6 years, 8.47 ft³/s, 11.89 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 315 ft³/s June 3, 1987, gage height, 8.67 ft; no flow at times in 1983, 1984, and 1988 water years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 140 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 19	1930	*91	4.41

Minimum daily discharge, no flow on many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	.02	.23	3.5	26	4.0	3.8	1.5	.37	.10	.03	.00
2	.06	.03	.24	2.5	67	4.5	3.7	1.4	.41	.09	.0	.00
3	.05	.03	.29	1.9	31	4.9	15	1.4	.38	.08	.00	.00
4	.05	.03	.37	1.5	16	4.7	28	1.5	.33	.07	.00	.00
5	.06	.02	.28	1.2	11	4.5	13	1.5	.31	.06	.01	.00
6	.07	.02	.23	1.0	8.0	5.1	20	1.4	.31	.05	.06	.00
7	.09	.02	.26	1.3	6.0	26	63	1.4	.30	.05	.03	.00
8	.09	.03	.28	1.1	4.5	56	35	1.4	.32	.04	.00	.00
9	.08	.05	.29	.86	3.6	47	17	1.6	.39	.04	.00	.00
10	.08	.04	.27	.70	2.4	28	11	1.4	.28	.03	.00	.00
11	.11	.03	.26	.67	2.3	16	8.8	1.1	.24	.0	.00	.00
12	.08	.03	.29	.80	2.3	22	7.3	.97	.24	.00	.00	.03
13	.07	.03	.24	.70	2.3	19	6.1	.98	.22	.01	.00	.0
14	.05	.03	.22	.60	2.5	12	5.5	.87	.21	.00	.00	.03
15	.05	.03	4.5	.60	21	8.3	4.7	.89	.20	.0	.00	.00
16	.04	.03	3.0	1.0	8.9	6.6	4.0	.94	.23	.0	.00	.04
17	.04	.04	1.4	1.5	13	5.7	4.1	.76	.25	.02	.00	.13
18	.04	.03	1.0	2.0	16	6.2	4.2	.67	.21	.08	.00	.09
19	.04	.02	.98	1.4	43	6.0	3.3	.68	.18	.18	.00	.10
20	.03	.03	4.6	3.7	58	5.1	3.0	.69	.17	.40	.00	.17
21	.03	.02	4.1	1.4	29	4.2	3.0	.59	.16	.35	.00	.12
22	.01	.03	2.7	.92	21	4.1	2.8	.55	.16	.14	.00	.06
23	.02	.04	1.7	.95	33	4.2	2.9	.98	.15	.08	.00	.03
24	.03	.05	1.5	.90	16	3.7	2.4	.79	.12	.05	.00	.0
25	.05	.26	17	.69	9.8	8.8	2.0	.53	.11	.03	.00	.00
26	.03	.29	15	.56	7.7	9.5	2.1	.44	.11	.02	.00	.00
27	.08	.31	9.2	.44	6.2	6.6	2.1	.42	.10	.01	.00	.00
28	.04	.32	8.9	.44	4.8	5.4	1.9	.40	.10	.00	.0	.00
29	.02	.39	9.3	.54	4.5	5.2	1.6	.40	.13	.00	.00	.00
30	.02	.23	6.4	.67	---	4.3	1.6	.38	.14	.0	.00	.00
31	.02	---	5.6	.77	---	3.8	---	.37	---	.05	.00	---
TOTAL	1.61	2.53	100.63	36.81	476.8	351.4	282.9	28.90	6.83	2.03	0.13	0.80
MEAN	.052	.084	3.25	1.19	16.4	11.3	9.43	.93	.23	.065	.004	.027
MAX	.11	.39	17	3.7	67	56	63	1.6	.41	.40	.06	.17
MIN	.01	.02	.22	.44	2.3	3.7	1.6	.37	.10	.00	.00	.00
CFSM	.01	.01	.34	.12	1.70	1.17	.98	.10	.02	.01	.00	.00
IN.	.01	.01	.39	.14	1.83	1.35	1.09	.11	.03	.01	.00	.00

CAL YR 1987 TOTAL 2191.95 MEAN 6.01 MAX 210 MIN .01 CFSM .62 IN. 8.43
WTR YR 1988 TOTAL 1291.37 MEAN 3.53 MAX 67 MIN .00 CFSM .36 IN. 4.97

03325500 MISSISSINIEWA RIVER NEAR RIDGEVILLE, IN

LOCATION.--Lat 40°16'49", long 84°59'44", in SE 1/4 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 mi².

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: Jan. 2-5, 9-13, 15, 16, 26-30, and Feb. 12, 13. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--42 years, 125 ft³/s, 12.76 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,900 ft³/s June 10, 1958, gage height, 16.25 ft, from rating curve extended above 5,000 ft³/s on basis of contracted-opening measurement of peak flow; minimum daily, 0.1 ft³/s Oct. 24, 1946.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 7	1100	*1,530	*9.34

Minimum daily discharge, 1.9 ft³/s, Aug. 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	5.9	9.8	41	311	44	41	18	9.1	5.0	4.3	2.8
2	3.9	5.5	10	32	621	49	40	17	9.3	4.6	2.9	2.8
3	3.8	5.4	10	25	251	55	178	18	9.4	3.7	2.6	5.0
4	4.2	5.8	22	21	144	55	431	19	8.9	3.2	2.3	5.8
5	4.2	5.2	16	19	91	46	180	19	7.8	3.0	2.5	3.1
6	4.2	5.0	10	17	76	50	244	18	6.9	2.5	5.6	2.5
7	6.3	5.0	11	20	77	204	918	17	7.6	3.0	4.7	2.4
8	8.1	5.0	18	22	56	604	364	16	7.8	2.8	2.9	2.8
9	6.8	6.4	21	18	49	467	197	18	11	2.6	2.5	2.9
10	5.9	6.4	21	14	43	276	126	21	9.1	2.3	3.0	3.0
11	6.1	5.5	15	13	39	166	94	17	7.9	2.1	2.8	2.7
12	5.8	5.1	18	14	36	221	74	15	6.8	2.2	2.7	2.7
13	4.5	4.7	13	15	34	243	60	15	5.8	2.6	2.6	12
14	4.7	4.9	9.9	12	36	131	53	15	5.3	2.5	2.6	5.2
15	4.6	5.4	308	12	229	91	45	14	5.7	2.7	2.2	4.3
16	5.4	5.2	156	16	147	71	39	14	5.9	2.7	2.1	3.5
17	5.3	5.2	49	32	193	63	37	14	8.0	2.0	2.4	7.2
18	5.3	5.7	28	47	240	67	39	14	6.4	3.7	2.4	3.9
19	4.9	4.9	23	34	479	67	33	13	5.1	17	7.8	4.0
20	5.0	5.1	199	139	683	58	30	14	4.5	22	4.4	13
21	6.0	5.0	117	65	258	48	30	14	4.8	51	2.8	6.9
22	6.0	4.7	57	36	207	43	29	12	4.8	17	2.0	4.9
23	6.3	4.6	36	29	402	45	28	19	5.0	8.5	1.9	3.7
24	6.8	4.7	31	25	191	41	24	28	5.0	4.8	2.5	3.4
25	7.0	11	328	21	102	101	22	15	5.0	3.5	2.7	3.0
26	6.8	14	260	17	77	136	23	12	3.8	4.1	2.6	2.0
27	7.7	9.0	133	15	66	86	24	11	3.4	4.1	2.7	2.0
28	11	11	124	16	50	62	23	11	3.7	4.0	4.2	2.7
29	6.9	22	163	17	48	57	21	9.6	5.2	3.6	5.8	2.5
30	6.3	14	76	18	---	51	20	9.1	6.6	3.6	3.0	2.8
31	6.3	---	59	25	---	41	---	8.6	---	4.5	2.9	---
TOTAL	180.4	207.3	2351.7	847	5236	3739	3467	475.3	195.6	200.9	98.4	125.5
MEAN	5.82	6.91	75.9	27.3	181	121	116	15.3	6.52	6.48	3.17	4.18
MAX	11	22	328	139	683	604	918	28	11	51	7.8	13
MIN	3.8	4.6	9.8	12	34	41	20	8.6	3.4	2.0	1.9	2.0
CFSM	.04	.05	.57	.21	1.36	.91	.87	.12	.05	.05	.02	.03
IN.	.05	.06	.66	.24	1.46	1.05	.97	.13	.05	.06	.03	.04

CAL YR 1987 TOTAL 29303.3 MEAN 80.3 MAX 4520 MIN 3.6 CFSM .60 IN. 8.20
WTR YR 1988 TOTAL 17124.1 MEAN 46.8 MAX 918 MIN 1.9 CFSM .35 IN. 4.79

03326070 BIG LICK CREEK NEAR HARTFORD CITY, IN

LOCATION.--Lat 40°25'20", long 85°21'04", in SE½SE¼ 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 mi².

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: Jan. 3, 4, 8, 9, 24-26, 29-31, Feb. 8-12, 15-17, and Feb. 29 to Mar. 3. Records fair except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--17 years, 26.7 ft³/s, 12.42 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,940 ft³/s June 6, 1981, gage height, 16.14 ft; minimum daily, 0.19 ft³/s Oct. 4, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 15	1600	*509	*11.41

Minimum daily discharge, 0.48 ft³/s Oct. 20, Sept. 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.72	.71	15	19	125	7.0	14	3.7	1.4	1.3	1.6	.57
2	.53	.77	13	13	204	8.3	23	3.6	1.3	1.3	1.1	.59
3	.53	.74	6.2	8.2	72	9.4	19	3.4	1.3	.99	.99	1.4
4	.64	.69	14	5.7	44	10	16	3.2	1.3	.86	.85	3.8
5	.72	.67	9.0	4.3	30	9.3	11	3.2	1.3	.78	.83	1.2
6	.76	.59	3.7	3.2	21	10	71	3.0	1.3	.73	.84	.77
7	.95	.63	4.6	3.6	16	35	348	2.9	1.2	.78	.84	.65
8	.96	.74	13	3.0	13	180	122	2.8	1.2	.82	.77	.65
9	.70	1.5	25	2.4	10	171	63	3.0	1.4	.83	.72	.53
10	.54	1.6	22	2.0	9.1	77	40	2.8	1.3	1.1	.67	.52
11	.52	.87	10	2.3	7.9	46	25	2.5	1.0	2.2	.85	.48
12	1.1	.73	17	3.2	7.1	46	17	2.5	1.2	1.9	.74	.70
13	.55	.81	9.5	2.2	7.3	48	13	2.3	1.2	1.8	1.1	2.9
14	.55	.79	4.0	1.1	8.0	28	11	2.2	1.1	2.0	.98	1.8
15	.55	.77	300	1.4	11	20	8.7	2.2	1.1	2.0	.70	.86
16	.53	.74	166	1.9	26	16	7.6	2.2	1.2	1.9	.71	.69
17	.60	.90	62	14	47	14	7.3	2.0	1.2	3.3	.96	.75
18	.54	.95	33	48	73	14	7.9	1.9	1.1	2.3	.62	1.1
19	.56	.81	35	34	136	14	6.6	1.9	1.0	9.2	3.0	1.4
20	.48	.75	217	130	174	12	5.9	2.2	1.0	8.0	2.0	5.3
21	.50	.75	99	55	64	9.5	5.6	2.5	1.1	48	.96	3.1
22	.66	.76	53	24	54	7.9	5.4	2.1	.96	7.8	.84	1.4
23	.76	.81	35	16	124	7.7	5.5	2.3	.82	3.1	.66	1.1
24	.92	.93	29	9.2	44	6.5	4.9	2.6	.86	2.0	.66	.92
25	2.5	6.2	62	7.0	21	37	4.4	1.8	1.1	1.5	.63	.74
26	1.0	13	67	5.6	14	44	4.4	1.6	1.0	1.4	.55	.78
27	4.3	4.1	42	4.9	12	23	4.4	1.6	1.2	1.2	.65	.72
28	3.0	9.4	62	4.5	9.6	15	4.3	1.5	1.3	1.1	.79	.63
29	1.1	46	82	4.6	8.6	12	4.1	1.4	1.7	.97	1.2	.50
30	.69	25	36	5.0	---	9.7	3.8	1.4	2.1	1.1	1.1	.62
31	.62	---	25	10	---	7.3	---	1.3	---	2.3	.68	---
TOTAL	29.08	123.71	1571.0	448.3	1392.6	954.6	883.8	73.6	36.24	114.56	29.59	37.17
MEAN	.94	4.12	50.7	14.5	48.0	30.8	29.5	2.37	1.21	3.70	.95	1.24
MAX	4.3	46	300	130	204	180	348	3.7	2.1	48	3.0	5.3
MIN	.48	.59	3.7	1.1	7.1	6.5	3.8	1.3	.82	.73	.55	.48
CFSM	.03	.14	1.74	.50	1.64	1.05	1.01	.08	.04	.13	.03	.04
IN.	.04	.16	2.00	.57	1.77	1.22	1.13	.09	.05	.15	.04	.05

CAL YR 1987 TOTAL 5712.04 MEAN 15.6 MAX 300 MIN .41 CFSM .54 IN. 7.28
WTR YR 1988 TOTAL 5694.25 MEAN 15.6 MAX 348 MIN .48 CFSM .53 IN. 7.25

03326500 MISSISSINAWA 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: Jan. 6-12, 14, 15, 27-31, and Feb. 7-18. Records good except for estimated daily discharges, which are poor. Flow periodically regulated by dam 0.1 mi above station.

AVERAGE DISCHARGE.--65 years, 622 ft³/s, 12.39 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 (ft ³ /s)	Gage height (ft)
Apr. 7	1000	*5,550	*7.47

Minimum daily discharge, 24 ft³/s Aug. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	55	246	458	511	358	514	147	69	40	106	26
2	49	54	227	318	2110	351	757	144	65	40	78	31
3	46	51	179	307	2500	368	875	142	63	39	57	35
4	46	51	159	301	1370	384	841	141	61	37	46	36
5	45	48	152	218	828	365	1050	141	59	35	41	43
6	46	47	143	168	420	344	1480	144	58	35	39	39
7	47	46	144	152	295	400	5110	145	57	35	37	34
8	49	48	154	158	250	1400	4350	144	56	34	53	30
9	49	52	199	153	236	2770	2350	151	54	32	62	29
10	50	48	242	147	212	1940	1220	67	53	33	39	29
11	53	49	222	143	198	1230	861	81	53	42	35	29
12	53	52	207	156	187	894	645	121	52	39	34	30
13	52	50	183	176	182	929	504	122	52	32	46	30
14	57	52	164	166	190	983	417	113	50	35	40	35
15	57	54	1350	158	265	668	348	104	50	37	35	38
16	57	54	2780	156	630	522	300	98	48	37	32	34
17	55	58	1540	183	555	434	269	93	46	43	31	30
18	55	56	726	398	525	394	261	90	44	62	49	31
19	57	52	510	398	1360	388	245	90	43	69	36	68
20	59	51	1390	887	2590	388	226	89	43	101	33	77
21	58	50	1860	978	2540	356	209	88	47	269	30	78
22	59	52	1130	601	1440	318	199	88	46	199	28	57
23	56	51	682	354	1720	296	192	99	43	161	27	48
24	60	58	510	261	1730	305	183	95	41	112	26	42
25	63	136	538	205	1010	531	173	96	39	85	25	39
26	71	141	1120	152	644	678	166	93	38	67	24	37
27	97	145	1100	140	533	611	161	98	35	55	35	33
28	72	149	920	144	448	441	159	87	33	48	35	33
29	69	285	1260	148	392	375	156	82	38	43	30	30
30	79	303	1010	156	---	365	151	78	42	43	29	30
31	65	---	626	168	---	326	---	72	---	110	27	---
TOTAL	1780	2398	21673	8508	25871	20112	24372	3343	1478	2049	1245	1161
MEAN	57.4	79.9	699	274	892	649	812	108	49.3	66.1	40.2	38.7
MAX	97	303	2780	978	2590	2770	5110	151	69	269	106	78
MIN	45	46	143	140	182	296	151	67	33	32	24	26
CFSM	.08	.12	1.03	.40	1.31	.95	1.19	.16	.07	.10	.06	.06
IN.	.10	.13	1.18	.46	1.41	1.10	1.33	.18	.08	.11	.07	.06

CAL YR 1987 TOTAL 121437 MEAN 333 MAX 4280 MIN 25 CFSM .49 IN. 6.62
WTR YR 1988 TOTAL 113990 MEAN 311 MAX 5110 MIN 24 CFSM .46 IN. 6.22

03327000 MISSISSINAWA 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 mi².

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.--36 years, 707 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,000 ft³/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, 2,850 ft³/s Apr. 10; minimum daily, 36 ft³/s many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	575	401	650	768	478	465	50	110	89	44	111	36
2	574	400	435	418	325	464	52	110	89	44	111	36
3	572	383	252	292	707	464	53	110	89	44	97	58
4	570	369	190	303	1880	464	55	110	60	44	101	97
5	569	354	190	296	1970	464	57	110	68	36	106	111
6	567	320	232	202	1930	343	59	123	47	36	95	193
7	565	306	271	183	1260	300	65	132	47	36	80	233
8	563	305	270	183	652	713	782	132	47	36	69	239
9	562	304	270	183	577	1310	1840	144	47	36	56	239
10	560	304	271	184	398	1960	2850	154	47	36	47	238
11	558	302	293	163	190	2400	2310	97	47	36	47	238
12	556	301	329	183	200	2490	1120	88	47	36	56	238
13	554	300	329	183	249	1450	1110	158	47	36	58	238
14	552	299	282	161	249	492	766	181	47	36	52	238
15	514	298	434	132	249	496	507	181	47	36	51	237
16	469	296	618	132	651	497	433	181	47	36	47	237
17	467	328	1180	191	1070	497	290	137	47	36	47	237
18	466	350	2210	650	1230	497	245	110	47	36	47	236
19	465	348	2490	709	1230	833	245	110	47	36	90	236
20	463	346	1710	787	1240	800	180	110	47	36	79	283
21	462	312	614	937	1640	411	188	110	47	36	63	267
22	451	288	1160	937	1900	159	167	110	47	36	111	236
23	428	297	1910	937	1900	52	128	110	47	89	92	236
24	411	314	1800	697	2270	54	109	134	47	111	54	235
25	411	393	1000	331	2510	57	109	154	47	111	40	235
26	205	575	818	159	1750	59	109	134	47	83	74	235
27	351	636	1160	132	1260	61	109	132	47	69	92	235
28	510	542	1260	177	877	53	109	143	42	69	36	227
29	498	551	1260	213	465	48	110	143	42	57	55	234
30	465	663	1430	213	---	48	110	143	44	47	36	233
31	428	---	1240	280	---	49	---	104	---	90	36	---
TOTAL	15361	11185	26558	11316	31307	18450	14317	4005	1557	1550	2136	6271
MEAN	496	373	857	365	1080	595	477	129	51.9	50.0	68.9	209
MAX	575	663	2490	937	2510	2490	2850	181	89	111	111	283
MIN	205	288	190	132	190	48	50	88	42	36	36	36

CAL YR 1987 TOTAL 144124 MEAN 395 MAX 3870 MIN 45
WTR YR 1988 TOTAL 144013 MEAN 393 MAX 2850 MIN 36

03327500 WABASH RIVER AT PERU, IN

LOCATION.--Lat 40°44'35", long 86°05'45", in SE 1/4 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 mi².

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: Jan. 2-19, 25-30, Feb. 5-18, and Mar. 4-6. Records good except for estimated daily discharges, which are fair. Flow regulated by Huntington Lake, Salamonie Lake, and Mississinewa Lake.

AVERAGE DISCHARGE.--45 years, 2,350 ft³/s, 11.88 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 68,000 ft³/s May 18, 1943, gage height, 24.46 ft, from floodmark; minimum daily, 72 ft³/s Oct. 5, 1946.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 26, 1913, reached a stage of 28.1 ft, discharge, 115,000 ft³/s, from rating curve extended above 63,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,200 ft³/s Apr. 7, gage height, 11.59 ft; minimum daily, 123 ft³/s July 9, 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1280	914	3340	2750	2580	1640	1270	423	261	143	595	181
2	1260	984	2690	1400	3240	1520	1920	402	260	142	452	192
3	1290	988	2130	1150	3270	1500	2140	375	253	136	329	209
4	1290	864	1480	1100	6170	1400	4220	358	251	133	249	264
5	1240	845	1220	1000	4100	1200	2750	349	218	134	229	286
6	1320	794	1290	700	2800	1000	4550	349	215	134	225	305
7	1290	767	1400	600	1900	1150	13100	370	213	132	223	509
8	1260	1080	1710	550	1300	2180	7620	361	219	127	207	535
9	1230	1130	1920	530	1250	4660	7040	371	216	123	198	527
10	1190	857	2260	520	1050	6150	7000	380	212	127	191	492
11	1180	786	1740	520	650	7780	7660	369	208	133	206	481
12	1170	767	1620	560	600	6900	5470	320	198	130	208	477
13	1170	767	1860	560	740	4790	5200	356	184	129	209	480
14	1170	752	1610	520	780	2360	4420	407	184	123	196	548
15	1160	1470	3560	470	930	2180	2050	400	192	129	195	639
16	1070	1390	6370	460	1800	2110	1480	394	195	129	227	641
17	1020	1050	5490	700	3000	2060	1170	375	187	133	205	650
18	1010	997	6860	2500	3200	2020	1050	318	187	144	188	652
19	1030	814	7770	2200	4010	2500	1010	321	185	167	230	734
20	1040	819	7960	3910	5700	2210	944	323	177	336	249	819
21	1010	836	6880	4310	6590	1520	881	320	174	278	230	860
22	993	1300	5040	3790	6930	1210	883	305	170	197	235	786
23	969	997	5980	2410	9200	703	840	305	170	172	233	751
24	938	819	6350	1850	8510	1020	762	298	159	206	208	723
25	939	1370	4390	920	7140	3650	655	345	158	292	296	718
26	898	2740	3230	580	4250	5410	537	378	157	330	228	702
27	968	2230	3350	520	2890	2730	496	307	153	287	191	699
28	1000	2010	3520	550	2420	1690	478	287	154	249	182	693
29	1040	3180	4430	650	1640	1440	457	280	163	198	178	680
30	1000	3820	4830	700	---	1490	447	281	153	161	194	686
31	976	---	4150	1290	---	1340	---	272	---	200	188	---
TOTAL	34401	38137	116430	40270	98640	79513	88500	10699	5826	5454	7374	16919
MEAN	1110	1271	3756	1299	3401	2565	2950	345	194	176	238	564
MAX	1320	3820	7960	4310	9200	7780	13100	423	261	336	595	860
MIN	898	752	1220	460	600	703	447	272	153	123	178	181
CFSM	.41	.47	1.40	.48	1.27	.95	1.10	.13	.07	.07	.09	.21
IN.	.48	.53	1.61	.56	1.37	1.10	1.23	.15	.08	.08	.10	.23

CAL YR 1987 TOTAL 517127 MEAN 1417 MAX 8910 MIN 206 CFSM .53 IN. 7.16
WTR YR 1988 TOTAL 542163 MEAN 1481 MAX 13100 MIN 123 CFSM .55 IN. 7.51

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 mi².

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: Jan. 2-18, 26-30, and Feb. 5-22. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--20 years, 146 ft³/s, 12.47 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,390 ft³/s Feb. 24, 1985, gage height, 16.59 ft; minimum daily, 3.3 ft³/s Feb. 1, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 7	2300	*2,870	*13.16

Minimum daily discharge, 4.0 ft³/s Sept. 16, 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	12	109	178	386	127	393	41	18	10	13	5.1
2	9.6	12	106	120	558	130	627	40	17	8.8	8.6	6.0
3	8.8	12	91	115	423	135	532	39	17	8.5	7.1	8.8
4	8.8	12	77	110	274	127	487	38	16	8.0	6.7	61
5	9.0	12	63	60	140	106	336	37	16	7.6	6.4	20
6	9.2	11	54	40	72	103	969	36	15	7.3	6.5	9.6
7	9.4	11	86	37	64	128	2490	35	15	6.8	7.4	7.2
8	9.6	12	102	39	69	411	2230	34	15	6.5	6.4	7.0
9	9.6	12	131	41	70	579	1140	36	14	6.1	5.5	8.0
10	9.7	12	152	43	70	422	589	37	14	6.7	5.5	5.8
11	9.6	12	125	44	69	300	439	34	13	6.7	6.9	4.4
12	10	12	103	44	67	256	332	32	13	7.4	11	4.2
13	9.8	11	81	43	64	237	251	31	13	8.4	9.5	4.3
14	9.8	12	65	41	64	188	195	29	12	6.8	11	6.2
15	9.8	12	426	41	130	152	156	29	12	6.6	10	4.9
16	9.6	11	686	50	165	122	128	29	11	6.6	48	4.0
17	9.8	13	450	110	155	104	114	28	12	6.7	17	4.1
18	9.5	11	280	220	180	100	109	28	11	8.8	10	4.2
19	9.7	11	216	185	220	101	94	27	11	7.4	7.8	6.2
20	11	10	504	345	340	96	83	26	11	8.0	12	67
21	11	10	547	202	280	83	78	27	11	9.4	10	19
22	11	10	368	124	350	74	71	26	10	11	7.5	9.8
23	12	10	257	91	838	73	67	26	9.6	12	6.3	7.4
24	13	11	208	77	520	338	61	27	9.1	9.4	6.2	6.4
25	15	51	215	64	318	491	55	23	8.8	8.0	5.6	5.7
26	16	88	236	53	219	418	52	22	8.8	7.7	4.9	5.0
27	20	79	209	50	184	268	52	21	8.1	7.9	5.4	4.4
28	22	75	259	52	148	188	50	20	8.0	6.8	12	4.4
29	18	139	410	56	135	162	45	20	9.5	6.8	11	4.3
30	14	137	313	64	---	206	43	19	12	7.7	6.1	4.0
31	13	---	237	111	---	221	---	19	---	17	6.2	---
TOTAL	358.3	843	7166	2850	6572	6446	12268	916	370.9	253.4	297.5	318.4
MEAN	11.6	28.1	231	91.9	227	208	409	29.5	12.4	8.17	9.60	10.6
MAX	22	139	686	345	838	579	2490	41	18	17	48	67
MIN	8.8	10	54	37	64	73	43	19	8.0	6.1	4.9	4.0
CFSM	.07	.18	1.45	.58	1.43	1.31	2.57	.19	.08	.05	.06	.07
IN.	.08	.20	1.68	.67	1.54	1.51	2.87	.21	.09	.06	.07	.07

CAL YR 1987 TOTAL 29386.1 MEAN 80.5 MAX 699 MIN 7.7 CFSM .51 IN. 6.88
WTR YR 1988 TOTAL 38659.5 MEAN 106 MAX 2490 MIN 4.0 CFSM .66 IN. 9.04

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. 31 to Jan. 18, Jan. 25-29, and Feb. 4-21, 25-27. Records good except for estimated daily discharges, which are poor. Records include flow of Pony Creek.

AVERAGE DISCHARGE.--59 years, 365 ft³/s, 11.89 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 (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 15	2400	2,710	8.02	Apr. 7	1300	*4,360	*10.22
Dec. 20	2000	2,260	7.27				

Minimum daily discharge, 57 ft³/s July 7-9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	119	104	941	400	1230	287	696	203	101	66	238	63
2	98	98	701	370	895	284	797	193	99	64	139	63
3	85	91	514	330	608	287	780	188	107	63	101	64
4	77	88	573	250	360	269	1160	182	102	60	88	69
5	74	86	478	140	260	250	965	176	108	60	81	71
6	73	97	377	110	190	246	1340	172	97	58	87	65
7	73	86	448	110	180	256	4130	167	92	57	76	65
8	73	87	841	115	190	273	3350	164	89	57	69	63
9	71	100	1450	140	210	320	2770	167	88	57	67	63
10	72	100	1290	140	210	368	2280	164	85	61	67	63
11	79	90	800	150	205	336	1800	158	85	73	66	63
12	81	87	713	180	195	307	1220	152	83	66	65	63
13	78	86	553	170	180	329	895	148	83	62	65	63
14	74	84	430	155	190	320	711	143	78	69	64	63
15	72	81	1650	165	280	287	585	139	76	102	63	62
16	71	78	2370	190	620	264	502	137	79	74	64	59
17	69	82	1760	300	500	249	443	135	78	94	63	59
18	69	87	1160	1000	450	245	409	132	79	101	66	59
19	66	84	775	821	600	243	371	129	75	98	77	72
20	69	82	1770	1370	640	238	338	129	77	100	72	191
21	70	81	1950	1000	400	222	323	128	80	97	66	136
22	70	79	1420	551	619	209	303	122	74	88	64	97
23	70	79	873	390	1370	204	290	123	71	129	81	83
24	75	81	666	320	897	810	277	194	70	118	83	70
25	100	923	630	250	500	1860	260	166	69	93	67	65
26	103	1550	589	200	380	1870	251	140	65	90	65	65
27	204	885	504	190	330	1540	240	129	65	78	65	65
28	229	632	545	200	314	1030	234	120	66	70	65	65
29	156	1290	836	270	295	779	222	113	70	65	65	65
30	130	1170	634	481	---	916	213	107	68	67	64	65
31	110	---	480	737	---	877	---	103	---	424	63	---
TOTAL	2860	8548	28721	11195	13298	15975	28155	4623	2459	2761	2426	2179
MEAN	92.3	285	926	361	459	515	938	149	82.0	89.1	78.3	72.6
MAX	229	1550	2370	1370	1370	1870	4130	203	108	424	238	191
MIN	66	78	377	110	180	204	213	103	65	57	63	59
CFSM	.22	.68	2.22	.87	1.10	1.24	2.25	.36	.20	.21	.19	.17
IN.	.26	.76	2.56	1.00	1.19	1.43	2.51	.41	.22	.25	.22	.19

CAL YR 1987 TOTAL 115842 MEAN 317 MAX 2370 MIN 59 CFSM .76 IN. 10.33
WTR YR 1988 TOTAL 123200 MEAN 337 MAX 4130 MIN 57 CFSM .81 IN. 10.99

03328430 WEESAU CREEK NEAR DEEDSVILLE, IN

LOCATION.--Lat 40°54'34", long 86°07'36", in NW¼ 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 mi².

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: Oct. 17 to Nov. 9, Jan. 5-10, 17-19, 22-31, Feb. 4-10, 15, and Sept. 23-30. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--18 years, 9.94 ft³/s, 15.22 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 471 ft³/s Feb. 23, 1985, gage height, 7.01 ft; maximum gage height, 7.37 ft Mar. 13, 1982; minimum daily discharge, 0.26 ft³/s Feb. 1, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 15	1300	*192	*4.67

Minimum daily discharge, 0.33 ft³/s Sept. 10-14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	1.7	15	10	44	5.5	13	3.4	1.5	.90	.65	.59
2	1.7	1.7	12	7.9	20	5.3	14	3.2	1.5	.90	.57	.59
3	1.5	1.8	10	6.1	12	5.3	13	3.1	1.5	.90	.52	.59
4	1.4	1.8	9.6	5.0	7.2	5.2	12	3.1	1.4	.90	.55	.57
5	1.4	1.7	8.7	3.3	4.9	4.9	11	2.9	1.4	.90	.53	.52
6	1.4	1.9	7.8	2.4	3.7	4.7	41	2.9	1.4	.84	.59	.46
7	1.5	1.7	11	2.5	3.2	4.8	61	3.3	1.4	.81	.57	.40
8	1.4	1.8	19	2.7	3.3	5.1	24	3.1	1.3	.79	.52	.40
9	1.4	2.0	43	2.8	3.4	6.0	15	2.9	1.3	.73	.52	.36
10	1.4	1.8	16	3.1	3.2	6.6	14	2.9	1.3	.73	.52	.33
11	1.6	1.8	11	3.0	3.1	6.6	13	2.8	1.2	.73	.52	.33
12	1.6	1.7	11	2.8	3.0	6.3	12	2.7	1.2	.73	.49	.33
13	1.6	1.6	9.9	2.6	2.9	6.6	10	2.7	1.2	.73	.51	.33
14	1.5	1.5	8.7	2.3	2.9	6.2	8.8	2.6	1.2	.73	.46	.33
15	1.4	1.5	104	2.2	4.1	5.5	7.6	2.5	1.1	.73	.46	.35
16	1.4	1.4	63	2.1	13	4.7	6.8	2.4	1.1	.68	.46	.35
17	1.4	1.6	30	2.7	14	4.3	6.1	2.3	1.1	.73	.46	.44
18	1.3	1.5	17	5.8	16	4.0	5.9	2.2	1.1	.77	.46	.46
19	1.3	1.4	15	13	25	3.9	5.8	2.1	1.1	1.0	.45	.52
20	1.4	1.4	95	66	19	3.8	5.4	2.1	1.0	1.1	.49	.80
21	1.4	1.3	45	20	13	3.6	5.2	2.1	.99	1.0	.52	.76
22	1.3	1.3	22	8.8	38	3.4	5.0	2.0	.98	.93	.52	.55
23	1.3	1.3	14	6.3	41	3.3	4.8	11	.98	.90	1.3	.44
24	1.5	1.3	13	4.4	16	27	4.6	24	.98	.83	1.9	.42
25	2.0	62	14	3.7	13	49	4.3	7.0	.98	.75	1.3	.41
26	2.7	37	13	3.2	10	24	4.1	4.0	.98	.73	.86	.40
27	4.2	22	13	2.8	8.4	14	3.9	3.1	.98	.69	.79	.40
28	3.3	22	15	2.9	6.8	12	3.8	2.5	.98	.66	.73	.40
29	2.4	34	16	3.5	6.0	11	3.6	2.3	.98	.60	.73	.39
30	2.0	19	13	4.8	---	31	3.5	2.0	.92	.59	.73	.39
31	1.7	---	11	14	---	15	---	1.5	---	.64	.64	---
TOTAL	53.4	234.5	705.7	222.7	360.1	298.6	342.2	116.7	35.05	24.65	20.32	13.61
MEAN	1.72	7.82	22.8	7.18	12.4	9.63	11.4	3.76	1.17	.80	.66	.45
MAX	4.2	62	104	66	44	49	61	24	1.5	1.1	1.9	.80
MIN	1.3	1.3	7.8	2.1	2.9	3.3	3.5	1.5	.92	.59	.45	.33
CFSM	.19	.88	2.57	.81	1.40	1.09	1.29	.42	.13	.09	.07	.05
IN.	.22	.98	2.96	.93	1.51	1.25	1.44	.49	.15	.10	.09	.06

CAL YR 1987 TOTAL 2908.21 MEAN 7.97 MAX 122 MIN .68 CFSM .90 IN. 12.20
WTR YR 1988 TOTAL 2427.53 MEAN 6.63 MAX 104 MIN .33 CFSM .75 IN. 10.18

03328500 EEL RIVER NEAR LOGANSPOET, IN

LOCATION.--Lat 40°46'55", long 86°15'50", in NE 1/4 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 mi².

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: Jan. 1-19, 24-30, and Feb. 4-22. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--45 years, 746 ft³/s, 12.84 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,700 ft³/s Feb. 24, 1985, gage height, 12.68 ft; minimum daily, 70 ft³/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 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 16	0930	5,340	7.93	Apr. 8	0400	*7,270	*8.90
Jan. 18	1800	-----	a8.27				

Minimum daily discharge, 91 ft³/s Aug. 16, 18.

a Backwater from ice.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	443	256	1850	900	2360	595	1270	441	236	146	340	103
2	297	242	1570	760	2020	587	1310	430	229	136	308	107
3	247	227	1180	700	1420	593	1350	421	223	132	199	112
4	214	212	983	540	850	585	1570	417	227	124	149	132
5	194	202	984	310	500	541	1600	409	223	122	135	135
6	186	195	830	250	400	519	1710	403	217	117	140	130
7	179	192	776	235	380	538	5440	399	213	113	133	120
8	175	196	1240	250	400	586	6650	393	205	110	125	111
9	177	195	1960	300	440	658	4290	395	198	108	113	107
10	175	207	2690	310	440	718	3250	388	190	109	107	102
11	177	212	1780	310	430	683	2540	381	183	126	128	99
12	180	202	1310	360	410	638	1960	367	179	132	112	102
13	185	194	1170	380	370	640	1410	354	177	129	105	100
14	181	189	931	340	400	631	1140	341	170	117	98	99
15	180	187	2190	350	560	576	956	331	167	117	93	97
16	173	184	5050	420	1300	529	834	327	164	134	91	94
17	169	180	3570	550	1000	497	757	316	159	150	95	94
18	161	182	2450	2100	920	479	732	307	161	140	91	94
19	162	187	1660	1800	1270	477	677	295	163	167	113	107
20	163	183	2610	2680	1300	470	625	294	162	169	137	130
21	160	179	4060	2420	850	450	606	294	161	176	119	243
22	163	175	2830	1380	950	426	582	284	156	183	106	254
23	169	175	1960	928	2210	413	564	287	160	170	125	181
24	169	176	1400	620	1970	541	543	394	145	167	242	151
25	174	634	1240	510	1250	2290	518	440	140	195	191	135
26	207	3070	1210	420	901	3040	498	377	135	164	142	126
27	241	2230	1100	370	754	2360	489	319	128	151	121	120
28	406	1560	1070	400	679	1800	485	291	126	143	121	115
29	452	1920	1610	520	617	1280	471	275	139	127	115	110
30	345	2320	1430	750	---	1330	454	263	148	117	111	110
31	289	---	1120	1190	---	1520	---	248	---	138	107	---
TOTAL	6793	16463	55814	23353	27351	26990	45281	10881	5284	4329	4312	3720
MEAN	219	549	1800	753	943	871	1509	351	176	140	139	124
MAX	452	3070	5050	2680	2360	3040	6650	441	236	195	340	254
MIN	160	175	776	235	370	413	454	248	126	108	91	94
CFSM	.28	.70	2.28	.95	1.20	1.10	1.91	.44	.22	.18	.18	.16
IN.	.32	.78	2.63	1.10	1.29	1.27	2.13	.51	.25	.20	.20	.18

CAL YR 1987 TOTAL 219830 MEAN 602 MAX 5050 MIN 104 CFSM .76 IN. 10.36
WTR YR 1988 TOTAL 230571 MEAN 630 MAX 6650 MIN 91 CFSM .80 IN. 10.87

03329000 WABASH RIVER AT LOGANSPOET, 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 mi².

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: Jan. 1-20, 26-30, and Feb. 5-18. Records good except for estimated daily discharges, which are fair. Flow partially regulated by Huntington Lake, Salamonie Lake, and Mississinewa Lake.

AVERAGE DISCHARGE.--65 years (water years 1924 to current year), 3,307 ft³/s, 11.89 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 89,800 ft³/s May 18, 1943, gage height, 21.32 ft; minimum daily, 135 ft³/s Sept. 26, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 25.3 ft Mar. 26, 1913, from floodmarks, discharge, 140,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22,800 ft³/s Apr. 7, gage height, 10.60 ft; minimum daily, 228 ft³/s July 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1590	1180	5460	4000	4940	2360	2950	810	552	314	689	293
2	1480	1180	4620	2400	6110	2270	4030	790	534	290	985	302
3	1410	1250	3580	2000	4960	2220	4130	772	516	276	705	341
4	1460	1110	2710	1900	7230	2240	6210	757	515	263	535	418
5	1360	1080	2340	1500	5000	2100	5190	742	498	258	493	527
6	1420	1040	2170	1300	3500	1900	5800	733	465	253	452	493
7	1430	1000	2200	1000	2500	1760	21200	736	455	247	409	609
8	1390	1110	2980	940	1900	2560	18000	737	456	242	388	736
9	1360	1430	3880	920	1800	5630	13300	747	447	228	354	723
10	1320	1130	5070	920	1600	6820	11300	753	415	244	368	697
11	1320	1030	3950	920	1400	8650	11000	741	398	282	389	672
12	1310	1000	3000	950	1150	7930	8100	693	385	284	389	685
13	1310	995	3150	1000	1100	6450	7050	666	371	273	360	667
14	1300	988	2700	970	1300	3270	6210	710	354	255	347	675
15	1300	1290	5410	950	1600	2900	3690	714	354	244	341	787
16	1230	1680	12600	970	3300	2730	2560	709	353	257	359	816
17	1190	1260	9750	1200	4300	2610	2090	695	346	303	402	824
18	1160	1290	9500	5000	4500	2540	1870	634	344	306	379	822
19	1170	1060	9970	4400	5790	2820	1730	597	345	360	402	910
20	1210	1030	11400	7200	7710	2910	1620	593	349	450	457	1020
21	1160	1040	12400	7360	8230	2090	1470	593	341	683	436	1140
22	1150	1260	8620	5780	8270	1790	1430	564	328	515	405	1090
23	1140	1350	8380	3730	12200	1320	1390	578	370	428	455	937
24	1130	1070	8550	2900	11500	1710	1260	690	327	408	494	843
25	1120	1740	6400	2160	9250	5720	1180	747	305	498	492	798
26	1120	5480	5000	1300	6090	9150	1000	835	294	591	486	784
27	1190	4820	4850	920	4020	6100	936	732	279	552	362	773
28	1320	3780	5030	1100	3530	3940	907	656	270	496	332	775
29	1450	4680	6590	1200	2480	3030	873	620	318	413	310	757
30	1330	6420	6990	1500	---	3100	840	601	344	326	304	769
31	1270	---	6060	2450	---	3270	---	584	---	355	323	---
TOTAL	40100	54773	185310	70840	137260	113890	149316	21529	11628	10894	13602	21683
MEAN	1294	1826	5978	2285	4733	3674	4977	694	388	351	439	723
MAX	1590	6420	12600	7360	12200	9150	21200	835	552	683	985	1140
MIN	1120	988	2170	920	1100	1320	840	564	270	228	304	293
CFSM	.34	.48	1.58	.60	1.25	.97	1.32	.18	.10	.09	.12	.19
IN.	.39	.54	1.82	.70	1.35	1.12	1.47	.21	.11	.11	.13	.21

CAL YR 1987 TOTAL 785537 MEAN 2152 MAX 12600 MIN 260 CFSM .57 IN. 7.73
WTR YR 1988 TOTAL 830825 MEAN 2270 MAX 21200 MIN 228 CFSM .60 IN. 8.18

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: Nov. 1-24, Jan. 1-19, 22-30, Feb. 5-15, and Aug. 26 to Sept. 30. Records fair except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--20 years, 6.66 ft³/s, 13.24 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 456 ft³/s June 5, 1981, gage height, 5.12 ft; maximum gage height, 5.30 ft June 14, 1975; minimum daily discharge, 0.06 ft³/s Sept. 11-18, 27-30, 1988.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 15	1000	*111	3.97

Minimum daily discharge, 0.06 ft³/s Sept. 11-18, 27-30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.1	9.1	9.0	27	5.5	21	2.8	1.5	.80	.29	.08
2	1.1	1.1	7.4	6.8	16	5.7	21	2.8	1.4	.76	.26	.07
3	.99	1.0	5.9	6.4	11	5.7	16	2.6	1.4	.74	.29	.07
4	.89	1.0	4.8	5.5	8.4	5.3	12	2.6	1.4	.70	.26	.10
5	.91	.99	4.1	3.5	5.4	5.0	9.8	2.5	1.4	.66	.27	.09
6	.90	.98	3.5	2.3	4.0	5.4	26	2.4	1.4	.64	.29	.08
7	.91	.98	13	2.1	3.7	6.4	22	2.4	1.3	.66	.24	.08
8	.85	.99	17	2.2	3.9	7.3	13	2.5	1.3	.69	.19	.07
9	.87	.98	18	2.3	4.0	7.6	10	2.6	1.3	.69	.31	.07
10	.86	.97	12	2.4	3.9	6.7	8.5	2.4	1.2	.98	.48	.07
11	.91	.97	9.2	2.4	3.8	6.2	7.3	2.3	1.2	.83	.37	.06
12	.89	.96	7.5	2.5	3.7	6.1	6.2	2.4	1.2	.68	.25	.06
13	.88	.96	5.9	2.5	3.6	5.3	5.6	2.3	1.1	.66	.22	.06
14	.85	.96	5.3	2.5	3.7	5.0	5.2	2.1	1.1	.64	.19	.06
15	.81	.96	61	2.5	10	4.7	4.8	2.2	1.0	.56	.15	.06
16	.80	.96	31	2.7	8.8	4.3	4.5	2.1	1.0	.54	.15	.06
17	.84	1.1	18	4.1	10	4.2	4.7	2.0	1.0	.53	.12	.06
18	.86	1.1	13	6.0	11	4.3	4.6	2.0	.99	.59	.12	.06
19	.84	1.0	15	10	17	4.2	4.2	2.0	.91	.53	.15	.08
20	.99	.99	62	32	15	4.0	4.1	2.0	.90	.52	.15	.13
21	.98	.98	28	11	9.7	3.7	3.9	1.9	.87	.51	.13	.12
22	.94	.97	19	6.2	14	3.7	3.8	1.9	.86	.45	.12	.09
23	.96	.96	14	5.0	16	3.7	3.7	2.1	.86	.42	.17	.07
24	1.0	.96	13	4.5	10	11	3.3	2.4	.83	.41	.12	.07
25	.97	17	13	4.0	7.9	19	3.4	1.9	.86	.38	.10	.07
26	1.1	9.4	11	3.0	6.9	14	3.4	1.9	.86	.35	.09	.07
27	1.4	5.3	10	2.8	6.1	9.5	3.4	1.8	.87	.33	.09	.06
28	1.3	11	34	2.9	5.8	8.6	3.1	1.7	.87	.30	.08	.06
29	1.2	16	28	3.1	5.5	16	2.9	1.6	.94	.26	.08	.06
30	1.2	11	18	5.0	---	47	2.9	1.5	.89	.27	.08	.06
31	1.1	---	14	23	---	23	---	1.5	---	.29	.08	---
TOTAL	30.40	93.62	524.7	180.2	255.8	268.1	244.3	67.2	32.71	17.37	5.89	2.20
MEAN	.98	3.12	16.9	5.81	8.82	8.65	8.14	2.17	1.09	.56	.19	.073
MAX	1.4	17	62	32	27	47	26	2.8	1.5	.98	.48	.13
MIN	.80	.96	3.5	2.1	3.6	3.7	2.9	1.5	.83	.26	.08	.06
CFSM	.14	.46	2.48	.85	1.29	1.27	1.19	.32	.16	.08	.03	.01
IN.	.17	.51	2.86	.98	1.39	1.46	1.33	.37	.18	.09	.03	.01
CAL YR 1987	TOTAL 1520.55	MEAN 4.17	MAX 62	MIN .31	CFSM .61	IN. 8.28						
WTR YR 1988	TOTAL 1722.49	MEAN 4.71	MAX 62	MIN .06	CFSM .69	IN. 9.38						

03329700 DEER CREEK NEAR DELPHI, IN

LOCATION.--Lat 40°35'25", long 86°37'15", in NE 1/4 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 mi².

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: Jan. 2-18, 26-30, and Feb. 5-15. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--45 years, 239 ft³/s, 11.85 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,400 ft³/s June 10, 1958, gage height, 18.26 ft; minimum daily, 6.2 ft³/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 ft³/s, from rating curve extended above 8,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 8	0745	*2,750	*7.23

Minimum daily discharge, 12 ft³/s Aug. 31, Sept. 1, 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	104	50	272	375	652	256	540	122	51	25	47	12
2	77	49	266	265	865	258	1180	119	50	25	36	13
3	64	48	235	255	638	269	888	116	49	24	31	14
4	55	47	205	220	444	262	877	113	47	23	26	16
5	51	46	183	150	250	229	675	111	46	21	25	16
6	49	45	164	95	170	219	750	108	44	20	25	15
7	48	45	273	82	145	250	2210	105	42	19	22	15
8	46	46	558	85	150	598	2390	102	42	19	20	16
9	44	45	530	92	160	856	1080	110	42	18	20	15
10	42	45	504	95	160	662	726	107	41	21	22	14
11	43	45	390	97	155	490	559	102	39	26	26	13
12	42	44	324	98	150	423	448	96	38	23	22	14
13	42	45	263	98	140	383	369	93	36	23	19	16
14	40	44	224	93	145	329	321	90	35	22	18	14
15	40	45	931	91	210	283	281	88	34	21	26	14
16	39	44	1550	110	368	244	249	86	33	19	56	13
17	38	49	850	190	315	219	231	84	33	18	30	13
18	38	48	560	450	357	211	225	81	33	24	21	12
19	38	47	453	402	445	211	204	78	32	28	20	19
20	41	50	1110	571	664	204	187	77	31	27	17	25
21	40	46	1190	444	506	186	182	76	30	34	16	18
22	39	45	750	275	456	170	176	73	29	38	15	17
23	40	46	554	214	1150	168	168	76	28	28	15	19
24	44	50	466	187	913	392	158	87	27	25	14	21
25	45	160	468	162	561	935	147	75	26	23	14	19
26	45	298	462	120	406	1040	143	69	25	22	13	16
27	50	225	420	110	344	603	143	64	23	20	13	15
28	52	213	543	115	292	427	142	60	23	19	14	14
29	54	361	787	120	271	371	133	58	24	18	13	14
30	54	344	605	140	---	444	126	56	25	22	13	14
31	52	---	482	258	---	456	---	53	---	89	12	---
TOTAL	1496	2715	16572	6059	11482	12048	15908	2735	1058	784	681	466
MEAN	48.3	90.5	535	195	396	389	530	88.2	35.3	25.3	22.0	15.5
MAX	104	361	1550	571	1150	1040	2390	122	51	89	56	25
MIN	38	44	164	82	140	168	126	53	23	18	12	12
CFSM	.18	.33	1.95	.71	1.45	1.42	1.94	.32	.13	.09	.08	.06
IN.	.20	.37	2.25	.82	1.56	1.64	2.16	.37	.14	.11	.09	.06

CAL YR 1987 TOTAL 56043 MEAN 154 MAX 1550 MIN 21 CFSM .56 IN. 7.61
WTR YR 1988 TOTAL 72004 MEAN 197 MAX 2390 MIN 12 CFSM .72 IN. 9.78

03330241 TIPPECANOE RIVER AT NORTH WEBSTER, IN

LOCATION.--Lat 41°18'58", long 85°41'32", in SE 1/4 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 mi².

PERIOD OF RECORD.--May 1986 to current year.

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 fair prior to May 22, poor thereafter. Flow regulated at times by dams at Webster Lake, 0.25 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 294 ft³/s June 5, 1986, gage height, 5.64 ft; minimum daily, 0.06 ft³/s Aug. 18, 1988, regulation.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 158 ft³/s Dec. 21, gage height, 5.19 ft; minimum daily, 0.06 ft³/s Aug. 18, regulation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	38	26	89	86	61	111	23	4.5	4.4	3.6	5.4
2	47	37	26	88	85	61	111	18	5.3	2.1	2.6	5.9
3	43	36	27	87	85	60	110	20	4.3	2.1	2.4	7.3
4	25	35	27	86	85	59	107	22	5.8	4.4	2.4	8.2
5	13	35	28	84	85	59	105	22	5.3	11	2.5	8.3
6	15	34	29	82	83	52	106	23	4.6	13	2.6	8.1
7	15	23	31	79	81	39	114	23	4.0	5.9	2.1	7.8
8	12	15	40	77	80	39	123	24	2.8	3.2	2.0	7.2
9	9.3	13	60	75	78	39	125	24	3.7	3.2	1.9	6.9
10	8.2	10	58	45	76	39	127	23	7.5	4.3	2.1	5.3
11	8.7	7.1	58	24	75	38	127	23	4.3	5.3	1.9	3.4
12	8.8	6.5	57	23	73	38	126	22	2.1	3.2	1.6	2.4
13	9.7	5.7	56	21	71	38	123	16	2.1	1.7	1.1	3.7
14	11	6.1	55	20	69	38	121	16	2.5	2.0	.67	4.1
15	18	17	59	19	69	35	117	16	2.7	2.8	.59	4.7
16	32	29	60	19	67	23	95	16	2.9	1.7	.40	5.0
17	32	29	63	20	64	23	75	16	3.2	1.5	.11	5.2
18	31	28	65	30	56	23	64	20	2.3	1.3	.06	7.1
19	29	27	67	41	57	23	63	21	2.1	2.3	.28	9.1
20	24	27	105	43	58	22	63	22	2.0	1.5	.39	8.9
21	20	27	157	42	58	22	49	30	3.2	2.2	.70	8.1
22	17	26	153	42	59	22	33	13	2.8	2.5	2.7	7.9
23	17	26	151	43	60	22	34	1.2	2.3	3.6	3.0	10
24	18	25	147	43	61	25	33	3.0	1.1	2.7	2.6	6.0
25	18	26	144	43	62	26	33	4.9	1.3	4.2	2.9	5.7
26	19	26	139	44	62	56	33	1.3	.70	6.7	2.5	6.8
27	21	26	134	44	62	97	33	1.3	1.1	9.6	2.9	8.7
28	21	26	133	44	62	99	33	2.5	3.1	9.7	3.3	6.6
29	21	26	130	44	62	101	32	3.1	.75	5.9	3.0	5.3
30	21	26	126	56	---	106	32	3.7	1.9	6.3	2.8	6.7
31	35	---	116	86	---	112	---	4.6	---	5.0	4.3	---
TOTAL	642.7	718.4	2527	1583	2031	1497	2458	478.6	92.25	135.3	62.00	195.8
MEAN	20.7	23.9	81.5	51.1	70.0	48.3	81.9	15.4	3.07	4.36	2.00	6.53
MAX	47	38	157	89	86	112	127	30	7.5	13	4.3	10
MIN	8.2	5.7	26	19	56	22	32	1.2	.70	1.3	.06	2.4
CFSM	.42	.49	1.65	1.04	1.42	.98	1.66	.31	.06	.09	.04	.13
IN.	.48	.54	1.91	1.19	1.53	1.13	1.85	.36	.07	.10	.05	.15

CAL YR 1987 TOTAL 14691.1 MEAN 40.2 MAX 184 MIN 2.2 CFSM .82 IN. 11.09
WTR YR 1988 TOTAL 12421.05 MEAN 33.9 MAX 157 MIN .06 CFSM .69 IN. 9.37

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 mi².

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 above 30 ft³/s, fair below. Periodic regulation by gates at lake outlet.

AVERAGE DISCHARGE.--39 years, 103 ft³/s, 12.38 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 950 ft³/s Mar. 21, 1982, gage height, 9.25 ft; minimum daily, 0.08 ft³/s Aug. 4, 5, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 304 ft³/s Apr. 11, gage height, 7.55 ft; minimum daily, 8.3 ft³/s Aug. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	36	128	253	136	154	236	66	27	14	9.2	13
2	39	37	128	240	146	150	243	65	26	14	8.5	12
3	41	37	130	228	155	146	246	64	25	14	8.3	12
4	42	39	131	214	162	141	247	63	25	14	9.6	13
5	41	45	130	203	165	136	246	55	23	13	10	14
6	42	45	130	193	167	131	254	31	22	13	9.7	14
7	42	45	132	182	167	127	268	31	22	13	9.1	15
8	42	45	134	172	166	122	277	32	22	13	9.3	16
9	41	45	140	163	163	119	289	31	21	12	9.7	16
10	47	43	150	153	160	117	298	32	20	12	9.4	16
11	61	45	158	139	159	114	302	34	19	12	11	16
12	57	57	163	125	156	112	298	35	18	11	13	16
13	53	53	168	114	152	112	292	35	18	11	12	16
14	52	59	171	103	148	111	284	50	18	11	11	16
15	50	60	186	93	150	111	274	57	17	12	11	16
16	48	58	200	85	151	106	264	51	17	11	11	15
17	47	56	211	84	151	102	246	34	17	11	11	15
18	45	55	222	89	151	98	234	33	17	11	11	15
19	44	43	231	93	152	95	218	33	16	11	12	15
20	44	15	246	100	154	93	204	33	16	11	12	16
21	43	15	264	108	154	89	193	33	16	11	12	17
22	41	15	278	113	154	85	180	33	16	11	12	17
23	41	16	288	117	157	81	163	33	16	9.7	12	17
24	40	16	293	119	159	93	93	35	15	8.8	12	17
25	39	41	294	120	162	109	62	34	14	8.7	12	17
26	38	93	291	119	161	128	63	33	14	9.5	12	17
27	38	108	286	118	162	151	65	32	15	11	12	17
28	37	113	286	115	159	175	66	29	15	10	12	17
29	36	120	281	113	157	195	66	27	15	10	12	16
30	36	125	274	111	---	215	66	27	15	10	13	16
31	36	---	266	121	---	228	---	27	---	9.7	13	---
TOTAL	1341	1580	6390	4300	4536	3946	6237	1208	557	353.4	341.8	465
MEAN	43.3	52.7	206	139	156	127	208	39.0	18.6	11.4	11.0	15.5
MAX	61	125	294	253	167	228	302	66	27	14	13	17
MIN	36	15	128	84	136	81	62	27	14	8.7	8.3	12
CFSM	.38	.47	1.82	1.23	1.38	1.13	1.84	.34	.16	.10	.10	.14
IN.	.44	.52	2.10	1.42	1.49	1.30	2.05	.40	.18	.12	.11	.15

CAL YR 1987 TOTAL 34585 MEAN 94.8 MAX 294 MIN 15 CFSM .84 IN. 11.39
WTR YR 1988 TOTAL 31255.2 MEAN 85.4 MAX 302 MIN 8.3 CFSM .76 IN. 10.29

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 mi².

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: Jan. 2-7, 10, 11, 14, 23-28, and Feb. 5-14. Records good except for estimated daily discharges and those below 2 ft³/s, which are poor. Flow occasionally regulated by lakes upstream.

AVERAGE DISCHARGE.--19 years, 17.7 ft³/s, 12.26 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 561 ft³/s June 13, 1981, gage height, 5.38 ft; minimum daily, 0.44 ft³/s Sept. 8, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 75 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 15	1300	86	2.71	Apr. 6	1900	*92	*2.77
Dec. 20	1000	81	2.66				

Minimum daily discharge, 0.67 ft³/s Aug. 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	7.9	32	31	46	18	41	11	3.1	1.6	.99	1.3
2	4.5	6.8	29	22	44	17	39	10	3.0	1.7	.92	1.4
3	4.1	5.8	26	17	38	17	37	9.9	3.0	2.4	.87	2.2
4	3.8	5.4	25	15	32	17	35	9.8	3.0	2.5	.83	3.8
5	3.3	5.0	22	16	22	16	32	9.5	3.0	2.3	.87	3.4
6	3.2	4.4	20	17	17	14	58	9.1	3.0	2.0	.93	2.4
7	3.2	4.1	20	14	13	14	86	8.1	2.9	1.7	.81	2.0
8	3.2	3.9	23	13	14	16	81	7.1	2.8	1.6	.76	1.9
9	3.2	3.7	33	11	13	17	71	6.8	2.8	1.5	.78	1.7
10	3.2	3.6	36	7.9	11	17	50	6.7	2.6	1.6	.83	1.6
11	3.5	3.4	31	7.6	9.8	16	42	6.6	2.6	1.8	.92	1.6
12	3.5	3.2	27	7.8	9.3	15	35	6.4	2.4	1.6	.89	1.5
13	3.3	2.9	24	7.7	9.0	17	30	6.4	2.3	1.5	.82	1.5
14	3.3	2.7	21	7.2	9.2	17	27	6.4	2.3	2.5	.75	1.4
15	3.1	2.5	60	7.2	24	16	24	6.3	2.3	2.1	.71	1.3
16	3.0	2.2	77	6.8	32	14	22	6.1	2.2	1.9	.71	1.2
17	2.7	2.0	68	11	30	14	20	6.0	2.2	2.2	.67	1.2
18	2.6	1.8	53	29	29	13	19	5.8	2.2	1.8	.69	1.1
19	2.5	1.7	43	31	30	13	17	5.5	2.1	1.7	1.4	1.3
20	2.6	1.9	72	35	34	12	16	5.5	2.2	1.8	1.3	1.6
21	2.9	2.1	77	34	30	12	16	5.5	2.3	1.9	1.3	1.4
22	3.1	2.2	65	27	31	11	16	5.1	2.1	1.8	1.3	1.5
23	3.4	2.5	52	20	47	10	15	4.8	2.0	1.7	1.5	1.6
24	4.0	2.6	44	16	43	42	15	5.6	1.9	1.6	1.5	1.4
25	4.8	1.9	41	14	34	68	14	4.8	1.8	1.5	1.5	1.4
26	5.2	3.7	37	13	27	65	16	4.3	1.7	1.5	1.5	1.3
27	9.6	3.3	33	12	25	52	15	4.0	1.6	1.3	1.5	1.2
28	13	2.9	33	11	21	42	14	3.7	1.6	1.2	1.6	1.2
29	11	3.2	37	12	19	39	12	3.5	1.6	1.1	1.5	1.1
30	9.2	3.3	35	20	---	47	11	3.4	1.6	1.1	1.4	1.1
31	8.4	---	34	33	---	46	---	3.2	---	1.1	1.4	---
TOTAL	141.6	267.3	1230	526.2	743.3	744	926	196.9	70.2	53.6	33.45	48.6
MEAN	4.57	8.91	39.7	17.0	25.6	24.0	30.9	6.35	2.34	1.73	1.08	1.62
MAX	13	37	77	35	47	68	86	11	3.1	2.5	1.6	3.8
MIN	2.5	1.7	20	6.8	9.0	10	11	3.2	1.6	1.1	.67	1.1
CFSM	.23	.45	2.02	.87	1.31	1.22	1.57	.32	.12	.09	.06	.08
IN.	.27	.51	2.33	1.00	1.41	1.41	1.76	.37	.13	.10	.06	.09

CAL YR 1987 TOTAL 5242.1 MEAN 14.4 MAX 77 MIN 1.4 CFSM .73 IN. 9.95
WTR YR 1988 TOTAL 4981.15 MEAN 13.6 MAX 86 MIN .67 CFSM .69 IN. 9.45

03331500 TIPPECANOE RIVER NEAR ORA, IN

LOCATION.--Lat 41°09'26", long 86°33'49", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ 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 mi².

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: Jan. 1-21, 24-30, and Feb. 5-18. Records good below 1,000 ft³/s and fair above except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--45 years, 837 ft³/s, 13.28 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,660 ft³/s June 15, 1981, gage height, 15.08 ft; minimum daily, 87 ft³/s Sept. 13, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 22	1200	*2,650	*11.06	Apr. 8	1700	2,580	10.97
Jan. 20	1700	----	a*11.06				

Minimum daily discharge, 133 ft³/s Sept. 2.

a Backwater from ice.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	322	384	944	1300	1680	902	1920	625	337	190	143	136
2	323	362	943	1200	1950	874	1720	597	327	186	146	133
3	317	349	907	1150	1750	858	1640	569	319	178	143	140
4	307	339	879	1100	1520	837	1580	549	309	174	139	169
5	298	331	850	700	950	805	1490	529	300	169	144	211
6	294	349	800	550	680	787	1480	517	291	165	161	229
7	295	349	781	550	640	773	2010	502	284	160	160	247
8	298	333	828	570	700	768	2510	491	274	155	157	227
9	296	329	920	600	760	791	2430	481	265	156	151	199
10	294	322	1020	610	770	809	2200	475	257	174	161	185
11	297	319	988	620	750	798	2050	471	250	190	185	174
12	297	318	968	630	650	786	1900	454	246	193	180	167
13	297	314	948	620	620	784	1710	434	242	186	184	163
14	306	307	905	610	620	768	1520	428	235	183	174	159
15	307	310	1080	600	800	743	1390	423	226	178	164	160
16	302	313	1770	650	1300	719	1270	420	220	180	153	156
17	298	316	2150	800	1200	702	1180	418	216	203	146	152
18	292	318	1950	1100	1280	688	1130	415	215	197	136	150
19	285	316	1700	1500	1320	678	1070	407	213	204	149	162
20	296	314	1830	2100	1390	661	1020	395	218	211	156	182
21	302	314	2330	2200	1320	643	991	388	243	217	162	179
22	299	307	2620	1530	1200	628	958	379	235	205	166	188
23	305	291	2400	1210	1330	617	935	373	222	202	154	193
24	318	273	2070	900	1410	740	897	430	207	190	153	181
25	342	368	1900	720	1270	1270	856	476	198	181	149	171
26	354	638	1830	640	1160	1530	814	469	191	179	152	167
27	365	712	1720	600	1090	1500	776	459	187	167	145	163
28	378	723	1600	600	1010	1410	741	424	184	159	146	158
29	423	817	1620	650	946	1460	697	399	192	151	145	152
30	433	934	1640	900	---	1720	660	375	198	143	147	150
31	417	---	1550	1250	---	2010	---	353	---	142	145	---
TOTAL	9957	11969	44441	28760	32066	29059	41545	14125	7301	5568	4796	5203
MEAN	321	399	1434	928	1106	937	1385	456	243	180	155	173
MAX	433	934	2620	2200	1950	2010	2510	625	337	217	185	247
MIN	285	273	781	550	620	617	660	353	184	142	136	133
CFSM	.38	.47	1.67	1.08	1.29	1.10	1.62	.53	.28	.21	.18	.20
IN.	.43	.52	1.93	1.25	1.39	1.26	1.81	.61	.32	.24	.21	.23

CAL YR 1987 TOTAL 252990 MEAN 693 MAX 2620 MIN 250 CFSM .81 IN. 10.99
WTR YR 1988 TOTAL 234790 MEAN 642 MAX 2620 MIN 133 CFSM .75 IN. 10.20

03332345 TIPPECANOE RIVER AT BUFFALO, IN

LOCATION.--Lat 40°53'05", long 86°44'49", in SE¼SE¼ sec.10, T.28 N., R.3 W., White County, Hydrologic Unit 05120106, on right bank approximately 30 ft upstream from State Road 16 bridge at Buffalo, 0.2 mi downstream from Harp ditch, 10.8 mi upstream from Norway dam.

DRAINAGE AREA.--1,284 mi².

PERIOD OF RECORD.--April 1986 to current year.

GAGE.--Water-stage recorder. Datum of gage is 640.000 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Stage possibly affected by backwater from Norway dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 14.13 ft Jan. 20, 1988; minimum gage height, 6.98 ft Sept. 30, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 14.13 ft Jan. 20, 1988; minimum gage height, 7.72 ft Sept. 18, 1988.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.23	8.10	8.75	9.56	10.10	8.76	10.10	8.37	7.92	7.88	7.88	7.82
2	8.04	8.04	8.74	12.16	10.10	8.72	9.96	8.34	7.97	7.85	7.89	7.96
3	8.11	8.14	8.65	12.47	9.92	8.72	9.85	8.26	7.90	7.84	7.92	7.84
4	8.07	8.07	8.68	11.00	9.66	8.66	9.76	8.26	7.92	7.83	7.85	7.97
5	8.02	7.97	8.62	9.80	10.78	8.64	9.60	8.24	7.89	7.85	7.93	7.93
6	8.02	8.06	8.54	9.60	11.15	8.70	10.4	8.21	7.89	7.81	7.87	7.99
7	8.06	8.03	8.73	9.66	10.41	8.62	10.49	8.20	8.02	7.86	7.93	8.02
8	8.06	7.94	8.90	9.66	10.16	8.62	10.40	8.23	8.00	7.84	7.84	7.99
9	7.86	8.04	8.98	9.56	10.19	8.62	10.36	8.22	8.00	7.74	7.81	7.96
10	8.06	7.98	8.90	9.47	9.96	8.62	10.16	8.12	8.07	7.96	7.95	7.85
11	7.94	8.04	8.89	9.40	9.38	8.68	10.02	8.14	8.03	7.86	7.97	7.91
12	7.98	8.12	8.78	9.49	9.40	8.76	9.78	8.18	7.93	7.95	7.81	7.82
13	8.01	7.99	8.73	9.38	9.10	8.65	9.63	8.07	7.97	8.04	7.88	7.90
14	8.03	8.04	8.64	9.22	9.31	8.56	9.44	8.02	7.99	7.88	7.89	7.91
15	8.08	8.08	10.23	9.09	10.50	8.55	9.32	8.15	7.93	7.98	7.90	7.90
16	7.96	7.99	10.13	9.11	10.35	8.50	9.15	8.06	7.91	7.93	7.90	7.85
17	7.97	7.99	10.08	9.33	10.64	8.45	9.10	8.14	7.91	7.92	7.92	7.88
18	7.97	7.98	10.00	9.82	10.72	8.41	8.98	8.11	7.97	7.85	8.00	7.81
19	7.96	8.01	9.93	10.50	9.91	8.46	8.94	8.06	7.97	7.91	7.94	8.00
20	8.05	8.01	11.12	13.05	9.55	8.42	8.89	8.02	7.98	7.97	7.90	7.98
21	8.08	8.03	10.58	10.62	9.48	8.36	8.81	7.99	8.02	7.84	7.85	7.96
22	8.00	8.10	10.50	10.03	9.36	8.35	8.81	7.98	7.94	7.85	7.90	7.91
23	8.01	8.07	10.41	9.30	9.46	8.32	8.66	8.08	7.89	7.86	7.93	7.86
24	7.96	8.00	10.22	9.02	9.45	8.81	8.62	8.01	7.93	7.88	7.83	7.86
25	8.10	8.21	10.07	9.00	9.31	9.43	8.61	8.12	7.92	7.88	7.81	7.80
26	8.07	8.38	9.90	11.34	9.12	9.49	8.66	8.11	7.89	7.85	7.84	7.84
27	8.17	8.51	9.78	10.72	9.01	9.46	8.56	8.10	7.86	7.92	7.87	7.88
28	8.11	8.55	10.0	10.40	8.89	9.44	8.46	8.08	7.81	7.89	7.89	7.81
29	8.17	8.67	9.92	10.59	8.88	9.66	8.45	8.02	7.82	7.85	7.92	7.84
30	8.13	8.72	9.86	9.55	---	10.47	8.45	8.00	7.86	7.80	7.91	7.90
31	8.14	---	9.73	10.05	---	10.16	---	7.95	---	7.88	7.83	---
MEAN	8.05	8.13	9.52	10.06	9.80	8.84	9.35	8.12	7.94	7.88	7.89	7.90
MAX	8.23	8.72	11.12	13.05	11.15	10.47	10.49	8.37	8.07	8.04	8.00	8.02
MIN	7.86	7.94	8.54	9.00	8.88	8.32	8.45	7.95	7.81	7.74	7.81	7.80

WTR YR 1988 MEAN 8.62 MAX 13.05 MIN 7.74

03333050 TIPPECANOE RIVER NEAR DELPHI, IN

LOCATION.--Lat 40°35'38", long 86°46'12", in SW¼SW¼ sec.21, T.25 N., R.3 W., Carroll County, Hydrologic Unit 05120106, on left bank 20 ft upstream from bridge on State Highway 18, 1,400 ft east of Springboro, 8.1 mi downstream from Big Creek, 5 mi west of Delphi, and at mile 8.7.

DRAINAGE AREA.--1,869 mi².

PERIOD OF RECORD.--March to December 1903, March to December 1904, March 1905 to July 1906, November and December 1908, July 1939 to September 1987, October 1987 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 535.00 ft above National Geodetic Vertical Datum of 1929. Mar. 14, 1903, to July 20, 1906, and Nov. 2 to Dec. 31, 1908, nonrecording gage at present site at different datum. July 1939 to Sept. 30, 1987, at site 6.4 mi upstream at datum 17.01 ft higher.

REMARKS.--Estimated daily discharges: Jan. 5-11, 27-29, and Feb. 5-9, 13, 14. Records good. Flow regulated by upstream reservoirs.

AVERAGE DISCHARGE.--49 years (water years 1940 to current year), 1,681 ft³/s, 12.21 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,600 ft³/s Feb. 10, 1959, gage height, 15.10 ft at site then in use; minimum daily, 1.0 ft³/s Nov. 2, 3, 1954, caused by repair work at Oakdale Dam, 10.2 mi upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,270 ft³/s Dec. 21, gage height, 7.19 ft; minimum daily, 131 ft³/s Aug. 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	789	795	2230	3450	5570	2180	5110	1240	703	569	299	262
2	819	963	2100	2550	4750	1940	4760	1470	664	318	298	267
3	827	537	1840	2570	4420	2120	4560	1150	772	309	276	334
4	744	821	1800	2510	3550	1700	4240	1220	521	413	244	402
5	539	857	1760	1500	3000	1860	3790	1150	784	419	131	536
6	706	513	1750	1200	1800	1870	4630	1170	501	278	249	267
7	600	697	1540	1200	1400	1820	6330	1020	499	306	319	264
8	589	591	2880	1250	1600	1790	5320	932	737	306	270	435
9	864	895	3070	1400	1400	2190	4750	1180	465	306	400	433
10	596	491	3240	1550	2010	1920	4340	1080	425	322	606	498
11	872	638	2660	1500	2230	1890	3880	946	524	387	531	272
12	457	754	2490	1400	1570	1970	3690	985	550	380	251	460
13	648	737	2530	1810	1500	1840	3230	1050	462	299	434	273
14	473	465	2010	1430	1350	1860	3260	777	578	442	291	268
15	768	731	4150	1430	2750	1530	2880	1050	457	362	269	272
16	773	536	6710	1130	3400	1450	2560	822	459	373	269	320
17	470	638	5200	1550	3150	1660	2280	888	352	351	265	546
18	625	756	4540	2140	3390	1460	2480	916	488	417	259	293
19	778	463	4140	2220	3690	1490	2300	854	363	444	421	306
20	469	795	6480	4210	3900	1450	2060	770	527	307	283	566
21	680	463	7370	4290	3240	1270	2050	854	457	403	380	468
22	644	525	5610	3880	3070	1260	2000	753	405	386	265	391
23	632	762	5150	3260	3560	1260	2010	865	590	438	338	324
24	883	761	4830	2260	3390	2410	1890	1110	326	501	271	329
25	589	1090	4550	2090	2890	3380	1480	780	481	300	351	315
26	693	1910	4260	1520	2630	4220	1760	1080	324	299	295	349
27	943	1610	3820	1400	2300	3230	1680	923	320	302	261	268
28	799	2050	4090	1150	2350	3300	1560	945	315	306	258	629
29	727	2560	5480	1300	1890	3570	1460	901	328	306	257	294
30	756	2480	4250	2170	---	6820	1460	818	407	302	257	276
31	963	---	4160	3240	---	6470	---	779	---	308	259	---
TOTAL	21715	27884	116690	64560	81750	73180	93800	30478	14784	11159	9557	10917
MEAN	700	929	3764	2083	2819	2361	3127	983	493	360	308	364
MAX	963	2560	7370	4290	5570	6820	6330	1470	784	569	606	629
MIN	457	463	1540	1130	1350	1260	1460	753	315	278	131	262
CFSM	.37	.50	2.01	1.11	1.51	1.26	1.67	.53	.26	.19	.16	.19
IN.	.43	.55	2.32	1.28	1.63	1.46	1.87	.61	.29	.22	.19	.22

CAL YR 1987 TOTAL 562828 MEAN 1542 MAX 7370 MIN 399 CFSM .83 IN. 11.20
WTR YR 1988 TOTAL 556474 MEAN 1520 MAX 7370 MIN 131 CFSM .81 IN. 11.08

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 mi².

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: Oct. 4, 5, 11-15, Oct. 18 to Nov. 25, Jan. 1-17, 24-30, Feb. 5-16, and Sept. 25-30. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--27 years, 128 ft³/s, 11.91 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,140 ft³/s June 3, 1980, gage height, 13.34 ft; minimum daily, 0.89 ft³/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 ft³/s and maximum(*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 7	1100	*2,750	*10.24

Minimum daily discharge, 1.5 ft³/s Sept. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	4.4	27	120	182	106	189	38	11	5.5	18	1.5
2	5.1	5.0	24	80	448	108	421	36	11	5.1	12	1.8
3	4.8	4.8	21	68	363	112	373	36	12	4.7	8.3	3.0
4	4.7	4.7	21	64	237	106	397	36	11	4.4	6.1	6.8
5	4.7	4.6	19	50	140	96	295	35	12	4.0	4.9	16
6	5.5	4.5	17	25	110	95	566	33	11	3.8	4.6	11
7	6.4	4.5	18	22	93	123	2380	31	11	3.7	3.7	7.5
8	5.4	4.4	27	23	80	401	1500	31	11	3.7	3.3	5.4
9	5.1	5.4	48	25	72	535	877	35	11	3.4	5.9	4.3
10	5.0	5.0	57	25	66	381	609	34	10	4.0	7.7	3.0
11	5.7	4.8	47	26	60	269	441	29	9.8	6.1	5.7	2.3
12	5.9	4.7	40	26	56	227	326	26	9.3	5.7	4.2	2.5
13	5.6	4.6	30	26	54	204	247	25	8.5	4.8	3.6	3.3
14	5.2	4.5	23	25	56	167	197	25	7.7	4.8	4.5	2.9
15	4.6	4.4	290	24	100	138	156	24	7.3	4.4	3.8	2.4
16	4.3	4.3	602	35	170	112	127	25	7.1	4.1	3.3	2.1
17	4.0	5.4	330	55	155	98	114	24	7.4	4.4	3.0	1.8
18	4.0	5.2	203	76	224	95	113	22	7.6	5.0	3.2	1.9
19	4.3	5.0	157	57	276	97	92	21	8.1	8.4	6.0	4.0
20	4.8	4.8	390	104	472	92	80	20	7.7	19	4.0	12
21	4.6	4.6	467	112	342	79	77	20	7.1	32	3.2	9.1
22	4.5	4.5	310	76	298	70	70	19	6.3	22	2.5	5.8
23	4.7	4.4	216	62	546	71	67	21	5.7	13	2.5	5.1
24	6.5	4.3	172	50	403	72	60	22	5.1	8.8	2.4	5.6
25	5.0	15	191	38	260	84	51	19	5.0	6.4	2.2	4.7
26	4.5	26	213	32	191	116	50	16	4.9	5.5	2.2	3.8
27	11	22	198	30	162	101	51	14	4.4	4.7	2.1	3.2
28	7.0	18	203	31	126	84	49	13	4.5	4.0	2.4	2.8
29	5.5	25	282	32	117	85	43	13	5.4	3.9	2.4	2.5
30	4.8	30	227	38	---	105	40	13	6.0	3.8	2.2	2.0
31	4.5	---	191	58	---	125	---	12	---	7.9	1.8	---
TOTAL	163.5	248.8	5061	1515	5859	4554	10058	768	245.9	221.0	141.7	140.1
MEAN	5.27	8.29	163	48.9	202	147	335	24.8	8.20	7.13	4.57	4.67
MAX	11	30	602	120	546	535	2380	38	12	32	18	16
MIN	4.0	4.3	17	22	54	70	40	12	4.4	3.4	1.8	1.5
CFSM	.04	.06	1.12	.33	1.38	1.01	2.30	.17	.06	.05	.03	.03
IN.	.04	.06	1.29	.39	1.49	1.16	2.56	.20	.06	.06	.04	.04

CAL YR 1987 TOTAL 20712.6 MEAN 56.7 MAX 742 MIN 1.6 CFSM .39 IN. 5.28
WTR YR 1988 TOTAL 28976.0 MEAN 79.2 MAX 2380 MIN 1.5 CFSM .54 IN. 7.38

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 to Dec. 15, Jan. 1-16, 23-30, Feb. 5-14, and Sept. 24-30. Records fair except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--29 years, 21.4 ft³/s, 11.77 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,040 ft³/s Apr. 20, 1964, gage height, 9.88 ft; minimum daily, 0.07 ft³/s Sept. 18, 1988.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 260 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 7	0045	*527	*6.92

Minimum daily discharge, 0.07 ft³/s Sept. 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	.81	6.0	20	46	20	34	5.4	1.9	.88	1.6	.16
2	.88	.92	5.7	14	69	21	57	5.2	2.1	.74	1.6	.40
3	.82	.88	4.6	11	46	22	52	5.1	2.0	.58	.74	1.6
4	.80	.86	4.0	11	34	21	49	5.1	1.8	.53	.47	3.7
5	.82	.84	3.5	9.0	23	18	38	4.9	1.7	.37	.41	.56
6	.90	.82	2.9	4.5	18	18	216	4.6	1.6	.25	.50	.24
7	1.1	.81	3.0	3.8	15	24	457	4.4	1.6	.15	.36	.14
8	.95	.80	5.0	4.0	14	75	232	4.7	1.7	.16	.32	.13
9	.87	.98	8.3	4.2	12	84	129	6.1	1.8	.11	.32	.16
10	.88	.92	9.4	4.4	11	55	85	6.4	1.6	.08	.70	.14
11	.97	.88	8.1	4.5	10	41	61	5.2	1.5	.32	.39	.10
12	1.0	.84	7.0	4.5	9.4	38	43	4.7	1.3	.39	.34	.41
13	.98	.82	5.2	4.3	9.2	35	31	4.8	1.2	.32	.28	.35
14	.95	.80	4.0	4.1	10	29	24	4.7	1.1	.29	.26	.20
15	.90	.79	75	3.8	26	24	19	4.6	1.1	.25	.27	.10
16	.87	.78	70	7.0	26	20	15	4.7	1.2	.26	.29	.08
17	.77	.97	38	11	27	18	14	4.5	1.2	.44	.25	.08
18	.74	.94	30	13	38	18	14	4.1	1.1	.47	.45	.07
19	.73	.90	27	12	48	18	12	4.0	.93	.72	1.5	1.4
20	.90	.88	64	20	66	17	10	4.0	.78	4.5	.42	2.7
21	.85	.84	56	18	46	14	9.7	3.8	.95	5.6	.39	.82
22	.82	.83	40	13	64	13	9.1	3.5	.79	3.3	.40	.52
23	.86	.81	31	10	119	13	8.6	4.2	.64	1.8	.34	.58
24	1.1	.80	29	8.0	63	13	7.5	4.1	.65	1.2	.86	.52
25	.90	2.5	34	6.4	41	18	6.8	3.4	.59	.95	.28	.45
26	.83	4.7	36	5.4	31	21	6.8	3.0	.51	.87	.14	.37
27	2.0	3.8	32	5.2	27	17	6.8	2.7	.46	.77	.11	.32
28	1.3	3.3	34	5.2	23	15	6.5	2.6	.49	.65	.41	.28
29	1.0	4.8	41	5.6	21	15	5.8	2.5	.66	.60	.46	.25
30	.87	7.0	33	7.2	---	19	5.5	2.3	1.1	1.2	.30	.23
31	.83	---	30	14	---	20	---	2.1	---	4.5	.22	---
TOTAL	29.19	46.62	776.7	268.1	992.6	794	1665.1	131.4	36.05	33.25	15.38	17.06
MEAN	.94	1.55	25.1	8.65	34.2	25.6	55.5	4.24	1.20	1.07	.50	.57
MAX	2.0	7.0	75	20	119	84	457	6.4	2.1	5.6	1.6	3.7
MIN	.73	.78	2.9	3.8	9.2	13	5.5	2.1	.46	.08	.11	.07
CFSM	.04	.06	1.01	.35	1.39	1.04	2.25	.17	.05	.04	.02	.02
IN.	.04	.07	1.17	.40	1.49	1.20	2.51	.20	.05	.05	.02	.03

CAL YR 1987 TOTAL 3535.56 MEAN 9.69 MAX 75 MIN .49 CFSM .39 IN. 5.32
WTR YR 1988 TOTAL 4805.45 MEAN 13.1 MAX 457 MIN .07 CFSM .53 IN. 7.24

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 mi².

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: Aug. 29 and Sept. 18, 24, 25. Records good. 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.--33 years, 227 ft³/s, 12.74 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,100 ft³/s Feb. 10, 1959; maximum gage height, 12.59 ft

Feb. 24, 1985, at former site; maximum daily discharge, 7.2 ft³/s Sept. 30, 1956.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 7	2215	*4,240	*11.43

Minimum daily discharge, 18 ft³/s July 3, 4, Sept. 6.

REVISIONS.--The peak discharges and annual maximum (*) reported for water years 1986 and 1987 have been revised as shown in the following table. They supersede figures published in IN-86-1 and IN-87-1.

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 7	1900	2,570	8.60
Nov. 27	1730	2,790	7.56	July 11	1815	2,660	8.76
Dec. 12	1045	3,070	7.93	July 25	1945	2,680	*8.79
Mar. 20	0015	2,160	6.64				
1987:							
May 22	1800	*1,020	*5.60				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	21	49	232	209	213	380	69	38	22	28	22
2	27	24	41	184	578	207	649	69	40	20	27	23
3	25	26	42	164	644	224	675	72	35	18	26	36
4	24	27	38	152	460	225	698	73	34	18	26	32
5	25	26	34	144	316	189	538	58	33	21	31	21
6	29	24	32	104	206	183	1370	57	33	23	25	18
7	29	23	62	47	188	218	3870	51	35	24	22	23
8	27	23	48	46	176	509	3380	52	35	23	23	23
9	25	28	55	43	152	890	1800	61	34	21	55	24
10	27	25	47	64	128	724	1120	57	32	25	33	22
11	24	25	46	64	116	510	784	59	30	25	25	23
12	22	24	42	63	101	422	557	54	29	21	27	22
13	23	25	36	63	92	375	433	53	30	21	25	23
14	23	23	34	55	97	329	352	51	26	24	44	22
15	23	22	293	66	198	279	292	50	25	23	33	22
16	22	23	697	133	294	226	239	51	26	32	31	22
17	22	28	575	190	283	192	204	53	24	25	26	22
18	20	27	315	142	346	172	212	53	23	26	49	21
19	23	26	264	132	469	168	173	51	21	27	43	22
20	25	24	415	182	701	169	146	49	24	84	24	44
21	23	23	736	162	631	150	134	47	24	29	23	24
22	23	23	521	119	569	117	144	46	25	24	23	21
23	25	24	370	64	977	79	100	66	24	21	23	22
24	33	44	281	61	814	95	107	49	23	20	23	22
25	21	116	268	57	531	158	98	47	23	20	24	21
26	25	39	296	58	385	97	88	47	21	21	25	21
27	56	44	285	59	321	82	82	44	22	22	24	23
28	28	61	318	58	264	79	89	43	24	22	51	21
29	25	49	377	56	230	118	84	43	30	22	33	21
30	25	45	361	57	---	192	73	41	23	85	22	21
31	22	---	287	84	---	224	---	45	---	79	23	---
TOTAL	798	962	7265	3105	10476	7815	18871	1661	846	888	917	704
MEAN	25.7	32.1	234	100	361	252	629	53.6	28.2	28.6	29.6	23.5
MAX	56	116	736	232	977	890	3870	73	40	85	55	44
MIN	20	21	32	43	92	79	73	41	21	18	22	18
CFSM	.11	.13	.97	.41	1.49	1.04	2.60	.22	.12	.12	.12	.10
IN.	.12	.15	1.12	.48	1.61	1.20	2.90	.26	.13	.14	.14	.11

CAL YR 1987 TOTAL 37637 MEAN 103 MAX 777 MIN 20 CFSM .43 IN. 5.79
WTR YR 1988 TOTAL 54308 MEAN 148 MAX 3870 MIN 18 CFSM .61 IN. 8.35

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 mi².

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: Jan. 3-17, 25-30, and Feb. 5-15. Records good except for estimated daily discharges, which are poor. Backwater from Middle Fork at times on peaks.

AVERAGE DISCHARGE.--45 years, 236 ft³/s, 13.19 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,100 ft³/s May 2, 1983, gage height, 15.68 ft, from rating curve extended above 6,000 ft³/s on basis of contracted-opening measurement at 16.8 ft; minimum daily, 15 ft³/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 ft³/s by contracted-opening measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 7	0600	*3,690	*8.72

Minimum daily discharge, 21 ft³/s Sept. 17, 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	43	171	278	389	216	297	120	55	36	136	24
2	42	43	154	207	670	210	525	115	54	34	65	25
3	41	43	147	150	555	218	477	113	53	33	47	27
4	39	42	138	115	401	218	438	110	52	32	41	28
5	37	41	128	90	230	189	408	108	50	31	39	28
6	35	40	117	78	170	187	930	105	48	30	72	26
7	35	41	154	78	140	225	3330	102	47	30	68	24
8	34	41	268	82	130	567	1880	99	48	30	42	23
9	33	42	288	90	120	753	1190	107	51	30	37	23
10	34	42	299	100	110	556	846	106	50	34	53	22
11	35	40	244	105	103	414	640	97	48	34	50	22
12	36	41	205	105	100	356	505	93	46	33	38	23
13	35	41	169	103	100	325	410	89	45	33	35	23
14	34	41	142	98	120	277	338	86	43	31	34	23
15	34	43	483	98	170	240	284	84	42	31	32	23
16	35	42	950	102	317	207	244	82	42	31	41	22
17	34	43	578	115	286	185	217	82	42	30	40	21
18	34	42	360	203	337	177	211	80	42	34	33	21
19	34	42	287	190	470	175	193	78	41	38	30	23
20	36	42	571	408	866	169	176	76	39	42	28	40
21	37	41	739	354	608	158	169	75	38	64	28	54
22	35	42	485	215	460	146	184	73	37	52	27	35
23	36	41	359	163	1020	143	174	76	36	41	26	29
24	38	43	292	140	744	145	160	80	36	37	26	27
25	39	75	349	105	471	163	147	75	36	36	25	25
26	40	128	389	91	351	192	140	70	35	34	24	24
27	46	100	345	88	298	171	139	65	34	32	24	23
28	56	101	465	90	257	154	138	63	32	31	26	22
29	46	185	636	94	233	155	131	62	34	30	29	22
30	44	210	447	110	---	212	124	59	36	30	27	22
31	43	---	346	156	---	235	---	57	---	94	25	---
TOTAL	1182	1801	10705	4401	10226	7738	15045	2687	1292	1138	1248	774
MEAN	38.1	60.0	345	142	353	250	501	86.7	43.1	36.7	40.3	25.8
MAX	56	210	950	408	1020	753	3330	120	55	94	136	54
MIN	33	40	117	78	100	143	124	57	32	30	24	21
CFSM	.16	.25	1.42	.58	1.45	1.03	2.06	.36	.18	.15	.17	.11
IN.	.18	.28	1.64	.67	1.57	1.18	2.30	.41	.20	.17	.19	.12

CAL YR 1987 TOTAL 41906 MEAN 115 MAX 950 MIN 26 CFSM .47 IN. 6.42
WTR YR 1988 TOTAL 58237 MEAN 159 MAX 3330 MIN 21 CFSM .65 IN. 8.92

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 mi².

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: Jan. 3-17, 25-30, and Feb. 5-18. Records fair except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--34 years, 749 ft³/s, 12.81 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,000 ft³/s June 10, 1958, gage height, 21.52 ft, from rating curve extended above 18,000 ft³/s; minimum daily, 46 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 7	1100	*6,320	*11.22

Minimum daily discharge, 55 ft³/s Sept. 11, 18, 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	191	113	447	1000	950	712	939	371	169	88	410	74
2	135	112	399	790	1580	682	1670	352	167	91	237	73
3	119	106	373	660	1620	687	1710	341	164	89	160	74
4	110	103	337	500	1400	699	1650	332	157	82	136	76
5	105	103	308	400	860	650	1540	325	154	77	121	103
6	100	103	280	300	640	605	2080	318	147	74	158	81
7	99	103	362	250	560	635	5950	302	142	73	149	77
8	99	103	711	250	490	1270	5690	290	137	73	115	68
9	99	103	731	260	450	1980	5390	298	137	72	101	63
10	99	103	746	290	400	1930	3470	307	132	90	102	57
11	99	103	609	320	370	1550	2390	295	128	105	126	55
12	99	103	508	340	340	1260	1850	276	129	89	128	56
13	99	103	427	350	320	1120	1470	264	128	89	106	61
14	99	101	361	310	360	964	1220	262	123	93	100	59
15	99	101	1180	290	500	836	1020	252	119	89	111	57
16	99	101	2430	300	980	719	883	245	115	82	176	57
17	99	105	1780	350	900	630	779	237	118	78	154	58
18	99	105	1380	756	1000	577	736	237	114	87	117	55
19	97	105	1030	785	1160	555	686	233	110	113	100	63
20	97	105	1820	1130	1950	535	624	229	107	107	92	75
21	95	105	2080	1080	1760	508	583	229	105	129	118	161
22	93	103	1730	743	1510	476	576	222	98	184	87	143
23	93	101	1360	584	2470	445	557	223	93	139	89	101
24	100	108	1090	476	2340	444	514	254	93	114	79	84
25	103	184	1100	350	1750	523	464	264	93	102	65	77
26	104	358	1150	270	1290	750	445	221	90	100	67	72
27	131	354	1100	270	1050	603	432	205	88	93	63	66
28	133	290	1380	270	891	510	421	199	85	88	73	60
29	153	473	1770	300	783	494	404	191	85	85	75	55
30	128	540	1400	370	---	661	387	187	87	84	88	58
31	119	---	1210	501	---	749	---	178	---	152	86	---
TOTAL	3394	4700	31589	14845	30674	24759	46530	8139	3614	3011	3789	2219
MEAN	109	157	1019	479	1058	799	1551	263	120	97.1	122	74.0
MAX	191	540	2430	1130	2470	1980	5950	371	169	184	410	161
MIN	93	101	280	250	320	444	387	178	85	72	63	55
CFSM	.14	.20	1.28	.60	1.33	1.01	1.95	.33	.15	.12	.15	.09
IN.	.16	.22	1.48	.70	1.44	1.16	2.18	.38	.17	.14	.18	.10

CAL YR 1987 TOTAL 133555 MEAN 366 MAX 2430 MIN 83 CFSM .46 IN. 6.26
WTR YR 1988 TOTAL 177263 MEAN 484 MAX 5950 MIN 55 CFSM .61 IN. 8.31

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: Jan. 1-18, 27-30, and Feb. 8-16. Records good except for estimated daily discharges, which are poor. Flow partially regulated by upstream reservoirs and power development.

AVERAGE DISCHARGE.--65 years (1923 to current year), 6,459 ft³/s, 12.07 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, 33,300 ft³/s Apr. 8, gage height, 16.85 ft; minimum daily, 702 ft³/s July 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2870	2300	9760	11000	9550	6000	10100	3040	1760	878	1070	772
2	2850	2100	8500	9000	13100	5920	11200	3170	1700	990	1220	797
3	2580	2360	7630	6500	12500	5770	11800	2970	1350	795	1510	824
4	2530	2260	6480	5800	11300	5670	11800	2810	1600	794	1170	1020
5	2610	1870	5290	5300	11500	5560	12600	2880	1280	873	968	1080
6	2290	2170	4870	3600	9030	5320	11600	2750	1520	861	923	1020
7	2460	1960	5080	3100	6900	5130	23000	2540	1340	702	1040	956
8	2350	1840	6570	2900	5000	5830	32600	2670	1160	743	799	1010
9	2390	2210	7730	2700	4400	8730	29700	2580	1430	725	1010	1370
10	2460	2110	8980	2900	4100	10800	23500	2640	1140	794	1170	1420
11	2170	2030	8660	3100	4500	11700	19200	2500	1170	835	935	1170
12	2320	1810	7200	3100	4400	12200	16400	2560	1150	934	1150	1200
13	2030	2000	6390	3100	3500	10900	13400	2380	1300	812	866	1230
14	2220	1910	6070	3000	3400	8470	11700	2130	1060	911	992	1100
15	2270	1750	8220	3000	4000	6470	10100	2390	1100	805	866	1090
16	2120	2360	19500	2900	7140	5900	7430	2160	1060	830	889	1200
17	2150	2570	20700	2900	8800	5650	6460	2200	1060	851	914	1350
18	2010	2250	16500	4000	9500	5530	6120	2250	1090	890	890	1450
19	2030	2030	15400	8620	10700	5390	5660	2010	899	1100	836	1320
20	2060	2010	18100	11600	12700	5730	5260	1960	943	831	1010	1680
21	2080	1860	23600	14100	13700	5280	4980	2120	1210	922	964	1600
22	2050	1770	20500	11400	13000	4590	4910	1970	887	1390	927	1940
23	2020	2350	16200	9290	15800	4240	4670	1950	1120	1150	871	1660
24	1980	2160	15100	6900	19300	4650	4560	2420	934	1190	985	1610
25	2270	2970	14000	5890	16200	7460	4120	2170	864	877	907	1400
26	1930	5010	11900	4520	12600	13600	3970	2220	992	905	1030	1470
27	2400	7790	10500	3400	9260	13100	3870	2140	815	989	939	1330
28	2200	6570	10900	3000	7560	9400	3550	2200	790	993	854	1310
29	2250	7300	14200	3100	6940	8260	3500	1950	774	950	804	1620
30	2530	9300	14100	3300	---	10000	3510	1780	867	906	782	1270
31	2440	---	12500	6070	---	11800	---	1710	---	1010	779	---
TOTAL	70920	88980	361130	169090	270380	235050	321270	73220	34365	28236	30070	38269
MEAN	2288	2966	11650	5455	9323	7582	10710	2362	1145	911	970	1276
MAX	2870	9300	23600	14100	19300	13600	32600	3170	1760	1390	1510	1940
MIN	1930	1750	4870	2700	3400	4240	3500	1710	774	702	779	772
CFSM	.31	.41	1.60	.75	1.28	1.04	1.47	.33	.16	.13	.13	.18
IN.	.36	.46	1.85	.87	1.38	1.20	1.64	.37	.18	.14	.15	.20

CAL YR 1987 TOTAL 1646950 MEAN 4512 MAX 23600 MIN 1120 CFSM .62 IN. 8.43
WTR YR 1988 TOTAL 1720980 MEAN 4702 MAX 32600 MIN 702 CFSM .65 IN. 8.81

03335690 MUD PINE CREEK NEAR OXFORD, IN

LOCATION.--Lat 40°31'24", long 87°20'30", in NE 1/4 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 mi².

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: Oct. 24 to Nov. 30, Jan. 2-17, Jan. 25 to Feb. 17, Feb. 19, 20, 22, Mar. 6, 7, 29, 30, July 13-18, and Sept. 22-30. Records good except for estimated daily discharges and daily discharges below 0.50 ft³/s, which are poor.

AVERAGE DISCHARGE.--17 years (1972 to current year), 39.1 ft³/s, 13.48 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,420 ft³/s June 2, 1980, gage height, 11.67 ft; minimum daily, 0.10 ft³/s Sept. 18, 1988.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 20	1200	*638	*7.85

Minimum daily discharge, 0.10 ft³/s Sept. 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	1.1	50	82	170	23	164	13	5.9	.78	.92	.16
2	2.0	1.1	49	60	120	24	176	13	6.0	.76	.32	.52
3	1.4	1.0	41	47	90	24	141	13	5.1	.56	.23	.40
4	1.2	.98	33	32	70	23	114	13	4.3	.56	.24	.92
5	1.2	.94	27	25	55	22	88	12	4.3	.67	.37	.72
6	1.2	.92	22	20	45	30	111	12	4.1	.58	8.2	.46
7	1.1	.92	37	18	38	39	153	11	4.1	.39	2.1	.20
8	.91	.95	130	16	33	48	100	11	4.3	.41	.71	.20
9	.90	1.0	150	14	28	52	76	12	4.0	.41	.54	.32
10	.94	.94	103	12	21	52	63	11	2.9	.42	.58	.54
11	.84	.82	82	15	19	49	53	9.7	2.9	.59	.59	.42
12	.78	.92	67	13	18	48	45	9.5	3.1	.45	.47	.36
13	.82	.92	52	12	17	39	39	9.3	2.9	.40	.42	.61
14	.87	.82	46	11	18	33	36	8.4	2.7	.35	.65	.33
15	.89	.78	380	12	85	28	31	8.6	2.7	.32	.37	.19
16	.85	.82	299	14	70	23	28	8.5	2.7	.30	.27	.14
17	.89	.92	172	20	75	22	28	8.3	2.9	.29	.24	.13
18	.85	.92	118	29	79	22	27	8.1	2.7	1.5	.24	.10
19	.85	.92	102	30	100	22	24	8.1	2.6	5.6	.32	3.4
20	1.1	.84	486	113	110	20	22	8.0	2.5	.85	.67	9.2
21	1.9	.86	271	71	59	18	22	7.7	2.3	.46	.58	3.2
22	1.1	.95	175	42	68	16	22	7.4	1.9	.39	.51	.90
23	.94	1.0	131	32	88	18	21	7.9	1.7	.35	1.3	.65
24	1.1	1.0	119	25	54	70	18	37	1.4	.35	1.2	.55
25	1.2	.29	115	20	42	101	17	18	1.3	.24	.42	.50
26	1.3	.37	100	17	35	82	17	12	.91	.35	.20	.50
27	1.3	.23	85	16	30	56	17	9.6	.78	.39	.22	.47
28	1.2	.50	240	18	25	48	16	8.2	.76	.28	.29	.44
29	1.1	.85	242	27	24	66	15	7.3	.80	.30	.46	.41
30	1.2	.60	140	60	---	360	14	6.4	.98	.20	.57	.39
31	1.1	---	110	160	---	195	---	5.9	---	.64	.21	---
TOTAL	35.63	306.34	4174	1083	1686	1673	1698	334.9	85.53	20.14	24.41	27.33
MEAN	1.15	10.2	135	34.9	58.1	54.0	56.6	10.8	2.85	.65	.79	.91
MAX	2.6	.85	486	160	170	360	176	.37	6.0	5.6	8.2	9.2
MIN	.78	.78	22	11	17	16	14	5.9	.76	.20	.20	.10
CFSM	.03	.26	3.42	.89	1.48	1.37	1.44	.27	.07	.02	.02	.02
IN.	.03	.29	3.94	1.02	1.59	1.58	1.60	.32	.08	.02	.02	.03

CAL YR 1987 TOTAL 11297.46 MEAN 31.0 MAX 486 MIN .67 CFSM .79 IN. 10.67
WTR YR 1988 TOTAL 11148.28 MEAN 30.5 MAX 486 MIN .10 CFSM .77 IN. 10.53

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 Oppossum Run, 3.6 mi upstream from Spring Creek, and at mile 271.1.

DRAINAGE AREA.--8,218 mi².

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. 8-18, 27-29, and Feb. 8-15. Records good. Flow partially regulated by upstream reservoirs and power development.

AVERAGE DISCHARGE.--49 years, 7,371 ft³/s, 12.18 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 147,000 ft³/s May 20, 1943, gage height, 32.44 ft; minimum daily, 487 ft³/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 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 31,200 ft³/s Apr. 10, gage height, 20.30 ft; minimum daily, 927 ft³/s Sept. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3290	2730	9920	14600	10000	7450	14000	4100	2090	1220	1220	927
2	3220	2580	9470	11500	14400	6890	13100	3740	2110	1260	1240	936
3	3140	2430	8570	8790	15600	6700	14100	3900	2040	1320	1450	1020
4	2930	2480	7540	7690	13800	6630	13900	3750	1830	1140	1680	1050
5	2850	2400	6500	6650	12800	6370	14200	3640	1960	1120	1460	1140
6	2730	2210	5730	4480	11500	6230	14200	3610	1810	1180	1320	1170
7	2560	2300	5510	3020	8990	6160	18100	3490	1890	1150	1290	1180
8	2660	2170	6150	3300	6500	6570	24300	3400	1740	1030	1310	1110
9	2590	2090	8230	3500	5500	8130	29200	3400	1620	1040	1150	1130
10	2640	2430	9370	3700	5100	11100	30300	3310	1780	1040	1340	1380
11	2660	2370	10100	3900	5600	12300	27500	3200	1610	1170	1420	1440
12	2510	2270	9040	4000	5500	13400	23000	3100	1600	1230	1260	1310
13	2520	2150	7550	4000	4500	12900	18400	3070	1610	1260	1340	1300
14	2360	2240	6960	3900	4200	11400	14600	2880	1660	1160	1190	1330
15	2430	2130	8530	3800	4500	8630	12800	2670	1480	1210	1300	1220
16	2500	2050	16000	3700	7410	7110	10400	2880	1440	1160	1180	1210
17	2420	2560	22100	3700	8700	6550	8260	2770	1390	1150	1200	1290
18	2340	2680	21800	4500	9970	6390	7400	2770	1380	1100	1170	1410
19	2230	2460	18700	6970	11400	6190	7030	2790	1400	1240	1120	1500
20	2320	2260	20200	14400	13800	6150	6540	2600	1290	1430	1070	1420
21	2280	2240	23500	16100	15600	6340	6160	2510	1280	1220	1170	1670
22	2350	2150	25600	15100	15200	5740	6030	2590	1480	1170	1140	1660
23	2320	2050	24100	12000	15100	5190	5780	2560	1250	1510	1140	1860
24	2300	2540	20000	9320	18600	4930	5560	2670	1360	1380	1040	1700
25	2340	2830	18000	7330	19400	6110	5290	3270	1290	1410	1100	1630
26	2460	3980	15900	6040	16300	10500	4900	2910	1180	1190	1050	1500
27	2260	6580	13500	4300	12700	14900	4760	2870	1270	1170	1120	1510
28	2610	7670	14300	3800	9590	12600	4620	2680	1170	1250	1080	1420
29	2520	7660	17500	3900	8440	9890	4390	2660	1120	1250	990	1420
30	2590	8530	18900	4680	---	10900	4170	2440	1120	1220	953	1630
31	2750	---	17400	6190	---	14400	---	2250	---	1200	936	---
TOTAL	79680	93220	426670	208860	310700	264750	372990	94480	46250	37580	37429	40473
MEAN	2570	3107	13760	6737	10710	8540	12430	3048	1542	1212	1207	1349
MAX	3290	8530	25600	16100	19400	14900	30300	4100	2110	1510	1680	1860
MIN	2230	2050	5510	3020	4200	4930	4170	2250	1120	1030	936	927
CFSM	.31	.38	1.67	.82	1.30	1.04	1.51	.37	.19	.15	.15	.16
IN.	.36	.42	1.93	.95	1.41	1.20	1.69	.43	.21	.17	.17	.18

CAL YR 1987 TOTAL 1851060 MEAN 5071 MAX 25600 MIN 1220 CFSM .62 IN. 8.38
WTR YR 1988 TOTAL 2013082 MEAN 5500 MAX 30300 MIN 927 CFSM .67 IN. 9.11

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 mi².

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: Oct. 18-26, Jan. 1-19, 25-29, Feb. 4-17, 21, and Sept. 15-30. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--20 years, 36.5 ft³/s, 14.84 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,680 ft³/s May 1, 1983, gage height, 10.47 ft; minimum daily, 2.1 ft³/s Aug. 25, 26, 1988.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 6	1845	*548	*5.07

Minimum daily discharge, 2.1 ft³/s Aug. 25, 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	5.9	22	45	139	33	83	18	11	4.9	4.2	2.4
2	6.1	5.9	22	33	109	33	85	18	11	4.9	3.6	73
3	5.3	5.5	17	26	70	35	67	17	11	4.8	3.5	25
4	5.3	5.1	18	20	50	34	53	17	11	4.4	3.2	12
5	5.1	5.1	15	16	42	31	46	16	11	4.4	4.0	6.2
6	5.2	4.4	12	14	33	33	243	15	10	4.0	4.9	4.8
7	5.1	4.7	39	13	26	57	202	15	9.9	4.0	3.3	4.3
8	4.8	5.0	42	14	24	106	97	15	10	4.0	3.1	4.0
9	4.9	5.1	47	16	22	82	69	18	12	3.9	2.8	4.2
10	5.0	5.1	37	18	21	61	56	15	9.9	5.3	2.8	4.4
11	5.3	4.9	26	19	20	50	46	15	9.9	6.2	4.9	4.0
12	4.9	4.9	20	19	19	48	40	14	9.2	4.9	3.5	4.6
13	5.2	5.2	15	19	19	43	35	14	8.4	4.9	2.8	5.7
14	4.9	5.3	14	18	21	37	32	14	8.0	4.9	2.8	4.7
15	4.9	4.9	191	18	27	34	29	13	7.7	5.1	2.7	4.6
16	5.1	4.9	97	18	50	31	28	13	8.1	4.3	3.8	4.3
17	6.1	5.4	49	20	45	29	27	12	8.2	4.0	2.7	3.7
18	5.2	4.6	34	60	84	29	29	12	7.6	4.4	2.4	3.4
19	5.0	4.0	34	55	170	29	26	12	6.5	5.5	2.8	5.0
20	7.0	4.5	158	143	164	29	24	13	6.5	7.7	2.8	17
21	6.0	4.0	78	58	86	26	24	14	6.1	6.3	2.7	11
22	5.3	4.2	52	38	79	25	27	14	5.8	4.9	2.4	7.0
23	6.3	4.6	39	30	100	25	25	16	5.5	4.4	2.4	5.5
24	8.0	5.2	36	26	64	26	23	15	5.3	4.4	2.4	5.0
25	6.7	29	64	20	49	39	21	14	5.5	4.3	2.1	4.6
26	10	21	55	16	41	36	21	14	4.9	4.8	2.1	4.4
27	12	10	44	15	39	30	21	13	4.9	4.1	2.4	4.2
28	9.3	27	181	15	36	28	20	13	4.9	3.9	2.8	4.0
29	7.7	42	109	16	35	46	19	13	5.0	3.5	2.8	3.9
30	6.8	27	74	33	---	135	19	12	5.8	3.2	2.7	3.9
31	6.4	---	60	66	---	74	---	12	---	17	2.4	---
TOTAL	192.5	274.4	1701	937	1684	1354	1537	446	240.6	157.3	93.8	250.8
MEAN	6.21	9.15	54.9	30.2	58.1	43.7	51.2	14.4	8.02	5.07	3.03	8.36
MAX	12	42	191	143	170	135	243	18	12	17	4.9	73
MIN	4.8	4.0	12	13	19	25	19	12	4.9	3.2	2.1	2.4
CFSM	.19	.27	1.64	.90	1.74	1.31	1.53	.43	.24	.15	.09	.25
IN.	.21	.31	1.89	1.04	1.88	1.51	1.71	.50	.27	.18	.10	.28

CAL YR 1987 TOTAL 7043.9 MEAN 19.3 MAX 584 MIN 4.0 CFSM .58 IN. 7.85
WTR YR 1988 TOTAL 8868.4 MEAN 24.2 MAX 243 MIN 2.1 CFSM .73 IN. 9.88

03339280 PRAIRIE CREEK NEAR LEBANON, IN

LOCATION.--Lat 40°06'16", long 86°31'32", in NW¼SW¼ sec.10, T.19 N., R.1 W., Boone County, Hydrologic Unit 05120110, on right bank 50 ft upstream from bridge on County Road 450 North, 4.0 mi upstream from Deer Creek, 4.9 mi northwest of Lebanon, and 7.7 mi upstream from mouth.

DRAINAGE AREA.--33.2 mi².

GAGE.--Water-stage recorder. Datum of gage is 860.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 28 to Nov. 21, Jan. 3-18, 25-29, and Feb. 4-17. Records good except those below 10 ft³/s, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,230 ft³/s Apr. 6, 1988, gage height, 10.35 ft; minimum daily, 1.9 ft³/s Sept. 1, 1988.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 6	2300	1,230	10.35

Minimum daily discharge, 1.9 ft³/s Sept. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	4.6	7.0	19	103	17	83	8.4	4.9	2.6	2.8	1.9
2	2.0	4.4	6.2	17	157	18	103	8.1	5.1	2.3	2.7	2.8
3	2.2	4.3	5.5	15	89	19	105	7.9	5.3	2.3	2.6	4.2
4	2.2	6.4	6.5	16	45	18	131	7.8	5.1	2.3	2.6	4.9
5	3.7	5.2	5.1	10	27	16	67	7.5	5.2	2.2	2.7	4.5
6	4.4	4.4	5.0	6.6	19	21	474	7.1	5.0	2.3	3.1	2.7
7	3.8	4.0	12	7.5	23	57	658	7.9	4.6	2.5	2.6	2.7
8	3.8	3.7	7.6	11	25	147	232	7.7	5.6	2.3	2.4	2.7
9	3.6	13	9.3	12	26	108	133	8.9	7.5	2.6	2.6	2.3
10	3.7	7.1	7.1	10	23	69	86	7.3	6.2	4.1	2.6	2.4
11	5.4	4.9	6.7	11	19	47	58	7.6	6.5	9.3	2.8	2.4
12	4.2	3.8	6.1	13	21	44	39	6.2	6.1	5.2	2.6	3.8
13	3.2	3.4	5.4	10	15	36	29	6.1	5.6	5.1	2.5	5.3
14	3.0	3.1	5.4	5.1	20	29	23	5.9	5.2	5.4	2.5	2.6
15	3.0	2.9	94	11	23	22	17	5.7	4.7	6.2	2.6	2.3
16	2.8	2.7	38	17	24	18	14	6.1	4.5	7.9	2.3	2.1
17	2.8	3.0	14	50	31	16	13	5.9	4.4	8.8	2.1	2.3
18	2.9	3.4	10	38	64	17	15	5.5	4.0	5.6	2.1	3.6
19	2.9	3.8	13	54	118	16	11	5.4	3.8	7.3	2.9	8.3
20	3.4	4.0	35	77	155	15	9.8	5.5	3.5	17	2.4	9.3
21	3.5	4.8	29	22	84	13	9.7	5.4	3.3	6.5	2.4	2.7
22	4.4	5.9	18	14	71	12	15	5.3	3.0	3.1	2.5	3.9
23	4.9	6.4	13	12	90	13	18	10	2.8	2.9	2.2	3.9
24	5.1	7.2	11	11	58	14	11	6.2	2.7	2.6	2.1	2.5
25	6.1	33	33	8.4	36	23	11	5.4	2.8	2.5	2.2	2.6
26	5.0	8.8	35	11	26	18	11	5.1	2.6	2.6	2.1	2.5
27	12	6.3	27	14	23	14	11	4.8	2.6	2.5	2.3	2.5
28	8.4	19	71	13	18	12	10	4.9	2.5	2.6	2.1	2.3
29	6.1	9.6	68	11	18	24	9.1	4.9	2.5	2.5	2.3	2.2
30	5.2	7.2	36	10	---	67	8.6	4.9	2.6	2.6	2.1	2.1
31	4.8	---	28	13	---	45	---	4.7	---	12	2.1	---
TOTAL	130.7	200.3	667.9	549.6	1451	1005	2415.2	200.1	130.2	145.7	75.9	100.3
MEAN	4.22	6.68	21.5	17.7	50.0	32.4	80.5	6.45	4.34	4.70	2.45	3.34
MAX	12	33	94	77	157	147	658	10	7.5	17	3.1	9.3
MIN	2.0	2.7	5.0	5.1	15	12	8.6	4.7	2.5	2.2	2.1	1.9
CFSM	.13	.20	.65	.53	1.51	.98	2.42	.19	.13	.14	.07	.10
IN.	.15	.22	.75	.62	1.63	1.13	2.71	.22	.15	.16	.09	.11

WTR YR 1988 TOTAL 7071.9 MEAN 19.3 MAX 658 MIN 1.9 CFSM .58 IN. 7.92

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 mi².

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: Jan. 3 to Feb. 17. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--50 years, 482 ft³/s, 12.86 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,300 ft³/s June 28, 1957, gage height, 14.48 ft; minimum daily, 2.4 ft³/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 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 7	0800	*6,950	*5.89

Minimum daily discharge, 6.6 ft³/s Aug. 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	31	171	489	900	355	1100	164	55	17	18	7.0
2	32	32	153	322	1400	353	1590	157	50	17	22	27
3	27	30	142	250	1000	377	1280	156	49	16	20	34
4	24	30	137	210	720	377	1340	155	48	16	14	31
5	23	31	129	180	450	323	1070	153	47	16	14	15
6	23	31	113	170	350	328	2410	146	45	15	21	12
7	23	30	136	160	300	541	6770	142	42	13	23	11
8	23	31	210	170	270	1560	4700	138	43	12	24	10
9	23	33	262	190	250	1580	2320	160	47	11	18	9.6
10	22	32	262	210	230	1140	1580	148	43	12	14	9.2
11	24	31	219	220	220	851	1190	138	39	13	13	8.6
12	24	31	186	220	210	729	915	126	36	13	13	9.7
13	23	31	155	220	210	644	703	127	33	16	13	15
14	24	32	132	210	240	521	570	126	32	16	11	12
15	24	32	741	210	330	435	472	118	30	15	9.4	12
16	26	32	1540	220	650	366	402	115	31	13	9.2	11
17	25	33	797	240	600	314	358	113	30	14	8.5	9.3
18	24	34	471	420	925	300	369	107	30	14	7.8	8.6
19	24	36	371	410	1380	299	327	102	28	19	11	13
20	24	35	734	840	2380	296	287	99	26	25	8.1	43
21	23	36	1070	720	1500	259	272	95	25	36	7.6	33
22	23	34	718	450	1050	234	296	92	23	33	7.6	30
23	24	33	510	340	1460	235	288	101	21	22	7.6	30
24	28	36	406	290	1160	273	260	115	19	18	7.2	23
25	28	78	596	210	792	371	227	101	18	16	6.6	18
26	27	127	787	190	578	465	218	85	18	15	6.8	15
27	38	98	678	190	503	387	214	76	17	13	6.8	13
28	49	92	1030	190	412	320	208	73	16	13	7.6	12
29	43	189	1410	200	383	323	191	67	17	12	7.9	12
30	33	210	905	230	---	788	174	64	17	11	6.8	12
31	32	---	663	320	---	856	---	61	---	22	7.2	---
TOTAL	853	1571	15834	8891	20853	16200	32101	3620	975	514	371.7	506.0
MEAN	27.5	52.4	511	287	719	523	1070	117	32.5	16.6	12.0	16.9
MAX	49	210	1540	840	2380	1580	6770	164	55	36	24	43
MIN	22	30	113	160	210	234	174	61	16	11	6.6	7.0
CFSM	.05	.10	1.00	.56	1.41	1.03	2.10	.23	.06	.03	.02	.03
IN.	.06	.11	1.16	.65	1.52	1.18	2.35	.26	.07	.04	.03	.04

CAL YR 1987 TOTAL 65784 MEAN 180 MAX 2590 MIN 20 CFSM .35 IN. 4.81
WTR YR 1988 TOTAL 102289.7 MEAN 279 MAX 6770 MIN 6.6 CFSM .55 IN. 7.48

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 left bank 20 ft upstream from 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 mi².

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 on downstream side of bridge and at same datum. July 12, 1950, to July 27, 1988, recording gage in downstream side of first pier from left bank at same datum.

REMARKS.--Estimated daily discharges: Jan. 8-10 and Feb. 8-10. Records good. Flow partially regulated by upstream reservoirs.

AVERAGE DISCHARGE.--61 years, 9,786 ft³/s, 11.95 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 184,000 ft³/s May 20, 1943, gage height, 32.83 ft; minimum daily, 571 ft³/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 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 33,800 ft³/s Apr. 11, gage height, 19.01 ft; minimum daily, 916 ft³/s Sept. 1, 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3450	2800	11700	22400	14100	10300	22600	5310	2740	1200	1290	919
2	3320	2790	11500	18000	22800	9240	22100	5030	2610	1210	1330	916
3	3170	2660	10400	13500	23800	9060	21000	4850	2540	1260	1360	926
4	3020	2630	9170	10200	21100	9240	20500	4730	2410	1330	1490	988
5	2880	2540	7930	8710	17600	8830	19300	4460	2320	1260	1590	1080
6	2850	2470	6800	6750	14600	8590	20300	4360	2280	1190	1470	1050
7	2650	2400	6290	4910	12600	8740	28600	4290	2240	1190	1360	1020
8	2650	2330	6710	4550	9750	10400	30900	4170	2160	1200	1310	1050
9	2660	2300	9690	5200	8400	13400	31400	4260	2080	1130	1230	1090
10	2610	2310	12100	5550	7950	15300	32900	4170	2030	1090	1120	1200
11	2720	2610	12500	5710	8260	16400	33400	4110	2030	1100	1250	1390
12	2580	2460	11700	5890	7600	16700	31000	3980	1880	1140	1420	1480
13	2600	2350	9800	5830	7100	16800	26900	3850	1880	1200	1370	1280
14	2440	2350	8450	5760	7340	15400	21700	3710	1870	1240	1200	1280
15	2440	2370	10800	5450	7970	12800	17900	3570	1880	1230	1080	1250
16	2460	2210	20500	5460	10600	10200	15400	3430	1770	1200	1140	1160
17	2490	2400	25300	6030	12000	9000	12600	3460	1740	1190	1140	1180
18	2470	2780	25600	7160	13700	8500	10900	3340	1700	1150	1110	1270
19	2310	2700	23500	8270	16700	8290	9980	3300	1660	1160	1070	1430
20	2320	2560	24000	18100	23300	7920	9190	3230	1620	1250	1050	1500
21	2430	2330	28000	23400	23600	7890	8740	3100	1570	1440	1040	1490
22	2340	2380	30000	21900	21800	7620	8360	3050	1510	1450	1140	1760
23	2440	2190	30500	17100	20300	6960	8110	3260	1550	1370	1120	1780
24	2450	2290	28000	13400	21500	6620	7600	3320	1500	1470	1070	1850
25	2420	2920	25100	10500	22500	6980	7190	3550	1470	1500	1020	1640
26	2570	3880	23200	8280	20900	9870	6660	3620	1460	1490	1000	1560
27	2490	5770	20400	6770	17500	15000	6290	3340	1360	1360	1000	1420
28	2540	8200	21400	5940	13800	15600	6060	3280	1340	1340	992	1420
29	2660	8960	27100	5950	11400	12900	5770	3180	1280	1350	950	1340
30	2620	10900	27900	6240	---	15400	5530	3020	1230	1290	929	1390
31	2760	---	26500	7240	---	20300	---	2880	---	1240	934	---
TOTAL	81810	99840	552540	300150	440570	350250	508880	117210	55710	39220	36575	39109
MEAN	2639	3328	17820	9682	15190	11300	16960	3781	1857	1265	1180	1304
MAX	3450	10900	30500	23400	23800	20300	33400	5310	2740	1500	1590	1850
MIN	2310	2190	6290	4550	7100	6620	5530	2880	1230	1090	929	916
CFSM	.24	.30	1.60	.87	1.37	1.02	1.53	.34	.17	.11	.11	.12
IN.	.27	.33	1.85	1.00	1.47	1.17	1.70	.39	.19	.13	.12	.13

CAL YR 1987 TOTAL 2257210⁴ MEAN 6184 MAX 30500 MIN 1500 CFSM .56 IN. 7.55
WTR YR 1988 TOTAL 2621864⁴ MEAN 7164 MAX 33400 MIN 916 CFSM .64 IN. 8.77

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 mi².

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: Oct. 1 to Dec. 15, Jan. 2-16, 25-30, Feb. 5-18, Mar. 4, 5, and Sept. 14-16, 19-25. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--31 years, 141 ft³/s, 13.78 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,100 ft³/s Jan. 26, 1962; maximum gage height, 15.68 ft Jan. 26, 1962 (ice jam); minimum daily discharge, 1.6 ft³/s Aug. 26, 1988.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 28, 1957, reached a stage of 19.10 ft, discharge, 39,900 ft³/s, from slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 7	0600	*3,010	*10.26

Minimum daily discharge, 1.6 ft³/s Aug. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	4.6	28	153	335	92	631	65	20	4.5	5.5	1.7
2	4.3	4.5	24	115	745	93	640	61	19	4.1	4.2	2.0
3	4.1	4.4	22	90	434	108	427	59	17	3.9	3.8	3.2
4	3.9	4.3	21	70	300	130	449	56	16	3.5	3.6	3.3
5	3.7	4.2	20	55	160	120	286	54	16	3.3	4.4	2.5
6	3.5	4.1	17	47	110	202	1060	51	15	3.3	4.6	2.2
7	3.4	4.1	20	47	90	343	2180	49	15	3.3	3.5	2.3
8	3.4	4.5	30	49	80	458	685	48	14	3.2	3.1	2.2
9	3.3	4.3	39	54	73	358	425	58	14	3.0	2.9	2.1
10	3.5	4.2	39	56	68	265	303	52	13	3.2	2.8	2.0
11	4.0	4.1	33	57	65	204	234	47	13	3.6	3.1	2.0
12	3.8	4.0	28	57	62	183	189	44	12	3.5	3.4	2.8
13	3.6	3.9	23	56	62	163	158	42	12	3.6	3.0	3.4
14	3.5	3.9	20	55	70	137	137	41	11	4.5	2.9	2.9
15	3.4	3.9	200	54	190	121	119	40	11	4.0	2.7	2.6
16	3.4	4.0	319	53	250	105	107	39	11	3.5	2.7	2.4
17	3.4	4.5	155	92	170	95	99	39	11	3.2	2.5	2.2
18	3.4	4.2	109	153	200	94	116	39	10	4.3	2.3	2.0
19	3.4	4.0	87	124	394	95	99	37	9.7	6.0	2.3	3.0
20	3.4	3.9	147	378	773	91	88	37	9.3	13	2.2	10
21	3.8	3.9	207	180	379	82	85	36	8.7	58	2.1	5.0
22	3.6	3.9	148	112	261	75	143	34	8.0	25	2.0	4.5
23	3.5	4.1	115	88	265	75	155	38	7.4	12	2.0	3.0
24	4.0	5.0	96	77	220	78	134	37	6.7	7.2	1.9	2.5
25	3.9	10	224	62	164	110	108	32	6.4	5.5	1.8	3.0
26	4.4	19	271	55	134	136	97	29	5.8	5.1	1.6	2.5
27	7.0	15	212	50	123	112	90	27	5.3	4.5	1.7	2.2
28	5.6	14	442	50	105	95	83	26	5.0	4.0	1.8	1.9
29	5.0	28	473	51	99	116	74	24	4.8	3.6	1.8	1.8
30	4.8	31	260	56	---	461	69	23	4.8	3.5	1.8	2.2
31	4.7	---	198	72	---	334	---	21	---	6.1	1.8	---
TOTAL	123.5	217.5	4027	2668	6381	5131	9470	1285	331.9	219.0	85.8	85.4
MEAN	3.98	7.25	130	86.1	220	166	316	41.5	11.1	7.06	2.77	2.85
MAX	7.0	31	473	378	773	461	2180	65	20	58	5.5	10
MIN	3.3	3.9	17	47	62	75	69	21	4.8	3.0	1.6	1.7
CFSM	.03	.05	.93	.62	1.58	1.19	2.27	.30	.08	.05	.02	.02
IN.	.03	.06	1.08	.71	1.71	1.37	2.53	.34	.09	.06	.02	.02

CAL YR 1987 TOTAL 21965.3 MEAN 60.2 MAX 1160 MIN 3.3 CFSM .43 IN. 5.88
WTR YR 1988 TOTAL 30025.1 MEAN 82.0 MAX 2180 MIN 1.6 CFSM .59 IN. 8.04

03340900 BIG RACCOON CREEK AT FERNDAL, IN

LOCATION.--Lat 39°42'40", long 87°04'15", in SE1SE1 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 mi².

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.--32 years, 228 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,500 ft³/s June 28, 1957, gage height, 19.87 ft, from rating curve extended above 5,000 ft³/s on basis of records for station at Big Raccoon Creek at Mansfield; minimum daily, 2.7 ft³/s Oct. 11, 1956; no flow, Aug. 23, 24, 1977, July 26, 1986, Mar. 11, 12, 18, 19, 1987, due to regulation.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,020 ft³/s, Apr. 12; minimum daily, 17 ft³/s, many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	377	157	309	110	29	26	48	17	17	17	17
2	40	376	72	308	76	29	27	30	17	17	17	17
3	40	374	31	306	59	30	27	17	17	17	17	17
4	40	372	31	305	60	30	27	17	17	17	17	17
5	40	370	31	303	244	30	27	17	17	17	17	17
6	34	388	32	301	409	31	28	17	17	17	17	68
7	28	386	32	298	407	31	29	17	17	17	17	119
8	28	384	32	134	406	32	30	17	17	17	17	119
9	23	459	32	53	403	32	30	17	17	17	17	118
10	19	511	32	53	746	32	30	17	17	17	17	118
11	19	507	43	53	987	33	574	17	17	17	17	118
12	19	503	54	53	859	33	1020	17	17	17	17	118
13	19	499	54	53	313	33	1010	17	17	17	17	81
14	19	495	54	53	53	33	1010	17	17	17	17	36
15	19	490	54	53	54	34	999	17	17	17	17	17
16	19	486	87	53	55	34	992	17	17	17	17	17
17	115	481	111	54	180	34	827	17	17	17	17	17
18	149	477	111	54	430	34	627	17	17	17	17	17
19	206	472	111	73	554	34	534	17	17	17	17	17
20	329	433	131	111	562	34	851	17	17	17	17	17
21	350	405	346	270	566	29	559	17	17	17	17	17
22	348	350	498	237	292	24	121	17	17	17	17	17
23	369	310	494	236	98	24	96	17	17	17	17	17
24	390	308	489	392	58	24	96	17	17	17	17	17
25	388	306	254	355	65	24	97	17	17	17	17	17
26	387	304	171	247	100	24	68	17	17	17	17	17
27	385	302	233	54	101	24	48	17	17	17	17	17
28	384	423	235	54	101	25	48	17	17	17	17	17
29	382	457	238	54	65	25	48	17	17	17	17	17
30	380	319	274	81	---	25	48	17	17	17	17	17
31	379	---	309	108	---	26	---	17	---	17	17	---
TOTAL	5387	12324	4833	5068	8413	916	9954	571	510	527	527	1252
MEAN	174	411	156	163	290	29.5	332	18.4	17.0	17.0	17.0	41.7
MAX	390	511	498	392	987	34	1020	48	17	17	17	119
MIN	19	302	31	53	53	24	26	17	17	17	17	17

CAL YR 1987 TOTAL 37285.00 MEAN 102 MAX 511 MIN .00
WTR YR 1988 TOTAL 50282 MEAN 137 MAX 1020 MIN 17

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 mi².

PERIOD OF RECORD.--October 1956 to September 1988. (Discharge record discontinued.) 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: Jan. 6-16 and Feb. 6-9. Records good except for estimated daily discharges, which are fair. Flow regulated by Cecil M. Harden Lake.

AVERAGE DISCHARGE.--32 years, 489 ft³/s, 14.82 in./yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 108,000 ft³/s June 28, 1957, gage height, 21.23 ft, from rating curve extended above 35,000 ft³/s on basis of an estimate made by slope-area study; minimum daily, 6.5 ft³/s Oct. 10, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,480 ft³/s Apr. 7, gage height, 11.72 ft; minimum daily, 34 ft³/s Sept. 29, 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	404	339	589	1160	259	1490	230	82	50	51	36
2	69	404	257	517	1840	257	1380	220	80	50	49	36
3	70	404	196	508	967	398	895	200	77	49	47	47
4	67	406	175	488	768	688	750	184	75	49	46	50
5	67	416	163	446	579	461	599	175	74	49	46	45
6	67	416	153	400	480	572	1490	169	74	49	49	41
7	66	417	151	370	480	555	2750	162	72	48	47	79
8	63	417	149	330	480	537	1320	158	71	48	44	110
9	61	422	148	220	480	493	885	185	73	47	43	117
10	61	517	146	200	679	428	683	166	69	47	43	121
11	60	526	144	190	1200	370	618	151	67	50	44	123
12	58	527	151	185	1190	359	1380	143	66	50	43	129
13	56	527	153	180	851	359	1400	137	65	48	43	134
14	56	526	152	175	366	317	1380	132	64	56	43	96
15	55	524	611	170	484	294	1350	126	63	56	43	63
16	57	521	483	170	467	273	1320	122	64	48	41	49
17	81	526	351	242	428	257	1300	118	64	47	40	44
18	161	518	292	502	599	257	992	113	62	55	39	42
19	155	513	299	460	1150	248	817	109	61	56	40	44
20	290	500	436	940	1830	238	886	106	60	164	40	64
21	322	444	455	545	1250	226	1170	104	58	154	40	50
22	331	427	648	604	1040	212	531	102	57	79	39	43
23	337	366	640	571	593	204	497	136	57	65	39	39
24	383	359	634	542	473	207	426	120	55	59	38	37
25	392	387	731	509	366	333	372	104	55	56	37	37
26	397	405	534	465	350	378	344	98	53	56	36	37
27	411	370	578	314	352	299	296	94	52	54	37	36
28	407	414	913	256	322	262	274	91	52	52	40	35
29	404	561	952	243	309	297	256	89	52	50	39	34
30	403	460	695	250	---	1090	243	86	52	50	38	34
31	404	---	654	309	---	860	---	84	---	50	37	---
TOTAL	5885	13624	12383	11890	21533	11988	28094	4214	1926	1841	1301	1852
MEAN	190	454	399	384	743	387	936	136	64.2	59.4	42.0	61.7
MAX	411	561	952	940	1840	1090	2750	230	82	164	51	134
MIN	55	359	144	170	309	204	243	84	52	47	36	34
CFSM	.42	1.01	.89	.86	1.66	.86	2.09	.30	.14	.13	.09	.14
IN.	.49	1.13	1.03	.99	1.79	1.00	2.33	.35	.16	.15	.11	.15

CAL YR 1987 TOTAL 92770 MEAN 254 MAX 2120 MIN 55 CFSM .57 IN. 7.70
WTR YR 1988 TOTAL 116531 MEAN 318 MAX 2750 MIN 34 CFSM .71 IN. 9.68

03341500 WABASH RIVER AT TERRE HAUTE, IN

LOCATION.--Lat 39°28'33", long 87°25'07", in NE 1/4 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.--12,265 mi².

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. WDR IN-86-1: 1913 (Gage height).

GAGE.--Water-stage recorder. Datum of gage is 445.78 ft (corrected) 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.--No estimated daily discharges. Records good except those for January and February, which are fair. Flow partially regulated by upstream reservoirs.

AVERAGE DISCHARGE.--61 years, 10,800 ft³/s, 11.95 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 189,000 ft³/s May 20, 1943, gage height, 30.50 ft; minimum daily, 701 ft³/s Aug. 3, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 27, 1913, reached a stage of 31.3 ft, present site and datum, discharge, 245,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 35,400 ft³/s Apr. 12, gage height, 16.70 ft; minimum daily, 1,080 ft³/s Sept. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3520	3050	11300	26800	11100	11700	24200	6190	3120	1410	1480	1090
2	3520	3040	11500	21400	20200	10600	25700	6010	2960	1440	1550	1080
3	3370	2960	11000	16500	26000	10800	23000	5660	2850	1510	1560	1090
4	3230	2820	9970	13200	24600	12200	21800	5510	2760	1580	1600	1270
5	3040	2840	8870	11000	20700	11000	20500	5280	2590	1490	1880	1360
6	2950	2740	7680	8920	17200	10600	20900	5090	2640	1360	1900	1320
7	2890	2630	6850	6890	14400	10600	28100	4990	2480	1360	1710	1360
8	2700	2670	6650	5980	12700	11100	31500	4860	2520	1380	1590	1430
9	2730	2550	8090	6200	11500	13200	33100	4880	2410	1310	1520	1360
10	2690	2500	11100	6580	10700	15000	33900	4920	2290	1220	1480	1330
11	2690	2700	12100	6560	10200	16300	35000	4730	2360	1250	1430	1510
12	2740	2810	12000	6600	9690	16700	34900	4620	2240	1270	1550	1650
13	2560	2710	10800	6660	8750	17100	32700	4410	2160	1380	1610	1690
14	2590	2600	9220	6560	7500	16300	26900	4290	2150	1550	1560	1530
15	2440	2640	10000	6370	7700	14500	21000	4130	2170	1600	1450	1540
16	2540	2610	16800	6070	10100	12000	17700	3910	2060	1390	1400	1440
17	2550	2520	22900	6320	11900	10300	14700	3900	2040	1380	1360	1370
18	2540	2820	25200	7810	13400	9580	12500	3790	2000	1310	1350	1390
19	2550	3010	24600	8880	16300	9230	11300	3720	1960	1350	1350	1550
20	2430	2850	23700	15100	23400	8900	10400	3700	1920	1660	1320	1740
21	2560	2690	26900	22500	25100	8620	9880	3540	1900	1980	1310	1680
22	2600	2550	29500	23300	23600	8510	9490	3400	1860	1830	1310	1800
23	2580	2520	31500	19900	21600	7950	9190	3660	1910	1600	1370	1970
24	2680	2370	31900	15600	21300	7480	8740	3860	1840	1720	1410	2020
25	2680	2830	29300	12500	22500	7630	8240	3700	1760	2070	1300	2000
26	2690	3460	26500	10000	22100	9350	7780	4080	1790	1910	1260	1840
27	2870	4840	23200	8130	19500	13000	7310	3800	1620	1740	1270	1750
28	2690	7230	22300	7110	15900	15600	7020	3660	1620	1570	1280	1670
29	2880	8640	27100	6750	13100	14400	6780	3520	1550	1610	1310	1640
30	2860	9950	29200	6730	---	17200	6450	3440	1470	1650	1220	1570
31	2900	---	29500	7450	---	20100	---	3240	---	1550	1140	---
TOTAL	86260	102150	567230	340370	472740	377550	560680	134490	65000	47430	44830	46040
MEAN	2783	3405	18300	10980	16300	12180	18690	4338	2167	1530	1446	1535
MAX	3520	9950	31900	26800	26000	20100	35000	6190	3120	2070	1900	2020
MIN	2430	2370	6650	5980	7500	7480	6450	3240	1470	1220	1140	1080
CFSM	.23	.28	1.49	.90	1.33	.99	1.52	.35	.18	.12	.12	.13
IN.	.26	.31	1.72	1.03	1.43	1.15	1.70	.41	.20	.14	.14	.14

CAL YR 1987 TOTAL 2424770 MEAN 6643 MAX 31900 MIN 1870 CFSM .54 IN. 7.35
WTR YR 1988 TOTAL 2844770 MEAN 7773 MAX 35000 MIN 1080 CFSM .63 IN. 8.63

03342000 WABASH RIVER AT RIVERTON, IN

LOCATION.--Lat 39°01'13", long 87°34'07", in NE 1/4 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. 14-17, Feb. 5-9, and Aug. 16 to Sept. 13. Records good. Flow partially regulated by upstream reservoirs.

AVERAGE DISCHARGE.--50 years, 11,830 ft³/s, 12.20 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, 34,500 ft³/s Apr. 14, gage height, 17.40 ft; minimum daily, 1,300 ft³/s Sept. 2-4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3300	3290	10400	28800	16200	14500	24300	7560	3950	1720	2060	1350
2	3750	3400	11500	27900	26600	12900	27500	7280	3780	1680	1920	1300
3	3790	3410	11600	24100	28600	13400	27900	7040	3630	1670	1900	1300
4	3680	3340	10800	19100	29200	19100	26800	6730	3490	1710	1900	1300
5	3580	3230	9820	15200	26000	17000	24900	6530	3380	1750	1920	1500
6	3420	3220	8680	12300	21000	14200	23900	6270	3220	1720	2130	1600
7	3340	3140	7610	10200	18000	13100	26700	6050	3200	1640	2270	1580
8	3270	3060	6970	8070	15000	12700	28300	5920	3060	1610	2080	1600
9	3130	3070	6990	7130	14000	13300	29700	5860	3060	1620	1940	1700
10	3140	2970	8970	7210	13100	15100	31000	5830	2930	1600	1850	1650
11	3140	2930	11600	7380	12000	16600	32000	5800	2820	1570	1820	1600
12	3130	3090	12400	7310	11200	17600	33200	5640	2820	1570	1770	1750
13	3150	3200	12100	7320	10400	18100	34100	5510	2690	1560	1810	1840
14	3040	3100	9600	7320	9260	18200	34400	5340	2590	1580	1860	1830
15	3030	3020	10000	7180	8500	17300	32800	5190	2530	1920	1830	1720
16	2900	3030	15000	6980	9220	15400	28300	5030	2520	1910	1750	1710
17	2930	3020	20000	7170	11500	13100	22700	4840	2420	1630	1700	1690
18	2920	2940	21900	9560	13200	11500	18400	4780	2350	1600	1650	1640
19	2920	3170	23400	10900	16100	10600	15700	4690	2300	1570	1620	1630
20	2930	3350	23900	15400	22400	10200	14100	4590	2240	1840	1600	1740
21	2850	3260	24200	19200	24800	9780	13000	4520	2190	3240	1590	1900
22	2950	3120	25300	22300	25400	9480	12200	4400	2150	2720	1580	1890
23	3000	3000	26500	22800	24900	9260	11600	4430	2060	2330	1570	1940
24	3030	2950	27600	20200	23300	8680	11100	4700	2080	2030	1600	2080
25	3090	2970	28800	16600	22700	8440	10500	4720	2050	2140	1700	2150
26	3080	3330	30100	13600	23100	9150	9870	4590	1950	3500	1630	2140
27	3130	3980	29400	11000	22600	10800	9290	4790	1970	2930	1530	2010
28	3220	5410	28900	9240	20400	14300	8690	4540	1850	2350	1520	1930
29	3120	7640	28700	8240	17200	16400	8270	4400	1810	2080	1550	1870
30	3250	8940	28400	7960	---	21400	7940	4280	1780	2040	1580	1840
31	3250	---	28600	8180	---	22300	---	4160	---	2190	1450	---
TOTAL	98460	107580	559740	405850	535880	433890	639160	166010	78870	61020	54680	51780
MEAN	3176	3586	18060	13090	18480	14000	21310	5355	2629	1968	1764	1726
MAX	3790	8940	30100	28800	29200	22300	34400	7560	3950	3500	2270	2150
MIN	2850	2930	6970	6980	8500	8440	7940	4160	1780	1560	1450	1300
CFSM	.24	.27	1.37	.99	1.40	1.06	1.62	.41	.20	.15	.13	.13
IN.	.28	.30	1.58	1.15	1.51	1.23	1.81	.47	.22	.17	.15	.15

CAL YR 1987 TOTAL 2645380 MEAN 7248 MAX 30100 MIN 2150 CFSM .55 IN. 7.48
WTR YR 1988 TOTAL 3192920 MEAN 8724 MAX 34400 MIN 1300 CFSM .66 IN. 9.02

03342100 BUSSEYON CREEK NEAR HYMERA, IN

LOCATION.--Lat 39°12'54", long 87°18'41", in NW¼ 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 Busseyon Creek, 1.9 mi northwest of Hymera, 4.1 mi upstream from West Fork Busseyon Creek, and at mile 30.3.

DRAINAGE AREA.--16.7 mi².

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

REVISED RECORDS.--WDR IN-72-1: 1971. WDR IN-87-1: 1982-86.

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: Jan. 5-16, 26-29, and Feb. 11-14. Records fair except for estimated daily discharges and discharges less than 0.5 ft³/s, which are poor.

AVERAGE DISCHARGE.--22 years, 18.4 ft³/s, 14.96 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,890 ft³/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, 747 ft³/s Feb. 1, maximum gage height, 17.64 ft Feb. 1; minimum daily discharge, no flow on many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.00	.36	40	493	5.4	203	10	.37	.11	14	.16
2	.03	.00	.19	33	260	8.3	79	6.6	.34	.06	8.4	.12
3	.02	.00	.30	23	109	185	60	5.5	.31	.01	2.8	.13
4	.02	.00	.34	11	101	172	49	4.8	2.8	.00	1.4	.21
5	.02	.00	.18	5.2	61	70	29	3.5	4.1	.00	.75	.15
6	.03	.00	.29	2.2	44	50	296	2.5	1.1	.00	2.0	.10
7	.04	.00	.53	1.6	27	33	168	8.3	.40	.00	.90	.07
8	.05	.00	.28	1.3	19	25	64	3.4	.30	.00	.20	.06
9	.05	.01	.18	1.0	16	18	46	1.8	.28	.00	.20	.05
10	.07	.01	.05	.85	13	14	26	2.4	.23	.00	.24	.04
11	.11	.00	.03	.72	10	11	22	2.5	.22	.01	.17	.02
12	.04	.00	.02	.64	8.2	15	23	1.1	.22	.29	.09	.04
13	.00	.00	.02	.56	7.0	12	18	.96	.22	.34	.11	.05
14	.00	.00	.03	.50	6.0	9.8	20	8.1	.24	.42	.11	.03
15	.00	.00	68	.40	14	8.3	13	10	.25	1.0	.10	.01
16	.00	.00	38	.56	11	7.2	11	4.0	.39	.51	.10	.01
17	.00	.01	22	83	9.1	6.5	8.1	13	.47	.29	.12	.01
18	.00	.01	11	55	11	7.0	9.0	2.7	2.0	1.4	.15	.01
19	.00	.01	4.9	119	115	6.2	9.2	2.6	2.1	.55	3.6	.02
20	.00	.01	36	89	82	5.5	7.5	.73	.72	36	25	.18
21	.00	.00	22	50	39	5.0	6.4	2.5	.27	31	18	.08
22	.00	.00	10	38	27	4.7	5.5	1.6	.15	9.1	8.1	.02
23	.00	.01	4.4	31	22	3.9	6.9	26	.11	2.8	4.4	.01
24	.02	.01	16	27	18	3.3	7.3	5.7	.08	1.1	2.7	.00
25	.02	.20	92	21	15	19	4.6	5.7	.39	151	1.9	.00
26	.01	.27	113	18	13	11	3.4	2.2	.85	93	1.7	.00
27	.03	.13	73	14	11	6.7	3.0	1.5	.59	68	1.7	.00
28	.02	4.4	174	12	8.4	5.2	2.5	1.3	.39	60	1.8	.00
29	.01	2.3	82	9.0	6.9	72	2.2	.59	.23	37	1.8	.00
30	.00	.70	62	11	---	152	12	.51	.16	31	1.7	.00
31	.00	---	49	59	---	92	---	.42	---	23	.30	---
TOTAL	0.63	8.08	880.10	758.53	1576.6	1044.0	1214.6	142.51	20.28	547.99	104.54	1.58
MEAN	.020	.27	28.4	24.5	54.4	33.7	40.5	4.60	.68	17.7	3.37	.053
MAX	.11	4.4	174	119	493	185	296	26	4.1	151	25	.21
MIN	.00	.00	.02	.40	6.0	3.3	2.2	.42	.08	.00	.09	.00
CFSM	.00	.02	1.70	1.47	3.26	2.02	2.42	.28	.04	1.06	.20	.00
IN.	.00	.02	1.96	1.69	3.51	2.33	2.71	.32	.05	1.22	.23	.00

CAL YR 1987 TOTAL 3277.56 MEAN 8.98 MAX 174 MIN .00 CFSM .54 IN. 7.30
WTR YR 1988 TOTAL 6299.44 MEAN 17.2 MAX 493 MIN .00 CFSM 1.03 IN. 14.03

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 mi².

PERIOD OF RECORD.--October 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 474.00 (correction, prior figure in error) ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 1-6, Dec. 18, 19, Dec. 27 to Jan. 16, Jan. 25-29, Feb. 6, 7, 12-14, Apr. 16, 17, 20, 21, 25-29, May 2-26, and June 11 to July 9. Records poor. Flow affected by surface-mined areas.

AVERAGE DISCHARGE.--7 years, 13.2 ft³/s, 19.57 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge recorded, 458 ft³/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, 0.20 ft³/s Sept. 18, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 301 ft³/s Feb. 1, gage height, 9.14 ft; minimum daily, 0.20 ft³/s Sept. 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.90	.92	2.2	17	188	4.6	72	2.7	1.7	.58	.76	.61
2	.70	.95	1.8	12	108	6.0	22	2.4	1.6	.54	.78	.96
3	.55	1.0	2.1	8.0	62	104	7.1	2.2	1.3	1.0	.81	11
4	.40	1.8	1.8	6.0	61	86	4.2	2.0	1.2	.88	.79	1.1
5	.40	1.9	1.6	4.0	21	19	3.0	1.9	.97	.76	7.2	.68
6	.40	1.9	1.9	2.2	18	12	142	1.7	1.1	.65	2.1	1.2
7	.58	1.5	2.3	2.1	13	8.5	48	1.6	1.1	.58	1.2	2.0
8	.58	2.1	2.1	2.0	10	6.9	11	2.2	1.2	.50	1.0	.85
9	.71	2.5	2.7	1.9	8.1	5.8	6.3	10	1.5	.50	.91	2.5
10	1.4	2.6	2.2	1.8	7.2	5.0	5.0	5.0	1.1	.57	1.0	1.2
11	1.1	2.1	1.8	1.7	6.8	4.1	4.0	3.0	.96	4.0	1.2	3.2
12	.68	1.7	1.4	1.7	6.5	5.5	3.5	2.3	.86	1.1	.99	.36
13	.59	1.5	1.3	1.6	6.2	4.0	3.2	1.9	.76	1.3	.88	.27
14	.50	2.1	4.6	1.6	6.0	3.2	3.1	4.5	.70	7.6	.82	.25
15	.46	2.1	58	1.5	8.4	2.9	2.6	15	.66	1.8	.90	.22
16	.43	2.0	12	8.0	6.6	2.5	2.5	10	1.2	1.6	.74	.22
17	.40	2.4	9.1	59	6.6	2.1	2.4	6.0	1.0	1.7	.65	.24
18	.51	2.2	8.0	26	7.4	4.2	3.1	4.0	.80	4.3	.73	.20
19	.51	2.0	10	85	44	6.1	2.8	3.0	.75	1.1	1.4	11
20	.49	2.1	15	54	37	3.6	2.6	2.1	.72	14	1.2	3.1
21	.46	1.8	9.5	19	13	2.8	2.4	2.0	.68	2.8	.77	1.2
22	.41	1.8	10	12	11	2.3	3.3	1.9	.66	1.5	.67	.86
23	.43	2.0	7.5	10	9.4	2.2	2.8	40	.62	1.1	1.2	.79
24	2.8	2.3	23	8.7	7.5	1.5	2.4	12	.60	.81	1.9	.54
25	1.9	6.4	70	8.0	6.7	14	2.3	3.0	1.0	14	2.2	.43
26	1.6	4.4	79	7.0	6.2	4.4	2.2	2.6	.80	3.9	1.8	.36
27	3.9	3.5	50	6.4	5.5	2.6	2.1	2.3	.60	2.2	2.2	.39
28	1.7	20	100	5.6	4.9	1.9	2.0	2.1	1.0	1.4	.53	.51
29	1.2	3.7	60	6.0	4.7	48	1.9	1.9	.90	1.1	.40	.46
30	1.0	2.3	35	6.9	---	61	2.7	1.9	.64	1.7	.42	.39
31	.96	---	25	24	---	26	---	1.7	---	1.1	.64	---
TOTAL	28.65	85.57	610.9	410.7	700.7	462.7	374.5	154.9	28.68	76.67	38.79	47.09
MEAN	.92	2.85	19.7	13.2	24.2	14.9	12.5	5.00	.96	2.47	1.25	1.57
MAX	3.9	20	100	85	188	104	142	40	1.7	14	7.2	11
MIN	.40	.92	1.3	1.5	4.7	1.5	1.9	1.6	.60	.50	.40	.20
CFSM	.10	.31	2.15	1.45	2.64	1.63	1.36	.55	.10	.27	.14	.17
IN.	.12	.35	2.48	1.67	2.85	1.88	1.52	.63	.12	.31	.16	.19

CAL YR 1987 TOTAL 2420.55 MEAN 6.63 MAX 123 MIN .34 CFSM .72 IN. 9.83
WTR YR 1988 TOTAL 3019.85 MEAN 8.25 MAX 188 MIN .20 CFSM .90 IN. 12.26

03342500 BUSSEY CREEK NEAR CARLISLE, IN

LOCATION.--Lat 38°58'26", long 87°25'33", in NW 1/4 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 mi².

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: Jan. 3-16, 25-30, Feb. 13, 14, and May 24 to June 2. Records good except for estimated daily discharges, which are poor. Flow affected by U.S. Soil Conservation Service floodwater-retarding structures and surface-mined areas.

AVERAGE DISCHARGE.--45 years, 228 ft³/s, 13.58 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,800 ft³/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 ft³/s and maximum(*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 2	0500	*2,430	*14.23

Minimum daily discharge, 3.3 ft³/s Oct. 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	11	27	274	1360	119	1330	47	19	6.9	45	5.2
2	3.9	10	24	197	2380	124	1340	45	18	6.7	21	5.8
3	3.4	10	21	160	2110	740	1120	38	17	7.8	16	16
4	3.5	10	20	120	2270	1530	753	34	14	8.1	13	13
5	3.5	9.3	19	97	1870	1410	478	33	14	7.3	14	9.1
6	3.4	9.2	19	80	1110	1180	891	31	15	6.6	59	7.2
7	3.3	8.9	19	66	606	714	1310	28	14	6.2	17	7.2
8	4.3	10	20	57	383	432	1320	30	14	5.0	13	6.4
9	4.5	12	19	51	300	335	1050	43	12	4.7	10	5.8
10	5.6	12	18	45	248	271	582	39	12	4.8	8.6	5.8
11	6.9	13	16	41	213	226	367	31	11	5.4	7.5	5.8
12	7.8	13	15	38	171	222	284	29	11	10	7.2	5.3
13	6.6	13	14	34	140	231	234	27	10	8.1	6.7	7.3
14	6.3	14	14	31	130	192	199	26	8.9	9.8	6.2	10
15	6.3	15	227	29	201	169	176	26	8.3	13	5.9	8.8
16	6.0	13	242	28	174	149	145	32	8.6	15	5.6	6.4
17	5.6	13	112	265	156	135	129	35	11	9.7	5.3	5.8
18	5.9	13	58	609	152	131	123	31	10	8.1	5.1	6.0
19	6.6	14	52	700	462	138	119	29	9.0	11	91	6.8
20	7.0	14	93	1000	919	126	103	27	8.7	19	76	16
21	7.1	13	128	847	748	118	100	25	8.1	107	20	16
22	6.9	12	103	497	418	106	100	24	8.5	41	19	11
23	7.5	13	68	323	333	96	89	49	7.6	18	14	9.5
24	8.7	14	63	262	259	84	93	100	7.4	12	12	8.5
25	11	19	262	200	210	170	79	45	7.2	41	10	7.4
26	12	22	778	145	181	226	66	34	6.7	231	7.9	6.3
27	13	14	613	125	170	184	60	31	6.7	117	6.7	5.0
28	13	25	955	105	151	157	53	29	6.7	61	6.6	3.9
29	13	59	955	94	134	271	47	26	7.7	42	6.2	4.3
30	12	32	657	90	---	998	44	23	7.6	45	6.1	4.5
31	11	---	383	191	---	1120	---	21	---	46	5.5	---
TOTAL	220.8	460.4	6014	6801	17959	12104	12784	1068	319.7	934.2	547.1	236.1
MEAN	7.12	15.3	194	219	619	390	426	34.5	10.7	30.1	17.6	7.87
MAX	13	59	955	1000	2380	1530	1340	100	19	231	91	16
MIN	3.3	8.9	14	28	130	84	44	21	6.7	4.7	5.1	3.9
CFSM	.03	.07	.85	.96	2.72	1.71	1.87	.15	.05	.13	.08	.03
IN.	.04	.08	.98	1.11	2.93	1.97	2.09	.17	.05	.15	.09	.04

CAL YR 1987 TOTAL 36688.2 MEAN 101 MAX 1180 MIN 2.7 CFSM .44 IN. 5.99
WTR YR 1988 TOTAL 59448.3 MEAN 162 MAX 2380 MIN 3.3 CFSM .71 IN. 9.70

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 mi².

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.--Estimated daily discharges: Jan. 10, 11. Records good. Flow partially regulated by upstream reservoirs.

AVERAGE DISCHARGE.--59 years, 12,010 ft³/s, 11.90 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 189,000 ft³/s May 22, 23, 1943, gage height, 29.33 ft, at former site 1.8 mi downstream and at present datum; minimum daily, 770 ft³/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 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 37,200 ft³/s Feb. 5, gage height, 17.69 ft; minimum daily, 1,500 ft³/s Sept. 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3250	3630	9960	30100	15700	16400	29100	7880	4250	2110	2230	1590
2	4030	3720	11300	29900	28400	14300	31300	7600	4020	2070	2080	1570
3	4340	3800	11900	28500	32100	14600	31900	7300	3810	2040	1980	1550
4	4340	3780	11600	24200	34700	21500	31600	6970	3610	2040	1970	1500
5	4250	3610	10700	18500	36500	22700	30300	6740	3510	2060	1980	1540
6	4110	3540	9620	14600	35300	19800	28900	6480	3390	2090	2080	1610
7	3990	3490	8560	12000	32100	17800	29500	6220	3280	2050	2280	1660
8	3850	3400	7650	9740	25800	16500	30100	6050	3250	2000	2220	1670
9	3700	3350	7250	8280	19700	15100	30500	6050	3160	1990	2070	1700
10	3680	3280	7900	7400	15800	15700	30400	5940	3130	1960	1960	1740
11	3640	3200	10500	7600	13700	17100	30400	5890	3030	1950	1910	1720
12	3580	3230	12200	7520	12300	18300	30700	5750	2940	1920	1890	1710
13	3570	3470	12500	7410	11400	18900	31100	5600	2940	1900	1840	1830
14	3480	3490	11700	7400	10400	19100	31600	5390	2830	1920	1900	1910
15	3400	3360	11200	7300	9520	18600	31700	5220	2780	2000	1920	1890
16	3320	3320	12100	7140	9310	17100	30700	5150	2740	2310	1900	1840
17	3240	3380	16100	7260	10900	14700	27100	5020	2720	2120	1840	1820
18	3250	3270	19900	9450	12900	12700	21700	4900	2650	1960	1780	1740
19	3270	3290	22000	11600	15200	11500	17600	4850	2610	1970	1740	1680
20	3280	3600	23100	17300	21300	10900	15100	4730	2520	2040	1910	1750
21	3200	3630	23800	20500	25100	10500	13600	4660	2510	2680	1830	1880
22	3170	3490	24800	24000	26600	10100	12700	4530	2470	3190	1740	1980
23	3290	3350	25500	25700	26900	9890	12100	4560	2410	2660	1730	1980
24	3340	3290	26200	25100	25800	9430	11500	4730	2350	2360	1710	2070
25	3370	3280	27200	21000	24100	9180	11000	4940	2370	2270	1730	2180
26	3400	3410	29200	16300	23500	9760	10300	4790	2320	2890	1740	2240
27	3450	3880	30000	12700	23300	10900	9710	4860	2250	3720	1700	2210
28	3510	4950	30800	10300	22200	13600	9070	4890	2250	2650	1660	2100
29	3500	6950	30800	8810	19400	16700	8620	4640	2180	2270	1660	2050
30	3490	8750	30500	8170	---	22200	8270	4540	2160	2110	1640	2030
31	3630	---	30300	8130	---	25800	---	4430	---	2150	1650	---
TOTAL	110920	114190	556840	453910	619930	481360	678170	171300	86440	69450	58270	54740
MEAN	3578	3806	17960	14640	21380	15530	22610	5526	2881	2240	1880	1825
MAX	4340	8750	30800	30100	36500	25800	31900	7880	4250	3720	2280	2240
MIN	3170	3200	7250	7140	9310	9180	8270	4430	2160	1900	1640	1500
CFSM	.26	.28	1.31	1.07	1.56	1.13	1.65	.40	.21	.16	.14	.13
IN.	.30	.31	1.51	1.23	1.68	1.31	1.84	.46	.23	.19	.16	.15

CAL YR 1987 TOTAL 2799210 MEAN 7669 MAX 30800 MIN 2380 CFSM .56 IN. 7.60
WTR YR 1988 TOTAL 3455520 MEAN 9441 MAX 36500 MIN 1500 CFSM .69 IN. 9.38

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 mi².

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: Jan. 3-16, 26-28, and Feb. 6-9. Records good except for estimated daily discharges and discharge below 10 ft³/s, which are poor. 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.--57 years (1931 to current year), 208 ft³/s, 11.71 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,300 ft³/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 ft³/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 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s and maximum(*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 7	1800	*1,760	*6.86

Minimum daily discharge, 3.8 ft³/s July 6, 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	29	57	132	280	126	112	62	29	4.1	7.3	6.8
2	25	26	51	97	1040	125	114	59	27	4.4	7.4	8.9
3	24	24	50	80	743	132	120	57	31	4.8	6.7	7.2
4	28	26	54	62	475	147	267	53	29	4.2	6.6	11
5	28	26	59	43	381	132	310	52	26	4.0	6.2	8.0
6	32	29	52	50	290	149	309	51	25	3.8	6.4	7.0
7	30	31	60	45	250	305	1350	48	24	3.8	31	6.7
8	33	35	63	42	210	644	1140	51	24	3.9	13	6.3
9	39	47	68	42	180	590	609	61	28	3.9	7.0	6.3
10	41	42	65	42	165	463	399	53	17	4.0	6.3	6.2
11	52	29	67	42	141	346	305	49	13	4.4	6.1	6.2
12	34	18	63	45	127	315	245	45	12	4.7	6.1	12
13	32	18	58	48	115	429	208	44	8.2	5.0	6.1	23
14	25	17	50	43	121	326	177	38	7.5	5.5	5.9	45
15	28	19	266	41	315	243	154	32	7.4	6.8	5.6	11
16	22	16	355	49	416	195	138	27	7.4	6.8	6.2	6.6
17	16	15	181	72	333	168	131	29	15	6.9	6.6	5.9
18	15	14	120	94	364	158	119	27	9.7	7.9	6.3	5.2
19	16	15	101	95	457	159	107	28	7.6	14	6.4	11
20	20	12	180	274	1180	152	101	37	7.4	54	12	11
21	14	14	238	218	663	137	96	52	7.2	189	7.5	14
22	17	17	169	118	416	125	101	48	7.0	85	7.1	11
23	17	19	129	91	458	121	104	67	6.6	42	7.1	6.8
24	23	19	113	78	408	117	91	60	6.1	20	6.8	5.9
25	23	52	312	63	281	143	85	53	4.6	10	6.2	5.2
26	30	55	418	50	209	179	81	49	4.5	6.4	6.2	5.2
27	44	57	319	45	182	174	80	44	4.4	6.3	6.3	5.1
28	38	53	249	45	155	147	77	39	4.0	6.2	18	5.3
29	42	70	233	53	136	133	73	36	4.3	6.1	7.5	5.3
30	32	71	182	62	---	123	68	32	5.3	6.8	7.2	7.0
31	29	---	151	71	---	114	---	31	---	9.9	7.3	---
TOTAL	873	915	4533	2332	10491	6817	7271	1414	409.2	544.6	252.4	282.1
MEAN	28.2	30.5	146	75.2	362	220	242	45.6	13.6	17.6	8.14	9.40
MAX	52	71	418	274	1180	644	1350	67	31	189	31	45
MIN	14	12	50	41	115	114	68	27	4.0	3.8	5.6	5.1
CFSM	.12	.13	.61	.31	1.50	.91	1.01	.19	.06	.07	.03	.04
IN.	.13	.14	.70	.36	1.62	1.05	1.12	.22	.06	.08	.04	.04

CAL YR 1987 TOTAL 55447 MEAN 152 MAX 4980 MIN 11 CFSM .63 IN. 8.56
WTR YR 1988 TOTAL 36134.3 MEAN 98.7 MAX 1350 MIN 3.8 CFSM .41 IN. 5.58

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 mi².

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: Jan. 2-12, 14-16, 26-28, Feb. 6, 7, 12, 13, and Apr. 4 to May 19. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--34 years, 35.8 ft³/s, 13.69 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,780 ft³/s Apr. 21, 1964, gage height, 13.96 ft; minimum daily, 4.7 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 7	----	*500	unknown

Minimum daily discharge, 5.5 ft³/s Oct. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	10	18	30	98	22	21	23	13	10	10	8.3
2	5.5	10	19	25	168	22	21	22	13	9.9	10	8.4
3	6.1	10	17	21	77	24	22	21	13	9.7	10	11
4	6.8	9.9	20	19	56	25	45	20	13	9.5	10	9.7
5	6.7	10	17	15	41	23	35	20	12	9.5	10	8.7
6	8.2	9.9	14	19	30	35	100	19	12	9.6	11	8.6
7	8.4	10	20	18	26	60	350	18	12	9.6	10	8.7
8	6.4	9.9	24	18	24	57	250	18	12	9.5	10	8.6
9	7.6	12	24	17	22	46	130	17	13	9.4	9.8	8.5
10	7.5	10	24	17	20	37	95	25	13	9.3	9.7	8.4
11	9.1	10	19	17	19	31	70	20	12	9.9	9.7	8.0
12	8.7	10	19	18	18	39	60	18	12	9.8	9.6	10
13	7.7	9.5	16	18	17	42	52	17	12	9.8	9.9	12
14	8.0	10	15	16	18	32	48	17	12	10	9.3	9.3
15	8.0	8.8	103	15	60	28	45	16	11	10	9.3	8.8
16	7.2	9.0	62	16	37	26	42	16	12	9.5	9.1	8.9
17	8.0	9.0	35	24	35	24	39	16	13	9.9	8.9	9.3
18	8.0	8.1	28	30	39	24	37	16	11	10	8.8	9.0
19	8.2	7.9	27	41	97	24	35	15	10	14	9.3	10
20	9.5	9.4	60	83	133	23	34	16	10	16	9.5	13
21	13	8.3	51	30	65	21	32	15	10	22	8.8	9.6
22	11	7.9	38	21	47	21	31	15	9.9	13	8.5	9.3
23	11	7.8	31	19	53	20	40	17	9.8	11	8.5	9.3
24	12	7.9	29	17	41	20	36	17	10	11	8.7	8.8
25	15	18	104	16	32	27	34	15	9.8	10	8.3	8.9
26	13	22	94	14	28	27	31	15	9.6	11	8.4	8.4
27	20	16	62	13	27	23	29	14	9.1	10	8.5	8.5
28	14	17	56	12	24	21	27	14	9.5	10	9.8	8.3
29	12	30	54	13	23	21	25	14	10	10	9.3	8.3
30	12	21	41	14	---	21	24	13	11	10	8.7	8.5
31	11	---	36	17	---	20	---	13	---	12	8.5	---
TOTAL	295.8	349.3	1177	663	1375	886	1840	532	339.7	334.9	289.9	275.1
MEAN	9.54	11.6	38.0	21.4	47.4	28.6	61.3	17.2	11.3	10.8	9.35	9.17
MAX	20	30	104	83	168	60	350	25	13	22	11	13
MIN	5.5	7.8	14	12	17	20	21	13	9.1	9.3	8.3	8.0
CFSM	.27	.33	1.07	.60	1.34	.81	1.73	.48	.32	.30	.26	.26
IN.	.31	.37	1.23	.69	1.44	.93	1.93	.56	.36	.35	.30	.29

CAL YR 1987 TOTAL 8511.9 MEAN 23.3 MAX 261 MIN 5.5 CFSM .66 IN. 8.92
WTR YR 1988 TOTAL 8357.7 MEAN 22.8 MAX 350 MIN 5.5 CFSM .64 IN. 8.76

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 mi².

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: Jan. 2-16, 25-29, and Feb. 1-16. Records good. Prior to Sept. 15, 1973, the City of Anderson diverted water for its municipal supply above the gage then in use.

AVERAGE DISCHARGE.--58 years, 382 ft³/s, 12.78 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,700 ft³/s Apr. 21, 1964, gage height, 19.41 ft; maximum gage height, 19.96 ft June 14, 1958; minimum daily discharge, 9.1 ft³/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 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 7	2400	*2,530	*7.63

Minimum daily discharge, 33 ft³/s Aug. 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	100	157	287	467	211	248	176	102	58	56	40
2	78	99	148	270	1440	198	251	169	98	54	51	46
3	78	101	139	220	1230	186	247	166	99	49	50	88
4	78	101	150	180	700	181	297	160	99	47	44	74
5	78	101	146	165	600	180	421	160	98	45	41	52
6	84	100	141	150	450	180	467	153	97	43	42	47
7	88	102	160	130	360	169	1680	148	96	42	41	44
8	87	108	171	130	320	158	1890	143	96	44	58	41
9	87	136	182	130	280	218	952	151	120	44	48	38
10	90	120	171	130	250	369	668	160	100	44	43	37
11	100	111	165	140	220	566	544	140	86	48	39	35
12	99	102	165	150	210	525	464	132	84	51	35	45
13	91	97	147	140	190	426	405	129	75	52	35	89
14	90	95	138	125	300	322	368	130	67	60	34	74
15	88	92	499	120	480	257	326	126	62	74	33	75
16	90	93	691	150	525	281	296	123	67	55	35	55
17	92	98	433	204	425	323	276	116	73	52	35	55
18	95	95	300	247	445	315	277	115	79	61	37	44
19	90	93	247	237	548	311	250	111	66	90	37	63
20	93	92	344	459	1470	297	242	116	60	106	36	106
21	95	90	458	475	1130	278	241	129	62	257	46	71
22	90	95	370	302	723	264	250	129	59	230	44	64
23	95	100	295	228	648	262	243	163	58	125	40	60
24	97	111	260	202	686	257	228	154	56	91	40	50
25	110	150	461	185	548	315	210	136	54	77	38	43
26	102	193	673	160	410	335	202	124	51	72	34	41
27	169	144	575	140	315	325	196	120	56	64	34	41
28	125	142	464	125	275	296	197	114	51	60	61	40
29	111	212	460	120	239	274	190	111	53	54	70	40
30	110	175	381	167	---	267	185	108	61	55	51	41
31	105	---	327	180	---	251	---	103	---	83	44	---
TOTAL	2963	3448	9418	6048	15884	8797	12711	4215	2285	2287	1332	1639
MEAN	95.6	115	304	195	548	284	424	136	76.2	73.8	43.0	54.6
MAX	169	212	691	475	1470	566	1890	176	120	257	70	106
MIN	78	90	138	120	190	158	185	103	51	42	33	35
CFSM	.24	.28	.75	.48	1.35	.70	1.04	.33	.19	.18	.11	.13
IN.	.27	.32	.86	.55	1.46	.81	1.16	.39	.21	.21	.12	.15

CAL YR 1987 TOTAL 101923 MEAN 279 MAX 7340 MIN 78 CFSM .69 IN. 9.34
WTR YR 1988 TOTAL 71027 MEAN 194 MAX 1890 MIN 33 CFSM .48 IN. 6.51

03348020 KILLBUCK CREEK NEAR GASTON, IN

LOCATION.--Lat 40°15'45", long 85°30'53", in SE 1/4 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 mi².

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: Jan. 2-5, and Feb. 11-13. Records fair.

AVERAGE DISCHARGE.--20 years, 24.3 ft³/s, 12.94 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,200 ft³/s June 2, 1980, gage height, 12.70 ft; minimum daily, 0.76 ft³/s Jan. 19, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 15	2000	*197	*9.28

Minimum daily discharge, 1.2 ft³/s Sept. 10-11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	3.9	12	16	68	19	15	9.1	3.2	2.2	5.4	1.4
2	4.6	3.9	11	12	139	20	16	8.6	2.7	2.2	3.6	1.3
3	5.4	4.0	10	11	74	20	16	8.4	3.3	2.1	3.0	1.7
4	3.5	4.2	11	10	49	20	16	8.3	3.0	2.0	2.8	2.0
5	4.4	4.1	11	9.0	37	18	15	8.1	3.6	1.8	2.6	1.7
6	3.9	4.3	9.1	8.8	27	19	24	7.8	3.0	1.8	2.6	1.6
7	3.9	4.5	9.5	8.6	23	28	145	7.6	2.8	1.8	2.6	1.5
8	3.8	4.1	14	8.8	20	95	93	7.6	2.8	1.5	2.4	1.4
9	3.9	4.8	15	8.4	18	93	58	8.2	3.0	1.8	2.3	1.4
10	3.9	5.1	15	7.6	16	58	44	7.9	3.3	1.6	2.2	1.2
11	4.2	4.2	12	7.5	13	40	35	7.2	3.1	1.8	2.1	1.2
12	4.2	4.2	12	8.2	12	37	28	6.9	2.8	2.0	1.9	1.4
13	3.9	4.7	11	8.1	12	38	24	6.9	2.7	1.8	1.9	1.7
14	3.8	4.4	9.3	7.1	13	29	22	6.5	2.6	1.8	1.7	1.8
15	3.7	3.7	114	7.3	49	24	19	6.2	2.5	2.7	1.7	1.7
16	3.9	3.0	108	7.7	38	20	18	6.2	2.5	2.1	1.7	1.6
17	4.8	3.4	41	11	35	19	17	6.1	2.5	2.1	1.6	1.5
18	4.3	4.0	25	17	42	19	16	6.0	2.6	2.5	1.6	1.4
19	4.3	4.0	21	15	62	19	15	6.0	2.5	5.4	1.7	1.9
20	4.4	3.4	75	47	119	18	14	6.1	2.5	13	1.6	5.2
21	4.3	3.4	60	31	66	16	13	6.4	2.3	32	1.6	4.2
22	4.5	4.1	35	18	48	15	13	5.7	2.4	10	1.5	3.4
23	4.4	4.4	24	14	70	15	13	6.9	1.9	5.9	1.5	2.7
24	4.6	4.3	21	13	49	15	12	8.5	2.1	4.7	1.5	2.2
25	4.7	6.3	44	11	33	23	11	5.6	2.1	3.9	1.5	1.9
26	5.0	12	47	9.2	26	29	11	5.0	2.0	3.6	1.4	1.8
27	7.3	7.9	34	8.8	24	22	10	4.5	2.0	3.3	1.4	1.8
28	7.7	8.5	30	8.5	21	18	10	4.4	2.0	3.1	1.5	1.7
29	5.2	20	35	8.8	20	17	9.6	4.0	2.1	2.9	1.5	1.6
30	4.1	14	24	9.9	---	16	9.3	3.8	2.3	2.9	1.5	1.7
31	3.9	---	20	12	---	15	---	3.0	---	9.4	1.5	---
TOTAL	137.7	166.8	919.9	380.3	1223	854	761.9	203.5	78.2	135.7	63.4	57.6
MEAN	4.44	5.56	29.7	12.3	42.2	27.5	25.4	6.56	2.61	4.38	2.05	1.92
MAX	7.7	20	114	47	139	95	145	9.1	3.6	32	5.4	5.2
MIN	3.2	3.0	9.1	7.1	12	15	9.3	3.0	1.9	1.5	1.4	1.2
CFSM	.17	.22	1.16	.48	1.65	1.08	1.00	.26	.10	.17	.08	.08
IN.	.20	.24	1.34	.55	1.78	1.25	1.11	.30	.11	.20	.09	.08

CAL YR 1987 TOTAL 5521.7 MEAN 15.1 MAX 199 MIN 1.9 CFSM .59 IN. 8.06
WTR YR 1988 TOTAL 4982.0 MEAN 13.6 MAX 145 MIN 1.2 CFSM .53 IN. 7.27

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 mi².

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: Jan. 1-15, 25-29, and Feb. 5-14. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--20 years, 99.6 ft³/s, 11.97 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,340 ft³/s June 3, 1980, gage height, 14.78 ft; minimum daily, 3.6 ft³/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 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 7	1700	1,490	9.71

Minimum daily discharge, 3.1 ft³/s Aug. 26, 27, Sept. 10, 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	8.3	40	72	184	69	76	29	13	8.3	16	3.2
2	5.8	7.9	34	64	439	69	158	28	13	7.9	12	3.8
3	6.2	8.7	31	55	332	73	156	26	13	7.4	8.4	9.1
4	6.3	9.6	28	41	200	73	140	25	13	7.9	6.7	7.7
5	6.5	9.9	25	42	125	64	113	25	12	6.9	6.0	5.0
6	6.8	9.2	23	38	100	64	209	24	12	7.1	5.8	4.5
7	7.6	9.3	25	34	82	90	1160	23	12	6.5	5.5	3.7
8	7.5	9.0	33	31	70	315	895	23	12	6.4	5.1	3.7
9	7.2	12	45	29	60	390	446	24	13	5.8	4.8	3.6
10	7.2	12	57	28	54	258	292	25	11	5.8	4.5	3.1
11	8.3	10	46	29	48	175	213	23	11	7.9	4.7	3.1
12	8.1	9.7	38	30	46	148	159	21	11	8.2	4.7	3.8
13	7.5	9.5	32	27	45	140	125	20	11	5.7	4.5	9.5
14	7.4	9.8	27	26	47	113	106	19	10	5.7	4.4	5.4
15	7.4	9.4	233	27	187	95	91	18	9.7	6.5	4.2	4.2
16	7.2	9.5	482	30	176	80	78	16	9.9	6.4	4.2	3.5
17	7.1	9.8	227	43	130	71	70	16	11	8.7	4.0	3.7
18	7.1	11	119	105	153	69	68	15	10	7.1	3.7	3.6
19	7.4	10	87	69	209	69	60	16	9.6	7.9	3.5	4.0
20	7.5	9.9	259	219	435	65	53	15	9.0	21	3.3	12
21	7.6	10	325	172	284	58	50	15	9.1	28	3.8	9.5
22	7.5	10	170	100	185	53	51	14	8.8	18	3.7	8.6
23	7.1	9.9	113	74	293	52	48	20	8.3	12	3.5	5.9
24	8.4	9.8	90	61	220	51	43	20	8.2	9.0	3.4	4.1
25	9.9	22	114	44	140	89	38	18	7.9	7.9	3.2	3.9
26	12	33	139	40	107	144	37	16	7.3	7.4	3.1	3.8
27	20	25	119	35	95	110	37	15	7.4	6.9	3.1	3.5
28	14	22	118	34	81	86	36	15	7.4	6.7	3.2	3.3
29	11	41	196	31	75	77	33	15	8.1	6.4	4.0	3.3
30	9.7	50	124	43	---	77	30	14	9.4	6.9	3.7	3.2
31	8.6	---	93	57	---	68	---	14	---	8.5	3.5	---
TOTAL	257.7	427.2	3492	1730	4602	3355	5071	607	308.1	272.8	154.2	149.3
MEAN	8.31	14.2	113	55.8	159	108	169	19.6	10.3	8.80	4.97	4.98
MAX	20	50	482	219	439	390	1160	29	13	28	16	12
MIN	5.8	7.9	23	26	45	51	30	14	7.3	5.7	3.1	3.1
CFSM	.07	.13	1.00	.49	1.40	.96	1.50	.17	.09	.08	.04	.04
IN.	.08	.14	1.15	.57	1.51	1.10	1.67	.20	.10	.09	.05	.05

CAL YR 1987 TOTAL 15415.2 MEAN 42.2 MAX 482 MIN 5.7 CFSM .37 IN. 5.07
WTR YR 1988 TOTAL 20426.3 MEAN 55.8 MAX 1160 MIN 3.1 CFSM .49 IN. 6.72

03349000 WHITE RIVER AT NOBLESVILLE, IN

LOCATION.--Lat 40°02'50", long 86°01'00", in SE 1/4 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. 2-11, 25-29, Feb. 2-14, and July 7, 8. Records good except for estimated daily discharges, which are poor. Flow slightly regulated by powerplant above station.

AVERAGE DISCHARGE.--42 years, 827 ft³/s, 13.09 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 (ft ³ /s)	Gage height (ft)
Apr. 8	0600	*6,930	*12.97

Minimum daily discharge, 74 ft³/s Aug. 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	132	150	337	678	792	578	605	344	179	118	133	90
2	126	138	297	500	2500	549	936	335	172	114	133	86
3	123	141	275	400	2850	566	970	332	169	107	117	159
4	126	141	264	350	1800	592	967	323	168	101	108	183
5	125	135	263	300	1200	563	925	313	169	98	102	141
6	128	135	248	250	600	550	1400	302	165	98	102	105
7	139	141	256	260	450	720	5760	293	164	96	106	100
8	146	144	292	270	400	1600	6650	276	163	97	96	96
9	145	164	349	260	370	2440	4220	278	175	98	108	95
10	147	184	380	250	350	1980	2560	290	184	99	103	93
11	156	168	367	240	330	1430	1800	275	164	101	98	89
12	158	156	332	209	310	1160	1370	256	150	100	94	91
13	158	144	300	365	300	1120	1090	240	142	104	92	154
14	149	131	264	344	330	1110	910	230	141	107	89	150
15	145	125	737	329	539	905	778	222	137	119	85	131
16	144	119	2290	304	1040	751	693	211	134	132	81	131
17	138	128	1680	340	930	663	632	206	154	131	80	113
18	133	132	921	504	826	617	615	202	142	122	79	106
19	129	126	681	580	1070	603	568	197	142	155	82	102
20	126	118	867	925	2450	580	510	195	129	184	80	190
21	122	120	1490	1220	2760	540	479	202	124	357	79	187
22	128	120	1180	813	1630	501	495	214	122	409	79	151
23	132	115	840	571	1570	479	506	264	117	293	83	135
24	142	126	669	458	1660	472	468	281	114	186	81	118
25	145	191	742	350	1240	595	422	252	114	146	77	103
26	142	311	1240	250	936	866	404	225	110	124	76	94
27	207	282	1260	220	790	800	396	207	105	114	74	92
28	254	251	1070	230	696	686	391	201	109	106	75	90
29	195	265	1190	300	630	626	374	192	109	101	101	88
30	171	370	1020	327	---	610	357	185	113	118	118	86
31	164	---	807	341	---	567	---	182	---	131	97	---
TOTAL	4575	4971	22908	12738	31349	25819	38251	7725	4280	4366	2908	3549
MEAN	148	166	739	411	1081	833	1275	249	143	141	93.8	118
MAX	254	370	2290	1220	2850	2440	6650	344	184	409	133	190
MIN	122	115	248	209	300	472	357	182	105	96	74	86
CFSM	.17	.19	.86	.48	1.26	.97	1.49	.29	.17	.16	.11	.14
IN.	.20	.22	.99	.55	1.36	1.12	1.66	.33	.19	.19	.13	.15

CAL YR 1987 TOTAL 170078 MEAN 466 MAX 5080 MIN 115 CFSM .54 IN. 7.37
WTR YR 1988 TOTAL 163439 MEAN 447 MAX 6650 MIN 74 CFSM .52 IN. 7.09

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, 1.6 mi downstream from Morse Reservoir, 1.9 mi downstream from Hinkle Creek, and 3.2 mi upstream from mouth.

DRAINAGE AREA.--216 mi².

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: Oct. 12 to Nov. 4 and Jan. 4-6. Records good except for estimated daily discharges, which are poor. Flow regulated by Morse Reservoir.

AVERAGE DISCHARGE.--33 years (1951-80, 1986 to current year), 191 ft³/s, 12.01 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,800 ft³/s June 28, 1957, gage height, 15.26 ft; minimum daily, 0.25 ft³/s Oct. 21, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,490 ft³/s Apr. 7, gage height, 12.45 ft; minimum daily, 0.52 ft³/s Aug. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.6	1.2	199	193	149	335	63	5.7	39	.77	33
2	4.3	1.6	1.3	140	517	143	614	49	8.5	33	.55	38
3	2.9	1.6	6.5	134	637	189	594	58	10	30	.52	65
4	1.9	1.5	4.0	120	430	183	500	60	8.5	33	10	49
5	6.1	10	1.1	95	273	143	391	66	13	40	24	2.8
6	1.6	2.8	.85	85	179	136	797	45	3.1	45	25	18
7	1.3	1.6	.90	82	160	189	3170	43	4.0	63	24	28
8	1.3	1.5	1.0	76	151	462	2670	34	4.6	84	19	43
9	1.3	5.5	23	71	134	810	1430	51	13	84	16	33
10	1.6	9.9	38	68	119	620	891	64	2.9	72	27	33
11	1.8	3.0	46	61	112	441	641	46	4.8	53	27	34
12	1.6	1.5	54	57	100	344	460	37	5.6	45	24	44
13	1.4	1.4	29	46	91	292	343	46	10	45	33	29
14	1.4	1.3	50	57	87	256	273	48	25	48	40	2.2
15	1.3	1.3	308	46	140	207	217	37	21	46	45	.82
16	1.3	1.2	618	51	227	179	169	32	16	39	61	.90
17	1.2	1.3	367	71	240	151	139	29	12	31	76	4.7
18	1.2	1.5	228	88	332	143	167	25	13	27	84	20
19	1.4	1.6	188	117	476	138	126	18	12	22	91	19
20	1.3	8.2	296	216	794	132	106	15	12	10	85	2.1
21	1.2	2.1	479	240	590	125	108	32	13	1.1	74	1.0
22	1.2	1.3	370	168	435	108	124	29	26	.64	79	.98
23	1.1	40	262	122	546	104	131	44	30	.57	74	4.5
24	1.1	89	195	101	531	110	108	73	42	.66	67	1.8
25	1.5	89	223	90	344	171	89	36	53	.60	67	.93
26	1.4	88	262	79	254	221	86	10	53	.57	67	10
27	3.0	50	261	68	220	196	90	13	52	.54	63	25
28	2.4	1.5	284	60	177	160	98	24	53	7.4	55	23
29	2.0	1.2	386	57	160	158	74	22	46	23	50	29
30	1.8	.96	308	67	---	204	51	26	39	41	40	36
31	1.7	---	242	94	---	256	---	7.4	---	23	33	---
TOTAL	56.2	422.96	5533.85	3026	8649	7120	14992	1182.4	611.7	988.08	1381.84	631.73
MEAN	1.81	14.1	179	97.6	298	230	500	38.1	20.4	31.9	44.6	21.1
MAX	6.1	89	618	240	794	810	3170	73	53	84	91	65
MIN	1.1	.96	.85	46	87	104	51	7.4	2.9	.54	.52	.82
CFSM	.01	.07	.83	.45	1.38	1.06	2.31	.18	.09	.15	.21	.10
IN.	.01	.07	.95	.52	1.49	1.23	2.58	.20	.11	.17	.24	.11

CAL YR 1987 TOTAL 24115.41 MEAN 66.1 MAX 618 MIN .85 CFSM .31 IN. 4.15
WTR YR 1988 TOTAL 44595.76 MEAN 122 MAX 3170 MIN .52 CFSM .56 IN. 7.68

03350700 STONY CREEK NEAR NOBLESVILLE, IN

LOCATION.--Lat 40°01'44", long 85°59'42", in NE 1/4 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 mi².

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: Oct. 1-26, Oct. 31 to Nov. 10, Nov. 13-24, Jan. 3, 5-16, 26, 27, Feb. 5-8, 10, 13, 14, Mar. 2-4, Apr. 14-17, July 7-19, Aug. 15, 16, 25, 26, and Sept. 1, 17-19. Records fair.

AVERAGE DISCHARGE.--21 years, 46.7 ft³/s, 12.48 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,640 ft³/s Feb. 23, 1979; maximum gage height, 7.67 ft Dec. 11, 1985; minimum daily discharge, 2.3 ft³/s Aug. 4, 5, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 7	1130	*733	*5.97

Minimum daily discharge, 2.5 ft³/s Sept. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	4.5	12	47	123	36	40	22	9.3	4.4	7.1	2.5
2	3.0	4.3	11	38	256	35	61	22	9.0	4.0	5.3	2.6
3	3.1	4.2	10	32	167	44	60	22	9.0	4.0	4.8	4.5
4	3.1	4.1	9.5	26	117	44	54	21	9.0	4.0	4.8	5.0
5	3.2	4.0	8.9	22	80	35	47	20	8.5	3.7	4.6	4.6
6	3.3	3.9	8.1	18	60	47	107	19	8.2	3.4	4.4	3.8
7	3.4	3.9	8.6	16	50	80	618	19	8.2	3.3	4.4	3.5
8	3.3	3.8	12	15	43	97	327	18	7.7	3.2	4.3	3.2
9	3.2	4.2	17	14	38	84	217	19	6.6	3.4	4.1	3.0
10	3.2	4.7	27	13	33	68	170	20	7.3	3.4	4.0	2.8
11	3.4	4.7	21	13	29	58	130	20	7.2	3.3	4.0	2.8
12	3.5	4.4	17	14	26	53	103	18	6.9	3.2	4.3	4.8
13	3.3	4.2	15	13	25	53	85	17	6.7	3.2	4.0	6.1
14	3.2	4.0	12	12	27	48	74	17	6.3	3.2	4.3	4.7
15	3.1	3.9	140	11	69	42	64	16	6.2	3.3	4.2	4.0
16	3.1	3.8	166	12	73	37	58	16	5.9	3.4	4.0	3.6
17	3.1	4.0	80	19	66	33	54	15	6.1	3.4	3.8	4.0
18	3.2	4.5	56	33	68	32	69	15	6.5	3.2	3.6	3.9
19	3.3	4.5	47	38	98	32	63	14	6.4	3.3	3.6	4.4
20	3.2	4.2	73	122	197	32	47	14	6.1	9.0	3.6	5.7
21	3.2	4.1	83	77	115	29	47	14	5.6	11	3.4	5.3
22	3.1	4.1	63	51	80	27	47	14	5.2	6.8	3.4	4.8
23	3.0	4.1	50	40	81	26	37	15	5.0	5.4	2.9	4.4
24	3.2	4.4	43	34	78	25	33	15	4.8	4.8	2.8	4.1
25	3.5	7.0	69	27	66	39	30	13	4.3	4.5	2.7	4.0
26	3.6	13	82	22	51	57	29	12	4.6	4.5	2.6	4.0
27	6.0	10	69	21	47	49	27	11	4.8	4.3	2.8	4.0
28	7.3	8.8	76	20	41	41	26	11	4.7	4.0	2.9	3.7
29	5.6	13	101	19	39	38	25	10	4.5	4.0	3.0	3.4
30	5.0	13	70	20	---	37	24	9.9	4.5	7.0	2.8	3.4
31	4.8	---	58	25	---	34	---	9.4	---	8.6	2.6	---
TOTAL	112.5	165.3	1515.1	884	2243	1392	2773	498.3	195.1	140.2	119.1	120.6
MEAN	3.63	5.51	48.9	28.5	77.3	44.9	92.4	16.1	6.50	4.52	3.84	4.02
MAX	7.3	13	166	122	256	97	618	22	9.3	11	7.1	6.1
MIN	3.0	3.8	8.1	11	25	25	24	9.4	4.3	3.2	2.6	2.5
CFSM	.07	.11	.96	.56	1.52	.88	1.82	.32	.13	.09	.08	.08
IN.	.08	.12	1.11	.65	1.64	1.02	2.03	.36	.14	.10	.09	.09

CAL YR 1987 TOTAL 8398.5 MEAN 23.0 MAX 250 MIN 3.0 CFSM .45 IN. 6.15
WTR YR 1988 TOTAL 10158.2 MEAN 27.8 MAX 618 MIN 2.5 CFSM .55 IN. 7.44

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 mi².

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: Nov. 27 to Dec. 2, Jan. 4-15, Jan. 25-31, Feb. 6-15, and Aug. 11-12. Records good except for Jan. 4 to Feb. 15, which are poor. Flow slightly regulated by Morse Reservoir.

AVERAGE DISCHARGE: 59 years, 1,094 ft³/s, 12.19 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,400 ft³/s May 19, 1943; maximum gage height, 18.65 ft Apr. 23, 1964; minimum daily discharge, 49 ft³/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 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 8	1600	*9,560	*11.12

Minimum daily discharge, 140 ft³/s Sept. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	160	197	430	1100	1070	879	1040	498	255	187	222	150
2	160	185	340	872	2880	834	1480	481	245	187	214	140
3	154	175	332	725	4000	878	1660	461	237	176	196	204
4	154	174	323	600	2970	938	1560	462	236	165	179	296
5	154	172	308	500	2010	890	1410	453	234	163	187	231
6	158	164	293	400	1200	894	1870	443	236	168	200	171
7	163	152	313	350	860	992	7140	421	223	167	198	161
8	169	162	323	330	700	1630	9360	414	223	184	191	163
9	173	172	428	310	600	2880	7020	416	222	179	179	162
10	177	184	466	300	540	2760	3840	430	248	201	192	154
11	181	198	477	290	500	2070	2650	433	234	189	205	150
12	186	177	450	300	470	1680	2030	401	213	177	190	179
13	184	170	420	320	500	1540	1650	375	198	177	176	204
14	180	166	362	350	560	1510	1400	368	202	191	185	211
15	170	154	1050	400	920	1310	1210	359	207	192	181	182
16	167	152	2490	410	1580	1110	1050	342	200	207	182	170
17	167	158	2520	506	1690	949	943	329	199	205	189	163
18	164	157	1520	679	1610	873	935	317	210	186	199	150
19	162	156	1090	813	1900	844	861	310	199	201	200	168
20	164	154	1180	1270	3180	824	775	303	194	481	215	198
21	163	157	1890	1600	3970	769	729	302	181	429	197	240
22	168	161	1850	1290	2680	709	770	323	176	456	187	237
23	167	157	1360	904	2220	671	770	388	180	442	201	193
24	174	203	1070	719	2330	662	734	414	176	297	189	175
25	176	329	1120	510	1890	815	649	410	195	243	180	159
26	191	407	1500	420	1460	1130	611	330	197	212	174	142
27	237	440	1690	370	1230	1150	600	299	190	190	171	145
28	278	370	1610	360	1070	981	600	290	188	175	170	145
29	277	430	1700	400	950	882	566	290	195	175	165	145
30	224	500	1620	500	---	902	531	275	190	222	191	145
31	209	---	1310	600	---	900	---	271	---	273	167	---
TOTAL	5611	6533	31835	18498	47540	35856	56444	11608	6283	7097	5872	5333
MEAN	181	218	1027	597	1639	1157	1881	374	209	229	189	178
MAX	278	500	2520	1600	4000	2880	9360	498	255	481	222	296
MIN	154	152	293	290	470	662	531	271	176	163	165	140
CFSM	.15	.18	.84	.49	1.34	.95	1.54	.31	.17	.19	.16	.15
IN.	.17	.20	.97	.56	1.45	1.09	1.72	.35	.19	.22	.18	.16

CAL YR 1987 TOTAL 225021 MEAN 616 MAX 5720 MIN 152 CFSM .51 IN. 6.87
WTR YR 1988 TOTAL 238510 MEAN 652 MAX 9360 MIN 140 CFSM .53 IN. 7.28

03351310 CROOKED CREEK AT INDIANAPOLIS, IN

LOCATION.--Lat 39°49'47", long 86°12'22", in NW1/4 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: Jan. 3-10, 26-29, and Feb. 4-14. Records fair.

AVERAGE DISCHARGE.--19 years, 18.3 ft³/s, 13.88 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,500 ft³/s June 26, 1978, gage height, 13.31 ft; minimum daily, 0.39 ft³/s Sept. 1, 1988.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 15	0800	490	4.90	July 20	1415	530	5.03
Apr. 7	0145	*912	*6.23				

Minimum daily discharge, 0.39 ft³/s Sept. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	.78	6.4	11	129	9.0	82	5.7	2.2	.89	11	.39
2	.69	.69	5.5	9.2	87	9.8	46	5.6	1.9	.81	5.7	.45
3	.59	.70	4.0	7.4	34	24	26	5.4	2.0	.69	3.9	9.1
4	.69	2.5	5.1	6.0	20	24	19	5.4	1.8	.71	6.2	16
5	.83	2.0	3.6	4.9	11	24	16	5.4	1.7	.66	8.2	3.3
6	1.0	1.7	2.9	3.7	6.4	28	286	5.3	1.7	.57	8.3	1.8
7	.98	1.4	10	3.1	6.3	22	321	5.0	1.7	.57	4.6	1.4
8	1.4	1.1	6.5	3.1	6.2	19	49	5.0	2.0	.56	3.6	.99
9	1.3	5.5	19	3.1	6.2	17	28	6.3	2.5	.51	3.2	.92
10	1.5	2.4	7.7	3.3	7.9	14	21	5.5	2.2	.69	2.5	.79
11	3.7	1.5	5.3	4.3	7.5	13	18	6.0	1.8	1.7	3.0	.78
12	1.7	1.0	4.8	5.2	7.1	16	15	4.6	1.7	1.6	2.4	13
13	1.3	.74	3.8	4.9	6.8	14	13	4.2	1.7	1.7	2.1	9.6
14	1.3	.64	3.2	4.0	6.7	12	12	3.7	1.6	1.6	1.7	3.1
15	1.1	.57	195	3.9	31	11	11	3.3	1.7	2.5	1.2	1.7
16	1.2	.57	20	4.1	15	10	9.8	3.1	1.7	2.9	.94	1.3
17	1.7	.71	12	21	14	9.4	9.3	2.9	1.8	17	.78	1.1
18	2.1	1.4	9.6	18	15	9.4	16	2.8	1.7	4.1	.65	.93
19	2.1	1.7	13	42	47	9.4	9.9	2.6	1.5	8.4	.71	2.2
20	2.2	1.3	25	36	47	9.0	9.0	2.6	1.5	167	.78	12
21	2.2	1.5	14	15	21	8.5	9.2	2.5	1.5	26	.64	3.5
22	2.5	1.5	11	11	17	8.2	24	2.4	1.4	8.5	.52	11
23	3.0	1.4	9.8	9.5	18	8.0	17	14	1.1	5.2	.70	7.7
24	3.1	2.1	11	8.7	14	8.0	10	5.5	1.0	3.8	.65	2.8
25	4.8	49	31	7.1	12	50	8.6	3.6	1.1	3.0	.63	1.6
26	3.5	14	23	5.2	11	21	7.8	2.9	1.0	2.7	.68	1.1
27	19	5.6	16	4.0	10	14	7.9	2.6	.98	2.3	.60	.75
28	4.3	31	43	3.9	9.6	11	8.7	2.5	.91	2.0	.82	.56
29	2.1	16	23	5.3	9.3	16	7.3	2.8	.99	1.7	.69	.65
30	1.4	7.5	15	6.6	---	24	6.6	2.3	1.2	8.4	.52	.76
31	.93	---	13	10	---	17	---	2.2	---	72	.42	---
TOTAL	75.21	158.50	572.2	284.5	633.0	489.7	1124.1	133.7	47.58	350.76	78.33	111.27
MEAN	2.43	5.28	18.5	9.18	21.8	15.8	37.5	4.31	1.59	11.3	2.53	3.71
MAX	19	49	195	42	129	50	321	14	2.5	167	11	16
MIN	.59	.57	2.9	3.1	6.2	8.0	6.6	2.2	.91	.51	.42	.39
CFSM	.14	.30	1.03	.51	1.22	.88	2.09	.24	.09	.63	.14	.21
IN.	.16	.33	1.19	.59	1.32	1.02	2.34	.28	.10	.73	.16	.23

CAL YR 1987 TOTAL 3477.24 MEAN 9.53 MAX 195 MIN .57 CFSM .53 IN. 7.23
WTR YR 1988 TOTAL 4058.85 MEAN 11.1 MAX 321 MIN .39 CFSM .62 IN. 8.44

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 mi².

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: Oct. 4 to Nov. 25, Jan. 2-12, 25, 26, Feb. 5-7, 11-13, 25, 26, Mar. 5, June 19 to July 20, and Aug. 2-27. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--20 years, 5.67 ft³/s, 13.28 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,100 ft³/s April 28, 1975, gage height, 7.72 ft; minimum daily, 0.02 ft³/s Aug. 30 to Sept. 2, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 120 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 7	0445	*70	*4.67

Minimum daily discharge, 0.03 ft³/s Aug. 26, 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	.17	1.1	3.8	42	2.8	3.0	1.1	.21	.07	.06	.07
2	.12	.17	1.3	3.3	49	3.0	4.2	1.0	.20	.06	.05	.10
3	.12	.16	1.3	2.8	24	4.1	4.2	1.0	.21	.06	.05	.19
4	.12	.19	2.2	2.6	16	5.6	3.5	1.1	.21	.05	.04	.13
5	.12	.16	1.5	2.3	9.0	5.5	3.2	1.0	.20	.05	.08	.13
6	.12	.15	1.1	2.1	6.0	14	17	.90	.17	.05	.07	.13
7	.13	.15	2.6	1.9	5.0	14	53	.84	.15	.05	.06	.12
8	.12	.16	3.1	1.9	4.1	11	24	.85	.13	.04	.06	.12
9	.12	.23	4.0	1.8	3.7	8.4	12	1.3	.17	.05	.05	.12
10	.12	.20	3.2	1.7	3.2	6.3	7.5	.99	.16	.05	.05	.11
11	.13	.18	2.4	1.5	3.0	5.1	5.4	.78	.14	.05	.05	.11
12	.13	.17	2.0	1.5	2.7	6.9	4.3	.69	.14	.05	.04	.19
13	.13	.16	1.4	1.6	2.7	6.9	3.5	.70	.11	.04	.04	.18
14	.12	.16	1.2	1.3	3.1	5.2	3.0	.64	.10	.05	.04	.15
15	.12	.15	27	1.4	15	4.1	2.6	.63	.10	.07	.04	.13
16	.13	.14	13	1.4	7.5	3.5	2.3	.59	.11	.06	.04	.18
17	.13	.15	6.0	2.4	7.4	3.2	2.2	.54	.13	.05	.04	.16
18	.13	.16	4.3	3.4	8.5	3.4	2.3	.50	.11	.06	.04	.15
19	.12	.17	4.0	7.4	27	3.2	1.9	.50	.10	.05	.04	.28
20	.12	.17	13	21	32	3.0	1.8	.49	.10	.15	.04	.23
21	.12	.16	8.6	6.6	13	2.6	1.7	.46	.09	2.1	.04	.17
22	.12	.15	6.1	3.8	8.7	2.1	2.0	.43	.09	.44	.04	.16
23	.12	.15	4.4	3.3	9.2	2.5	1.8	.72	.08	.17	.05	.15
24	.11	.20	4.4	2.8	6.7	2.4	1.4	.47	.08	.09	.04	.15
25	.11	.70	22	2.5	5.5	4.7	1.4	.36	.07	.06	.04	.16
26	.16	.91	19	2.2	4.2	4.5	1.4	.34	.07	.06	.03	.15
27	.30	.68	10	1.9	3.6	3.3	1.4	.31	.07	.05	.03	.14
28	.27	.96	9.9	1.8	3.2	3.0	1.3	.27	.06	.04	.13	.14
29	.22	2.5	8.7	1.9	3.0	2.9	1.2	.25	.07	.05	.09	.15
30	.19	1.4	6.0	2.4	---	2.7	1.1	.24	.08	.06	.09	.15
31	.18	---	5.0	5.0	---	2.6	---	.23	---	.07	.08	---
TOTAL	4.37	11.16	199.8	101.3	328.0	152.5	175.6	20.22	3.71	4.35	1.64	4.50
MEAN	.14	.37	6.45	3.27	11.3	4.92	5.85	.65	.12	.14	.053	.15
MAX	.30	2.5	27	21	49	14	53	1.3	.21	2.1	.13	.28
MIN	.11	.14	1.1	1.3	2.7	2.1	1.1	.23	.06	.04	.03	.07
CFSM	.02	.06	1.11	.56	1.95	.85	1.01	.11	.02	.02	.01	.03
IN.	.03	.07	1.28	.65	2.10	.98	1.13	.13	.02	.03	.01	.03

CAL YR 1987 TOTAL 1281.60 MEAN 3.51 MAX 122 MIN .09 CFSM .61 IN. 8.22
WTR YR 1988 TOTAL 1007.15 MEAN 2.75 MAX 53 MIN .03 CFSM .47 IN. 6.46

03351500 FALL CREEK NEAR FORTVILLE, IN

LOCATION.--Lat 39°57'15", long 85°52'05", in NW¼ 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 mi².

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: Jan. 3-10, 13, 15-17, 27-31, and Feb. 5-15. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--47 years, 165 ft³/s, 13.26 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,750 ft³/s Apr. 21, 1964, gage height, 9.88 ft; minimum daily, 5.0 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 7	2100	*1,290	*5.68

Minimum daily discharge, 8.0 ft³/s Sept. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	45	84	163	478	151	150	105	54	24	31	9.6
2	31	44	79	142	969	148	159	104	55	22	28	8.0
3	31	45	75	128	686	165	164	100	54	23	25	13
4	32	42	75	112	480	203	152	96	50	20	23	34
5	34	42	78	97	290	205	139	96	51	19	23	26
6	36	41	71	88	210	287	221	97	51	18	23	21
7	39	41	77	82	168	332	1110	92	48	17	25	17
8	39	42	98	84	154	308	922	90	44	17	24	15
9	38	49	108	85	138	281	509	95	48	17	20	16
10	38	49	111	79	122	247	376	97	49	16	18	14
11	45	45	98	91	113	215	304	87	44	24	18	15
12	40	43	89	94	104	213	258	82	43	21	17	18
13	36	43	79	85	99	241	226	82	42	20	16	29
14	36	44	71	79	102	215	202	78	42	20	16	30
15	36	42	281	74	184	192	181	78	42	23	15	21
16	35	41	402	72	273	174	169	74	39	23	13	19
17	35	41	217	94	229	160	160	67	48	24	11	21
18	37	41	151	132	235	158	161	69	45	20	11	23
19	39	41	127	142	300	157	143	69	36	27	10	26
20	37	41	171	329	644	149	134	68	35	50	11	38
21	36	40	231	273	440	140	134	70	30	105	12	27
22	36	40	174	180	311	131	148	70	29	80	9.9	21
23	36	41	140	144	293	130	147	83	29	53	9.3	18
24	38	43	121	123	263	125	133	88	26	42	10	15
25	44	62	253	107	224	188	126	72	23	38	9.4	13
26	46	105	336	93	198	238	117	65	23	37	9.3	13
27	63	82	274	84	183	195	115	65	24	34	8.3	13
28	70	74	239	78	166	168	116	64	21	32	12	11
29	54	100	277	74	163	157	110	60	22	30	14	9.4
30	49	102	221	79	---	159	106	60	28	29	13	13
31	46	---	190	98	---	145	---	58	---	30	12	---
TOTAL	1242	1551	4998	3585	8219	5977	7092	2481	1175	955	497.2	567.0
MEAN	40.1	51.7	161	116	283	193	236	80.0	39.2	30.8	16.0	18.9
MAX	70	105	402	329	969	332	1110	105	55	105	31	38
MIN	30	40	71	72	99	125	106	58	21	16	8.3	8.0
CFSM	.24	.31	.95	.68	1.68	1.14	1.40	.47	.23	.18	.09	.11
IN.	.27	.34	1.10	.79	1.81	1.32	1.56	.55	.26	.21	.11	.12

CAL YR 1987 TOTAL 40292 MEAN 110 MAX 1120 MIN 28 CFSM .65 IN. 8.87
WTR YR 1988 TOTAL 38339.2 MEAN 105 MAX 1110 MIN 8.0 CFSM .62 IN. 8.44

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LOCATION.--Lat 39°51'07", long 86°05'15", in NE1/4 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.

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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,050 ft³/s Apr. 7, gage height, 8.38 ft; minimum daily, 33 ft³/s Sept. 6.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	37	68	294	947	217	318	132	71	66	57	46
2	38	38	64	234	1940	213	336	130	76	66	56	46
3	39	38	65	198	1660	325	314	126	89	66	61	52
4	39	38	66	150	1160	458	295	140	72	66	61	63
5	39	38	62	116	790	393	255	106	68	70	101	47
6	39	38	61	106	450	508	555	103	71	70	93	33
7	40	38	85	100	370	585	2750	96	75	70	63	38
8	40	39	143	104	330	562	2320	95	77	70	59	46
9	40	47	93	102	292	509	1320	106	86	70	51	47
10	41	41	82	99	256	445	844	115	76	69	59	43
11	43	39	70	96	222	356	655	114	69	69	73	40
12	40	39	65	92	190	354	489	97	69	83	60	47
13	40	38	59	89	168	376	383	91	69	78	53	47
14	40	37	57	86	162	352	334	99	71	73	52	43
15	40	37	433	85	354	310	297	87	73	65	53	36
16	41	36	286	95	455	266	261	80	76	72	54	36
17	42	38	167	160	414	239	230	95	76	79	63	43
18	41	39	188	226	410	227	266	89	75	74	67	44
19	41	39	207	269	565	221	224	81	74	74	61	47
20	42	62	310	620	1130	218	188	76	73	233	62	53
21	43	73	394	583	989	211	188	76	73	173	50	41
22	43	73	350	411	666	174	246	77	72	75	58	44
23	44	70	285	300	543	163	217	97	72	60	59	43
24	45	62	240	236	465	167	195	88	73	55	54	41
25	46	105	399	162	390	369	180	91	78	55	55	37
26	45	103	609	126	325	444	163	52	77	59	56	40
27	66	80	548	108	299	375	142	72	75	55	52	42
28	46	83	555	113	256	305	147	81	70	57	53	42
29	40	90	593	120	232	262	148	80	70	70	50	42
30	38	71	439	138	---	268	136	80	64	78	44	40
31	38	---	347	181	---	249	---	76	---	63	47	---
TOTAL	1299	1606	7390	5799	16430	10121	14396	2928	2210	2383	1837	1309
MEAN	41.9	53.5	238	187	567	326	480	94.5	73.7	76.9	59.3	43.6
MAX	66	105	609	620	1940	585	2750	140	89	233	101	63
MIN	38	36	57	85	162	163	136	52	64	55	44	33
CFSM	.14	.18	.80	.63	1.90	1.10	1.61	.32	.25	.26	.20	.15
IN.	.16	.20	.92	.72	2.05	1.26	1.80	.37	.28	.30	.23	.16
CAL YR 1987	TOTAL 59137 MEAN 162 MAX 1340 MIN 36 CFSM .54 IN. 7.38											
WTR YR 1988	TOTAL 67708 MEAN 185 MAX 2750 MIN 33 CFSM .62 IN. 8.45											

03352875 FALL CREEK AT 16TH STREET AT INDIANAPOLIS, IN

LOCATION.--Lat 39°47'20", long 86°10'40", in SW1/4 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: Jan. 4-15, 25-29, Feb. 5-13, and June 14 to Sept. 30. Records fair except for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,370 ft³/s Oct. 4, 1986, gage height, 11.92 ft; maximum gage height, 12.81 ft Dec. 12, 1985; minimum daily discharge, 19 ft³/s Sept. 3, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,570 ft³/s Apr. 7, gage height, 10.45 ft; minimum daily, 24 ft³/s Oct. 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	51	34	302	876	245	360	105	37	48	52	43
2	29	48	31	245	1720	228	355	112	44	48	50	43
3	26	58	28	187	1670	328	348	98	74	45	54	60
4	25	71	32	150	1290	444	339	115	68	48	54	80
5	24	66	66	100	750	369	311	91	52	50	90	60
6	27	55	67	86	430	450	597	82	40	50	84	50
7	43	63	94	90	380	524	2290	85	40	50	58	40
8	32	67	167	94	350	530	2310	86	47	50	54	42
9	31	83	123	90	310	484	1710	112	78	50	46	45
10	35	64	105	88	270	437	1060	91	67	50	50	43
11	36	60	84	84	240	380	759	97	45	58	70	42
12	33	70	72	82	210	378	566	84	47	75	63	50
13	32	64	71	82	160	385	436	64	32	70	50	50
14	35	37	61	76	142	366	389	65	25	65	45	45
15	31	35	546	74	290	335	343	61	30	59	48	41
16	29	36	343	75	414	307	310	50	40	64	50	39
17	35	39	179	135	403	288	274	48	45	70	48	45
18	48	56	162	202	389	255	288	43	43	66	52	48
19	42	59	180	252	515	246	241	48	40	66	50	56
20	51	68	270	540	1040	232	191	41	38	200	45	70
21	33	57	355	540	1060	213	174	48	40	150	40	60
22	30	55	340	405	728	186	316	55	37	88	45	50
23	30	54	289	304	548	166	267	107	38	56	48	45
24	33	64	246	231	464	161	232	82	40	49	45	44
25	37	139	377	170	398	370	203	91	38	49	45	40
26	34	105	560	130	347	437	175	65	40	54	48	43
27	97	70	537	100	327	380	146	34	50	50	45	45
28	53	87	539	96	286	331	135	54	45	50	44	45
29	51	66	546	90	252	321	132	70	43	60	43	45
30	52	48	442	102	---	311	112	53	46	70	40	45
31	59	---	354	142	---	292	---	41	---	58	43	---
TOTAL	1204	1895	7300	5344	16259	10379	15369	2278	1349	2016	1599	1454
MEAN	38.8	63.2	235	172	561	335	512	73.5	45.0	65.0	51.6	48.5
MAX	97	139	560	540	1720	530	2310	115	78	200	90	80
MIN	24	35	28	74	142	161	112	34	25	45	40	39
CFSM	.12	.20	.74	.54	1.77	1.06	1.62	.23	.14	.21	.16	.15
IN.	.14	.22	.86	.63	1.91	1.22	1.80	.27	.16	.24	.19	.17
CAL YR 1987	TOTAL 57452	MEAN 157	MAX 1310	MIN 19	CFSM .50	IN. 6.74						
WTR YR 1988	TOTAL 66446	MEAN 182	MAX 2310	MIN 24	CFSM .57	IN. 7.80						

03353000 WHITE RIVER AT INDIANAPOLIS, IN

LOCATION.--Lat 39°45'05", long 86°10'30", in NW¼ 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, 4.0 mi upstream from Indianapolis Power and Light Company dam, and at mile 230.3.

DRAINAGE AREA.--1,635 mi².

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. 28 to Jan. 15, Jan. 26-29, Feb. 6-15, and July 6-18. Records poor. 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 large releases from Eagle Creek and by variable leakage at Indianapolis Power and Light Company dam.

AVERAGE DISCHARGE.--59 years (water years 1905, 1931 to current year), 1,391 ft³/s, 11.55 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,200 ft³/s May 18, 1943; maximum gage height, 21.57 ft Jan. 16, 1937; minimum daily discharge, 8.0 ft³/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 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 7	2100	*11,700	*11.87

Minimum daily discharge, 43 ft³/s Aug. 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	136	383	1800	2410	943	1730	502	173	73	160	63
2	75	130	344	1400	4410	960	2160	491	153	74	120	57
3	59	122	325	1200	5070	1370	2260	468	168	70	123	116
4	59	122	307	1000	4100	1510	2060	455	169	69	176	203
5	63	108	276	820	2810	1270	1820	450	152	72	180	167
6	75	91	264	700	2000	1380	3220	425	149	70	195	152
7	63	79	385	580	1500	1500	10500	401	143	72	97	113
8	86	90	370	500	1200	2000	11400	394	139	71	73	91
9	77	142	538	470	1000	3160	8910	457	165	70	62	85
10	84	111	466	450	950	3390	5190	436	186	68	57	77
11	108	111	439	440	850	2680	3640	431	183	70	108	77
12	108	113	417	420	800	2230	2890	413	164	70	130	128
13	100	117	379	395	750	1960	2260	381	149	80	88	193
14	92	103	349	390	700	1860	1850	348	132	90	71	183
15	93	103	2460	370	680	1630	1550	337	114	82	49	168
16	90	99	2610	366	1680	1320	1300	312	134	76	45	152
17	89	104	3170	715	1990	1110	1130	272	168	130	43	143
18	92	106	2140	959	1900	995	1220	264	146	150	46	122
19	93	106	1500	1280	2450	921	1010	258	103	275	52	114
20	90	106	1600	2300	4000	895	889	244	89	900	56	216
21	84	111	2130	2410	4760	810	801	231	88	552	52	151
22	88	133	2530	2060	3540	766	1300	242	87	234	46	151
23	86	154	1920	1410	2880	668	1020	505	80	219	94	182
24	98	159	1490	1040	2810	678	870	441	80	178	82	130
25	104	494	1800	823	2410	1330	721	407	81	129	66	98
26	116	483	2410	650	1810	1540	671	368	75	100	58	86
27	326	407	2660	560	1470	1490	602	254	77	76	53	80
28	182	616	2600	520	1240	1260	585	224	81	62	64	74
29	182	529	2500	520	1050	1140	607	236	77	57	61	74
30	169	371	2700	554	---	1230	545	227	76	70	61	74
31	142	---	2200	734	---	1190	---	202	---	234	66	---
TOTAL	3259	5656	43662	27836	63220	45186	74711	11076	3781	4543	2634	3720
MEAN	105	189	1408	898	2180	1458	2490	357	126	147	85.0	124
MAX	326	616	3170	2410	5070	3390	11400	505	186	900	195	216
MIN	59	79	264	366	680	668	545	202	75	57	43	57
CFSM	.06	.12	.86	.55	1.33	.89	1.52	.22	.08	.09	.05	.08
IN.	.07	.13	.99	.63	1.44	1.03	1.70	.25	.09	.10	.06	.08

CAL YR 1987 TOTAL 255740 MEAN 701 MAX 4970 MIN 59 CFSM .43 IN. 5.82
WTR YR 1988 TOTAL 289284 MEAN 790 MAX 11400 MIN 43 CFSM .48 IN. 6.58

03353120 PLEASANT RUN AT ARLINGTON AVENUE AT INDIANAPOLIS, IN

LOCATION.--Lat 39°46'33", long 86°03'50", in SW¼ 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: Jan. 5-17, 25-31, and Feb. 4-9, 14, 15. Records fair.

AVERAGE DISCHARGE.--28 years (water years 1961 to current year), 7.81 ft³/s, 13.99 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 (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
July 12	1900	669	6.84	Aug. 3	1915	*968	*8.04
July 20	1445	601	6.55	Aug. 11	1815	590	6.50

Minimum daily discharge, 0.31 ft³/s Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.51	1.3	5.0	2.7	122	2.0	26	1.5	1.2	.66	1.3	.89
2	.51	1.2	1.8	2.0	36	7.6	9.9	1.4	1.1	.70	1.2	1.1
3	.75	1.5	7.1	1.8	23	45	7.0	1.4	.94	.91	121	17
4	.68	1.6	3.0	1.7	14	20	5.6	1.3	.75	.72	27	44
5	.66	1.8	1.9	1.5	5.0	13	4.5	1.3	.66	.50	48	4.1
6	.59	1.7	2.0	1.1	3.0	9.9	132	1.6	.78	.49	17	1.9
7	.90	1.5	13	1.3	3.3	7.6	106	1.2	.72	.54	4.2	1.8
8	.72	2.7	7.3	1.4	3.6	6.2	13	2.6	.64	.41	2.4	2.0
9	.63	9.7	14	1.4	3.5	5.7	7.7	3.4	2.4	.34	1.8	1.3
10	3.6	1.4	3.9	1.3	3.4	4.5	6.0	1.6	.67	.46	25	1.2
11	3.5	1.1	3.1	1.3	3.2	3.6	5.1	1.3	.57	.84	88	1.2
12	.68	1.2	2.3	1.6	3.0	13	4.2	1.1	.67	78	13	25
13	.45	1.1	1.4	1.5	2.8	5.8	3.7	1.2	.90	11	3.8	4.0
14	.42	1.0	6.6	1.2	5.0	4.3	3.0	1.2	.49	3.7	2.3	2.0
15	.42	.84	102	1.3	10	3.5	2.5	1.3	.46	2.4	1.9	1.5
16	.47	.86	9.4	1.4	5.1	2.9	2.2	1.0	4.0	9.1	1.6	1.8
17	1.2	2.7	4.8	15	4.4	2.6	2.0	.97	1.7	6.5	1.5	1.6
18	1.2	2.1	3.3	13	4.3	3.0	10	1.0	.92	12	1.2	1.3
19	.97	1.5	11	44	34	2.6	2.9	1.1	.71	26	1.1	16
20	1.7	1.4	19	18	17	2.2	2.8	1.1	.75	134	1.2	10
21	2.3	1.3	6.2	8.3	7.6	2.2	5.5	1.1	.72	14	1.1	1.7
22	1.7	.91	4.3	5.8	6.0	2.0	30	1.0	2.0	5.2	.88	2.4
23	1.7	1.5	3.1	4.7	6.1	2.0	5.6	12	.55	2.7	21	.87
24	3.8	9.2	12	3.9	4.3	1.9	3.5	1.5	.50	1.9	1.7	.65
25	2.9	28	27	2.1	3.4	38	2.9	.99	.66	1.7	1.1	.63
26	5.7	4.3	17	1.7	3.0	6.8	2.5	1.2	.57	1.7	2.0	.52
27	25	4.9	7.4	1.8	2.7	4.4	2.3	1.1	.39	1.3	1.0	.50
28	2.2	25	29	1.9	2.3	3.4	2.8	1.2	.54	1.2	2.2	.41
29	1.6	7.6	8.7	2.1	2.3	4.1	1.8	.76	1.2	1.0	1.4	.39
30	1.4	3.7	4.9	2.2	---	6.7	1.6	1.1	.96	1.2	.95	.31
31	1.4	---	4.0	15	---	9.0	---	.96	---	5.6	.91	---
TOTAL	70.26	124.61	345.5	164.0	343.3	245.5	414.6	51.48	29.12	326.77	398.74	148.07
MEAN	2.27	4.15	11.1	5.29	11.8	7.92	13.8	1.66	.97	10.5	12.9	4.94
MAX	25	28	102	44	122	45	132	12	4.0	134	121	44
MIN	.42	.84	1.4	1.1	2.3	1.9	1.6	.76	.39	.34	.88	.31
CFSM	.30	.55	1.47	.70	1.56	1.04	1.82	.22	.13	1.39	1.70	.65
IN.	.34	.61	1.70	.80	1.68	1.20	2.03	.25	.14	1.60	1.96	.73

CAL YR 1987 TOTAL 2011.36 MEAN 5.51 MAX 368 MIN .21 CFSM .73 IN. 9.87
WTR YR 1988 TOTAL 2661.95 MEAN 7.27 MAX 134 MIN .31 CFSM .96 IN. 13.06

03353180 BEAN CREEK AT INDIANAPOLIS, IN

LOCATION.--Lat 39°43'45", long 86°07'14", in NW¼ 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 mi².

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. 1-6, Nov. 5-9, Jan. 3-17, 26-29, Feb. 4-8, 11-14, and Sept. 29, 30. Records fair except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--18 years, 5.15 ft³/s, 15.89 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 770 ft³/s June 25, 1978, gage height, 7.77 ft; minimum daily, 0.38 ft³/s Oct. 2, 1983.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 3	1915	*281	*5.01	Aug. 11	1815	207	4.42

Minimum daily discharge, 0.66 ft³/s July 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.82	1.5	3.7	2.7	45	2.3	12	2.3	1.3	.82	1.4	1.1
2	1.0	1.5	2.9	2.4	20	5.0	6.7	2.2	1.5	.77	1.8	1.1
3	1.1	1.5	5.0	1.9	15	19	5.0	2.0	1.6	.66	27	3.0
4	.98	1.7	3.3	1.7	10	12	4.2	2.0	1.6	.69	4.4	3.1
5	.96	2.1	2.7	1.4	8.0	7.8	3.9	2.0	1.5	.68	4.8	.99
6	.82	1.8	2.7	1.2	5.5	7.2	44	1.9	1.5	.70	2.5	.95
7	1.0	1.6	6.7	1.4	4.0	6.0	31	1.9	1.5	.80	1.4	1.1
8	1.0	2.8	4.2	1.6	3.5	5.3	8.7	2.2	1.6	.82	1.3	1.2
9	1.1	2.0	6.8	1.9	3.1	5.1	6.2	2.1	2.1	.82	1.2	1.2
10	2.2	1.6	3.4	1.7	2.9	4.4	5.1	2.2	1.4	.98	4.1	1.1
11	1.6	1.5	3.3	1.5	2.6	4.2	4.4	1.9	1.4	1.5	27	1.4
12	1.2	1.3	2.9	1.6	2.4	7.1	3.9	1.6	1.3	13	5.2	5.6
13	1.2	1.1	2.5	1.6	2.2	4.2	3.6	1.6	1.3	2.5	1.6	1.8
14	1.2	.96	4.9	1.5	3.0	4.0	3.3	1.7	1.3	1.1	1.1	1.4
15	1.1	.88	23	1.4	6.8	3.8	3.1	1.4	1.3	1.1	1.0	1.3
16	1.1	.95	4.0	1.6	3.0	3.5	2.9	1.4	1.8	2.7	.84	1.7
17	1.4	1.2	3.1	8.0	2.9	3.4	2.9	1.4	1.3	2.3	.74	1.4
18	1.0	.86	2.7	3.6	3.1	3.6	5.5	1.4	1.1	10	.69	1.3
19	1.1	.95	5.0	11	15	3.4	2.8	1.4	1.0	5.9	1.1	4.1
20	1.3	1.0	6.4	5.6	9.6	3.3	2.8	1.4	.95	34	.77	3.0
21	1.2	1.1	3.3	3.4	7.2	3.1	4.4	1.4	.96	5.1	.81	1.2
22	1.3	1.1	2.9	2.9	3.9	3.0	15	1.4	.92	2.3	.79	1.5
23	1.4	1.5	2.6	2.8	3.8	3.0	4.4	5.2	.92	1.6	6.2	1.2
24	2.2	2.9	5.5	2.4	2.8	3.6	3.1	1.5	.91	1.4	1.2	1.2
25	1.3	10	8.9	2.2	2.7	12	3.0	1.4	.93	1.5	1.2	1.3
26	2.5	3.5	6.4	1.9	2.6	4.8	2.9	1.4	.94	1.3	1.2	1.1
27	7.3	4.3	3.7	1.7	2.5	4.0	2.8	1.4	.93	1.1	.99	1.1
28	1.7	14	9.1	1.9	2.4	3.6	2.8	1.3	.92	1.5	1.2	1.2
29	1.6	4.7	3.9	2.1	2.3	3.9	2.6	1.2	1.0	1.3	1.1	1.1
30	1.6	3.5	3.0	2.2	---	4.7	2.4	1.2	2.7	1.6	1.1	1.0
31	1.6	---	2.7	6.9	---	5.3	---	1.3	---	4.0	1.1	---
TOTAL	46.88	75.40	151.2	85.7	197.8	165.6	205.4	54.7	39.48	104.54	106.83	49.74
MEAN	1.51	2.51	4.88	2.76	6.82	5.34	6.85	1.76	1.32	3.37	3.45	1.66
MAX	7.3	14	23	11	45	19	44	5.2	2.7	34	27	5.6
MIN	.82	.86	2.5	1.2	2.2	2.3	2.4	1.2	.91	.66	.69	.95
CFSM	.34	.57	1.11	.63	1.55	1.21	1.56	.40	.30	.77	.78	.38
IN.	.40	.64	1.28	.72	1.67	1.40	1.74	.46	.33	.88	.90	.42

CAL YR 1987 TOTAL 1278.98 MEAN 3.50 MAX 177 MIN .72 CFSM .80 IN. 10.81
WTR YR 1988 TOTAL 1283.27 MEAN 3.51 MAX 45 MIN .66 CFSM .80 IN. 10.85

LOCATION.--Lat 39°56'56", long 86°15'22", in SW1/4 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.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	3.0	14	79	383	57	284	21	4.1	.21	20	.07
2	.01	1.9	12	54	605	60	374	19	3.5	.16	7.2	.05
3	.01	1.2	10	40	263	69	241	18	3.0	.13	4.1	.05
4	.0	.95	9.8	33	145	69	179	18	2.7	.14	2.7	.12
5	.01	.91	8.5	22	66	57	129	17	2.7	.18	2.3	.08
6	.08	.78	9.2	17	39	82	1340	16	2.7	.08	2.2	.05
7	.17	.79	15	18	41	196	2520	15	2.5	.05	1.8	.03
8	.23	1.1	19	20	45	408	647	14	2.8	.02	1.4	.02
9	.23	1.8	30	21	44	313	404	17	2.4	.04	1.2	.01
10	.14	1.3	31	20	38	198	262	15	2.0	.02	1.2	.00
11	.29	1.2	23	19	36	136	178	14	2.0	.01	8.0	.00
12	.26	1.2	18	21	35	124	126	12	1.7	.00	126	.03
13	.45	1.3	13	22	33	114	94	12	1.6	.00	40	.07
14	.40	1.4	10	18	39	87	77	12	1.4	.0	19	.04
15	.35	1.4	401	17	53	69	62	11	1.2	.01	9.1	.01
16	.29	1.8	287	18	180	55	52	11	1.2	.0	4.6	.00
17	.26	2.0	117	39	123	48	48	10	1.3	.09	2.5	.00
18	.27	1.8	71	61	88	49	52	10	1.1	.27	1.5	.00
19	.40	1.7	64	53	428	50	41	9.5	1.0	9.9	1.2	.00
20	.42	1.5	294	235	561	48	35	9.3	1.0	42	1.1	.01
21	.36	1.5	237	82	359	40	35	9.4	.90	38	.80	.04
22	.33	1.5	133	39	276	37	48	9.1	.65	9.9	.58	2.5
23	.29	1.7	89	27	351	37	52	14	.53	4.7	.52	1.4
24	.30	1.8	78	22	191	36	42	13	.48	3.0	.44	.47
25	.35	13	249	15	116	64	34	11	.39	2.2	.32	.24
26	.36	15	234	16	85	81	32	8.4	.33	1.8	.24	.16
27	2.5	6.7	156	18	76	61	30	7.2	.32	1.5	.21	.11
28	1.5	12	267	19	63	49	29	6.1	.34	1.3	.23	.06
29	1.2	19	273	18	61	57	24	5.3	.28	1.3	.20	.03
30	1.2	17	138	20	---	157	22	4.8	.26	2.6	.16	.01
31	1.1	---	105	22	---	135	---	4.3	---	30	.11	---
TOTAL	13.79	118.23	3415.5	1125	4823	3043	7493	373.4	46.38	149.61	260.91	5.66
MEAN	.44	3.94	110	36.3	166	98.2	250	12.0	1.55	4.83	8.42	.19
MAX	2.5	19	401	235	605	408	2520	21	4.1	42	126	2.5
MIN	.00	.78	8.5	15	33	36	22	4.3	.26	.00	.11	.00
CFSM	.00	.04	1.07	.35	1.61	.95	2.42	.12	.02	.05	.08	.00
IN.	.00	.04	1.23	.41	1.74	1.10	2.71	.13	.02	.05	.09	.00
CAL YR 1987	TOTAL 14218.39		MEAN 39.0		MAX 754		MIN .00		CFSM .38		IN. 5.14	
WTR YR 1988	TOTAL 20867.48		MEAN 57.0		MAX 2520		MIN .00		CFSM .55		IN. 7.54	

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 mi².

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, 25,040 acre-ft Apr. 7, elevation, 790.74 ft; minimum, 17,550 acre-ft Sept. 30, elevation, 784.86 ft.

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	787.74	20,060	
Oct. 31.....	786.56	19,570	-490
Nov. 30.....	786.12	19,040	-530
Dec. 31.....	790.09	24,130	+5,090
CAL YR 1987.....			+8,400
Jan. 31.....	790.00	24,000	-130
Feb. 29.....	790.05	24,070	+70
Mar. 31.....	790.05	24,070	0
Apr. 30.....	789.99	23,990	-80
May 31.....	789.60	23,480	-510
June 30.....	787.87	20,230	-3,250
July 31.....	787.35	20,560	+330
Aug. 31.....	786.05	18,960	-1,600
Sept. 30.....	784.85	17,540	-1,420
WTR YR 1988.....			-2,520

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 mi².

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.--Records good. Flow regulated since November 1969 by Eagle Creek Reservoir, 4.7 mi upstream (see sta 03353450).

AVERAGE DISCHARGE.--49 years (water years 1940 to current year), 155 ft³/s, 12.10 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,800 ft³/s June 28, 1957, gage height, 23.59 ft present datum from rating curve extended above 9,000 ft³/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, 6,350 ft³/s Apr. 7, gage height, 7.57 ft; minimum daily, 1.8 ft³/s Aug. 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	12	12	125	881	98	497	44	8.8	3.2	4.3	2.0
2	10	12	12	109	1320	119	659	45	7.1	3.1	3.2	2.2
3	10	12	12	36	679	203	328	44	7.5	3.3	3.1	9.5
4	10	12	12	113	396	153	259	44	7.0	3.3	2.8	5.2
5	11	11	12	35	209	134	223	41	6.6	2.6	9.3	3.3
6	10	11	11	19	185	218	1720	40	6.2	2.5	5.0	3.2
7	11	11	16	20	172	346	4770	40	5.9	2.1	3.6	2.9
8	12	12	13	120	126	441	1340	47	5.8	2.1	3.5	2.8
9	12	15	21	31	120	386	797	45	6.8	2.0	3.0	2.6
10	13	12	12	25	152	354	467	43	6.8	2.2	3.0	2.2
11	14	12	11	23	36	135	411	39	6.7	3.3	2.8	3.6
12	14	12	11	21	64	268	215	35	6.1	4.6	2.8	5.7
13	14	12	11	97	87	139	184	32	5.8	2.9	2.7	3.3
14	12	12	13	28	97	154	181	30	5.5	3.7	2.4	2.7
15	12	12	97	23	168	101	137	22	4.8	5.3	2.4	2.4
16	12	12	28	82	321	90	170	22	3.2	7.8	2.0	2.7
17	13	11	21	114	209	90	47	24	3.6	4.5	1.9	2.4
18	12	13	18	103	326	136	201	23	3.3	5.9	1.8	2.4
19	12	13	20	166	645	23	45	22	3.4	11	1.9	5.3
20	12	13	28	490	1010	89	121	22	3.1	63	2.4	5.3
21	12	13	22	173	532	120	91	20	2.5	9.2	2.2	2.6
22	12	13	20	133	284	26	174	20	2.1	5.6	2.2	3.1
23	13	13	18	112	434	19	237	35	2.0	5.7	2.2	2.7
24	14	15	21	98	303	97	142	20	2.4	9.7	1.9	2.3
25	15	31	189	91	219	194	48	19	2.7	3.8	1.9	2.5
26	14	16	326	29	151	258	148	16	2.0	4.1	1.9	2.6
27	21	13	214	30	150	19	48	15	2.9	4.0	2.1	2.6
28	12	25	464	103	95	74	48	14	2.9	3.7	2.6	2.5
29	11	13	328	23	102	98	146	12	2.8	3.6	2.4	2.0
30	13	12	179	27	---	271	45	12	3.4	3.6	2.2	2.2
31	13	---	166	141	---	250	---	10	---	22	2.1	---
TOTAL	388	406	2338	2740	9473	5103	13899	897	139.7	213.4	87.6	96.8
MEAN	12.5	13.5	75.4	88.4	327	165	463	28.9	4.66	6.88	2.83	3.23
MAX	21	31	464	490	1320	441	4770	47	8.8	63	9.3	9.5
MIN	10	11	11	19	36	19	45	10	2.0	2.0	1.8	2.0
CFSM	.07	.08	.43	.51	1.88	.95	2.66	.17	.03	.04	.02	.02
IN.	.08	.09	.50	.59	2.03	1.09	2.97	.19	.03	.05	.02	.02

CAL YR 1987 TOTAL 15682.9 MEAN 43.0 MAX 480 MIN 5.1 CFSM .25 IN. 3.35
WTR YR 1988 TOTAL 35781.5 MEAN 97.8 MAX 4770 MIN 1.8 CFSM .56 IN. 7.65

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 mi² including 5.57 mi² from Dry Run basin. Since June 1964 part of the flow from the 5.57 mi² 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. 1-22, Jan. 2-16, 25-29, and Feb. 6-14, 25. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--24 years (water years 1965 to current year) 21.8 ft³/s, 12.39 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,330 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 15	0700	525	5.08	July 20	1530	536	5.12
Apr. 6	2245	*956	*6.41				

Minimum daily discharge, 0.22 ft³/s July 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.7	14	17	238	11	127	7.7	1.4	1.0	8.8	.69
2	.95	1.4	11	11	185	20	74	6.6	1.3	1.2	3.9	.83
3	.80	1.3	7.7	9.6	87	85	44	6.2	1.2	.64	2.0	.47
4	.75	1.2	8.6	7.9	72	63	30	8.4	1.2	.45	1.6	.38
5	.80	1.4	5.3	6.6	41	54	23	6.5	1.1	.33	27	4.5
6	3.0	1.2	3.9	5.5	25	57	364	5.0	1.1	.28	9.7	1.6
7	2.6	1.3	31	5.0	20	40	308	4.7	1.1	.27	2.3	1.2
8	2.2	2.5	20	4.6	15	31	70	5.0	1.3	.27	1.2	.95
9	1.9	17	61	4.2	13	26	39	7.5	1.6	.22	1.0	.98
10	1.8	6.3	18	3.9	11	21	27	6.5	1.4	2.4	.96	1.1
11	1.7	4.7	11	4.1	9.9	18	21	6.4	1.2	2.7	.94	1.7
12	1.6	4.6	8.9	4.2	9.3	32	17	4.7	1.2	4.7	.90	35
13	1.5	3.3	6.5	3.8	9.2	22	14	5.4	1.0	1.8	.88	25
14	1.3	3.0	7.5	3.5	15	16	12	4.5	.94	1.0	.81	3.7
15	1.2	2.8	284	3.5	75	14	10	3.8	.91	1.3	.91	1.5
16	1.1	2.7	45	4.3	31	12	8.6	3.3	1.1	19	.74	2.0
17	1.8	2.9	22	69	28	11	8.3	3.0	2.0	20	.60	2.5
18	1.3	5.0	15	38	31	12	30	2.7	1.3	5.7	.45	1.4
19	1.1	3.9	27	87	116	12	11	2.5	.96	28	.38	13
20	.95	3.4	68	84	110	11	8.8	2.5	.94	227	.47	27
21	.85	3.0	29	31	47	9.4	13	2.5	.87	45	.46	4.1
22	.81	2.9	20	21	34	9.2	79	2.6	.60	13	.42	10
23	.77	4.0	15	17	33	9.6	30	41	.40	5.7	1.1	9.8
24	3.2	13	24	14	24	9.6	16	10	.43	3.2	.82	2.0
25	2.8	102	84	8.5	15	94	12	4.7	.42	2.0	.52	1.2
26	5.8	23	57	8.0	17	32	11	3.3	.37	1.6	.68	1.1
27	47	11	31	7.6	15	19	11	2.6	.38	1.2	.84	.85
28	7.7	91	111	7.5	13	15	10	1.8	.40	1.0	.91	.55
29	3.6	32	49	8.7	12	32	9.0	1.6	.40	.99	.89	.38
30	2.5	13	27	13	---	47	8.8	1.7	.77	.96	.79	.32
31	2.0	---	22	35	---	33	---	1.6	---	89	.75	---
TOTAL	106.58	366.5	1144.4	548.0	1351.4	877.8	1446.5	176.3	29.29	481.91	73.72	239.95
MEAN	3.44	12.2	36.9	17.7	46.6	28.3	48.2	5.69	.98	15.5	2.38	8.00
MAX	47	102	284	87	238	94	364	41	2.0	227	27	47
MIN	.75	1.2	3.9	3.5	9.2	9.2	8.3	1.6	.37	.22	.38	.32
CFSM	.14	.51	1.54	.74	1.95	1.18	2.02	.24	.04	.65	.10	.33
IN.	.17	.57	1.78	.85	2.10	1.37	2.25	.27	.05	.75	.11	.37

CAL YR 1987 TOTAL 5438.39 MEAN 14.9 MAX 410 MIN .56 CFSM .62 IN. 8.46
WTR YR 1988 TOTAL 6842.35 MEAN 18.7 MAX 364 MIN .22 CFSM .78 IN. 10.65

03353620 LICK CREEK AT INDIANAPOLIS, IN

LOCATION.--Lat 39°42'21", long 86°06'13", in NE¼ 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 mi².

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: Jan. 2-20, 24-28, Feb. 4-15, and Apr. 28 to Sept. 30. Records fair prior to May, poor thereafter.

AVERAGE DISCHARGE.--18 years, 19.0 ft³/s, 16.54 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,500 ft³/s June 25, 1978, gage height, 9.61 ft; minimum daily, 0.05 ft³/s Sept. 19, 1983.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 1	2130	542	4.21	Aug. 3	1915	552	4.25
Apr. 7	0115	*717	*4.84				

Minimum daily discharge, 0.17 ft³/s July 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.35	.71	7.6	9.9	288	8.4	45	2.1	.93	.37	2.3	.58
2	.34	.66	5.7	7.4	188	16	38	2.0	.66	.32	1.4	.53
3	.40	.77	9.6	3.9	78	92	22	1.9	.52	.36	23	1.7
4	.30	.76	9.1	2.7	31	66	15	1.9	.43	.29	4.7	5.1
5	.21	.66	4.7	2.1	15	36	13	2.0	.38	.26	3.1	1.9
6	.30	.74	3.9	1.6	9.0	35	176	2.4	.35	.43	5.0	1.2
7	.40	.73	19	2.0	10	27	323	2.1	.32	.30	2.1	.97
8	.37	.77	13	2.2	11	22	50	1.9	.31	.24	1.4	1.4
9	.77	5.1	26	2.1	9.2	18	25	3.0	.46	.20	1.0	1.1
10	1.7	1.7	10	1.9	7.9	14	17	3.2	.39	.17	.84	.93
11	1.2	.73	6.9	1.8	7.2	12	13	2.4	.33	.38	33	.84
12	.46	.53	5.7	2.3	6.7	23	9.8	1.9	.30	24	11	12
13	.32	.45	3.9	2.1	6.3	17	8.3	1.4	.28	11	3.5	4.2
14	.40	.41	7.4	1.8	10	13	7.1	2.0	.27	2.8	2.3	1.2
15	.40	.38	188	1.5	25	11	6.2	2.2	.27	1.4	1.8	.90
16	.34	.33	31	1.9	19	9.5	6.1	1.8	.34	5.4	1.4	.76
17	.64	1.8	16	8.4	15	9.0	6.2	1.5	.48	4.1	1.2	.69
18	.45	2.7	9.5	19	16	9.4	13	1.3	.62	14	1.0	.65
19	.36	1.9	15	88	83	8.9	6.8	1.1	.43	11	1.3	3.1
20	.45	.75	44	68	66	8.0	6.0	.96	.38	90	1.5	9.4
21	.51	.53	19	25	33	7.1	8.1	.88	.34	16	1.0	2.1
22	.47	.47	12	15	22	6.6	48	.84	.38	5.0	.80	1.2
23	.53	.66	8.8	11	21	6.7	11	6.8	.35	2.9	6.2	.80
24	1.1	4.4	16	8.0	15	7.2	5.7	2.7	.32	2.1	1.5	.61
25	1.1	39	66	6.0	14	36	4.4	2.1	.29	1.7	1.1	.49
26	1.2	13	64	5.0	12	16	4.2	1.5	.25	1.4	.88	.44
27	20	9.2	27	4.0	10	11	3.3	1.2	.22	1.2	.78	.40
28	1.6	49	79	4.3	9.2	9.9	2.8	.94	.25	1.0	1.7	.38
29	.89	21	36	4.5	8.9	9.5	2.5	.79	.32	.92	1.2	.36
30	.86	11	18	5.4	---	11	2.3	.68	.43	2.4	.86	.34
31	.81	---	14	28	---	11	---	.59	---	4.8	.67	---
TOTAL	39.23	170.84	795.8	346.8	1046.4	587.2	898.8	58.08	11.60	206.44	119.53	56.27
MEAN	1.27	5.69	25.7	11.2	36.1	18.9	30.0	1.87	.39	6.66	3.86	1.88
MAX	20	49	188	88	288	92	323	6.8	.93	90	33	12
MIN	.21	.33	3.9	1.5	6.3	6.6	2.3	.59	.22	.17	.67	.34
CFSM	.08	.37	1.65	.72	2.31	1.21	1.92	.12	.02	.43	.25	.12
IN.	.09	.41	1.90	.83	2.50	1.40	2.14	.14	.03	.49	.29	.13

CAL YR 1987 TOTAL 4674.16 MEAN 12.8 MAX 974 MIN .21 CFSM .82 IN. 11.15
WTR YR 1988 TOTAL 4336.99 MEAN 11.8 MAX 323 MIN .17 CFSM .76 IN. 10.34

03353660 WHITE RIVER AT WAVERLY, IN

LOCATION.--Lat 39°33'35", long 86°16'29", in NW¼NE¼ sec.23, T.13 N., R.2 E., Morgan County, Hydrologic Unit 05120201, on left bank 82 ft upstream from bridge on State Highway 144, 0.6 mi downstream from North Bluff Creek, and at mile 211.0.

DRAINAGE AREA.--2,026 mi².

PERIOD OF RECORD.--July 1, 1986 to September 1988. (Discontinued)

GAGE.--Water-stage recorder. Datum of gage is 620.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 20 to Mar. 1, Mar. 3-22, 26-28, 30, Apr. 6-10, 15-17, 20, 25, and July 9-19. Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,300 ft³/s Oct. 4, 1986, gage height, 19.23 ft; minimum daily, 247 ft³/s July 4, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,800 ft³/s Apr. 8, gage height, 17.86 ft; minimum daily, 247 ft³/s July 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	336	340	780	1800	2500	1500	2450	970	432	278	518	285
2	321	315	700	1500	7000	1560	2970	933	397	270	411	273
3	301	310	700	1200	7000	2500	2910	916	377	259	359	321
4	277	300	690	1000	6400	4100	2680	866	392	247	580	466
5	280	290	640	950	5000	2400	2420	861	362	255	386	391
6	303	275	590	880	3400	2300	3060	816	349	277	711	373
7	301	250	650	860	2500	2350	10700	778	356	248	396	342
8	312	280	740	840	2200	2520	13200	714	355	256	334	304
9	316	320	860	840	2000	3360	11600	806	365	260	323	296
10	324	305	900	780	1850	3800	7190	817	377	270	317	283
11	394	290	860	740	1700	3350	4770	803	374	270	367	273
12	372	285	800	720	1550	2810	3770	751	351	290	507	310
13	359	285	730	710	1400	2500	2980	695	333	390	374	413
14	350	260	900	700	1300	2300	2530	654	334	390	325	377
15	336	250	2000	680	1450	2100	2150	618	320	320	328	350
16	340	250	3000	750	1800	1900	1900	597	322	350	320	322
17	338	250	2700	980	2200	1680	1770	569	354	490	309	324
18	327	250	2200	1400	2700	1600	1880	545	338	700	308	290
19	336	250	1800	1800	3100	1450	1620	533	313	1000	308	316
20	350	250	2000	2700	5000	1410	1420	518	290	1180	316	454
21	330	250	2200	3000	5500	1340	1370	499	307	2010	301	392
22	320	250	2400	2200	4500	1300	2110	477	304	811	289	356
23	310	280	2200	1800	4100	1210	1760	770	300	640	370	395
24	320	300	1900	1400	3500	1180	1440	798	297	568	382	364
25	320	550	2300	1250	3100	1850	1350	661	295	454	316	315
26	370	900	2900	1050	2600	2100	1240	642	280	407	308	291
27	580	800	3200	1000	2100	2020	1160	533	270	370	295	295
28	540	900	3300	980	1850	1740	1120	464	296	335	286	284
29	430	1150	3400	980	1680	1670	1110	451	283	314	293	283
30	410	800	2800	980	---	1840	1080	449	291	333	288	280
31	380	---	2400	990	---	1760	---	447	---	589	290	---
TOTAL	10883	11785	53240	37460	90980	65500	97710	20951	10014	14831	11215	10018
MEAN	351	393	1717	1208	3137	2113	3257	676	334	478	362	334
MAX	580	1150	3400	3000	7000	4100	13200	970	432	2010	711	466
MIN	277	250	590	680	1300	1180	1080	447	270	247	286	273
CFSM	.17	.19	.85	.60	1.55	1.04	1.61	.33	.16	.24	.18	.16
IN.	.20	.22	.98	.69	1.67	1.20	1.79	.38	.18	.27	.21	.18

CAL YR 1987 TOTAL 384391 MEAN 1053 MAX 5270 MIN 250 CFSM .52 IN. 7.06
WTR YR 1988 TOTAL 434587 MEAN 1187 MAX 13200 MIN 247 CFSM .59 IN. 7.98

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 old U.S. Highway 36, 0.5 mi upstream from small left-bank tributary, and 7 mi west of Avon.

DRAINAGE AREA.--28.8 mi².

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: Jan. 2-19, 25-29, and Feb. 3-16, 21. Records fair except for estimated daily discharges and daily discharges for Oct. 1 to Nov. 24, which are poor. Low flow affected by releases from Danville Filtration Plant.

AVERAGE DISCHARGE.--30 years, 29.6 ft³/s, 13.96 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,330 ft³/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 ft³/s, from contracted-opening measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 6	2100	*1,040	*6.45

Minimum daily discharge, no flow for many days in July, August, and September.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	.07	6.5	28	272	12	195	11	1.4	.02	2.2	.00
2	.03	.07	6.2	15	310	17	150	9.9	1.3	.02	.83	.00
3	.07	.07	5.1	9.0	110	54	99	9.3	1.2	.01	.51	.03
4	.08	.07	4.6	6.0	60	68	72	8.8	1.0	.00	.31	.07
5	.10	.05	4.0	4.4	30	64	50	7.9	1.0	.00	.28	.01
6	.15	.05	3.1	3.8	22	115	440	7.2	.91	.00	.14	.00
7	.12	.06	5.5	3.8	18	95	433	6.7	.83	.00	.07	.00
8	.13	.21	11	3.9	14	66	173	6.8	.84	.00	.07	.00
9	.11	.23	21	4.2	12	48	109	8.0	.94	.00	.05	.00
10	.31	.09	17	4.9	10	35	73	6.3	.77	.01	.05	.00
11	.21	.07	9.8	5.4	8.5	26	49	5.4	.63	.03	.04	.00
12	.11	.07	7.5	5.4	7.2	28	35	5.0	.55	.02	.03	.11
13	.10	.07	4.3	5.3	6.2	22	26	4.9	.54	.03	.03	.01
14	.09	.07	3.4	5.2	9.0	18	21	4.5	.47	.03	.04	.00
15	.10	.07	254	5.1	60	14	17	4.4	.37	.03	.04	.00
16	.13	.14	130	5.0	50	12	14	4.2	.41	.20	.06	.00
17	.19	.23	54	13	41	11	13	3.7	.44	.08	.07	.00
18	.15	.18	28	21	47	12	17	3.5	.40	1.1	.06	.00
19	.15	.10	28	19	130	11	12	3.3	.34	.21	.23	.20
20	.14	.09	148	144	161	9.7	11	3.3	.26	.79	.09	.11
21	.07	.08	91	50	58	7.9	11	3.2	.15	.67	.03	.00
22	.07	.08	53	22	62	7.3	52	3.0	.13	.12	.23	.02
23	.09	.14	32	14	70	7.7	66	5.3	.10	3.8	.06	.02
24	.26	.33	33	11	44	7.4	42	3.4	.07	1.8	.01	.01
25	.16	2.2	129	6.2	29	21	30	2.6	.04	1.2	.02	.01
26	.24	2.0	104	5.3	22	19	25	2.3	.02	.90	.03	.01
27	.58	1.2	64	4.9	17	12	21	2.2	.02	.61	.02	.00
28	.12	7.8	199	5.0	14	10	17	2.1	.02	.40	.04	.00
29	.10	22	119	5.5	13	34	14	2.0	.01	.23	.01	.00
30	.08	9.5	64	9.7	---	110	12	1.8	.03	1.3	.00	.00
31	.07	---	41	25	---	68	---	1.6	---	13	.00	---
TOTAL	4.39	47.39	1680.0	470.0	1706.9	1042.0	2299	153.6	15.19	183.03	5.65	0.61
MEAN	.14	1.58	54.2	15.2	58.9	33.6	76.6	4.95	.51	5.90	.18	.020
MAX	.58	22	254	144	310	115	440	11	1.4	.79	2.2	.20
MIN	.03	.05	3.1	3.8	6.2	7.3	11	1.6	.01	.00	.00	.00
CFSM	.00	.05	1.88	.53	2.04	1.17	2.66	.17	.02	.21	.01	.00
IN.	.01	.06	2.17	.61	2.20	1.35	2.97	.20	.02	.24	.01	.00

CAL YR 1987 TOTAL 6301.86 MEAN 17.3 MAX 424 MIN .00 CFSM .60 IN. 8.14
WTR YR 1988 TOTAL 7607.76 MEAN 20.8 MAX 440 MIN .00 CFSM .72 IN. 9.83

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 mi².

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: Jan. 3-10, 26-31, and Feb. 4, 7, 8, 11, and 13-15. Records fair except for estimated daily discharges and daily discharges below 10 ft³/s, which are poor. Pumpage above gage affects low flows.

AVERAGE DISCHARGE.--31 years, 218 ft³/s, 13.96 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,000 ft³/s July 13, 1979, gage height, 23.31 ft; minimum daily, 0.68 ft³/s Aug. 27, 1988 (affected by upstream pumpage).

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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 2	0100	3,440	14.76	Apr. 7	0100	*6,630	*18.34

Minimum daily discharge, 0.68 ft³/s Aug. 27 (affected by upstream pumpage).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	9.6	54	225	1460	129	777	96	22	5.6	31	1.5
2	8.6	9.0	45	157	2200	147	859	90	21	6.7	20	1.8
3	8.4	8.8	41	108	996	431	548	86	20	7.5	14	3.7
4	8.4	8.4	39	87	660	675	384	80	20	7.2	12	8.5
5	8.0	8.4	35	66	516	413	287	77	20	6.7	11	6.2
6	7.6	8.3	32	53	339	618	1690	70	19	6.2	12	4.2
7	7.3	8.5	36	50	245	563	3620	63	18	6.3	11	3.9
8	7.0	9.7	43	52	200	451	1090	61	17	5.9	9.3	3.3
9	7.1	12	77	55	179	347	689	65	18	5.8	8.8	2.7
10	8.3	12	91	56	145	273	495	62	16	5.9	7.8	2.3
11	9.5	13	69	58	126	221	382	59	15	12	7.1	2.3
12	8.8	13	59	58	118	216	300	56	14	13	6.7	2.2
13	8.1	11	48	60	114	213	250	53	13	4.2	6.8	3.5
14	7.6	11	41	56	108	178	214	52	12	2.7	6.8	4.8
15	6.8	10	822	51	150	160	187	50	12	4.6	5.6	4.2
16	6.7	10	717	50	308	142	167	47	11	5.6	4.8	4.2
17	7.4	12	309	116	257	130	156	44	12	8.9	5.5	21
18	7.4	12	186	340	296	127	177	42	12	7.7	5.2	18
19	7.8	13	149	328	633	127	157	40	10	19	4.9	9.2
20	7.1	13	392	876	1150	121	140	38	8.8	88	5.2	9.3
21	7.3	12	458	416	592	111	137	36	8.2	174	5.8	7.2
22	8.1	10	278	227	402	102	294	35	7.9	52	5.4	5.1
23	9.0	12	202	169	398	100	292	45	7.9	31	7.2	3.1
24	10	13	169	143	320	97	230	42	8.2	21	4.9	2.0
25	11	29	491	117	232	158	167	36	7.7	16	1.8	1.4
26	12	56	636	95	186	184	144	32	10	15	.94	1.3
27	23	28	399	88	170	141	131	30	12	13	.68	1.3
28	16	33	813	82	146	119	122	27	4.1	9.6	4.6	1.4
29	12	90	755	79	138	129	110	25	3.5	8.2	2.9	1.9
30	11	71	401	87	---	368	102	24	6.7	7.5	1.9	3.0
31	10	---	286	126	---	331	---	23	---	49	.87	---
TOTAL	287.2	566.7	8173	4531	12784	7522	14298	1586	387.0	625.8	232.49	144.5
MEAN	9.26	18.9	264	146	441	243	477	51.2	12.9	20.2	7.50	4.82
MAX	23	90	822	876	2200	675	3620	96	22	174	31	21
MIN	6.7	8.3	32	50	108	97	102	23	3.5	2.7	.68	1.3
CFSM	.04	.09	1.24	.69	2.08	1.14	2.25	.24	.06	.10	.04	.02
IN.	.05	.10	1.43	.80	2.24	1.32	2.51	.28	.07	.11	.04	.03

CAL YR 1987 TOTAL 39227.3 MEAN 107 MAX 1400 MIN 6.7 CFSM .51 IN. 6.88
WTR YR 1988 TOTAL 51137.69 MEAN 140 MAX 3620 MIN .68 CFSM .66 IN. 8.97

03354000 WHITE RIVER NEAR CENTERTON, IN

(National stream-quality accounting network station)

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.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1925 to September 1930 (gauge 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: Jan. 5-9 and Apr. 7-12. Records good. Flow regulated by upstream reservoirs.

AVERAGE DISCHARGE.--43 years (1930-31, 1946 to current year), 2,411 ft³/s, 13.40 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,500 ft³/s Apr. 22, 1964, gauge 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 (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 2	0700	13,000	10.92	Apr. 8	1400	*18,500	a*13.35

Minimum daily discharge, 233 ft³/s Sept. 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	421	409	919	2750	5460	2170	3780	1320	571	319	701	257
2	387	380	891	2180	11600	2110	4990	1250	534	319	504	250
3	366	374	817	1910	9130	3350	4440	1230	502	306	425	264
4	337	349	840	1640	8710	5430	3940	1160	515	295	569	423
5	326	364	751	1400	6240	3550	3460	1150	497	300	464	410
6	359	322	692	1150	4260	3650	5020	1090	459	332	707	357
7	376	307	774	1000	3280	3650	16100	1040	477	295	517	334
8	361	284	919	1060	2800	3610	18400	978	471	302	384	289
9	383	355	1070	1050	2680	4380	15400	992	473	293	358	260
10	386	395	1170	1060	2380	5010	11200	1030	486	300	334	247
11	457	340	1020	1010	2220	4540	7880	1000	494	299	354	233
12	435	334	967	998	1890	3800	5540	946	468	341	501	248
13	427	339	887	999	1720	3590	4380	882	426	540	414	363
14	409	325	831	937	1570	3120	3740	838	447	436	344	357
15	395	294	3200	901	2390	3020	3270	798	397	370	328	333
16	398	284	3930	877	2870	2620	2830	760	377	372	317	306
17	388	298	3770	1170	3370	2310	2600	739	417	438	303	295
18	372	295	3130	2090	3430	2130	2620	698	401	452	291	300
19	371	297	2320	2130	4480	2050	2410	687	400	781	286	298
20	395	301	2560	4790	7360	1880	2090	669	348	783	307	450
21	381	304	2860	3740	7220	1840	2000	654	371	3020	285	468
22	364	297	3170	3320	6410	1780	2830	629	359	1190	271	400
23	364	315	2810	2540	5040	1620	2720	832	348	805	337	409
24	362	364	2280	2080	4660	1550	2270	1000	344	703	407	410
25	386	565	3110	1740	4270	2210	2040	847	344	571	325	350
26	378	1310	4240	1480	3520	2810	1790	810	330	500	288	309
27	694	930	3890	1240	2980	2730	1710	719	316	443	277	307
28	698	975	4770	1150	2650	2360	1580	625	343	393	279	294
29	544	1520	4920	1210	2370	2190	1520	591	328	354	266	286
30	521	1040	3930	1190	---	2590	1500	588	336	360	268	283
31	466	---	3230	1330	---	2590	---	573	---	525	260	---
TOTAL	12907	14266	70668	52122	126960	90240	144050	27125	12579	16737	11671	9790
MEAN	416	476	2280	1681	4378	2911	4802	875	419	540	376	326
MAX	698	1520	4920	4790	11600	5430	18400	1320	571	3020	707	468
MIN	326	284	692	877	1570	1550	1500	573	316	293	260	233
CFSM	.17	.19	.93	.69	1.79	1.19	1.96	.36	.17	.22	.15	.13
IN.	.20	.22	1.08	.79	1.93	1.37	2.19	.41	.19	.25	.18	.15

CAL YR 1987 TOTAL 520496 MEAN 1426 MAX 9680 MIN 284 CFSM .58 IN. 7.92
WTR YR 1988 TOTAL 589115 MEAN 1610 MAX 18400 MIN 233 CFSM .66 IN. 8.97

03354000 WHITE RIVER NEAR CENTERTON, IN --Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL ANALYSIS: October 1986 to current year.

WATER TEMPERATURE: September 1953 to April 1956, October 1966 to September 1967, May 1970 to September 1972, October 1977 to July 1980, October 1982 to June 1985.

SEDIMENT DISCHARGE: March 1965 to September 1977, October 1986 to current year (partial-record station).

EXTREMES FOR PERIOD OF RECORD.--Water temperature: Maximum, 33 °C July 3, 1970; minimum, -0.5 °C, several days during winters.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	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)	HARD- NESS TOTAL (MG/L AS CACO3)
NOV 16...	1100	284	1300	7.6	--	11.6	3.1	9.8	740	--	--	380
DEC 30...	1200	3810	604	7.7	--	3.0	16	12.1	753	2300	K1400	270
MAR 29...	1145	2220	796	7.9	--	12.3	2.2	10.4	722	260	450	320
MAY 17...	1130	825	982	7.7	26.0	20.1	2.1	11.3	746	K60	3100	340
JUL 28...	1130	310	1040	--	37.0	25.8	3.8	--	757	370	K50	310
SEP 14...	1300	365	1310	7.5	36.3	23.5	3.5	9.8	753	160	K28	340

DATE	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 16...	130	99	33	120	40	3	11	258	315	0	150	140
DEC 30...	95	69	23	26	17	0.7	2.9	172	210	0	63	46
MAR 29...	90	82	28	44	23	1	3.3	230	281	0	82	66
MAY 17...	78	84	32	70	30	2	5.1	264	322	0	110	100
JUL 28...	46	77	28	100	41	2	7.8	262	173	72	130	130
SEP 14...	130	83	32	140	45	3	23	210	256	0	160	160

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
NOV 16...	0.7	7.6	770	590	0.11	8.8	0.28	0.28	--	1.9	1.7	1.4
DEC 30...	0.4	7.0	373	3830	0.02	3.9	0.16	0.17	0.2	0.23	0.12	0.09
MAR 29...	0.3	2.9	473	2830	0.04	4.5	0.05	0.05	0.5	0.15	0.05	0.02
MAY 17...	0.5	2.4	581	1290	0.08	4.2	0.03	0.02	0.7	0.46	0.23	0.11
JUL 28...	0.6	8.0	653	546	0.05	6.2	0.02	0.02	2.6	0.51	0.33	0.28
SEP 14...	0.7	8.1	784	772	0.05	7.8	0.04	0.06	1.8	1.5	1.4	1.2

WABASH RIVER BASIN

03354000 WHITE RIVER NEAR CENTERTON, IN --Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	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)
NOV 16...	<10	2	58	<0.5	<1	4	<3	6	15	<5	20	71
DEC 30...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 29...	20	1	65	<0.5	26	<1	<3	5	11	<5	11	18
MAY 17...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 28...	10	4	56	<0.5	<1	1	<3	9	4	<5	14	17
SEP 14...	10	3	48	<0.5	<1	2	<3	3	18	9	17	45

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	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- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 16...	0.1	20	19	2	<1	350	<6	71	22	17	86
DEC 30...	--	--	--	--	--	--	--	--	58	596	72
MAR 29...	0.2	<10	6	1	1	280	<6	27	26	156	84
MAY 17...	--	--	--	--	--	--	--	--	24	53	97
JUL 28...	<0.1	20	16	1	1	270	<6	18	20	17	97
SEP 14...	<0.1	20	17	2	<1	310	<6	33	14	14	96

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 mi².

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: Oct. 1 to Dec. 24, Dec. 30 to Jan. 18, Jan. 27-29, and Apr. 29 to Sept. 30. Records poor.

AVERAGE DISCHARGE.--37 years, 15.7 ft³/s, 14.60 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,140 ft³/s June 23, 1960, gage height, 11.78 ft, from curve extended above 2,000 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 6	2145	*938	*7.87

Minimum daily discharge, no flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	2.5	9.9	321	6.1	19	3.2	.19	.00	.00	.00
2	.00	.00	2.0	7.5	259	7.7	28	2.9	.17	.00	.00	.04
3	.00	.00	1.9	6.2	61	94	22	2.7	.13	.00	.00	.11
4	.00	.00	1.7	5.2	55	92	18	2.5	.13	.00	.00	.05
5	.00	.06	1.6	4.0	30	36	13	2.5	.11	.00	.00	.01
6	.00	.03	1.3	3.6	26	28	239	2.0	.09	.00	.03	.00
7	.00	.02	1.3	3.1	14	25	178	1.9	.11	.00	.00	.00
8	.00	.01	1.3	2.7	8.8	22	37	1.9	.08	.00	.00	.00
9	.00	.00	2.3	2.3	6.7	20	26	2.3	.16	.00	.00	.00
10	.01	.00	2.7	2.0	6.1	15	24	1.9	.09	.00	.00	.00
11	.00	.00	2.7	1.7	5.9	14	21	1.6	.08	.03	.00	.00
12	.00	.00	2.1	1.5	8.3	25	17	1.5	.07	.00	.00	.01
13	.00	.00	1.7	1.3	8.0	31	11	1.3	.08	.00	.00	.01
14	.00	.00	1.7	1.3	6.5	23	8.2	1.1	.07	.00	.00	.01
15	.00	.00	14	1.3	23	19	7.7	.98	.05	.00	.00	.00
16	.00	.00	11	1.5	17	16	6.0	.80	.11	.00	.00	.00
17	.00	.00	6.4	4.2	15	14	4.8	.74	.08	.00	.00	.00
18	.00	.00	4.7	13	12	14	7.7	.72	.11	.00	.00	.00
19	.00	.00	4.2	61	71	12	6.1	.64	.11	.00	.17	.05
20	.00	.00	5.5	68	60	11	5.2	.58	.12	3.6	.00	.09
21	.00	.00	5.5	14	28	10	4.7	.48	.11	.31	.00	.07
22	.00	.00	4.7	6.8	19	10	9.9	.48	.09	.00	.00	.04
23	.00	.00	4.0	5.8	17	9.5	8.2	.59	.05	.00	.01	.04
24	.00	.00	5.0	5.9	15	6.8	7.1	.51	.03	.00	.00	.03
25	.00	.00	32	5.9	11	46	6.2	.46	.02	.00	.00	.01
26	.00	1.3	78	9.8	9.5	36	5.2	.43	.00	.00	.00	.01
27	.00	1.7	21	4.6	8.2	27	5.4	.39	.00	.00	.00	.00
28	.00	6.3	36	3.9	6.1	22	5.1	.31	.00	.00	.00	.00
29	.00	6.3	24	3.8	5.9	12	4.5	.29	.00	.00	.00	.00
30	.00	3.4	13	5.9	---	7.6	3.8	.25	.00	.00	.00	.00
31	.00	---	12	11	---	9.1	---	.21	---	.00	.00	---
TOTAL	0.01	19.12	307.8	278.7	1134.0	720.8	758.8	38.16	2.44	3.94	0.21	0.58
MEAN	.000	.64	9.93	8.99	39.1	23.3	25.3	1.23	.081	.13	.007	.019
MAX	.01	6.3	78	68	321	94	239	3.2	.19	3.6	.17	.11
MIN	.00	.00	1.3	1.3	5.9	6.1	3.8	.21	.00	.00	.00	.00
CFSM	.00	.04	.68	.62	2.68	1.59	1.73	.08	.01	.01	.00	.00
IN.	.00	.05	.78	.71	2.89	1.84	1.93	.10	.01	.01	.00	.00

CAL YR 1987 TOTAL 1978.83 MEAN 5.42 MAX 156 MIN .00 CFSM .37 IN. 5.04
WTR YR 1988 TOTAL 3264.56 MEAN 8.92 MAX 321 MIN .00 CFSM .61 IN. 8.32

LOCATION.--LAT 39°16'49", LONG 86°45'42", IN NE1/4NE1/4 SEC.29, T.10 N., R. 3 W., Owen County, Hydrologic Unit 05120202, on right bank at downstream side of county road bridge at the south edge of Spencer, 3.3 mi upstream from McBrides Creek, and at mile 165.9.

PERIOD OF RECORD.--July 1925 to September 1971 (discharge), October 1971 to current year (gage heights only).

GAGE.--Data-Collection Platform. Datum of gage is 526.04 ft above National Geodetic Vertical Datum of 1929.
Prior to Dec. 26, 1940, nonrecording gage at same site and datum.

REMARKS. -- Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 23.2 ft Jan. 16, 1937; minimum gage height, 0.88 ft Sept. 25, 30, and Oct. 1, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 28.5 ft Mar. 26, 1913, from flood marks.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 18.27 ft Apr. 9; minimum gage height, 1.77 ft Sept. 30.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.16	2.23	3.04	6.30	12.61	5.51	8.93	4.17	2.57	1.98	2.70	1.83
2	2.08	2.17	2.99	5.56	15.89	5.40	10.12	4.02	2.52	1.96	2.40	1.83
3	2.04	2.14	2.89	5.16	16.88	8.61	9.02	3.96	2.45	1.92	2.27	1.87
4	2.00	2.13	2.88	4.73	15.95	12.11	8.12	3.85	2.41	1.90	2.20	1.94
5	1.97	2.10	2.78	4.52	13.46	9.33	7.44	3.80	2.39	1.90	2.45	2.17
6	1.98	2.09	2.68	7.10	9.39	8.56	11.91	3.71	2.33	1.93	2.27	2.02
7	2.00	2.06	2.63	7.14	7.78	7.96	16.06	3.62	2.34	1.96	2.48	1.99
8	1.98	2.02	3.02	7.00	6.84	7.64	18.16	3.55	2.34	1.91	2.20	1.93
9	2.01	2.00	2.99	6.84	6.45	8.05	18.17	3.52	2.32	1.87	2.12	1.86
10	2.07	2.20	3.40	6.40	6.08	8.76	16.94	3.64	2.33	1.86	2.06	1.84
11	2.05	2.14	3.19	6.08	5.80	8.39	12.34	3.54	2.32	1.93	2.02	1.79
12	2.14	2.06	3.08	4.41	5.30	7.53	9.92	3.46	2.28	1.92	2.26	1.78
13	2.13	2.04	2.98	3.40	4.95	7.47	8.53	3.35	2.24	1.94	2.28	1.85
14	2.10	2.05	2.98	3.29	4.78	6.87	7.66	3.28	2.24	2.25	2.08	2.01
15	2.07	2.02	5.69	3.22	5.57	6.71	7.01	3.18	2.21	2.10	2.00	1.96
16	2.02	2.00	7.39	3.19	6.30	6.22	6.44	3.11	2.22	2.03	2.00	1.92
17	2.01	2.00	6.81	3.81	6.84	5.82	6.16	3.08	2.19	2.02	1.96	1.86
18	2.00	2.00	6.32	5.16	6.85	5.59	5.89	2.98	2.20	2.24	1.93	1.88
19	1.98	1.99	5.42	6.29	8.57	5.46	5.81	2.94	2.18	2.24	2.09	1.96
20	2.00	1.98	5.45	9.18	12.45	5.17	5.42	2.91	2.12	2.87	2.10	1.90
21	2.00	1.98	5.88	7.86	12.03	5.08	5.30	2.86	2.09	5.41	1.95	2.16
22	1.99	1.98	6.15	7.07	11.09	4.94	5.77	2.89	2.10	3.84	1.89	2.01
23	1.97	2.00	5.93	6.20	9.32	4.72	5.96	2.86	2.10	3.06	1.88	1.96
24	2.04	2.11	5.53	5.54	8.59	4.57	5.56	3.34	2.07	2.80	2.07	2.01
25	2.00	2.28	7.23	5.01	8.08	5.28	5.25	3.13	2.05	2.61	1.98	1.94
26	2.11	3.44	9.40	4.54	7.28	6.62	4.92	3.02	2.03	2.45	1.87	1.85
27	2.13	3.02	8.14	4.21	6.64	6.53	4.80	2.93	1.99	2.32	1.88	1.80
28	2.74	3.04	9.01	3.92	6.20	6.00	4.56	2.76	2.00	2.23	1.90	1.80
29	2.42	3.94	9.52	3.97	5.79	5.98	4.45	2.66	2.02	2.14	1.88	1.78
30	2.34	3.31	7.96	3.95	---	6.08	4.45	2.62	1.99	2.10	1.86	1.77
31	2.32	---	7.04	4.52	---	6.46	---	2.59	---	2.12	1.84	---
MEAN	2.09	2.28	5.17	5.34	8.75	6.76	8.37	3.27	2.22	2.32	2.09	1.91
MAX	2.74	3.94	9.52	9.18	16.88	12.11	18.17	4.17	2.57	5.41	2.70	2.17
MIN	1.97	1.98	2.63	3.19	4.78	4.57	4.45	2.59	1.99	1.86	1.84	1.77
WTR YR 1988 MEAN 4.20 MAX 18.17 MIN 1.77												

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 mi².

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: Jan. 1-18, 22-30, Feb. 4-15, and May 27 to June 26. Records poor.

AVERAGE DISCHARGE.--19 years, 3.59 ft³/s, 16.25 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 744 ft³/s June 30, 1977, gage height, 5.75 ft; no flow at times during 1970, 1975-77, 1983-88.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 6	1815	*245	*3.47

Minimum daily discharge, no flow on many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.00	.24	3.0	49	1.8	18	1.4	.03	.00	.04	.00
2	.00	.00	.28	2.0	35	2.2	6.4	1.4	.03	.00	.03	.00
3	.00	.00	.21	1.3	17	4.9	6.9	1.3	.02	.00	.02	.00
4	.00	.00	.27	.90	5.0	4.1	4.4	1.2	.02	.00	.01	.00
5	.00	.00	.20	.75	3.4	5.3	3.2	1.1	.02	.00	.01	.00
6	.00	.00	.15	.70	2.8	6.8	92	.97	.01	.00	.01	.00
7	.00	.01	.29	.70	2.4	4.8	17	.94	.01	.00	.00	.00
8	.00	.01	.41	.70	2.1	3.6	4.8	.94	.01	.00	.00	.00
9	.00	.01	.71	.75	1.8	3.1	3.4	1.1	.01	.00	.00	.00
10	.01	.01	.56	.85	1.6	2.7	2.9	.93	.01	.00	.00	.00
11	.01	.01	.45	.97	1.4	2.4	2.5	.85	.01	.00	.00	.00
12	.00	.01	.35	.98	1.3	2.5	2.2	.78	.01	.00	.00	.00
13	.00	.01	.23	.97	1.2	2.2	1.9	.75	.01	.00	.00	.00
14	.00	.00	.21	.95	1.8	2.1	1.8	.63	.00	.00	.00	.00
15	.00	.00	22	.93	10	1.9	1.8	.50	.00	.00	.00	.00
16	.00	.00	4.5	.92	8.2	1.8	1.7	.45	.00	.00	.00	.00
17	.00	.01	3.4	4.0	7.8	1.8	1.7	.24	.00	.00	.00	.00
18	.00	.01	3.2	3.0	8.1	1.8	1.9	.20	.00	.00	.00	.00
19	.00	.00	3.8	13	22	1.8	1.7	.17	.00	.00	.00	.00
20	.00	.00	8.6	8.1	16	1.8	1.6	.16	.00	.17	.00	.00
21	.00	.00	4.5	4.2	8.0	1.7	1.7	.15	.00	.04	.00	.00
22	.00	.00	3.9	2.5	5.2	1.7	2.3	.14	.00	.03	.00	.00
23	.00	.01	3.5	1.7	4.5	1.7	2.1	.39	.00	.03	.00	.00
24	.01	.01	4.0	1.3	3.0	1.7	1.8	.21	.00	.02	.00	.00
25	.01	.19	8.7	1.1	2.3	2.2	1.7	.10	.00	.03	.00	.00
26	.01	.07	6.5	1.0	2.2	1.9	1.7	.08	.00	.04	.00	.00
27	.04	.04	4.7	.97	2.1	1.8	1.7	.07	.00	.02	.00	.00
28	.01	.45	21	.94	1.9	1.7	1.5	.07	.00	.01	.00	.00
29	.01	.61	7.6	.97	1.9	3.4	1.5	.05	.00	.00	.00	.00
30	.01	.29	4.9	2.0	---	4.5	1.4	.04	.00	.08	.00	.00
31	.00	---	4.4	4.8	---	4.2	---	.03	---	.13	.00	---
TOTAL	0.13	1.76	123.76	66.95	229.0	85.9	195.2	17.34	0.20	0.60	0.12	0.00
MEAN	.004	.059	3.99	2.16	7.90	2.77	6.51	.56	.007	.019	.004	.00
MAX	.04	.61	22	13	49	6.8	92	1.4	.03	.17	.04	.00
MIN	.00	.00	.15	.70	1.2	1.7	1.4	.03	.00	.00	.00	.00
CFSM	.00	.02	1.33	.72	2.63	.92	2.17	.19	.00	.01	.00	.00
IN.	.00	.02	1.53	.83	2.84	1.07	2.42	.22	.00	.01	.00	.00

CAL YR 1987 TOTAL 599.69 MEAN 1.64 MAX 65 MIN .00 CFSM .55 IN. 7.44
WTR YR 1988 TOTAL 720.96 MEAN 1.97 MAX 92 MIN .00 CFSM .66 IN. 8.94

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 mi².

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: Jan. 3-19, 23-30, and Feb. 4-15. Records good except for estimated daily discharges, which are poor. Flow partly regulated by Soil Conservation Service control structures on tributaries to Little Walnut Creek beginning in 1971.

AVERAGE DISCHARGE.--39 years, 349 ft³/s, 14.54 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,400 ft³/s June 28, 1957, gage height, 18.63 ft, from rating curve extended above 18,000 ft³/s on basis of slope-conveyance method; minimum daily, 1.4 ft³/s Sept. 8, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 2	0100	4,010	10.74	Apr. 7	0300	*6,610	*13.71

Minimum daily discharge, 3.4 ft³/s Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	22	93	367	1820	254	1750	211	51	12	48	4.7
2	18	20	79	288	3010	259	1640	199	49	12	33	4.7
3	17	18	71	235	1390	554	1180	183	47	11	23	4.7
4	16	18	71	188	785	791	1290	165	46	11	18	6.3
5	15	16	64	154	440	551	911	159	41	11	16	8.1
6	15	16	60	134	288	719	2940	150	42	10	16	7.2
7	15	16	64	128	240	753	5840	143	39	10	14	6.6
8	15	17	66	132	216	674	2290	140	36	9.6	13	5.9
9	14	22	81	142	202	599	1340	160	35	9.3	12	5.5
10	15	22	87	148	188	506	979	153	32	9.0	11	5.1
11	16	21	87	152	180	429	774	138	30	8.7	11	5.0
12	16	21	78	154	174	401	628	131	29	8.8	17	5.9
13	15	20	70	152	172	384	532	124	28	8.8	13	6.1
14	15	19	63	150	194	335	465	104	26	8.9	11	6.2
15	16	19	812	147	268	307	411	99	24	9.3	10	5.5
16	15	21	725	144	482	280	370	94	23	9.2	9.6	4.7
17	15	20	393	195	416	259	339	90	22	9.3	8.8	4.8
18	15	21	277	425	422	250	363	86	21	12	8.0	4.8
19	14	21	251	344	696	245	334	82	19	13	7.8	6.5
20	14	20	546	939	1310	235	291	78	18	94	7.8	12
21	14	18	541	513	798	219	272	76	17	194	7.8	11
22	14	18	385	341	606	207	336	77	16	79	7.6	8.0
23	14	20	306	248	544	197	487	88	16	43	7.4	6.4
24	15	21	269	198	493	192	504	84	15	31	7.1	5.3
25	16	91	535	167	402	250	380	73	15	25	6.4	5.2
26	18	126	679	148	344	287	329	67	14	24	5.5	4.8
27	30	77	519	142	326	244	296	63	13	21	5.0	4.5
28	34	91	1010	138	290	216	272	61	13	18	5.2	4.4
29	29	138	1020	140	272	330	248	58	13	16	5.3	4.0
30	33	133	623	148	---	1140	226	56	12	17	5.1	3.4
31	25	---	473	248	---	766	---	54	---	39	4.8	---
TOTAL	555	1123	10398	7149	16968	12833	28017	3446	802	793.9	375.2	177.3
MEAN	17.9	37.4	335	231	585	414	934	111	26.7	25.6	12.1	5.91
MAX	34	138	1020	939	3010	1140	5840	211	51	194	48	12
MIN	14	16	60	128	172	192	226	54	12	8.7	4.8	3.4
CFSM	.05	.11	1.03	.71	1.79	1.27	2.86	.34	.08	.08	.04	.02
IN.	.06	.13	1.19	.82	1.94	1.46	3.20	.39	.09	.09	.04	.02

CAL YR 1987 TOTAL 74936 MEAN 205 MAX 4820 MIN 14 CFSM .63 IN. 8.55
WTR YR 1988 TOTAL 82637.4 MEAN 226 MAX 5840 MIN 3.4 CFSM .69 IN. 9.43

03358000 MILL CREEK NEAR CATARACT, IN

LOCATION.--Lat 39°26'00", long 86°45'48", in NE 1/4 sec. 32, T. 12 N., R. 3 W., Owen County, Hydrologic Unit 05120203, on left bank at downstream side of bridge on U.S. Highway 231, 3 mi east of Cataract, and at mile 17.5.

DRAINAGE AREA.--245 mi².

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. 2-9, Jan. 1-16, 26-29, and Sept. 23-30. Records fair except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--39 years, 262 ft³/s, 14.52 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,400 ft³/s June 24, 1960, gage height, 22.58 ft; minimum daily, 0.1 ft³/s Sept. 7, 28, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 2	1700	3,900	14.70	Apr. 7	1200	*4,300	*15.30

Minimum daily discharge, 1.9 ft³/s Sept. 8, 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	9.4	60	190	418	150	1920	74	19	7.0	132	2.6
2	8.0	9.5	48	140	3190	138	1540	71	18	6.6	39	2.6
3	7.5	9.6	42	110	2740	448	801	67	17	6.6	20	3.5
4	7.0	9.4	42	97	700	1750	517	65	16	6.2	14	4.9
5	7.5	9.2	41	91	500	1860	381	62	16	5.9	15	4.9
6	7.0	8.7	35	78	370	1140	1280	58	15	5.7	13	3.1
7	6.7	8.9	33	74	300	686	4040	55	14	5.5	10	2.2
8	6.4	9.4	45	74	250	529	3050	53	14	5.8	8.3	1.9
9	6.3	10	76	73	219	402	1820	63	14	5.7	7.7	1.9
10	6.2	13	124	68	183	331	1010	62	13	5.9	6.2	2.0
11	9.1	12	84	63	160	259	481	52	12	5.2	5.9	2.0
12	8.8	11	66	62	150	219	312	47	12	7.2	5.8	2.1
13	9.2	10	50	62	140	197	243	44	12	6.9	5.8	2.0
14	8.2	10	39	59	130	190	207	42	11	6.5	5.6	2.0
15	7.1	9.6	150	58	380	183	176	40	10	6.5	5.7	2.7
16	7.1	9.3	424	60	321	162	154	38	10	6.5	5.1	2.8
17	7.5	9.6	360	204	251	150	143	36	10	6.8	4.7	2.4
18	7.2	10	197	592	268	150	157	34	11	6.5	4.4	2.3
19	6.9	11	169	728	276	150	141	32	10	8.1	5.0	2.3
20	6.9	11	481	1220	1180	144	116	32	9.5	17	7.2	3.1
21	6.8	9.6	446	481	1140	121	112	32	8.7	149	9.7	4.4
22	5.8	9.1	294	276	771	111	164	31	8.2	42	5.2	4.0
23	5.8	9.5	227	227	424	112	207	39	8.0	17	6.9	3.2
24	8.9	10	197	190	321	108	155	43	7.5	11	9.2	2.6
25	10	16	251	162	243	154	119	32	7.2	8.4	5.3	3.0
26	11	53	979	130	212	208	111	27	7.0	8.2	4.1	2.7
27	14	39	1770	110	197	155	103	25	6.8	7.8	3.2	2.5
28	20	29	1750	100	190	129	95	24	6.7	6.8	3.1	2.4
29	16	104	973	95	176	207	86	23	6.5	6.0	3.2	2.3
30	13	82	481	150	---	686	79	22	6.7	40	3.0	2.2
31	11	---	350	176	---	862	---	20	---	292	2.7	---
TOTAL	275.9	561.8	10284	6200	15800	12091	19720	1345	336.8	726.3	376.0	82.6
MEAN	8.90	18.7	332	200	545	390	657	43.4	11.2	23.4	12.1	2.75
MAX	20	104	1770	1220	3190	1860	4040	74	19	292	132	4.9
MIN	5.8	8.7	33	58	130	108	79	20	6.5	5.2	2.7	1.9
CFSM	.04	.08	1.35	.82	2.22	1.59	2.68	.18	.05	.10	.05	.01
IN.	.04	.09	1.56	.94	2.40	1.84	2.99	.20	.05	.11	.06	.01

CAL YR 1987 TOTAL 70462.5 MEAN 193 MAX 3960 MIN 5.8 CFSM .79 IN. 10.70
WTR YR 1988 TOTAL 67799.4 MEAN 185 MAX 4040 MIN 1.9 CFSM .76 IN. 10.29

03359000 MILL CREEK NEAR MANHATTAN, IN

LOCATION.--Lat 39°29'16", long 86°55'30", in SE¼SE¼ sec.11, T.12 N., R.5 W., Putnam County, Hydrologic Unit 05120203, on left bank 0.3 mi upstream from Cagles Mill dam, 0.4 mi downstream from Cagles Mill Lake, 1.3 mi upstream from Deer Creek, 5.0 mi south of Manhattan, and at mile 2.3.

DRAINAGE AREA.--294 mi².

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 0.3 mi downstream. 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.--50 years (1938 to current year), 310 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,960 ft³/s Jan. 5, 1950, gage height, 18.38 ft; no flow Aug. 7, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,750 ft³/s Apr. 16; minimum daily, 18 ft³/s Nov. 21-25 and Aug. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	31	100	885	177	159	177	89	33	19	67	20
2	69	31	100	876	84	251	104	89	25	19	91	20
3	69	31	100	866	61	253	238	89	20	19	74	20
4	69	31	100	855	62	163	312	89	20	19	51	20
5	69	31	99	663	63	101	465	89	20	19	43	20
6	68	31	99	293	221	367	270	89	20	19	27	20
7	68	31	99	120	730	503	111	89	20	19	27	20
8	75	31	99	95	1270	746	115	89	20	19	27	20
9	87	31	99	82	1430	1000	117	89	20	19	27	20
10	86	31	99	82	1410	1210	118	89	20	19	27	20
11	86	31	99	82	1570	1280	118	89	20	19	27	20
12	86	31	99	82	1630	1260	349	89	20	19	25	20
13	85	31	99	82	1600	1240	884	77	20	19	20	20
14	85	31	99	82	1570	1220	1390	69	20	19	20	19
15	50	31	102	82	1540	506	1690	69	20	19	20	19
16	32	31	156	82	1400	64	1750	60	20	19	20	19
17	32	31	499	210	1260	103	1730	50	20	19	20	19
18	32	29	654	290	711	167	1690	50	20	19	20	19
19	32	25	648	293	494	167	1640	50	20	19	20	19
20	32	25	644	142	249	167	1620	40	20	19	20	19
21	32	18	643	140	100	167	1590	33	20	19	20	19
22	32	18	641	383	453	167	1570	33	20	19	20	19
23	31	18	635	454	803	135	1540	33	20	19	20	19
24	31	18	376	587	1000	83	1520	33	20	19	20	19
25	31	18	349	662	1090	84	1490	33	19	19	20	19
26	31	25	438	656	1070	85	1210	33	19	19	18	19
27	32	38	443	650	669	86	351	33	19	19	20	19
28	31	59	447	643	320	87	89	33	19	19	20	19
29	31	87	457	534	156	88	89	33	19	19	20	19
30	31	100	604	309	---	93	89	33	19	20	20	19
31	31	---	752	274	---	235	---	33	---	20	20	---
TOTAL	1626	1005	9878	11536	23193	12237	24426	1896	612	591	891	583
MEAN	52.5	33.5	319	372	800	395	814	61.2	20.4	19.1	28.7	19.4
MAX	87	100	752	885	1630	1280	1750	89	33	20	91	20
MIN	31	18	99	82	61	64	89	33	19	19	18	19

CAL YR 1987 TOTAL 93630 MEAN 257 MAX 1830 MIN 18
WTR YR 1988 TOTAL 88474 MEAN 242 MAX 1750 MIN 18

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 mi².

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: Jan. 8-17, 25-28. Records good except for estimated daily discharges, which are fair. Flow regulated by Cagles Mill Lake.

AVERAGE DISCHARGE.--57 years, 879 ft³/s, 14.38 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,000 ft³/s Jan. 4, 1950, gage height, 23.53 ft; minimum daily, 11 ft³/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, 10,900 ft³/s Apr. 7, gage height, 18.71 ft; minimum daily, 24 ft³/s Sept. 24-30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	64	270	1470	3850	523	3430	409	105	45	126	28
2	86	61	240	1300	7010	651	3480	386	102	44	136	28
3	81	59	226	1200	3290	1700	2120	366	91	43	115	28
4	79	56	226	1210	2230	2880	2290	348	85	43	83	32
5	78	55	218	1010	1470	1360	1850	333	83	42	69	30
6	77	53	205	626	1050	1530	3760	318	80	40	60	31
7	78	54	206	412	1320	1770	9940	304	79	40	52	28
8	77	56	215	360	1670	1700	6070	292	76	39	47	26
9	85	57	224	320	1900	1860	2400	311	78	38	45	27
10	91	61	244	290	1820	1900	1730	313	74	37	43	26
11	96	61	237	270	1830	1910	1380	285	72	39	41	27
12	96	59	227	255	1900	1860	1200	268	70	39	41	31
13	93	62	213	245	1800	1880	1530	254	69	38	53	30
14	92	59	204	235	1820	1750	1870	227	67	37	39	27
15	90	57	1320	230	2110	1440	2090	218	65	37	36	26
16	60	56	1450	225	2170	590	2160	206	64	36	35	26
17	55	59	965	400	1890	526	2100	189	63	36	34	26
18	55	59	1010	1270	1650	596	2110	179	62	37	33	25
19	54	56	947	1280	1740	595	2050	171	60	47	36	27
20	55	52	1460	2560	3100	570	1960	164	58	86	53	36
21	53	49	1540	1170	1650	541	1910	151	57	265	34	36
22	53	46	1220	928	1270	513	1940	146	55	193	32	29
23	51	47	1070	897	1620	495	2040	170	53	109	36	25
24	53	47	915	879	1690	404	2150	168	50	79	37	24
25	57	70	1360	840	1690	507	1960	149	50	66	32	24
26	59	255	1920	790	1580	633	1830	136	49	61	30	24
27	73	203	1360	780	1380	529	1130	128	49	56	29	24
28	91	185	2320	790	872	459	530	122	49	48	31	24
29	81	301	2420	838	665	701	476	118	47	45	31	24
30	74	302	1590	680	---	2730	436	113	46	83	30	24
31	71	---	1440	680	---	1700	---	109	---	99	29	---
TOTAL	2290	2661	27462	24440	58037	36803	69922	7051	2008	1947	1528	823
MEAN	73.9	88.7	886	788	2001	1187	2331	227	66.9	62.8	49.3	27.4
MAX	96	302	2420	2560	7010	2880	9940	409	105	265	136	36
MIN	51	46	204	225	665	404	436	109	46	36	29	24
CFSM	.09	.11	1.07	.95	2.41	1.43	2.81	.27	.08	.08	.06	.03
IN.	.10	.12	1.23	1.10	2.60	1.65	3.13	.32	.09	.09	.07	.04

CAL YR 1987 TOTAL 234720 MEAN 643 MAX 11800 MIN 46 CFSM .77 IN. 10.52
WTR YR 1988 TOTAL 234972 MEAN 642 MAX 9940 MIN 24 CFSM .77 IN. 10.53

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: Jan. 5-20, Mar. 3, 4, Mar. 31 to Apr. 2, Apr. 6-10, and Aug. 2, 3, 19, and 20. Records fair except for Jan. 5-19, which are poor. Flow regulated by upstream reservoirs.

AVERAGE DISCHARGE.--60 years, 4,734 ft³/s, 13.71 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, 23,600 ft³/s Apr. 10, gage height, 17.54 ft; minimum daily, 393 ft³/s Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	595	714	1650	6290	8750	4550	9900	2860	1070	563	650	428
2	634	686	1410	5440	18400	4160	12700	2710	1050	553	725	421
3	610	632	1280	4700	21400	6400	12800	2540	1010	548	900	471
4	560	595	1210	4140	22800	13000	10800	2430	962	530	821	469
5	551	570	1140	3600	22700	14700	8900	2330	920	516	750	453
6	542	545	1110	3200	19400	12400	7970	2230	907	510	788	467
7	530	533	1050	2800	12300	9040	9800	2160	872	504	781	543
8	519	530	1010	2800	7590	8080	18300	2080	845	508	795	523
9	524	531	1070	2750	6800	7460	21000	2040	843	504	742	504
10	533	499	1190	2600	6590	7400	23200	2000	828	481	662	456
11	578	485	1360	2500	6030	7790	22600	1940	810	481	636	430
12	581	562	1430	2450	5560	7920	19000	1920	808	508	607	436
13	589	551	1330	2400	5270	7520	11500	1870	798	518	663	420
14	605	522	1260	2300	4870	7090	8360	1790	778	513	742	403
15	598	515	1860	2200	4990	6530	7430	1690	758	576	728	433
16	580	509	4010	2200	5430	5970	6910	1610	760	634	651	492
17	562	495	5540	2400	6080	4940	6490	1550	747	585	620	487
18	514	495	4550	3500	6090	4450	6110	1490	726	567	605	457
19	494	483	4410	5000	6760	4230	5870	1430	720	597	581	439
20	486	484	3960	9130	10400	4060	5720	1380	715	788	572	448
21	473	472	4250	9560	12200	3830	5310	1340	708	1160	798	472
22	465	465	4580	7520	11900	3640	5080	1300	680	1490	635	481
23	473	465	4360	5910	10500	3480	5100	1420	660	2060	555	508
24	495	468	4300	5150	9170	3370	5450	1490	644	1430	508	487
25	517	524	5100	4400	8050	3520	5380	1470	626	1140	492	471
26	518	667	8740	3900	7450	4010	4960	1470	605	1070	544	468
27	542	906	9480	3420	6790	4140	4620	1350	583	1040	506	455
28	565	1360	9470	3200	6020	4510	3990	1300	571	835	487	420
29	666	1280	10700	3060	5150	4570	3250	1230	557	735	468	402
30	838	1470	9940	2930	---	4680	3000	1150	566	691	460	393
31	747	---	7670	2940	---	5200	---	1100	---	651	441	---
TOTAL	17484	19013	120420	124390	285440	192640	281500	54670	23127	23286	19913	13737
MEAN	564	634	3885	4013	9843	6214	9383	1764	771	751	642	458
MAX	838	1470	10700	9560	22800	14700	23200	2860	1070	2060	900	543
MIN	465	465	1010	2200	4870	3370	3000	1100	557	481	441	393
CFSM	.12	.14	.83	.86	2.10	1.33	2.00	.38	.16	.16	.14	.10
IN.	.14	.15	.96	.99	2.27	1.53	2.23	.43	.18	.18	.16	.11

CAL YR 1987 TOTAL 1060301 MEAN 2905 MAX 18800 MIN 465 CFSM .62 IN. 8.41
WTR YR 1988 TOTAL 1175620 MEAN 3212 MAX 23200 MIN 393 CFSM .69 IN. 9.33

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 mi².

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: Jan. 2-17, 26-28, Feb. 6, 7, and 12-14. Records good except for estimated daily discharges, which are poor. Flow partly regulated by Big Blue River Conservancy District control structures on tributaries to Big Blue River beginning in 1969.

AVERAGE DISCHARGE.--38 years, 197 ft³/s, 14.54 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,900 ft³/s Mar. 4, 1963, gage height, 14.62 ft, from floodmarks, from rating curve extended above 6,200 ft³/s; minimum daily, 17 ft³/s Jan. 18, Aug. 5, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 7	0900	*1,580	*6.08

Minimum daily discharge, 22 ft³/s Aug. 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	54	79	132	473	128	129	109	61	38	43	25
2	46	53	75	110	1190	132	136	106	60	37	40	24
3	46	54	75	100	625	207	160	104	58	36	39	36
4	46	54	84	95	484	429	265	103	56	34	37	37
5	47	52	76	70	355	296	199	103	55	33	36	32
6	50	50	69	85	250	415	444	98	55	32	37	29
7	52	51	77	77	200	412	1370	96	53	31	33	28
8	51	51	79	73	179	334	691	96	52	31	32	26
9	51	64	88	71	158	288	462	101	55	30	31	26
10	53	56	86	69	139	241	354	99	51	28	30	25
11	63	53	80	67	131	202	293	93	50	32	30	23
12	55	52	78	65	120	226	250	90	49	32	29	32
13	53	51	69	74	110	271	225	86	48	33	40	48
14	55	50	67	70	115	216	206	84	47	33	29	34
15	53	49	208	65	275	184	189	83	47	39	28	30
16	51	49	207	80	219	161	175	82	53	31	27	29
17	52	52	134	100	194	148	164	82	58	30	26	34
18	53	50	108	140	203	147	174	79	50	29	25	32
19	52	48	101	142	349	143	150	76	46	42	23	36
20	53	48	154	404	695	135	140	77	44	85	25	56
21	51	48	173	227	402	126	139	77	44	131	23	37
22	51	48	136	160	284	120	154	75	42	71	22	35
23	52	49	115	133	283	119	143	102	41	59	33	39
24	55	50	104	118	243	116	131	96	39	53	34	34
25	58	80	267	106	196	158	126	79	39	50	25	34
26	56	99	343	90	167	182	123	73	38	50	24	32
27	85	77	251	77	155	154	120	72	36	46	23	31
28	69	74	215	84	140	136	121	69	36	42	32	30
29	60	105	207	89	134	131	115	68	38	41	34	29
30	57	85	167	96	---	129	111	66	42	42	28	30
31	54	---	151	116	---	119	---	63	---	49	26	---
TOTAL	1676	1756	4123	3385	8468	6205	7459	2687	1443	1350	944	973
MEAN	54.1	58.5	133	109	292	200	249	86.7	48.1	43.5	30.5	32.4
MAX	85	105	343	404	1190	429	1370	109	61	131	43	56
MIN	46	48	67	65	110	116	111	63	36	28	22	23
CFSM	.29	.32	.72	.59	1.59	1.09	1.35	.47	.26	.24	.17	.18
IN.	.34	.36	.83	.68	1.71	1.25	1.51	.54	.29	.27	.19	.20

CAL YR 1987 TOTAL 45367 MEAN 124 MAX 1930 MIN 46 CFSM .68 IN. 9.17
WTR YR 1988 TOTAL 40469 MEAN 111 MAX 1370 MIN 22 CFSM .60 IN. 8.18

03361500 BIG BLUE RIVER AT SHELBYVILLE, IN

LOCATION.--Lat 39°31'45", long 85°46'55", in SE 1/4 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: Jan. 4-17, 26-29, and Feb. 12-14. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--45 years, 461 ft³/s, 14.87 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 (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 2	2200	*4,060	*11.78	Apr. 7	1900	3,740	11.41

Minimum daily discharge, 36 ft³/s Aug. 18, 19, and Sept. 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	75	158	391	1200	346	321	217	106	65	72	38
2	66	73	144	316	3720	341	368	208	103	63	67	41
3	64	74	143	291	3050	506	404	201	100	60	63	51
4	63	75	163	270	2080	1220	570	196	96	58	59	50
5	65	76	170	150	1470	903	504	194	94	56	56	52
6	66	74	153	200	964	895	717	187	92	57	53	45
7	69	73	144	180	722	890	3270	181	89	55	53	42
8	71	74	156	170	600	796	2860	178	87	53	48	41
9	70	77	175	165	480	709	1470	186	89	53	44	39
10	76	86	199	160	410	627	1040	194	88	51	43	37
11	79	81	189	155	370	536	786	185	85	51	43	36
12	84	77	175	150	300	530	626	172	83	55	50	42
13	78	76	155	170	260	644	521	164	81	61	43	49
14	75	76	141	160	300	567	454	159	79	59	48	59
15	75	76	264	150	595	486	402	154	78	59	41	47
16	74	74	624	160	682	423	361	149	83	63	38	43
17	73	76	405	190	551	385	336	144	94	59	37	45
18	73	77	288	292	558	371	341	141	90	60	36	45
19	75	75	246	303	846	364	316	137	82	74	36	45
20	77	74	294	979	2000	347	285	136	77	98	43	52
21	77	73	474	782	1400	322	276	135	75	208	39	64
22	74	72	399	494	942	304	406	133	76	147	37	50
23	74	74	317	372	836	297	412	146	70	109	44	46
24	80	78	273	311	763	292	330	176	67	94	43	49
25	81	94	557	263	617	362	288	154	65	85	49	45
26	84	145	1100	190	506	514	271	137	63	80	39	43
27	93	146	914	180	451	436	260	130	61	78	38	41
28	105	140	756	180	398	373	251	124	59	75	42	40
29	87	164	756	200	372	347	238	119	61	73	44	41
30	80	179	573	206	---	333	225	115	64	69	47	40
31	77	---	465	272	---	313	---	111	---	70	42	---
TOTAL	2352	2684	10970	8452	27443	15779	18909	4963	2437	2298	1437	1358
MEAN	75.9	89.5	354	273	946	509	630	160	81.2	74.1	46.4	45.3
MAX	105	179	1100	979	3720	1220	3270	217	106	208	72	64
MIN	63	72	141	150	260	292	225	111	59	51	36	36
CFSM	.18	.21	.84	.65	2.25	1.21	1.50	.38	.19	.18	.11	.11
IN.	.21	.24	.97	.75	2.42	1.39	1.67	.44	.22	.20	.13	.12

CAL YR 1987 TOTAL 103230 MEAN 283 MAX 3740 MIN 63 CFSM .67 IN. 9.12
WTR YR 1988 TOTAL 99082 MEAN 271 MAX 3720 MIN 36 CFSM .64 IN. 8.75

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 mi².

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: Jan. 3-16, 24-29, and Feb. 7-10, 12-14. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--21 years, 99.3 ft³/s, 14.36 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,880 ft³/s Feb. 24, 1985, and Oct. 4, 1986; maximum gage height, 10.34 ft Feb. 23, 1979 (ice jam); minimum daily discharge, 2.4 ft³/s Oct. 3, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 950 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 7	0800	*881	*6.56

Minimum daily discharge, 2.5 ft³/s Aug. 19 and Sept. 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	7.5	23	75	344	64	62	42	14	4.2	6.7	2.7
2	3.3	6.9	21	64	727	63	71	42	13	4.0	6.4	2.8
3	2.6	7.2	20	60	646	121	72	41	13	3.9	5.8	4.7
4	3.3	7.0	21	42	493	229	72	40	12	4.0	5.4	5.5
5	4.6	6.9	20	32	317	210	65	40	12	4.6	5.5	4.1
6	4.6	6.6	21	36	202	231	172	39	12	3.6	5.7	3.4
7	5.1	6.8	23	39	130	249	782	38	11	3.3	5.2	3.3
8	5.5	6.6	23	37	108	205	663	37	11	3.3	4.6	3.2
9	6.7	7.9	32	36	92	168	522	37	10	3.2	4.7	2.9
10	6.6	8.4	34	33	78	138	293	37	9.6	3.1	4.5	2.8
11	7.4	7.5	36	31	69	112	201	34	9.2	3.4	4.2	2.5
12	7.5	7.4	31	34	63	106	149	31	9.5	3.9	4.0	3.7
13	7.2	7.5	26	36	60	112	116	29	9.0	18	3.8	4.0
14	6.8	7.4	24	35	66	109	98	28	9.0	7.2	3.8	3.5
15	7.1	7.5	101	34	106	93	84	26	8.6	5.5	3.6	3.1
16	7.7	7.2	159	35	152	80	74	24	8.3	5.3	3.5	3.4
17	7.4	7.9	130	51	120	70	68	23	8.3	10	3.1	3.2
18	6.9	7.9	76	56	115	67	70	22	8.1	10	2.7	3.3
19	7.0	8.4	59	70	211	65	65	22	8.0	27	2.5	3.8
20	7.5	8.7	81	185	408	63	60	21	7.3	57	3.1	6.1
21	6.7	8.6	99	185	366	58	57	20	6.9	87	3.4	4.3
22	6.9	9.3	96	117	221	54	76	20	6.3	38	2.8	3.4
23	6.7	9.8	71	81	173	52	66	23	5.8	22	3.9	3.6
24	6.8	11	60	62	148	51	58	22	5.5	18	4.2	3.5
25	7.0	16	105	48	117	71	54	22	5.4	13	3.0	3.5
26	7.5	21	172	41	96	92	51	20	4.6	11	2.9	4.2
27	9.2	19	173	37	84	86	49	19	4.3	9.4	2.9	3.1
28	9.2	22	156	35	75	71	48	17	4.0	8.4	3.8	3.1
29	8.2	25	147	36	68	64	46	17	3.9	7.8	3.9	3.0
30	8.0	21	119	38	---	61	43	16	4.4	7.3	3.4	3.0
31	11	---	92	51	---	58	---	15	---	7.2	3.0	---
TOTAL	207.6	311.9	2251	1752	5855	3273	4307	864	254.0	413.6	126.0	106.7
MEAN	6.70	10.4	72.6	56.5	202	106	144	27.9	8.47	13.3	4.06	3.56
MAX	11	25	173	185	727	249	782	42	14	87	6.7	6.1
MIN	2.6	6.6	20	31	60	51	43	15	3.9	3.1	2.5	2.5
CFSM	.07	.11	.77	.60	2.15	1.12	1.53	.30	.09	.14	.04	.04
IN.	.08	.12	.89	.69	2.32	1.30	1.71	.34	.10	.16	.05	.04

CAL YR 1987 TOTAL 18349.4 MEAN 50.3 MAX 579 MIN 2.6 CFSM .54 IN. 7.27
WTR YR 1988 TOTAL 19721.8 MEAN 53.9 MAX 782 MIN 2.5 CFSM .57 IN. 7.81

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 mi².

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: Jan. 3-7, 11-14, 23-31, and Feb. 4, 7, 15. Records poor. Low flow is affected by regulation.

AVERAGE DISCHARGE.--21 years, 89.6 ft³/s, 15.44 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,140 ft³/s July 20, 1969, gage height, 14.99 ft; minimum daily, 0.60 ft³/s Oct. 1, 4, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 2	0700	1,490	9.02	Apr. 7	1300	*1,960	*10.05

Minimum daily discharge, 1.3 ft³/s Oct. 2, Aug. 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	6.6	25	89	658	61	102	34	9.6	5.5	6.3	3.9
2	1.3	8.6	26	74	1180	66	148	32	8.5	5.6	6.7	3.6
3	2.1	6.4	20	59	514	213	117	30	11	5.6	7.7	2.7
4	2.9	5.0	36	46	370	379	93	27	7.0	5.6	6.5	3.6
5	1.4	6.4	31	35	246	197	78	31	6.6	4.3	7.4	4.5
6	2.5	3.2	19	38	165	233	221	30	6.5	2.6	8.8	4.3
7	5.4	4.8	28	41	112	184	1660	29	5.1	2.1	8.0	4.0
8	5.1	7.5	44	40	89	149	631	28	5.8	2.0	7.8	1.9
9	5.4	7.4	49	38	76	126	284	32	6.3	2.0	6.1	2.0
10	4.2	4.6	35	34	67	108	184	28	6.6	2.5	4.8	4.3
11	4.2	4.0	22	29	62	92	138	25	7.1	4.9	6.2	2.2
12	7.5	7.8	19	32	56	103	110	18	7.0	5.4	6.6	1.7
13	4.6	4.9	21	31	53	113	93	22	6.6	14	3.9	2.6
14	1.9	2.6	20	30	49	94	85	22	5.1	8.9	3.7	2.9
15	2.3	3.1	231	29	60	82	69	22	4.5	7.8	3.7	2.2
16	5.6	4.9	177	29	111	72	61	20	5.7	5.9	3.7	1.9
17	5.8	3.9	99	64	97	66	57	16	6.4	8.6	2.9	2.9
18	4.9	2.9	77	102	104	65	67	19	6.1	8.8	1.3	3.0
19	2.0	4.2	69	156	274	64	55	20	6.1	26	1.5	3.0
20	2.6	2.3	141	351	464	56	50	19	4.9	82	3.7	3.3
21	8.6	4.6	133	174	216	50	48	18	4.4	116	3.7	2.8
22	6.9	2.5	99	117	149	51	143	17	5.8	15	3.6	2.9
23	3.3	2.8	75	82	139	51	103	28	4.5	9.5	4.0	3.6
24	3.6	4.4	68	63	111	50	69	22	4.4	7.6	3.5	3.4
25	12	20	202	45	90	97	55	17	6.1	6.9	1.9	3.6
26	7.6	37	251	35	81	118	49	10	6.2	7.4	1.4	2.9
27	21	17	161	30	76	88	45	9.6	5.8	7.6	3.6	2.1
28	11	25	219	28	68	70	43	15	4.4	7.4	3.9	2.1
29	9.5	41	206	31	66	62	38	16	3.3	7.4	2.8	3.3
30	9.3	20	131	34	---	60	36	16	3.7	7.5	1.9	3.4
31	4.8	---	107	46	---	58	---	16	---	7.6	3.8	---
TOTAL	173.6	275.4	2841	2032	5803	3278	4932	688.6	181.1	410.0	141.4	90.6
MEAN	5.60	9.18	91.6	65.5	200	106	164	22.2	6.04	13.2	4.56	3.02
MAX	21	41	251	351	1180	379	1660	34	11	116	8.8	4.5
MIN	1.3	2.3	19	28	49	50	36	9.6	3.3	2.0	1.3	1.7
CFSM	.07	.12	1.16	.83	2.54	1.34	2.09	.28	.08	.17	.06	.04
IN.	.08	.13	1.34	.96	2.74	1.55	2.33	.33	.09	.19	.07	.04
CAL YR 1987	TOTAL 17561.21	MEAN 48.1	MAX 1580	MIN .81	CFSM .61	IN. 8.29						
WTR YR 1988	TOTAL 20846.7	MEAN 57.0	MAX 1660	MIN 1.3	CFSM .72	IN. 9.84						

03362000 YOUNGS CREEK NEAR EDINBURGH, IN

LOCATION.--Lat 39°25'08", long 86°00'18", in SE 1/4 SW 1/4 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 mi².

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. 3-12, 26-29. Records good except for estimated daily discharge, which are poor.

AVERAGE DISCHARGE.--46 years, 106 ft³/s, 13.45 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,700 ft³/s Jan. 27, 1952, gage height, 13.4 ft; minimum daily, 0.5 ft³/s Sept. 29, Oct. 20, 21, 1953.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 2	1130	*2,040	*8.42	Apr. 7	1445	1,910	8.19

Minimum daily discharge, 1.9 ft³/s Sept. 28, 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	3.9	11	132	760	84	116	34	8.6	4.0	6.3	3.1
2	3.3	4.1	8.4	101	1910	84	232	33	8.8	4.0	5.8	2.5
3	3.6	3.3	7.4	60	891	307	196	32	8.3	3.7	4.9	5.5
4	4.0	2.9	8.7	50	699	798	154	30	8.1	3.2	4.3	5.9
5	3.4	3.3	9.1	30	440	385	124	29	7.8	3.1	4.0	3.4
6	3.4	4.3	7.6	27	264	337	336	27	7.4	3.3	3.9	2.7
7	3.9	4.9	7.4	25	183	267	1740	26	7.4	3.5	3.6	3.1
8	4.2	4.6	8.4	24	136	213	664	25	7.8	3.2	3.2	2.8
9	4.0	5.9	16	24	113	180	362	29	8.4	3.0	3.6	2.7
10	6.3	6.3	20	23	96	147	254	27	8.1	3.2	3.8	2.4
11	7.8	4.6	16	23	88	123	189	25	7.9	4.1	9.4	2.0
12	5.0	5.6	12	25	78	141	141	23	7.8	5.3	14	3.9
13	4.5	6.0	9.6	30	66	150	111	20	7.3	5.7	7.1	8.4
14	3.2	4.9	8.1	23	68	121	93	19	7.2	4.6	4.6	4.6
15	4.1	5.0	174	22	201	105	78	18	6.9	4.4	3.8	3.3
16	3.9	5.0	191	24	163	91	67	17	7.9	4.1	3.7	3.0
17	3.7	7.0	73	43	139	83	62	16	7.8	3.7	3.2	2.9
18	3.9	9.7	43	83	155	83	65	16	6.6	4.3	2.9	2.6
19	4.9	6.1	34	131	429	83	57	15	6.4	15	3.5	2.7
20	5.8	4.4	59	552	764	77	49	15	6.2	24	3.5	3.0
21	4.6	4.4	104	281	374	69	48	15	6.2	69	2.9	2.6
22	5.9	4.7	70	176	263	64	67	14	5.8	22	2.6	2.5
23	6.5	4.9	51	130	242	63	71	18	5.6	11	2.9	3.4
24	7.1	6.0	41	104	197	61	54	20	5.2	7.0	3.9	2.8
25	8.4	11	255	86	150	242	46	28	4.8	5.3	3.1	2.9
26	8.0	22	517	60	123	224	45	17	4.7	4.9	4.0	2.5
27	14	18	292	40	113	150	43	14	4.1	4.7	3.3	2.4
28	6.9	19	352	35	98	116	40	12	4.3	4.3	3.3	1.9
29	4.5	34	348	42	93	102	38	10	4.3	4.3	3.3	1.9
30	6.6	19	219	53	---	90	35	9.7	4.2	4.5	2.9	2.1
31	5.4	---	172	70	---	81	---	9.3	---	7.2	3.3	---
TOTAL	164.9	244.8	3144.7	2529	9296	5121	5577	643.0	201.9	253.6	134.6	95.5
MEAN	5.32	8.16	101	81.6	321	165	186	20.7	6.73	8.18	4.34	3.18
MAX	14	34	517	552	1910	798	1740	34	8.8	69	14	8.4
MIN	3.2	2.9	7.4	22	66	61	35	9.3	4.1	3.0	2.6	1.9
CFSM	.05	.08	.95	.76	3.00	1.54	1.74	.19	.06	.08	.04	.03
IN.	.06	.09	1.09	.88	3.23	1.78	1.94	.22	.07	.09	.05	.03

CAL YR 1987 TOTAL 20385.6 MEAN 55.9 MAX 743 MIN 2.0 CFSM .52 IN. 7.09
WTR YR 1988 TOTAL 27406.0 MEAN 74.9 MAX 1910 MIN 1.9 CFSM .70 IN. 9.53

03362500 SUGAR CREEK NEAR EDINBURGH, IN

LOCATION.--Lat 39°21'39", long 85°59'51", in SW¼ 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: Jan. 3-16, 26-29. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--46 years, 487 ft³/s, 13.95 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 (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 3	0300	5,270	11.22	Apr. 8	1700	*5,360	*11.30

Minimum daily discharge, 17 ft³/s Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	50	74	453	1330	339	349	219	83	42	47	21
2	34	44	62	351	4480	325	752	210	79	41	43	20
3	34	41	63	260	4830	591	775	200	75	42	38	27
4	31	41	58	200	3190	2310	666	189	73	40	36	29
5	31	40	61	100	2070	1550	513	182	72	38	36	24
6	31	36	63	130	1290	1320	688	177	70	38	34	23
7	30	43	57	120	1070	1210	4040	170	68	38	35	25
8	30	39	57	115	714	1020	5220	163	65	36	36	23
9	33	39	81	110	556	857	2760	163	64	35	33	22
10	38	40	103	105	441	719	1560	165	66	34	32	19
11	46	40	108	100	380	594	1110	158	63	34	32	18
12	41	40	92	96	339	560	850	150	63	37	43	21
13	38	38	80	110	294	655	678	138	61	40	47	34
14	39	40	72	100	334	574	561	134	59	55	40	29
15	37	38	160	96	528	492	468	131	56	64	33	25
16	34	36	696	130	722	413	395	127	57	47	30	24
17	34	39	466	195	620	361	354	122	58	40	27	22
18	38	45	313	300	598	341	348	116	59	39	25	21
19	37	42	236	342	957	334	338	115	57	64	29	26
20	36	38	229	1370	2570	318	299	115	54	99	29	27
21	34	38	448	1160	1870	287	281	111	53	334	23	24
22	34	39	383	740	1230	265	344	108	51	281	24	25
23	37	39	309	509	1010	259	612	118	49	142	26	26
24	39	39	246	392	871	254	420	122	48	95	27	23
25	39	49	471	320	686	490	333	127	45	71	28	23
26	37	77	1270	240	547	799	299	111	42	61	26	21
27	51	98	1090	170	477	608	278	101	43	53	22	20
28	57	74	911	150	409	460	262	95	44	50	22	18
29	70	99	1200	170	370	385	247	92	43	46	24	18
30	54	106	787	191	---	346	231	89	42	45	26	17
31	53	---	582	223	---	314	---	86	---	49	23	---
TOTAL	1210	1467	10828	9048	34783	19350	26031	4304	1762	2130	976	695
MEAN	39.0	48.9	349	292	1199	624	868	139	58.7	68.7	31.5	23.2
MAX	70	106	1270	1370	4830	2310	5220	219	83	334	47	34
MIN	30	36	57	96	294	254	231	86	42	34	22	17
CFSM	.08	.10	.74	.62	2.53	1.32	1.83	.29	.12	.14	.07	.05
IN.	.09	.12	.85	.71	2.73	1.52	2.04	.34	.14	.17	.08	.05

CAL YR 1987 TOTAL 92302 MEAN 253 MAX 2890 MIN 29 CFSM .53 IN. 7.24
WTR YR 1988 TOTAL 112584 MEAN 308 MAX 5220 MIN 17 CFSM .65 IN. 8.84

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 Edinburg, and at mile 14.1.

DRAINAGE AREA.--1,060 mi².

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: Jan. 2-18, 26-30, and Feb. 6-15. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--48 years, 1,146 ft³/s, 14.68 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,500 ft³/s Mar. 6, 1963, gage height, 16.97 ft; minimum daily, 38 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 3	1500	9,320	12.57	Apr. 8	1800	*9,520	*12.68

Minimum daily discharge, 89 ft³/s Sept. 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	129	171	311	1210	2090	962	839	621	289	134	161	93
2	127	164	280	970	7140	911	1260	597	279	131	156	92
3	126	160	272	780	9090	1220	1400	574	266	129	146	113
4	123	158	270	540	7670	3880	1400	553	258	126	138	119
5	122	158	289	350	5350	3380	1320	541	254	122	134	112
6	123	156	290	330	3500	2730	1530	529	247	118	132	110
7	124	161	275	370	2500	2670	6510	512	240	115	127	106
8	127	160	271	400	1850	2370	9100	498	234	112	126	100
9	132	162	312	400	1300	2020	6670	498	234	108	119	96
10	142	164	345	390	1100	1740	3830	500	229	104	115	92
11	155	171	376	380	950	1500	2740	498	223	108	113	89
12	153	168	350	365	850	1390	2130	474	218	110	131	99
13	153	165	321	350	800	1540	1750	451	211	114	138	118
14	149	165	298	345	770	1490	1500	438	207	127	126	119
15	144	162	375	340	1100	1320	1320	426	199	137	117	118
16	141	162	1250	340	1800	1150	1160	411	203	120	109	114
17	139	164	1220	360	1580	1030	1060	398	208	113	104	107
18	138	168	865	500	1480	954	1020	387	210	120	98	107
19	138	168	654	752	1940	923	989	379	199	145	111	112
20	141	162	603	2170	4780	882	889	373	189	218	110	115
21	138	160	987	2600	4710	816	839	368	182	498	105	112
22	137	161	1050	1770	3140	753	932	364	173	603	101	124
23	135	162	864	1290	2460	721	1360	379	167	372	101	115
24	142	163	699	1030	2190	703	1080	394	161	278	106	108
25	146	185	939	847	1790	934	907	405	152	231	102	110
26	146	234	2430	550	1480	1490	824	368	144	206	103	105
27	168	305	2470	460	1300	1340	769	346	140	188	94	101
28	184	282	1980	450	1160	1110	728	331	137	177	96	97
29	209	304	2260	460	1040	968	689	319	135	165	101	94
30	184	341	1770	480	---	887	649	309	136	165	101	92
31	177	---	1460	579	---	821	---	298	---	167	99	---
TOTAL	4492	5566	26136	22158	76910	44605	57194	13539	6124	5561	3620	3189
MEAN	145	186	843	715	2652	1439	1906	437	204	179	117	106
MAX	209	341	2470	2600	9090	3880	9100	621	289	603	161	124
MIN	122	156	270	330	770	703	649	298	135	104	94	89
CFSM	.14	.18	.80	.67	2.50	1.36	1.80	.41	.19	.17	.11	.10
IN.	.16	.20	.92	.78	2.70	1.57	2.01	.48	.21	.20	.13	.11

CAL YR 1987 TOTAL 238098 MEAN 652 MAX 6410 MIN 122 CFSM .62 IN. 8.36
WTR YR 1988 TOTAL 269094 MEAN 735 MAX 9100 MIN 89 CFSM .69 IN. 9.44

03363500 FLATROCK RIVER AT ST. PAUL, IN

LOCATION.--Lat 39°25'03", long 85°38'03", in SE 1/4 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 mi².

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: Jan. 2-18, 25-29, and Feb. 6-9, 12-14. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--58 years, 317 ft³/s, 14.21 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,500 ft³/s Jan. 5, 1949, gage height, 10.60 ft; maximum recorded gage height, 12.37 ft May 24, 1968; minimum daily discharge, 0.6 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 2	1600	*4,790	*5.99

Minimum daily discharge, 1.1 ft³/s Aug. 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	26	76	306	1070	242	250	207	54	13	9.1	1.5
2	15	29	65	250	4390	235	264	205	51	13	10	1.7
3	13	23	61	220	3420	403	297	203	48	13	8.6	4.1
4	13	23	70	190	2330	1020	381	201	44	12	7.3	6.2
5	13	24	97	150	1330	792	358	196	42	11	6.6	9.5
6	13	25	86	150	820	662	630	186	40	8.9	12	5.6
7	13	24	76	140	580	672	1990	174	38	8.0	7.2	4.5
8	15	25	74	130	480	614	1470	167	37	7.0	5.4	3.9
9	16	27	84	120	360	530	1060	169	36	6.2	4.5	3.0
10	19	27	86	115	293	455	710	167	34	5.6	3.6	2.8
11	24	27	86	110	263	388	541	160	33	5.6	3.0	2.5
12	24	29	83	125	250	425	442	140	31	5.7	2.6	2.6
13	21	28	76	115	245	591	376	132	30	5.8	2.4	2.8
14	20	29	70	110	240	497	333	124	28	6.0	2.6	3.4
15	18	28	124	110	400	401	297	113	26	6.0	2.8	5.4
16	18	27	272	115	506	335	272	103	27	5.6	2.2	11
17	18	28	247	125	399	294	254	94	31	5.7	1.7	24
18	17	29	173	150	390	281	260	85	32	8.3	1.4	8.4
19	16	28	138	185	698	273	246	80	28	27	1.5	7.6
20	16	30	151	427	1310	257	232	77	26	50	1.5	6.9
21	17	28	225	368	1190	237	226	76	23	58	1.9	5.1
22	16	27	250	252	770	221	305	72	21	35	1.1	4.8
23	17	27	207	197	616	213	364	87	20	27	2.7	4.7
24	20	28	172	169	589	208	295	118	18	20	2.5	4.3
25	21	38	289	145	455	302	260	105	18	16	3.3	4.2
26	22	53	947	130	364	406	245	94	16	13	3.4	5.6
27	28	56	843	115	324	348	240	78	14	12	2.4	6.0
28	28	60	665	100	283	292	236	71	13	11	3.5	4.0
29	31	85	592	110	262	267	224	66	12	9.6	3.9	2.6
30	30	88	443	114	---	256	212	62	13	8.7	3.1	2.3
31	26	---	366	132	---	239	---	58	---	10	2.1	---
TOTAL	596	1026	7194	5175	24627	12356	13270	3870	884	443.7	125.9	161.0
MEAN	19.2	34.2	232	167	849	399	442	125	29.5	14.3	4.06	5.37
MAX	31	88	947	427	4390	1020	1990	207	54	58	12	24
MIN	13	23	61	100	240	208	212	58	12	5.6	1.1	1.5
CFSM	.06	.11	.77	.55	2.80	1.32	1.46	.41	.10	.05	.01	.02
IN.	.07	.13	.88	.64	3.02	1.52	1.63	.48	.11	.05	.02	.02

CAL YR 1987 TOTAL 68848 MEAN 189 MAX 3200 MIN 13 CFSM .62 IN. 8.45
WTR YR 1988 TOTAL 69728.6 MEAN 191 MAX 4390 MIN 1.1 CFSM .63 IN. 8.56

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 mi².

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: Jan. 3-15, 24-29, Feb. 2-5, 9-13, and Aug. 11-23. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--21 years, 579 ft³/s, 14.72 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,000 ft³/s May 25, 1968, gage height, 15.87 ft; minimum daily, 22 ft³/s Oct. 5, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 3	unknown	6,500	unknown	Apr. 7	2400	5,050	10.59

Minimum daily discharge, 27 ft³/s many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	54	150	530	676	506	418	298	116	49	44	27
2	44	50	132	465	4000	476	450	280	111	48	42	27
3	47	48	118	370	6200	545	473	269	107	47	41	33
4	43	49	112	270	4800	1720	549	260	103	48	39	31
5	41	47	117	200	3070	1690	564	254	99	47	40	29
6	41	45	153	220	1940	1300	634	243	96	45	45	29
7	41	45	147	230	1330	1190	3340	232	93	44	44	28
8	40	45	132	220	1060	1080	3670	226	90	43	42	29
9	39	47	132	210	830	969	2240	225	89	42	40	29
10	41	46	144	200	640	855	1540	222	87	41	39	29
11	45	46	153	200	540	738	1170	220	84	41	39	29
12	47	48	155	220	460	685	939	211	81	41	38	31
13	49	49	148	200	430	878	784	198	78	40	37	30
14	48	50	138	190	451	877	675	191	75	40	40	28
15	46	48	146	200	642	743	600	182	72	40	35	27
16	45	48	298	204	927	636	541	172	74	39	32	27
17	44	49	416	215	839	562	499	164	76	38	31	27
18	44	48	346	231	773	523	485	159	75	38	31	28
19	44	47	280	242	954	505	464	153	74	39	30	38
20	44	47	254	503	2360	481	426	150	72	48	36	39
21	44	47	286	669	2200	447	403	148	67	98	34	35
22	43	47	363	528	1610	411	413	146	62	108	32	33
23	41	47	355	419	1220	390	550	150	60	82	30	32
24	42	48	311	330	1090	379	519	156	58	72	29	31
25	42	53	332	295	942	423	436	175	56	63	28	31
26	43	63	1060	240	764	721	396	163	54	58	27	29
27	47	85	1430	225	668	663	374	152	53	52	28	29
28	50	99	1110	228	601	555	358	140	51	48	30	29
29	54	110	1010	234	545	490	339	133	52	46	29	29
30	53	139	775	250	---	456	315	126	50	44	27	29
31	53	---	613	265	---	426	---	120	---	45	27	---
TOTAL	1390	1694	11316	9003	42562	22320	24564	5918	2315	1574	1086	902
MEAN	44.8	56.5	365	290	1468	720	819	191	77.2	50.8	35.0	30.1
MAX	54	139	1430	669	6200	1720	3670	298	116	108	45	39
MIN	39	45	112	190	430	379	315	120	50	38	27	27
CFSM	.08	.11	.68	.54	2.75	1.35	1.53	.36	.14	.10	.07	.06
IN.	.10	.12	.79	.63	2.96	1.55	1.71	.41	.16	.11	.08	.06

CAL YR 1987 TOTAL 115703 MEAN 317 MAX 2490 MIN 39 CFSM .59 IN. 8.06
WTR YR 1988 TOTAL 124644 MEAN 341 MAX 6200 MIN 27 CFSM .64 IN. 8.68

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 mi².

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. 3-16, 26-29, Feb. 6-8, and Feb. 13, 14. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--41 years, 1,821 ft³/s, 14.47 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 52,300 ft³/s Mar. 6, 1963, gage height, 16.23 ft; minimum daily, 87 ft³/s Sept. 29, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 3	1400	*16,700	*8.47	Apr. 8	0500	12,500	6.65

Minimum daily discharge, 124 ft³/s Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	197	258	390	1670	2650	1400	1240	940	453	221	233	157
2	194	248	348	1350	10700	1330	1560	914	434	219	226	155
3	194	240	324	1080	16100	1860	1800	884	414	216	222	197
4	190	238	324	850	15000	5130	1860	850	396	211	208	179
5	185	232	335	660	9660	5320	1840	829	389	205	209	172
6	188	228	384	600	5300	4220	2300	813	388	196	222	167
7	188	229	375	650	3800	3980	9040	790	377	190	198	164
8	188	236	350	720	3000	3590	12300	777	364	186	192	157
9	191	234	375	660	2360	3120	11200	774	364	180	187	153
10	204	228	405	640	1940	2660	5770	763	360	177	187	149
11	218	228	445	620	1680	2220	4180	746	352	180	175	146
12	220	223	444	620	1510	2100	3210	712	342	184	177	145
13	220	220	420	600	1250	2460	2540	679	334	184	187	158
14	218	217	411	550	1200	2400	2090	659	328	189	200	160
15	215	217	442	550	1700	2050	1790	636	313	215	177	155
16	211	215	986	550	2560	1750	1560	605	319	201	168	156
17	210	213	1370	595	2370	1530	1430	584	328	188	159	159
18	208	212	1060	709	2150	1430	1410	574	325	181	152	145
19	208	212	832	972	2810	1380	1360	561	318	218	195	159
20	217	210	745	2200	6010	1310	1260	552	305	285	190	175
21	225	207	931	3370	6520	1230	1190	543	296	444	162	155
22	213	204	1190	2400	5010	1140	1240	538	279	745	155	159
23	208	202	1060	1700	3750	1090	1730	571	273	513	156	162
24	213	207	917	1370	3330	1060	1550	572	263	400	156	150
25	217	223	985	1150	2790	1390	1300	608	256	334	156	146
26	218	266	3070	900	2230	2210	1190	576	246	297	155	142
27	234	322	3890	700	1920	2030	1120	540	237	272	154	136
28	253	340	3200	700	1660	1620	1070	519	233	255	170	131
29	279	351	3390	750	1490	1420	1040	500	231	238	162	128
30	274	383	2710	764	---	1310	979	482	229	233	163	124
31	264	---	2020	816	---	1220	---	464	---	237	161	---
TOTAL	6662	7243	34128	31466	122450	66960	82149	20555	9746	7994	5614	4641
MEAN	215	241	1101	1015	4222	2160	2738	663	325	258	181	155
MAX	279	383	3890	3370	16100	5320	12300	940	453	745	233	197
MIN	185	202	324	550	1200	1060	979	464	229	177	152	124
CFSM	.13	.14	.64	.59	2.47	1.27	1.60	.39	.19	.15	.11	.09
IN.	.15	.16	.74	.69	2.67	1.46	1.79	.45	.21	.17	.12	.10

CAL YR 1987 TOTAL 369242 MEAN 1012 MAX 7080 MIN 180 CFSM .59 IN. 8.05
WTR YR 1988 TOTAL 399608 MEAN 1092 MAX 16100 MIN 124 CFSM .64 IN. 8.71

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 mi².

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: Jan. 2-17, 26-28, Feb. 6-8, and May 7 to June 21. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--21 years, 48.0 ft³/s, 13.72 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,560 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 2	0600	*1,610	11.24	Apr. 7	0500	1,600	*11.35

Minimum daily discharge, 0.32 ft³/s Sept. 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.79	.91	3.7	18	369	30	26	19	5.4	1.4	1.7	.57
2	.79	.86	3.2	14	1100	29	32	18	5.0	1.4	1.5	.61
3	.79	1.7	2.8	12	303	114	34	17	4.7	1.2	1.4	1.2
4	.79	1.5	3.0	10	269	230	36	17	4.4	1.1	1.4	1.5
5	.79	1.1	2.9	8.0	166	118	31	16	4.2	1.1	1.4	.90
6	.79	1.5	2.7	9.0	100	95	216	14	4.0	1.0	3.5	.75
7	.79	1.6	2.6	8.0	72	75	996	13	3.9	1.0	3.2	.67
8	.92	1.6	2.4	7.2	58	62	226	13	3.8	.97	1.8	.56
9	.93	1.5	2.4	6.8	50	54	142	14	3.6	.93	1.5	.43
10	.94	1.4	2.6	6.5	42	45	102	14	3.4	.89	1.3	.43
11	1.0	1.4	2.6	6.4	38	36	77	13	3.2	.86	1.1	.49
12	.96	1.3	2.7	6.3	35	50	63	12	3.1	.86	1.0	.54
13	.87	1.3	2.4	6.2	33	71	52	11	2.9	.86	7.7	.47
14	1.4	1.3	2.4	6.3	31	52	46	10	2.7	.86	2.8	.39
15	.80	1.3	8.4	6.5	95	42	39	10	2.5	.83	1.8	.32
16	.79	1.3	8.9	6.7	73	36	35	9.5	2.7	.77	1.2	.40
17	.79	1.5	6.2	7.0	62	33	32	9.0	3.4	.76	1.0	.47
18	.86	1.5	4.8	7.1	67	33	31	8.5	3.1	.79	.89	.40
19	.86	1.8	4.3	8.6	260	31	30	8.0	2.8	.79	.96	.36
20	1.3	1.7	4.7	45	258	28	27	7.7	2.5	1.7	.90	.43
21	.92	1.8	4.6	28	124	25	27	7.5	2.3	11	.82	.43
22	1.1	2.0	4.1	20	89	23	33	7.2	2.0	3.7	.71	.43
23	2.0	1.8	4.0	17	74	23	32	8.5	1.8	2.9	.71	.43
24	1.4	2.1	3.8	14	59	22	26	12	1.6	2.7	.71	.52
25	.99	2.1	12	12	48	52	25	11	1.6	2.3	.68	.62
26	.86	2.5	107	11	41	63	24	10	1.5	2.2	.64	.57
27	.92	3.1	53	10	38	40	23	8.0	1.4	2.2	.66	.56
28	.93	3.3	55	9.0	34	33	23	7.2	1.4	2.1	.79	.50
29	.93	6.4	57	9.4	31	30	21	6.7	1.3	2.0	.69	.50
30	.98	4.4	31	9.3	---	27	20	6.2	1.4	1.9	.64	.50
31	1.5	---	24	12	---	24	---	5.8	---	1.8	.61	---
TOTAL	30.48	57.57	431.2	357.3	4019	1626	2527	343.8	87.6	54.87	45.71	16.95
MEAN	.98	1.92	13.9	11.5	139	52.5	84.2	11.1	2.92	1.77	1.47	.56
MAX	2.0	6.4	107	45	1100	230	996	19	5.4	11	7.7	1.5
MIN	.79	.86	2.4	6.2	31	22	20	5.8	1.3	.76	.61	.32
CFSM	.02	.04	.29	.24	2.92	1.10	1.77	.23	.06	.04	.03	.01
IN.	.02	.05	.34	.28	3.15	1.27	1.98	.27	.07	.04	.04	.01

CAL YR 1987 TOTAL 6123.74 MEAN 16.8 MAX 259 MIN .64 CFSM .35 IN. 4.80
WTR YR 1988 TOTAL 9597.48 MEAN 26.2 MAX 1100 MIN .32 CFSM .55 IN. 7.52

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 mi².

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: Jan. 4, 6-18, 24, 25, 27-29, and Feb. 7-9, 12, 14, 15. Records fair except for estimated daily discharges and those below 1 ft³/s, which are poor.

AVERAGE DISCHARGE.--40 years, 95.8 ft³/s, 14.23 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,300 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 2	1200	*3,040	*7.46	Apr. 7	0500	1,630	5.30

No flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.28	1.7	28	101	659	57	54	21	4.4	.00	.15	.00
2	.17	1.6	21	74	2590	54	63	20	3.7	.00	.11	.00
3	.13	1.7	18	62	867	128	64	20	3.1	.00	.06	.00
4	.11	1.7	17	53	673	425	65	20	2.2	.00	.01	.00
5	.08	1.4	17	25	407	262	57	20	1.9	.00	.00	.00
6	.07	1.3	22	23	247	214	172	20	1.9	.00	.13	.00
7	.10	1.3	21	28	148	187	1160	19	1.6	.00	.12	.00
8	.16	1.3	18	30	111	160	451	19	1.5	.00	.07	.00
9	.19	1.4	18	28	86	144	258	20	1.6	.00	.03	.00
10	.24	1.4	17	26	72	124	176	20	1.6	.00	.00	.00
11	.42	1.4	18	24	63	100	129	20	1.5	.00	.00	.00
12	.46	1.3	19	23	57	104	97	18	1.4	.00	.00	.00
13	.51	1.2	18	22	55	213	75	17	1.2	.00	.00	.00
14	.46	1.2	18	22	53	172	62	19	1.0	.00	.00	.00
15	.52	1.2	23	20	78	127	53	18	.82	.00	.00	.00
16	.83	1.2	136	18	185	97	45	16	.82	.00	.00	.00
17	.83	1.3	71	21	138	81	41	15	1.2	.00	.00	.00
18	1.0	1.4	45	28	140	76	46	14	.90	.00	.00	.00
19	1.5	1.5	36	40	281	76	39	14	.75	.00	.00	.00
20	1.8	1.5	39	144	582	69	34	13	.58	.00	.00	.00
21	1.7	9.7	87	111	320	59	34	13	.41	.00	.00	.00
22	1.6	12	75	62	208	53	41	13	.28	.00	.00	.00
23	1.5	7.9	57	48	177	51	43	14	.20	.00	.00	.00
24	1.7	6.9	46	32	150	49	35	22	.15	.31	.00	.00
25	1.9	8.1	124	23	117	64	29	20	.12	.41	.00	.00
26	2.3	11	466	25	92	139	28	13	.06	.44	.00	.00
27	3.4	14	319	22	83	99	27	10	.03	.36	.00	.00
28	3.7	14	251	20	68	74	26	8.0	.01	.25	.00	.00
29	3.7	19	247	21	63	66	24	6.8	.00	.18	.00	.00
30	2.3	29	160	30	---	62	22	5.8	.00	.16	.00	.00
31	1.7	---	126	35	---	53	---	5.1	---	.16	.00	---
TOTAL	35.36	159.6	2578	1241	8770	3639	3450	493.7	34.93	2.27	0.68	0.00
MEAN	1.14	5.32	83.2	40.0	302	117	115	15.9	1.16	.073	.022	.00
MAX	3.7	29	466	144	2590	425	1160	22	4.4	.44	.15	.00
MIN	.07	1.2	17	18	53	49	22	5.1	.00	.00	.00	.00
CFSM	.01	.06	.91	.44	3.31	1.28	1.26	.17	.01	.00	.00	.00
IN.	.01	.06	1.05	.51	3.57	1.48	1.40	.20	.01	.00	.00	.00

CAL YR 1987 TOTAL 21900.83 MEAN 60.0 MAX 2060 MIN .07 CFSM .66 IN. 8.91
WTR YR 1988 TOTAL 20404.54 MEAN 55.8 MAX 2590 MIN .00 CFSM .61 IN. 8.30

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 mi².

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. 3-16, 25-30. Records good.

AVERAGE DISCHARGE.--61 years, 2,450 ft³/s, 14.21 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 78,500 ft³/s Jan. 5, 1949, gage height, 19.67 ft; minimum daily, 86 ft³/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 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 12,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 3	0300	*28,400	*16.85	Apr. 8	0100	23,300	16.15

Minimum daily discharge, 174 ft³/s Sept. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	258	292	552	2550	2280	2360	2040	1500	667	286	277	174
2	254	286	534	2140	14700	2220	2190	1430	644	276	267	178
3	250	279	494	1600	27200	2390	2600	1370	617	271	261	213
4	252	273	473	1200	25000	7040	2780	1320	590	268	269	245
5	246	268	456	920	20600	8600	2790	1280	575	265	347	220
6	248	273	470	790	11600	7000	3110	1240	560	260	320	210
7	247	268	501	860	7420	5720	12600	1210	547	253	365	211
8	243	268	491	960	5300	5220	20700	1170	529	244	314	203
9	246	271	490	890	4230	4670	16500	1160	511	247	268	199
10	250	267	508	860	3460	4120	12800	1150	497	239	243	192
11	270	267	540	840	2990	3600	7790	1140	486	245	239	188
12	269	271	574	840	2650	3310	5510	1130	472	246	223	210
13	268	275	557	820	2340	4300	4360	1090	462	237	229	200
14	270	273	538	760	2110	4150	3650	1090	451	237	239	199
15	269	272	562	760	2650	3560	3190	1110	439	241	248	205
16	264	270	630	740	3940	3080	2820	1010	426	254	229	218
17	261	281	1390	792	3950	2720	2550	951	431	244	218	223
18	253	281	1450	858	3560	2500	2400	912	424	234	207	208
19	250	273	1170	986	3880	2390	2330	880	418	244	199	197
20	250	277	1010	1950	7690	2300	2190	856	414	298	282	216
21	260	271	942	3510	9390	2170	2030	838	403	590	231	217
22	265	267	1260	3250	8690	2020	2010	819	389	746	202	203
23	253	270	1360	2430	6350	1910	2270	854	370	724	211	206
24	253	279	1240	1930	5050	1840	2530	844	355	541	207	206
25	256	303	1140	1400	4400	1990	2190	871	344	445	196	203
26	252	328	2210	1100	3700	3490	1960	898	331	391	190	192
27	263	368	4660	980	3180	3410	1840	829	314	354	186	188
28	267	451	4260	950	2840	2850	1740	778	305	325	196	183
29	282	483	4200	960	2550	2470	1660	740	297	302	191	181
30	302	495	3930	990	---	2260	1580	712	288	290	179	177
31	301	---	3060	1030	---	2100	---	686	---	283	176	---
TOTAL	8072	9000	41652	40646	203700	107760	134710	31868	13556	10080	7409	6065
MEAN	260	300	1344	1311	7024	3476	4490	1028	452	325	239	202
MAX	302	495	4660	3510	27200	8600	20700	1500	667	746	365	245
MIN	243	267	456	740	2110	1840	1580	686	288	234	176	174
CFSM	.11	.13	.57	.56	3.00	1.48	1.92	.44	.19	.14	.10	.09
IN.	.13	.14	.66	.65	3.24	1.71	2.14	.51	.22	.16	.12	.10

CAL YR 1987 TOTAL 469405 MEAN 1286 MAX 7720 MIN 243 CFSM .55 IN. 7.46
WTR YR 1988 TOTAL 614518 MEAN 1679 MAX 27200 MIN 174 CFSM .72 IN. 9.77

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 mi².

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: Jan. 3-17 and 23-30. Records fair except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--20 years, 12.6 ft³/s, 18.38 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,540 ft³/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 700 ft³/s (revised) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 2	0200	*726	*6.18

Minimum daily discharge, no flow on many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	.91	.61	6.0	144	2.1	5.5	1.0	.36	.00	.07	.00
2	.51	4.4	.39	3.9	348	2.4	17	.96	.35	.00	.03	.00
3	.11	3.7	.24	2.2	51	62	25	.91	.40	.00	.0	4.7
4	.04	.71	.34	1.3	65	108	28	.95	.32	.00	1.3	1.8
5	.01	.58	.63	.88	21	29	10	.90	.30	.00	.25	.27
6	.0	.77	.15	.58	14	16	116	.81	.14	.00	.55	.09
7	.02	.39	.10	.41	7.4	11	253	.73	.10	.00	.30	.04
8	.0	.08	.79	.35	4.8	7.4	35	.69	.07	.00	.09	.01
9	.00	.05	1.1	.33	3.3	6.6	16	1.5	.15	.00	.05	.00
10	.06	.05	1.1	.32	2.7	6.2	10	1.1	.15	.00	.02	.00
11	5.2	.02	.44	.30	2.8	4.7	7.1	.84	.09	.56	.00	.00
12	8.1	.01	.24	.28	3.1	4.3	5.3	.69	.04	.92	.00	.02
13	2.3	.00	.10	.29	2.8	4.7	4.1	3.1	.01	.26	.00	.06
14	.83	.00	.20	.29	5.7	3.7	3.3	48	.00	.09	.00	.07
15	.31	.0	8.8	.28	33	3.1	2.6	4.9	.00	.04	.00	.01
16	.27	.02	2.4	.34	11	2.7	2.2	2.1	.00	.00	.00	4.5
17	.18	.02	1.0	.43	7.4	2.4	1.9	1.5	.00	.00	.00	3.9
18	.15	.0	.53	4.3	6.5	2.6	4.2	1.1	.00	.00	.00	.50
19	.09	.00	.43	73	25	3.5	5.7	.97	.00	2.3	.37	.23
20	.09	.00	.87	42	28	2.9	3.2	.86	.00	63	.18	.82
21	.07	.00	1.4	11	10	2.3	2.5	.78	.00	13	.05	.33
22	.05	.00	.90	5.7	7.0	2.0	4.7	.68	.00	1.3	.0	.16
23	.05	.00	.60	3.4	7.6	1.9	4.4	1.0	.00	.54	.00	.10
24	.04	.08	.54	2.6	5.9	1.8	2.8	1.4	.00	.31	.00	.12
25	.05	5.7	6.1	2.1	4.1	53	2.0	.91	.00	.21	.00	.51
26	.03	7.3	25	1.8	3.3	30	1.8	.64	.00	.19	.00	.24
27	.09	5.9	6.3	1.7	3.0	12	1.6	.58	.00	.11	.00	.11
28	.36	4.9	15	1.6	2.5	6.6	1.4	.58	.00	.04	.00	.07
29	.57	5.1	9.3	1.5	2.3	5.0	1.3	.53	.00	.07	.18	.05
30	.89	1.4	4.7	1.6	---	4.0	1.2	.53	.00	.05	.17	.04
31	1.1	---	4.2	2.4	---	3.4	---	.40	---	.07	.03	---
TOTAL	23.17	42.09	94.50	173.18	832.2	407.3	578.8	81.64	2.48	83.06	3.64	18.75
MEAN	.75	1.40	3.05	5.59	28.7	13.1	19.3	2.63	.083	2.68	.12	.62
MAX	8.1	7.3	25	73	348	108	253	48	.40	63	1.3	4.7
MIN	.00	.00	.10	.28	2.3	1.8	1.2	.40	.00	.00	.00	.00
CFSM	.08	.15	.33	.60	3.08	1.41	2.07	.28	.01	.29	.01	.07
IN.	.09	.17	.38	.69	3.33	1.63	2.31	.33	.01	.33	.01	.07

CAL YR 1987 TOTAL 1922.41 MEAN 5.27 MAX 125 MIN .00 CFSM .57 IN. 7.68
WTR YR 1988 TOTAL 2340.81 MEAN 6.40 MAX 348 MIN .00 CFSM .69 IN. 9.35

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 mi².

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: Jan. 5-16, 23-31, and Feb. 8-13. Records fair except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--40 years (water years 1949 to current year), 343 ft³/s, 15.90 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 52,200 ft³/s Jan. 21, 1959, from rating curve extended above 25,000 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 2	1200	*15,400	*24.38	Apr. 7	0900	13,200	23.41
July 21	0100	8,520	20.75				

Minimum daily discharge, 0.53 ft³/s Oct. 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.62	.85	13	160	4050	140	147	67	16	7.1	6.6	1.7
2	.67	.83	11	229	12800	137	224	61	15	6.7	5.9	1.6
3	.65	.78	10	148	3360	556	305	54	13	6.6	5.7	2.5
4	.59	.83	7.1	101	1760	2670	564	51	12	6.4	9.9	5.8
5	.56	.82	4.9	66	1020	1080	368	50	11	6.4	8.9	13
6	.57	.77	4.1	51	711	551	942	46	10	6.4	20	8.3
7	.59	.75	3.3	44	300	397	9410	40	10	6.4	95	5.9
8	.55	.73	3.1	33	130	300	2020	37	9.8	6.4	58	4.3
9	.53	.81	3.4	26	86	253	744	42	9.4	6.4	28	3.7
10	.59	.81	3.6	21	74	234	462	44	9.3	6.4	16	3.4
11	.74	.78	3.1	19	66	210	325	39	9.0	6.7	8.9	3.2
12	.72	.78	2.9	18	61	185	250	34	8.8	7.9	6.3	3.0
13	.71	.78	2.5	18	60	198	199	33	8.6	8.2	4.8	4.5
14	.62	.77	2.3	19	186	237	167	410	8.6	8.2	4.0	4.7
15	.62	.72	9.1	20	511	184	143	219	8.6	8.2	3.5	3.4
16	.62	.70	29	22	573	156	126	111	8.7	7.9	3.3	3.3
17	.64	.75	49	26	355	140	115	73	8.8	7.9	2.9	31
18	.67	.82	43	33	307	134	123	50	8.7	7.9	2.6	30
19	.72	1.2	25	310	479	137	149	37	8.5	8.7	2.5	11
20	.71	1.4	18	2700	1180	142	138	32	8.5	1690	2.4	7.4
21	.67	1.0	13	750	610	131	120	29	8.5	3560	2.2	5.6
22	.61	1.0	10	331	354	115	136	27	8.5	336	2.0	4.9
23	.59	1.2	9.9	206	296	106	255	27	8.5	127	1.9	4.0
24	.59	1.2	14	110	290	99	214	27	8.5	76	1.8	3.3
25	.61	2.9	21	68	246	272	161	26	8.5	48	1.8	3.9
26	.58	6.0	488	40	197	771	129	24	8.4	33	1.7	3.6
27	.70	6.1	584	33	178	408	112	22	8.1	24	1.7	3.5
28	.77	12	257	32	164	244	98	22	7.7	18	1.8	3.3
29	.87	17	531	35	151	186	85	21	7.5	12	1.9	3.2
30	.91	15	249	45	---	158	74	19	7.3	9.2	1.8	2.9
31	.89	---	139	75	---	141	---	18	---	7.8	1.7	---
TOTAL	20.48	80.08	2563.3	5789	30555	10672	18305	1792	283.8	6077.8	315.5	189.9
MEAN	.66	2.67	82.7	187	1054	344	610	57.8	9.46	196	10.2	6.33
MAX	.91	17	584	2700	12800	2670	9410	410	16	3560	95	31
MIN	.53	.70	2.3	18	60	99	74	18	7.3	6.4	1.7	1.6
CFSM	.00	.01	.28	.64	3.60	1.17	2.08	.20	.03	.67	.03	.02
IN.	.00	.01	.33	.73	3.88	1.35	2.32	.23	.04	.77	.04	.02

CAL YR 1987 TOTAL 48525.05 MEAN 133 MAX 3000 MIN .53 CFSM .45 IN. 6.16
WTR YR 1988 TOTAL 76643.86 MEAN 209 MAX 12800 MIN .53 CFSM .71 IN. 9.73

03368000 BRUSH CREEK NEAR NEBRASKA, IN

LOCATION.--Lat 39°04'13", long 85°29'10" in NW¼ 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 mi².

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: Jan. 3-17, Jan. 20 to Feb. 8, May 13 to June 21, and June 26-28. Records fair except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--33 years, 12.9 ft³/s, 15.37 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,360 ft³/s June 10, 1981, gage height, 12.99 ft, from rating curve extended above 550 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	2000	ice	6.93	Feb. 2	0200	*1,370	a*8.04

a Peak stage indicator.

Minimum daily discharge, no flow on many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	2.7	17	250	3.1	6.1	1.7	.33	.00	.00	.00
2	.00	.00	2.4	5.4	500	3.3	8.7	1.6	.29	.00	.00	.00
3	.00	.00	2.1	3.5	60	87	11	1.4	.56	.00	.00	.37
4	.00	.00	2.2	2.2	70	65	11	1.4	.40	.00	.00	.87
5	.00	.00	2.0	1.5	28	17	6.5	1.4	.27	.00	.00	.11
6	.00	.00	1.8	1.1	17	12	159	1.3	.21	.00	1.4	.00
7	.00	.00	1.8	.90	9.0	8.6	192	1.2	.17	.00	.41	.00
8	.00	.00	1.8	.80	6.0	6.9	27	1.1	.15	.00	.06	.00
9	.00	.00	1.9	.73	4.2	6.8	14	1.3	.18	.00	.00	.00
10	.00	.00	2.1	.69	3.7	6.1	9.3	1.1	.13	.00	.00	.00
11	.00	.00	2.0	.65	3.5	4.7	6.9	1.1	.12	.00	.00	.00
12	.00	.00	2.0	.63	3.3	12	5.3	.97	.11	.00	.00	.00
13	.00	.00	2.0	.62	2.9	14	4.2	3.5	.10	.00	.00	.00
14	.00	.00	2.0	.61	6.4	7.3	3.6	21	.10	.00	.00	.00
15	.00	.00	5.7	.61	36	5.7	3.0	9.8	3.5	.00	.00	.00
16	.00	.00	6.5	.60	9.4	4.6	2.7	3.1	.25	.00	.00	.14
17	.00	.00	3.2	1.0	7.8	4.2	2.5	1.9	.09	.00	.00	1.6
18	.00	.00	2.3	4.2	8.9	4.5	3.3	1.3	.04	.00	.00	.30
19	.00	.00	2.1	62	75	4.8	2.8	.94	.02	.00	.00	.07
20	.00	.00	2.5	44	37	4.2	2.4	.80	.00	53	.00	.98
21	.00	.00	2.6	20	11	3.6	2.5	.70	.00	12	.00	.60
22	.00	.00	2.5	10	7.9	3.3	4.2	.62	.00	.93	.00	.24
23	.00	.00	2.3	6.0	11	3.3	3.4	.69	.00	.35	.00	.06
24	.00	.00	2.5	4.5	7.0	3.0	2.6	1.4	.00	.12	.00	.04
25	.00	.00	17	3.6	5.0	43	2.3	2.0	.00	.02	.00	.05
26	.00	2.3	44	3.0	4.1	20	2.2	1.5	.00	.00	.00	.10
27	.00	6.6	6.3	2.5	4.2	10	2.1	.94	.00	.00	.00	.03
28	.00	4.7	24	2.2	3.6	6.9	2.0	.61	.00	.00	.00	.00
29	.00	5.4	11	2.0	3.4	5.7	1.9	.51	.00	.00	.00	.00
30	.00	3.4	4.6	2.5	---	4.8	1.8	.48	.00	.00	.00	.01
31	.00	---	20	4.0	---	4.5	---	.38	---	.00	.00	---
TOTAL	0.00	22.40	187.9	209.04	1195.3	389.9	506.3	67.74	7.02	66.42	1.87	5.57
MEAN	.00	.75	6.06	6.74	41.2	12.6	16.9	2.19	.23	2.14	.060	.19
MAX	.00	6.6	44	62	500	87	192	21	3.5	53	1.4	1.6
MIN	.00	.00	1.8	.60	2.9	3.0	1.8	.38	.00	.00	.00	.00
CFSM	.00	.07	.53	.59	3.62	1.10	1.48	.19	.02	.19	.01	.02
IN.	.00	.07	.61	.68	3.90	1.27	1.65	.22	.02	.22	.01	.02

CAL YR 1987 TOTAL 1777.64 MEAN 4.87 MAX 100 MIN .00 CFSM .43 IN. 5.80
WTR YR 1988 TOTAL 2659.46 MEAN 7.27 MAX 500 MIN .00 CFSM .64 IN. 8.68

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 mi².

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: Jan. 3-14 and Feb. 7-13. Records good except 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.--46 years, 92.9 ft³/s, 14.69 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,200 ft³/s Jan. 21, 1959, gage height, 25.41 ft, from rating curve extended above 10,000 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 1	2200	ice	11.50	Feb. 2	0600	6,150	13.61

Minimum daily discharge, 0.27 ft³/s June 30, July 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.81	1.4	7.3	93	1940	33	55	13	2.4	.31	1.4	1.3
2	.72	1.7	5.2	32	3330	33	73	12	2.1	.30	1.6	.53
3	.62	1.8	4.4	18	452	601	88	12	4.2	.29	8.8	3.2
4	.58	2.0	3.9	9.6	500	636	130	11	2.5	.27	5.1	2.1
5	27	2.1	3.5	7.2	215	178	77	10	1.8	23	3.0	1.7
6	2.2	2.1	3.4	5.2	104	131	672	10	1.5	1.0	21	.97
7	1.1	2.1	3.5	4.5	66	104	1750	9.6	1.3	.35	20	.55
8	.84	2.2	3.5	4.1	51	82	284	9.1	1.1	.36	5.8	.41
9	.90	2.7	3.7	3.6	42	76	145	10	1.3	.38	3.0	.50
10	1.4	2.6	3.5	3.3	36	71	104	9.9	.93	.93	2.0	.57
11	2.6	2.2	3.8	3.0	32	55	78	8.8	.80	1.8	1.5	.45
12	2.5	8.0	3.8	3.0	31	91	61	8.4	.83	1.5	1.4	.70
13	2.3	21	3.5	2.9	29	181	49	23	.80	1.3	7.4	2.5
14	2.4	1.0	3.9	2.8	31	95	42	159	.75	1.1	3.8	2.7
15	2.3	.88	6.2	2.8	209	71	34	43	26	1.0	1.9	3.1
16	2.3	1.2	18	2.9	110	56	29	21	1.5	.90	1.3	3.3
17	2.3	1.8	14	4.4	88	49	26	12	.83	.78	.99	6.8
18	2.3	1.7	8.2	7.0	100	48	32	8.4	.55	.85	.82	3.4
19	28	1.5	6.7	124	481	49	34	6.6	.65	.88	.80	2.3
20	1.9	1.9	7.5	379	335	44	25	5.8	.56	396	.85	5.9
21	1.1	1.9	8.4	74	133	37	24	5.1	.69	620	1.1	3.4
22	1.3	2.1	10	39	96	32	61	4.6	.62	32	1.1	1.6
23	1.3	2.7	8.6	26	99	30	54	5.3	.43	11	1.7	2.1
24	1.4	3.0	9.5	21	82	28	37	12	.33	6.1	1.6	2.4
25	1.6	4.1	57	16	60	273	29	15	.29	4.2	1.1	3.0
26	1.8	7.2	321	11	48	199	25	9.3	.30	3.2	.85	2.4
27	3.2	11	78	10	49	113	22	5.9	21	2.6	.72	1.8
28	2.8	13	127	8.7	40	79	19	4.4	.84	1.9	.83	1.4
29	2.7	12	104	8.9	37	63	17	3.7	.32	1.8	.93	1.2
30	26	9.4	41	11	---	54	15	3.1	.27	1.5	.73	1.6
31	2.0	---	52	15	---	47	---	2.7	---	1.5	20	---
TOTAL	130.27	128.28	934.0	952.9	8826	3639	4091	473.7	77.49	1119.10	123.12	63.88
MEAN	4.20	4.28	30.1	30.7	304	117	136	15.3	2.58	36.1	3.97	2.13
MAX	28	21	321	379	3330	636	1750	159	26	620	21	6.8
MIN	.58	.88	3.4	2.8	29	28	15	2.7	.27	.27	.72	.41
CFSM	.05	.05	.35	.36	3.54	1.37	1.59	.18	.03	.42	.05	.02
IN.	.06	.06	.40	.41	3.82	1.58	1.77	.21	.03	.48	.05	.03

CAL YR 1987 TOTAL 15386.93 MEAN 42.2 MAX 1420 MIN .14 CFSM .49 IN. 6.66
WTR YR 1988 TOTAL 20558.74 MEAN 56.2 MAX 3330 MIN .27 CFSM .65 IN. 8.90

03369500 VERNON FORK MUSCATATUCK RIVER AT VERNON, IN

LOCATION.--Lat 38°58'34", long 85°37'13", in NW¼ 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 mi².

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: Jan. 4-17 and 22-30. Records good except for estimated daily discharges, which are fair. 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.--49 years, 219 ft³/s, 15.02 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 56,800 ft³/s Jan. 21, 1959, from rating curve extended above 24,000 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 2	0900	*10,900	*17.71	Apr. 7	0500	8,010	15.06

Minimum daily discharge, 0.30 ft³/s June 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	19	37	269	3650	77	114	37	5.6	.54	1.9	1.3
2	.92	6.7	28	118	7700	73	150	35	4.3	.54	1.3	1.1
3	.87	2.6	22	69	1320	833	168	32	3.3	.45	2.0	7.2
4	.63	1.7	17	42	1370	2030	282	31	2.4	.38	62	12
5	.70	1.1	16	32	645	489	175	29	2.6	.39	21	10
6	.67	1.1	13	23	265	300	984	28	2.7	.39	61	3.3
7	1.4	1.2	12	17	191	229	4790	25	2.1	.40	37	2.1
8	4.5	1.4	11	13	159	179	875	24	1.6	.47	24	2.0
9	2.9	1.4	12	10	132	157	390	27	1.5	.65	13	1.6
10	1.8	1.2	13	8.4	112	152	254	26	1.5	1.9	7.8	1.1
11	3.4	1.2	9.8	6.7	100	127	189	25	1.1	3.2	4.4	.85
12	3.4	1.3	12	6.6	88	136	146	23	.96	5.5	3.2	1.1
13	1.6	1.3	11	6.6	80	377	122	22	.85	2.4	27	3.0
14	1.3	5.4	12	6.5	83	214	101	165	.81	1.7	8.7	5.2
15	1.2	10	21	6.5	421	157	88	82	.81	1.4	9.6	5.1
16	1.4	4.6	52	7.4	272	128	76	47	5.0	1.6	5.2	5.3
17	1.5	2.9	63	14	193	112	67	33	8.2	1.4	2.1	12
18	1.5	1.7	43	23	200	108	70	26	2.0	1.6	1.5	7.5
19	1.4	1.4	31	219	749	115	77	20	.88	2.3	1.2	5.0
20	1.3	1.4	28	1290	966	107	66	18	.58	30	1.1	8.3
21	1.7	1.3	29	245	333	97	58	16	.53	1280	1.0	9.1
22	6.0	1.3	27	100	209	85	84	14	.78	125	.88	7.2
23	3.5	1.3	29	62	193	78	120	17	.73	50	1.2	6.6
24	3.7	1.5	29	43	185	75	85	18	.56	25	2.5	6.3
25	4.7	7.7	67	34	134	342	67	29	.55	15	1.7	8.8
26	4.5	17	876	26	108	560	58	27	.46	11	1.4	7.0
27	4.9	23	241	22	101	259	54	20	.36	7.0	1.5	4.8
28	5.5	48	225	21	89	173	49	14	.30	4.6	2.4	3.6
29	5.4	55	347	21	81	141	44	11	.31	3.3	3.3	3.1
30	4.2	42	124	30	---	124	41	8.7	.49	2.1	3.0	2.7
31	10	---	103	52	---	108	---	6.9	---	2.3	1.8	---
TOTAL	88.29	266.7	2560.8	2843.7	20129	8142	9844	936.6	53.86	1582.51	315.68	154.25
MEAN	2.85	8.89	82.6	91.7	694	263	328	30.2	1.80	51.0	10.2	5.14
MAX	10	55	876	1290	7700	2030	4790	165	8.2	1280	62	12
MIN	.63	1.1	9.8	6.5	80	73	41	6.9	.30	.38	.88	.85
CFSM	.01	.04	.42	.46	3.51	1.33	1.66	.15	.01	.26	.05	.03
IN.	.02	.05	.48	.53	3.78	1.53	1.85	.18	.01	.30	.06	.03
CAL YR 1987	TOTAL 34889.55	MEAN 95.6	MAX 2510	MIN .39	CFSM .48	IN. 6.56						
WTR YR 1988	TOTAL 46917.39	MEAN 128	MAX 7700	MIN .30	CFSM .65	IN. 8.81						

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: Jan. 1-18, 25-29, Feb. 4-8, Feb. 11 to Mar. 2, and July 10-15. Records good except for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--35 years (1939-43, 1957 to current year), 3,924 ft³/s, 13.80 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 (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 6	a2000	22,500	a22.75	Apr. 11	1200	*23,400	*23.15

Minimum daily discharge, 283 ft³/s Sept. 30.

a From graph.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	384	367	619	4940	3830	4100	3730	2380	943	422	575	298
2	382	374	634	4040	11700	3800	3650	2230	898	415	551	292
3	376	369	654	3600	13000	3740	3730	2090	857	407	509	301
4	371	363	658	3200	15600	6100	4110	1980	818	401	473	309
5	368	363	634	2800	20200	8040	4580	1900	785	396	452	322
6	363	363	609	2200	22300	9820	5160	1820	758	391	456	333
7	360	360	590	1700	21700	11200	9440	1750	733	387	504	317
8	357	353	581	1400	20300	10900	10900	1680	713	382	513	303
9	353	353	600	1300	17300	9730	13900	1630	700	378	521	303
10	355	352	609	1250	12400	8020	20200	1580	688	377	531	302
11	363	349	601	1240	8300	6590	23200	1540	665	369	505	298
12	363	349	601	1230	6300	5860	21500	1500	645	364	461	296
13	363	349	614	1300	5600	5890	16900	1460	624	361	429	289
14	363	349	638	1300	5400	6090	12100	1430	610	356	404	299
15	363	350	670	1280	5300	6350	8740	1390	594	349	389	294
16	366	351	684	1300	7000	5820	6130	1450	584	340	384	295
17	368	353	707	1400	6800	5060	4870	1640	569	333	380	317
18	364	353	776	1700	6600	4490	4310	1570	557	341	368	362
19	359	353	1140	2160	8000	4170	4040	1410	543	380	352	383
20	357	353	1360	3490	9500	3980	3800	1280	536	1010	338	356
21	352	350	1320	4550	11000	3790	3610	1200	527	2110	330	326
22	349	349	1220	5920	12000	3610	3410	1140	521	2990	359	327
23	349	349	1160	6520	11500	3410	3210	1120	512	3530	347	326
24	351	350	1270	5600	10000	3140	3140	1110	504	3490	329	313
25	357	363	1420	4200	8800	3000	3380	1140	492	2490	329	309
26	353	400	1760	3300	7000	3440	3470	1130	482	1510	322	303
27	353	440	2260	2600	5800	5190	3180	1110	469	1060	314	294
28	349	484	4290	2150	5100	6010	2890	1110	458	845	327	288
29	350	539	5870	2050	4500	5340	2700	1080	444	725	320	286
30	353	589	5640	2010	---	4490	2530	1050	432	637	312	283
31	356	---	5510	1910	---	4040	---	995	---	579	306	---
TOTAL	11170	11339	45699	83640	302830	175210	216510	45895	18661	28125	12690	9324
MEAN	360	378	1474	2698	10440	5652	7217	1480	622	907	409	311
MAX	384	589	5870	6520	22300	11200	23200	2380	943	3530	575	383
MIN	349	349	581	1230	3830	3000	2530	995	432	333	306	283
CFSM	.09	.10	.38	.70	2.70	1.46	1.87	.38	.16	.23	.11	.08
IN.	.11	.11	.44	.81	2.92	1.69	2.09	.44	.18	.27	.12	.09

CAL YR 1987 TOTAL 731442 MEAN 2004 MAX 10700 MIN 349 CFSM .52 IN. 7.05
WTR YR 1988 TOTAL 961093 MEAN 2626 MAX 23200 MIN 283 CFSM .68 IN. 9.26

03371520 BACK CREEK AT LEESVILLE, IN

LOCATION.--Lat 38°50'48", long 86°18'06", in SW 1/4 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 mi².

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: Jan. 3-18, 25-31, and Feb. 6-15. Records good except for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--18 years, 32.6 ft³/s, 18.37 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,300 ft³/s July 21, 1973, gage height, 14.0 ft, from floodmarks, from rating extended above 550 ft³/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, 1984, 1987, and 1988.

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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 1	1750	*2,030	*6.90	Apr. 6	2115	1,410	6.12

Minimum daily discharge, no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.29	3.0	20	603	18	27	7.2	.64	.00	.34	.00
2	.0	.31	2.1	17	508	19	36	6.4	.58	.00	.35	.00
3	.00	.30	1.8	12	121	89	33	6.0	.50	.00	.38	.00
4	.0	.29	1.5	9.8	110	97	30	5.7	.45	.00	.34	.00
5	.01	.29	1.3	8.6	63	54	25	5.5	.41	.00	.33	.00
6	.02	.29	1.1	5.9	48	43	361	4.9	.38	.00	.30	.00
7	.02	.30	1.0	5.4	38	37	257	4.5	.36	.00	.24	.00
8	.02	.30	.94	5.1	33	33	93	4.3	.34	.00	.17	.00
9	.02	.31	1.4	4.5	28	30	62	5.7	.35	.00	.04	.00
10	.07	.29	1.7	3.8	23	27	47	3.9	.33	.00	.00	.00
11	.24	.29	1.8	3.0	19	24	38	2.8	.31	.00	.00	.00
12	.21	.29	1.6	2.4	16	36	31	2.0	.28	.00	.00	.00
13	.20	.29	1.4	2.2	17	37	26	1.8	.29	.00	.00	.00
14	.20	.29	1.5	2.2	19	25	23	1.7	.26	.00	.00	.00
15	.21	.29	5.2	2.3	24	22	20	1.4	.26	.00	.00	.00
16	.22	.29	7.6	2.7	34	19	17	1.2	.28	.00	.00	.00
17	.22	.30	5.1	5.4	31	17	15	1.6	.27	.00	.00	.00
18	.24	.29	4.2	10	30	17	16	1.4	.26	.00	.00	.00
19	.23	.29	3.1	40	104	16	15	1.2	.23	.00	.00	.00
20	.22	.29	3.9	53	85	15	13	1.1	.18	2.1	.00	.00
21	.23	.29	4.6	27	50	13	12	1.0	.19	1.1	.00	.00
22	.23	.29	4.1	22	41	12	16	.95	.14	.59	.00	.00
23	.24	.29	3.4	19	35	11	15	1.5	.05	.55	.00	.00
24	.26	.30	5.8	17	30	11	13	1.8	.15	.53	.00	.00
25	.27	.34	39	15	27	39	12	1.8	.13	.51	.00	.00
26	.26	.71	110	13	25	36	11	1.5	.02	.49	.00	.00
27	.29	1.5	31	11	24	27	10	1.3	.00	.45	.00	.00
28	.29	7.2	75	10	21	23	9.5	1.1	.00	.42	.00	.00
29	.30	10	39	9.7	20	20	8.8	.96	.00	.40	.00	.00
30	.30	4.6	24	9.4	---	18	8.0	.83	.00	.39	.00	.00
31	.29	---	22	11	---	18	---	.71	.00	.37	.00	---
TOTAL	5.33	31.40	409.14	379.4	2227	903	1300.3	83.75	7.64	7.90	2.49	0.00
MEAN	.17	1.05	13.2	12.2	76.8	29.1	43.3	2.70	.25	.25	.080	.00
MAX	.30	10	110	53	603	97	361	7.2	.64	2.1	.38	.00
MIN	.00	.29	.94	2.2	16	11	8.0	.71	.00	.00	.00	.00
CFSM	.01	.04	.55	.51	3.19	1.21	1.80	.11	.01	.01	.00	.00
IN.	.01	.05	.63	.59	3.44	1.39	2.01	.13	.01	.01	.00	.00

CAL YR 1987 TOTAL 3857.52 MEAN 10.6 MAX 171 MIN .00 CFSM .44 IN. 5.95
WTR YR 1988 TOTAL 5357.35 MEAN 14.6 MAX 603 MIN .00 CFSM .61 IN. 8.27

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 mi².

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: Jan. 6-16, 26-28, and Feb. 4-15. Records fair except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--18 years, 13.8 ft³/s, 17.19 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,400 ft³/s July 13, 1979, gage height, 13.18 ft from rating curve extended above 1,200 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 1	1030	ice jam	7.81	Apr. 6	2045	*852	*9.30
Feb. 1	1730	471	7.63				

Minimum daily discharge, no flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	1.9	7.4	277	7.1	26	2.4	.14	.05	.00	.00
2	.00	.00	1.5	5.6	184	7.4	35	2.2	.13	.04	.00	.03
3	.00	.00	1.4	4.6	66	87	26	2.0	.10	.03	.00	.08
4	.00	.00	1.3	3.9	42	93	20	1.9	.10	.03	.00	.04
5	.00	.00	1.2	3.0	25	38	16	1.7	.08	.02	.00	.01
6	.00	.00	1.0	2.7	19	27	224	1.5	.07	.02	.02	.00
7	.00	.00	1.0	2.3	15	21	128	1.4	.08	.01	.00	.00
8	.00	.00	1.0	2.0	13	17	41	1.4	.06	.01	.00	.00
9	.00	.00	1.7	1.7	11	15	27	1.7	.12	.00	.00	.00
10	.01	.00	2.0	1.5	9.0	12	20	1.4	.07	.00	.00	.00
11	.00	.00	2.0	1.3	8.5	11	16	1.2	.06	.02	.00	.00
12	.00	.00	1.6	1.1	8.1	18	13	1.1	.05	.00	.00	.01
13	.00	.00	1.3	.98	7.8	20	11	.97	.06	.00	.00	.01
14	.00	.00	1.3	.99	7.4	17	9.7	.84	.05	.00	.00	.01
15	.00	.00	25	1.0	15	14	8.9	.73	.04	.00	.00	.00
16	.00	.00	8.3	1.1	20	12	7.7	.60	.08	.00	.00	.00
17	.00	.00	4.8	3.1	16	10	6.7	.55	.06	.00	.00	.00
18	.00	.00	3.5	9.9	14	9.8	7.2	.54	.08	.00	.00	.00
19	.00	.00	3.1	34	62	9.1	6.3	.48	.08	.00	.13	.04
20	.00	.00	4.1	38	60	8.1	5.5	.43	.09	2.7	.00	.07
21	.00	.00	4.1	18	33	7.0	5.1	.36	.08	.23	.00	.05
22	.00	.00	3.5	12	24	6.2	5.2	.36	.07	.00	.00	.03
23	.00	.00	3.0	9.8	21	5.9	5.2	.44	.04	.00	.01	.03
24	.00	.00	3.7	7.9	17	5.4	4.5	.38	.04	.00	.00	.02
25	.00	.00	41	6.6	14	20	3.9	.34	.06	.00	.00	.01
26	.00	.97	61	4.5	13	21	3.6	.32	.06	.00	.00	.01
27	.00	1.3	18	3.9	11	18	3.4	.29	.05	.00	.00	.00
28	.00	4.7	36	3.4	9.4	15	3.2	.23	.06	.00	.00	.00
29	.00	4.7	20	3.9	8.3	13	2.9	.22	.06	.00	.00	.00
30	.00	2.5	13	3.8	---	12	2.6	.19	.06	.00	.00	.00
31	.00	---	9.9	10	---	12	---	.16	---	.00	.00	---
TOTAL	0.01	14.17	282.2	209.97	1030.5	589.0	694.6	28.33	2.18	3.16	0.16	0.45
MEAN	.000	.47	9.10	6.77	35.5	19.0	23.2	.91	.073	.10	.005	.015
MAX	.01	4.7	61	38	277	93	224	2.4	.14	2.7	.13	.08
MIN	.00	.00	1.0	.98	7.4	5.4	2.6	.16	.04	.00	.00	.00
CFSM	.00	.04	.84	.62	3.26	1.74	2.12	.08	.01	.01	.00	.00
IN.	.00	.05	.96	.72	3.52	2.01	2.37	.10	.01	.01	.00	.00

CAL YR 1987 TOTAL 2055.16 MEAN 5.63 MAX 178 MIN .00 CFSM .52 IN. 7.01
WTR YR 1988 TOTAL 2854.73 MEAN 7.80 MAX 277 MIN .00 CFSM .72 IN. 9.74

03372500 SALT CREEK NEAR HARRODSBURG, IN

LOCATION.--Lat 39°00'16", long 86°30'31", in NE 1/4 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 mi².

PERIOD OF RECORD.--May 1955 to current year.

REVISED RECORDS.--WSP 1705: 1959. WSP 1725: 1956(M). WSP 2109: Drainage area.

GAGE.--Data-Collection Platform installed on May 13, 1988. 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.--33 years, 485 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,000 ft³/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, 2,060 ft³/s Feb. 13; minimum daily, 51 ft³/s many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	52	51	53	54	732	204	618	53	52	52	51
2	52	52	51	53	55	731	205	200	53	52	52	51
3	52	52	51	53	57	733	309	200	53	52	52	51
4	52	51	51	53	57	429	371	200	53	52	52	51
5	52	51	51	53	58	209	747	100	53	52	52	51
6	52	51	51	53	58	209	986	54	53	52	52	51
7	52	51	51	53	58	210	362	54	53	52	52	51
8	52	51	51	53	58	461	215	54	53	52	52	51
9	52	51	51	53	153	754	215	54	53	52	52	51
10	52	51	51	53	797	1100	216	54	53	52	52	51
11	52	51	51	53	1420	1390	216	54	53	52	52	51
12	52	51	51	53	1880	1380	216	54	53	52	52	51
13	52	51	51	53	2060	1380	216	54	53	52	52	51
14	52	51	51	53	2050	1380	216	54	53	52	51	51
15	52	51	51	53	2040	1380	661	54	53	52	51	51
16	52	51	51	53	2030	1370	1440	54	53	52	51	51
17	52	51	51	53	2030	1370	1610	54	53	52	51	51
18	52	51	51	53	2020	1360	1600	54	53	52	51	51
19	52	51	51	53	2020	1360	1600	54	53	52	51	51
20	52	51	51	53	2020	1020	1590	54	53	52	51	51
21	52	51	51	53	2020	728	1580	54	53	52	51	51
22	52	51	51	53	2010	726	1580	54	53	52	51	51
23	52	51	51	53	2010	320	1570	54	53	52	51	51
24	52	51	51	53	2000	66	1570	54	53	52	51	51
25	52	51	51	53	1990	66	1560	54	53	52	51	51
26	52	51	52	53	1980	66	1560	54	53	52	51	51
27	52	51	52	53	1970	67	1830	54	53	52	51	51
28	52	51	52	53	1710	135	1970	54	53	52	51	51
29	52	51	52	53	1040	204	1960	54	53	52	51	51
30	52	51	52	53	---	204	1490	54	52	52	51	51
31	52	---	53	53	---	204	---	54	---	52	51	---
TOTAL	1612	1533	1588	1643	37705	21744	29865	2722	1589	1612	1594	1530
MEAN	52.0	51.1	51.2	53.0	1300	701	995	87.8	53.0	52.0	51.4	51.0
MAX	52	52	53	53	2060	1390	1970	618	53	52	52	51
MIN	52	51	51	53	54	66	204	54	52	52	51	51
CAL YR 1987	TOTAL 64511	MEAN 177	MAX 1230	MIN 11								
WTR YR 1988	TOTAL 104737	MEAN 286	MAX 2060	MIN 51								

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 mi².

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.--Estimated daily discharges: Jan. 5-18. Records fair. Flow partially regulated by upstream reservoirs.

AVERAGE DISCHARGE.--74 years (1903-5, 1909-16, 1923 to current year), 5,420 ft³/s, 14.94 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 160,000 ft³/s Mar. 28, 1913, gage height, 42.2 ft, from rating curve extended above 100,000 ft³/s; minimum daily, 64 ft³/s Oct. 6, 1935, as a result of filling Williams Reservoir.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 3	1100	24,700	16.73	Apr. 12	1500	22,800	15.50
Feb. 7	2200	*29,700	*19.37				

Minimum daily discharge, 372 ft³/s Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	485	472	890	5900	5330	5480	4370	3960	1110	513	707	433
2	478	485	854	4930	19200	4610	4700	3040	1050	504	694	429
3	453	494	840	4160	24300	4780	4930	2330	1010	488	682	438
4	452	490	821	3660	21900	8800	5000	2190	959	483	654	446
5	448	475	804	3100	21800	11000	5330	2120	932	479	619	467
6	443	464	762	2300	25800	11000	6170	2040	914	474	608	466
7	438	475	724	1800	29200	12400	13200	1960	880	470	598	459
8	437	474	694	1500	29200	13100	16800	1910	864	466	637	450
9	434	476	706	1400	26800	12400	15000	1900	857	460	646	438
10	450	468	725	1380	22600	10800	17600	1870	816	452	646	445
11	482	451	745	1370	16800	8940	21000	1860	805	458	656	453
12	484	444	727	1370	11900	7840	22600	1840	783	466	673	473
13	487	450	715	1420	8540	7670	21500	1810	761	474	662	470
14	467	451	749	1440	7010	7720	17500	1790	749	473	605	461
15	456	453	841	1420	6720	7840	12400	1760	731	464	597	427
16	456	456	1120	1420	7560	7660	8610	1740	716	455	578	427
17	478	467	1270	1600	8270	6970	6940	1920	708	447	562	431
18	479	465	1060	1800	9030	6350	6240	1960	701	445	553	428
19	471	459	1140	2090	9180	5930	5830	1790	688	452	547	438
20	460	456	1600	3450	11500	5610	5490	1620	673	616	545	472
21	443	449	1710	5600	12500	5060	5260	1510	666	1580	557	467
22	429	453	1600	6140	12900	4430	5050	1400	658	2550	564	444
23	432	456	1470	6980	14000	4160	4850	1390	654	3090	599	434
24	445	465	1500	6740	14400	3660	4660	1340	636	3500	611	419
25	468	490	1920	5400	13000	3290	4790	1410	616	3170	585	413
26	474	539	3360	4020	10500	4140	4990	1370	596	2250	573	400
27	482	623	4480	3040	8740	5010	4710	1290	568	1630	558	392
28	465	714	4690	2400	7590	6180	4660	1260	550	1170	562	384
29	471	804	7530	2310	6640	6270	4640	1240	534	932	556	378
30	474	895	6950	2260	---	5500	4460	1210	528	820	521	372
31	469	---	6360	2180	---	4720	---	1170	---	756	442	---
TOTAL	14290	15213	59357	94580	422910	219320	269280	56000	22713	30987	18597	13054
MEAN	461	507	1915	3051	14580	7075	8976	1806	757	1000	600	435
MAX	487	895	7530	6980	29200	13100	22600	3960	1110	3500	707	473
MIN	429	444	694	1370	5330	3290	4370	1170	528	445	442	372
CFSM	.09	.10	.39	.62	2.96	1.44	1.82	.37	.15	.20	.12	.09
IN.	.11	.11	.45	.71	3.19	1.66	2.03	.42	.17	.23	.14	.10

CAL YR 1987 TOTAL 954874 MEAN 2616 MAX 13300 MIN 429 CFSM .53 IN. 7.21
WTR YR 1988 TOTAL 1236301 MEAN 3378 MAX 29200 MIN 372 CFSM .69 IN. 9.33

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 mi².

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.--Estimated daily discharges: Oct. 1 to Nov. 28, Jan. 1-17, and Sept. 23-30. Records poor.

AVERAGE DISCHARGE.--23 years, 360 ft³/s, 17.03 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,100 ft³/s May 1, 1983, gage height, 26.55 ft; minimum daily, 5.9 ft³/s Sept. 9, 11, 1988.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1964 reached a stage of 28.1 ft, from floodmarks, discharge, 14,500 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 2	2000	*6,530	*24.26

Minimum daily discharge, 5.9 ft³/s Sept. 9, 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	9.5	36	160	1200	189	270	82	27	12	24	6.7
2	14	9.4	24	120	4910	179	466	78	27	12	34	6.1
3	11	9.2	20	100	5620	514	463	74	25	12	28	7.8
4	10	9.2	17	80	3740	1310	415	73	24	11	19	9.0
5	9.0	9.1	14	62	2570	1050	361	71	22	11	19	13
6	8.6	9.0	13	50	1890	703	556	68	22	11	106	10
7	8.2	9.0	10	43	1310	546	1680	64	21	11	231	7.7
8	8.0	9.0	9.6	36	863	446	1640	61	21	10	142	6.3
9	8.4	9.2	12	32	644	369	1090	67	24	10	57	5.9
10	9.4	10	12	28	538	312	691	67	23	11	38	6.1
11	12	10	14	26	434	270	539	61	22	14	27	5.9
12	16	9.5	13	25	360	295	432	55	21	15	24	7.1
13	16	9.0	11	24	299	586	331	52	20	15	23	7.1
14	14	9.0	12	23	273	548	275	51	19	14	17	7.0
15	11	9.0	19	23	555	432	240	50	19	14	14	7.7
16	9.4	9.4	29	24	675	332	212	47	18	13	13	17
17	9.2	10	33	25	510	275	191	44	18	12	13	25
18	9.0	10	31	32	418	251	184	42	17	12	12	21
19	8.6	9.7	25	84	459	241	186	40	17	14	12	18
20	8.6	9.2	24	877	972	230	170	39	17	92	12	21
21	8.6	9.0	25	695	875	207	154	38	16	679	11	21
22	8.8	9.0	27	381	626	183	144	36	15	459	9.6	19
23	9.0	9.5	24	265	512	168	135	41	15	193	13	16
24	13	10	24	210	422	157	124	54	14	105	11	12
25	15	15	42	167	336	326	113	66	13	64	11	11
26	15	30	309	140	282	675	107	51	13	75	9.5	9.5
27	13	33	339	113	258	526	101	40	12	63	8.2	9.3
28	11	32	359	98	229	374	95	35	12	46	8.9	9.0
29	10	53	497	90	207	289	90	32	12	36	8.3	8.7
30	9.8	53	298	86	---	250	86	31	12	30	8.4	8.3
31	9.8	---	194	89	---	219	---	29	---	27	7.8	---
TOTAL	339.4	440.9	2516.6	4208	31987	12452	11541	1639	558	2103	971.7	339.2
MEAN	10.9	14.7	81.2	136	1103	402	385	52.9	18.6	67.8	31.3	11.3
MAX	16	53	497	877	5620	1310	1680	82	27	679	231	25
MIN	8.0	9.0	9.6	23	207	157	86	29	12	10	7.8	5.9
CFSM	.04	.05	.28	.47	3.84	1.40	1.34	.18	.06	.24	.11	.04
IN.	.04	.06	.33	.55	4.15	1.61	1.50	.21	.07	.27	.13	.04

CAL YR 1987 TOTAL 51032.9 MEAN 140 MAX 2380 MIN 8.0 CFSM .49 IN. 6.61
WTR YR 1988 TOTAL 69095.8 MEAN 189 MAX 5620 MIN 5.9 CFSM .66 IN. 8.96

LOCATION (Revised).--Lat 38°31'46", long 87°15'13", in NE1/4SW1/4 sec.12, T.1 N., R.8 W., Pike County, Hydrologic Unit 05120202, on left bank 200 ft upstream from intake structure of Indianapolis Power and Light Company's generating plant, 1.4 mi downstream from East Fork White River, 2.3 mi upstream from State Highway 61, 2.8 mi northeast of Petersburg, and at mile 48.1.

GAGE.--Water-stage recorder. Datum of gage is 401.52 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Discharges below 1,500 ft³/s only published. Estimated daily discharges: Oct. 1-28 and July 15-18. Records good except for estimated daily discharges, which are poor. For a complete record of White River in this vicinity, use records of White River at Petersburg, IN (sta. 03374000), 2.3 mi downstream.

[illegible]

03374000 WHITE RIVER AT PETERSBURG, IN

LOCATION.--Lat 38°30'39", long 87°17'22", in SE 1/4 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 mi².

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.--61 years, 11,779 ft³/s, 14.38 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 183,000 ft³/s Jan. 22, 1937, gage height, 28.3 ft present datum, 31.58 ft site and datum then in use; minimum daily, 573 ft³/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 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 57,700 ft³/s Feb. 8, gage height, 22.07 ft; minimum daily, 966 ft³/s Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1310	1300	2230	15100	12000	13400	15600	8530	2820	1330	2270	1130
2	1310	1300	2420	12700	29100	11700	18300	7980	2720	1290	2200	1120
3	1300	1300	2450	10800	38400	11600	19100	7120	2620	1260	1980	1110
4	1300	1280	2340	9470	45000	16700	19800	6280	2520	1230	1950	1120
5	1270	1250	2220	8240	50600	22100	19400	5800	2420	1210	2030	1120
6	1220	1220	2150	6860	53900	25600	18800	5500	2330	1180	2000	1100
7	1210	1190	2110	5570	55400	26600	22400	5260	2250	1140	1930	1090
8	1190	1170	2050	4160	57200	25600	28200	5010	2200	1110	1910	1120
9	1180	1160	1990	3870	53800	23200	32900	4910	2200	1090	1960	1140
10	1180	1160	1950	3780	45300	21300	35100	4760	2130	1080	1990	1110
11	1230	1160	1970	3780	39000	19500	38200	4590	2060	1090	1850	1080
12	1240	1150	2070	3870	30500	18100	42900	4460	2010	1150	1730	1060
13	1240	1150	2170	3840	21500	17600	47100	4360	1980	1160	1660	1060
14	1240	1140	2180	3800	16400	17100	47000	4240	1940	1110	1620	1040
15	1240	1140	2690	3840	14600	16600	39200	4120	1900	1090	1610	1020
16	1240	1140	3070	3870	14100	16000	27400	3990	1860	1070	1600	1030
17	1230	1120	4120	4240	14900	15200	19700	3850	1830	1100	1540	1360
18	1220	1120	5630	5060	15800	13700	16300	3830	1810	1100	1460	1270
19	1210	1120	5480	5850	16700	12400	14600	3890	1780	1090	1400	1110
20	1200	1120	5350	10900	19900	11500	13500	3730	1740	1290	1370	1080
21	1190	1120	5340	13700	22700	10900	12800	3530	1710	2020	1410	1080
22	1140	1110	5560	15800	24700	10200	12100	3380	1670	2310	1430	1090
23	1120	1110	5790	15100	25900	9490	11500	3380	1630	3880	1500	1090
24	1120	1110	5680	13700	26300	9020	11100	3530	1590	4900	1410	1100
25	1120	1130	6080	12500	25300	8700	11200	3530	1560	5320	1320	1120
26	1120	1200	8560	10600	22600	8940	11200	3440	1540	5620	1280	1070
27	1140	1270	11700	8820	19500	10200	11000	3400	1480	4690	1240	1030
28	1150	1540	14600	7520	17100	11300	10400	3260	1430	3660	1270	1010
29	1150	2020	16000	6650	15300	12200	9790	3120	1390	3030	1240	992
30	1150	2160	17500	6310	---	12400	9090	3030	1370	2590	1200	966
31	1230	---	17200	6170	---	13500	---	2920	---	2330	1150	---
TOTAL	37390	37460	170650	246470	843500	472350	645680	138730	58490	63520	50510	32818
MEAN	1206	1249	5505	7951	29090	15240	21520	4475	1950	2049	1629	1094
MAX	1310	2160	17500	15800	57200	26600	47100	8530	2820	5620	2270	1360
MIN	1120	1110	1950	3780	12000	8700	9090	2920	1370	1070	1150	966
CFSM	.11	.11	.49	.71	2.61	1.37	1.93	.40	.18	.18	.15	.10
IN.	.13	.13	.57	.82	2.82	1.58	2.16	.46	.20	.21	.17	.11

CAL YR 1987 TOTAL 2236270 MEAN 6127 MAX 26700 MIN 1110 CFSM .55 IN. 7.48
WTR YR 1988 TOTAL 2797568 MEAN 7644 MAX 57200 MIN 966 CFSM .69 IN. 9.35

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 mi².

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: Jan. 4-18, 26-28, and Feb. 4, 6-8, 11-13. Records good except for estimated daily discharges and daily discharges below 1.0 ft³/s, which are poor.

AVERAGE DISCHARGE.--20 years, 24.3 ft³/s, 25.78 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,270 ft³/s July 26, 1979, gage height, 11.35 ft; no flow for several days in 1971, 1972, 1975, 1983, 1984, 1987, and 1988.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 2	0030	1,200	6.86	Aug. 6	0545	*1,340	*7.17
July 20	1030	943	6.15				

Minimum daily discharge, no flow Oct. 1-9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.09	1.6	15	285	7.3	39	4.2	1.0	.09	1.1	1.1
2	.0	.09	1.1	10	587	7.8	45	3.9	1.0	.09	1.1	1.1
3	.0	.08	.92	7.7	116	119	36	3.6	.89	.09	1.1	.96
4	.0	.08	.75	5.0	74	89	33	3.7	.84	.09	1.1	.84
5	.0	.08	.57	4.0	47	43	25	3.7	.73	.09	2.1	.84
6	.00	.06	.45	3.2	26	30	137	3.3	.72	.09	268	.84
7	.00	.05	.43	3.1	16	22	156	3.0	.72	.09	21	.84
8	.00	.05	.47	3.0	13	18	57	2.9	.69	.09	8.6	.75
9	.00	.08	.60	2.6	12	16	37	4.2	1.2	.07	5.5	.72
10	.01	.09	.55	2.3	10	15	27	4.1	.78	.07	3.9	.72
11	.01	.07	.50	2.2	8.3	12	21	3.6	.72	.07	3.1	.70
12	.01	.07	.47	2.1	6.9	52	16	3.1	.63	.07	2.7	.56
13	.01	.06	.42	2.0	7.4	54	13	2.8	.43	.07	2.4	.43
14	.01	.06	.99	1.6	8.1	33	11	2.6	.43	.07	2.2	.43
15	.02	.06	8.9	1.5	71	24	9.5	2.4	.43	.07	2.1	.43
16	.02	.05	7.7	1.6	38	18	8.3	2.2	.40	.06	2.0	.50
17	.02	.06	4.3	2.0	25	15	7.7	1.9	.30	.06	1.9	.49
18	.02	.06	3.2	3.5	19	14	9.6	1.8	.30	.06	1.8	.43
19	.02	.08	2.8	150	38	15	12	1.7	.23	.11	1.8	.30
20	.02	.07	3.0	124	53	13	11	1.7	.19	195	1.7	.30
21	.02	.04	2.9	41	31	11	10	1.5	.20	21	1.7	.30
22	.03	.04	2.7	23	23	9.9	9.2	1.5	.14	6.0	1.7	.23
23	.03	.05	2.4	16	18	9.4	8.2	4.0	.12	3.6	2.0	.19
24	.03	.05	2.4	13	15	8.6	6.8	3.4	.10	2.3	1.7	.19
25	.03	.15	18	11	12	37	5.9	2.6	.10	2.2	1.6	.19
26	.03	1.1	77	7.4	11	41	5.7	2.0	.10	2.8	1.5	.19
27	.04	1.4	20	4.8	9.9	26	5.4	1.7	.10	1.8	1.3	.19
28	.05	4.0	58	3.6	8.3	19	5.1	1.5	.10	1.4	1.3	.19
29	.06	5.6	28	4.5	7.9	16	4.8	1.5	.10	1.2	1.3	.19
30	.08	2.4	14	5.5	---	13	4.5	1.3	.11	1.0	1.2	.19
31	.09	---	12	6.9	---	14	---	1.2	---	1.1	1.1	---
TOTAL	0.66	16.22	277.12	483.1	1596.8	822.0	776.7	82.6	13.80	240.90	351.6	15.33
MEAN	.021	.54	8.94	15.6	55.1	26.5	25.9	2.66	.46	7.77	11.3	.51
MAX	.09	5.6	77	150	587	119	156	4.2	1.2	195	268	1.1
MIN	.00	.04	.42	1.5	6.9	7.3	4.5	1.2	.10	.06	1.1	.19
CFSM	.00	.04	.70	1.22	4.30	2.07	2.02	.21	.04	.61	.89	.04
IN.	.00	.05	.81	1.40	4.64	2.39	2.26	.24	.04	.70	1.02	.04
CAL YR 1987	TOTAL 2847.07	MEAN 7.80	MAX 324	MIN .00	CFSM .61	IN. 8.27						
WTR YR 1988	TOTAL 4676.83	MEAN 12.8	MAX 587	MIN .00	CFSM 1.00	IN. 13.59						

03374500 PATOKA RIVER NEAR CUZCO, IN

LOCATION.--Lat 38°26'30", long 86°43'01", in SW1/4 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 mi².

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.--27 years, 218 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,700 ft³/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 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 817 ft³/s Feb. 13; minimum daily, 30 ft³/s Sept. 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	31	31	31	32	496	203	32	32	32	32	31
2	31	31	31	31	32	378	203	32	32	32	32	31
3	31	31	31	31	33	309	203	32	32	32	32	31
4	31	31	31	31	76	171	203	32	32	32	32	31
5	31	31	31	31	101	241	203	32	32	32	32	31
6	31	31	31	31	101	310	204	32	32	31	32	31
7	31	31	31	31	101	310	95	32	32	31	32	30
8	31	31	31	31	101	310	48	32	32	31	32	31
9	31	31	31	31	215	310	48	32	32	31	32	31
10	31	31	31	31	430	359	48	32	32	31	32	31
11	31	31	31	31	514	408	48	32	32	31	32	31
12	31	31	31	31	690	408	48	32	32	31	32	31
13	31	31	31	31	817	408	48	32	32	31	32	31
14	31	31	32	31	816	408	48	32	32	31	32	31
15	101	31	31	31	816	407	48	32	32	31	32	31
16	31	31	31	31	618	407	48	32	32	31	32	31
17	31	31	31	31	502	407	48	32	32	31	31	31
18	31	31	31	31	501	406	48	32	32	31	31	31
19	31	31	31	31	501	406	48	32	32	31	31	31
20	31	31	31	31	501	405	48	32	32	32	102	31
21	31	31	31	31	501	405	48	32	32	32	31	31
22	31	31	31	31	501	404	48	32	32	32	31	31
23	31	31	31	31	500	329	48	32	32	32	31	31
24	31	31	31	31	500	203	48	32	32	32	31	31
25	31	31	31	31	499	203	38	32	32	32	31	31
26	31	31	31	31	498	203	32	32	32	32	31	31
27	31	31	31	31	498	203	32	32	32	32	31	31
28	31	31	31	31	497	203	32	32	32	32	31	31
29	31	31	31	31	496	203	32	32	32	32	31	31
30	31	31	31	31	---	203	32	32	32	32	31	31
31	31	---	31	31	---	203	---	32	---	32	31	---
TOTAL	1031	930	962	961	11988	10026	2328	992	960	978	1048	929
MEAN	33.3	31.0	31.0	31.0	413	323	77.6	32.0	32.0	31.5	33.8	31.0
MAX	101	31	32	31	817	496	204	32	32	32	102	31
MIN	31	31	31	31	32	171	32	32	32	31	31	30

CAL YR 1987 TOTAL 33017 MEAN 90.5 MAX 399 MIN 19
WTR YR 1988 TOTAL 33133 MEAN 90.5 MAX 817 MIN 30

03375500 PATOKA RIVER AT JASPER, IN

LOCATION.--Lat 38°24'49", long 86°52'36", in NW¼ 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 mi².

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 ft³/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.--No estimated daily discharges. Records good. Flow regulated by Beaver Creek Reservoir beginning Oct. 11, 1955, and by Patoka Lake beginning Feb. 13, 1978.

AVERAGE DISCHARGE.--40 years (water years 1949 to current year), 360 ft³/s, 18.66 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,100 ft³/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 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,450 ft³/s Feb. 3, gage height, 15.18 ft; minimum daily, 26 ft³/s Oct. 22, Nov. 20, 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	28	36	123	933	683	343	64	52	47	48	45
2	30	27	34	104	1850	681	479	63	52	44	46	45
3	30	28	32	80	2360	732	440	62	52	42	46	48
4	30	28	31	69	1970	1050	389	62	51	42	47	50
5	31	28	31	66	1280	643	348	64	50	42	51	46
6	31	27	31	59	502	468	519	61	50	42	57	45
7	31	28	31	49	255	451	1080	59	50	43	51	45
8	31	29	31	49	220	419	626	59	50	43	46	44
9	31	29	33	48	197	406	280	66	52	46	46	44
10	33	28	35	46	307	401	203	65	50	45	46	45
11	36	27	43	45	403	435	170	60	49	47	46	45
12	34	27	43	46	403	498	145	59	49	49	45	45
13	31	27	42	47	788	604	129	59	49	48	45	45
14	30	27	43	45	965	554	119	64	49	47	45	45
15	30	28	50	43	1080	514	108	61	48	47	45	44
16	30	27	56	44	1130	494	101	58	48	46	45	95
17	29	28	51	48	976	480	97	56	48	46	45	283
18	29	28	46	56	800	477	105	57	49	49	45	78
19	29	27	46	153	850	478	120	56	48	61	45	50
20	29	26	48	698	1080	472	110	55	48	249	45	47
21	28	26	49	328	985	461	102	56	47	235	45	48
22	26	27	48	165	833	452	99	55	47	78	45	47
23	27	28	46	122	779	449	95	70	48	54	46	45
24	31	28	47	103	747	359	89	80	48	49	48	46
25	32	32	71	88	724	332	84	68	47	52	45	46
26	27	44	255	73	712	522	79	64	47	58	45	45
27	29	45	194	70	707	381	71	58	46	50	44	45
28	28	43	222	63	697	319	67	57	46	47	45	45
29	28	48	256	60	690	297	66	55	47	47	46	45
30	28	43	129	63	---	289	65	54	47	47	45	46
31	28	---	100	68	---	281	---	52	---	47	45	---
TOTAL	928	916	2210	3121	25223	15082	6728	1879	1464	1889	1434	1692
MEAN	29.9	30.5	71.3	101	870	487	224	60.6	48.8	60.9	46.3	56.4
MAX	36	48	256	698	2360	1050	1080	80	52	249	57	283
MIN	26	26	31	43	197	281	65	52	46	42	44	44
CFSM	.11	.12	.27	.38	3.32	1.86	.86	.23	.19	.23	.18	.22
IN.	.13	.13	.31	.44	3.58	2.14	.96	.27	.21	.27	.20	.24

CAL YR 1987 TOTAL 52529 MEAN 144 MAX 1400 MIN 26 CFSM .55 IN. 7.46
WTR YR 1988 TOTAL 62566 MEAN 171 MAX 2360 MIN 26 CFSM .65 IN. 8.88

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 mi².

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 to Dec. 24, Jan. 3-17, 26, 27, Feb. 5-10, 13, 14, Apr. 21 to July 18, and July 27 to Sept. 30. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--18 years, 32.6 ft³/s, 20.31 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,500 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1900	1,160	10.53	July 20	1100	1,160	10.52
Feb. 2	0300	*2,990	*11.88				

Minimum daily discharge, no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.40	18	590	5.9	32	1.1	.02	.00	1.0	.39
2	.00	.00	.10	9.5	1380	7.8	37	.95	.01	.00	.80	.37
3	.00	.00	.05	3.5	156	193	25	.85	.01	.00	.70	3.5
4	.00	.00	.02	2.0	140	84	15	1.0	.01	.00	.60	1.2
5	.00	.00	.00	1.3	30	37	12	.65	.00	.00	150	.70
6	.00	.00	.00	.90	17	23	214	.55	.00	.00	60	.55
7	.00	.00	.00	.80	11	16	113	.50	.00	.00	20	.50
8	.00	.00	.00	.77	7.0	12	40	.43	.00	.00	10	.45
9	.00	.00	.00	.72	5.0	12	23	.70	.02	.00	5.0	.40
10	.03	.00	.00	.69	5.5	9.5	15	.45	.01	.00	10	.37
11	.05	.00	.00	.66	6.9	7.7	10	.33	.01	.00	7.0	.34
12	.02	.00	.00	.85	12	34	7.8	.25	.00	.00	3.5	.32
13	.00	.00	.00	.86	8.0	25	7.4	.21	.00	.00	2.0	.30
14	.00	.00	.10	.84	20	15	6.9	.18	.00	.00	1.3	.29
15	.00	.00	4.8	.80	108	10	6.3	.16	.00	.00	1.0	.28
16	.00	.00	3.0	1.0	28	8.4	5.4	.14	.00	.00	.80	5.0
17	.00	.00	1.0	1.5	18	7.7	4.7	.12	.00	.00	.70	1.5
18	.00	.00	.50	5.4	15	8.0	6.8	.10	.00	.20	.62	.70
19	.00	.00	.30	239	109	7.9	7.2	.09	.00	26	.56	.60
20	.00	.00	1.0	108	61	7.5	5.8	.08	.00	509	.51	.55
21	.00	.00	.50	35	24	6.8	4.7	.07	.00	27	.48	.50
22	.00	.00	.30	20	18	6.2	4.0	.10	.00	4.8	.45	.47
23	.00	.00	.20	15	13	5.8	3.5	.40	.00	2.4	3.0	.45
24	.00	.10	.10	12	9.5	5.4	3.0	.80	.00	2.0	1.0	.43
25	.00	1.0	32	8.7	7.9	55	2.5	.35	.00	2.5	.65	.41
26	.00	.70	76	8.6	7.4	29	2.2	.10	.00	2.9	.58	.39
27	.00	.50	13	6.8	7.3	16	1.9	.06	.00	1.8	.53	.38
28	.00	1.5	88	5.6	7.0	11	1.7	.03	.00	1.4	1.0	.37
29	.00	6.0	21	5.6	6.5	9.4	1.4	.02	.00	1.1	.55	.36
30	.00	1.5	11	6.0	---	8.4	1.3	.02	.00	1.0	.45	.35
31	.00	---	17	29	---	9.5	---	.02	---	1.5	.42	---
TOTAL	0.10	11.30	270.37	549.39	2828.0	693.9	620.5	10.81	0.09	583.60	285.20	22.42
MEAN	.003	.38	8.72	17.7	97.5	22.4	20.7	.35	.003	18.8	9.20	.75
MAX	.05	6.0	88	239	1380	193	214	1.1	.02	509	150	5.0
MIN	.00	.00	.00	.66	5.0	5.4	1.3	.02	.00	.00	.42	.28
CFSM	.00	.02	.40	.81	4.47	1.03	.95	.02	.00	.86	.42	.03
IN.	.00	.02	.46	.94	4.83	1.18	1.06	.02	.00	1.00	.49	.04

CAL YR 1987 TOTAL 4247.82 MEAN 11.6 MAX 659 MIN .00 CFSM .53 IN. 7.25
WTR YR 1988 TOTAL 5875.68 MEAN 16.1 MAX 1380 MIN .00 CFSM .74 IN. 10.03

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 mi².

PERIOD OF RECORD.--October 1963 to September 1974, May 1986 to current 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.--Estimated daily discharges: Jan. 1-4, 6-17, and 27-31. Records good except for estimated daily discharges, which are fair. An average 0.13 ft³/s is diverted for municipal water supply 100 ft above gage.

AVERAGE DISCHARGE.--13 years, 639 ft³/s, 14.39 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,500 ft³/s Mar. 13, 1964, gage height, 28.84 ft; minimum daily, 0.5 ft³/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, 5,550 ft³/s Feb. 6, gage height, 24.36 ft; minimum daily, 25 ft³/s Oct. 19, 20, 22, 23, and 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	31	117	460	1410	827	681	102	64	46	61	59
2	46	31	78	350	3170	805	1110	99	63	47	68	58
3	35	31	63	265	3360	1190	1190	93	60	47	67	60
4	30	31	54	190	3650	1750	1060	91	55	47	72	65
5	29	31	46	175	4870	1710	834	90	55	45	60	81
6	28	30	45	156	5460	1690	1120	93	54	44	97	74
7	28	32	43	142	5090	1630	1740	91	53	43	313	63
8	27	34	43	116	4510	1410	1610	85	53	42	226	58
9	27	36	45	99	3750	1110	1560	88	55	44	118	58
10	32	37	47	88	2970	887	1420	94	51	44	78	58
11	40	37	53	80	2310	735	1070	107	56	44	68	58
12	48	37	50	76	1780	681	726	89	53	55	82	58
13	49	37	48	73	1340	849	510	76	50	127	74	59
14	35	36	51	71	1140	930	369	72	51	148	64	59
15	29	35	81	69	1400	852	285	71	52	82	61	59
16	27	35	129	74	1500	736	234	72	49	57	60	67
17	27	40	149	85	1530	655	201	69	48	52	59	202
18	26	39	109	155	1550	612	202	65	47	51	58	330
19	25	37	86	331	1580	603	230	60	47	61	58	243
20	25	33	81	1520	1690	596	241	59	47	242	58	135
21	26	31	77	1560	1660	571	213	58	46	682	59	74
22	25	31	82	1530	1650	542	191	61	45	833	60	62
23	25	32	79	1440	1610	521	176	120	44	527	60	58
24	26	34	76	1120	1500	508	161	110	43	229	61	57
25	25	40	104	732	1350	564	149	134	43	113	69	58
26	26	63	697	464	1190	822	140	131	42	112	66	61
27	31	114	1020	262	1060	907	132	96	42	154	61	61
28	32	164	1130	186	956	745	123	79	42	111	61	57
29	32	184	1180	152	883	577	112	70	46	77	59	55
30	37	182	956	146	---	495	105	65	46	65	63	55
31	32	---	639	158	---	474	---	66	---	60	63	---
TOTAL	976	1565	7458	12325	65919	26984	17895	2656	1502	4331	2484	2502
MEAN	31.5	52.2	241	398	2273	870	596	85.7	50.1	140	80.1	83.4
MAX	49	184	1180	1560	5460	1750	1740	134	64	833	313	330
MIN	25	30	43	69	883	474	105	58	42	42	58	55
CFSM	.05	.09	.40	.66	3.77	1.44	.99	.14	.08	.23	.13	.14
IN.	.06	.10	.46	.76	4.07	1.66	1.10	.16	.09	.27	.15	.15

CAL YR 1987 TOTAL 126415 MEAN 346 MAX 2360 MIN 24 CFSM .57 IN. 7.80
WTR YR 1988 TOTAL 146597 MEAN 401 MAX 5460 MIN 25 CFSM .66 IN. 9.04

03376500 PATOKA RIVER NEAR PRINCETON, IN

LOCATION.--Lat 38°23'25", long 87°32'55", in Location 107, T.1 S., R.10 W., Gibson County, Hydrologic Unit 05120209, on right downstream side of bridge on State Highway 65, 0.5 mi downstream from Indian Creek, 2 mi northeast of Princeton, and at mile 21.4.

DRAINAGE AREA.--822 mi².

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. Datum of gage is 390.00 ft above National Geodetic Vertical Datum of 1929. Jan. 21, 1941 to Oct. 23, 1986, water-stage recorder at dam 0.1 mi downstream and at datum 4.14 ft higher. See WSP 1725 for history of changes prior to Jan. 21, 1941.

REMARKS.--Estimated daily discharges: Jan. 6-18. Records good except for estimated daily discharges, which are fair. Flow regulated by Patoka Lake.

AVERAGE DISCHARGE.--54 years, 1,020 ft³/s, 16.85 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,700 ft³/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, 4,460 ft³/s Feb. 10, gage height, 18.95 ft; minimum daily, 38 ft³/s Oct. 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	50	210	1010	2070	1100	1210	147	96	56	86	61
2	54	47	133	790	2660	1050	1760	143	97	55	82	56
3	53	46	100	602	2630	1330	1730	136	79	57	86	55
4	46	48	87	427	2880	1570	1520	131	76	56	84	70
5	42	48	77	326	3150	1600	1290	128	74	55	121	71
6	41	46	69	270	3430	1650	1380	125	73	55	101	84
7	41	46	67	210	3760	1730	1630	124	71	51	225	73
8	42	51	66	170	4080	1760	1700	117	67	52	348	62
9	42	53	67	140	4320	1690	1860	126	75	48	202	55
10	45	53	73	125	4430	1500	1930	141	85	51	113	58
11	68	53	72	118	4390	1290	1910	136	75	53	92	56
12	69	55	75	109	4160	1140	1750	136	75	78	90	52
13	68	54	69	107	3870	1080	1370	112	72	98	92	51
14	66	54	67	105	3450	1070	968	99	69	183	78	52
15	54	54	212	104	3060	1060	642	96	69	147	68	54
16	47	53	209	106	2730	1020	423	96	71	87	63	60
17	43	51	195	120	2470	930	340	94	66	65	61	244
18	44	51	180	180	2230	844	330	91	64	59	60	335
19	43	50	135	672	2100	789	378	85	64	77	59	370
20	42	49	124	1700	2050	756	377	79	62	669	59	237
21	40	49	122	1730	2000	719	356	77	61	831	61	131
22	39	49	111	1760	1960	680	314	74	59	921	60	86
23	38	47	110	1770	1900	644	284	112	60	867	60	73
24	39	53	106	1750	1840	621	259	182	60	510	60	68
25	43	60	166	1620	1750	667	238	177	58	298	62	69
26	45	87	956	1280	1620	843	219	199	55	184	70	68
27	43	137	1220	865	1470	980	198	168	55	169	65	66
28	49	218	1590	477	1310	997	183	122	53	174	78	67
29	51	352	1570	384	1190	885	170	101	54	121	67	64
30	50	273	1480	380	---	783	156	91	56	94	62	60
31	52	---	1290	388	---	713	---	87	---	85	62	---
TOTAL	1491	2337	11008	19795	78960	33491	26875	3732	2051	6306	2877	2908
MEAN	48.1	77.9	355	639	2723	1080	896	120	68.4	203	92.8	96.9
MAX	69	352	1590	1770	4430	1760	1930	199	97	921	348	370
MIN	38	46	66	104	1190	621	156	74	53	48	59	51
CFSM	.05	.09	.40	.72	3.09	1.22	1.02	.14	.08	.23	.11	.11
IN.	.06	.10	.46	.83	3.33	1.41	1.13	.16	.09	.27	.12	.12

CAL YR 1987 TOTAL 166973 MEAN 457 MAX 2510 MIN 36 CFSM .52 IN. 7.04
WTR YR 1988 TOTAL 191831 MEAN 524 MAX 4430 MIN 38 CFSM .59 IN. 8.09

03377500 WABASH RIVER AT MOUNT CARMEL, IL

LOCATION.--Lat 38°24'07", long 87°45'10", in SE1/4 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 mi².

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 1N-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: Feb. 11-15 and Apr. 19-22. Records good. Flow partially regulated by upstream reservoirs.

AVERAGE DISCHARGE.--61 years, 27,497 ft³/s, 13.03 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 305,000 ft³/s May 25, 1943; maximum gage height, 30.62 ft Feb. 5, 6, 1969, present datum; minimum daily discharge, 1,650 ft³/s Sept. 27, 28, 1941.

EXTREMES OUTSIDE THE PERIOD OF RECORD.--(1874-78, 1884 to 1985) Maximum discharge, 428,000 ft³/s Mar. 30, 1913, from rating curve extended above 310,000 ft³/s, gage height, 33.0 ft, present site and datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 96,900 ft³/s Feb. 7, gage height, 22.73 ft; minimum daily, 2,990 ft³/s Sept. 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4500	4790	11800	54900	26700	39400	52600	19300	7240	3840	4590	3050
2	4720	4860	13400	52600	54400	34500	59300	18200	6930	3780	4500	3080
3	5080	4920	14900	49800	68100	32400	61500	17100	6530	3720	4330	3100
4	5210	4910	15200	45000	77100	41500	62000	15900	6250	3690	4180	3080
5	5180	4860	14400	37300	86600	50800	61500	14700	6090	3700	4130	3010
6	5030	4760	13300	28400	94200	54200	59600	13900	5940	3720	4250	2990
7	4900	4730	12000	23000	96600	54500	59300	13200	5740	3680	4210	3040
8	4800	4680	10900	19300	95800	53900	61600	12700	5630	3600	4430	3120
9	4780	4580	10200	15700	88400	50800	64900	12600	5480	3530	4330	3110
10	4690	4460	9860	14700	79600	46700	67300	12200	5380	3510	4190	3130
11	4730	4470	11600	14700	70600	44800	68700	11800	5250	3480	4040	3110
12	4720	4470	14500	14500	61500	44000	70300	11500	5050	3580	3890	3130
13	4680	4520	15800	13600	52000	43700	72900	11200	4970	3590	3830	3110
14	4710	4600	15800	13300	44200	43500	76800	10700	4890	3610	3730	3170
15	4610	4560	16000	13300	36600	42700	78800	10300	4780	3700	3710	3230
16	4600	4500	16700	12900	32000	40800	76300	9880	4720	3790	3650	3250
17	4520	4620	20000	13100	31800	37900	67000	9440	4680	3900	3640	3280
18	4480	4570	25700	15800	34800	34200	52800	9060	4590	3700	3560	3500
19	4460	4490	30000	20700	37700	30500	42200	9000	4530	3610	3400	3590
20	4470	4560	32000	30700	44200	28000	35900	8890	4480	4500	3320	3390
21	4480	4670	33300	40500	52300	26300	32200	8600	4430	5260	3440	3230
22	4450	4670	34900	45700	57700	25000	29900	8240	4360	6070	3350	3330
23	4440	4630	36400	49100	60700	23800	27900	8070	4340	6420	3340	3350
24	4540	4480	37200	49700	61200	22600	26400	8150	4280	6850	3350	3280
25	4540	4580	38200	46500	59100	21700	25400	8480	4260	7460	3310	3370
26	4580	4580	41600	38900	56100	22300	24800	8640	4200	8190	3230	3520
27	4650	4830	46300	30500	52700	24500	24000	8490	4060	8330	3220	3510
28	4660	5820	50900	24400	49000	27300	22900	8460	4060	7430	3240	3430
29	4690	7780	54000	20500	44600	31900	21500	8100	4000	5790	3200	3340
30	4650	10200	55000	18200	---	39300	20400	7750	3900	5050	3120	3290
31	4710	---	55800	17500	---	46200	---	7470	---	4630	3080	---
TOTAL	145260	149150	807660	884800	1706300	1159700	1506700	342020	151040	145710	115790	97120
MEAN	4686	4972	26050	28540	58840	37410	50220	11030	5035	4700	3735	3237
MAX	5210	10200	55800	54900	96600	54500	78800	19300	7240	8330	4590	3590
MIN	4440	4460	9860	12900	26700	21700	20400	7470	3900	3480	3080	2990
CFSM	.16	.17	.91	1.00	2.05	1.31	1.75	.39	.18	.16	.13	.11
IN.	.19	.19	1.05	1.15	2.22	1.51	1.96	.44	.20	.19	.15	.13

CAL YR 1987 TOTAL 5647320 MEAN 15470 MAX 55800 MIN 4360 CFSM .54 IN. 7.34
WTR YR 1988 TOTAL 7211250 MEAN 19700 MAX 96600 MIN 2990 CFSM .69 IN. 9.37

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: Jan. 3-13, 23-31, and Feb. 7-9, 11-15. Records fair.

AVERAGE DISCHARGE.--23 years, 113 ft³/s, 14.76 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 (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	2130	2,790	17.07	July 20	0715	*4,810	*18.14
Feb. 2	0915	4,630	18.04				

Minimum daily discharge, no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.12	1.7	57	892	20	141	4.9	1.0	.03	1.3	.00
2	.04	.97	.84	31	3710	27	126	4.8	.89	.02	.94	.00
3	.01	.55	.63	20	946	449	81	4.5	.88	.0	.68	.00
4	.00	.38	.54	15	486	264	56	5.1	.79	.00	.53	.01
5	.00	.33	.46	11	166	107	44	4.6	.69	.00	.46	.00
6	.00	.33	.39	8.0	83	86	173	4.0	.68	.00	.39	.00
7	.00	.26	.43	6.3	48	71	165	3.6	.73	.00	.31	.00
8	.00	.21	.43	5.6	41	61	67	3.7	.62	.00	.25	.00
9	.00	.18	.48	5.0	37	57	49	7.1	3.5	.00	.20	.00
10	.01	.12	.49	4.5	35	47	40	5.1	2.2	.00	.16	.00
11	.17	.10	.50	5.0	33	39	35	3.1	.95	.00	.13	.00
12	.08	.10	.41	6.4	32	49	27	2.6	.74	1.1	.08	.00
13	.06	.10	.35	5.2	31	47	21	2.6	.59	2.7	.03	.00
14	.04	.10	.66	4.2	29	35	18	2.5	.45	.87	.00	.00
15	.03	.10	179	4.6	36	29	15	2.3	.33	.46	.00	.00
16	.01	.10	25	5.4	50	24	13	2.1	.31	.24	.00	.00
17	.02	.22	5.2	66	45	23	14	1.8	.25	.10	.00	5.0
18	.01	.15	2.7	79	57	27	29	1.6	.12	.06	.00	6.9
19	.00	.15	2.5	723	156	27	21	1.6	.07	165	.00	3.5
20	.00	.26	6.1	1040	179	24	14	1.6	.06	2810	.00	1.5
21	.00	.30	6.5	157	79	20	13	1.6	.03	378	.00	.55
22	.00	.40	4.0	96	69	17	12	1.7	.01	15	.00	.34
23	.0	.42	2.7	62	54	17	11	3.7	.00	5.1	.00	.25
24	.02	.40	2.7	41	41	15	7.8	4.5	1.2	2.6	.00	.38
25	.02	.85	126	30	36	23	7.4	3.0	.83	481	.00	.39
26	.03	1.3	640	18	33	24	8.2	2.0	.45	872	.00	.23
27	.09	1.7	74	13	33	16	7.3	1.5	.18	24	.00	.14
28	.09	22	311	14	26	14	5.6	1.4	.06	7.0	.00	.15
29	.08	33	97	16	24	20	5.4	1.4	.04	3.2	.00	.15
30	.08	5.0	47	20	---	43	5.1	1.2	.06	2.4	.00	.15
31	.07	---	43	26	---	46	---	1.1	---	1.9	.00	---
TOTAL	1.03	70.20	1582.71	2595.2	7487	1768	1231.8	92.3	18.71	4772.78	5.46	19.64
MEAN	.033	2.34	51.1	83.7	258	57.0	41.1	2.98	.62	154	.18	.65
MAX	.17	33	640	1040	3710	449	173	7.1	3.5	2810	1.3	6.9
MIN	.00	.10	.35	4.2	24	14	5.1	1.1	.00	.00	.00	.00
CFSM	.00	.02	.49	.80	2.48	.55	.39	.03	.01	1.48	.00	.01
IN.	.00	.03	.57	.93	2.68	.63	.44	.03	.01	1.71	.00	.01

CAL YR 1987 TOTAL 12981.89 MEAN 35.6 MAX 1420 MIN .00 CFSM .34 IN. 4.64
WTR YR 1988 TOTAL 19644.83 MEAN 53.7 MAX 3710 MIN .00 CFSM .52 IN. 7.03

04093000 DEEP RIVER AT LAKE GEORGE OUTLET AT HOBART, IN

LOCATION.--Lat 41°32'10", long 87°15'25", in NW1/4 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 mi².

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: Oct. 1 to Nov. 17, July 1-5, July 13 to Aug. 14, and Sept. 5-30. Records good except for estimated daily discharges, which are poor. Low flows subject to regulation by operation of Lake George dam.

AVERAGE DISCHARGE.--41 years, 109 ft³/s, 11.94 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,000 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 21	1700	928	9.39	Mar. 31	0800	792	8.86
Jan. 21	0200	827	9.00	Apr. 7	1800	*944	*9.45

Minimum daily discharge, 3.9 ft³/s June 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	39	112	158	329	113	574	55	31	23	17	20
2	23	39	124	118	326	111	380	52	29	17	9.5	17
3	34	39	105	110	245	111	311	49	26	12	9.5	17
4	42	37	110	100	183	104	348	47	26	9.3	17	23
5	34	34	112	75	137	97	311	46	24	8.9	15	27
6	27	31	95	63	106	91	464	44	21	8.6	12	18
7	23	31	95	56	96	86	892	42	19	8.3	9.5	16
8	20	31	191	49	71	87	768	41	18	8.4	9.5	18
9	23	27	278	45	71	92	472	45	16	8.1	145	23
10	31	27	263	41	71	97	290	42	17	7.3	130	17
11	37	31	204	36	68	94	189	41	17	6.3	100	13
12	37	27	167	36	63	96	136	40	16	6.1	64	12
13	31	23	135	39	60	89	139	36	14	7.0	39	11
14	27	23	113	35	60	85	128	37	13	6.0	23	10
15	23	23	153	32	89	80	115	36	12	5.0	14	10
16	23	23	295	34	136	77	103	33	10	4.2	13	10
17	37	42	295	83	135	74	93	32	11	4.2	12	9.9
18	39	35	214	278	131	73	84	32	12	7.0	13	9.9
19	37	33	164	418	158	72	80	30	12	20	21	24
20	49	28	423	692	179	66	76	30	12	20	17	48
21	49	26	881	752	151	66	73	29	17	15	14	38
22	46	26	729	450	140	65	69	28	15	9.5	12	26
23	39	29	449	258	240	66	73	45	7.9	7.0	14	18
24	44	24	307	179	236	78	68	115	9.0	7.0	14	15
25	64	47	256	143	160	140	65	125	9.9	7.0	15	15
26	64	72	223	108	138	155	61	82	3.9	6.0	14	13
27	56	67	187	83	136	129	67	60	5.5	7.0	28	13
28	51	60	178	73	135	131	66	48	9.1	6.0	56	9.9
29	49	88	208	78	128	285	63	42	28	6.0	50	11
30	46	101	217	108	---	617	59	37	30	32	38	13
31	39	---	195	188	---	776	---	33	---	34	27	---
TOTAL	1168	1163	7478	4918	4178	4303	6617	1454	491.3	333.2	972.0	525.7
MEAN	37.7	38.8	241	159	144	139	221	46.9	16.4	10.7	31.4	17.5
MAX	64	101	881	752	329	776	892	125	31	34	145	48
MIN	20	23	95	32	60	65	59	28	3.9	4.2	9.5	9.9
CFSM	.30	.31	1.95	1.28	1.16	1.12	1.78	.38	.13	.09	.25	.14
IN.	.35	.35	2.24	1.48	1.25	1.29	1.99	.44	.15	.10	.29	.16

CAL YR 1987 TOTAL 35723 MEAN 97.9 MAX 1270 MIN 13 CFSM .79 IN. 10.72
WTR YR 1988 TOTAL 33601.2 MEAN 91.8 MAX 892 MIN 3.9 CFSM .74 IN. 10.08

04093200 LITTLE CALUMET RIVER AT GARY, IN

LOCATION.--Lat 41°34'19", long 87°19'13", in NE 1/4 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 mi², 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, 5.71 ft, July 17, 18, 28-30, 1988. Minimum gage height was not published 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, 9.60 ft, Apr. 9; minimum gage height, 5.71 ft, July 17, 18, 28-30.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.80	6.49	7.92	8.18	8.47	7.81	9.19	6.86	6.31	6.06	6.39	5.89
2	6.94	6.59	7.83	7.95	8.53	7.67	9.17	6.81	6.24	5.95	6.12	5.87
3	6.82	6.55	7.78	7.69	8.42	7.54	9.07	6.77	6.26	5.85	5.93	6.63
4	6.75	6.54	7.77	7.23	8.12	7.35	8.98	6.74	6.13	5.79	5.84	6.29
5	6.76	6.48	7.72	7.13	7.82	7.27	8.94	6.69	6.05	5.75	5.86	6.06
6	6.73	6.50	7.56	6.91	7.62	7.22	9.15	6.64	6.03	5.77	5.82	6.25
7	6.73	6.43	7.84	6.60	7.52	7.16	9.37	6.58	6.01	5.76	5.78	6.07
8	6.74	6.41	8.13	6.76	7.30	7.18	9.57	6.51	5.97	5.76	5.98	5.95
9	6.88	6.41	8.40	6.47	7.12	7.29	9.60	6.59	5.93	5.75	7.98	5.91
10	6.81	6.40	8.48	6.32	6.80	7.29	9.47	6.61	5.92	5.75	8.01	5.91
11	6.81	6.46	8.49	6.40	6.80	7.25	9.29	6.53	5.90	5.74	7.69	5.89
12	6.74	6.40	8.39	6.44	6.78	7.32	9.03	6.51	5.90	5.74	7.22	5.88
13	6.69	6.68	8.14	6.47	6.74	7.30	8.72	6.50	5.87	5.74	6.98	5.86
14	6.60	6.49	7.89	6.35	7.55	7.25	8.38	6.45	5.83	5.73	6.81	5.86
15	6.52	6.39	8.10	6.30	7.54	7.16	8.04	6.46	5.81	5.73	6.68	5.86
16	6.47	6.46	8.21	6.63	7.62	7.10	7.76	6.48	5.79	5.72	6.46	5.86
17	6.61	6.49	8.25	7.78	7.75	7.05	7.62	6.43	5.78	5.71	6.26	5.86
18	6.58	6.55	8.13	8.06	7.84	7.04	7.44	6.14	5.77	6.22	6.14	6.63
19	6.58	6.41	8.08	8.52	7.92	7.00	7.29	6.08	5.74	5.92	6.05	6.98
20	6.75	6.40	8.65	8.76	7.99	6.95	7.15	6.07	6.01	5.84	5.99	6.29
21	6.84	6.34	8.95	8.98	7.89	6.85	7.15	6.06	6.54	5.87	5.94	6.04
22	6.68	6.32	9.24	9.04	7.95	6.79	6.98	6.05	6.22	5.89	5.93	6.01
23	6.63	6.36	9.31	8.85	8.00	6.83	7.08	7.88	6.33	5.79	5.92	5.98
24	6.74	6.43	9.25	8.57	7.96	7.14	6.99	8.16	6.12	5.75	5.93	5.97
25	6.75	6.87	9.13	8.02	7.73	7.46	7.16	7.89	6.09	5.74	5.92	5.96
26	6.80	6.93	9.03	7.72	7.62	7.50	6.96	7.39	6.05	5.73	5.92	5.94
27	6.77	6.90	8.86	7.27	7.74	7.36	7.12	7.04	5.96	5.72	7.23	5.93
28	6.65	7.19	8.72	7.09	7.69	7.92	7.06	6.78	6.31	5.71	6.45	5.92
29	6.66	7.64	8.61	7.27	7.59	8.45	6.97	6.63	6.18	5.71	6.18	5.91
30	6.56	7.84	8.52	7.83	---	8.81	6.91	6.52	6.15	6.76	6.00	5.91
31	6.49	---	8.45	8.27	---	9.08	---	6.39	---	6.58	5.92	---
MEAN	6.71	6.61	8.38	7.48	7.67	7.40	8.12	6.69	6.04	5.86	6.37	6.05
MAX	6.94	7.84	9.31	9.04	8.53	9.08	9.60	8.16	6.54	6.76	8.01	6.98
MIN	6.47	6.32	7.56	6.30	6.74	6.79	6.91	6.05	5.74	5.71	5.78	5.86

WTR YR 1988 MEAN 6.95 MAX 9.60 MIN 5.71

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.--Estimated daily discharges: Oct. 1-3, 6-11, 15-17, 27, 31, Nov. 1, 2, 5, 8-10, 13-15, 19-21, Jan. 1-16, 25-29, Feb. 5-14, Apr. 11-16, May 16-22, June 2-4, 7-10, 16-18, 26, 27, July 4-7, 15-18, 22-26, and Sept. 11-16. Records fair except estimated daily discharges, which are 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.--29 years (1943-50, 1955-73, 1977, 1978, 1982, 1988), 139 ft³/s, 11.80 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, 1,040 ft³/s Jan. 21, gage height, 962 ft; minimum daily 7.3 ft³/s July 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	64	175	220	425	143	732	73	31	26	22	18
2	39	63	160	170	453	152	548	73	28	18	15	16
3	55	61	150	160	367	147	443	73	26	16	10	16
4	67	62	159	140	285	134	443	62	24	13	12	39
5	62	57	141	110	220	116	422	54	23	12	13	42
6	44	54	124	90	170	103	548	55	22	11	11	19
7	38	48	121	80	140	102	848	56	21	10	11	19
8	34	46	206	70	110	101	936	53	20	10	12	21
9	39	45	311	64	105	110	742	54	20	10	241	31
10	50	46	323	58	105	112	545	59	20	11	142	27
11	60	54	268	54	98	112	330	56	19	11	97	17
12	66	46	228	54	92	114	210	56	18	14	59	15
13	56	39	188	56	88	119	160	54	18	9.7	36	14
14	47	38	157	52	90	106	160	48	17	10	26	14
15	38	38	230	47	178	99	140	47	17	8.4	21	13
16	38	53	357	50	225	90	130	42	16	8.0	18	13
17	54	56	355	144	228	84	120	41	16	7.8	15	13
18	55	57	264	432	217	82	104	40	15	10	26	15
19	71	48	207	625	246	80	91	39	15	21	25	23
20	80	45	439	890	289	85	87	38	15	20	20	38
21	91	44	808	1000	240	73	84	37	20	20	16	37
22	70	44	871	752	205	70	88	36	29	14	12	28
23	80	47	668	462	293	72	104	81	29	11	14	24
24	90	50	491	323	300	85	82	176	19	10	14	21
25	86	100	423	250	232	139	71	171	16	10	14	19
26	80	107	372	160	167	172	77	99	14	10	14	17
27	78	99	318	120	166	155	99	68	12	9.7	18	16
28	77	104	313	110	154	159	92	54	19	9.1	46	16
29	74	120	336	120	145	304	76	47	32	7.3	37	15
30	65	141	318	156	---	585	74	40	33	36	26	15
31	65	---	282	261	---	779	---	35	---	32	20	---
TOTAL	1889	1876	9763	7280	6033	4784	8586	1917	624	426.0	1063	631
MEAN	60.9	62.5	315	235	208	154	286	61.8	20.8	13.7	34.3	21.0
MAX	91	141	871	1000	453	779	936	176	33	36	241	42
MIN	34	38	121	47	88	70	71	35	12	7.3	10	13
CFSM	.38	.39	1.97	1.47	1.30	.96	1.79	.39	.13	.09	.21	.13
IN.	.44	.44	2.27	1.69	1.40	1.11	2.00	.45	.15	.10	.25	.15

CAL YR 1987 TOTAL 248029663 MEAN 679500 MAX 1000000 MIN 34 CFSM 4250 IN. 57666.89
WTR YR 1988 TOTAL 44872.0 MEAN 123 MAX 1000 MIN 7.3 CFSM .77 IN. 10.43

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 mi².

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.

REMARKS.--Estimated daily discharges: Jan. 2-13, 26-28, and Feb. 5-14. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--43 years, 74.2 ft³/s, 15.22 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,110 ft³/s Oct. 10, 1954, gage height, 11.66 ft; minimum daily, 17 ft³/s Aug. 24, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 7	0500	*883	*8.05

Minimum daily discharge, 20 ft³/s July 28, 29 and Aug. 2-8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	58	155	87	257	97	212	57	39	25	21	21
2	41	64	237	78	214	98	154	54	37	24	20	21
3	54	66	166	67	158	90	168	50	36	23	20	22
4	74	62	155	58	114	74	274	48	35	23	20	38
5	55	57	121	52	88	66	200	46	34	22	20	32
6	46	52	94	52	78	64	350	45	34	22	20	27
7	76	50	93	54	72	65	714	44	31	22	20	24
8	133	52	175	52	69	70	320	43	31	21	20	23
9	92	53	195	50	66	78	206	44	31	21	142	22
10	86	51	170	48	64	71	155	45	31	21	74	22
11	85	48	120	50	62	65	126	44	30	22	44	21
12	78	48	102	50	60	64	105	42	30	22	32	21
13	64	48	85	52	60	67	93	41	30	21	27	23
14	57	47	74	52	76	63	85	40	29	21	25	23
15	52	45	138	52	94	61	79	40	28	21	24	22
16	48	44	280	53	99	60	75	40	27	21	22	21
17	60	46	203	111	88	65	70	38	27	21	22	21
18	65	46	128	249	88	67	67	37	27	23	22	21
19	59	44	103	233	105	71	64	36	27	27	32	25
20	97	43	299	425	99	68	63	35	27	24	29	33
21	121	42	485	322	82	63	65	35	29	23	25	27
22	90	42	254	169	88	61	64	34	26	22	23	26
23	76	43	175	115	195	61	65	50	23	22	23	26
24	81	43	138	92	137	79	62	167	23	21	23	24
25	111	63	125	78	90	118	60	136	23	21	22	23
26	87	97	107	66	77	108	58	83	22	22	21	23
27	78	76	92	62	94	83	69	65	22	21	22	22
28	74	69	95	62	90	92	79	55	22	20	34	22
29	69	82	116	65	95	231	69	49	26	20	25	23
30	64	81	110	116	---	366	62	44	28	24	23	23
31	60	---	102	201	---	372	---	41	---	24	22	---
TOTAL	2278	1662	4892	3273	2959	3058	4233	1628	865	687	919	722
MEAN	73.5	55.4	158	106	102	98.6	141	52.5	28.8	22.2	29.6	24.1
MAX	133	97	485	425	257	372	714	167	39	27	142	38
MIN	41	42	74	48	60	60	58	34	22	20	20	21
CFSM	1.11	.84	2.38	1.59	1.54	1.49	2.13	.79	.44	.33	.45	.36
IN.	1.28	.93	2.75	1.84	1.66	1.72	2.38	.91	.49	.39	.52	.41

CAL YR 1987 TOTAL 25417 MEAN 69.6 MAX 485 MIN 29 CFSM 1.05 IN. 14.28
WTR YR 1988 TOTAL 27176 MEAN 74.3 MAX 714 MIN 20 CFSM 1.12 IN. 15.27

04094500 SALT CREEK NEAR MCCOOL, IN

LOCATION.--Lat 41°35'48", long 87°08'40", in SE 1/4 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 mi².

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: Jan. 3, 4, 6, 12-15, 27, 28, Feb. 6-12, 14-17, and July 2-5. Records poor.

AVERAGE DISCHARGE.--43 years, 75.3 ft³/s, 13.71 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,180 ft³/s Oct. 11, 1954, gage height, 14.12 ft; minimum daily, 10 ft³/s Aug. 26, 1988.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 7	0400	*815	*6.03

Minimum daily discharge, 10 ft³/s, Aug. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	39	132	72	189	77	172	53	27	35	23	17
2	46	41	161	65	143	78	114	50	26	28	22	17
3	55	42	99	56	106	74	173	49	27	25	20	19
4	52	40	96	49	88	66	311	47	26	22	29	37
5	43	37	80	44	75	61	159	46	27	21	29	32
6	40	36	69	44	68	59	379	46	28	24	24	29
7	43	36	77	44	62	59	726	44	28	22	21	19
8	57	36	158	43	58	63	437	42	28	20	24	16
9	58	38	159	42	55	70	194	43	26	19	191	14
10	60	38	116	40	54	68	132	43	25	18	124	15
11	59	36	88	41	52	64	114	41	25	24	92	14
12	54	36	81	43	51	65	101	40	24	22	65	15
13	48	35	69	45	50	66	89	38	23	20	54	21
14	45	36	63	47	51	62	79	38	22	19	48	17
15	43	35	152	50	55	61	70	37	22	18	46	15
16	42	35	281	54	62	60	63	38	22	18	38	14
17	51	38	148	79	71	58	59	36	22	18	25	14
18	51	39	94	249	78	58	55	34	23	24	18	14
19	47	36	82	271	90	58	52	33	25	30	54	21
20	63	35	343	465	86	57	51	32	23	23	39	48
21	70	33	478	439	71	56	54	31	23	21	23	34
22	61	33	249	171	86	56	52	29	23	20	13	25
23	54	34	123	106	183	56	57	60	22	20	14	22
24	62	35	101	87	110	77	51	150	20	19	14	19
25	80	56	97	76	83	117	47	101	20	19	11	17
26	63	68	85	61	72	102	47	59	19	20	10	17
27	55	50	77	56	82	80	65	41	23	18	20	17
28	50	49	85	54	77	91	82	34	24	17	56	16
29	45	69	109	61	80	219	67	31	40	16	28	17
30	41	61	97	96	---	361	59	28	55	41	22	19
31	38	---	87	148	---	384	---	28	---	33	19	---
TOTAL	1622	1232	4136	3198	2388	2883	4111	1422	768	694	1216	611
MEAN	52.3	41.1	133	103	82.3	93.0	137	45.9	25.6	22.4	39.2	20.4
MAX	80	69	478	465	189	384	726	150	55	41	191	48
MIN	38	33	63	40	50	56	47	28	19	16	10	14
CFSM	.70	.55	1.79	1.38	1.10	1.25	1.84	.61	.34	.30	.53	.27
IN.	.81	.61	2.06	1.59	1.19	1.44	2.05	.71	.38	.35	.61	.30

CAL YR 1987 TOTAL 24151 MEAN 66.2 MAX 489 MIN 27 CFSM .89 IN. 12.04
WTR YR 1988 TOTAL 24281 MEAN 66.3 MAX 726 MIN 10 CFSM .89 IN. 12.11

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 mi².

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: Jan. 2, 3, 5-13, 27, 28, Feb. 5-7, and Apr. 29 to May 23. Records good.

AVERAGE DISCHARGE.--19 years, 72.8 ft³/s, 18.27 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,430 ft³/s July 15, 1986, gage height, 11.88 ft; minimum daily, 20 ft³/s Aug. 1, 1977.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 20	1400	576	7.29	Apr. 6	2300	*660	*8.00
Mar. 30	1100	533	6.93				

Minimum daily discharge, 26 ft³/s Aug. 3, 5, 7, Sept. 2, 11, 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	60	135	70	185	85	125	61	43	36	28	27
2	47	62	105	64	159	84	104	57	42	34	27	26
3	108	62	73	64	109	78	166	56	42	34	26	30
4	77	59	89	61	91	70	200	55	41	33	27	39
5	59	57	71	53	78	66	118	53	40	32	26	33
6	57	55	60	56	70	66	403	52	40	31	27	31
7	99	56	72	58	72	67	405	52	40	31	26	30
8	80	58	130	58	71	69	171	51	39	31	33	28
9	66	58	126	57	68	71	116	55	39	30	144	27
10	62	56	88	54	66	68	97	55	39	33	48	27
11	66	56	68	55	66	65	86	53	39	33	40	26
12	61	56	66	56	66	66	80	51	40	30	33	28
13	57	56	56	55	66	67	75	48	39	30	30	28
14	55	56	51	54	69	66	74	47	38	30	29	27
15	55	55	207	54	112	66	71	49	39	29	29	27
16	53	56	218	58	101	67	69	52	41	31	29	27
17	60	56	101	132	87	70	68	50	39	31	28	27
18	57	56	70	239	88	70	68	47	38	39	34	26
19	56	56	70	169	97	68	65	46	37	37	49	34
20	96	54	439	295	89	67	66	45	58	32	35	37
21	77	54	261	153	76	64	70	44	42	34	31	31
22	66	54	134	99	100	62	66	44	38	34	30	31
23	63	56	100	84	168	62	67	60	37	31	30	31
24	69	57	92	78	100	74	64	178	36	30	29	29
25	70	82	88	72	78	94	62	74	35	30	28	28
26	63	80	80	63	72	80	62	59	34	29	27	28
27	63	64	74	62	88	69	86	53	35	28	30	28
28	63	64	78	66	83	102	94	49	36	27	37	28
29	61	72	87	70	87	180	74	47	49	27	30	28
30	60	71	80	147	---	444	65	46	38	34	28	28
31	60	---	79	212	---	221	---	43	---	29	27	---
TOTAL	2034	1794	3448	2868	2662	2848	3337	1732	1193	980	1075	875
MEAN	65.6	59.8	111	92.5	91.8	91.9	111	55.9	39.8	31.6	34.7	29.2
MAX	108	82	439	295	185	444	405	178	58	39	144	39
MIN	47	54	51	53	66	62	62	43	34	27	26	26
CFSM	1.21	1.11	2.06	1.71	1.70	1.70	2.06	1.03	.74	.58	.64	.54
IN.	1.40	1.23	2.37	1.97	1.83	1.96	2.29	1.19	.82	.67	.74	.60

CAL YR 1987	TOTAL 22826	MEAN 62.5	MAX 439	MIN 34	CFSM 1.16	IN. 15.70
WTR YR 1988	TOTAL 24846	MEAN 67.9	MAX 444	MIN 26	CFSM 1.25	IN. 17.08

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 mi², of which 2.30 mi² 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: Oct. 1-6, Jan. 2-14, 26-28, Feb. 5-8, 11-14, May 18-23, May 28 to Aug. 8, Aug. 12 to Sept. 19, and Sept. 21-30. Records good except for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--19 years, 25.4 ft³/s, 20.05 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 650 ft³/s Mar. 4, 1979, gage height, 7.02 ft; minimum daily, 6.7 ft³/s Sept. 13, 1973.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 15	2200	117	3.89	Mar. 30	1100	142	4.25
Dec. 20	1500	176	4.78	Apr. 6	2200	*212	*5.25

Minimum daily discharge, 8.4 ft³/s Aug. 3, 5, 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	22	41	27	54	31	40	23	15	13	8.9	9.2
2	18	24	37	25	50	31	37	22	15	12	8.7	9.0
3	40	23	32	23	37	27	52	21	15	11	8.4	10
4	30	22	45	21	33	24	60	21	14	11	8.5	13
5	23	20	36	21	30	23	41	20	14	11	8.4	12
6	22	20	32	21	26	23	123	20	14	10	8.5	11
7	35	23	43	22	27	24	123	20	14	10	8.4	10
8	29	23	65	22	27	25	54	19	14	10	10	9.8
9	23	22	60	21	26	25	41	21	14	10	28	9.3
10	22	21	42	20	24	24	36	21	14	11	19	9.1
11	27	20	35	21	24	22	33	20	14	11	19	9.0
12	24	20	33	22	24	23	31	19	15	10	14	9.2
13	22	20	29	21	25	23	29	18	14	9.5	12	9.5
14	20	20	27	20	25	23	28	18	14	9.2	11	9.4
15	19	19	74	19	41	23	27	19	14	9.1	10	9.2
16	18	19	79	21	35	24	26	20	15	9.4	10	9.2
17	22	20	44	50	31	25	25	19	14	9.9	10	9.2
18	22	20	34	80	29	26	25	17	14	12	11	9.0
19	21	19	34	53	30	24	24	17	13	12	16	11
20	36	19	134	72	29	24	25	17	18	10	12	14
21	31	18	75	45	32	22	27	17	16	11	11	19
22	26	18	44	34	34	22	25	16	14	11	10	13
23	24	19	37	30	47	22	26	18	13	10	10	11
24	27	19	34	29	31	27	25	42	13	9.5	9.8	10
25	27	31	33	27	26	35	24	25	12	9.5	9.6	9.8
26	24	30	30	25	26	28	24	21	12	9.2	9.2	9.7
27	25	25	28	23	32	24	34	19	12	9.0	10	9.6
28	25	23	30	24	30	31	38	16	13	8.6	12	9.6
29	23	26	32	26	32	52	28	16	16	8.6	11	9.6
30	22	28	28	53	---	118	25	16	14	11	9.8	9.6
31	21	---	28	62	---	59	---	15	---	9.5	9.4	---
TOTAL	767	653	1355	980	917	934	1156	613	423	318.0	353.6	312.0
MEAN	24.7	21.8	43.7	31.6	31.6	30.1	38.5	19.8	14.1	10.3	11.4	10.4
MAX	40	31	134	80	54	118	123	42	18	13	28	19
MIN	18	18	27	19	24	22	24	15	12	8.6	8.4	9.0
CFSM	1.44	1.27	2.54	1.84	1.84	1.75	2.24	1.15	.82	.60	.66	.60
IN.	1.66	1.41	2.93	2.12	1.98	2.02	2.50	1.33	.91	.69	.76	.67

CAL YR 1987 TOTAL 8503 MEAN 23.3 MAX 150 MIN 12 CFSM 1.35 IN. 18.39
WTR YR 1988 TOTAL 8781.6 MEAN 24.0 MAX 134 MIN 8.4 CFSM 1.39 IN. 18.99

04099000 ST. JOSEPH RIVER AT MOTTVILLE, MI

LOCATION.--41°48'03", long 85°45'22", in SW 1/4 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 mi².

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: Jan. 5-11, 27-29, and Feb. 6, 7, 12-14. Records good except for estimated daily discharges, which are fair. Flow regulated by powerplants upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--65 years, 1,600 ft³/s, 11.64 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,700 ft³/s Apr. 27, 1950, gage height, 10.76 ft, present datum; minimum daily, 39 ft³/s Oct. 19, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,200 ft³/s Apr. 9, gage height, 5.91 ft; minimum daily, 222 ft³/s July 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	791	1170	1680	2730	2680	2220	2730	1960	1180	406	400	553
2	1240	1400	1690	2250	2930	2220	2590	1810	1130	358	397	537
3	1060	1280	1720	1980	3260	2210	2620	1750	1110	358	394	655
4	772	1120	1710	2240	3130	2280	2640	1760	1050	358	393	599
5	1070	1170	1670	1800	2950	2260	2630	1650	821	358	391	575
6	1110	1140	1390	1650	2400	2210	2870	1650	651	350	388	689
7	972	1080	1520	1750	2150	2090	3130	1740	884	326	375	736
8	1040	1010	1690	1800	2210	2000	3460	1540	779	305	363	633
9	1070	996	1690	1850	2340	1960	4000	1390	699	245	365	628
10	990	1230	1800	1900	2410	2140	4160	1480	618	222	375	683
11	714	1020	1740	1900	2370	2200	3980	1570	528	254	388	554
12	1020	1060	1710	1940	2150	2180	3780	1530	557	284	395	534
13	916	1040	1780	1880	2100	2050	2900	1470	568	337	405	628
14	679	1020	1910	1780	2100	2110	3460	1430	614	364	407	664
15	771	1020	1970	1740	2230	2120	2980	1330	699	364	421	599
16	842	878	2440	1740	2310	2160	2910	1130	687	375	567	587
17	884	1270	2430	1720	2380	2050	2790	1250	693	506	623	702
18	751	1250	2640	1860	2420	2040	2490	1410	671	495	555	598
19	861	1050	2750	2240	2430	2030	2640	1370	662	514	573	558
20	974	798	3010	2450	2440	1980	2470	1330	566	538	627	1180
21	838	698	3110	2520	2380	1930	2310	1160	493	541	537	1250
22	837	934	3360	2590	2280	1910	2280	848	529	511	532	1160
23	1110	952	3370	2580	2260	1900	2270	1410	502	464	576	1130
24	1050	1110	3370	2450	2270	1900	2220	1520	520	448	618	1160
25	1050	1100	3350	2370	2390	1930	1970	1220	530	527	563	1190
26	1330	1130	3310	1960	2380	1960	1790	1250	503	553	524	1600
27	1200	1210	3270	1800	2360	2140	1990	1220	467	515	522	1220
28	1210	1560	2920	1800	2340	2250	2070	1260	448	487	511	1220
29	1350	1620	2780	1850	2230	2320	2020	1280	429	448	510	1140
30	1370	1430	2790	2170	---	2360	1990	1250	421	406	530	905
31	1180	---	2750	2260	---	2690	---	1230	---	401	535	---
TOTAL	31052	33746	73320	63550	70280	65800	82140	44198	20009	12618	14760	24867
MEAN	1002	1125	2365	2050	2423	2123	2738	1426	667	407	476	829
MAX	1370	1620	3370	2730	3260	2690	4160	1960	1180	553	627	1600
MIN	679	698	1390	1650	2100	1900	1790	848	421	222	363	534
CFSM	.54	.60	1.27	1.10	1.30	1.14	1.47	.76	.36	.22	.26	.44
IN.	.62	.67	1.46	1.27	1.40	1.31	1.64	.88	.40	.25	.29	.50

CAL YR 1987 TOTAL 503952 MEAN 1381 MAX 3370 MIN 369 CFSM .74 IN. 10.05
WTR YR 1988 TOTAL 536340 MEAN 1465 MAX 4160 MIN 222 CFSM .79 IN. 10.69

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 mi², of which 22.5 mi² 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.--43 years, 79.9 ft³/s, 10.24 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 795 ft³/s Mar. 22, 1982, gage height, 13.90 ft; minimum daily, 3.4 ft³/s Oct. 25-27, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 252 ft³/s Dec. 22, gage height, 8.94 ft; minimum daily, 11 ft³/s Aug. 8, 9, 12-15, 17, 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	27	77	134	127	111	175	61	34	17	13	13
2	21	27	81	122	152	105	167	59	32	16	13	12
3	21	26	83	112	163	101	160	56	30	14	13	17
4	21	25	81	102	162	98	157	53	28	14	12	20
5	20	24	77	93	152	94	156	50	26	14	12	20
6	19	23	74	84	138	90	157	48	25	13	12	21
7	19	23	71	78	123	86	169	47	24	13	12	21
8	18	22	69	73	112	83	197	46	23	13	11	20
9	18	22	76	69	102	83	218	45	22	12	11	19
10	18	22	93	64	95	84	220	43	21	14	12	18
11	18	21	111	61	89	85	189	41	20	15	12	17
12	18	21	122	57	83	86	156	40	19	14	11	17
13	17	20	123	53	78	87	149	38	18	14	11	16
14	17	20	118	52	74	88	145	37	18	14	11	15
15	17	20	124	50	75	87	141	36	18	14	11	15
16	17	20	154	48	81	85	131	37	20	14	12	14
17	17	20	187	50	86	82	119	36	19	14	11	14
18	17	20	206	68	89	79	109	35	18	14	11	14
19	17	19	205	95	94	76	101	34	18	14	12	16
20	17	19	206	117	97	74	95	34	19	14	12	18
21	17	19	228	132	96	72	90	33	23	14	12	18
22	18	19	247	136	94	70	86	32	22	14	12	19
23	18	19	250	129	109	68	81	36	22	16	13	21
24	18	19	239	119	135	77	77	51	21	16	13	21
25	19	25	224	108	148	110	74	56	19	16	12	20
26	19	34	213	98	144	159	71	55	19	16	12	20
27	21	47	202	89	135	191	68	52	18	15	13	19
28	23	58	190	82	126	202	66	49	18	15	14	18
29	25	65	176	77	118	197	64	45	18	15	13	17
30	26	71	161	77	---	188	63	40	17	14	13	16
31	27	---	147	96	---	182	---	36	---	14	13	---
TOTAL	599	817	4615	2725	3277	3280	3851	1361	649	446	375	526
MEAN	19.3	27.2	149	87.9	113	106	128	43.9	21.6	14.4	12.1	17.5
MAX	27	71	250	136	163	202	220	61	34	17	14	21
MIN	17	19	69	48	74	68	63	32	17	12	11	12
CFSM	.18	.26	1.40	.83	1.07	1.00	1.21	.41	.20	.14	.11	.17
IN.	.21	.29	1.62	.96	1.15	1.15	1.35	.48	.23	.16	.13	.18

CAL YR 1987 TOTAL 20427 MEAN 56.0 MAX 250 MIN 14 CFSM .53 IN. 7.17
WTR YR 1988 TOTAL 22521 MEAN 61.5 MAX 250 MIN 11 CFSM .58 IN. 7.90

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: Jan. 1-17, 25-28, and Feb. 5-16. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--20 years, 365 ft³/s, 13.73 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, 994 ft³/s Dec. 21, gage height, 5.08 ft, maximum gage height, 6.12 ft Feb. 7, backwater from ice; minimum daily discharge, 68 ft³/s July 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	172	170	378	600	595	455	697	290	191	86	91	81
2	153	169	377	550	618	435	673	281	189	87	85	79
3	149	169	376	500	594	425	665	274	188	86	80	181
4	144	168	390	470	578	401	645	268	181	84	74	289
5	141	164	379	440	550	380	616	260	173	76	82	237
6	144	158	365	410	530	366	642	253	170	75	100	181
7	145	156	357	390	500	357	843	246	161	72	104	141
8	142	162	380	370	470	357	877	241	152	71	94	126
9	145	162	425	350	420	367	803	245	147	68	84	123
10	151	157	435	330	400	363	768	242	144	84	83	119
11	153	153	426	315	370	349	747	237	141	105	108	117
12	150	150	452	300	360	353	714	232	137	101	101	122
13	143	148	459	290	350	365	656	228	133	94	85	127
14	137	146	447	285	400	357	601	222	126	102	80	122
15	137	144	582	280	560	349	560	220	120	119	107	116
16	137	143	843	280	600	343	526	268	123	142	118	114
17	134	145	787	350	557	335	499	246	123	150	100	113
18	135	146	734	557	444	330	475	226	120	137	91	113
19	135	152	735	526	440	324	436	215	120	134	100	139
20	141	152	836	472	456	321	409	213	117	126	99	279
21	150	150	971	463	437	314	405	211	117	126	92	239
22	148	146	948	454	428	295	385	204	114	117	91	193
23	146	148	892	453	512	300	369	209	112	116	94	175
24	152	150	873	445	523	342	350	321	103	126	99	154
25	168	237	877	390	511	498	336	293	98	119	87	144
26	161	379	860	330	508	553	323	254	95	115	78	136
27	174	335	807	310	510	555	321	238	92	109	82	129
28	193	305	775	320	492	585	335	226	89	102	102	126
29	184	333	752	357	470	675	305	218	91	90	99	124
30	177	368	715	366	---	722	300	209	87	92	92	123
31	170	---	654	484	---	745	---	202	---	98	85	---
TOTAL	4711	5665	19287	12437	14183	12916	16281	7492	3954	3209	2867	4462
MEAN	152	189	622	401	489	417	543	242	132	104	92.5	149
MAX	193	379	971	600	618	745	877	321	191	150	118	289
MIN	134	143	357	280	350	295	300	202	87	68	74	79
CFSM	.42	.52	1.72	1.11	1.35	1.15	1.50	.67	.37	.29	.26	.41
IN.	.49	.58	1.99	1.28	1.46	1.33	1.68	.77	.41	.33	.30	.46

CAL YR 1987 TOTAL 100416 MEAN 275 MAX 971 MIN 101 CFSM .76 IN. 10.35
WTR YR 1988 TOTAL 107464 MEAN 294 MAX 971 MIN 68 CFSM .81 IN. 11.07

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. 5-13, 27, and Feb. 5-15. Records good.

AVERAGE DISCHARGE.--9 years, 101 ft³/s, 14.05 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,470 ft³/s, Feb. 24, 1985, gage height, 10.52 ft; minimum daily, 24 ft³/s July 9, 1988.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 15	1900	529	7.18	Apr. 7	0200	*1,130	*8.71

Minimum daily discharge, 24 ft³/s July 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	47	77	101	204	90	140	66	46	28	34	38
2	42	47	73	94	176	89	132	63	48	28	32	37
3	42	46	70	91	137	87	127	62	47	27	32	99
4	40	45	72	87	120	82	120	60	46	26	30	131
5	40	44	68	81	100	79	110	59	45	26	33	97
6	40	43	65	77	95	78	250	58	43	26	38	71
7	40	43	66	74	92	77	712	56	41	25	34	57
8	39	43	83	72	88	78	365	56	40	25	32	49
9	41	42	110	71	85	83	253	57	40	24	34	44
10	40	41	97	70	82	81	200	55	39	31	38	41
11	41	41	87	70	80	77	166	54	39	33	54	38
12	41	41	89	69	78	79	143	53	38	28	43	38
13	41	40	79	68	76	80	130	51	38	28	39	37
14	40	39	73	68	75	77	120	50	35	31	35	36
15	40	38	285	67	180	75	112	52	36	34	69	35
16	39	38	291	67	184	74	105	58	36	80	61	34
17	40	38	181	106	142	73	101	52	34	70	48	33
18	40	38	145	204	161	75	98	49	34	56	45	33
19	40	38	132	127	157	75	93	48	33	52	64	42
20	43	39	353	128	136	74	93	46	33	48	57	74
21	46	39	278	111	115	72	92	46	34	46	49	64
22	46	39	194	95	150	71	87	45	33	44	46	55
23	46	39	161	89	221	71	83	48	33	43	48	52
24	50	38	148	84	141	154	79	86	31	47	46	48
25	51	74	163	80	115	223	76	68	29	46	43	45
26	51	86	143	76	104	171	74	59	29	43	41	42
27	53	71	129	75	101	134	77	55	29	39	42	41
28	52	66	126	74	94	123	76	53	31	37	47	40
29	50	79	119	73	91	142	71	51	32	35	44	39
30	49	79	111	156	---	218	68	49	29	33	41	38
31	48	---	108	192	---	167	---	48	---	35	39	---
TOTAL	1354	1441	4176	2897	3580	3129	4353	1713	1101	1174	1338	1528
MEAN	43.7	48.0	135	93.5	123	101	145	55.3	36.7	37.9	43.2	50.9
MAX	53	86	353	204	221	223	712	86	48	80	69	131
MIN	39	38	65	67	75	71	68	45	29	24	30	33
CFSM	.45	.49	1.38	.96	1.26	1.03	1.49	.57	.38	.39	.44	.52
IN.	.52	.55	1.59	1.10	1.36	1.19	1.66	.65	.42	.45	.51	.58

CAL YR 1987 TOTAL 26822 MEAN 73.5 MAX 353 MIN 33 CFSM .75 IN. 10.22
WTR YR 1988 TOTAL 27784 MEAN 75.9 MAX 712 MIN 24 CFSM .78 IN. 10.59

LOCATION.--Lat 41°40'53", long 85°52'57", in NE1/4 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.

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.--No estimated daily discharges. Records good above 8 ft ³/_s and fair below.

AVERAGE DISCHARGE.--9 years, 19.0 ft³/s, 8.32 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 577 ft³/s Feb. 24, 1985, gage height, 7.45 ft; maximum gage height, 9.74 ft July 26, 1981; minimum daily discharge, 3.8 ft³/s July 26, 1980, and July 6, 1988.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 170 ft³s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 7	0600	*149	*4.91

Minimum daily discharge, 3.8 ft³s July 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.2	8.9	13	17	36	17	23	15	9.9	5.5	6.1	6.2
2	7.7	8.7	12	16	29	17	21	14	9.9	5.1	5.2	6.2
3	7.7	8.6	12	17	23	17	23	14	9.9	5.4	4.5	8.8
4	7.8	8.4	12	15	21	16	23	13	9.5	5.4	4.8	10
5	7.8	8.2	12	13	18	16	21	13	9.1	4.6	5.8	8.3
6	7.9	8.1	11	14	16	15	39	13	9.4	3.8	6.8	7.5
7	8.1	8.1	12	14	17	15	108	12	9.1	4.7	6.2	7.1
8	8.2	8.0	16	14	17	15	46	12	8.3	4.4	5.9	6.6
9	9.0	8.0	22	14	16	16	34	12	8.7	4.8	7.8	6.4
10	9.5	7.9	17	13	16	16	29	12	8.5	6.2	6.9	6.1
11	10	7.8	15	13	16	15	26	12	8.8	6.6	6.8	5.9
12	9.7	7.7	16	14	16	15	24	12	8.1	5.1	6.6	5.9
13	9.5	7.7	14	13	15	16	23	12	8.8	4.7	6.2	5.8
14	9.1	7.4	13	13	15	16	22	12	8.1	4.7	6.0	5.6
15	9.0	7.3	43	13	26	15	21	12	7.7	4.6	10	5.4
16	8.8	7.3	42	13	22	15	20	12	7.7	10	8.4	5.3
17	8.7	7.3	26	28	19	15	20	12	6.9	10	7.1	5.2
18	8.7	7.3	22	37	20	16	19	11	6.7	9.8	7.0	5.3
19	8.7	7.3	21	20	21	16	19	11	7.0	9.7	8.8	6.3
20	9.2	7.4	56	23	20	16	19	11	7.9	9.0	7.7	8.9
21	9.6	7.4	40	19	18	15	19	11	6.7	8.9	7.0	7.2
22	9.9	7.4	28	17	23	15	18	11	6.3	8.3	6.7	6.6
23	9.9	7.5	24	16	29	15	17	11	6.5	8.1	7.0	6.1
24	10	7.4	23	16	20	23	17	13	6.4	7.8	6.8	5.9
25	11	13	24	15	18	30	16	12	6.4	7.8	6.4	5.7
26	11	15	22	14	18	24	16	11	6.5	7.4	6.3	5.5
27	11	12	20	14	18	20	17	11	6.3	6.7	6.7	5.3
28	10	11	21	14	17	19	17	11	6.0	6.3	7.7	5.1
29	9.8	14	20	14	17	23	16	11	6.6	6.2	7.0	5.0
30	9.5	13	19	30	---	37	15	10	6.0	5.9	6.7	4.9
31	9.0	---	19	38	---	27	---	10	---	6.4	6.4	---
TOTAL	284.0	265.1	667	541	577	563	748	369	233.7	203.9	209.3	190.1
MEAN	9.16	8.84	21.5	17.5	19.9	18.2	24.9	11.9	7.79	6.58	6.75	6.34
MAX	11	15	56	38	36	37	108	15	9.9	10	10	10
MIN	7.7	7.3	11	13	15	15	15	10	6.0	3.8	4.5	4.9
CFSM	.30	.29	.69	.56	.64	.59	.80	.38	.25	.21	.22	.20
IN.	.34	.32	.80	.65	.69	.68	.90	.44	.28	.24	.25	.23
CAL YR 1987	TOTAL 4677.4		MEAN 12.8	MAX 56	MIN 6.0	CFSM .41	IN. 5.61					
WTR YR 1988	TOTAL 4851.1		MEAN 13.3	MAX 108	MIN 3.8	CFSM .43	IN. 5.82					

04100222 NORTH BRANCH ELKHART RIVER AT COSPERVILLE, IN

LOCATION.--Lat 41°28'54", long 85°28'32", in NE¼ 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 mi².

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. 31 to Jan. 18, Jan. 25-30, Feb. 5-16, and May 18 to June 1. Records good except for estimated daily discharges, which are poor. Flow regulated at times by dam at Waldron Lake.

AVERAGE DISCHARGE.--17 years, 138 ft³/s, 13.20 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 919 ft³/s Mar. 23, 1982, gage height, 8.12 ft; minimum daily, 2.2 ft³/s July 7, 1988 (regulation).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 371 ft³/s Apr. 9, gage height, 5.56 ft; minimum daily, 2.2 ft³/s July 7 (regulation).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	52	115	190	168	157	271	114	44	3.6	20	17
2	24	56	116	170	183	151	269	109	42	3.3	15	15
3	23	57	118	150	182	150	267	105	39	3.1	11	21
4	20	56	120	140	177	144	262	102	32	3.1	9.0	45
5	18	54	119	130	160	137	256	99	23	2.9	8.5	59
6	17	53	117	120	150	133	274	94	22	2.7	15	60
7	17	52	118	110	140	129	337	90	22	2.2	14	54
8	16	52	121	102	130	128	366	37	22	2.6	11	48
9	16	52	131	95	125	128	369	41	20	2.8	7.8	42
10	17	51	141	90	120	128	363	49	15	3.6	7.5	37
11	37	49	143	85	110	126	353	56	12	12	11	33
12	75	47	143	80	105	125	337	57	11	12	14	31
13	60	46	142	75	100	125	320	57	11	9.9	16	29
14	47	45	141	72	100	126	303	56	8.9	8.6	14	26
15	39	44	167	69	110	124	285	54	9.3	9.7	20	23
16	34	42	200	66	140	121	266	53	23	16	23	21
17	31	43	215	73	155	119	248	52	27	20	21	18
18	29	43	217	90	158	117	232	51	24	20	23	18
19	28	44	216	114	162	116	215	50	20	23	43	35
20	30	44	247	121	163	116	200	49	19	24	45	80
21	30	44	270	128	157	114	189	49	18	22	39	86
22	32	43	274	127	160	112	180	48	15	21	31	81
23	33	42	269	124	188	108	168	60	15	28	29	73
24	37	42	264	120	195	135	159	88	13	34	30	65
25	41	63	264	110	189	183	150	86	9.8	42	25	58
26	43	84	259	92	180	217	143	80	7.5	40	21	52
27	48	91	248	84	176	231	136	72	5.5	34	19	46
28	51	93	244	80	167	240	130	63	4.4	29	27	43
29	52	100	235	90	161	246	125	59	4.7	25	27	39
30	52	109	222	100	---	262	120	53	4.2	23	23	35
31	51	---	200	136	---	272	---	49	---	25	20	---
TOTAL	1077	1693	5796	3333	4411	4720	7293	2082	543.3	508.1	639.8	1290
MEAN	34.7	56.4	187	108	152	152	243	67.2	18.1	16.4	20.6	43.0
MAX	75	109	274	190	195	272	369	114	44	42	45	86
MIN	16	42	115	66	100	108	120	37	4.2	2.2	7.5	15
CFSM	.24	.40	1.32	.76	1.07	1.07	1.71	.47	.13	.12	.15	.30
IN.	.28	.44	1.52	.87	1.16	1.24	1.91	.55	.14	.13	.17	.34

CAL YR 1987 TOTAL 32198.0 MEAN 88.2 MAX 274 MIN 4.1 CFSM .62 IN. 8.43
WTR YR 1988 TOTAL 33386.2 MEAN 91.2 MAX 369 MIN 2.2 CFSM .64 IN. 8.75

04100295 RIMMELL BRANCH NEAR ALBION, IN

LOCATION.--Lat 41°23'07", long 85°22'14", in NE 1/4 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 mi².

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: Jan. 1, 2, 4-13, 26-28, Feb. 5-9, 11-14, 26, and Sept. 11-18. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--8 years, 11.1 ft³/s, 14.09 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 418 ft³/s July 16, 1986, gage height, 11.55 ft; maximum gage height, 12.82 ft, Apr. 14, 1981, minimum daily discharge, 0.14 ft³/s, many days during 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 15	1315	112	7.71	Mar. 24	1430	116	7.78
Dec. 20	0930	120	7.85	Apr. 7	0315	*139	*8.17

Minimum daily, 0.15 ft³/s Aug. 8, 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.68	.77	14	7.2	24	6.4	18	3.5	1.4	.34	.17	.17
2	.59	.70	10	6.0	18	6.7	20	3.3	1.4	.32	.17	.19
3	.43	.59	7.9	4.7	11	6.8	24	3.1	1.4	.29	.17	.30
4	.35	.55	8.3	4.0	7.9	5.4	28	3.0	1.2	.28	.16	.75
5	.37	.50	6.3	3.5	6.0	5.2	19	2.9	1.1	.27	.18	.50
6	.47	.45	4.9	3.7	4.5	4.6	58	2.7	1.0	.25	.21	.30
7	.47	.44	4.9	4.0	3.8	4.7	103	2.6	.92	.24	.16	.25
8	.48	.45	15	3.7	3.9	6.0	47	2.6	.87	.24	.15	.21
9	.51	.50	39	3.5	4.0	8.6	30	2.7	.85	.26	.15	.21
10	.55	.44	20	3.3	4.0	7.3	23	2.5	.81	.34	.20	.21
11	.59	.41	13	3.1	4.0	6.6	17	2.3	.74	.35	.26	.20
12	.58	.40	12	3.3	3.8	7.7	13	2.3	.71	.28	.19	.19
13	.61	.40	8.4	3.4	3.7	8.3	11	2.1	.69	.26	.16	.30
14	.59	.40	6.6	3.2	4.0	6.9	9.4	2.0	.68	.32	.18	.25
15	.59	.36	69	3.1	48	6.2	8.5	1.9	.64	.92	.28	.24
16	.57	.34	48	3.8	23	6.1	7.6	1.8	.66	.92	.29	.23
17	.65	.36	23	33	14	6.1	7.2	1.7	.65	.28	.19	.24
18	.68	.39	16	44	18	6.8	6.8	1.6	.59	2.5	.57	.23
19	.68	.36	14	13	16	6.6	6.0	1.7	.53	2.6	2.4	2.7
20	.92	.42	85	34	11	6.0	5.9	1.6	.53	.70	.46	6.6
21	1.1	.41	42	14	11	5.4	5.9	1.5	.53	.55	.25	1.6
22	1.1	.37	23	7.3	35	5.2	5.4	1.4	.46	.33	.20	.75
23	1.2	.42	16	5.3	43	5.4	5.3	4.1	.51	.70	.50	.61
24	1.3	.43	14	4.2	18	74	4.8	16	.46	.59	.50	.47
25	1.6	22	16	4.1	12	77	4.4	6.3	.42	.32	.26	.42
26	1.6	20	13	4.0	10	41	4.3	3.8	.39	.26	.20	.40
27	4.2	8.3	10	3.8	7.8	27	4.3	2.9	.38	.23	.19	.40
28	3.4	8.0	9.8	4.0	6.2	20	4.5	2.3	.37	.21	.23	.45
29	1.8	28	9.4	6.2	6.3	19	4.0	2.0	.37	.20	.20	.48
30	1.3	21	8.1	25	---	36	3.7	1.7	.34	.20	.18	.51
31	.93	---	7.7	25	---	23	---	1.6	---	.20	.17	---
TOTAL	30.89	118.16	594.3	290.4	381.9	462.0	509.0	91.5	21.60	15.75	9.58	20.36
MEAN	1.00	3.94	19.2	9.37	13.2	14.9	17.0	2.95	.72	.51	.31	.68
MAX	4.2	28	85	44	48	77	103	16	1.4	2.6	2.4	6.6
MIN	.35	.34	4.9	3.1	3.7	4.6	3.7	1.4	.34	.20	.15	.17
CFSM	.09	.37	1.79	.88	1.23	1.39	1.59	.28	.07	.05	.03	.06
IN.	.11	.41	2.07	1.01	1.33	1.61	1.77	.32	.08	.05	.03	.07

CAL YR 1987 TOTAL 2156.14 MEAN 5.91 MAX 85 MIN .19 CFSM .55 IN. 7.50
WTR YR 1988 TOTAL 2545.44 MEAN 6.95 MAX 103 MIN .15 CFSM .65 IN. 8.85

04100377 SOLOMON CREEK NEAR SYRACUSE, IN

LOCATION.--Lat 41°27'30", long 85°43'12", in NW1/4 sec.28, T.35 N., R.7 E., Elkhart County, Hydrologic Unit 04050001, on right bank 40 ft upstream from County Road 52 East bridge over Solomon Creek, and 2.5 mi northeast of Syracuse.

DRAINAGE AREA.--36.1 mi².

PERIOD OF RECORD.--October 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is 840.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimates daily discharges: Jan. 2-6, 8-10, 27, and Feb. 6-10. Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 126 ft³/s Apr. 6, 1988, gage height, 4.78 ft; minimum daily, 7.9 ft³/s Aug. 9, 1988.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 60 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 15	1500	61	3.44	Apr. 6	2000	*126	*4.78
Dec. 20	1700	64	3.49				

Minimum daily discharge, 7.9 ft³/s Aug. 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	13	22	33	54	33	50	35	21	11	9.2	11
2	13	13	21	31	49	33	50	34	21	11	9.1	11
3	13	12	20	30	44	32	49	33	21	11	10	11
4	13	12	19	28	40	31	47	32	20	12	10	18
5	13	12	19	27	37	29	45	31	19	11	10	24
6	13	12	19	25	34	29	79	26	18	10	9.9	19
7	13	12	19	24	32	28	113	25	17	9.9	8.9	17
8	13	12	20	24	30	27	92	28	17	9.8	8.0	16
9	13	12	24	23	29	28	80	28	19	9.7	7.9	15
10	13	12	24	24	28	27	74	27	19	11	8.5	14
11	13	12	23	24	27	27	69	25	18	12	10	13
12	13	12	23	25	26	27	65	24	18	12	9.9	13
13	13	12	22	23	25	27	61	23	16	11	9.7	13
14	13	12	21	23	23	27	58	22	15	11	8.8	12
15	13	12	48	23	45	26	55	23	16	10	11	12
16	12	12	55	22	42	25	52	22	19	16	11	12
17	13	12	46	26	38	25	51	22	18	15	11	12
18	12	12	41	39	40	26	49	21	18	15	11	12
19	12	12	38	33	41	26	47	21	17	16	13	13
20	13	12	57	37	41	25	46	21	16	16	12	16
21	12	12	57	34	37	24	45	21	14	15	12	15
22	12	12	50	30	41	24	44	20	14	15	11	14
23	12	12	45	27	54	24	43	21	14	14	12	14
24	13	12	42	25	45	40	41	27	13	14	12	13
25	13	19	42	23	40	57	40	25	15	14	12	12
26	13	23	40	22	38	57	39	23	14	13	11	12
27	14	21	38	22	36	49	39	22	12	12	11	12
28	14	20	39	22	34	46	38	22	12	10	12	12
29	13	23	37	22	33	47	37	21	12	9.8	11	12
30	13	23	36	34	---	57	36	21	12	9.8	11	12
31	13	---	36	43	---	55	---	21	---	9.5	11	---
TOTAL	400	419	1043	848	1083	1038	1634	767	495	376.5	324.9	412
MEAN	12.9	14.0	33.6	27.4	37.3	33.5	54.5	24.7	16.5	12.1	10.5	13.7
MAX	14	23	57	43	54	57	113	35	21	16	13	24
MIN	12	12	19	22	23	24	36	20	12	9.5	7.9	11
CFSM	.36	.39	.93	.76	1.03	.93	1.51	.69	.46	.34	.29	.38
IN.	.41	.43	1.07	.87	1.12	1.07	1.68	.79	.51	.39	.33	.42

WTR YR 1988 TOTAL 8840.4 MEAN 24.2 MAX 113 MIN 7.9 CFSM .67 IN. 9.11

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 mi².

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. 29 to Jan. 17, Jan. 24-29, and Feb. 4-16. Records good except for Dec. 29 to Jan. 17 and Feb. 4-16, which are poor. Occasional low-flow regulation at Goshen Dam, 3.4 mi upstream.

AVERAGE DISCHARGE.--57 years, 522 ft³/s, 11.93 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,360 ft³/s Feb. 24, 1985; maximum gage height, 11.94 ft Mar. 14, 1982; minimum daily discharge, 7.0 ft³/s Aug. 11, 1964, result of extreme regulation.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 7	2000	*3,390	*7.90

Minimum daily discharge, 45 ft³/s Oct. 16 (regulated).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	174	192	519	720	1110	655	1250	497	218	98	139	153
2	177	195	515	660	1120	634	1150	476	209	97	134	147
3	168	196	511	620	956	612	1130	460	206	95	131	152
4	157	197	523	570	780	581	1100	448	197	94	127	188
5	157	194	538	530	690	551	1050	431	187	93	126	250
6	147	189	529	490	620	528	1340	420	176	95	120	261
7	155	187	538	460	570	515	3010	406	165	97	120	241
8	155	193	592	420	530	507	2520	394	158	94	120	225
9	152	198	684	390	470	523	1840	355	153	90	128	206
10	148	198	723	370	440	529	1550	332	149	92	126	189
11	182	195	667	350	410	517	1400	330	142	88	162	176
12	430	192	662	330	390	518	1320	325	133	96	198	171
13	231	190	650	310	380	523	1240	314	132	100	165	165
14	179	185	629	290	400	514	1180	306	126	106	148	158
15	54	182	893	280	600	483	1120	306	118	113	168	150
16	45	181	1280	270	820	467	1050	307	127	119	222	145
17	126	185	1260	450	787	470	1000	283	140	121	189	143
18	151	173	1030	740	824	492	954	271	131	157	186	142
19	149	183	956	794	870	499	897	267	126	170	264	169
20	157	179	1180	734	849	489	860	259	128	176	282	205
21	156	178	1500	774	759	469	838	250	124	176	223	272
22	156	180	1370	678	746	456	796	236	117	168	198	278
23	154	181	1140	635	1000	449	760	239	124	168	197	270
24	167	183	1070	560	943	619	726	339	122	184	200	248
25	177	276	1090	480	795	1120	689	362	113	187	187	230
26	179	410	1120	380	733	1200	656	336	108	177	173	213
27	187	401	1050	320	734	1010	635	311	106	169	167	197
28	193	410	1020	300	711	930	588	286	102	158	183	187
29	196	477	930	450	686	1000	546	263	100	144	182	179
30	192	523	850	691	---	1220	518	246	100	138	172	174
31	191	---	790	921	---	1400	---	231	---	139	162	---
TOTAL	5242	7003	26809	15967	20723	20480	33713	10286	4237	3999	5299	5884
MEAN	169	233	865	515	715	661	1124	332	141	129	171	196
MAX	430	523	1500	921	1120	1400	3010	497	218	187	282	278
MIN	45	173	511	270	380	449	518	231	100	88	120	142
CFSM	.28	.39	1.46	.87	1.20	1.11	1.89	.56	.24	.22	.29	.33
IN.	.33	.44	1.68	1.00	1.30	1.28	2.11	.64	.27	.25	.33	.37

CAL YR 1987 TOTAL 158552 MEAN 434 MAX 1500 MIN 45 CFSM .73 IN. 9.93
WTR YR 1988 TOTAL 159642 MEAN 436 MAX 3010 MIN 45 CFSM .73 IN. 10.00

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 mi².

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.--No estimated daily discharges. Records good. The flow is regulated by Elkhart Hydroelectric Plant.

AVERAGE DISCHARGE.--41 years, 3,204 ft³/s, 12.91 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,800 ft³/s Feb. 27, 1985; maximum gage height, 27.91 ft Mar. 21, 1982; minimum daily discharge, 336 ft³/s Aug. 5, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,010 ft³/s Apr. 7, gage height, 22.89 ft; minimum daily, 613 ft³/s July 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1520	2000	2940	4690	5230	4240	5690	3490	2030	852	833	1070
2	2100	2220	3060	3940	5670	3750	5190	3370	1950	766	822	907
3	1820	2370	3080	3860	5780	3930	5420	2960	1940	760	779	1250
4	1680	2010	3060	3740	5430	4070	5460	3400	1870	757	786	1370
5	1650	2070	3020	3170	5100	4020	5220	3020	1690	747	880	1410
6	1930	2080	2810	2910	3880	3970	5730	2970	1370	723	867	1590
7	1760	1940	2660	3240	3840	3750	8550	3100	1520	691	814	1480
8	1770	1880	3180	3340	4130	3690	8270	2940	1490	668	814	1380
9	1950	1780	3350	3390	4580	3620	7860	2700	1380	613	1050	1180
10	2040	1890	3450	3480	4470	3760	7740	2620	1320	618	865	1310
11	1600	2230	3270	3490	3850	3870	7280	2800	1170	648	901	1160
12	1740	1640	3160	3450	3690	3870	6920	2750	1160	670	973	1120
13	1800	1980	3190	3360	3460	3840	6140	2640	1190	701	955	1170
14	1350	1820	3260	3200	3870	3740	6030	2570	1170	811	906	1220
15	1440	1810	4010	3000	4570	3740	5990	2570	1280	871	1250	1150
16	1410	1710	4780	3050	4890	3730	5400	2220	1270	991	1160	1100
17	1370	1780	5200	3320	4860	3740	5320	2400	1260	1060	1320	1190
18	1520	2270	4820	4070	4590	3650	4760	2470	1250	1140	1160	1160
19	983	1720	4890	4340	4670	3690	5000	2440	1230	1150	1290	1210
20	1480	1600	5600	4620	4650	3590	4610	2320	1200	1150	1390	1830
21	1480	1380	6160	4800	4490	3500	4490	2170	1050	1180	1240	2010
22	1530	1540	6190	4490	4310	3470	4270	1940	1050	1200	1140	2030
23	1640	1580	6110	4440	4630	3450	4200	1970	1020	1070	1200	1930
24	1860	1830	5890	4270	4710	3680	4110	3000	1010	1020	1240	1890
25	1790	2070	5870	4010	4510	4410	3850	2330	1010	1070	1180	1890
26	1890	2270	5820	3420	4390	4600	3480	2420	959	1150	1090	2020
27	2060	2470	5710	3210	4390	4460	3680	2330	918	1080	1080	2080
28	1930	2580	5480	3360	4380	4530	3790	2220	911	1000	1140	1850
29	2110	3210	5110	3580	4320	4910	3690	2240	898	949	1100	1790
30	2260	2880	5000	4300	---	5190	3550	2170	842	871	1100	1610
31	2100	---	4990	4740	---	5740	---	2140	---	850	1090	---
TOTAL	53563	60610	135120	116280	131340	124200	161690	80680	38408	27827	32415	44357
MEAN	1728	2020	4359	3751	4529	4006	5390	2603	1280	898	1046	1479
MAX	2260	3210	6190	4800	5780	5740	8550	3490	2030	1200	1390	2080
MIN	983	1380	2660	2910	3460	3450	3480	1940	842	613	779	907
CFSM	.51	.60	1.29	1.11	1.34	1.19	1.60	.77	.38	.27	.31	.44
IN.	.59	.67	1.49	1.28	1.45	1.37	1.78	.89	.42	.31	.36	.49

CAL YR 1987 TOTAL 946543 MEAN 2593 MAX 6190 MIN 983 CFSM .77 IN. 10.45
WTR YR 1988 TOTAL 1006490 MEAN 2750 MAX 8550 MIN 613 CFSM .82 IN. 11.11

04101500 ST. JOSEPH RIVER AT NILES, MI

LOCATION.--Lat 41°49'45", long 86°15'35", in SW 1/4 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 mi².

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: Jan. 5-11. Records good except for estimated daily discharges, which are fair. Flow regulated by powerplants upstream from station.

AVERAGE DISCHARGE.--58 years, 3,302 ft³/s, 12.23 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,200 ft³/s Apr. 5, 1950, gage height, 15.10 ft, present datum; minimum daily, 420 ft³/s Aug. 30, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,100 ft³/s Apr. 7, gage height, 10.64 ft; minimum daily, 843 ft³/s July 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2110	2110	3130	5130	5830	4440	6480	3810	2570	1130	1080	1320
2	1630	2040	3510	4830	6300	4270	5790	3710	2370	1010	1000	1280
3	2170	2150	3300	4050	6250	3900	5390	3430	2260	996	1010	1360
4	1890	2280	3450	4430	6190	4220	5960	3180	2350	951	1050	1660
5	1660	1930	3310	3500	5470	4250	5810	3530	2160	934	1060	1590
6	1910	2060	3230	3200	4190	4190	6140	3080	1820	970	1840	1640
7	2050	2130	2980	3500	3930	3950	9290	3050	1620	963	934	1780
8	1910	1930	3120	3600	4360	3990	9790	3200	1830	966	848	1700
9	2130	1880	3730	3700	4870	3900	8890	3030	1740	965	1620	1530
10	2960	1850	3920	3800	4920	3880	8060	2780	1590	954	1270	1420
11	2180	1960	3840	3800	4670	3980	7560	2870	1450	948	1210	1480
12	2040	2030	3580	3830	3470	3920	7490	3010	1420	954	1170	1450
13	2070	1890	3440	3690	3980	3980	6980	3130	1560	948	1090	1410
14	1920	1950	3500	3560	3500	4050	5770	2980	1350	843	1210	1450
15	1530	1930	4110	3210	4650	4090	6540	2760	1310	1310	1220	1440
16	1600	1900	5380	3410	5230	3880	5790	2790	1540	1080	1460	1410
17	1640	2340	6230	3450	5380	3690	5710	2680	1560	1110	1440	1330
18	1680	1650	5770	4400	5430	3910	5380	2910	1330	1300	1650	1370
19	1630	2620	5300	4630	4640	3970	4740	2830	1440	1270	1660	1390
20	1530	2050	5950	4970	5180	3950	5220	2830	1510	1420	1610	1970
21	1200	1600	7180	5330	4840	3750	4820	2750	1470	1350	1580	2340
22	1390	1620	6630	4910	4840	3560	4510	2510	1350	1300	1370	2270
23	1770	1880	6570	4930	4960	3620	4570	2030	1320	1460	1330	2160
24	2070	1910	6520	4450	5330	3950	4530	3430	1290	1280	1360	2080
25	2040	1850	6410	4470	4450	4880	4380	3120	1330	1250	1330	2020
26	2010	2260	6400	3470	4860	5420	3830	2650	1330	1180	1370	2120
27	2270	2570	6270	3380	4520	4660	3740	2920	1180	1240	1290	2260
28	2420	2680	5950	3260	4570	4940	4190	2760	1240	1240	1420	2160
29	2250	3250	5470	3950	4550	5080	4030	2590	1170	1220	1340	2010
30	2350	3710	5180	4260	---	5770	3920	2600	1210	1190	1260	1920
31	2330	---	5220	5280	---	6420	---	2370	---	1020	1280	---
TOTAL	60340	64010	148580	126380	141360	132460	175300	91320	47670	34752	40362	51320
MEAN	1946	2134	4793	4077	4874	4273	5843	2946	1589	1121	1302	1711
MAX	2960	3710	7180	5330	6300	6420	9790	3810	2570	1460	1840	2340
MIN	1200	1600	2980	3200	3470	3560	3740	2030	1170	843	848	1280
CFSM	.53	.58	1.31	1.11	1.33	1.17	1.59	.80	.43	.31	.36	.47
IN.	.61	.65	1.51	1.28	1.43	1.34	1.78	.93	.48	.35	.41	.52

CAL YR 1987 TOTAL 1051930 MEAN 2882 MAX 7180 MIN 1150 CFSM .79 IN. 10.67
WTR YR 1988 TOTAL 1113854 MEAN 3043 MAX 9790 MIN 843 CFSM .83 IN. 11.30

04177720 FISH CREEK AT HAMILTON, IN

LOCATION.--Lat 41°31'55", long 84°54'12", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ 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 mi².

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: Jan. 5-6 and Feb. 8-13. Records poor.

AVERAGE DISCHARGE.--19 years, 32.5 ft³/s, 11.77 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 654 ft³/s Feb. 24, 1985, gage height, 11.95 ft; minimum daily, 0.52 ft³/s Aug. 31, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 140 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 15	2200	155	5.93	Mar. 25	1600	258	7.01
Dec. 20	1600	165	6.04	Apr. 7	1100	*296	*7.74

Minimum daily discharge, 1.0 ft³/s Aug. 26-27, Sept. 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	4.5	45	30	84	37	58	14	3.0	1.6	1.5	1.1
2	2.2	4.7	39	26	80	35	56	13	2.6	1.6	1.4	1.4
3	2.0	5.0	35	22	59	35	66	13	2.8	1.5	1.4	2.8
4	1.9	5.3	32	19	49	28	87	12	2.6	1.6	1.3	4.7
5	1.9	5.0	26	16	40	29	69	12	2.5	1.6	2.3	3.2
6	2.0	3.1	22	13	33	26	108	11	2.3	1.7	3.9	2.0
7	2.0	2.7	22	12	28	22	285	9.9	2.3	1.7	1.9	1.5
8	2.0	3.5	34	11	23	20	234	9.9	2.1	1.6	1.3	1.4
9	2.1	4.5	73	10	20	26	148	16	2.1	1.6	1.3	1.3
10	2.1	3.6	76	9.3	19	24	111	18	2.1	2.3	1.5	1.2
11	2.2	3.2	61	8.7	18	23	89	13	2.0	2.9	1.7	1.1
12	2.3	3.0	55	8.5	18	32	68	11	1.9	1.7	1.5	2.1
13	2.4	3.0	44	8.5	18	39	54	11	1.9	1.9	1.4	2.3
14	2.8	2.9	36	8.0	18	35	46	8.8	2.0	2.0	1.3	1.5
15	2.6	2.8	110	7.9	27	32	37	8.7	1.9	1.7	2.9	1.1
16	2.7	2.9	146	7.8	30	28	31	7.8	2.0	1.9	2.0	1.0
17	2.6	3.9	118	30	27	24	27	5.9	1.9	1.9	1.9	1.2
18	2.5	5.4	89	92	29	25	27	5.5	2.0	2.8	1.5	1.3
19	2.5	4.4	69	76	33	24	24	5.3	2.0	3.2	6.1	2.7
20	3.1	5.0	140	90	30	24	21	6.1	1.9	2.6	3.2	4.9
21	3.3	3.7	147	76	27	21	23	5.7	2.0	2.1	1.9	2.7
22	2.3	3.1	115	53	47	19	20	6.2	2.2	3.2	1.4	2.0
23	2.4	3.6	87	41	92	22	21	6.8	2.0	2.5	2.2	2.3
24	2.9	3.4	68	34	79	140	18	28	1.7	2.8	2.1	1.7
25	3.1	35	74	29	60	247	15	17	1.8	2.5	1.4	1.5
26	3.4	48	63	27	49	214	15	8.7	1.6	2.3	1.0	1.4
27	8.9	40	52	24	48	134	16	5.4	1.5	1.8	1.0	1.3
28	7.5	34	49	20	41	101	21	4.6	1.5	1.5	2.5	1.3
29	6.1	45	45	19	38	85	18	4.2	1.6	1.4	1.7	1.2
30	5.5	47	37	44	---	83	15	3.7	1.6	1.5	1.3	1.3
31	4.8	---	34	75	---	69	---	3.4	---	1.5	1.2	---
TOTAL	96.6	341.2	2043	947.7	1164	1703	1828	305.6	61.4	62.5	59.0	56.5
MEAN	3.12	11.4	65.9	30.6	40.1	54.9	60.9	9.86	2.05	2.02	1.90	1.88
MAX	8.9	48	147	92	92	247	285	28	3.0	3.2	6.1	4.9
MIN	1.9	2.7	22	7.8	18	19	15	3.4	1.5	1.4	1.0	1.0
CFSM	.08	.30	1.76	.82	1.07	1.46	1.62	.26	.05	.05	.05	.05
IN.	.10	.34	2.03	.94	1.15	1.69	1.81	.30	.06	.06	.06	.06

CAL YR 1987 TOTAL 6830.56 MEAN 18.7 MAX 147 MIN .96 CFSM .50 IN. 6.78
WTR YR 1988 TOTAL 8668.5 MEAN 23.7 MAX 285 MIN 1.0 CFSM .63 IN. 8.60

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 mi².

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: Jan. 2-13, 27-30, Feb. 7-19, and July 7 to Aug. 18. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--42 years, 527 ft³/s, 11.73 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,710 ft³/s Apr. 6, 1950, gage height, 17.05 ft; maximum gage height, 17.96 ft Mar. 17, 1982; minimum daily discharge, 14 ft³/s Sept. 10, 16, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,440 ft³/s Apr. 8, gage height, 13.20 ft; minimum daily, 22 ft³/s July 10, Aug. 5, 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	132	758	722	1260	801	887	241	85	28	33	37
2	47	118	730	620	1430	754	806	228	81	28	28	32
3	46	102	615	560	1420	729	972	216	79	27	25	42
4	45	108	542	450	1250	677	1890	205	77	27	23	61
5	44	206	461	360	1030	591	2030	196	76	26	22	76
6	44	245	390	270	730	510	2040	184	72	25	29	98
7	42	212	343	238	620	473	2920	161	69	24	27	90
8	43	160	403	222	530	479	3370	160	65	24	25	67
9	42	122	787	214	460	553	3290	160	61	23	26	54
10	42	96	1140	208	410	657	2830	158	58	22	28	46
11	44	98	1190	212	380	666	2350	164	56	24	25	40
12	45	92	1180	224	360	630	1910	161	54	28	24	37
13	47	79	1060	236	350	691	1400	154	51	27	23	35
14	46	71	874	242	335	731	984	146	50	26	22	34
15	46	66	1210	228	345	682	767	140	48	29	24	35
16	47	63	1880	221	385	581	636	132	47	35	27	35
17	47	63	1970	287	460	502	543	126	46	45	30	33
18	46	63	1940	825	520	450	477	121	45	48	54	31
19	48	62	1750	1080	585	421	426	117	44	64	47	30
20	52	68	1930	1280	677	403	386	118	41	49	41	42
21	51	75	2180	1460	604	381	360	116	40	41	52	45
22	50	74	2200	1400	617	359	343	116	38	35	60	65
23	55	72	2110	1240	1340	343	329	116	38	33	68	82
24	68	70	1940	1030	1490	857	310	120	35	31	57	69
25	72	163	1820	792	1430	1830	297	134	34	35	44	61
26	78	518	1680	597	1250	2160	277	148	32	36	49	55
27	106	636	1510	425	1110	2160	264	132	31	31	44	50
28	134	601	1360	380	949	1900	256	116	30	28	39	45
29	157	650	1200	340	846	1480	253	106	30	26	34	41
30	173	751	962	395	---	1160	249	99	29	34	36	38
31	153	---	811	836	---	990	---	92	---	40	42	---
TOTAL	2007	5836	38926	17594	23173	25601	33852	4583	1542	999	1108	1506
MEAN	64.7	195	1256	568	799	826	1128	148	51.4	32.2	35.7	50.2
MAX	173	751	2200	1460	1490	2160	3370	241	85	64	68	98
MIN	42	62	343	208	335	343	249	92	29	22	22	30
CFSM	.11	.32	2.06	.93	1.31	1.35	1.85	.24	.08	.05	.06	.08
IN.	.12	.36	2.37	1.07	1.41	1.56	2.06	.28	.09	.06	.07	.09

CAL YR 1987 TOTAL 114601 MEAN 314 MAX 2200 MIN 15 CFSM .51 IN. 6.99
WTR YR 1988 TOTAL 156727 MEAN 428 MAX 3370 MIN 22 CFSM .70 IN. 9.56

04180000 CEDAR CREEK NEAR CEDARVILLE, IN

LOCATION.--Lat 41°13'08", long 85°04'35", in NW¼ 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 mi².

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. 31 to Jan. 18, Jan. 24-29, Feb. 5-22, 25-27, and Mar. 4-6. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--42 years, 246 ft³/s, 12.37 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,340 ft³/s Mar. 14, 1982, gage height, 12.98 ft; minimum daily, 13 ft³/s Oct. 3, 1949.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 16	0900	2,230	6.86	Mar. 26	0200	2,410	7.27
Dec. 21	0500	2,100	6.56	Apr. 7	2400	*3,340	*9.36

Minimum daily discharge, 20 ft³/s Sept. 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	51	492	210	686	260	439	104	60	31	36	22
2	42	47	396	200	591	244	420	104	60	30	32	22
3	41	47	294	180	399	269	568	100	63	27	29	46
4	35	46	311	160	279	190	913	94	57	26	27	91
5	33	44	246	120	160	180	577	91	54	26	27	50
6	38	41	199	92	130	180	701	88	51	26	38	35
7	39	40	179	90	125	189	2720	85	51	27	29	30
8	37	41	306	96	125	214	2610	84	50	27	25	26
9	37	45	870	100	130	283	1370	85	48	26	25	25
10	42	43	837	98	125	288	866	96	47	25	32	24
11	44	42	462	97	120	249	602	86	45	28	29	21
12	40	40	442	110	115	247	457	81	44	29	29	20
13	40	40	340	110	115	286	375	85	45	27	26	29
14	40	40	259	105	120	255	324	76	44	30	23	24
15	40	38	937	100	250	227	280	72	43	33	30	22
16	40	36	2050	110	370	209	245	71	44	40	30	21
17	41	40	1170	150	290	197	221	70	42	53	27	22
18	38	49	671	950	320	195	212	68	41	50	29	21
19	37	43	470	533	350	194	191	66	39	74	69	25
20	40	43	1300	633	240	187	174	66	37	48	46	99
21	45	41	1810	619	210	176	169	65	40	48	32	67
22	43	39	973	334	250	166	156	62	38	48	26	47
23	43	37	601	240	1200	165	150	63	41	44	43	38
24	44	40	451	170	729	900	140	193	38	38	53	31
25	58	377	453	130	350	2170	136	134	36	44	36	26
26	53	816	422	120	280	2100	130	98	32	40	29	24
27	97	409	341	110	260	1150	127	83	30	34	26	25
28	118	288	315	110	259	725	127	74	32	30	28	24
29	82	720	328	110	253	541	119	68	34	29	26	25
30	67	700	275	250	---	559	111	63	33	37	24	25
31	59	---	240	506	---	541	---	60	---	55	23	---
TOTAL	1501	4323	18440	6943	8831	13736	15630	2635	1319	1130	984	1007
MEAN	48.4	144	595	224	305	443	521	85.0	44.0	36.5	31.7	33.6
MAX	118	816	2050	950	1200	2170	2720	193	63	74	69	99
MIN	33	36	179	90	115	165	111	60	30	25	23	20
CFSM	.18	.53	2.20	.83	1.13	1.64	1.93	.31	.16	.14	.12	.12
IN.	.21	.60	2.54	.96	1.22	1.89	2.15	.36	.18	.16	.14	.14
CAL YR 1987	TOTAL 66701	MEAN 183	MAX 2050	MIN 27	CFSM .68	IN. 9.19						
WTR YR 1988	TOTAL 76479	MEAN 209	MAX 2720	MIN 20	CFSM .77	IN. 10.54						

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 mi².

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: Jan. 2-13, 18, 19, 26-29, and Feb. 6-21. Records good except for estimated daily discharges, which are fair. Flow regulated by Cedarville Reservoir and some flow diverted into storage of Hurshtown Reservoir.

AVERAGE DISCHARGE.--5 years, 1,042 ft³/s, 13.35 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,200 ft³/s Feb. 26, 1985, gage height, 17.79 ft; minimum daily, 64 ft³/s Aug. 21, 24, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,020 ft³/s Apr. 7, gage height, 13.09 ft; minimum daily, 45 ft³/s Aug. 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	194	238	1580	999	2170	1270	1540	382	207	168	131	110
2	186	195	1490	880	2210	1210	1560	361	201	94	83	109
3	184	161	1210	750	2070	1370	2160	347	210	62	58	137
4	181	192	1150	680	1830	1090	4510	281	212	64	45	208
5	104	186	987	590	1580	990	3410	269	200	66	56	202
6	102	243	698	530	1300	967	3550	329	203	98	101	190
7	103	362	779	490	1000	841	7210	296	197	151	86	196
8	102	284	702	440	860	858	7440	260	193	98	64	196
9	101	229	1970	400	780	1080	5670	247	198	77	58	184
10	105	190	2300	360	700	1190	4900	266	193	66	64	168
11	109	177	1890	340	650	1170	4210	256	188	60	66	152
12	107	173	1910	320	590	1110	3260	249	171	63	71	140
13	101	173	1720	340	580	1190	2500	255	169	61	74	132
14	98	169	1380	365	580	1220	1750	246	160	59	75	114
15	87	133	2960	313	590	1170	1290	227	151	55	91	94
16	70	124	4650	289	660	1050	1230	218	160	59	134	91
17	104	132	3700	344	780	867	1000	190	162	76	169	92
18	128	142	2900	1200	870	861	784	243	156	124	166	98
19	117	142	2640	1700	960	808	782	234	156	193	268	122
20	113	138	3810	2090	1030	769	725	230	126	125	200	226
21	111	139	4730	1980	940	727	578	251	98	105	169	210
22	108	140	3750	1900	1150	622	531	230	89	124	146	169
23	105	142	2950	1450	3050	597	627	247	91	185	188	167
24	110	156	2890	1280	2500	2410	502	383	115	161	224	194
25	131	573	2610	920	2020	4920	446	342	143	152	205	199
26	156	2050	2480	760	1880	5110	502	296	104	168	178	184
27	211	1340	2200	600	1700	3950	401	287	106	142	160	176
28	321	1110	1970	510	1420	3340	375	262	85	115	155	146
29	296	2010	1800	660	1330	2630	419	262	70	104	144	138
30	267	1980	1610	819	---	2210	378	260	74	163	120	122
31	257	---	1260	1350	---	1890	---	218	---	531	111	---
TOTAL	4469	13423	68676	25649	37780	49487	64240	8424	4588	3769	3860	4666
MEAN	144	447	2215	827	1303	1596	2141	272	153	122	125	156
MAX	321	2050	4730	2090	3050	5110	7440	383	212	531	268	226
MIN	70	124	698	289	580	597	375	190	70	55	45	91
CFSM	.14	.42	2.09	.78	1.23	1.51	2.02	.26	.14	.11	.12	.15
IN.	.16	.47	2.41	.90	1.33	1.74	2.25	.30	.16	.13	.14	.16

CAL YR 1987 TOTAL 230100 MEAN 630 MAX 4730 MIN 64 CFSM .59 IN. 8.08
WTR YR 1988 TOTAL 289031 MEAN 790 MAX 7440 MIN 45 CFSM .75 IN. 10.14

04181500 ST. MARYS RIVER AT DECATUR, IN

LOCATION.--Lat 40°50'55", long 84°56'16", in SW1SW1 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 mi².

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: Dec. 3-6, Jan. 1-16, 23-31, and Feb. 4-13. Records good except for estimated daily discharges, which are poor. Flow regulated by Grand Lake. Slight diversion from or into Wabash River basin and into Miami and Erie Canals.

AVERAGE DISCHARGE.--42 years, 488 ft³/s, 10.67 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,300 ft³/s Feb. 10, 11, 1959; maximum gage height, 24.40 ft Mar. 14, 1982; minimum daily discharge, 5.4 ft³/s Oct. 18, 1960.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 7	2200	*2,910	*15.60

Minimum daily discharge, 16 ft³/s Oct. 19, 22, July 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	24	381	580	319	293	298	64	37	18	62	33
2	24	23	355	420	1190	263	626	62	39	17	49	41
3	23	28	275	370	1060	265	583	60	36	17	42	49
4	23	24	260	310	780	238	970	58	32	18	42	38
5	24	22	250	260	640	226	968	56	31	18	43	33
6	26	19	250	220	540	233	993	54	33	18	38	28
7	28	18	266	180	450	305	2530	52	34	18	32	29
8	25	19	342	150	420	1100	2610	50	36	18	29	30
9	25	23	403	130	400	2140	1550	53	35	18	25	31
10	26	25	478	105	340	1820	995	56	30	17	27	29
11	28	39	341	91	250	1450	744	53	28	18	27	26
12	26	40	383	80	230	1570	544	51	27	17	23	24
13	25	40	343	76	210	1820	389	55	29	19	22	25
14	26	38	256	70	193	1350	292	54	29	18	22	25
15	27	35	1360	68	272	910	238	52	28	16	23	23
16	27	35	2830	72	516	680	191	47	28	20	34	24
17	25	36	2020	112	513	515	162	41	26	29	30	39
18	20	37	1080	311	879	398	155	40	25	29	25	43
19	16	35	921	265	1360	347	138	38	23	35	34	45
20	17	36	1840	518	2120	317	121	40	25	28	47	47
21	17	37	2320	669	1950	283	112	40	29	38	34	58
22	16	35	1450	416	1580	258	106	40	28	89	29	48
23	17	35	1000	290	2380	241	101	42	27	130	33	40
24	22	34	856	220	1960	514	96	43	24	161	38	39
25	24	98	789	190	1330	928	86	53	22	138	35	38
26	21	296	754	150	1060	902	81	88	21	108	30	36
27	44	230	629	120	827	545	81	109	21	78	27	34
28	49	203	707	105	516	464	79	99	21	54	35	30
29	42	557	1310	85	377	402	75	74	20	45	40	26
30	32	547	946	90	---	334	70	56	19	51	35	26
31	25	---	710	130	---	264	---	44	---	100	28	---
TOTAL	796	2668	26105	6853	24662	21375	15984	1724	843	1398	1040	1037
MEAN	25.7	88.9	842	221	850	690	533	55.6	28.1	45.1	33.5	34.6
MAX	49	557	2830	669	2380	2140	2610	109	39	161	62	58
MIN	16	18	250	68	193	226	70	38	19	16	22	23
CFSM	.04	.14	1.36	.36	1.37	1.11	.86	.09	.05	.07	.05	.06
IN.	.05	.16	1.56	.41	1.48	1.28	.96	.10	.05	.08	.06	.06

CAL YR 1987 TOTAL 109980 MEAN 301 MAX 2830 MIN 16 CFSM .49 IN. 6.59
WTR YR 1988 TOTAL 104485 MEAN 285 MAX 2830 MIN 16 CFSM .46 IN. 6.26

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 mi².

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. 4-7, Jan. 3-16, 24-31, and Feb. 5-17, 22, 23. 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.--58 years, 577 ft³/s, 10.28 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft³/s Feb. 11, 1959; maximum gage height, 19.66 ft, Mar. 14, 1982; minimum daily discharge, 3.4 ft³/s Oct. 19, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 23	1400	ice jam	*10.40	Apr. 7	2300	*3,740	9.87

Minimum daily discharge, 21 ft³/s Oct. 21, 23, Nov. 6-9, July 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	24	586	729	392	424	395	80	47	25	146	33
2	25	22	509	608	1050	371	805	73	41	24	73	35
3	23	22	404	520	1290	367	1060	72	42	23	50	74
4	23	22	350	430	899	338	1210	70	41	21	42	223
5	25	22	330	370	780	297	1300	68	37	22	39	90
6	27	21	320	300	630	299	1570	66	36	23	39	48
7	29	21	340	240	500	360	3510	65	38	22	35	37
8	30	21	433	210	430	1000	3560	63	38	23	30	34
9	28	21	568	180	360	2270	2330	63	39	22	31	35
10	30	25	632	150	310	2300	1350	66	39	23	100	35
11	33	27	492	130	270	1700	1020	67	35	25	56	34
12	34	40	478	105	230	1660	770	63	33	24	38	33
13	32	53	470	90	210	1980	569	61	34	23	32	32
14	29	51	359	80	220	1690	426	64	35	25	33	33
15	31	49	1820	70	350	1200	340	64	35	25	45	32
16	33	48	3460	130	500	903	276	63	34	23	34	31
17	33	47	2810	215	780	697	225	58	33	26	30	32
18	34	46	1400	546	1140	549	207	52	32	61	30	45
19	30	46	1010	501	1790	466	188	51	30	316	50	60
20	24	44	2010	695	2710	416	162	49	31	58	55	107
21	21	46	2800	975	2990	371	144	50	33	37	51	68
22	22	49	1890	730	2490	334	135	52	37	67	40	66
23	21	47	1160	533	3430	310	126	55	34	126	57	55
24	23	47	963	390	2610	800	120	73	33	155	49	44
25	32	135	907	290	1690	1690	113	55	30	177	42	42
26	39	350	876	230	1360	1550	99	67	28	135	39	41
27	52	357	737	180	1100	901	96	107	26	104	36	38
28	59	284	815	140	743	659	96	112	26	70	178	37
29	45	677	1490	110	539	574	92	93	27	48	70	35
30	37	787	1220	110	---	504	87	71	26	74	48	33
31	29	---	850	180	---	402	---	56	---	427	40	---
TOTAL	960	3451	32489	10167	31793	27382	22381	2069	1030	2254	1638	1542
MEAN	31.0	115	1048	328	1096	883	746	66.7	34.3	72.7	52.8	51.4
MAX	59	787	3460	975	3430	2300	3560	112	47	427	178	223
MIN	21	21	320	70	210	297	87	49	26	21	30	31
CFSM	.04	.15	1.38	.43	1.44	1.16	.98	.09	.05	.10	.07	.07
IN.	.05	.17	1.59	.50	1.55	1.34	1.09	.10	.05	.11	.08	.08

CAL YR 1987 TOTAL 129400 MEAN 355 MAX 3460 MIN 21 CFSM .47 IN. 6.32
WTR YR 1988 TOTAL 137156 MEAN 375 MAX 3560 MIN 21 CFSM .49 IN. 6.70

04182590 HARBER DITCH AT FORT WAYNE, IN

LOCATION.--Lat 41°00'27", long 85°10'58", in NE 1/4 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 mi².

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: Oct. 7 to Nov. 9, Jan. 3-6, 8-11, 15-17, 23, 24, 27-31, Feb. 7-16, and Feb. 29 to Mar. 4. Records fair except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--24 years, 18.3 ft³/s, 11.35 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,010 ft³/s (correction) July 16, 1986; maximum gage height, 12.25 ft Mar. 14, 1982; minimum daily discharge, 0.04 ft³/s June 29, July 4-7, 1988.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 15	1115	480	8.41	Apr. 3	2000	308	6.75
Feb. 22	2230	325	6.91	Apr. 6	2315	*528	*8.89
Mar. 25	0945	329	6.95	July 31	0200	441	8.02

Minimum daily discharge, 0.04 ft³/s June 29, July 4-7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	.20	34	16	46	6.2	22	.55	.35	.07	22	.36
2	.56	.16	26	12	42	7.0	42	.64	3.0	.07	6.1	.27
3	.51	.14	19	8.7	20	7.9	126	.65	.63	.07	2.1	2.4
4	.37	.12	21	6.2	16	8.6	130	.67	.38	.04	.71	8.6
5	.36	.11	14	4.3	9.0	7.9	48	.70	.36	.04	5.2	9.4
6	1.8	.09	9.7	2.8	7.0	9.0	219	.70	.27	.04	1.3	3.5
7	.90	.16	27	3.8	5.8	16	346	.66	.28	.04	.39	1.1
8	.37	2.0	40	2.9	4.8	44	98	.73	.29	.05	.30	.43
9	.90	1.1	68	2.5	4.1	48	47	5.4	.32	.07	5.1	.31
10	1.6	.67	40	2.1	3.6	29	25	1.2	.32	.21	3.2	.27
11	.80	.44	25	2.3	3.0	20	16	.69	.32	.38	.78	.22
12	.30	.29	29	2.5	2.7	24	12	.54	.30	.35	.73	.21
13	.20	.23	18	2.7	2.8	23	8.2	.50	.22	.32	.41	.22
14	.18	.20	12	1.8	3.1	15	6.8	.51	.18	4.6	.34	.25
15	.16	.17	317	1.6	4.3	12	5.2	.48	.17	2.6	1.1	.23
16	.15	.17	126	1.5	11	9.4	3.9	.52	.20	2.8	.40	.23
17	1.0	3.3	44	12	22	8.0	3.7	.60	.20	1.0	.30	.23
18	.60	3.9	24	42	38	8.1	5.4	.51	.19	39	4.8	.23
19	.27	.94	25	16	56	8.4	3.5	.54	.14	59	4.3	12
20	.50	1.2	149	51	64	8.1	3.0	.56	.34	6.8	.54	12
21	.33	1.8	62	23	31	6.0	3.0	.64	.49	2.1	.39	6.7
22	.45	1.5	32	11	118	5.3	3.0	.81	.17	3.5	.36	2.8
23	.32	1.3	20	6.4	165	5.8	4.0	26	.12	5.3	22	1.2
24	2.5	3.2	18	4.1	49	105	2.9	18	.14	5.2	3.3	.55
25	1.0	84	26	2.9	23	217	2.4	2.8	.11	1.7	.80	.37
26	.70	34	24	2.5	17	84	1.6	.93	.07	.54	.44	.32
27	5.0	19	18	2.3	14	33	.78	.58	.09	.40	.32	.30
28	2.0	34	65	2.1	9.2	20	.73	.45	.11	.33	24	.31
29	1.0	70	69	2.1	7.8	20	.59	.39	.04	.27	8.0	.61
30	.50	41	31	2.4	---	21	.50	.39	.05	44	2.6	.48
31	.30	---	23	3.1	---	16	---	.36	---	188	.70	---
TOTAL	26.73	305.39	1455.7	256.6	799.2	852.7	1190.20	68.70	9.85	368.89	123.01	66.10
MEAN	.86	10.2	47.0	8.28	27.6	27.5	39.7	2.22	.33	11.9	3.97	2.20
MAX	5.0	84	317	51	165	217	346	26	3.0	188	24	12
MIN	.15	.09	9.7	1.5	2.7	5.3	.50	.36	.04	.04	.30	.21
CFSM	.04	.46	2.14	.38	1.26	1.26	1.81	.10	.01	.54	.18	.10
IN.	.05	.52	2.47	.44	1.36	1.45	2.02	.12	.02	.63	.21	.11

CAL YR 1987 TOTAL 4762.63 MEAN 13.0 MAX 317 MIN .07 CFSM .60 IN. 8.09
WTR YR 1988 TOTAL 5523.07 MEAN 15.1 MAX 346 MIN .04 CFSM .69 IN. 9.38

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.

DRAINAGE AREA.--14.0 mi².

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: Oct. 1 to Nov. 24, Dec. 30 to Jan. 16, Jan. 25-28, and Feb. 4-14. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--5 years, 16.7 ft³/s, 16.20 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,270 ft³/s July 16, 1986, gage height, 10.32 ft; minimum daily, 1.1 ft³/s Aug. 14, 1988.

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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 15	1100	736	8.17	Apr. 6	2115	*847	*8.67
Apr. 3	1800	521	7.12				

Minimum daily discharge, 1.1 ft³/s Aug. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	2.0	29	6.0	30	12	13	3.8	2.0	2.1	3.9	1.6
2	2.2	1.8	16	5.0	19	12	16	3.8	3.8	2.1	2.5	1.6
3	1.9	1.7	14	4.5	8.4	12	179	3.9	2.4	2.1	2.1	2.4
4	1.7	1.6	18	3.6	5.5	9.9	57	4.0	2.1	2.0	1.9	4.1
5	2.0	1.6	9.1	3.0	4.0	9.5	21	3.9	1.9	2.0	3.4	2.1
6	2.5	1.5	6.9	2.6	3.2	9.9	350	3.8	2.0	2.0	2.7	1.8
7	2.2	2.0	32	2.3	3.3	12	291	3.8	1.9	2.1	1.6	1.7
8	1.8	6.0	31	2.4	3.4	15	36	3.7	2.0	2.1	1.5	1.6
9	2.5	3.5	47	2.5	3.3	19	19	5.3	2.1	1.9	2.6	1.6
10	3.4	3.0	17	2.6	3.2	14	13	4.6	2.2	4.7	2.2	1.6
11	2.5	2.7	14	2.7	3.1	11	11	4.0	2.1	3.0	3.0	1.5
12	2.0	2.6	18	2.8	3.0	17	8.7	3.6	1.8	1.6	2.0	1.7
13	1.7	2.3	8.8	2.8	3.2	17	7.3	3.5	2.0	1.6	1.3	1.9
14	1.5	2.2	6.8	2.7	3.5	12	6.0	2.9	2.1	1.8	1.1	1.7
15	1.4	2.2	311	2.7	3.0	11	5.1	3.0	1.9	1.9	3.2	1.7
16	1.4	2.1	40	3.0	17	10	4.7	2.9	2.1	3.9	1.7	1.8
17	2.8	2.8	16	7.5	17	9.6	4.5	2.9	2.1	9.0	1.5	2.0
18	2.1	2.4	11	4.9	23	9.4	4.6	2.4	1.9	131	9.0	2.2
19	1.9	2.3	21	14	34	8.7	4.4	2.4	1.8	67	3.5	34
20	1.8	2.1	127	41	31	9.1	4.5	2.5	2.1	6.7	4.7	24
21	2.5	2.5	23	14	13	8.3	4.8	2.3	2.4	4.2	2.3	3.1
22	2.0	2.2	13	6.7	72	7.6	4.5	2.4	2.1	18	2.0	5.3
23	1.8	2.2	9.6	5.6	55	7.6	4.4	1.9	2.6	9.8	7.0	4.4
24	7.0	3.0	8.4	5.0	20	225	4.1	19	2.2	22	7.0	2.0
25	5.0	204	12	3.5	12	183	4.1	3.3	2.2	7.5	3.1	1.8
26	4.0	36	9.7	2.9	10	35	4.1	2.5	2.1	3.0	2.5	1.8
27	12	20	7.7	2.7	11	15	4.2	2.3	2.2	2.1	2.1	1.8
28	4.0	47	47	3.0	8.8	11	4.9	1.9	2.2	1.8	2.0	1.8
29	2.5	77	28	6.2	11	13	4.3	1.8	2.4	1.7	1.8	1.8
30	2.3	30	10	15	---	27	4.0	1.7	2.2	33	1.8	1.9
31	2.1	---	7.6	26	---	12	---	1.8	---	53	1.6	---
TOTAL	86.5	472.3	969.6	320.8	460.9	784.6	1099.2	128.7	64.9	475.1	183.1	118.3
MEAN	2.79	15.7	31.3	10.3	15.9	25.3	36.6	4.15	2.16	15.3	5.91	3.94
MAX	12	204	311	75	72	225	350	19	3.8	131	70	34
MIN	1.4	1.5	6.8	2.3	3.0	7.6	4.0	1.7	1.8	1.6	1.1	1.5
CFSM	.20	1.12	2.23	.74	1.14	1.81	2.62	.30	.15	1.09	.42	.28
IN.	.23	1.25	2.58	.85	1.22	2.08	2.92	.34	.17	1.26	.49	.31

CAL YR 1987 TOTAL 4489.5 MEAN 12.3 MAX 311 MIN 1.4 CFSM .88 IN. 11.93
WTR YR 1988 TOTAL 5164.0 MEAN 14.1 MAX 350 MIN 1.1 CFSM 1.01 IN. 13.72

04183000 MAUMEE RIVER AT NEW HAVEN, IN

LOCATION.--Lat 41°05'06", long 85°01'20", in SE 1/4 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 mi².

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: Jan. 2-17, 25-29, and Feb. 5-17. Records good except for estimated daily discharges, which are poor. Flow regulated by hydro-powerplant on the St. Joseph River 10.3 mi upstream from station. Flow slightly regulated by upstream reservoirs.

AVERAGE DISCHARGE.--32 years (1956 to current year), 1,677 ft³/s, 11.58 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,600 ft³/s Mar. 17, 1982, gage height, 25.49 ft; minimum daily, 48 ft³/s Oct. 6, 13, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 7	2200	*12,100	*16.98

Minimum daily discharge, 69 ft³/s June 22, regulation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	159	313	2510	1690	2430	1720	2150	531	186	82	494	146
2	151	275	2170	1300	3280	1570	2340	496	212	81	245	137
3	147	217	1820	1100	3690	1690	3510	477	242	81	191	200
4	150	214	1630	900	3010	1540	6780	444	222	80	157	378
5	408	239	1530	770	1700	1270	5450	367	171	84	186	375
6	134	777	1210	720	1300	1250	5620	414	156	87	205	237
7	154	415	1240	660	1200	1250	11300	408	152	89	142	205
8	151	434	1360	600	1100	1580	11900	377	150	90	132	199
9	158	484	2270	540	1100	3000	10100	437	153	88	139	189
10	160	307	3200	490	1100	3630	7360	399	142	86	178	171
11	197	257	2610	470	1000	2980	5910	513	139	90	205	158
12	172	248	2480	420	900	2790	4660	279	136	90	169	155
13	154	257	2300	350	820	3090	3490	385	112	85	135	150
14	145	248	1910	310	950	3070	2450	453	118	114	126	137
15	139	232	4920	300	1100	2460	1760	407	104	113	142	132
16	125	202	8720	380	1300	1980	1550	346	94	163	147	131
17	132	209	7690	500	1500	1620	1270	172	89	159	131	130
18	157	245	5210	1850	1710	1370	1130	219	116	517	148	128
19	160	221	4100	2320	2360	1270	976	312	107	1000	429	227
20	155	217	5640	2480	3310	1170	931	322	107	374	272	487
21	149	223	7990	3080	3470	1090	903	285	88	285	194	330
22	139	215	6700	2580	3160	994	712	318	69	265	170	242
23	137	216	4830	2050	6220	902	830	356	82	157	698	225
24	158	220	4180	1700	6270	3170	704	667	76	229	328	196
25	201	1370	3750	1100	4260	7610	648	505	74	315	272	208
26	179	2290	3600	800	3250	8030	649	351	71	279	194	200
27	479	2110	3200	620	2890	5810	614	342	70	232	167	173
28	387	1550	3130	560	2310	4440	540	386	76	188	261	163
29	388	2910	3700	620	1890	3700	593	336	78	150	283	161
30	355	3170	3230	870	---	3090	514	293	80	206	188	157
31	327	---	2580	1440	---	2470	---	232	---	1430	156	---
TOTAL	6207	20285	111410	33570	68580	81606	97344	11829	3672	7289	6884	6127
MEAN	200	676	3594	1083	2365	2632	3245	382	122	235	222	204
MAX	479	3170	8720	3080	6270	8030	11900	667	242	1430	698	487
MIN	125	202	1210	300	820	902	514	172	69	80	126	128
CFSM	.10	.34	1.83	.55	1.20	1.34	1.65	.19	.06	.12	.11	.10
IN.	.12	.38	2.11	.63	1.30	1.54	1.84	.22	.07	.14	.13	.12

CAL YR 1987 TOTAL 409613 MEAN 1122 MAX 8720 MIN 108 CFSM .57 IN. 7.75
WTR YR 1988 TOTAL 454803 MEAN 1243 MAX 11900 MIN 69 CFSM .63 IN. 8.60

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 mi², of which 58.2 mi² 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: Dec. 21, Jan. 2, 5-8, Feb. 5-7, and Apr. 7, 8. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--37 years, 152 ft³/s, 11.86 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 908 ft³/s Mar. 17, 1982, gage height, 9.01 ft; maximum gage height, 9.04 ft June 27, 1968; minimum daily discharge, 44 ft³/s Aug. 4, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 450 ft³/s Apr. 7, (backwater); maximum gage height, 6.07 ft Apr. 7; minimum daily discharge, 44 ft³/s Aug. 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	125	154	173	318	176	267	155	110	79	49	71
2	105	123	158	160	293	175	235	149	106	82	45	74
3	116	121	152	164	257	171	234	145	111	91	45	86
4	122	119	149	160	229	165	274	144	110	77	44	99
5	117	116	148	135	200	159	249	145	107	72	51	103
6	115	114	144	140	160	156	288	142	108	68	88	97
7	136	112	144	145	167	153	450	147	105	67	78	95
8	168	111	164	145	169	152	400	146	104	63	69	90
9	161	109	189	136	165	156	349	147	103	66	152	88
10	155	107	190	137	161	153	291	143	102	79	142	84
11	152	106	178	135	159	149	256	144	101	90	124	81
12	147	107	169	136	158	149	231	140	103	81	110	84
13	141	106	159	134	152	149	218	140	102	73	99	91
14	135	105	151	130	151	148	208	137	94	74	95	90
15	128	103	212	128	178	146	199	133	94	72	89	86
16	124	102	304	128	184	143	192	134	94	70	80	84
17	123	103	252	147	176	143	187	128	92	71	71	83
18	122	102	218	202	176	150	184	127	92	79	80	87
19	120	101	203	199	182	156	174	131	89	96	91	106
20	125	101	306	221	184	154	174	123	92	78	91	210
21	135	100	350	224	173	148	174	122	96	66	85	185
22	139	99	308	200	176	145	170	123	95	75	81	156
23	137	99	259	185	227	144	166	129	82	78	85	144
24	141	101	234	174	215	158	158	164	81	79	80	130
25	149	109	225	165	195	207	159	158	80	74	78	122
26	148	117	211	159	184	218	159	144	81	60	73	115
27	144	118	200	152	184	192	167	135	88	60	75	111
28	141	118	197	148	179	181	165	126	80	57	89	107
29	139	130	188	146	179	205	157	128	85	55	87	103
30	135	143	180	172	---	303	154	122	87	66	81	100
31	129	---	179	242	---	325	---	115	---	66	77	---
TOTAL	4154	3327	6275	5022	5531	5329	6689	4266	2874	2264	2584	3162
MEAN	134	111	202	162	191	172	223	138	95.8	73.0	83.4	105
MAX	168	143	350	242	318	325	450	164	111	96	152	210
MIN	105	99	144	128	151	143	154	115	80	55	44	71
CFSM	.77	.64	1.16	.93	1.10	.99	1.28	.79	.55	.42	.48	.61
IN.	.89	.71	1.34	1.07	1.18	1.14	1.43	.91	.61	.48	.55	.68

CAL YR 1987 TOTAL 46012 MEAN 126 MAX 350 MIN 69 CFSM .72 IN. 9.84
WTR YR 1988 TOTAL 51477 MEAN 141 MAX 450 MIN 44 CFSM .81 IN. 11.01

05515500 KANKAKEE RIVER AT DAVIS, IN

LOCATION.--Lat 41°24'00", long 86°42'04", in SE 1/4 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 mi², of which 137 mi² 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: Jan. 5-13 and Feb. 5-14. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--64 years, (1924 to current year), 505 ft³/s, 12.77 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,920 ft³/s Mar. 20, 1982; maximum gage height, 13.52 ft Mar. 5, 1985; minimum daily discharge, 154 ft³/s Aug. 30 to Sept. 3, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,240 ft³/s Apr. 8; gage height, 11.75 ft; minimum daily, 161 ft³/s Aug. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	351	430	522	620	912	615	990	566	397	266	184	234
2	346	427	548	592	932	612	921	557	377	255	170	225
3	395	421	536	564	882	604	890	537	373	251	161	235
4	428	412	539	543	820	588	953	527	370	248	163	297
5	407	400	535	440	680	572	941	518	364	235	163	315
6	386	392	518	470	580	562	961	511	354	220	204	296
7	419	388	515	470	570	554	1180	504	345	211	210	278
8	522	387	579	465	580	550	1230	502	338	209	196	266
9	530	382	660	460	570	564	1170	500	328	204	246	256
10	513	377	686	455	560	569	1080	508	325	211	321	245
11	499	373	653	450	550	565	996	505	323	244	310	239
12	492	376	619	450	540	557	933	493	320	241	291	243
13	468	374	587	440	530	555	870	483	319	224	263	259
14	446	370	558	429	520	553	821	471	303	216	245	257
15	425	366	655	420	605	550	778	463	289	207	231	249
16	413	363	907	417	659	542	741	465	283	200	224	241
17	411	358	880	464	639	546	708	455	284	196	206	239
18	405	359	796	632	639	563	701	444	280	210	204	238
19	401	363	738	681	652	565	675	440	274	251	254	266
20	413	362	838	756	663	564	651	433	292	245	258	434
21	438	358	1010	797	632	552	647	430	326	232	245	485
22	443	359	968	714	622	538	639	424	306	248	232	426
23	441	357	888	646	730	529	625	444	287	240	238	397
24	450	355	815	601	738	590	608	592	269	228	241	369
25	489	384	780	566	688	785	592	597	265	223	232	346
26	492	429	751	532	643	845	584	530	256	208	218	329
27	486	432	713	517	644	781	596	486	252	198	212	314
28	476	428	695	502	627	724	621	457	247	188	256	303
29	466	451	696	493	621	767	602	438	261	177	260	295
30	452	492	671	568	---	929	578	426	275	181	246	292
31	438	---	647	743	---	1050	---	411	---	198	240	---
TOTAL	13741	11725	21503	16897	19028	19440	24282	15117	9282	6865	7124	8868
MEAN	443	391	694	545	656	627	809	488	309	221	230	296
MAX	530	492	1010	797	932	1050	1230	597	397	266	321	485
MIN	346	355	515	417	520	529	578	411	247	177	161	225
CFSM	.83	.73	1.29	1.02	1.22	1.17	1.51	.91	.58	.41	.43	.55
IN.	.95	.81	1.49	1.17	1.32	1.35	1.68	1.05	.64	.48	.49	.61

CAL YR 1987 TOTAL 158193 MEAN 433 MAX 1010 MIN 233 CFSM .81 IN. 10.96
WTR YR 1988 TOTAL 173872 MEAN 475 MAX 1230 MIN 161 CFSM .88 IN. 12.04

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 Seltentright (formerly Baker) ditch, 8.1 mi upstream from Wolf Creek, and at mile 40.3 (correction).

DRAINAGE AREA.--294 mi², of which 22 mi² 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: Jan. 3-16, 27-29, and Feb. 6-16, 25, 26. Records good.

AVERAGE DISCHARGE.--40 years, 259 ft³/s, 11.96 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,390 ft³/s Oct. 12, 13, 1954, gage height, 17.13 ft; minimum daily, 13 ft³/s Dec. 3, 7, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,660 ft³/s Apr. 9, gage height, 11.18 ft; minimum daily, 31 ft³/s Sept. 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	55	204	250	929	194	965	112	60	37	35	36
2	48	56	188	222	1110	194	639	108	60	36	36	35
3	46	55	158	200	910	196	499	107	59	34	35	41
4	43	54	148	180	501	186	543	104	58	34	36	47
5	42	52	139	150	303	170	511	102	56	34	52	51
6	40	49	125	140	230	162	542	97	54	34	70	48
7	50	48	126	135	215	163	1060	94	53	33	56	42
8	53	49	217	120	195	164	1530	93	53	36	45	38
9	59	48	357	115	170	187	1600	93	53	34	47	37
10	56	47	402	105	150	210	1220	94	51	38	100	35
11	57	45	276	98	130	198	767	93	51	48	186	33
12	54	45	233	98	120	195	456	90	50	48	178	33
13	54	45	212	95	120	195	337	90	49	43	99	33
14	51	45	175	91	135	184	281	86	48	42	65	33
15	48	44	403	87	250	176	241	85	57	41	50	31
16	48	44	810	90	440	169	213	86	59	51	50	38
17	45	44	958	135	370	172	199	83	57	46	45	43
18	44	43	696	479	439	191	197	81	53	47	50	41
19	44	43	402	547	482	212	182	82	49	49	66	53
20	49	41	584	483	445	204	166	83	65	49	75	62
21	49	40	973	512	305	182	162	84	57	45	62	67
22	50	41	1070	283	300	169	153	82	53	43	48	62
23	50	42	738	210	640	165	145	95	50	42	67	52
24	57	43	425	181	624	293	140	189	46	41	65	47
25	62	78	451	157	344	733	128	172	43	38	57	44
26	74	130	479	109	247	912	124	117	39	34	47	43
27	71	121	359	105	238	758	127	94	38	32	45	41
28	67	103	321	100	207	441	138	82	37	32	54	39
29	63	148	354	115	199	470	131	75	39	32	49	39
30	60	224	319	294	---	743	121	69	40	33	45	40
31	58	---	292	641	---	1050	---	64	---	35	39	---
TOTAL	1650	1922	12594	6527	10748	9638	13517	2986	1537	1221	1954	1284
MEAN	53.2	64.1	406	211	371	311	451	96.3	51.2	39.4	63.0	42.8
MAX	74	224	1070	641	1110	1050	1600	189	65	51	186	67
MIN	40	40	125	87	120	162	121	64	37	32	35	31
CFSM	.18	.22	1.38	.72	1.26	1.06	1.53	.33	.17	.13	.21	.15
IN.	.21	.24	1.59	.83	1.36	1.22	1.71	.38	.19	.15	.25	.16

CAL YR 1987 TOTAL 59190 MEAN 162 MAX 1110 MIN 34 CFSM .55 IN. 7.49
WTR YR 1988 TOTAL 65578 MEAN 179 MAX 1600 MIN 31 CFSM .61 IN. 8.30

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 mi², of which 51 mi² 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: Jan. 1-17, 24-30, and Feb. 5-16. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--45 years (water years 1944 to current year), 397 ft³/s, 12.39 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,660 ft³/s Oct. 15, 16, 1954, gage height, 13.75 ft; minimum daily, 50 ft³/s Jan. 21-31, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,800 ft³/s Apr. 10, gage height, 8.12 ft; minimum daily, 86 ft³/s Aug. 2, 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	145	136	343	475	930	345	1140	302	184	123	93	111
2	136	131	333	410	1090	337	1230	292	176	122	86	105
3	130	132	312	380	1220	334	981	284	172	118	88	111
4	124	129	287	345	1170	333	817	279	169	115	86	131
5	121	125	270	240	620	317	816	277	166	110	88	133
6	121	121	255	215	440	302	801	270	163	103	115	133
7	121	120	245	230	400	291	1050	259	158	100	142	133
8	135	120	274	220	370	285	1290	251	150	100	120	121
9	136	121	388	210	330	299	1610	246	146	100	107	111
10	138	122	517	185	290	327	1780	244	141	123	119	105
11	137	120	534	170	250	338	1640	242	139	136	196	101
12	136	119	433	165	230	325	1250	236	137	148	262	101
13	134	120	376	175	225	324	844	230	133	135	246	100
14	131	119	339	160	230	320	665	224	130	123	172	99
15	127	117	394	150	300	305	569	221	126	124	139	98
16	122	117	761	155	500	294	509	219	137	123	116	97
17	119	117	948	230	665	286	471	215	142	129	108	97
18	116	117	1070	381	566	293	450	211	137	139	103	103
19	116	116	971	699	637	315	434	205	129	144	115	117
20	119	116	774	828	683	330	408	199	137	137	136	145
21	132	116	931	800	610	312	390	198	201	134	133	147
22	127	116	1080	714	479	289	376	193	168	124	122	149
23	125	116	1220	480	564	278	365	201	150	120	125	142
24	128	117	1070	340	796	324	354	254	139	115	142	128
25	138	145	748	290	761	575	340	348	131	107	131	129
26	144	209	726	210	508	896	327	309	122	104	118	126
27	151	232	707	185	423	1010	322	254	120	96	109	117
28	151	224	610	180	395	964	332	225	117	91	116	109
29	146	225	598	200	359	717	330	212	124	90	124	103
30	141	278	602	280	---	818	317	202	128	88	120	102
31	136	---	550	574	---	987	---	190	---	91	116	---
TOTAL	4083	4213	18666	10276	16041	13470	22208	7492	4372	3612	3993	3504
MEAN	132	140	602	331	553	435	740	242	146	117	129	117
MAX	151	278	1220	828	1220	1010	1780	348	201	148	262	149
MIN	116	116	245	150	225	278	317	190	117	88	86	97
CFSM	.30	.32	1.38	.76	1.27	1.00	1.70	.56	.34	.27	.30	.27
IN.	.35	.36	1.60	.88	1.37	1.15	1.90	.64	.37	.31	.34	.30
CAL YR 1987	TOTAL 108440	MEAN 297	MAX 1300	MIN 107	CFSM .68	IN. 9.27						
WTR YR 1988	TOTAL 111930	MEAN 306	MAX 1780	MIN 86	CFSM .70	IN. 9.57						

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: Jan. 5-18, 26-29, Feb. 6-16, June 27-29, and July 2-12, 14-24. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--40 years, 1,332 ft³/s, 13.38 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, 3,390 ft³/s Apr. 12, gage height, 10.20 ft; minimum daily, 281 ft³/s Aug. 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	730	848	1120	1940	2020	1520	2680	1400	921	523	332	430
2	727	845	1200	1750	2320	1500	2780	1360	887	490	312	404
3	768	842	1220	1700	2460	1470	2800	1330	865	470	286	338
4	854	844	1240	1620	2520	1440	2640	1280	845	460	282	394
5	858	820	1250	1500	2440	1400	2570	1260	831	440	281	477
6	834	790	1240	1300	2100	1370	2610	1230	812	410	288	477
7	807	787	1220	1200	1850	1350	2760	1210	789	390	335	465
8	882	786	1300	1200	1650	1340	2900	1180	767	380	340	441
9	946	765	1440	1200	1500	1360	3050	1170	727	375	337	421
10	944	758	1570	1200	1400	1410	3200	1180	682	370	433	407
11	930	735	1650	1230	1320	1420	3340	1160	669	390	491	388
12	917	732	1620	1250	1250	1410	3380	1130	653	480	523	382
13	900	725	1560	1270	1200	1390	3240	1110	649	512	527	400
14	874	721	1490	1300	1220	1360	2950	1080	636	470	477	409
15	840	702	1600	1340	1300	1330	2640	1060	600	430	421	395
16	806	687	1950	1400	1550	1300	2400	1050	589	390	381	382
17	800	692	2200	1450	1720	1290	2220	1040	582	375	352	377
18	793	703	2290	1500	1770	1290	2090	1020	582	400	334	380
19	794	700	2300	1530	1790	1310	1990	1000	576	450	359	401
20	806	697	2350	1950	1840	1320	1890	982	566	480	419	561
21	824	684	2460	2100	1820	1300	1810	967	631	470	429	736
22	836	680	2600	2090	1740	1270	1720	956	643	460	398	726
23	833	683	2690	1950	1760	1230	1660	949	605	440	401	678
24	844	681	2740	1740	1880	1300	1600	1050	552	410	485	634
25	892	731	2660	1600	1960	1560	1560	1220	540	423	495	586
26	934	839	2470	1350	1860	1910	1530	1230	514	396	455	563
27	942	894	2330	1270	1710	2100	1500	1140	480	380	422	539
28	946	941	2230	1270	1630	2170	1500	1060	475	354	444	520
29	930	973	2180	1320	1570	2170	1490	1010	490	329	491	492
30	898	1030	2100	1420	---	2260	1440	984	546	321	478	484
31	873	---	2040	1640	---	2510	---	950	---	334	451	---
TOTAL	26562	23315	58310	46580	51150	47360	69940	34748	19704	13002	12459	14287
MEAN	857	777	1881	1503	1764	1528	2331	1121	657	419	402	476
MAX	946	1030	2740	2100	2520	2510	3380	1400	921	523	527	736
MIN	727	680	1120	1200	1200	1230	1440	949	475	321	281	338
CFSM	.63	.57	1.39	1.11	1.30	1.13	1.72	.83	.49	.31	.30	.35
IN.	.73	.64	1.60	1.28	1.41	1.30	1.92	.96	.54	.36	.34	.39

CAL YR 1987 TOTAL 394603 MEAN 1081 MAX 2740 MIN 530 CFSM .80 IN. 10.86
WTR YR 1988 TOTAL 417417 MEAN 1140 MAX 3380 MIN 281 CFSM .84 IN. 11.49

05517530 KANKAKEE RIVER NEAR KOUTS, IN

LOCATION.--Lat 41°15'14", long 87°02'02", in SW¼ 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: Jan. 5-18, 26-29, Feb. 8-16, and July 5-11, 15-19. Records good except for Jan. 5-18, 26-29, and Feb. 8-16, which are poor.

AVERAGE DISCHARGE.--14 years, 1,468 ft³/s, 14.49 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,420 ft³/s Mar. 24, 1982, gage height, 14.52 ft; minimum daily, 292 ft³/s Aug. 5, 6, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,450 ft³/s Apr. 12, gage height, 10.91 ft; minimum daily, 292 ft³/s Aug. 5, 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	725	872	1140	2080	2100	1630	2790	1520	926	503	338	419
2	719	859	1260	1960	2400	1590	2860	1490	846	471	324	435
3	738	884	1290	1880	2510	1550	2910	1430	809	450	301	369
4	862	886	1290	1750	2550	1520	2940	1370	792	452	294	413
5	885	856	1320	1570	2480	1480	2890	1340	828	430	292	480
6	852	792	1320	1400	2200	1460	2960	1320	757	395	292	464
7	763	809	1300	1270	2000	1450	3130	1310	727	380	349	458
8	838	830	1360	1240	1850	1440	3150	1300	708	370	321	501
9	918	793	1510	1240	1700	1430	3230	1260	678	365	315	436
10	952	808	1680	1250	1500	1470	3290	1240	647	360	401	398
11	944	756	1740	1270	1400	1500	3400	1220	627	390	463	388
12	921	780	1710	1310	1320	1530	3430	1220	619	472	500	428
13	874	790	1690	1340	1300	1540	3330	1220	609	486	511	385
14	873	786	1610	1370	1300	1480	3050	1170	597	474	476	404
15	887	734	1690	1400	1450	1400	2740	1150	542	420	436	392
16	871	708	2040	1470	1600	1390	2510	1100	533	380	382	380
17	825	743	2280	1550	1800	1390	2350	1060	549	365	340	406
18	810	815	2370	1600	1840	1390	2250	1040	549	360	330	410
19	813	819	2380	1700	1890	1430	2120	1020	545	420	337	422
20	842	783	2470	2120	1940	1410	2030	1000	543	451	405	564
21	826	758	2600	2220	1890	1360	1970	973	577	461	431	728
22	806	756	2690	2180	1830	1330	1860	1000	583	446	420	776
23	805	744	2770	2050	1890	1290	1780	968	560	417	405	705
24	858	722	2860	1840	2020	1360	1710	1050	522	400	494	679
25	918	752	2810	1680	2080	1660	1660	1250	514	428	513	577
26	971	914	2600	1430	1970	1980	1650	1310	480	402	456	566
27	990	934	2450	1320	1810	2150	1620	1220	471	410	421	593
28	997	964	2340	1350	1740	2230	1600	1080	453	359	414	583
29	982	971	2320	1400	1700	2260	1570	1020	468	323	461	553
30	938	1030	2240	1490	---	2420	1540	1030	519	320	460	510
31	913	---	2180	1710	---	2650	---	960	---	375	463	---
TOTAL	26916	24648	61310	49440	54060	50170	74320	36641	18578	12735	12345	14822
MEAN	868	822	1978	1595	1864	1618	2477	1182	619	411	398	494
MAX	997	1030	2860	2220	2550	2650	3430	1520	926	503	513	776
MIN	719	708	1140	1240	1300	1290	1540	960	453	320	292	369
CFSM	.63	.60	1.44	1.16	1.35	1.18	1.80	.86	.45	.30	.29	.36
IN.	.73	.67	1.66	1.34	1.46	1.36	2.01	.99	.50	.34	.33	.40

CAL YR 1987 TOTAL 408081 MEAN 1118 MAX 2860 MIN 469 CFSM .81 IN. 11.03
WTR YR 1988 TOTAL 435985 MEAN 1191 MAX 3430 MIN 292 CFSM .87 IN. 11.79

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 mi².

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: Oct. 1 to Nov. 24, Jan. 1-15, 25-29, Feb. 5-14, Feb. 25 to Mar. 6, and Apr. 10 to Sept. 30. Records poor.

AVERAGE DISCHARGE.--20 years, 32.9 ft³/s, 14.75 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,070 ft³/s Nov. 19, 1985; maximum gage height, 17.95 ft Mar. 29, 1985; minimum daily discharge, 8.9 ft³/s Sept. 11, 12, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	2400	359	11.29	Apr. 6	2100	*424	*11.91

Minimum daily discharge, 9.0 ft³/s Sept. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	14	20	24	59	27	69	23	16	14	10	9.2
2	12	14	23	22	47	27	68	22	16	13	10	9.0
3	14	14	24	19	38	25	75	22	16	13	10	10
4	14	14	18	18	31	22	79	21	16	12	10	12
5	13	13	23	18	27	19	67	21	16	12	10	13
6	13	13	24	17	23	19	242	20	15	12	11	12
7	15	13	24	17	22	18	182	20	15	12	10	11
8	17	13	41	18	21	18	93	20	15	12	11	11
9	18	13	41	18	20	18	70	20	15	12	14	10
10	17	13	32	17	19	19	58	20	15	12	14	9.8
11	16	13	25	17	19	19	50	20	15	13	13	9.6
12	16	13	23	18	19	19	43	19	15	13	12	9.8
13	15	13	21	18	18	19	39	18	15	12	12	10
14	15	12	20	17	18	18	36	18	15	12	11	10
15	14	12	62	17	18	18	34	18	15	11	10	9.8
16	14	12	64	19	18	18	32	18	14	11	9.7	9.6
17	14	12	40	54	18	18	30	18	14	11	9.2	9.4
18	13	12	31	107	20	17	29	18	14	12	10	10
19	14	12	27	108	29	17	28	18	14	13	12	12
20	14	12	159	220	30	17	27	18	15	13	11	17
21	15	12	84	74	27	15	26	18	15	13	11	20
22	15	12	56	52	40	15	25	18	14	13	10	17
23	15	12	44	41	76	51	24	19	14	13	11	16
24	16	12	39	35	64	48	27	23	14	12	11	15
25	16	14	37	28	40	42	25	23	13	12	10	14
26	16	16	29	24	33	34	25	22	13	11	9.6	14
27	16	16	26	22	30	29	29	20	13	11	11	13
28	16	15	28	21	28	35	35	18	13	10	12	12
29	15	15	36	23	28	70	29	18	14	10	11	12
30	15	19	31	48	---	158	25	17	14	10	10	12
31	15	---	28	57	---	80	---	17	---	11	9.4	---
TOTAL	460	400	1180	1208	880	969	1621	605	438	371	335.9	359.2
MEAN	14.8	13.3	38.1	39.0	30.3	31.3	54.0	19.5	14.6	12.0	10.8	12.0
MAX	18	19	159	220	76	158	242	23	16	14	14	20
MIN	12	12	18	17	18	15	24	17	13	10	9.2	9.0
CFSM	.47	.42	1.20	1.23	.96	.99	1.70	.62	.46	.38	.34	.38
IN.	.54	.47	1.38	1.42	1.03	1.14	1.90	.71	.51	.44	.39	.42

CAL YR 1987 TOTAL 8550 MEAN 23.4 MAX 425 MIN 12 CFSM .74 IN. 10.03
WTR YR 1988 TOTAL 8827.1 MEAN 24.1 MAX 242 MIN 9.0 CFSM .76 IN. 10.36

05518000 KANKAKEE RIVER AT SHELBY, IN

LOCATION.--Lat 41°10'58", long 87°20'33", in SW¼ 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 mi², of which 201 mi² 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: Jan. 4-21, 25-30, Feb. 5-16, and Aug. 1-3. Records good except for Jan. 4-21, 25-30, and Feb. 5-16, which are poor.

AVERAGE DISCHARGE.--66 years, 1,626 ft³/s, 12.41 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 7,650 ft³/s Mar. 26, 1982; maximum gage height, 12.98 ft Mar. 24, 1982; minimum daily discharge, 260 ft³/s Jan. 13-15, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,300 ft³/s Apr. 7; gage height, 10.17 ft; minimum daily, 283 ft³/s Aug. 5, 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	801	986	1170	2610	2360	1970	3220	1750	1050	583	353	476
2	821	958	1290	2430	2670	1920	3270	1710	1000	534	316	456
3	817	958	1360	2290	2840	1870	3330	1660	970	529	302	465
4	873	968	1390	2200	2910	1820	3520	1600	936	504	291	445
5	924	960	1460	1900	2800	1780	3540	1540	930	499	283	494
6	917	912	1500	1700	2600	1740	3660	1510	906	456	283	531
7	880	887	1510	1550	2300	1720	4200	1480	852	441	292	498
8	870	913	1560	1500	2100	1700	4190	1470	824	399	320	539
9	953	902	1690	1500	1900	1700	4070	1460	791	394	336	536
10	994	900	1820	1530	1800	1700	4010	1430	757	387	358	484
11	1020	856	1910	1550	1700	1720	4020	1400	742	425	431	462
12	1010	847	1920	1600	1600	1730	4040	1370	709	493	461	502
13	980	876	1880	1650	1600	1770	4040	1360	692	513	487	473
14	969	882	1830	1700	1700	1750	3960	1340	696	511	489	480
15	957	860	1910	1750	1750	1680	3720	1310	655	482	439	503
16	962	836	2250	1800	1900	1630	3430	1280	631	413	399	476
17	960	838	2450	1900	2050	1630	3150	1230	634	372	363	470
18	920	875	2560	2000	2110	1620	2970	1200	640	390	339	482
19	912	895	2620	2100	2170	1620	2810	1180	624	431	372	491
20	941	854	2820	2500	2240	1630	2590	1150	612	480	392	558
21	933	828	3130	2700	2220	1590	2470	1100	602	477	423	667
22	921	820	3150	2710	2180	1550	2330	1090	631	450	424	761
23	886	857	3170	2580	2250	1510	2230	1120	628	425	442	747
24	930	854	3210	2380	2300	1570	2120	1150	584	435	457	711
25	995	854	3250	2050	2340	1790	2020	1260	581	412	509	668
26	1030	924	3170	1750	2340	2040	1970	1360	562	392	493	608
27	1060	1010	3020	1650	2220	2240	1940	1350	536	396	456	618
28	1070	1030	2930	1650	2090	2370	1920	1240	518	363	469	640
29	1060	1070	2880	1700	2040	2530	1850	1150	537	355	489	615
30	1030	1100	2800	1800	---	2820	1790	1130	564	356	506	591
31	1010	---	2720	2050	---	3120	---	1100	---	369	492	---
TOTAL	29406	27310	70330	60780	63080	57830	92380	41480	21394	13666	12466	16447
MEAN	949	910	2269	1961	2175	1865	3079	1338	713	441	402	548
MAX	1070	1100	3250	2710	2910	3120	4200	1750	1050	583	509	761
MIN	801	820	1170	1500	1600	1510	1790	1090	518	355	283	445
CFSM	.53	.51	1.28	1.10	1.22	1.05	1.73	.75	.40	.25	.23	.31
IN.	.61	.57	1.47	1.27	1.32	1.21	1.93	.87	.45	.29	.26	.34

CAL YR 1987 TOTAL 489675 MEAN 1342 MAX 3560 MIN 647 CFSM .75 IN. 10.24
WTR YR 1988 TOTAL 506569 MEAN 1384 MAX 4200 MIN 283 CFSM .78 IN. 10.59

05519000 SINGLETON DITCH AT SCHNEIDER, IN

LOCATION.--Lat 41°12'44", long 87°26'44", in SW1/4 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 mi².

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: Jan. 1-17, 25-29, and Feb. 5-15. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--40 years, 109 ft³/s, 12.03 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,550 ft³/s Mar. 5, 1976; maximum gage height, 12.37 ft June 25, 1975; minimum daily discharge, 3.6 ft³/s Sept. 7, 8, 10, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 730 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 20	2100	737	5.94	Apr. 7	0100	*947	*6.96

Minimum daily discharge, 7.0 ft³/s July 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	30	56	170	262	98	304	70	46	13	7.9	13
2	51	31	56	150	241	98	246	67	44	12	8.3	13
3	67	30	54	120	203	97	235	65	44	15	9.4	14
4	67	29	55	97	174	92	313	64	42	13	11	15
5	68	28	56	82	130	87	242	62	40	11	9.1	16
6	69	27	52	72	90	85	499	60	39	11	8.4	15
7	67	27	53	64	75	83	817	57	36	12	8.4	14
8	64	28	134	58	71	82	502	57	36	12	8.2	13
9	62	27	159	54	70	87	357	60	34	12	10	12
10	49	26	150	51	69	89	291	59	31	11	9.3	13
11	39	26	134	50	67	85	248	54	29	10	8.5	14
12	35	26	126	54	64	86	194	52	29	11	8.6	14
13	34	26	115	58	60	88	168	49	30	8.5	8.1	15
14	33	25	87	54	66	82	155	45	30	17	8.6	16
15	32	24	157	50	90	78	143	46	26	13	7.2	16
16	31	24	265	60	126	74	134	47	25	10	7.7	15
17	33	26	190	100	117	72	131	44	23	9.9	8.0	15
18	38	27	154	357	126	71	118	40	21	9.2	8.0	16
19	35	25	140	262	146	70	108	41	19	14	16	19
20	35	25	509	569	145	69	104	41	17	10	16	25
21	35	24	593	358	121	66	101	40	17	10	14	22
22	35	24	403	253	127	64	97	39	16	10	13	20
23	33	25	298	210	184	63	96	58	17	8.2	12	20
24	34	25	250	181	147	84	88	54	15	7.9	12	18
25	38	31	237	120	125	149	83	70	15	8.4	11	18
26	37	35	209	100	115	138	80	61	14	8.6	10	17
27	35	33	184	80	110	120	85	57	13	9.3	11	17
28	34	36	189	67	102	119	82	54	13	9.0	16	18
29	33	60	229	80	101	247	75	51	15	7.0	15	18
30	32	59	210	168	---	539	72	48	14	7.7	11	18
31	31	---	199	206	---	440	---	47	---	8.3	11	---
TOTAL	1323	889	5703	4355	3524	3702	6168	1689	790	329.0	322.7	489
MEAN	42.7	29.6	184	140	122	119	206	54.5	26.3	10.6	10.4	16.3
MAX	69	60	593	569	262	539	817	84	46	17	16	25
MIN	31	24	52	50	60	63	72	39	13	7.0	7.2	12
CFSM	.35	.24	1.50	1.14	.99	.97	1.67	.44	.21	.09	.08	.13
IN.	.40	.27	1.72	1.32	1.07	1.12	1.87	.51	.24	.10	.10	.15

CAL YR 1987	TOTAL	34551	MEAN	94.7	MAX	905	MIN	22	CFSM	.77	IN.	10.45
WTR YR 1988	TOTAL	29283.7	MEAN	80.0	MAX	817	MIN	7.0	CFSM	.65	IN.	8.86

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 mi².

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: Jan. 1-17, 25-29, and Feb. 5-15. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--40 years, 27.1 ft³/s, 10.34 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 504 ft³/s May 19, 1987; maximum gage height, 8.86 ft Feb. 10, 1959; minimum daily discharge, 0.5 ft³/s Oct. 11, 12, 19, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 15	1500	168	3.49	Mar. 30	1000	160	3.39
Dec. 20	1100	*179	*3.62	Apr. 6	2300	159	3.37

Minimum daily discharge, 2.1 ft³/s July 24, 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	8.0	24	45	82	24	73	20	8.3	3.7	2.8	2.6
2	6.4	8.4	22	39	66	27	66	19	8.5	3.7	3.2	2.7
3	6.0	7.4	20	33	53	28	72	19	8.1	3.6	3.8	3.0
4	5.8	7.6	18	29	46	25	77	19	7.9	3.4	3.3	3.2
5	5.8	6.9	17	25	34	24	62	18	7.8	3.2	3.1	3.1
6	5.6	6.6	16	20	25	25	98	17	7.4	3.1	3.1	3.6
7	5.5	6.6	25	18	23	25	118	17	7.2	2.9	2.8	2.9
8	5.1	6.8	60	17	21	28	75	17	6.7	2.8	2.6	3.4
9	5.4	6.7	50	15	20	32	60	18	6.0	2.7	2.6	3.5
10	5.5	6.4	37	15	19	30	52	16	6.1	5.2	3.2	3.6
11	5.5	6.2	31	14	18	28	45	15	6.5	5.4	3.6	3.3
12	5.4	6.3	28	17	17	28	40	15	6.2	3.9	3.4	3.1
13	5.5	6.3	24	17	17	26	36	14	5.5	3.6	2.7	3.3
14	5.5	6.9	22	15	19	24	36	13	5.3	3.5	2.5	3.6
15	5.5	5.6	114	14	35	22	33	13	5.2	3.1	2.4	3.5
16	5.6	5.7	99	15	43	21	30	13	5.2	2.9	2.3	4.1
17	6.3	6.2	58	25	41	20	30	11	5.2	2.6	2.3	3.8
18	6.8	5.9	45	41	43	21	30	11	5.1	2.8	2.9	3.5
19	6.7	5.7	45	42	45	21	27	11	4.8	2.7	3.5	5.4
20	8.3	5.4	155	96	51	20	26	11	4.4	2.6	2.7	6.0
21	7.3	5.2	105	54	39	19	25	10	4.1	2.8	2.3	4.1
22	6.8	5.7	75	40	38	18	25	9.9	3.9	2.5	2.5	3.9
23	7.0	5.4	62	34	47	19	26	14	3.7	2.2	3.1	3.3
24	9.1	5.1	58	29	37	30	24	16	3.3	2.1	2.6	3.6
25	10	17	61	22	32	47	22	13	3.5	2.1	2.6	3.1
26	8.9	16	53	18	29	43	23	12	3.5	2.3	2.5	3.0
27	8.6	13	48	16	26	33	25	12	3.4	2.5	2.6	3.2
28	8.1	19	68	16	24	39	22	11	3.3	2.6	3.5	2.9
29	7.7	34	77	18	24	63	21	11	4.0	2.7	2.6	3.2
30	7.5	25	61	42	---	138	20	9.9	3.9	3.3	2.4	3.1
31	7.5	---	55	66	---	91	---	9.5	---	2.9	2.4	---
TOTAL	206.6	277.0	1633	907	1014	1039	1319	435.3	164.0	95.4	87.9	104.6
MEAN	6.66	9.23	52.7	29.3	35.0	33.5	44.0	14.0	5.47	3.08	2.84	3.49
MAX	10	34	155	96	82	138	118	20	8.5	5.4	3.8	6.0
MIN	5.1	5.1	16	14	17	18	20	9.5	3.3	2.1	2.3	2.6
CFSM	.19	.26	1.48	.82	.98	.94	1.24	.39	.15	.09	.08	.10
IN.	.22	.29	1.71	.95	1.06	1.09	1.38	.45	.17	.10	.09	.11

CAL YR 1987 TOTAL 9316.1 MEAN 25.5 MAX 368 MIN 4.0 CFSM .72 IN. 9.73
WTR YR 1988 TOTAL 7282.8 MEAN 19.9 MAX 155 MIN 2.1 CFSM .56 IN. 7.61

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 mi².

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: Oct. 1 to Nov. 18, Jan. 1-17, 25-29, Feb. 5-18, 21, 25, May 7-18, and May 21 to Aug. 3. Records good except 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.--39 years (water years 1950 to current year), 132 ft³/s, 12.45 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,040 ft³/s June 10, 1958, gage height, 15.09 ft; minimum daily, 1.6 ft³/s Sept. 15, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 714 ft³/s Dec. 21, gage height, 8.06 ft; minimum daily, 4.3 ft³/s Aug. 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	31	100	230	399	105	472	84	27	9.8	5.5	5.1
2	26	32	96	190	381	109	362	81	26	10	5.5	5.5
3	24	31	89	150	293	109	319	76	24	10	5.4	6.2
4	23	32	80	125	223	104	364	74	23	9.5	5.3	8.2
5	22	31	72	110	130	101	327	68	22	9.2	4.9	6.3
6	21	27	69	90	100	100	338	64	21	9.5	5.2	6.4
7	21	28	82	80	94	104	603	61	20	8.7	5.3	5.5
8	22	29	211	73	90	112	592	57	19	7.8	5.6	5.4
9	20	27	259	67	87	125	438	66	17	8.0	5.7	6.0
10	20	25	228	62	82	130	313	62	16	9.7	5.5	5.6
11	21	24	168	62	77	122	246	56	17	12	7.2	5.3
12	22	25	146	72	74	121	203	58	16	11	7.1	5.1
13	19	27	122	71	74	117	174	55	15	10	6.2	5.5
14	19	27	105	64	90	107	162	53	14	11	5.2	5.7
15	20	27	289	62	150	96	149	52	14	11	4.9	5.9
16	20	25	617	70	210	93	136	49	13	10	4.6	6.2
17	20	26	559	120	180	87	127	47	13	9.2	4.3	6.5
18	20	29	399	245	195	90	130	44	13	9.4	5.5	7.3
19	20	26	264	234	202	91	120	43	12	11	11	8.3
20	22	24	466	441	254	85	117	42	12	13	8.6	19
21	24	25	699	396	160	80	116	41	12	10	6.4	15
22	24	24	609	217	169	78	109	38	11	9.0	5.1	11
23	23	24	457	147	228	82	117	45	10	8.3	5.8	11
24	26	24	340	123	165	115	112	52	9.8	7.6	5.6	8.1
25	36	52	312	94	125	185	102	46	9.7	7.4	5.3	7.0
26	34	68	297	76	129	212	100	42	9.2	7.6	5.0	6.9
27	34	53	253	70	118	159	105	38	9.2	7.3	5.1	7.8
28	34	61	269	70	102	144	102	35	9.2	9.2	6.7	15
29	33	119	389	100	105	232	98	33	9.9	7.2	5.2	12
30	31	105	360	185	---	494	88	32	10	6.3	5.0	11
31	30	---	300	234	---	601	---	30	---	6.0	5.2	---
TOTAL	760	1108	8706	4330	4686	4490	6741	1624	454.0	285.7	178.9	239.8
MEAN	24.5	36.9	281	140	162	145	225	52.4	15.1	9.22	5.77	7.99
MAX	36	119	699	441	399	601	603	84	27	13	11	19
MIN	19	24	69	62	74	78	88	30	9.2	6.0	4.3	5.1
CFSM	.17	.26	1.95	.97	1.12	1.01	1.56	.36	.11	.06	.04	.06
IN.	.20	.29	2.25	1.12	1.21	1.16	1.74	.42	.12	.07	.05	.06

CAL YR 1987 TOTAL 40810 MEAN 112 MAX 1000 MIN 13 CFSM .78 IN. 10.54
WTR YR 1988 TOTAL 33603.4 MEAN 91.8 MAX 699 MIN 4.3 CFSM .64 IN. 8.68

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 mi².

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: Jan. 3-16, 26-29, and Feb. 5-15. Records good except for estimated daily discharges, which are poor. Streamflow affected by irrigation.

AVERAGE DISCHARGE.--40 years, 169 ft³/s, 11.31 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,550 ft³/s June 10, 1958, gage height, 16.54 ft; minimum daily, 2.2 ft³/s Sept. 9, 15, 16, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 910 ft³/s Apr. 7, gage height, 9.80 ft; minimum daily, 5.8 ft³/s Aug. 16, Sept. 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	41	156	318	541	133	612	106	40	15	7.2	6.4
2	41	42	148	261	499	141	478	101	38	16	7.0	7.0
3	37	43	133	200	379	139	427	97	36	16	7.1	7.3
4	36	42	119	160	290	132	479	91	34	15	7.5	9.4
5	34	44	104	140	170	128	422	90	34	14	7.2	10
6	33	35	97	115	140	128	489	85	32	15	7.5	9.2
7	32	36	124	103	120	133	869	79	30	14	7.8	8.7
8	34	38	331	95	115	150	821	76	28	12	7.4	7.5
9	30	37	382	88	110	167	615	86	26	12	8.3	7.0
10	30	32	321	83	105	174	426	85	24	15	7.9	6.5
11	31	31	242	80	100	164	328	73	26	19	9.4	6.0
12	34	32	211	95	98	159	270	76	25	16	10	5.8
13	29	36	175	98	97	154	229	74	22	15	9.1	5.9
14	29	35	151	86	110	138	213	70	21	15	7.9	6.7
15	30	36	486	83	200	124	196	67	21	16	7.3	7.2
16	30	32	786	95	292	115	174	67	20	15	5.8	7.8
17	30	34	682	129	242	105	164	63	20	13	6.4	8.4
18	31	38	486	242	260	109	167	59	19	13	7.9	9.3
19	30	33	349	235	262	115	155	57	18	14	13	11
20	34	31	716	532	334	103	150	57	18	18	13	16
21	37	29	858	486	207	94	149	55	18	14	9.8	15
22	38	28	733	273	220	90	136	49	17	12	7.8	12
23	36	32	565	187	305	97	148	61	16	11	8.3	13
24	40	31	437	157	220	151	146	68	15	10	7.9	11
25	53	88	427	122	171	257	133	61	15	9.5	7.2	9.1
26	47	123	395	100	162	292	131	55	14	9.9	6.8	8.5
27	48	94	338	93	153	218	139	50	14	9.4	6.6	10
28	47	103	378	91	129	191	133	48	14	12	8.9	13
29	46	191	525	110	132	315	128	47	15	9.9	7.4	13
30	43	168	472	221	---	699	113	45	16	8.2	6.6	11
31	40	---	394	320	---	763	---	43	---	8.0	6.4	---
TOTAL	1134	1615	11721	5398	6163	5878	9040	2141	686	411.9	248.4	278.7
MEAN	36.6	53.8	378	174	213	190	301	69.1	22.9	13.3	8.01	9.29
MAX	53	191	858	532	541	763	869	106	40	19	13	16
MIN	29	28	97	80	97	90	113	43	14	8.0	5.8	5.8
CFSM	.18	.27	1.86	.86	1.05	.93	1.48	.34	.11	.07	.04	.05
IN.	.21	.30	2.15	.99	1.13	1.08	1.66	.39	.13	.08	.05	.05

CAL YR 1987 TOTAL 52043 MEAN 143 MAX 1540 MIN 19 CFSM .70 IN. 9.54
WTR YR 1988 TOTAL 44715.0 MEAN 122 MAX 869 MIN 5.8 CFSM .60 IN. 8.19

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 mi².

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: Jan. 7-15, 25-28, and Feb. 6-15. Records fair.

AVERAGE DISCHARGE.--39 years (water years 1950 to current year), 17.5 ft³/s, 10.90 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,080 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 30	0800	*279	*6.74

Minimum daily discharge, 0.11 ft³/s Sept. 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	1.3	21	37	83	13	75	4.6	1.3	.71	.35	.17
2	1.9	1.3	18	24	56	17	74	4.4	1.3	.68	.36	.18
3	1.6	1.2	15	19	38	16	60	4.2	1.3	.66	.31	.18
4	1.4	1.2	13	13	28	13	47	4.1	1.2	.61	.31	.21
5	1.3	1.1	11	11	20	13	36	3.8	1.2	.53	.39	.25
6	1.3	1.1	9.1	7.6	14	15	59	3.6	1.1	.47	.40	.35
7	1.3	1.1	20	5.8	12	16	70	3.7	1.1	.46	.43	.21
8	1.2	1.1	51	4.8	10	20	42	3.7	1.1	.44	.34	.15
9	1.2	1.2	50	4.2	8.5	27	29	4.2	1.1	.42	.31	.16
10	1.1	1.1	35	3.9	7.4	23	22	3.9	1.2	.66	.28	.15
11	1.1	1.0	27	3.8	6.6	18	17	3.4	1.0	.75	.29	.12
12	1.1	1.1	23	4.1	6.2	18	14	3.4	.88	.55	.25	.13
13	1.1	1.1	17	3.7	6.0	14	12	3.3	.80	.56	.31	.12
14	1.0	1.0	14	3.4	6.2	11	10	3.1	.75	.56	.25	.13
15	1.1	.93	132	3.4	40	9.0	8.6	2.9	.69	.51	.22	.12
16	.98	.95	107	4.2	32	7.9	7.6	2.8	.70	.46	.21	.12
17	.93	1.1	64	6.1	37	7.7	7.7	2.5	.69	.44	.18	.11
18	.98	1.1	45	13	43	8.8	8.8	2.4	.66	.47	.17	.16
19	1.0	1.1	44	8.2	49	8.5	7.5	2.3	.59	.50	.18	.30
20	1.3	1.0	174	72	53	7.5	6.9	2.3	.58	.50	.18	.54
21	1.3	.99	102	21	29	6.4	6.6	2.3	.61	.48	.17	.68
22	1.1	1.1	72	11	35	6.0	6.4	2.2	.59	.45	.18	.44
23	1.1	1.2	56	9.1	55	6.4	6.6	2.5	.64	.43	.24	.49
24	1.3	1.2	54	8.1	32	86	5.7	2.7	.70	.43	.20	.40
25	1.4	13	58	6.2	21	97	5.4	2.4	.69	.42	.22	.36
26	1.5	16	48	5.4	15	66	5.5	2.1	.66	.41	.19	.37
27	1.6	10	39	4.7	13	41	5.8	1.9	.60	.38	.18	.35
28	1.5	19	77	5.0	12	42	5.5	1.7	.63	.36	.21	.33
29	1.3	39	92	7.9	12	72	5.0	1.6	.70	.35	.21	.30
30	1.4	25	60	15	---	214	4.8	1.5	.75	.36	.18	.29
31	1.3	---	51	49	---	96	---	1.4	---	.35	.18	---
TOTAL	40.39	148.57	1599.1	394.6	779.9	1016.2	671.4	90.9	25.81	15.36	7.88	7.87
MEAN	1.30	4.95	51.6	12.7	26.9	32.8	22.4	2.93	.86	.50	.25	.26
MAX	2.7	.39	174	72	83	214	75	4.6	1.3	.75	.43	.68
MIN	.93	.93	9.1	3.4	6.0	6.0	4.8	1.4	.58	.35	.17	.11
CFSM	.06	.23	2.37	.58	1.23	1.50	1.03	.13	.04	.02	.01	.01
IN.	.07	.25	2.73	.67	1.33	1.73	1.15	.16	.04	.03	.01	.01

CAL YR 1987 TOTAL 4772.44 MEAN 13.1 MAX 174 MIN .59 CFSM .60 IN. 8.14
WTR YR 1988 TOTAL 4797.98 MEAN 13.1 MAX 214 MIN .11 CFSM .60 IN. 8.19

05524500 IROQUOIS RIVER NEAR FORESMAN, IN

LOCATION.--Lat 40°52'14", long 87°18'24", in NE 1/4 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 mi².

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: Jan. 3-16, 26-29, and Feb. 5-15. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--39 years (water years 1950 to current year), 384 ft³/s, 11.61 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,930 ft³/s June 14, 1958, gage height, 24.42 ft; minimum daily, 6.3 ft³/s Sept. 10, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,710 ft³/s Dec. 22; maximum gage height, 15.08 ft Apr. 1; minimum daily, 7.9 ft³/s Aug. 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	69	395	1090	934	311	1580	218	76	22	11	10
2	73	72	369	893	1070	328	1480	208	71	22	11	11
3	65	74	332	620	1030	342	1370	199	69	22	11	12
4	60	76	292	500	879	332	1300	189	64	21	12	12
5	57	74	251	410	600	312	1190	182	61	19	12	16
6	55	68	226	330	350	310	1090	178	58	19	12	15
7	54	62	267	290	300	322	1190	163	55	20	12	14
8	53	61	638	255	280	353	1280	158	52	18	12	13
9	52	63	809	230	270	408	1250	165	49	17	12	12
10	49	58	798	215	260	452	1120	173	45	20	12	12
11	49	53	679	205	250	431	946	159	43	28	13	12
12	51	51	569	220	240	408	768	149	45	23	14	12
13	51	54	466	230	240	392	609	144	42	19	13	11
14	46	56	384	210	260	344	506	138	36	19	12	11
15	46	55	804	200	450	309	445	131	34	19	11	11
16	46	51	1310	210	713	274	392	129	34	18	9.6	12
17	46	50	1430	261	704	252	365	124	34	16	7.9	13
18	47	54	1380	434	733	249	358	111	33	16	11	13
19	48	55	1240	476	775	263	337	105	31	16	15	17
20	54	49	1380	814	825	249	313	103	29	17	18	29
21	60	45	1640	1030	723	225	307	102	29	21	15	25
22	61	43	1700	859	599	206	292	94	27	16	13	21
23	62	45	1620	596	715	208	289	96	25	15	13	19
24	64	47	1480	420	686	422	291	134	24	14	13	16
25	80	92	1350	327	534	810	269	128	22	13	12	13
26	86	228	1230	250	432	928	258	113	22	13	11	11
27	84	226	1100	220	384	844	267	101	21	13	11	9.6
28	83	199	1040	220	325	688	266	94	20	13	14	10
29	81	387	1230	280	310	782	252	89	20	15	13	15
30	77	442	1280	425	---	1190	234	84	23	12	12	13
31	72	---	1220	582	---	1530	---	82	---	12	11	---
TOTAL	1896	2959	28909	13302	15871	14474	20614	4243	1194	548	379.5	420.6
MEAN	61.2	98.6	933	429	547	467	687	137	39.8	17.7	12.2	14.0
MAX	86	442	1700	1090	1070	1530	1580	218	76	28	18	29
MIN	46	43	226	200	240	206	234	82	20	12	7.9	9.6
CFSM	.14	.22	2.08	.96	1.22	1.04	1.53	.30	.09	.04	.03	.03
IN.	.16	.25	2.40	1.10	1.31	1.20	1.71	.35	.10	.05	.03	.03

CAL YR 1987 TOTAL 122307 MEAN 335 MAX 3060 MIN 23 CFSM .75 IN. 10.13
WTR YR 1988 TOTAL 104810.1 MEAN 286 MAX 1700 MIN 7.9 CFSM .64 IN. 8.68

05536190 HART DITCH AT MUNSTER, IN

LOCATION.--Lat 41°33'40", long 87°28'50", in SE 1/4 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 mi².

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. 9, 10, 20, 21, Jan. 5-12, 20, and Apr. 6, 7. Records good. High flow occasionally in backwater from Little Calumet River.

AVERAGE DISCHARGE.--46 years, 62.5 ft³/s, 12.00 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,670 ft³/s Apr. 28, 1959; maximum gage height, 8.04 ft June 14, 1981; minimum daily discharge, 1.6 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 20	2100	1,000	4.09	Apr. 6	2000	*1,300	*4.72
Mar. 30	1300	815	3.27	Aug. 9	0100	1,000	3.81

Minimum daily discharge, 2.0 ft³/s July 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	17	89	76	303	57	220	25	11	7.7	6.7	6.8
2	16	24	73	66	172	61	160	21	10	6.4	6.2	6.3
3	16	19	69	52	109	56	227	21	10	4.7	7.9	5.8
4	14	19	89	43	78	45	250	20	9.6	6.4	5.8	18
5	15	17	66	35	61	38	149	18	8.2	5.9	5.2	9.2
6	13	16	46	30	50	39	930	17	6.5	5.3	5.7	7.4
7	12	16	104	26	41	38	930	14	7.5	5.6	4.1	6.9
8	15	17	365	24	37	41	433	17	8.8	4.8	30	6.0
9	18	18	280	21	36	55	221	23	9.0	2.8	204	6.9
10	15	15	180	20	35	56	128	19	7.2	3.7	105	6.1
11	14	15	114	18	33	48	91	16	7.0	3.2	40	6.9
12	12	16	91	19	32	49	73	15	6.2	2.4	18	7.4
13	10	16	70	20	30	49	63	15	7.2	5.2	20	6.8
14	9.2	15	53	16	43	44	57	14	6.4	3.5	14	7.2
15	9.2	14	133	15	116	37	48	16	4.3	3.3	10	5.3
16	13	17	225	27	102	35	42	14	3.9	2.0	9.5	6.6
17	22	18	123	191	99	36	40	14	4.2	3.3	7.7	7.1
18	12	17	74	425	112	32	38	12	2.7	43	8.1	8.4
19	14	16	84	379	160	32	33	13	3.0	7.9	7.9	35
20	29	16	850	580	131	30	32	12	38	43	6.8	12
21	19	17	690	274	75	30	32	11	17	9.7	7.3	6.9
22	16	15	359	132	95	28	31	13	5.2	7.5	7.5	11
23	14	15	212	76	175	26	34	94	7.9	6.7	9.7	8.8
24	30	14	187	63	95	62	28	106	5.4	5.8	7.0	5.2
25	25	48	274	52	62	95	26	41	4.0	8.5	5.4	5.9
26	24	41	163	42	52	70	26	26	4.5	6.7	5.8	6.9
27	24	31	106	36	61	50	36	21	4.1	5.7	49	8.0
28	19	78	153	31	51	147	31	17	4.3	5.1	31	6.6
29	18	178	194	42	56	402	26	16	34	5.4	11	6.6
30	18	99	139	120	---	762	25	14	9.4	91	8.3	7.1
31	17	---	119	277	---	428	---	13	---	7.0	7.5	---
TOTAL	519.4	874	5774	3228	2502	2978	4460	708	266.5	329.2	672.1	255.1
MEAN	16.8	29.1	186	104	86.3	96.1	149	22.8	8.88	10.6	21.7	8.50
MAX	30	178	850	580	303	762	930	106	38	91	204	35
MIN	9.2	14	46	15	30	26	25	11	2.7	2.0	4.1	5.2
CFSM	.24	.41	2.63	1.47	1.22	1.36	2.10	.32	.13	.15	.31	.12
IN.	.27	.46	3.04	1.70	1.32	1.57	2.35	.37	.14	.17	.35	.13

CAL YR 1987 TOTAL 24380.8 MEAN 66.8 MAX 936 MIN 8.8 CFSM .94 IN. 12.83
WTR YR 1988 TOTAL 22566.3 MEAN 61.7 MAX 930 MIN 2.0 CFSM .87 IN. 11.87

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 mi². 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: Dec. 17, 18, Jan. 1-16, 22-29, Feb. 5-15, Apr. 10-16, and May 24. Records fair except for Jan. 1-16, 22-29, and Feb. 5-15, which are poor. Flow from eastern portion of Little Calumet River basin is diverted to Lake Michigan by Burns ditch.

AVERAGE DISCHARGE.--30 years, 73.5 ft³/s, 11.09 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,510 ft³/s Apr. 28, 1959, gage height, 13.67 ft; maximum gage height, 16.40 ft June 14, 1981; minimum daily discharge, 1.9 ft³/s Aug. 20, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 522 ft³/s Apr. 7, gage height, 10.77 ft; minimum daily, 3.2 ft³/s July 12, 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	25	83	90	202	54	211	28	15	7.9	14	11
2	15	31	72	70	155	58	176	25	14	6.9	12	10
3	13	28	65	58	121	58	185	25	15	5.5	9.5	9.5
4	13	26	72	48	94	52	193	23	14	5.7	12	18
5	11	24	62	40	70	48	159	23	12	5.4	9.6	18
6	9.2	24	51	33	54	43	407	21	13	5.6	9.5	12
7	8.7	22	69	29	45	42	482	19	9.8	5.0	7.5	11
8	8.5	21	191	26	42	43	312	21	14	4.8	17	10
9	20	24	204	24	40	50	242	27	15	4.2	269	9.8
10	17	21	158	22	38	53	160	22	14	3.8	142	9.9
11	20	19	122	20	37	50	120	21	13	3.8	104	9.7
12	14	18	98	21	35	49	90	19	12	3.2	41	9.9
13	16	17	79	22	34	47	72	19	13	5.3	29	10
14	14	17	62	18	47	47	62	19	12	4.5	26	9.6
15	14	17	92	17	100	42	52	20	10	4.1	17	8.2
16	15	18	143	40	100	40	46	19	8.3	3.2	15	8.6
17	25	21	110	148	90	37	43	17	8.7	3.6	14	8.3
18	17	18	85	317	91	37	40	17	7.5	40	12	9.2
19	16	17	77	269	111	34	36	17	5.8	17	13	28
20	31	19	379	367	110	34	34	18	31	29	11	30
21	22	16	468	270	107	32	35	16	55	20	10	13
22	22	17	301	130	79	32	33	17	7.7	11	9.6	14
23	20	19	229	83	115	29	36	94	8.3	9.1	11	16
24	35	17	196	70	98	46	32	100	6.9	7.7	10	11
25	30	43	208	57	78	67	29	62	5.9	9.5	8.8	10
26	30	38	177	47	58	58	30	39	5.8	8.5	7.0	10
27	30	34	141	41	57	51	36	27	6.1	7.5	27	10
28	28	68	143	35	54	91	32	21	5.6	6.5	57	12
29	28	115	157	45	55	217	31	19	26	6.4	20	10
30	25	88	139	76	---	380	27	17	10	151	15	10
31	24	---	120	157	---	309	---	17	---	23	13	---
TOTAL	613.4	882	4553	2690	2317	2230	3443	849	394.4	428.7	972.5	366.7
MEAN	19.8	29.4	147	86.8	79.9	71.9	115	27.4	13.1	13.8	31.4	12.2
MAX	35	115	468	367	202	380	482	100	55	151	269	30
MIN	8.5	16	51	17	34	29	27	16	5.6	3.2	7.0	8.2
CFSM	.22	.33	1.63	.96	.89	.80	1.28	.30	.15	.15	.35	.14
IN.	.25	.36	1.88	1.11	.96	.92	1.42	.35	.16	.18	.40	.15

CAL YR 1987 TOTAL 23449.4 MEAN 64.2 MAX 546 MIN 8.5 CFSM .71 IN. 9.69
WTR YR 1988 TOTAL 19739.7 MEAN 53.9 MAX 482 MIN 3.2 CFSM .60 IN. 8.16

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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	1941-73a
03303276	Friday Branch tributary near Saint Meinrad	Dubois	.096	1981b
03304000	Little Pigeon Creek near Tennyson	Warrick	187	1944-47
03322100	Pigeon Creek at Evansville	Vanderburgh	323	1960-85
03326000	Mississinewa River near Eaton	Delaware	310	1952-71b
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	1959-73a
03332500	Tippecanoe River near Monticello	White	1,732	1932-81c
03333500	Wildcat Creek at Greentown	Howard	168	1945-61
03334000	Wildcat Creek at Owasco	Carroll	396	1944-73a
03335700	Big Pine Creek near Williamsport	Warren	323	1955-87
03339120	Coal Creek at Coal Creek	Fountain	214	1965-72
03339150	Little Vermillion River near Newport	Vermillion	237	1965-72
03339855	Sugar Creek tributary near Deer Mill	Montgomery	.45	1981b
03340000	Sugar Creek near Byron	Parke	670	1941-71b
03341000	Big Raccoon Creek at Mansfield	Parke	248	1939-58d
03341200	Little Raccoon Creek near Catlin	Parke	134	1957-71d,e
03341420	Brouillets Creek near Universal	Vermillion	321	1966-71b
03341470	North Coal Creek near Terre Haute	Vigo	1.91	1974-76
03341570	Honey Creek near Riley	Vigo	5.79	1981b
03342150	West Fork Busseron Creek near Hymersa	Sullivan	14.4	1966-86
03342250	Mud Creek near Dugger	Sullivan	11.9	1966-81
03342300	Busseron Creek near Sullivan	Sullivan	138	1966-86
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	1972-75b,e
03348100	Killbuck Creek near Anderson	Madison	97.8	1964-68
03348500	White River near Noblesville	Hamilton	828	1915-26, 1929-74b
03349500	Cicero Creek near Arcadia	Hamilton	131	1955-76a
03349700	Little Cicero Creek near Arcadia	Hamilton	40.4	1956-76a
03350000	Cicero Creek near Cicero	Hamilton	196	1946-54
03350100	Hinkle Creek near Cicero	Hamilton	18.5	1956-76a
03352000	Lawrence Creek at Fort Benjamin Harrison	Marion	2.74	1952-56, 1958-69
03352200	Mud Creek at Indianapolis	Marion	42.4	1958-76a
03353160	Pleasant Run at Brookville Road at Indianapolis	Marion	10.1	1960-81
03355000	Bear Creek near Trevlac	Brown	6.94	1952-73a
03356000	Beanblossom Creek at Dolan	Monroe	100	1946-78
03356500	Beanblossom Creek near Bloomington	Monroe	112	1931-33
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	1981b
03365000	Sand Creek near Brewersville	Jennings	155	1948-86
03366000	Graham Creek near Vernon	Jennings	77.2	1955-73
03367000	Muscatatuck River near Austin	Jackson	359	1932-43, 1944-71f
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	1962-76a
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, 1957-71d
03373200	Indian Creek near Springville	Lawrence	60.7	1961-73a
03374100	White River at Hazleton	Gibson	11,305	1928-38h
03376000	Patoka River near Jasper	Dubois	348	1944-47e
03376260	Flat Creek near Otwell	Pike	21.3	1965-1982
03376279	Little Flat Creek near Otwell	Dubois	6.56	1981b
03376350	South Fork Patoka River near Spurgeon	Pike	42.8	1964-86
03378500	Wabash River at New Harmony	Posey	29,234	1939-47h

Station no.	Station name	County	Drainage area (mi ²)	Period of record
STREAMS TRIBUTARY TO LAKE MICHIGAN				
04090500	Dunes Creek at Porter	Porter	3.40	1979-1982
04095100	Derby ditch at Beverly Shores	Porter	4.64	1980
04097970	Lime Lake outlet at Panama	Steuben	17.5	1969-86
04098000	Pawn 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
04100465	Turkey Creek at Syracuse	Kosciusko	43.8	1969-87
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
04182700	St. Marys River at Fort Wayne	Allen	810	1905-06
UPPER MISSISSIPPI RIVER BASIN				
05515400	Kingsbury Creek near LaPorte	LaPorte	7.08	1970-86
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 Illinois, 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
05524000	Carpenter Creek at Egypt	Jasper	44.8	1953-82

^aContinued as a crest-stage and low-flow partial-record station through 1984.

^bSome quality of water data available.

^cRecords of daily discharges furnished by Northern Indiana Public Service Company.

^dContinued as a stage only station through 1984.

^eSome record fragmentary.

^fHigh-water records only.

^gStage only station 1972-75.

^hSome quality of water data available after station discontinued for stream-gaging records.

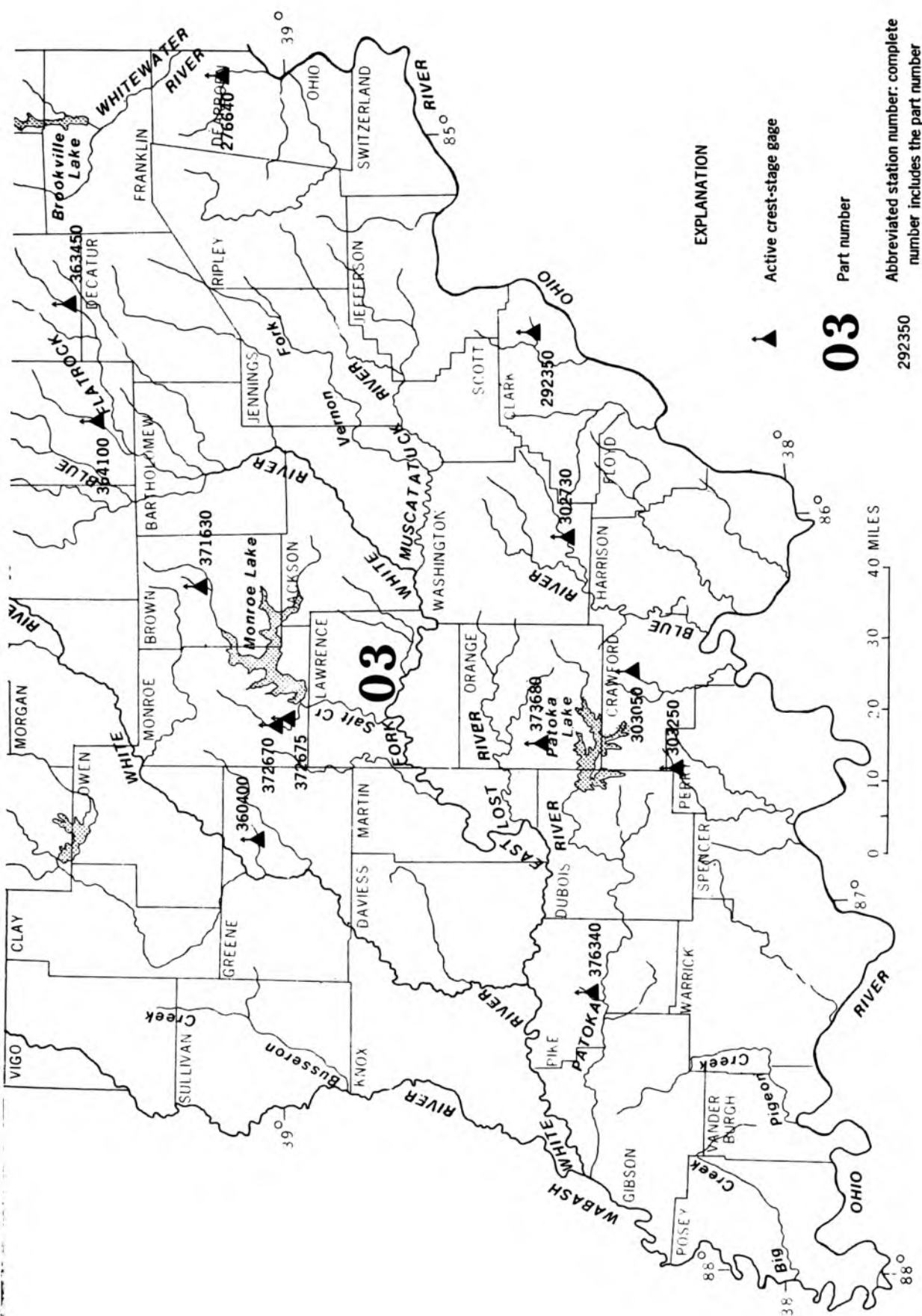


Figure 5.- Locations of crest-stage partial-record stations in Indiana.

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.

					Annual maximum		
Station number	Station name	Location	Drainage area (mi ²)	Period of record	Date	Gage height (ft)	Dis-charge (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-	No marks all year		<16
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-	03-03-88	11.9 ^b	<90
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-	04-06-88	5.7 ⁴	12
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-	02-02-88	17.47	1,880
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-	No marks all year		<390
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-	04-06-88	6.68	47
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-	04-07-88	12.76	1,990

Crest-stage partial-record stations--Continued

Station number	Station name	Location	Drainage area (mi ²)	Period of record	Annual maximum		
					Date	Gage height (ft)	Dis-charge (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-	No marks all year		<15
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-	12-15-87	5.76	70
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-	01-20-88 03-30-88	5.13 4.99	Back- water 6.2
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-	04-06-88	7.32	80
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-	02-20-88	<5.33	<7
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-	04-06-88	5.74	42
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-	02-01-89	5.75	30
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-	04-30-83 04-07-88	15.22 9.55	5,320 447
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-	02-02-88	6.62	70
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-	04-06-88	6.39	18
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-	07-20-88	4.92	1,160
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.	.29	1973-	02-01-88	5.12	37

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Crest-stage partial-record stations--Continued

					Annual maximum		
Station number	Station name	Location	Drainage area (mi ²)	Period of record	Date	Gage height (ft)	Dis-charge (ft ³ /s)
OHIO RIVER BASIN--Continued							
Wabash River basin--Continued							
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.	0.84	1973-	02-02-88	6.00	49
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	04-06-88	13.38	680
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-	04-06-88	7.01	44

^aAbout.^bFrom poor outside highwater mark.

237 6 in PR Sides Also

238 6 in PR Sides Also

239 6 in PR Sides Also

240 6 in PR Sides Also

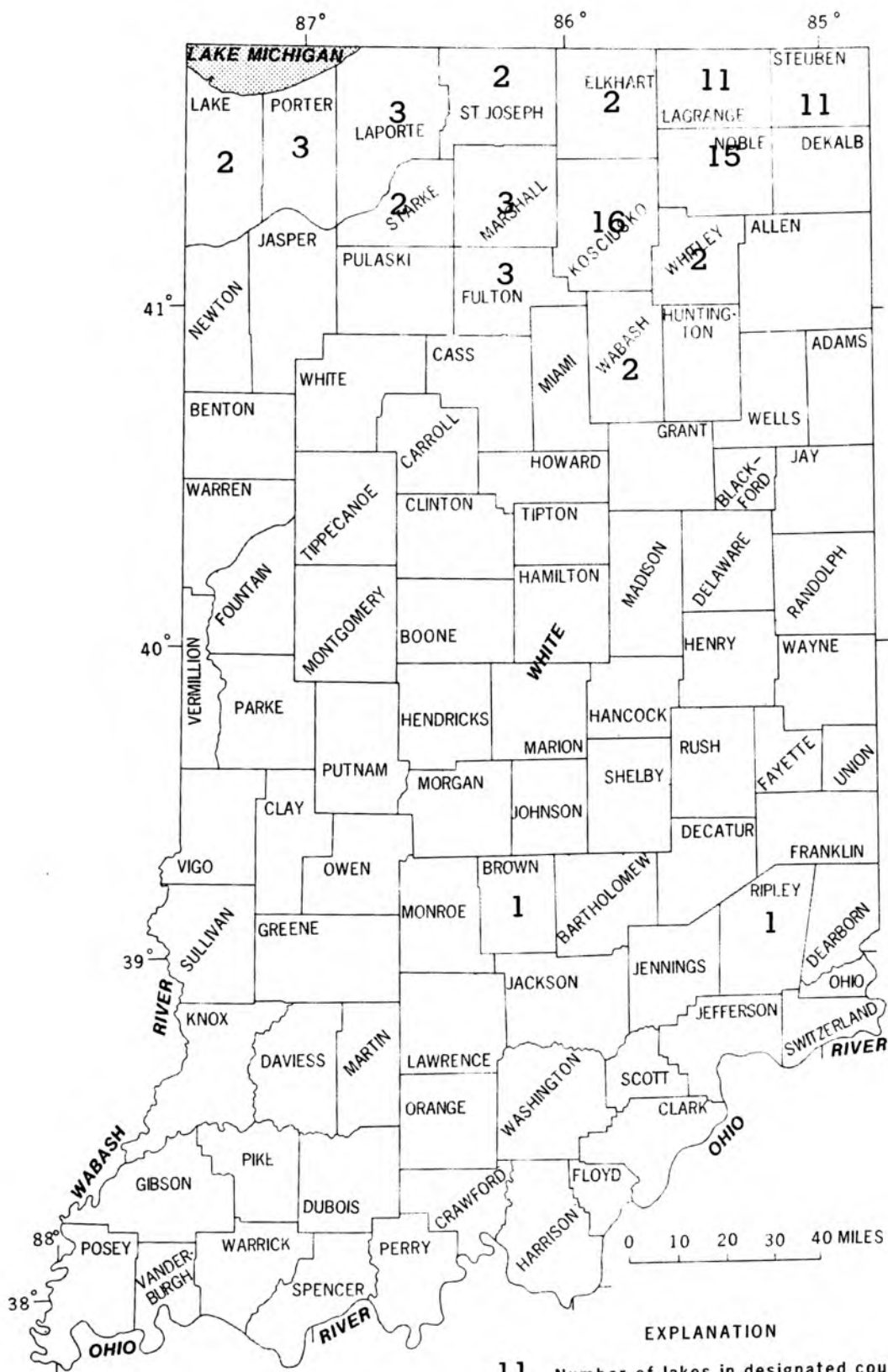


Figure 6.-- Number of lakes by county having 1987 water-level records.

STREAMS TRIBUTARY TO LAKE MICHIGAN

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 mi².

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--949.90 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels of the Indiana Department of Natural Resources, 1976.

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.--3.59 ft gage datum or 953.59 ft above National Geodetic Vertical Datum of 1929 as decreed on December 17, 1949, by the Lagrange County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 3.59 ft gage datum or 953.49 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 "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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.12	3.10	3.42	4.07	4.07	4.07	4.09	3.88	3.49	3.04	3.05	3.10
10	3.12	3.08	3.57	4.07	4.07	4.05	4.37	3.82	3.36	3.07	2.98	3.04
15	3.09	3.05	3.81	4.07	4.07	4.02	4.23	3.76	3.35	3.06	3.01	3.00
20	3.09	3.08	4.02	4.07	4.07	3.99	4.11	3.71	3.31	3.09	3.04	3.14
25	3.10	3.22	4.09	4.07	4.07	4.01	4.03	3.67	3.24	3.11	2.99	3.13
EOM	3.11	3.34	4.07	4.07	4.07	4.09	3.97	3.58	3.11	3.03	2.97	3.07

WTR YR 1988 MEAN 3.55 MAX 4.40 MIN 2.93

STREAMS TRIBUTARY TO LAKE ERIE

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 mi².

PERIOD OF RECORD.--1961 to current year.

DATUM OF GAGE.--889.81 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels of the Indiana Department of Natural Resources in February 1972.

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 as decreed on September 20, 1974, by the Steuben County Circuit Court.

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.18	4.35	4.63	4.66	3.98	4.18	4.84	---	4.82	4.79	4.85	4.83
10	4.18	4.33	4.94	4.66	3.98	---	---	---	4.82	4.84	4.80	4.80
15	4.19	4.32	5.67	4.66	3.98	---	---	---	4.83	4.81	4.82	4.80
20	4.23	4.35	5.74	4.66	3.98	4.32	---	---	4.84	4.82	4.82	4.85
25	4.37	4.62	4.89	4.66	3.97	5.50	---	---	4.81	4.81	4.79	4.81
EOM	4.39	4.80	4.71	4.35	3.97	4.83	---	---	4.79	4.80	4.80	4.80

WTR YR 1988 MEAN 4.62 MAX 5.74 MIN 3.97

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 mi².

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--699.83 ft above National Geodetic Vertical Datum of 1929, as corrected from the unadjusted elevations.

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 August 10, 1948, by the Starke County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 13.65 ft gage datum or 713.48 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.--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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.33	13.22	13.29	13.66	13.84	13.89	14.08	13.87	13.46	12.95	12.70	12.46
10	13.31	13.19	13.39	13.66	13.84	13.90	14.12	13.81	13.35	12.96	12.69	12.39
15	13.27	13.16	13.49	13.64	13.85	13.86	14.03	13.76	13.27	12.94	12.63	12.34
20	13.27	13.13	13.58	13.76	13.93	13.86	13.98	13.69	13.19	12.94	12.59	12.45
25	13.27	13.23	13.64	13.78	13.92	13.92	13.94	13.65	13.08	12.89	12.53	12.40
EOM	13.25	13.27	13.67	13.83	13.91	14.03	13.94	13.58	13.02	12.78	12.47	12.35

WTR YR 1988 MEAN 13.37 MAX 14.20 MIN 12.30

STREAMS TRIBUTARY TO LAKE MICHIGAN

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 Wolf Lake.

SURFACE AREA.--136 acres.

DRAINAGE AREA.--6.98 mi².

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--889.90 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels of the 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 on the west side of the dredged channel.

ESTABLISHED LEGAL LEVEL.--4.60 ft gage datum or 894.60 ft above National Geodetic Vertical Datum of 1929 as decreed on September 23, 1959, by the Noble County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 4.60 ft gage datum or 894.50 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.19	4.23	4.61	4.53	4.56	4.53	4.67	4.43	4.19	3.72	3.65	3.59
10	4.20	4.23	4.65	4.45	4.51	4.54	4.85	4.41	4.09	3.72	3.61	3.53
15	4.17	4.21	4.82	4.42	4.53	4.55	4.71	4.39	4.02	3.75	3.61	3.48
20	4.17	4.27	4.83	4.56	4.58	4.52	4.63	4.34	3.95	3.78	3.60	3.66
25	4.19	4.49	4.71	4.51	4.61	4.82	4.55	4.37	3.90	3.73	3.58	3.62
EOM	4.23	4.62	4.64	4.58	4.55	4.74	4.48	4.29	3.79	3.69	3.53	3.57

WTR YR 1988 MEAN 4.23 MAX 5.00 MIN 3.46

WABASH RIVER BASIN

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 southeastern shore of the lake, at the public fishing site, 4.9 mi northeast of Warsaw.

SURFACE AREA.--581 acres.

DRAINAGE AREA.--4.17 mi².

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 October 18, 1949, by the Kosciusko County Circuit Court. Little Chapman Lake has the same control structure and 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.58	7.48	7.64	7.55	7.57	7.46	7.73	7.46	7.46	7.08	7.07	7.44
10	7.60	7.45	7.67	7.44	7.50	7.47	7.82	7.45	7.38	7.08	7.05	7.39
15	7.61	7.43	7.88	7.39	7.56	7.51	7.67	7.45	7.34	7.08	7.02	7.36
20	7.55	7.44	7.88	7.55	7.56	7.50	7.58	7.45	7.30	7.11	7.09	7.44
25	7.52	7.60	7.76	7.50	7.53	7.79	7.52	7.54	7.22	7.09	7.08	7.40
EOB	7.50	7.67	7.68	7.60	7.48	7.79	7.49	7.52	7.13	7.07	7.04	7.37

WTR YR 1988 MEAN 7.45 MAX 7.94 MIN 6.99

WABASH RIVER BASIN

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 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.--8.40 ft gage datum or 898.40 ft above National Geodetic Vertical Datum of 1929 as decreed on July 18, 1956, 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.--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, 7.12 ft Aug. 24, 1987.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.35	7.42	8.35	8.37	8.52	8.29	8.45	8.18	8.09	7.57	7.43	7.30
10	7.35	7.42	8.53	8.37	8.52	8.30	9.28	8.19	7.98	7.56	7.37	7.23
15	7.33	7.41	8.73	8.37	8.52	8.30	8.42	8.18	7.90	7.54	7.35	7.18
20	7.34	7.46	8.97	8.48	8.52	8.29	8.29	8.20	7.83	7.55	7.36	7.31
25	7.36	7.74	8.63	8.41	8.52	9.18	8.29	8.21	7.75	7.49	7.30	7.28
EOB	7.42	8.37	8.37	8.50	8.31	8.83	8.23	8.14	7.64	7.46	7.23	7.24

WTR YR 1988 MEAN 7.97 MAX 9.51 MIN 7.17

STREAMS TRIBUTARY TO LAKE MICHIGAN

241

04099600 BIG LONG LAKE NEAR STROH, IN

LOCATION.--Lat 41°33'17", long 85°13'47", in NE¼NW¼ 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 Mook Addition in the vicinity of the Shady Mook Tavern, 2.4 mi southwest of Stroh.

SURFACE AREA.--388 acres.

DRAINAGE AREA.-- 4.77 mi².

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, by the Lagrange County Circuit Court.

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.76	5.69	6.04	6.17	---	---	6.35	6.14	5.92	5.39	5.35	5.73
10	5.86	5.70	6.17	6.09	---	---	6.42	6.18	5.80	5.82	5.25	5.45
15	5.68	5.63	6.49	6.09	---	---	6.31	6.19	5.94	5.53	5.39	5.28
20	5.87	5.70	6.49	---	---	6.23	6.26	6.10	5.69	5.54	5.50	5.72
25	5.73	6.01	6.43	---	---	6.40	6.21	6.15	5.58	5.47	5.40	5.49
EOM	5.73	6.07	6.32	---	---	6.38	6.20	6.02	5.47	5.37	5.33	5.34

WTR YR 1988 MEAN 5.86 MAX 6.52 MIN 5.18

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100140 BIXLER LAKE AT KENDALLVILLE, IN

LOCATION.--Lat 41°26'13", long 85°15'10", in NE¼NE¼ 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 mi².

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--960.10 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels of the 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 is bolted to a concrete pier 20 ft upstream from the control dam.

ESTABLISHED LEGAL LEVEL.--3.65 ft gage datum or 963.65 ft above National Geodetic Vertical Datum of 1929 as decreed on April 25, 1952, by the Noble County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 3.65 ft gage datum or 963.75 ft above National Geodetic Vertical Datum of 1929.

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 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, 1954.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.34	3.38	3.75	2.70	3.47	3.11	4.01	3.33	3.26	2.62	2.67	2.59
10	3.32	3.34	3.73	2.61	3.33	3.27	4.30	3.35	3.13	2.58	2.61	2.51
15	3.28	3.31	3.74	2.57	3.46	3.61	3.60	3.33	3.05	2.51	2.58	2.44
20	3.26	3.31	4.00	3.59	3.86	3.82	3.27	3.29	2.98	2.55	2.56	2.58
25	3.27	3.64	3.61	3.29	3.85	4.72	3.27	3.44	2.87	2.72	2.51	2.55
EOM	3.40	4.08	3.04	3.33	3.44	4.20	3.29	3.38	2.73	2.71	2.44	2.50

WTR YR 1988 MEAN 3.20 MAX 4.72 MIN 2.42

WABASH RIVER BASIN

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 mi².

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 of 1929 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 ft 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.44	9.43	10.10	9.98	10.03	9.96	10.36	9.89	9.59	8.93	9.13	8.96
10	9.43	9.42	10.27	9.81	9.95	9.96	10.89	9.87	9.48	8.65	9.03	8.84
15	9.41	9.39	10.49	9.77	9.95	9.98	10.46	9.81	9.40	9.26	8.99	8.76
20	9.42	9.43	10.51	10.01	10.03	9.98	10.20	9.77	9.34	9.23	9.03	9.05
25	9.41	9.72	10.34	9.96	10.08	10.48	10.03	9.77	9.23	9.15	8.94	8.94
EOM	9.44	10.06	10.19	9.99	10.00	10.39	9.95	9.69	9.18	9.17	8.82	8.89

WTR YR 1988 MEAN 9.65 MAX 11.08 MIN 8.36

STREAMS TRIBUTARY TO LAKE MICHIGAN

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 mi².

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 October 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 controlled 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.28	8.39	9.24	9.41	10.25	9.50	10.42	8.89	8.63	8.14	8.16	8.52
10	8.27	8.34	9.95	9.01	9.47	9.44	11.23	8.78	8.49	8.15	8.14	8.32
15	8.24	8.30	10.48	8.82	9.38	9.46	10.26	8.71	8.47	8.18	8.15	8.22
20	8.25	8.31	11.42	10.24	9.62	9.23	9.55	8.66	8.41	8.19	8.24	8.39
25	8.28	8.75	11.24	9.66	10.37	10.68	9.21	9.02	8.31	8.25	8.21	8.37
EOM	8.48	9.36	10.20	10.10	9.82	10.75	9.07	8.78	8.20	8.17	8.20	8.23

WTR YR 1988 MEAN 9.02 MAX 11.71 MIN 8.09

04099810 CASS LAKE NEAR SHIPSEWANA, IN

LOCATION.--Lat 41°41'42", long 85°38'18", in SW1/4NW1/4 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 mi².

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.70	2.80	2.81	2.72	2.78	2.78	2.88	2.65	2.68	2.22	2.33	2.48
10	2.72	2.77	2.83	2.72	2.78	2.78	3.09	2.61	2.58	2.29	2.31	2.44
15	2.70	2.71	2.97	2.72	2.78	2.72	2.95	2.62	2.56	2.37	2.43	2.40
20	2.72	2.73	2.95	2.72	2.78	2.69	2.80	2.59	2.50	2.36	2.42	2.45
25	2.78	2.86	2.89	2.72	2.78	2.69	2.71	2.78	2.39	2.36	2.38	2.40
EOM	2.81	2.86	2.83	2.76	2.78	2.77	2.68	2.76	2.29	2.30	2.40	2.32

WTR YR 1988 MEAN 2.65 MAX 3.09 MIN 2.18

ILLINOIS RIVER BASIN

05518700 CEDAR LAKE AT CEDAR LAKE, IN

LOCATION.--Lat 41°21'58", long 87°25'36", in NE1/4SW1/4 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 mi².

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.--Not established.

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; below 1.22 July, August, and September 1988.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.86	2.86	2.97	3.18	3.30	3.12	3.34	2.93	2.62	2.08	1.38	---
10	2.81	2.82	3.15	3.14	3.30	3.14	3.35	2.90	2.50	2.00	1.74	---
15	2.79	2.79	3.25	3.12	3.29	3.09	3.18	2.85	2.42	1.57	1.34	---
20	2.82	2.79	3.37	3.34	3.29	3.01	3.08	2.78	2.33	1.62	1.26	---
25	2.84	2.81	3.37	3.34	3.29	3.14	3.04	2.79	2.22	1.26	---	---
EOM	2.84	2.93	3.33	3.30	3.14	3.31	3.00	2.73	2.13	---	---	---

WTR YR 1988 MEAN 2.83 MAX 3.39 MIN 1.22

03331160 CENTER LAKE AT WARSAW, IN

LOCATION.--Lat 41°15'02", long 85°51'32", in NE¼SW¼ 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, 0.8 mi north of the court house, Warsaw.

SURFACE AREA.--120 acres.

DRAINAGE AREA.--0.73 mi².

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 as decreed on December 3, 1963, by the Kosciusko County Circuit Court.

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.72	3.98	4.51	5.20	4.81	4.59	4.93	3.95	3.56	2.50	2.07	4.30
10	3.68	3.95	4.64	5.20	4.81	4.47	5.47	3.84	3.35	2.36	2.00	3.95
15	3.63	3.90	4.98	5.20	4.80	4.35	5.12	3.81	3.17	2.30	1.88	3.84
20	3.69	3.85	5.40	4.86	4.92	4.26	4.71	3.75	3.05	2.32	2.24	3.87
25	3.72	3.98	5.52	4.82	5.01	4.56	4.42	3.82	2.84	2.22	3.02	3.78
EOM	3.79	4.50	5.36	4.61	4.75	4.89	4.17	3.70	2.64	2.18	3.89	3.67

WTR YR 1988 MEAN 3.96 MAX 5.53 MIN 1.80

STREAMS TRIBUTARY TO LAKE ERIE

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 mi².

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.28	7.31	7.54	7.84	7.88	7.87	7.99	7.73	7.62	7.13	7.01	6.99
10	7.27	7.30	7.70	7.80	7.88	7.86	8.06	7.70	7.52	7.14	6.95	6.93
15	7.25	7.28	7.89	7.80	7.87	7.84	7.93	7.74	7.46	7.07	6.97	6.89
20	7.24	7.27	7.99	7.81	7.87	7.82	7.84	7.72	7.40	7.11	6.94	7.01
25	7.26	7.40	8.00	7.82	7.87	7.94	7.79	7.72	7.28	7.06	6.87	7.00
EOM	7.32	7.49	7.92	7.83	7.87	7.96	7.77	7.66	7.19	7.01	6.86	6.97

WTR YR 1988 MEAN 7.50 MAX 8.09 MIN 6.85

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 mi².

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 August 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.82	7.80	7.80	8.12	8.27	8.23	8.58	8.31	7.77	7.43	7.38	7.35
10	7.91	7.74	7.89	8.09	8.27	8.20	8.56	8.21	7.64	7.42	7.39	7.34
15	7.86	7.71	8.02	8.07	8.32	8.19	8.46	8.13	7.52	7.41	7.38	7.34
20	7.89	7.66	8.13	8.11	8.33	8.15	8.43	8.04	7.54	7.41	7.38	7.36
25	7.88	7.68	8.12	8.13	8.30	8.21	8.38	8.04	7.47	7.40	7.37	7.34
EOM	7.84	7.72	8.16	8.17	8.27	8.36	8.37	7.91	7.44	7.39	7.36	7.34

WTR YR 1988 MEAN 7.87 MAX 8.68 MIN 7.34

STREAMS TRIBUTARY TO LAKE MICHIGAN

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 mi².

PERIOD OF RECORD.--1946-70, 1972 to current year.

DATUM OF GAGE.--980.26 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels of Indiana Department of Natural Resources, 1977-78.

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. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 8.17 ft gage datum or 988.43 ft above National Geodetic Vertical Datum of 1929.

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.97	8.98	9.08	9.26	9.28	9.18	9.33	9.06	9.08	8.52	8.64	8.55
10	8.99	8.94	9.17	9.20	9.25	9.20	9.35	9.05	9.04	8.80	8.47	8.38
15	8.93	8.89	9.37	9.18	9.29	9.19	9.27	9.10	9.11	8.51	8.46	8.31
20	8.99	8.90	9.40	9.27	9.26	9.17	9.20	9.01	9.04	8.56	8.39	8.62
25	8.99	9.14	9.37	9.17	9.24	9.32	9.12	9.21	8.98	8.51	8.34	8.48
EOM	8.99	9.11	9.34	9.25	9.22	9.34	9.12	9.10	8.62	8.43	8.30	8.43

WTR YR 1988 MEAN 8.97 MAX 9.47 MIN 8.28

STREAMS TRIBUTARY TO LAKE MICHIGAN

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 mi².

PERIOD OF RECORD.--1945 to current year.

DATUM OF GAGE.--859.87 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels of Indiana Department of Natural Resources, 1973-74.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 24-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--7.70 ft gage datum or 867.70 ft above National Geodetic Vertical Datum of 1929 as decreed on October 18, 1949, by the Kosciusko County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 7.70 ft gage datum or 867.57 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.--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 Wabash 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.47	7.34	7.46	8.06	---	---	8.35	8.04	7.74	7.20	6.91	6.87
10	7.46	7.30	7.56	8.06	---	---	8.47	7.99	7.62	7.17	6.87	6.79
15	7.42	7.27	7.75	8.06	---	8.26	8.33	7.96	7.53	7.11	6.87	6.72
20	7.39	7.23	7.91	---	---	8.24	8.24	7.91	7.47	7.11	6.87	6.79
25	7.38	7.39	7.98	---	---	8.36	8.17	7.93	7.42	7.03	6.83	6.71
EOM	7.37	7.46	8.07	---	---	8.38	8.11	7.85	7.30	6.95	6.79	6.64

WTR YR 1988 MEAN 7.54 MAX 8.51 MIN 6.64

WABASH RIVER BASIN

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 mi².

PERIOD OF RECORD.--1954-72, 1975 to current year.

DATUM OF GAGE.--849.90 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels of Indiana Department of Natural Resources, 1976.

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 controlled 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, 9.78 ft Sept. 18-19, 23, 27-30, 1988.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.37	10.35	10.56	10.46	10.57	10.50	10.71	10.40	10.26	9.99	9.94	9.85
10	10.43	10.33	10.63	10.46	10.57	10.51	10.83	10.39	10.18	10.05	9.88	9.81
15	10.44	10.32	10.98	10.46	10.57	10.49	10.58	10.38	10.14	10.00	9.84	9.80
20	10.33	10.32	11.07	10.47	10.63	10.45	10.50	10.39	10.18	10.07	9.90	9.79
25	10.35	10.60	10.81	10.47	10.59	10.79	10.47	10.39	10.11	10.00	9.86	9.79
EOM	10.35	10.66	10.71	10.75	10.52	10.78	10.44	10.33	10.06	9.98	9.83	9.78

WTR YR 1988 MEAN 10.34 MAX 11.07 MIN 9.78

STREAMS TRIBUTARY TO LAKE MICHIGAN

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04100350 DIAMOND LAKE NEAR WAWAKA, IN

LOCATION.--Lat 41°26'15", long 85°31'05", in NE¼NW¼ 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 mi².

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 auxiliary 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.--Willetts 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.36	4.53	4.94	4.77	4.94	4.95	5.05	4.41	4.32	3.94	4.44	4.99
10	4.39	4.54	4.97	4.77	4.94	4.82	5.38	4.38	4.23	3.93	4.48	4.95
15	4.40	4.53	5.14	4.77	4.94	4.79	5.09	4.33	4.22	4.04	4.65	4.87
20	4.42	4.58	5.22	4.70	4.94	4.76	4.80	4.29	4.17	4.19	4.77	5.00
25	4.47	4.78	5.18	4.71	4.94	4.96	4.62	4.40	4.10	4.43	4.79	4.98
EOM	4.53	4.95	5.03	4.84	4.94	5.09	4.51	4.37	4.00	4.45	4.77	4.89

WTR YR 1988 MEAN 4.66 MAX 5.39 MIN 3.89

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100370 ENGLE LAKE NEAR LIGONIER, IN

LOCATION.--Lat 41°26'08", long 85°34'30", in SE¼NW¼ 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.--1956-67, 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 as decreed on October 23, 1984, by the Noble County Circuit Court.

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.68	8.69	8.96	9.16	9.16	9.16	9.31	9.13	8.90	8.38	8.53	9.05
10	8.69	8.69	9.03	9.16	9.16	9.16	9.45	9.09	8.79	8.49	8.54	8.98
15	8.66	8.68	9.21	9.16	9.16	9.20	9.33	9.04	8.77	8.52	8.81	8.89
20	8.68	8.69	9.29	9.16	9.16	9.19	9.28	8.98	8.70	8.68	8.92	9.03
25	8.70	8.89	9.24	9.16	9.16	9.35	9.24	9.14	8.62	8.65	8.89	8.95
EOM	8.72	8.99	9.18	9.16	9.16	9.35	9.20	9.00	8.50	8.57	8.84	8.87

WTR YR 1988 MEAN 8.95 MAX 9.61 MIN 8.29

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099670 FISH LAKE NEAR PLATO, IN

LOCATION.--Lat 41°37'27", long 85°19'56", in SW¼NE¼ 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 mi².

PERIOD OF RECORD.--1945 to current year.

DATUM OF GAGE.--930.75 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels of the U.S. Geological Survey, 1966.

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.--6.50 ft gage datum or 936.50 ft above National Geodetic Vertical Datum of 1929 as decreed on May 7, 1959, by the Lagrange County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 6.50 ft gage datum or 937.25 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.43	6.62	7.11	6.80	6.98	6.81	7.04	6.64	6.36	6.10	6.03	6.02
10	6.46	6.62	7.19	6.80	6.98	6.80	7.22	6.62	6.28	6.07	6.02	6.03
15	6.45	6.62	7.44	6.80	6.98	6.81	6.91	6.68	6.27	6.06	6.02	6.03
20	6.45	6.69	7.53	6.77	6.97	6.75	6.78	6.67	6.24	6.06	6.01	6.28
25	6.52	6.67	7.29	6.72	7.02	7.11	6.72	6.57	6.20	6.05	6.00	6.26
EOM	6.59	7.15	7.04	6.86	6.89	7.14	6.69	6.46	6.15	6.04	5.98	6.21

WTR YR 1988 MEAN 6.59 MAX 7.53 MIN 5.98

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099760 FISH LAKE NEAR SCOTT, IN

LOCATION.--Lat 41°45'25", long 85°38'54", in NW¼NW¼ 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 mi².

PERIOD OF RECORD.--1954-69, 1978 to current year.

DATUM OF GAGE.--809.84 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels of Indiana Department of Natural Resources, 1975.

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.--4.42 ft gage datum or 814.42 ft above National Geodetic Vertical Datum of 1929 as decreed on September 11, 1959, by the Lagrange County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 4.42 ft gage datum or 814.26 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.21	3.09	3.15	4.06	4.50	4.48	4.44	4.31	4.19	3.48	3.15	2.76
10	3.20	3.05	3.25	4.06	4.50	4.48	4.53	4.30	4.08	3.40	3.05	2.65
15	3.15	3.00	3.51	4.06	4.50	4.38	4.43	4.28	3.98	3.46	3.04	2.57
20	3.14	2.99	3.74	4.25	4.50	4.37	4.40	4.24	3.87	3.45	2.95	2.67
25	3.15	3.07	3.91	4.29	4.50	4.43	4.36	4.37	3.73	3.34	2.85	2.60
EOM	3.13	3.11	4.08	4.45	4.50	4.48	4.36	4.28	3.59	3.20	2.77	2.51

WTR YR 1988 MEAN 3.71 MAX 4.59 MIN 2.51

05517700 FLINT LAKE NEAR VALPARAISO, IN

LOCATION.--Lat 41°30'41", long 87°02'23", in NE 1/4 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.--3.80 mi², revised.

PERIOD OF RECORD.--1946 to current year. 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 August 19, 1963, by the Porter County Circuit Court.

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 three inlets. One drains Long Lake to the northwest and another drains Loomis Lake to the west and Listenberger drain enters from the south. 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, 21.18 ft July 2, 1983 as recorded by the Valparaiso Water Company; minimum stage, 12.59 ft Dec. 29, 1948.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.78	18.65	18.70	19.44	19.83	19.53	19.84	19.53	18.68	17.22	15.92	15.75
10	18.83	18.58	18.86	19.37	19.74	19.49	20.15	19.40	18.44	17.00	16.21	15.68
15	18.71	18.51	19.07	19.29	19.72	19.44	20.13	19.28	18.18	16.74	16.05	15.68
20	18.73	18.46	19.35	19.79	19.66	19.37	19.99	19.07	17.89	16.57	15.93	15.75
25	18.75	18.48	19.38	19.79	19.63	19.42	19.82	19.18	17.64	16.34	15.77	15.72
EOM	18.69	18.54	19.48	19.84	19.60	19.71	19.70	18.92	17.45	16.16	15.77	15.54

WTR YR 1988 MEAN 18.40 MAX 20.29 MIN 15.54

WABASH RIVER BASIN

03330160 GILBERT LAKE NEAR WASHINGTON CENTER, IN

LOCATION.--Lat 41°19'50", long 85°35'48", in NE 1/4 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 mi².

PERIOD OF RECORD.--1954-59, 1961 to current year.

DATUM OF GAGE.--884.85 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels of the 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, 6.81 ft Dec. 4-5, 1987; minimum stage, 3.53 ft Nov. 1, 1963.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.28	6.34	6.77	5.26	4.60	4.60	5.11	5.07	5.35	5.40	5.72	6.09
10	6.35	6.39	6.67	5.26	4.60	4.83	4.76	5.15	5.35	5.45	5.74	6.07
15	6.38	6.42	6.76	5.26	4.60	4.92	4.65	5.18	5.35	5.51	5.84	6.09
20	6.42	6.50	6.73	4.35	4.60	4.95	4.80	5.17	5.37	5.63	5.93	6.08
25	6.41	6.68	6.67	4.40	4.60	5.24	4.90	5.27	5.43	5.66	5.83	5.63
EOM	6.29	6.71	5.26	4.47	4.60	5.17	4.98	5.29	5.42	5.70	5.79	5.34

WTR YR 1988 MEAN 5.55 MAX 6.81 MIN 4.35

04100110 HACKENBURG LAKE NEAR WOLCOTTVILLE, IN

LOCATION.--Lat 41°33'25", long 85°26'17", in NE¼SW¼ 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 February 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	---	7.39	7.24	7.20	7.51
10	---	---	---	---	---	---	---	---	7.34	7.25	7.20	7.49
15	---	---	---	---	---	---	---	---	7.37	7.33	7.20	7.47
20	---	---	---	---	---	---	---	---	7.35	7.41	7.20	7.67
25	---	---	---	---	---	---	---	7.49	7.33	7.33	7.23	7.61
EOM	---	---	---	---	---	---	---	7.44	7.30	7.21	7.31	7.57

WTR YR 1988 MEAN 7.35 MAX 7.70 MIN 7.14

STREAMS TRIBUTARY TO LAKE ERIE

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 mi².

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--890.12 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels of Indiana Department of Natural Resources, 1978.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--8.83 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. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 8.83 ft gage datum or 898.95 ft above National Geodetic Vertical Datum of 1929.

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 a fixed concrete sill.

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.37	8.45	8.58	8.63	8.71	8.58	8.71	8.49	8.40	7.98	7.95	7.94
10	8.37	8.45	8.73	8.63	8.71	8.59	8.83	8.53	8.31	7.97	7.90	7.90
15	8.36	8.44	8.90	8.63	8.71	8.59	8.60	8.49	8.25	7.93	7.88	7.89
20	8.38	8.47	8.92	8.69	8.69	8.55	8.55	8.48	8.21	8.00	7.92	7.96
25	8.41	8.63	8.74	8.70	8.71	9.08	8.51	8.49	8.14	7.99	7.87	7.95
EOM	8.46	8.65	8.63	8.79	8.62	8.72	8.51	8.45	8.03	7.95	7.87	7.93

WTR YR 1988 MEAN 8.40 MAX 9.15 MIN 7.86

STREAMS TRIBUTARY TO LAKE MICHIGAN

251

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 mi².

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 September 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.13	6.37	6.87	8.16	8.17	8.17	8.30	8.13	7.79	6.47	6.05	5.86
10	6.15	6.37	7.14	8.16	8.17	8.17	8.37	8.10	7.58	6.31	6.07	5.78
15	6.15	6.37	7.59	8.16	8.17	8.21	8.27	8.05	7.38	6.32	6.07	5.76
20	6.15	6.38	8.17	8.17	8.17	8.19	8.23	8.03	7.17	6.29	6.03	5.78
25	6.25	6.51	8.27	8.17	8.17	8.23	8.19	8.06	6.94	6.21	5.95	5.76
EOM	6.34	6.70	8.23	8.17	8.17	8.30	8.18	7.93	6.60	6.00	5.87	5.75

WTR YR 1988 MEAN 7.21 MAX 8.46 MIN 5.75

STREAMS TRIBUTARY TO LAKE MICHIGAN

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 mi².

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 February 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.47	6.51	6.84	6.74	6.81	6.81	7.03	6.59	6.51	6.12	5.81	6.06
10	6.47	6.50	6.89	6.74	6.81	6.82	7.30	6.59	6.44	6.09	5.77	5.99
15	6.46	6.49	7.05	6.74	6.81	6.82	6.98	6.56	6.38	6.14	6.02	5.75
20	6.46	6.54	7.19	6.79	6.81	6.81	6.78	6.55	6.32	6.18	6.03	6.19
25	6.48	6.78	7.07	6.79	6.81	7.17	6.67	6.61	6.28	6.12	6.01	6.17
EOM	6.52	6.94	6.89	6.80	6.81	7.15	6.63	6.56	6.20	6.05	5.84	6.12

WTR YR 1988 MEAN 6.54 MAX 7.41 MIN 5.59

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 mi².

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 September 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.12	11.14	11.35	11.40	11.41	11.41	11.40	11.22	11.05	10.70	10.59	10.41
10	11.14	11.13	11.39	11.40	11.41	11.39	11.48	11.20	10.96	10.70	10.54	10.36
15	11.12	11.12	11.59	11.40	11.41	11.41	11.35	11.18	10.90	10.65	10.49	10.31
20	11.12	11.11	11.58	11.40	11.41	11.41	11.32	11.15	10.89	10.72	10.49	10.34
25	11.13	11.31	11.46	11.39	11.41	11.73	11.27	11.18	10.82	10.65	10.44	10.32
EOM	11.15	11.41	11.40	11.39	11.41	11.50	11.25	11.14	10.76	10.62	10.38	10.28

WTR YR 1988 MEAN 11.08 MAX 11.73 MIN 10.28

STREAMS TRIBUTARY TO LAKE MICHIGAN

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 mi².

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 October 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.12	8.23	9.08	11.06	10.20	9.05	10.11	8.70	8.38	7.99	7.96	8.15
10	8.10	8.17	9.48	11.06	10.20	9.16	10.87	8.59	8.27	8.02	7.93	8.09
15	8.08	8.14	9.92	11.06	10.13	9.21	10.03	8.53	8.26	8.00	7.95	8.00
20	8.08	8.13	10.87	9.78	9.42	9.02	9.33	8.49	8.18	7.99	7.95	8.07
25	8.10	8.31	10.91	9.76	9.53	9.91	9.05	8.80	8.09	8.02	7.97	8.13
EOM	8.30	9.05	10.63	9.65	9.28	10.43	8.90	8.56	8.02	7.99	7.98	8.05

WTR YR 1988 MEAN 8.91 MAX 11.24 MIN 7.89

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 mi².

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 August 31, 1949, by the St. Joseph County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a 24-inch 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.97	13.04	13.09	13.36	13.15	13.07	13.39	13.11	12.90	12.50	12.53	12.43
10	13.07	13.01	13.17	13.30	13.15	13.06	13.47	13.06	12.81	12.66	12.59	12.37
15	13.03	12.98	13.33	13.13	13.15	13.10	13.36	13.01	12.74	12.64	12.55	12.35
20	13.08	12.96	13.44	13.15	13.14	13.08	13.28	12.96	12.71	12.63	12.56	12.44
25	13.07	13.00	13.46	13.12	13.12	13.14	13.20	13.08	12.61	12.58	12.48	12.41
EOM	13.06	13.01	13.50	13.14	13.09	13.28	13.19	13.00	12.57	12.52	12.44	12.36

WTR YR 1988 MEAN 12.95 MAX 13.52 MIN 12.33

STREAMS TRIBUTARY TO LAKE MICHIGAN

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 mi².

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.--960.27 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels of Indiana Department of Natural Resources in June 1972.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 24-inch diameter stilling well attached to the control structure. An auxiliary staff gage is bolted to the same wall.

ESTABLISHED LEGAL LEVEL.--4.66 ft gage datum or 964.66 ft above National Geodetic Vertical Datum of 1929 as decreed on July 3, 1947, by the Steuben County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 4.66 ft gage datum or 964.93 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.71	4.83	5.06	5.17	5.23	5.13	5.31	4.94	4.82	4.50	4.63	4.78
10	4.75	4.81	5.13	5.13	5.17	5.13	5.36	4.90	4.73	4.57	4.62	4.72
15	4.75	4.81	5.24	5.01	5.17	5.11	5.22	4.91	4.69	4.54	4.66	4.70
20	4.76	4.80	5.37	5.08	5.17	5.11	5.13	4.89	4.65	4.57	4.66	4.80
25	4.80	4.94	5.38	5.08	5.19	5.23	5.06	5.02	4.56	4.59	4.62	4.78
EOM	4.86	5.05	5.28	5.14	5.15	5.33	5.02	4.92	4.52	4.57	4.64	4.74

WTR YR 1988 MEAN 4.92 MAX 5.39 MIN 4.48

03331438 KING LAKE NEAR DELONG, IN

LOCATION.--Lat 41°07'48", long 86°25'23", in NW1/4SW1/4 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 mi².

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.72	6.81	7.41	6.93	6.72	6.72	6.07	6.57	6.22	5.51	5.27	5.13
10	6.73	6.81	7.59	6.93	6.72	6.76	6.52	6.55	6.08	5.51	5.27	5.04
15	6.72	6.80	7.97	6.93	6.72	6.75	6.42	6.53	5.95	5.38	5.14	4.98
20	6.73	6.79	8.07	7.12	6.72	6.68	6.50	6.47	5.88	5.43	5.11	5.00
25	6.77	6.99	7.10	7.07	6.72	6.84	6.55	6.48	5.73	5.44	5.03	4.99
EOM	6.80	7.28	6.93	6.66	6.73	6.35	6.59	6.34	5.64	5.25	4.97	4.94

WTR YR 1988 MEAN 6.33 MAX 8.07 MIN 4.94

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100390 KNAPP LAKE NEAR WASHINGTON CENTER, IN

LOCATION.--Lat. 41°20'36", long 85°36'17", in SW1/4SW1/4 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 mi².

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 October 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.03	7.08	7.47	7.39	7.85	7.88	7.79	7.29	7.28	6.93	6.96	7.47
10	7.05	7.07	7.61	7.39	7.85	7.35	8.28	7.31	7.16	6.96	6.96	7.23
15	7.03	7.05	7.94	7.32	7.85	7.37	7.75	7.32	7.09	7.00	6.99	7.09
20	7.06	7.07	8.19	7.63	7.85	7.33	7.49	7.33	7.05	7.07	7.01	7.22
25	7.09	7.33	7.93	7.43	7.89	8.13	7.37	7.41	7.03	7.02	7.00	7.14
EOM	7.11	7.55	7.68	7.71	7.89	8.04	7.32	7.34	6.96	6.98	6.96	7.06

WTR YR 1988 MEAN 7.36 MAX 8.57 MIN 6.91

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 mi².

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--710.12 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels of Indiana Department of Natural Resources, 1978.

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 September 15, 1948, by the Starke County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 4.56 ft gage datum or 714.68 ft above National Geodetic Vertical Datum of 1929.

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.49	4.48	4.55	4.61	---	---	4.66	4.50	4.43	4.24	4.20	4.42
10	4.54	4.48	4.61	4.61	---	---	4.69	4.51	4.37	4.34	4.27	4.37
15	4.50	4.48	4.69	4.61	---	---	4.58	4.49	4.34	4.32	4.28	4.34
20	4.51	4.50	4.70	4.66	---	---	4.56	4.47	4.38	4.31	4.27	4.52
25	4.53	4.57	4.63	4.64	4.71	---	4.54	4.58	4.30	4.27	4.22	4.55
EOM	4.51	4.58	4.61	---	4.58	4.74	4.55	4.49	4.28	4.22	4.23	4.50

WTR YR 1988 MEAN 4.47 MAX 4.83 MIN 4.17

ILLINOIS RIVER BASIN

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 mi².

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 as decreed on February 7, 1982, by the Porter County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a reinforced concrete dam with fixed crest.

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, 2.46 ft Sept. 17-19, 29-30, 1988.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.82	3.95	3.93	3.90	3.95	3.91	4.09	3.81	3.63	3.05	2.64	2.59
10	3.81	3.92	3.98	3.87	3.94	3.93	3.99	3.75	3.49	3.00	2.86	2.53
15	3.80	3.90	4.19	3.85	3.95	3.90	3.92	3.71	3.39	2.92	2.79	2.48
20	3.85	3.77	4.44	4.39	3.96	3.89	3.89	3.64	3.30	2.90	2.77	2.54
25	3.94	3.83	3.98	3.95	3.95	4.00	3.87	3.81	3.19	2.81	2.68	2.50
EOM	3.94	3.92	3.96	4.02	3.94	4.09	3.87	3.72	3.13	2.73	2.64	2.46

WTR YR 1988 MEAN 3.58 MAX 4.80 MIN 2.46

STREAMS TRIBUTARY TO LAKE MICHIGAN

04097950 LAKE GAGE AT PANAMA, IN

LOCATION.--Lat 41°42'32", long 85°06'53", in SE1SE1NW1 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 mi².

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.23	4.33	4.56	4.37	4.23	4.15	4.35	4.38	4.35	4.01	4.05	4.15
10	4.24	4.36	4.62	4.27	4.21	4.14	4.39	4.37	4.24	4.04	4.03	4.11
15	4.23	4.35	4.72	4.17	4.22	4.13	4.28	4.40	4.19	4.00	4.06	4.09
20	4.24	4.39	4.69	4.19	4.22	4.10	4.36	4.36	4.17	4.03	4.04	4.20
25	4.28	4.52	4.55	4.17	4.19	4.19	4.38	4.50	4.13	4.03	4.00	4.19
EOM	4.33	4.57	4.46	4.20	4.17	4.29	4.41	4.43	4.05	4.02	4.01	4.16

WTR YR 1988 MEAN 4.25 MAX 4.73 MIN 3.98

STREAMS TRIBUTARY TO LAKE MICHIGAN

04092990 LAKE GEORGE AT HOBART, IN

LOCATION.--Lat 41°32'07", long 87°15'30", in NW1NW1NW1 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 mi².

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 September 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.02	2.01	2.27	---	2.67	2.26	2.60	2.10	1.99	1.93	1.95	2.00
10	2.03	2.01	2.64	---	2.19	2.30	2.61	2.09	1.97	1.92	2.33	1.55
15	1.99	1.99	2.65	---	2.22	2.22	2.36	2.06	1.94	1.88	1.95	1.92
20	2.10	1.99	3.57	---	2.54	2.16	2.23	2.03	1.96	1.97	1.97	2.14
25	2.15	2.15	2.72	---	2.45	2.51	2.18	2.32	1.92	1.93	1.95	1.97
EOM	2.04	2.28	2.54	2.71	2.34	3.42	2.16	2.03	2.01	2.00	1.99	1.96

WTR YR 1988 MEAN 2.19 MAX 3.78 MIN 1.55

STREAMS TRIBUTARY TO LAKE MICHIGAN

257

04097550 LAKE GEORGE AT JAMESTOWN, IN

LOCATION.--Lat 41°44'58", long 85°01'01", in SE1/4 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 mi².

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 October 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.33	5.40	---	---	---	---	5.62	5.40	5.33	4.98	4.85	4.92
10	5.35	5.39	---	---	---	---	5.64	5.38	5.26	4.97	4.83	4.89
15	5.34	5.37	---	---	---	---	5.56	5.42	5.22	4.91	4.84	4.88
20	5.35	5.38	5.65	---	---	5.60	5.51	5.40	5.19	4.92	4.87	4.95
25	5.40	5.50	5.63	---	---	5.65	5.49	5.49	5.13	4.88	4.85	4.97
EOM	5.41	5.51	5.60	---	---	5.63	5.48	5.39	5.03	4.84	4.84	4.95

WTR YR 1988 MEAN 5.25 MAX 5.73 MIN 4.79

WABASH RIVER BASIN

03331380 LAKE MANITOU AT ROCHESTER, IN

LOCATION.--Lat 41°03'00", long 86°10'06", NW1/4 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 mi².

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 as decreed on September 27, 1948, by the Fulton County Circuit Court.

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.36	8.41	8.56	8.49	8.60	8.51	8.61	8.42	8.32	8.01	7.81	7.54
10	8.40	8.40	8.63	8.41	8.51	8.52	8.66	8.40	8.25	8.02	7.70	7.48
15	8.39	8.39	8.81	8.42	8.55	8.51	8.52	8.38	8.20	7.97	7.61	7.44
20	8.41	8.39	8.83	8.72	8.66	8.47	8.50	8.37	8.22	8.01	7.65	7.46
25	8.43	8.59	8.69	8.56	8.62	8.71	8.47	8.52	8.12	7.95	7.60	7.45
EOM	8.43	8.66	8.62	8.69	8.53	8.68	8.46	8.40	8.07	7.85	7.52	7.39

WTR YR 1988 MEAN 8.29 MAX 8.89 MIN 7.39

WABASH RIVER BASIN

03331440 LAKE MAXINKUCKEE 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 mi².

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 August 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 Morris 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.01	3.03	3.25	3.49	3.50	3.50	3.68	3.48	3.13	2.72	2.60	2.51
10	3.02	3.02	3.34	3.49	3.50	3.41	3.85	3.43	3.02	2.75	2.67	2.45
15	2.99	3.00	3.54	3.49	3.50	3.45	3.77	3.38	2.96	2.72	2.63	2.41
20	3.00	2.99	3.60	3.49	3.50	3.41	3.67	3.31	2.94	2.75	2.60	2.48
25	3.02	3.14	3.63	3.49	3.50	3.51	3.62	3.30	2.87	2.70	2.52	2.44
EOM	3.03	3.23	3.65	3.49	3.50	3.63	3.57	3.23	2.78	2.64	2.48	2.40

WTR YR 1988 MEAN 3.15 MAX 3.86 MIN 2.40

ILLINOIS RIVER BASIN

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 (BREMAN, 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 mi².

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 August 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.00	3.00	3.21	3.29	3.52	3.26	3.61	3.13	3.44	3.13	3.23	3.49
10	3.05	2.99	3.38	3.14	3.33	3.24	3.76	3.09	3.38	3.19	3.42	3.40
15	3.01	2.97	3.59	3.12	3.38	3.24	3.49	3.07	3.35	3.14	3.54	3.32
20	3.02	2.97	3.70	3.40	3.48	3.24	3.35	3.04	3.35	3.25	3.54	3.23
25	3.03	3.08	3.60	3.32	3.49	3.64	3.24	3.49	3.27	3.18	3.51	3.02
EOM	3.02	3.21	3.46	3.53	3.35	3.78	3.20	3.51	3.22	3.10	3.50	2.92

WTR YR 1988 MEAN 3.29 MAX 3.92 MIN 2.91

STREAMS TRIBUTARY TO LAKE MICHIGAN

259

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 mi².

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.06	11.14	11.53	11.66	11.62	11.53	11.80	11.42	11.27	10.85	10.71	10.78
10	11.06	11.15	11.61	11.66	11.62	11.53	11.83	11.40	11.18	10.85	10.64	10.74
15	11.04	11.14	11.83	11.66	11.62	11.54	11.60	11.37	11.16	10.82	10.65	10.70
20	11.04	11.17	11.97	11.66	11.62	11.52	11.52	11.36	11.11	10.82	10.67	10.79
25	11.07	11.36	11.82	11.66	11.66	11.92	11.46	11.38	11.03	10.80	10.63	10.77
EOM	11.14	11.59	11.66	11.66	11.60	11.83	11.47	11.34	10.92	10.74	10.61	10.74

WTR YR 1988 MEAN 11.27 MAX 12.08 MIN 10.59

STREAMS TRIBUTARY TO LAKE MICHIGAN

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 mi².

PERIOD OF RECORD.--1954-69, 1971, 1976 to current year.

DATUM OF GAGE.--960.40 ft above National Geodetic Vertical Datum of 1929 as corrected on the basis of levels of Indiana Department of Natural Resources, 1977-78.

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 bridge abutment at the site.

ESTABLISHED LEGAL LEVEL.--1.10 ft gage datum or 961.50 ft above National Geodetic Vertical Datum of 1929 as decreed on April 11, 1986, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a metal plate welded across the bottom of a corrugated metal pipe.

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	1.29	1.53	1.73	1.82	1.66	1.72	1.48	1.34	.80	.61	.66
10	---	1.28	1.59	1.73	1.82	1.64	1.77	1.42	1.24	.76	.58	.61
15	1.22	1.27	1.71	1.73	1.83	1.62	1.66	1.46	1.16	.68	.61	.56
20	1.23	1.30	1.77	1.75	1.82	1.60	1.60	1.42	1.09	.68	.62	.70
25	1.27	1.45	1.76	1.74	1.81	1.68	1.54	1.52	.98	.69	.56	.69
EOM	1.30	1.51	1.73	1.81	1.77	1.70	1.53	1.43	.88	.63	.54	.65

WTR YR 1988 MEAN 1.30 MAX 1.83 MIN .52

04100160 LITTLE LONG LAKE AT KENDALLVILLE, IN

LOCATION.--Lat 41°27'49", long 85°15'27", in SE 1/4 NW 1/4 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 mi².

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 March 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.35	4.42	5.00	4.88	5.04	4.86	4.90	4.66	4.51	4.02	4.09	4.13
10	4.34	4.42	5.04	4.88	5.04	4.76	4.96	4.65	4.41	3.97	4.05	4.09
15	4.33	4.41	5.23	4.88	5.04	4.77	4.77	4.62	4.36	3.95	4.06	4.02
20	4.32	4.42	5.22	4.91	5.04	4.76	4.72	4.59	4.31	3.98	4.03	4.17
25	4.34	4.65	5.01	4.95	5.04	5.19	4.69	4.66	4.22	4.18	3.99	4.13
EOM	4.41	4.97	4.90	5.04	4.89	4.94	4.68	4.60	4.11	4.14	3.97	4.09

WTR YR 1988 MEAN 4.55 MAX 5.23 MIN 3.93

WABASH RIVER BASIN

03328100 LONG LAKE AT LAKETON, IN

LOCATION.--Lat 40°59'08", long 85°50'20", in NE 1/4 NW 1/4 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 mi².

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.78	10.60	10.80	11.46	11.46	11.95	12.11	11.95	11.70	11.00	10.74	10.43
10	10.77	10.58	10.93	11.46	11.47	11.93	12.39	11.91	11.56	10.95	10.63	10.34
15	10.71	10.53	11.14	11.46	11.47	11.91	12.29	11.85	11.45	10.86	10.54	10.26
20	10.68	10.52	11.27	11.46	11.47	11.85	12.20	11.77	11.37	10.84	10.51	10.28
25	10.65	10.69	11.35	11.46	11.47	12.02	12.11	11.94	11.23	10.84	10.52	10.20
EOM	10.65	10.80	11.46	11.47	11.47	12.06	12.02	11.83	11.12	10.78	10.40	10.13

WTR YR 1988 MEAN 11.22 MAX 12.39 MIN 10.13

STREAMS TRIBUTARY TO LAKE MICHIGAN

261

04099200 LONG LAKE AT MOONLIGHT, IN

LOCATION.--Lat 41°35'01", long 85°01'43", in NE¼NE¼ 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 mi².

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--940.10 ft above National Geodetic Vertical Datum of 1929 as corrected on the basis of levels of Indiana Department of Natural Resources, 1977.

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, 8.91 ft Aug. 21, 1987.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.96	9.05	9.62	9.61	---	---	10.84	9.31	9.08	8.87	8.85	9.04
10	8.96	9.04	10.74	9.61	---	---	11.61	9.24	9.02	8.87	8.83	8.88
15	8.94	9.01	11.23	9.54	---	---	10.47	9.17	9.02	8.91	8.82	8.83
20	8.93	9.01	11.99	---	---	9.63	9.83	9.16	8.98	8.90	8.87	9.05
25	8.99	9.51	11.62	---	---	11.55	9.57	9.39	8.93	8.93	8.84	8.93
EOM	9.15	9.92	10.45	---	---	11.13	9.44	9.13	8.90	8.85	8.83	8.86

WTR YR 1988 MEAN 9.45 MAX 12.26 MIN 8.78

WABASH RIVER BASIN

03331460 LOST LAKE NEAR CULVER, IN

LOCATION.--Lat 41°12'02", long 86°25'17", in NE¼NW¼ 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 February 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.01	10.96	11.47	11.94	11.99	11.93	11.98	11.83	11.56	10.52	10.71	10.89
10	11.03	10.97	11.71	11.87	11.96	11.88	11.94	11.81	10.91	10.58	10.91	10.77
15	10.97	10.98	11.86	11.85	11.99	11.84	11.90	11.76	10.83	10.52	10.83	10.67
20	10.97	10.98	11.90	11.97	12.02	11.81	11.88	11.69	10.78	10.65	10.80	10.74
25	10.97	11.13	11.92	11.95	12.00	11.88	11.85	11.79	10.66	10.72	10.84	10.67
EOM	10.97	11.29	11.97	12.00	11.97	11.91	11.84	11.71	10.63	10.68	10.85	10.60

WTR YR 1988 MEAN 11.36 MAX 12.03 MIN 10.45

WABASH RIVER BASIN

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 mi².

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 March 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	3.44	3.46	3.36	3.36	---	---	2.79	2.88	2.86
10	---	---	3.50	---	---	---	---	---	---	---	2.83	2.80
15	---	---	3.52	---	3.44	---	3.50	---	---	---	2.83	2.75
20	---	---	3.52	3.47	3.45	3.34	---	---	---	---	2.86	2.85
25	---	---	---	---	3.44	3.40	---	---	2.91	---	2.89	2.80
EOM	---	---	3.50	3.49	3.39	---	---	---	2.87	---	2.81	2.75

WTR YR 1988 MEAN 3.17 MAX 3.52 MIN 2.72

STREAMS TRIBUTARY TO LAKE MICHIGAN

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 mi².

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, 1.88 ft Aug. 8, 1988.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.21	2.26	3.35	2.96	3.72	3.72	4.36	2.57	2.29	2.23	2.15	2.26
10	2.23	2.26	3.89	2.96	3.72	3.70	5.81	2.47	2.16	2.39	2.04	2.15
15	2.17	2.25	4.56	2.96	3.72	3.10	4.12	2.36	2.06	2.42	2.06	---
20	2.22	2.26	5.26	3.67	3.72	2.99	3.18	2.29	2.01	2.32	2.16	---
25	2.24	2.92	4.56	3.73	3.72	5.47	2.91	2.41	2.06	2.14	2.10	---
EOM	2.26	3.58	3.54	3.32	3.72	5.03	2.73	2.41	2.09	2.05	2.04	---

WTR YR 1988 MEAN 2.92 MAX 6.33 MIN 1.90

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 mi².

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 September 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 October 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 October 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.58	3.58	3.80	3.70	3.66	3.60	3.64	3.56	3.52	3.25	3.30	3.50
10	3.56	3.60	3.80	3.64	3.68	3.58	3.66	3.52	3.46	3.25	3.34	3.48
15	3.56	3.59	3.80	3.60	3.67	3.56	3.58	3.54	3.42	3.26	3.40	3.50
20	3.56	3.62	3.84	3.66	3.64	3.56	3.56	3.54	3.40	3.36	3.40	3.60
25	3.58	3.80	3.76	3.66	3.62	3.62	3.56	3.64	3.36	3.38	3.38	3.60
EOM	3.58	3.82	3.72	3.64	3.60	3.66	3.56	3.58	3.36	3.38	3.38	3.56

WTR YR 1988 MEAN 3.56 MAX 3.84 MIN 3.25

WABASH RIVER BASIN

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 mi².

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 as decreed on September 27, 1948, by the Fulton County Circuit Court.

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.96	4.03	4.17	4.10	4.21	4.11	4.20	4.03	3.96	3.90	3.87	3.85
10	3.99	4.02	4.29	4.04	4.12	4.14	4.24	4.03	3.92	3.95	3.85	3.81
15	3.96	4.02	4.67	4.00	4.13	4.10	4.13	4.00	3.92	3.91	3.85	3.81
20	4.00	4.02	4.61	4.45	4.16	4.08	4.12	3.99	3.95	3.95	3.86	3.88
25	4.05	4.37	4.30	4.13	4.17	4.39	4.09	4.15	3.90	3.91	3.85	3.86
EOM	4.06	4.28	4.25	4.37	4.13	4.28	4.07	4.00	3.92	3.88	3.80	3.83

WTR YR 1988 MEAN 4.05 MAX 4.67 MIN 3.79

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 mi².

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.37	1.96	1.90	2.43	4.65	4.62	4.66	4.52	3.92	3.18	2.83	2.42
10	2.34	1.87	1.72	2.39	4.65	4.68	4.67	4.52	3.76	3.02	2.71	2.33
15	2.26	1.79	1.20	2.38	4.65	4.67	4.59	4.46	3.60	2.98	2.59	2.32
20	2.16	1.73	1.30	3.07	4.74	4.66	4.58	4.34	3.43	3.03	2.60	2.41
25	2.12	1.78	1.78	3.32	4.61	4.70	4.57	4.22	3.33	2.92	2.50	2.34
EOM	2.04	1.91	2.42	3.63	4.59	4.66	4.55	4.06	3.36	2.80	2.39	2.27

WTR YR 1988 MEAN 3.20 MAX 5.32 MIN 1.16

STREAMS TRIBUTARY TO LAKE MICHIGAN

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 mi².

PERIOD OF RECORD.--1945 to current year.

DATUM OF GAGE.--889.78 ft above National Geodetic Vertical Datum of 1929 as corrected on the basis of levels of Indiana Department of Natural Resources, 1975-76.

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.--9.45 ft gage datum or 899.45 ft above National Geodetic Vertical Datum of 1929 as decreed on September 29, 1952, by the Lagrange County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 9.45 ft gage datum or 899.23 ft above National Geodetic Vertical Datum of 1929. 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.79	9.72	9.74	9.67	9.86	9.73	9.80	9.57	9.43	9.37	9.55	9.83
10	9.81	9.71	9.77	9.67	9.86	9.74	10.06	9.56	9.37	9.39	9.56	9.76
15	9.81	9.69	9.97	9.61	9.86	9.73	9.76	9.53	9.45	9.48	9.65	9.72
20	9.74	9.70	10.01	9.76	9.86	9.68	9.69	9.54	9.48	9.56	9.71	9.91
25	9.75	9.89	9.90	9.72	9.86	9.91	9.65	9.57	9.45	9.55	9.70	9.68
EOM	9.75	9.84	9.77	9.85	9.87	9.88	9.61	9.50	9.40	9.54	9.71	9.51

WTR YR 1988 MEAN 9.69 MAX 10.24 MIN 9.35

WABASH RIVER BASIN

265

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 as decreed on August 5, 1965, by the Kosciusko County Circuit Court.

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, below -0.90 ft, lake drained, 1988.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.78	1.88	1.97	2.01	2.22	2.11	2.06	1.89	1.75	1.65	.68	---
10	1.80	1.87	2.07	2.01	2.22	1.96	2.21	1.88	1.72	1.66	---	---
15	1.80	1.86	2.40	2.01	2.22	1.90	2.04	1.83	1.72	1.70	---	---
20	1.89	1.79	2.41	2.26	2.22	1.88	1.98	1.81	1.77	1.76	---	---
25	1.92	2.05	2.11	2.09	2.31	2.40	1.96	1.82	1.70	1.70	---	---
EOM	1.95	2.06	2.05	2.43	2.14	2.19	1.93	1.78	1.68	1.66	---	---

WTR YR 1988 MEAN 1.93 MAX 2.56 MIN .15

WABASH RIVER BASIN

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 mi².

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 December 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 through Lones ditch 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.81	4.98	5.20	5.19	5.20	5.11	5.57	5.86	5.79	5.71	5.76	5.94
10	5.81	4.86	5.40	5.28	5.20	5.12	6.19	5.89	5.75	5.75	5.76	5.75
15	5.81	4.84	5.75	4.93	5.35	5.08	5.71	5.87	5.75	5.83	5.70	5.72
20	5.87	4.81	6.06	5.51	5.38	5.05	5.35	5.83	5.76	5.80	5.79	5.78
25	5.89	5.21	5.91	5.12	5.33	6.00	5.09	5.94	5.71	5.75	5.71	5.72
EOM	5.89	5.35	5.69	5.41	5.15	5.73	5.14	5.82	5.71	5.81	5.70	5.74

WTR YR 1988 MEAN 5.56 MAX 6.58 MIN 4.80

ILLINOIS RIVER BASIN

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 August 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; however, there is a capability of pumping water from the lakes into the Little Kankakee River during times of high water.

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.78	16.76	16.77	---	17.28	17.29	17.57	17.46	17.05	16.61	16.42	16.16
10	16.85	16.71	16.86	17.05	17.29	17.28	17.67	17.42	16.93	16.57	16.48	16.08
15	16.79	16.68	16.94	17.04	17.34	17.29	17.63	17.36	16.84	16.48	16.40	16.06
20	16.81	16.68	17.06	17.14	17.34	17.27	17.57	17.27	16.86	16.50	16.34	16.08
25	16.81	16.68	17.07	17.15	17.33	17.32	17.51	17.27	16.75	16.54	16.25	16.03
EOM	16.79	16.70	---	17.23	17.32	17.47	17.52	17.18	16.69	16.47	16.20	15.95

WTR YR 1988 MEAN 16.91 MAX 17.74 MIN 15.95

ILLINOIS RIVER BASIN

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 mi².

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.17	7.19	7.26	7.24	7.32	7.29	7.48	7.24	7.11	6.67	6.51	6.88
10	7.27	7.16	7.33	7.24	7.28	7.30	7.44	7.24	7.02	6.68	6.72	6.83
15	7.23	7.14	7.54	7.22	7.33	7.29	7.31	7.23	6.94	6.66	6.75	6.79
20	7.25	7.14	7.58	7.48	7.31	7.30	7.30	7.20	6.91	6.63	6.74	6.97
25	7.28	7.26	7.35	7.28	7.32	7.53	7.29	7.29	6.83	6.59	6.67	6.95
EOM	7.24	7.31	7.29	7.54	7.30	7.49	7.26	7.19	6.77	6.52	6.69	6.92

WTR YR 1988 MEAN 7.12 MAX 7.68 MIN 6.46

03330300 RIDINGER LAKE NEAR PIERCETON, IN

LOCATION.--Lat 41°15'07", long 85°39'34", in SW¼SE¼ sec.1, T.32 N., R.7 E., Kosciusko 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 mi².

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 April 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	3.38	3.71	3.59	3.68	3.50	3.67	3.41	3.29	3.23	3.32	3.39
10	3.34	3.38	3.97	3.59	3.68	3.52	4.01	3.34	3.26	3.29	3.27	3.27
15	3.34	3.38	4.77	3.59	4.05	3.51	3.62	3.36	3.27	3.36	3.26	3.26
20	3.36	3.44	4.70	4.14	3.76	3.49	3.50	3.32	3.26	3.35	3.28	3.37
25	3.39	4.07	3.85	3.58	3.71	4.69	3.47	3.48	3.25	3.34	3.25	3.27
EOM	3.44	3.88	3.70	4.06	3.56	3.94	3.44	3.29	3.24	3.44	3.27	3.28

WTR YR 1988 MEAN 3.52 MAX 4.96 MIN 3.23

WABASH RIVER BASIN

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 mi².

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 October 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.29	7.33	7.72	7.63	7.67	7.53	7.86	7.40	7.22	6.84	7.16	7.48
10	7.26	7.27	7.83	7.63	7.47	7.54	8.40	7.34	7.16	6.86	7.10	7.33
15	7.26	7.26	8.00	7.42	7.51	7.50	7.94	7.34	7.08	6.93	7.07	7.25
20	7.25	7.25	8.24	7.76	7.72	7.43	7.62	7.33	7.02	7.05	7.10	7.33
25	7.27	7.44	8.15	7.60	7.77	8.09	7.50	7.34	6.90	7.16	7.13	7.27
EOM	7.34	7.78	7.91	7.62	7.59	8.09	7.47	7.32	6.87	7.13	7.09	7.22

WTR YR 1988 MEAN 7.43 MAX 8.48 MIN 6.83

WABASH RIVER BASIN

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 mi².

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. Prior 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 as decreed on December 19, 1974, by the Kosciusko County Circuit Court.

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	9.83	10.41	10.14	10.44	10.16	10.60	9.86	9.55	9.41	9.67	9.58
10	---	9.78	11.02	9.88	10.11	10.26	11.38	9.77	9.50	9.48	9.66	9.53
15	9.66	9.75	11.65	9.89	10.73	10.25	10.41	9.74	9.48	9.54	9.62	9.51
20	9.77	9.78	11.72	11.11	10.79	10.13	10.17	9.75	9.51	9.63	9.64	9.61
25	9.82	10.83	10.83	10.26	10.70	11.72	10.06	9.73	9.46	9.67	9.58	9.58
EOM	9.93	10.92	10.62	10.82	10.26	11.07	9.98	9.62	9.44	9.67	9.53	9.54

WTR YR 1988 MEAN 10.06 MAX 12.34 MIN 9.40

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099740 SHIPSEWANA LAKE NEAR SHIPSEWANA, 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 (SHIPSEWANA, 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 mi².

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 March 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.31	2.34	2.49	2.51	2.59	2.59	---	---	2.34	1.97	2.23	2.40
10	2.35	2.31	2.55	2.50	2.59	2.59	---	---	2.25	2.02	2.20	2.34
15	2.32	2.30	2.76	2.49	2.59	2.59	---	---	2.22	2.23	2.31	2.29
20	2.36	2.32	2.79	2.57	2.59	2.59	---	---	2.18	2.34	2.29	2.39
25	2.39	2.46	2.73	2.55	2.59	2.63	---	2.53	2.10	2.32	2.25	2.35
EOM	2.38	2.51	2.62	2.58	2.59	2.73	---	2.42	2.03	2.24	2.26	2.29

WTR YR 1988 MEAN 2.41 MAX 2.79 MIN 1.92

WABASH RIVER BASIN

269

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 October 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 channel, 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.62	11.44	11.52	11.87	12.04	12.05	12.27	12.13	11.84	11.22	10.96	---
10	11.59	11.40	11.58	11.87	12.04	12.08	12.32	12.09	11.72	11.19	---	---
15	11.54	11.35	11.74	11.87	12.04	12.09	12.25	12.04	11.63	11.14	---	10.73
20	11.52	11.32	11.82	11.94	12.04	12.08	12.24	12.00	11.56	11.13	---	10.76
25	11.51	11.43	11.86	11.94	12.05	12.29	12.21	12.03	11.44	11.09	---	10.69
EOM	11.49	11.50	11.92	11.98	12.05	12.28	12.18	11.94	11.32	11.01	---	10.62

WTR YR 1988 MEAN 11.72 MAX 12.39 MIN 10.62

WABASH RIVER BASIN

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.--900.19 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.--7.04 ft gage datum or 907.04 ft above National Geodetic Vertical Datum of 1929 as decreed on May 22, 1949, by the Whitley County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 7.04 ft gage datum or 907.23 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.31	6.29	6.80	7.38	7.36	7.31	7.19	6.84	6.58	6.04	6.10	5.93
10	6.29	6.26	7.08	7.38	7.36	7.13	7.51	6.81	6.46	6.04	6.03	5.87
15	6.26	6.24	7.44	7.38	7.36	7.05	7.19	6.76	6.40	6.08	6.02	5.81
20	6.26	6.24	7.64	7.38	7.36	6.95	7.05	6.71	6.33	6.08	6.01	6.07
25	6.27	6.47	7.55	7.38	7.35	7.31	6.95	6.72	6.24	6.03	5.95	6.03
EOM	6.30	6.72	7.38	7.37	7.34	7.25	6.89	6.65	6.14	6.09	5.87	5.99

WTR YR 1988 MEAN 6.67 MAX 7.78 MIN 5.79

03328350 SILVER LAKE AT SILVER LAKE, IN

LOCATION.--Lat 41°04'49", long 85°54'29", in SE 1/4 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 mi².

PERIOD OF RECORD.--1947 to current year.

DATUM OF GAGE.--859.85 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels of Indiana Department of Natural Resources, 1974.

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.--1.73 ft gage datum or 861.73 ft above National Geodetic Vertical Datum of 1929 as decreed on September 20, 1948, by the Kosciusko County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 1.73 ft gage datum or 861.58 ft above National Geodetic Vertical Datum of 1929. 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.36	1.40	1.54	1.63	1.70	1.55	1.61	1.47	1.32	.98	.86	.72
10	1.40	1.39	1.63	1.63	1.70	1.56	1.69	1.46	1.24	.98	.82	.67
15	1.39	1.39	1.91	1.63	1.70	1.54	1.57	1.41	1.19	.94	.76	.62
20	1.40	1.38	1.88	1.62	1.70	1.51	1.53	1.40	1.20	1.01	.79	.65
25	1.42	1.65	1.66	1.62	1.70	1.84	1.52	1.44	1.13	.95	.76	.65
EOM	1.42	1.64	1.63	1.66	1.57	1.70	1.50	1.39	1.07	.90	.71	.60

WTR YR 1988 MEAN 1.34 MAX 1.96 MIN .59

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099880 SIMONTON LAKE NEAR ELKHART, IN

LOCATION.--Lat 41°45'05", long 85°57'28", in NE 1/4 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 September 25, 1950, by the Elkhart County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--Two small drainage ditches enter the lake on the eastern shore. The outlet, Osolo Township ditch, flows from the lake at the southeastern tip and into the St. Joseph River, 4.0 mi downstream.

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.18	---	---	2.91	3.15	3.06	3.06	2.82	2.62	2.03	2.06	2.19
10	2.25	---	2.69	2.91	3.11	3.04	3.03	2.80	2.51	2.06	2.35	2.08
15	2.24	---	2.85	2.93	3.19	3.02	2.93	2.79	2.43	2.08	2.31	2.03
20	2.28	---	2.99	3.12	3.16	2.99	2.88	2.76	2.37	2.12	2.25	2.20
25	2.36	---	2.97	3.07	3.13	3.00	2.83	2.82	2.26	2.02	2.17	2.14
EOM	2.39	---	2.95	3.18	3.13	3.03	2.83	2.73	2.15	1.90	2.14	2.06

WTR YR 1988 MEAN 2.61 MAX 3.19 MIN 1.82

STREAMS TRIBUTARY TO LAKE MICHIGAN

271

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 mi².

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 August 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.70	7.71	7.87	7.89	7.90	7.82	8.03	7.74	7.68	7.47	7.62	7.74
10	7.71	7.71	8.07	7.89	7.90	7.86	8.09	7.73	7.64	7.46	7.61	7.67
15	7.70	7.71	8.46	7.89	7.90	7.84	7.87	7.71	7.65	7.49	7.63	7.63
20	7.71	7.72	8.54	8.12	7.94	7.83	7.82	7.71	7.63	7.69	7.74	7.80
25	7.72	7.98	8.02	7.83	8.04	8.76	7.78	7.82	7.58	7.70	7.67	7.68
EOM	7.73	8.04	7.89	8.09	7.85	8.08	7.76	7.70	7.52	7.65	7.65	7.67

WTR YR 1988 MEAN 7.80 MAX 8.86 MIN 7.41

WABASH RIVER BASIN

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 mi².

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.59	1.70	2.47	2.18	2.40	2.06	2.69	1.75	1.67	1.42	1.47	1.86
10	1.63	1.67	2.82	1.91	2.07	2.05	3.64	1.70	1.57	1.47	1.47	1.83
15	1.64	1.70	3.17	1.80	2.28	2.06	2.67	1.64	1.56	1.47	1.50	1.79
20	1.66	1.71	3.52	2.58	2.48	2.00	2.15	1.66	1.53	1.52	1.58	1.91
25	1.71	2.10	3.05	2.24	2.61	3.60	2.00	1.75	1.51	1.48	1.68	1.92
EOM	1.79	2.59	2.75	2.39	2.19	3.24	1.87	1.63	1.46	1.49	1.70	2.00

WTR YR 1988 MEAN 2.01 MAX 3.92 MIN 1.40

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099780 STONE LAKE NEAR SCOTT, IN

LOCATION.--Lat 41°44'32", long 85°39'03", in SE 1/4 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 mi².

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.66	7.61	7.60	7.89	8.02	8.08	8.17	8.07	7.84	7.26	7.28	7.25
10	7.65	7.60	7.64	7.85	8.03	8.08	8.27	8.02	7.71	7.27	7.27	7.25
15	7.64	7.58	7.79	7.81	8.10	8.07	8.22	7.98	7.62	7.30	7.27	7.25
20	7.64	7.55	7.87	7.90	8.11	8.06	8.18	7.93	7.57	7.29	7.27	7.25
25	7.65	7.57	7.87	7.92	8.10	8.12	8.15	8.06	7.45	7.27	7.26	7.25
EOM	7.64	7.60	7.91	7.98	8.10	8.17	8.12	7.94	7.34	7.27	7.26	7.25

WTR YR 1988 MEAN 7.72 MAX 8.30 MIN 7.25

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100180 SYLVAN LAKE AT ROME CITY, IN

LOCATION.--Lat 41°29'53", long 85°22'38", in SE 1/4 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.23	9.23	9.52	9.48	9.49	9.41	9.66	9.25	9.15	9.06	9.18	9.32
10	9.24	9.22	9.58	9.48	9.41	9.38	9.79	9.24	9.10	9.15	9.14	9.20
15	9.23	9.21	9.74	9.47	9.40	9.37	9.54	9.23	9.18	9.18	9.18	9.16
20	9.24	9.23	9.86	9.64	9.54	9.35	9.42	9.21	9.16	9.19	9.21	9.32
25	9.27	9.42	9.78	9.51	9.55	9.66	9.36	9.30	9.12	9.24	9.17	9.20
EOM	9.28	9.52	9.55	9.56	9.45	9.74	9.32	9.20	9.08	9.17	9.16	9.16

WTR YR 1988 MEAN 9.34 MAX 9.87 MIN 9.04

04100460 SYRACUSE LAKE AT SYRACUSE, IN

LOCATION.--Lat 41°25'26", long 85°44'59", in SW1SW1 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 as corrected on the basis of levels of Indiana Department of Natural Resources, 1973-74.

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.--8.87 ft gage datum or 858.87 ft above National Geodetic Vertical Datum of 1929 as decreed on September 20, 1948, by the Kosciusko County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 8.87 ft gage datum or 858.72 ft above National Geodetic Vertical Datum of 1929.

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.63	8.65	8.90	8.97	8.81	8.60	8.67	8.55	8.52	8.17	8.19	8.28
10	8.64	8.65	8.89	8.97	8.81	8.52	8.87	8.55	8.42	8.16	8.14	8.26
15	8.62	8.65	8.95	8.97	8.81	8.57	8.76	8.56	8.43	8.23	8.15	8.24
20	8.61	8.64	9.03	8.76	8.80	8.51	8.63	8.55	8.37	8.32	8.20	8.30
25	8.64	8.78	9.02	8.78	8.73	8.62	8.54	8.63	8.31	8.26	8.15	8.28
EOM	8.67	8.91	8.99	8.84	8.68	8.69	8.56	8.59	8.23	8.22	8.16	8.26

WTR YR 1988 MEAN 8.57 MAX 9.04 MIN 8.08

WABASH RIVER BASIN

03330480 TIPPECANOE LAKE AT OSWEGO, IN

LOCATION.--Lat 41°19'15", long 85°47'20", in NW1NE1 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 mi².

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 October 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.74	6.05	6.23	6.96	6.60	6.35	7.19	6.57	6.53	6.01	5.90	6.19
10	6.66	6.02	6.46	6.96	6.55	6.15	7.57	6.75	6.43	5.95	5.87	6.34
15	6.29	5.69	6.82	5.96	6.51	6.09	7.37	6.67	6.38	5.89	5.84	6.35
20	6.14	5.83	7.30	6.07	6.55	5.93	6.85	6.60	6.34	5.89	5.89	6.41
25	6.03	6.16	7.59	6.17	6.63	6.13	6.65	6.67	6.29	5.88	5.87	6.43
EOM	5.95	6.19	7.33	6.29	6.57	7.11	6.67	6.61	6.12	5.89	5.85	6.40

WTR YR 1988 MEAN 6.39 MAX 7.59 MIN 5.64

STREAMS TRIBUTARY TO LAKE MICHIGAN

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 as decreed on February 20, 1968, by Noble County Circuit Court.

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.36	11.39	11.50	11.45	11.60	11.60	11.61	11.40	11.39	11.07	11.26	11.51
10	11.38	11.38	11.57	11.44	11.60	11.40	11.81	11.42	11.30	11.09	11.26	11.41
15	11.38	11.35	11.80	11.39	11.60	11.43	11.57	11.41	11.25	11.16	11.31	11.38
20	11.40	11.41	11.82	11.59	11.60	11.42	11.47	11.40	11.22	11.25	11.37	11.61
25	11.41	11.58	11.64	11.50	11.60	11.87	11.44	11.54	11.20	11.30	11.34	11.48
EOM	11.41	11.60	11.55	11.62	11.60	11.71	11.42	11.45	11.12	11.27	11.31	11.41

WTR YR 1988 MEAN 11.44 MAX 12.04 MIN 11.03

LAUGHERY CREEK BASIN

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 mi².

PERIOD OF RECORD.--1958 to current year.

DATUM OF GAGE.--760.74 ft above National Geodetic Vertical Datum of 1929.

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	28.83	29.08	27.82	29.23	29.67	29.70	29.43	29.18	29.09	28.61	29.10	29.20
10	28.88	29.06	28.35	29.23	29.30	29.41	29.46	29.17	29.02	28.54	29.13	---
15	28.93	---	29.18	29.22	29.87	29.66	29.26	29.25	28.95	28.48	29.12	---
20	28.92	---	29.18	29.95	29.91	29.31	29.25	29.15	28.91	28.87	29.27	---
25	28.91	---	29.76	29.31	29.36	30.00	29.30	29.20	28.86	29.14	29.10	---
EOM	29.06	---	29.50	29.74	29.27	29.31	29.23	29.13	28.73	29.09	29.07	---

WTR YR 1988 MEAN 29.17 MAX 32.96 MIN 27.30

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 mi².

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 LANIER BUS. PROD.

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.62	5.14	5.75	6.03	6.05	5.76	6.71	5.43	5.62	5.53	5.63	5.79
10	5.63	5.10	5.97	5.59	5.80	5.68	7.29	5.69	5.58	5.60	5.60	5.66
15	4.97	5.04	6.31	5.32	5.85	5.66	6.84	5.71	5.62	5.63	5.64	5.62
20	4.87	5.05	6.78	5.80	6.01	5.60	6.33	5.70	5.59	5.64	5.69	5.94
25	4.98	5.35	6.82	5.70	6.21	6.35	5.93	5.86	5.55	5.74	5.61	5.79
EOM	5.09	5.68	6.53	5.99	5.98	6.78	5.65	5.68	5.53	5.64	5.60	5.69

WTR YR 1988 MEAN 5.76 MAX 7.34 MIN 4.86

ILLINOIS RIVER BASIN

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 mi².

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.98	8.89	8.86	9.57	9.92	9.80	10.00	9.78	9.16	8.54	8.20	8.17
10	8.98	8.86	8.88	9.50	9.94	9.70	10.36	9.68	9.06	8.48	8.42	8.12
15	8.90	8.82	9.00	9.48	9.98	9.70	10.34	9.58	8.94	8.36	8.34	8.08
20	8.90	8.78	9.24	9.76	9.99	9.60	10.20	9.40	8.86	8.36	8.33	8.10
25	8.89	8.78	9.44	9.86	9.94	9.58	10.12	9.48	8.76	8.28	8.26	8.08
EOM	8.89	8.88	9.56	9.88	9.86	9.80	9.96	9.30	8.65	8.26	8.23	---

WTR YR 1988 MEAN 9.15 MAX 10.38 MIN 8.06

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 mi².

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--839.93 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels 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.--12.75 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. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 12.75 ft gage datum or 852.68 ft above National Geodetic Vertical Datum of 1929.

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. North of this dam is another which used to serve as a mill race. This dam has one metal gate.

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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.75	12.72	13.17	12.67	12.67	12.09	13.12	12.71	12.68	12.25	12.31	12.61
10	12.82	12.70	13.23	12.67	12.67	11.99	13.40	12.66	12.58	12.25	12.28	12.54
15	12.86	12.74	13.25	12.73	13.18	11.99	13.04	12.64	12.49	12.28	12.28	12.51
20	12.80	12.52	13.52	12.43	12.03	12.16	12.81	12.61	12.43	12.34	12.34	12.62
25	12.89	12.54	13.21	12.80	12.32	12.76	12.80	12.67	12.38	---	12.34	12.61
EOM	12.97	12.84	12.59	12.84	12.31	13.32	12.73	12.70	12.30	---	12.29	12.56

WTR YR 1988 MEAN 12.64 MAX 13.52 MIN 11.89

ILLINOIS RIVER BASIN

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 mi².

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, and eventually into the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 8.42 ft Apr. 7, 1988; minimum stage, 4.97 ft Aug. 31, 1962.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.61	---	7.18	7.73	7.94	7.80	8.10	7.45	7.01	6.34	6.06	6.37
10	---	---	7.31	7.73	7.94	7.72	8.25	7.36	6.89	6.29	6.24	6.22
15	---	---	7.57	7.73	7.94	7.71	7.97	7.27	6.77	6.23	6.12	6.24
20	---	---	7.80	7.79	7.94	7.69	7.81	7.20	6.70	6.20	6.12	6.74
25	---	---	7.78	7.79	7.94	7.88	7.64	7.28	6.57	6.17	6.01	6.65
EOM	---	---	7.73	7.88	7.88	8.10	7.57	7.14	6.48	6.03	5.99	6.56

WTR YR 1988 MEAN 7.16 MAX 8.40 MIN 5.89

WABASH RIVER BASIN

03331140 WINONA LAKE AT WARSAW, IN

LOCATION.--Lat 41°13'34", long 85°50'46", in NW1/4SE1/4 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 mi².

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 as corrected on the basis of levels of Indiana Department of Natural Resources, 1973-74. 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.--11.06 ft gage datum or 811.06 ft above National Geodetic Vertical Datum of 1929 as decreed on June 17, 1949, by the Kosciusko County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 11.06 ft gage datum or 811.16 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 1987 TO SEPTEMBER 1988
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.93	9.80	10.02	9.95	10.12	9.94	10.10	10.53	10.92	10.79	10.83	10.99
10	10.94	9.77	10.14	9.89	9.97	9.96	10.33	10.77	10.85	10.88	10.81	10.87
15	10.93	9.76	10.33	9.87	10.07	9.94	10.07	10.92	10.85	10.95	10.78	10.82
20	10.95	9.76	10.42	10.17	10.14	9.93	9.98	10.96	10.85	---	10.92	10.88
25	10.78	10.02	10.18	10.00	10.13	10.39	9.94	11.07	10.81	---	10.83	10.85
EOM	9.89	10.15	10.11	10.13	9.99	10.25	10.24	10.98	10.79	---	10.80	10.81

WTR YR 1988 MEAN 10.42 MAX 11.12 MIN 9.73

RECORDS AVAILABLE ON LAKES

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	Drain- age (square miles)	Surface area (acres)	Estab- lished level*	Capac- ity (acre- feet)	Contour map avail- able	Records avail- able
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, 1976-
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	69	-----	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	Drain- age (square miles)	Surface area (acres)	Estab- lished level*	Capac- ity (acre- feet)	Contour map avail- able	Records avail- able	
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	814.7	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	40.2	310	964.96	7,998	+	1943-49
04097660	Lake James at Lake James	Steuben	47.8	1,034	964.96	33,585	+	1943-49
04097680	Jimmerson Lake at Nevada Mills ⁵	Steuben	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	17.3	332	954.25	10,140	+	1946-
04097960	Lime Lake at Panama	Steuben	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	35.2	61	988.24	930	+	1954-63
04099100	Fox Lake near Angola	Steuben	81.25	142	1,018.83	3,150	+	1946-53
04099190	Pleasant Lake at Pleasant Lake	Steuben	81.12	53	963.52	1,190	+	1946-66
04099200	Long Lake at Moonlight	Steuben	67.9	92	-----	1,540	+	1946-
04099250	Bower Lake near Pleasant Lake	Steuben	84.6	25	948.50	280	+	1946-71, 1976-
04099260	Golden Lake near Pleasant Lake	Steuben	88.8	119	948.50	1,810	+	1946-71, 1976-
04099400	Silver Lake near Angola	Steuben	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	3.90	27	977.34	130	+	1954-63
04099500	Hogback Lake near Angola	Steuben	103	146	948.50	1,450	+	1946-
04099520	Otter Lake near Flint	Steuben	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	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	6.74	202	852.04	1,350	+	1951-
04099760	Fish Lake near Scott	Lagrange	6.21	139	814.42	2,560	+	1954-73, 1976-

RECORDS AVAILABLE ON LAKES

Lakes in the St. Lawrence River basin for which records are available--Continued

	Lake	County	Drain- age (square miles)	Surface area (acres)	Estab- lished level*	Capac- ity (acre- feet)	Contour map avail- able	Records avail- able
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	81.29	100	813.00	-----	-	1947-57
04099860	Heaton Lake near Elkhart	Elkhart	9.33	87	767.30	640	+	1946-53, 1969-74, 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 Lake 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 near 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	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	42.8	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	84.19	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	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	-----	-----	-	1964-69
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	88.05	551	867.70	9,000	+	1945-
04100480	Wabsee Lake near Milford	Kosciusko	814.6	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	894.76	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	82.34	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	Drain- age (square miles)	Surface area (acres)	Estab- lished level*	Capac- ity (acre- feet)	Contour map avail- able	Records avail- able
ILLINOIS RIVER BASIN--Continued								
05514750	North Chain Lake at Lydick	St. Joseph	83.89	88	721.17	1,400	+	1946-53
05514760	South Chain Lake at Westfield	St. Joseph	86.32	90	717.04	270	-	1946-53
05514770	Wharton Lake near South Bend	St. Joseph	81.85	-----	-----	-----	-	1960-
05514900	Silver Lake near Rolling Prairie	LaPorte	1.72	54	795.20	-----	-	1946-66
05515200	Upper Fish Lake near Stillwell	LaPorte	89.65	139	688.22	1,040	+	1946-53
05515210	Lower Fish Lake near Stillwell	LaPorte	810.4	134	688.22	870	+	1946-53
05515220	Pine Lake at LaPorte	LaPorte	810.7	564	796.20	-----	-	1946-75 1980-
05515230	Stone Lake at LaPorte	LaPorte	810.7	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	86.25	346	714.56	3,170	+	1943-
05515800	Riddles Lake near Lakeville	St. Joseph	811.7	77	817.50	640	+	1946-73, 1976-
05516200	Lake of the Woods near Bremen	Marshall	89.45	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	85.34	168	767.75	1,020	+	1945-53
05516900	Eagle Lake near Ober	Starke	825.5	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.

*Elevation, in feet, above mean sea level.

¹Formerly published as Rider Lake at Wilmot.

²Formerly published as Chapman Lake near Warsaw.

³Formerly published as Johnson Lake near Pierceton.

⁴Formerly published as Hawks Lake near Culver.

⁵Formerly published as Jimerson Lake at Nevada Mills.

⁶Formerly published as Sanford Lake near Cosperville.

⁷Formerly published as Duley Lake near Cromwell, and Druley Lake near Cromwell.

*Contains drainage area (5 percent or greater) that does not contribute directly to surface-water runoff.

⁹Same as Wolf Lake at Chicago, Illinois WRD District.

OTHER LAKE MAPS AVAILABLE

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	Schlam Lake	Clark	19	170
Frank 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

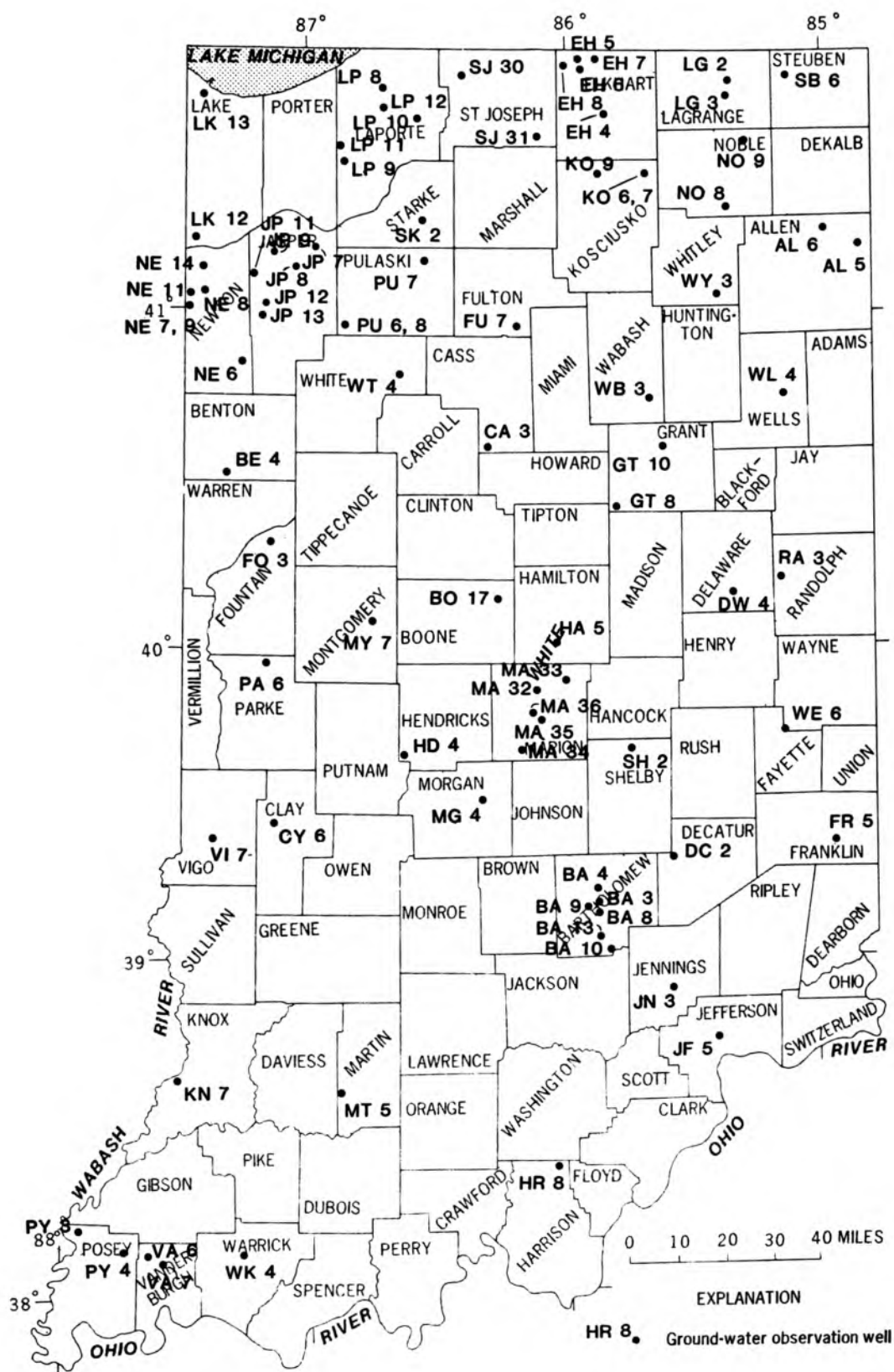


Figure 7 -- Locations of ground-water observation wells.

204 280

GROUND-WATER DATA

ALLEN COUNTY

410426084495201. Local number, AL 5.
 LOCATION.--Lat 41°04'26", Long 84°49'52", in NW1/4 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, 0.10 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.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.38	19.35	20.40	20.27	19.81	19.60	18.54	18.75	18.88	19.42	19.56	18.68
10	19.89	20.15	20.04	20.09	19.84	19.17	18.84	18.52	19.04	19.48	19.59	19.01
15	19.59	19.99	19.92	19.74	19.09	19.33	18.84	18.50	19.39	19.44	19.53	19.12
20	19.57	20.16	20.17	19.11	18.87	19.10	18.61	18.69	19.24	19.28	19.12	18.72
25	19.87	19.97	19.77	19.45	19.50	18.85	18.71	18.81	19.26	19.32	18.85	18.92
EOM	19.87	19.81	19.83	19.39	19.34	19.25	18.82	19.13	19.11	19.56	19.17	18.95

WTR YR 1988 HIGH 18.28 APR 6

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.02	20.39	20.96	20.65	20.38	20.02	18.95	19.12	19.20	20.47	19.96	19.02
10	20.46	20.76	20.53	20.44	20.23	19.59	19.30	18.99	19.25	19.91	20.04	19.31
15	20.25	20.68	20.93	20.20	19.60	19.75	19.30	18.83	20.19	20.09	19.91	19.40
20	20.02	20.80	20.11	19.61	19.64	19.68	19.09	18.77	20.29	19.82	19.50	18.97
25	20.75	20.57	20.04	19.85	19.87	19.20	19.12	19.15	19.94	19.91	19.19	19.30
EOM	20.44	20.45	20.31	19.77	19.71	19.70	19.15	19.70	19.53	19.96	19.33	19.09

WTR YR 1988 LOW 21.38 DEC 17

ALLEN COUNTY

410932084561101. Local number, AL 6.
 LOCATION.--Lat 41°09'32", Long 84°56'11", in SW1/4 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.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.09	13.27	12.06	10.16	10.64	10.40	8.87	11.06	12.28	13.58	13.35	13.53
10	13.20	13.30	11.62	10.53	10.83	10.28	8.75	11.25	12.57	14.02	13.48	13.68
15	13.21	13.34	10.73	10.82	10.80	10.08	9.50	11.47	12.91	14.03	13.57	13.80
20	13.22	13.32	10.01	10.74	10.40	10.26	10.05	11.70	13.05	13.74	13.55	13.70
25	13.30	13.20	9.93	10.91	9.84	9.33	10.47	11.84	13.27	13.27	13.50	13.74
EOM	13.25	12.42	9.75	11.10	10.04	9.56	10.76	12.14	13.45	13.24	13.65	13.80

WTR YR 1988 HIGH 8.37 APR 7

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.24	13.47	12.21	10.33	10.78	10.55	9.10	11.28	12.44	13.75	13.53	13.76
10	13.38	13.49	11.84	10.64	11.01	10.42	8.99	11.52	12.70	14.19	13.65	13.88
15	13.41	13.50	11.40	10.95	10.97	10.30	9.73	11.66	13.04	14.17	13.76	13.97
20	13.42	13.50	10.25	10.89	10.64	10.50	10.23	11.88	13.21	13.92	13.70	13.85
25	13.50	13.39	10.06	11.04	10.02	9.88	10.63	11.99	13.42	13.40	13.68	13.89
EOM	13.37	12.64	9.89	11.24	10.25	9.76	11.01	12.31	13.63	13.37	13.79	13.94

WTR YR 1988 LOW 14.33 JUL 17

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 September 1988. (Discontinued)

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.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.55	20.55	20.47	20.23	19.33	19.28	19.48	19.80	21.49	22.46	21.62	20.44
10	20.49	20.42	20.51	20.17	19.47	19.34	18.81	19.93	21.75	23.65	21.15	20.41
15	20.61	20.43	20.47	20.26	19.44	19.45	19.20	20.27	22.42	22.71	20.96	20.36
20	20.45	20.39	20.33	20.27	19.36	19.37	19.31	21.39	22.07	22.15	21.13	20.54
25	20.36	20.37	20.26	20.12	19.42	19.37	19.17	20.79	22.61	21.16	20.68	20.51
EOM	20.37	20.23	20.00	20.24	19.44	19.60	19.39	20.99	22.26	20.94	20.84	20.62

WTR YR 1988 HIGH 18.81 APR 10

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.18	20.77	20.61	20.64	19.87	19.37	19.84	20.39	21.99	23.15	22.16	20.50
10	20.54	20.82	20.83	20.18	19.48	19.35	18.84	20.40	22.35	24.26	21.98	20.47
15	20.94	20.46	20.60	20.32	19.51	19.60	19.58	20.86	22.92	23.72	21.60	20.68
20	20.48	20.40	20.35	20.42	19.65	19.37	19.74	22.07	22.71	22.72	21.61	21.06
25	20.38	20.38	20.31	20.56	19.44	19.93	19.81	21.31	23.17	21.75	20.85	20.62
EOM	20.41	20.25	20.23	20.32	19.73	20.04	19.53	21.88	23.11	21.16	21.39	20.84

WTR YR 1988 LOW 24.26 JUL 10

BARTHOLOMEW COUNTY

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.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.63	20.00	20.29	20.25	20.17	18.73	18.20	17.38	17.98	18.60	19.13	19.59
10	19.70	20.05	20.32	20.23	19.79	18.60	18.13	17.46	18.10	18.68	19.21	19.66
15	19.77	20.10	20.34	20.23	19.39	18.47	17.83	17.57	18.20	18.78	19.28	19.73
20	19.83	20.16	20.37	20.26	19.14	18.37	17.51	17.65	18.30	18.88	19.36	19.79
25	19.89	20.21	20.38	20.27	18.96	18.30	17.36	17.77	18.39	18.96	19.43	19.85
EOM	19.95	20.26	20.32	20.29	18.84	18.24	17.35	17.88	18.48	19.05	19.53	19.90

WTR YR 1988 HIGH 17.34 APR 26

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.64	20.01	20.30	20.26	20.21	18.75	18.21	17.40	18.01	18.61	19.14	19.61
10	19.71	20.06	20.33	20.23	19.87	18.63	18.16	17.50	18.12	18.70	19.23	19.68
15	19.78	20.11	20.36	20.24	19.44	18.49	17.90	17.58	18.21	18.79	19.30	19.74
20	19.84	20.17	20.38	20.27	19.17	18.38	17.56	17.67	18.32	18.89	19.37	19.80
25	19.90	20.22	20.39	20.28	19.00	18.31	17.39	17.79	18.41	18.98	19.45	19.86
EOM	19.96	20.26	20.33	20.29	18.87	18.26	17.35	17.90	18.50	19.07	19.54	19.91

WTR YR 1988 LOW 20.39 DEC 25

GROUND-WATER DATA

BARTHOLOMEW COUNTY

39095008553501. 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, 23.80 ft below land-surface datum, Dec. 22-26, 1987.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.57	23.18	23.63	23.60	23.15	20.38	20.04	18.76	19.82	20.84	21.82	22.67
10	22.69	23.27	23.69	23.53	22.08	20.22	19.81	18.89	19.99	21.01	21.96	22.81
15	22.80	23.34	23.73	23.49	21.24	20.10	19.16	18.06	20.17	21.17	22.10	22.94
20	22.90	23.42	23.78	23.50	20.88	19.99	18.71	19.24	20.33	21.33	22.24	23.06
25	23.00	23.49	23.80	23.47	20.64	19.96	18.59	19.42	20.49	21.49	22.38	23.16
EOM	23.10	23.56	23.69	23.42	20.49	20.02	18.65	19.63	20.67	21.68	22.54	23.28

WTR YR 1988 HIGH 18.58 APR 26

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.59	23.20	23.64	23.61	23.25	20.41	20.05	18.79	19.85	20.89	21.84	22.70
10	22.71	23.28	23.70	23.53	22.28	20.25	19.89	18.94	20.03	21.07	21.99	22.83
15	22.82	23.35	23.74	23.50	21.33	20.11	19.29	19.09	20.20	21.21	22.13	22.97
20	22.93	23.43	23.78	23.51	20.93	20.03	18.78	19.28	20.36	21.34	22.27	23.09
25	23.03	23.51	23.80	23.48	20.68	19.98	18.61	19.46	20.52	21.52	22.40	23.18
EOM	23.13	23.57	23.70	23.44	20.51	20.03	18.67	19.67	20.70	21.71	22.57	23.30

WTR YR 1988 LOW 23.80 DEC 22

BARTHOLOMEW COUNTY

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.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	34.55	34.87	34.97	34.51	34.30	32.24	32.49	31.18	30.82	33.31	34.75	35.61
10	34.82	34.94	34.90	34.68	33.86	33.80	32.37	30.76	32.05	33.27	35.09	35.99
15	34.71	34.86	34.69	34.61	33.32	32.07	31.97	31.31	31.98	34.29	35.45	35.96
20	35.00	34.97	34.78	34.59	32.83	31.93	30.80	31.38	31.89	33.77	35.47	35.75
25	35.05	34.95	34.66	34.55	32.65	32.02	30.44	31.51	33.24	35.22	36.00	35.85
EOM	34.94	34.95	34.64	34.50	32.38	31.71	31.17	31.57	33.88	35.80	35.81	36.01

WTR YR 1988 HIGH 30.32 APR 29

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	35.86	36.33	36.35	36.05	35.90	33.88	32.58	31.21	31.71	34.28	35.98	36.80
10	35.98	36.32	36.29	36.18	35.55	33.92	32.42	31.25	32.16	34.41	36.18	37.03
15	35.94	36.34	36.31	36.23	34.99	33.73	32.01	31.32	32.92	34.33	36.43	37.13
20	36.12	36.56	36.31	36.22	34.51	33.34	31.63	31.42	33.01	34.94	36.66	37.01
25	36.18	36.54	36.16	36.05	34.28	32.77	31.39	31.54	33.58	35.34	36.81	37.06
EOM	36.20	36.43	36.08	36.11	34.03	32.66	31.20	31.66	33.98	35.89	36.90	37.19

WTR YR 1988 LOW 37.19 SEP 30

GROUND-WATER DATA

287

BARTHOLOMEW COUNTY

390317085523701. Local number, BA 10.

LOCATION.--Lat 39°03'17", long 85°52'37", in NE¼NE¼ 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, 12.52 ft below land-surface datum, Nov. 24, 1987.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.74	12.24	12.31	11.48	---	6.34	8.00	8.19	9.63	---	---	11.98
10	11.90	12.27	12.33	11.32	6.06	6.74	3.60	8.47	9.81	---	---	12.06
15	11.94	12.27	12.13	11.31	6.56	7.01	6.07	8.68	9.95	---	---	12.14
20	12.01	12.27	12.15	11.35	6.35	7.45	6.88	9.00	10.16	---	---	12.21
25	12.06	12.35	12.11	11.11	6.40	7.78	7.36	9.22	10.29	---	11.73	12.25
EOM	12.15	12.29	11.44	11.17	6.97	7.92	7.80	9.38	10.48	---	11.91	12.32

WTR YR 1988 HIGH 3.28 FEB 3

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.90	12.37	12.45	11.61	---	6.66	8.14	8.29	9.69	---	---	12.09
10	12.03	12.35	12.42	11.42	6.26	6.90	4.37	8.62	9.96	---	---	12.18
15	12.04	12.40	12.48	11.45	6.75	7.26	6.35	8.84	10.08	---	---	12.24
20	12.18	12.48	12.42	11.49	6.66	7.62	6.98	9.08	10.20	---	---	12.32
25	12.24	12.44	12.25	11.21	6.61	7.85	7.46	9.33	10.40	---	11.90	12.39
EOM	12.28	12.39	11.61	11.29	7.19	8.05	7.95	9.55	10.61	---	11.99	12.41

WTR YR 1988 LOW 12.52 NOV 24

BARTHOLOMEW COUNTY

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, 20.78 ft below land-surface datum, Jan. 19, 1987; lowest, 23.38 ft below land-surface datum, Sept. 30, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.71	---	22.49	23.00	22.90	22.65	21.98	22.30	22.48	22.72	22.73	22.64
10	22.33	---	22.15	22.89	22.71	22.20	22.21	22.15	22.59	22.46	22.81	23.06
15	22.21	22.40	21.54	22.64	21.93	22.33	22.30	22.09	22.58	22.63	22.81	23.21
20	22.01	22.26	22.01	21.98	22.00	22.15	21.95	22.26	22.53	22.57	22.66	22.86
25	---	22.29	22.36	22.37	22.63	22.16	22.18	22.34	22.39	22.68	22.64	23.11
EOM	---	21.95	22.55	22.51	22.43	22.49	22.38	22.45	22.42	22.77	23.06	23.25

WTR YR 1988 HIGH 21.54 DEC 15

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.02	---	22.57	23.16	23.16	22.83	22.23	22.34	22.62	22.82	22.81	22.94
10	22.41	---	22.35	23.03	22.86	22.38	22.44	22.36	22.71	22.60	22.90	23.19
15	22.34	22.53	22.30	22.88	22.43	22.61	22.44	22.31	22.73	22.72	22.91	23.29
20	22.26	22.49	22.63	22.32	22.49	22.51	22.26	22.31	22.64	22.70	22.74	23.15
25	---	22.45	22.55	22.53	22.74	22.29	22.35	22.58	22.55	22.80	22.76	23.28
EOM	---	22.04	22.76	22.64	22.66	22.64	22.47	22.58	22.49	22.86	23.14	23.38

WTR YR 1988 LOW 23.38 SEP 30

GROUND-WATER DATA

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, 2.19 (revised) 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, 16.14 ft below land-surface datum, Sept. 30, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.32	15.63	15.63	---	13.62	13.06	12.46	12.29	13.00	13.99	14.86	15.51
10	15.54	15.80	15.38	---	13.49	12.89	12.50	12.25	13.13	14.16	15.00	15.78
15	15.54	15.73	15.01	13.94	13.12	12.83	12.37	12.40	13.35	14.31	15.14	15.94
20	15.49	15.77	---	13.55	13.03	12.79	12.20	12.56	13.45	14.40	15.24	15.74
25	15.64	15.67	---	13.57	13.17	12.69	12.22	12.64	13.57	14.55	15.36	15.97
EOM	15.63	15.52	---	13.52	13.09	12.76	12.25	12.85	13.74	14.73	15.65	16.12

WTR YR 1988 HIGH 12.10 APR 23

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.41	15.74	15.67	---	13.67	13.09	12.55	12.33	13.03	14.06	14.90	15.61
10	15.57	15.83	15.46	---	13.52	12.91	12.54	12.36	13.21	14.21	15.05	15.84
15	15.57	15.78	15.25	14.05	13.24	12.92	12.42	12.45	13.38	14.36	15.17	15.96
20	15.55	15.85	---	13.60	13.13	12.87	12.26	12.59	13.47	14.42	15.27	15.86
25	15.68	15.74	---	13.59	13.20	12.74	12.24	12.73	13.61	14.58	15.40	16.04
EOM	15.69	15.54	---	13.61	13.12	12.79	12.28	12.90	13.78	14.76	15.70	16.14

WTR YR 1988 LOW 16.14 SEP 30

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, 51.43 ft below land-surface datum, Sept. 15, 16, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.72	49.12	49.42	49.60	49.58	49.37	48.85	48.54	48.59	49.06	49.43	50.93
10	48.91	49.25	49.33	49.63	49.56	49.33	48.82	48.44	48.63	49.16	49.51	51.13
15	48.94	49.27	49.08	49.64	49.29	49.28	48.70	48.41	48.71	49.25	49.57	51.39
20	48.97	49.25	49.26	49.37	49.27	49.22	48.52	48.43	48.73	49.24	49.69	51.24
25	49.11	49.23	49.40	49.46	49.45	49.14	48.50	48.44	48.81	49.30	50.39	51.23
EOM	49.09	49.11	49.43	49.53	49.43	49.13	48.54	48.50	48.90	49.29	50.88	51.33

WTR YR 1988 HIGH 48.37 MAY 23

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.81	49.22	49.48	49.64	49.63	49.42	48.93	48.57	48.61	49.10	49.45	51.01
10	48.93	49.27	49.38	49.65	49.57	49.37	48.86	48.52	48.68	49.24	49.61	51.22
15	48.98	49.31	49.34	49.71	49.42	49.38	48.75	48.48	48.73	49.29	49.67	51.43
20	49.03	49.35	49.46	49.45	49.41	49.32	48.60	48.46	48.74	49.33	49.75	51.29
25	49.16	49.30	49.48	49.52	49.50	49.19	48.54	48.50	48.83	49.34	50.47	51.26
EOM	49.16	49.15	49.52	49.60	49.48	49.19	48.59	48.55	48.94	49.34	50.93	51.40

WTR YR 1988 LOW 51.43 SEP 15

GROUND-WATER DATA

289

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 78ft, 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, 8.97 ft below land-surface datum, Sept. 25, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.31	6.49	6.34	5.56	5.69	5.46	4.77	5.40	6.22	7.03	7.76	8.17
10	6.49	6.72	6.13	5.57	5.65	5.19	4.72	5.48	6.31	7.23	7.90	8.40
15	6.44	6.65	5.51	5.51	5.39	5.20	4.78	5.59	6.41	7.20	8.12	8.59
20	6.43	6.57	5.58	5.32	5.39	5.15	4.69	5.74	6.52	7.21	8.13	8.57
25	6.53	6.50	5.75	5.82	5.54	4.98	5.11	5.92	6.88	7.24	8.04	8.61
EOM	6.55	6.29	5.48	5.58	5.43	5.06	5.30	6.23	6.76	7.48	8.35	8.86

WTR YR 1988 HIGH 4.56 APR 6

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.42	6.70	6.45	5.65	5.90	5.53	4.91	5.54	6.31	7.14	7.83	8.34
10	6.56	6.80	6.24	5.62	5.71	5.29	4.81	5.67	6.43	7.36	8.00	8.56
15	6.50	6.74	5.85	5.65	5.70	5.40	4.96	5.72	6.52	7.34	8.19	8.67
20	6.56	6.78	5.88	5.59	5.68	5.31	4.79	5.88	6.62	7.37	8.18	8.69
25	6.67	6.63	5.81	5.91	5.68	5.08	5.30	6.00	6.99	7.33	8.16	8.97
EOM	6.65	6.37	5.67	5.72	5.57	5.18	5.38	6.34	6.88	7.68	8.42	8.95

WTR YR 1988 LOW 8.97 SEP 25

CLAY COUNTY

392653087120501. Local number, CY 6.

LOCATION.--Lat 39°26'53", long 87°12'05", in SE¼SE¼SE¼ sec.29, T.12 N., R.7 W., Clay County, Hydrologic Unit 05120111, 2.8 mi southwest of Staunton and 4.0 mi west of State Highway 59 just north of State Highway 42.
 Owner: U.S. Geological Survey.

AQUIFER.--Sandstone of the Mansfield Formation, Pennsylvanian Period.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 400 ft, cased to 347 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 653.16 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.40 ft above land-surface datum.

PERIOD OF RECORD.--September 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 151.36 ft below land-surface datum, Jan. 19, 1988; lowest, 152.99 ft below land-surface datum, Sept. 21, 26, 27, 30, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	152.44	---	152.39	152.27	151.91	151.96	151.68	151.91	152.16	152.49	152.50	152.53
10	---	---	152.16	152.10	151.89	151.77	151.91	151.75	152.23	152.40	152.53	152.75
15	---	---	151.64	151.97	151.51	151.84	151.93	151.76	152.27	152.51	152.58	152.82
20	---	152.45	151.99	151.46	151.50	151.82	151.84	151.94	152.30	152.47	152.51	152.58
25	---	152.39	152.04	151.70	151.95	151.81	151.97	152.02	152.22	152.46	152.47	152.74
EOM	---	152.10	152.03	151.68	151.92	151.97	152.04	152.06	152.26	152.48	152.77	152.81

WTR YR 1988 HIGH 151.36 JAN 19

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	152.50	---	152.40	152.30	152.00	152.11	151.90	152.05	152.26	152.61	152.62	152.73
10	---	---	152.19	152.15	151.89	151.90	152.01	152.01	152.45	152.60	152.73	152.92
15	---	---	152.12	152.21	151.83	152.16	152.16	152.00	152.46	152.68	152.70	152.95
20	---	152.54	152.30	151.60	151.76	152.09	151.97	152.04	152.36	152.60	152.60	152.80
25	---	152.44	152.10	151.70	152.06	151.97	152.09	152.20	152.42	152.67	152.71	152.97
EOM	---	152.11	152.17	151.76	152.08	152.19	152.26	152.31	152.47	152.63	152.89	152.99

WTR YR 1988 LOW 152.99 SEP 21

GROUND-WATER DATA

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 RECOR.--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.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.87	8.06	7.79	4.51	.73	1.26	4.32	5.04	6.85	7.52	8.16	8.45
10	7.91	8.07	7.75	5.11	1.96	1.86	1.15	5.46	6.96	7.65	8.11	8.62
15	7.93	8.10	7.39	5.65	1.22	2.03	2.39	5.85	7.07	7.81	8.27	8.65
20	7.97	8.12	7.11	5.50	.64	2.91	3.66	6.16	7.16	7.72	8.38	8.42
25	7.99	8.10	5.14	5.54	1.64	3.31	4.02	6.42	7.27	7.83	8.49	8.50
EOM	8.04	7.86	3.64	5.05	2.31	4.06	4.58	6.68	7.40	8.04	8.60	8.61

WTR YR 1988 HIGH .25 FEB 2

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.89	8.08	7.81	4.64	1.04	1.51	4.36	5.12	6.87	7.55	8.19	8.49
10	7.93	8.09	7.77	5.21	2.10	2.08	1.34	5.54	6.98	7.69	8.15	8.64
15	7.95	8.12	7.68	5.74	1.53	2.22	2.70	5.91	7.09	7.83	8.30	8.68
20	7.99	8.15	7.15	5.71	.94	3.24	3.80	6.22	7.18	7.95	8.41	8.44
25	8.01	8.15	6.79	5.60	1.93	3.90	4.12	6.47	7.29	7.86	8.53	8.53
EOM	8.05	7.89	3.91	6.01	2.56	4.13	4.66	6.71	7.42	8.07	8.62	8.63

WTR YR 1988 LOW 8.70 SEP 16

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.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.62	48.34	48.49	48.26	47.55	47.99	48.18	48.30	48.56	48.79	48.99	49.15
10	48.56	48.34	48.46	48.44	47.87	47.69	47.48	48.36	48.60	48.85	49.03	49.18
15	48.50	48.41	48.17	48.56	47.87	47.73	47.69	48.42	48.63	48.87	49.08	49.14
20	48.44	48.48	48.18	48.20	47.38	47.92	47.95	48.47	48.65	48.85	49.11	49.11
25	48.38	48.49	48.04	48.32	47.49	48.05	48.11	48.50	48.68	48.91	49.14	49.11
EOM	48.36	48.44	48.03	48.47	47.77	48.13	48.22	48.54	48.73	48.96	49.17	49.12

WTR YR 1988 HIGH 47.38 FEB 20

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.63	48.35	48.49	48.30	47.58	48.01	48.21	48.32	48.60	48.83	49.00	49.16
10	48.58	48.34	48.47	48.46	47.92	47.70	47.49	48.37	48.60	48.85	49.07	49.19
15	48.51	48.44	48.56	48.58	48.02	47.80	47.75	48.43	48.64	48.88	49.09	49.17
20	48.45	48.51	48.23	48.28	47.46	47.97	47.99	48.47	48.65	48.90	49.12	49.13
25	48.39	48.53	48.24	48.34	47.58	48.07	48.14	48.50	48.72	48.96	49.15	49.11
EOM	48.37	48.46	48.09	48.49	47.83	48.17	48.27	48.57	48.74	48.97	49.18	49.12

WTR YR 1988 LOW 49.24 SEP 11

GROUND-WATER DATA

291

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.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.29	15.38	15.36	14.11	13.99	13.87	13.79	12.79	13.46	14.85	15.56	15.31
10	15.31	15.40	15.30	14.10	14.00	13.92	12.58	12.89	13.75	15.11	15.60	15.30
15	15.32	15.43	15.19	14.11	13.96	13.98	12.42	13.05	13.98	15.12	15.56	15.33
20	15.34	15.45	14.81	14.04	13.83	14.03	12.47	13.16	14.13	15.06	15.44	15.36
25	15.36	15.47	14.46	14.05	13.79	14.03	12.59	13.26	14.45	15.05	15.35	15.33
EOM	15.37	15.40	14.21	14.00	13.80	13.95	12.69	13.36	14.74	15.32	15.32	15.34

WTR YR 1988 HIGH 12.40 APR 17

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.29	15.38	15.37	14.12	13.99	13.88	13.82	12.81	13.50	14.94	15.59	15.32
10	15.32	15.41	15.32	14.10	14.00	13.94	12.69	12.96	13.77	15.13	15.65	15.30
15	15.33	15.43	15.22	14.11	14.01	14.00	12.42	13.07	14.03	15.15	15.57	15.34
20	15.35	15.46	14.88	14.06	13.85	14.05	12.49	13.18	14.19	15.07	15.47	15.37
25	15.36	15.48	14.51	14.06	13.79	14.05	12.60	13.28	14.47	15.06	15.36	15.33
EOM	15.37	15.41	14.23	14.05	13.82	13.99	12.71	13.38	14.80	15.32	15.32	15.34

WTR YR 1988 LOW 15.65 AUG 10

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, 5.65 ft below land-surface datum, Sept. 17-19, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.27	5.02	4.58	3.33	3.09	3.34	3.03	3.29	3.87	5.14	5.44	5.34
10	5.17	5.01	4.26	3.47	3.23	3.32	2.72	3.40	4.05	5.23	5.30	5.51
15	5.19	5.03	3.75	3.58	3.22	3.36	2.96	3.43	4.29	5.04	5.23	5.61
20	5.16	5.04	3.19	3.19	3.22	3.39	3.09	3.49	4.49	5.11	5.26	5.33
25	5.07	4.68	3.08	3.35	3.24	3.24	3.17	3.50	4.74	5.17	5.35	5.49
EOM	5.02	4.66	3.15	3.12	3.28	3.06	3.21	3.66	4.90	5.40	5.43	5.60

WTR YR 1988 HIGH 2.70 APR 8

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.27	5.02	4.58	3.37	3.12	3.36	3.04	3.30	3.89	5.19	5.56	5.40
10	5.20	5.01	4.26	3.52	3.25	3.35	2.78	3.41	4.12	5.32	5.31	5.53
15	5.20	5.04	4.21	3.58	3.26	3.38	2.99	3.45	4.37	5.35	5.37	5.63
20	5.22	5.04	3.33	3.20	3.27	3.41	3.12	3.51	4.59	5.11	5.27	5.40
25	5.07	5.08	3.08	3.37	3.27	3.30	3.19	3.52	4.81	5.19	5.39	5.52
EOM	5.03	4.67	3.18	3.30	3.30	3.08	3.23	3.72	4.95	5.43	5.48	5.61

WTR YR 1988 LOW 5.65 SEP 17

GROUND-WATER DATA

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, 10.57 ft below land-surface datum, Sept. 30, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.19	10.14	9.99	8.03	7.97	8.05	7.66	7.61	8.44	9.90	10.29	10.36
10	10.22	10.13	9.83	8.22	7.90	8.08	7.15	7.69	8.69	9.99	10.26	10.36
15	10.26	10.14	9.49	8.32	7.89	8.10	7.12	7.85	9.03	10.13	10.24	10.45
20	10.26	10.14	8.82	8.13	7.92	8.18	7.18	7.91	9.26	10.04	10.23	10.51
25	10.25	10.16	8.12	8.28	7.96	8.17	7.33	8.06	9.46	10.06	10.27	10.51
EOM	10.19	10.06	7.96	8.29	7.98	7.91	7.48	8.28	9.64	10.18	10.32	10.56

WTR YR 1988 HIGH 7.12 APR 14

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.20	10.14	10.01	8.06	7.98	8.08	7.69	7.63	8.48	9.92	10.30	10.37
10	10.22	10.13	9.87	8.23	7.90	8.11	7.19	7.72	8.82	10.01	10.28	10.38
15	10.28	10.15	9.63	8.33	7.89	8.16	7.13	7.86	9.08	10.16	10.25	10.47
20	10.27	10.14	8.97	8.20	7.94	8.23	7.19	7.92	9.28	10.04	10.23	10.51
25	10.26	10.16	8.17	8.28	7.98	8.19	7.36	8.09	9.51	10.07	10.28	10.52
EOM	10.19	10.09	7.97	8.34	7.99	7.97	7.50	8.32	9.67	10.20	10.34	10.57

WTR YR 1988 LOW 10.57 SEP 30

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, 12.73 ft below land-surface datum, Aug. 5, 6, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.47	11.54	11.54	10.24	10.04	9.99	9.97	9.56	10.11	12.05	12.69	11.94
10	11.50	11.51	11.46	10.23	9.97	10.03	9.54	9.64	10.30	12.32	12.49	11.91
15	11.52	11.50	11.27	10.25	9.92	10.11	9.36	9.74	10.67	12.54	12.28	11.89
20	11.54	11.50	10.99	10.19	9.92	10.17	9.30	9.83	11.10	12.22	12.13	11.87
25	11.55	11.52	10.52	10.23	9.93	10.20	9.37	9.92	11.47	12.03	12.02	11.87
EOM	11.56	11.52	10.30	10.25	9.93	10.21	9.47	10.02	11.78	12.47	12.01	11.85

WTR YR 1988 HIGH 9.30 APR 17

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.47	11.54	11.54	10.25	10.07	10.01	10.02	9.58	10.13	12.10	12.73	11.95
10	11.50	11.52	11.48	10.23	9.97	10.06	9.64	9.68	10.38	12.36	12.54	11.91
15	11.52	11.50	11.32	10.26	9.93	10.14	9.37	9.75	10.77	12.58	12.32	11.89
20	11.54	11.51	11.05	10.22	9.96	10.19	9.31	9.85	11.18	12.27	12.15	11.88
25	11.56	11.53	10.58	10.23	9.94	10.23	9.37	9.94	11.55	12.05	12.04	11.87
EOM	11.57	11.52	10.32	10.28	9.95	10.24	9.49	10.05	11.85	12.54	12.03	11.86

WTR YR 1988 LOW 12.73 AUG 5

GROUND-WATER DATA

293

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 (County Road 10), 400 ft west of intersection of Bristol Street (10), and Mappanee 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, 12.72 ft below land-surface datum, Nov. 23, 24, 1987.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.65	12.59	12.54	11.48	11.15	10.92	10.28	9.76	10.47	11.36	11.93	11.60
10	12.67	12.63	12.44	11.44	11.05	10.91	9.52	9.84	10.62	11.50	11.67	11.65
15	12.65	12.66	12.32	11.42	10.99	10.94	9.49	9.94	10.76	11.59	11.64	11.72
20	12.65	12.69	12.02	11.35	10.96	10.94	9.49	10.10	10.89	11.64	11.59	11.71
25	12.58	12.68	11.68	11.32	10.95	10.87	9.59	10.22	11.04	11.66	11.59	11.65
EOM	12.57	12.58	11.52	11.31	10.94	10.64	9.67	10.35	11.21	11.80	11.65	11.69

WTR YR 1988 HIGH 9.41 APR 17

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.67	12.61	12.55	11.49	11.18	10.95	10.35	9.78	10.50	11.39	11.95	11.61
10	12.69	12.64	12.47	11.46	11.07	10.93	9.60	9.92	10.64	11.52	11.72	11.67
15	12.66	12.68	12.36	11.43	11.05	10.97	9.52	10.01	10.79	11.60	11.68	11.74
20	12.67	12.71	12.07	11.37	11.04	10.98	9.54	10.13	10.93	11.65	11.61	11.74
25	12.61	12.70	11.73	11.34	10.97	10.90	9.63	10.24	11.09	11.69	11.62	11.66
EOM	12.59	12.60	11.54	11.33	10.96	10.71	9.69	10.37	11.25	11.82	11.66	11.70

WTR YR 1988 LOW 12.72 NOV 23

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, 5.69 ft below land-surface datum, Apr. 7, 1988; lowest, 13.18 ft below land-surface datum, Nov. 23, 24, 1987.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.45	12.99	12.07	9.05	8.34	8.11	6.70	8.09	9.35	10.48	11.45	12.23
10	12.64	13.03	11.55	9.31	8.58	6.95	5.99	8.32	9.58	10.64	11.56	12.37
15	12.74	13.08	9.99	9.47	8.17	7.35	6.66	8.47	9.75	10.80	11.71	12.49
20	12.80	13.13	9.40	9.04	7.46	7.70	7.11	8.68	9.91	10.97	11.87	12.60
25	12.87	12.75	9.47	9.20	7.65	7.90	7.49	8.90	10.09	11.12	11.95	12.74
EOM	12.94	12.09	8.49	8.92	7.92	6.97	7.82	9.12	10.27	11.32	12.13	12.85

WTR YR 1988 HIGH 5.69 APR 7

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.48	13.01	12.11	9.11	8.41	8.15	6.76	8.15	9.38	10.52	11.46	12.26
10	12.66	13.05	11.60	9.34	8.62	7.03	6.08	8.42	9.61	10.67	11.59	12.40
15	12.75	13.09	11.68	9.49	8.39	7.53	6.82	8.50	9.77	10.83	11.76	12.51
20	12.81	13.14	9.84	9.21	7.59	7.84	7.20	8.71	9.95	10.99	11.89	12.64
25	12.87	13.12	9.61	9.25	7.74	7.96	7.51	8.95	10.11	11.14	11.98	12.77
EOM	12.95	12.14	8.71	9.39	7.99	6.99	7.87	9.15	10.31	11.34	12.15	12.87

WTR YR 1988 LOW 13.18 NOV 23

GROUND-WATER DATA

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

LANIER BUS. PROD.

1 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.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	26.87	26.21	26.36	26.05	23.59	24.65	25.37	25.77	26.47	26.89	26.94	27.01
10	26.90	26.17	26.52	26.30	23.83	24.78	24.60	25.93	26.57	26.93	26.97	26.91
15	26.86	26.16	26.55	26.46	24.59	24.92	25.00	26.02	26.65	26.97	26.97	26.88
20	26.64	26.14	26.51	26.24	24.11	25.21	25.30	26.19	26.70	26.79	26.89	26.91
25	26.44	26.21	26.41	26.13	24.16	25.33	25.25	26.24	26.78	26.77	26.98	26.92
EOM	26.27	26.12	25.83	26.35	24.68	25.46	25.58	26.36	26.84	26.90	27.04	26.96

WTR YR 1988 HIGH 23.59 FEB 5

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	26.88	26.21	26.40	26.11	23.61	24.70	25.39	25.81	26.49	26.90	26.95	27.03
10	26.90	26.18	26.53	26.33	24.05	24.84	24.66	25.95	26.59	26.94	26.97	26.92
15	26.91	26.16	26.59	26.48	24.68	24.99	25.07	26.07	26.66	26.98	26.99	26.89
20	26.66	26.14	26.52	26.46	24.42	25.26	25.34	26.21	26.72	26.96	26.96	26.91
25	26.49	26.29	26.48	26.15	24.28	25.48	25.35	26.26	26.80	26.80	27.00	26.93
EOM	26.29	26.17	25.85	26.37	24.80	25.50	25.62	26.39	26.85	26.91	27.04	26.96

WTR YR 1988 LOW 27.07 AUG 30

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, 13.11 ft below land-surface datum, Sept. 29, 30, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.83	12.05	11.46	9.54	9.68	9.63	8.72	9.53	10.48	11.49	12.46	12.73
10	11.98	12.12	11.14	9.74	9.69	9.60	8.57	9.77	10.75	11.69	12.55	12.90
15	11.99	12.12	10.67	9.92	9.63	9.65	8.70	9.88	10.94	11.78	12.65	12.98
20	11.98	12.13	10.03	9.82	9.41	9.72	8.91	10.19	10.96	11.80	12.65	12.89
25	12.05	12.03	9.65	9.92	9.41	9.58	9.16	10.15	11.19	11.85	12.63	13.04
EOM	12.05	11.60	9.40	9.99	9.49	9.06	9.34	10.36	11.31	12.13	12.76	13.11

WTR YR 1988 HIGH 8.56 APR 11

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.85	12.10	11.48	9.60	9.69	9.65	8.77	9.59	10.59	11.64	12.49	12.82
10	11.99	12.13	11.21	9.78	9.72	9.63	8.59	9.82	10.78	11.80	12.59	12.94
15	11.99	12.16	10.94	9.95	9.69	9.73	8.78	9.90	10.97	11.80	12.68	13.01
20	12.00	12.17	10.13	9.86	9.48	9.81	8.92	10.20	11.01	11.84	12.66	12.98
25	12.07	12.11	9.66	9.94	9.44	9.69	9.17	10.21	11.31	11.85	12.64	13.07
EOM	12.08	11.67	9.46	10.07	9.54	9.17	9.39	10.47	11.33	12.17	12.79	13.11

WTR YR 1988 LOW 13.11 SEP 29

GRANT COUNTY

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.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.76	8.19	7.79	---	3.22	3.18	1.82	4.23	4.95	5.88	6.66	8.50
10	8.08	8.43	7.05	---	3.72	2.13	1.87	4.31	5.11	6.01	6.96	8.94
15	8.08	8.43	5.76	4.66	3.53	2.66	2.99	4.46	5.20	6.31	7.26	9.20
20	8.11	8.37	---	4.40	2.42	2.98	3.57	4.64	5.25	5.99	7.53	9.11
25	8.28	8.36	---	4.50	2.51	3.32	3.91	4.75	5.43	6.05	7.86	9.38
EOM	8.23	7.79	---	4.40	3.02	3.39	4.13	4.92	5.58	6.39	8.40	9.54

WTR YR 1988 HIGH 1.35 APR 7

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.01	8.36	7.83	---	3.37	3.26	1.95	4.44	4.98	6.37	7.05	8.80
10	8.21	8.43	7.28	---	3.81	2.22	2.07	4.59	5.19	6.36	7.29	9.15
15	8.12	8.50	6.75	4.66	3.77	2.94	3.19	4.84	5.22	6.73	7.71	9.48
20	8.18	8.47	---	4.41	2.54	3.18	3.59	4.84	5.31	6.37	7.73	9.48
25	8.34	8.48	---	4.54	2.73	3.39	4.09	4.93	5.82	6.48	8.20	9.75
EOM	8.33	7.87	---	4.57	3.21	3.49	4.42	5.25	5.92	6.79	8.68	9.67

WTR YR 1988 LOW 9.75 SEP 25

GRANT COUNTY

403836085374401. Local number, GT 10.

LOCATION.--Lat 40°38'36", long 85°37'44", in NE¼SE¼SW¼ sec.4, T.25 N., R.8 E., Grant County, Hydrologic Unit 05120103, 0.20 mi north of intersection of State Highway 9 and County Road 600 North on west side of road.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 198 ft, cased to 193 ft, screened to 198 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 912.16 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.16 ft above land-surface datum.

PERIOD OF RECORD.--August 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 107.39 ft below land-surface datum, Apr. 6, 1989; lowest, 113.14 ft below land-surface datum, June 21, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	108.35	108.54	108.78	109.12	---	---	107.65	107.86	108.41	108.88	108.81	108.34
10	108.81	108.95	108.58	109.07	---	---	107.88	107.61	109.27	108.64	108.77	108.66
15	108.75	108.77	108.13	108.87	---	---	107.78	107.66	108.69	108.83	108.73	108.74
20	108.56	108.69	108.42	108.31	---	---	107.56	108.58	108.69	108.79	108.56	108.34
25	108.87	108.69	108.69	108.55	---	---	107.71	108.08	108.60	108.74	108.44	108.59
EOM	108.74	108.38	108.79	---	---	108.23	107.87	108.29	108.69	108.95	108.77	108.68

WTR YR 1988 HIGH 107.39 APR 6

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	108.60	108.83	108.91	109.22	---	---	107.85	107.94	108.51	108.96	108.92	108.51
10	108.89	109.02	108.69	109.13	---	---	108.01	107.92	109.64	108.80	108.84	108.80
15	108.84	108.89	108.57	109.10	---	---	107.94	107.83	108.85	108.97	108.76	108.81
20	108.67	108.85	108.83	108.42	---	---	107.72	109.21	112.54	108.83	108.59	108.54
25	108.99	108.83	108.84	108.63	---	---	107.81	108.56	108.78	108.80	108.53	108.70
EOM	108.90	108.45	108.96	---	---	108.33	107.95	109.06	108.75	108.99	108.83	108.77

WTR YR 1988 LOW 113.14 JUN 21

GROUND-WATER DATA

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, 11.92 ft below land-surface datum, Sept. 30, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.55	11.61	11.53	10.93	10.53	10.34	10.35	10.23	10.77	11.27	11.46	11.80
10	11.56	11.61	11.48	10.97	10.48	10.26	9.51	10.34	10.87	11.39	11.52	11.83
15	11.57	11.64	11.27	11.04	10.42	10.31	9.69	10.43	10.95	11.41	11.57	11.85
20	11.58	11.65	11.17	10.85	10.26	10.38	9.87	10.52	11.02	11.37	11.64	11.87
25	11.59	11.60	11.09	10.83	10.22	10.43	9.98	10.59	11.11	11.43	11.70	11.89
EOM	11.60	11.52	10.96	10.90	10.29	10.49	10.11	10.69	11.19	11.40	11.76	11.91

WTR YR 1988 HIGH 9.51 APR 10

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.55	11.61	11.54	10.94	10.55	10.39	10.35	10.26	10.79	11.32	11.48	11.81
10	11.57	11.63	11.49	10.98	10.48	10.28	9.54	10.36	10.88	11.40	11.53	11.84
15	11.58	11.64	11.49	11.04	10.47	10.34	9.74	10.45	10.96	11.42	11.58	11.86
20	11.58	11.65	11.20	10.90	10.32	10.41	9.89	10.54	11.04	11.47	11.65	11.88
25	11.60	11.66	11.13	10.84	10.24	10.47	10.01	10.60	11.13	11.44	11.71	11.89
EOM	11.60	11.53	10.97	10.91	10.32	10.49	10.14	10.71	11.20	11.41	11.77	11.92

WTR YR 1988 LOW 11.92 SEP 30

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 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.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.00	18.42	19.23	17.77	3.17	3.77	8.42	10.56	14.17	16.53	18.17	19.22
10	17.29	18.59	19.31	17.96	4.64	4.28	4.18	11.23	14.60	16.85	18.31	19.36
15	17.52	18.76	19.27	18.25	4.06	5.59	5.92	11.85	15.04	17.15	18.51	19.46
20	17.74	18.90	19.38	14.40	3.17	6.62	7.33	12.48	15.43	17.37	18.73	19.49
25	17.99	19.04	19.32	12.52	4.42	7.58	8.59	13.06	15.82	17.54	18.93	19.54
EOM	18.21	19.12	17.68	12.64	5.30	8.08	9.69	13.70	16.17	17.86	19.13	19.59

WTR YR 1988 HIGH 3.17 FEB 5

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.05	18.47	19.26	17.81	3.43	3.92	8.47	10.71	14.25	16.58	18.21	19.27
10	17.33	18.62	19.32	18.05	4.83	4.67	4.36	11.39	14.68	16.90	18.35	19.38
15	17.56	18.78	19.37	18.30	5.05	5.95	6.31	11.99	15.11	17.20	18.56	19.47
20	17.81	18.95	19.45	16.50	3.37	6.90	7.50	12.61	15.50	17.44	18.78	19.51
25	18.01	19.07	19.47	12.60	4.72	7.83	8.76	13.18	15.89	17.60	18.97	19.56
EOM	18.26	19.13	17.80	12.67	5.68	8.20	9.89	13.78	16.25	17.90	19.16	19.60

WTR YR 1988 LOW 19.60 SEP 30

GROUND-WATER DATA

297

HENDRICKS COUNTY

394025086400801. Local number, HD 4.

LOCATION.--Lat 39°40'25", long 86°40'08", in NW¼NW¼ 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.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	25.62	26.11	25.60	21.85	21.90	21.28	21.02	22.86	24.18	25.32	24.06	25.15
10	25.88	26.22	25.29	22.35	21.60	20.93	20.97	22.93	24.28	25.38	24.05	25.47
15	25.93	26.20	24.87	22.92	21.84	21.20	21.43	23.34	24.53	25.55	24.31	25.79
20	25.91	26.20	23.61	22.79	21.70	21.59	22.00	23.56	24.41	25.37	24.53	25.78
25	26.34	26.31	22.56	22.68	21.27	21.71	22.25	23.78	24.83	24.92	24.90	25.95
EOM	25.99	25.88	21.61	22.85	21.47	21.75	22.52	24.02	24.97	24.56	25.16	26.29

WTR YR 1988 HIGH 20.56 APR 6

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	25.77	26.16	25.71	21.98	22.22	21.44	21.11	23.01	24.27	25.55	24.18	25.21
10	25.96	26.41	25.44	22.50	21.71	21.09	21.06	23.28	24.43	25.54	24.29	25.60
15	26.06	26.27	25.19	23.05	21.95	21.41	21.54	23.48	24.64	25.65	24.39	25.88
20	26.00	26.33	23.89	22.85	21.91	21.66	22.17	23.76	24.60	25.54	24.64	25.95
25	26.52	26.48	22.80	22.96	21.52	21.93	22.40	23.87	24.97	25.05	24.98	26.04
EOM	26.27	25.99	21.76	22.96	22.19	21.99	22.70	24.12	25.11	24.62	25.31	26.51

WTR YR 1988 LOW 26.69 OCT 24

JASPER COUNTY

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.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.24	4.26	3.97	---	---	2.95	2.48	2.89	7.46	12.73	16.06	7.78
10	4.57	4.38	3.60	2.75	2.88	2.85	2.56	3.68	8.64	12.13	14.27	7.60
15	4.40	4.26	3.00	2.68	2.45	2.90	2.49	3.93	10.24	10.69	11.35	7.43
20	4.33	4.18	2.96	2.50	2.53	2.91	2.46	5.84	10.80	12.85	9.88	7.02
25	4.39	4.09	3.02	2.75	2.93	2.82	2.64	4.88	12.45	13.17	8.84	7.02
EOM	4.39	3.84	2.65	2.74	2.87	2.91	2.78	5.85	12.16	15.12	8.31	6.89

WTR YR 1988 HIGH 2.22 APR 17

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.44	4.49	4.14	---	---	3.11	2.69	3.01	8.04	12.85	16.18	7.91
10	4.69	4.46	3.78	2.81	2.91	2.95	2.61	3.83	9.25	12.86	15.17	7.74
15	4.53	4.37	3.45	2.85	2.85	3.17	2.66	4.17	10.75	11.43	11.75	7.56
20	4.46	4.40	3.39	2.75	2.85	3.15	2.53	6.31	11.10	12.94	10.11	7.20
25	4.62	4.27	3.12	2.80	3.04	3.00	2.72	5.07	12.63	13.83	9.03	7.16
EOM	4.53	3.95	2.95	2.94	3.02	3.10	2.93	6.62	12.32	15.27	8.46	7.04

WTR YR 1988 LOW 16.70 AUG 8

GROUND-WATER DATA

JASPER COUNTY

410809087580801. Local number, JP 7.

LOCATION.--Lat 41°08'10", lon 86°58'08", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ 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, 18.15-ft below land-surface datum, Aug. 30, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.47	9.44	9.16	8.48	8.13	7.93	7.37	7.69	10.95	16.99	17.45	15.58
10	10.20	9.61	8.76	8.31	8.04	7.75	7.63	7.51	13.12	16.91	17.48	14.54
15	9.91	9.38	8.13	8.14	7.45	7.80	7.57	7.53	14.52	16.88	17.91	13.82
20	9.70	9.30	8.25	7.74	7.43	7.78	7.47	7.86	15.42	15.78	16.96	12.91
25	9.73	9.19	8.43	7.96	7.91	7.62	7.62	8.03	15.77	16.71	17.40	12.59
EOM	9.66	8.84	8.14	7.90	7.85	7.82	7.70	8.47	16.44	17.27	17.65	12.20

WTR YR 1988 HIGH 7.21 APR 6

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.95	9.71	9.33	8.60	8.23	8.10	7.60	7.83	11.39	17.10	17.58	15.74
10	10.33	9.70	8.98	8.46	8.13	7.87	7.69	7.81	13.47	17.17	17.67	14.74
15	10.07	9.53	8.67	8.37	7.94	8.14	7.77	7.72	14.68	17.02	17.99	14.02
20	9.88	9.53	8.77	8.02	7.87	8.06	7.57	7.94	15.50	15.91	17.24	13.08
25	10.04	9.39	8.54	8.06	8.03	7.84	7.71	8.19	15.90	16.88	17.56	12.75
EOM	9.82	8.96	8.49	8.17	8.03	8.02	7.86	8.65	16.63	17.42	18.07	12.42

WTR YR 1988 LOW 18.15 AUG 30

JASPER COUNTY

410535087035801. Local number, JP 8.

LOCATION.--Lat 41°05'35", long 87°03'58", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ 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.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.42	12.28	12.12	11.03	10.84	10.96	10.43	10.59	11.77	16.01	18.28	14.73
10	12.56	12.37	11.88	10.99	10.83	10.82	10.30	10.61	12.39	16.09	17.59	15.16
15	12.48	12.30	11.55	10.93	10.62	10.86	10.25	10.75	12.71	15.74	16.93	14.43
20	12.39	12.28	11.38	10.70	10.57	10.92	10.26	10.91	13.27	16.16	16.31	13.90
25	12.40	12.25	11.25	10.80	10.79	10.84	10.37	11.08	14.55	16.50	15.68	13.70
EOM	12.35	12.05	10.98	10.84	10.84	10.77	10.48	11.28	15.40	18.21	15.23	13.56

WTR YR 1988 HIGH 10.16 APR 17

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.51	12.36	12.17	11.06	10.89	11.00	10.51	10.64	11.87	16.09	19.84	14.77
10	12.58	12.38	11.93	11.00	10.86	10.86	10.32	10.70	12.57	16.32	17.86	18.41
15	12.51	12.34	11.78	11.01	10.73	10.97	10.31	10.81	12.75	15.87	18.91	14.55
20	12.43	12.36	11.47	10.75	10.70	11.00	10.28	10.94	13.39	17.17	16.36	13.93
25	12.45	12.29	11.26	10.83	10.84	10.90	10.39	11.13	14.81	16.60	18.06	13.75
EOM	12.39	12.09	11.04	10.91	10.89	10.84	10.53	11.34	15.55	18.21	15.34	13.63

WTR YR 1988 LOW 20.81 AUG 6

GROUND-WATER DATA

299

JASPER COUNTY

410713087063201. Local number, JP 9.

LOCATION.--Lat 41°07'13", long 87°06'32", in NE1SW1SE1 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, 30.05 ft below land-surface datum, Aug. 5, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.30	8.02	7.83	6.71	6.41	6.28	6.03	6.01	15.15	---	---	31.77	12.31
10	8.46	8.03	7.55	6.63	6.32	6.15	5.89	5.95	---	---	---	26.62	11.36
15	8.28	7.96	7.17	6.57	6.00	6.21	5.82	6.13	13.48	---	---	---	10.78
20	8.15	7.90	7.07	6.30	5.98	6.25	5.77	6.34	20.32	---	---	19.19	10.10
25	8.20	7.83	6.94	6.41	6.22	6.22	5.89	6.70	24.98	---	---	15.53	9.96
EOM	8.09	7.65	6.69	6.37	6.20	6.25	5.97	6.82	---	---	---	13.69	9.70

WTR YR 1988 HIGH 5.71 APR 17

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.43	8.02	7.86	6.76	6.44	6.31	6.09	6.05	15.26	---	---	32.05	12.49
10	8.48	8.03	7.61	6.66	6.34	6.19	5.94	6.07	---	---	---	27.30	11.49
15	8.33	7.96	7.50	6.68	6.12	6.32	5.88	6.19	15.26	---	---	---	10.86
20	8.18	7.96	7.19	6.36	6.10	6.35	5.81	6.38	22.18	---	---	19.34	10.19
25	8.25	7.88	6.99	6.43	6.27	6.26	5.91	6.82	25.31	---	---	15.83	9.98
EOM	8.09	7.67	6.76	6.44	6.26	6.25	6.01	7.51	---	---	---	13.90	9.79

WTR YR 1988 LOW 32.05 AUG 5

JASPER COUNTY

410322087163101. Local number, JP 11.

LOCATION.--Lat 41°03'22", long 87°16'31", in NW1NW1NW1 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, 52.19 ft below land-surface datum, July 9, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.34	5.84	4.90	3.61	3.07	2.83	2.19	2.49	15.22	42.18	48.55	27.90	
10	7.28	5.80	4.45	3.50	3.00	2.65	2.25	2.41	29.84	42.03	45.59	21.81	
15	6.86	5.55	3.99	3.39	2.65	2.74	2.25	2.84	36.68	37.65	38.30	27.73	
20	6.55	5.43	3.86	3.10	2.59	2.74	2.22	13.28	34.96	39.74	40.50	18.12	
25	6.33	5.23	3.75	3.17	2.82	2.65	2.34	16.12	45.00	35.34	39.10	15.87	
EOM	6.10	4.83	3.42	3.08	2.80	2.61	2.43	8.26	44.40	38.03	34.70	14.42	

WTR YR 1988 HIGH 2.08 APR 6

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.51	5.94	4.97	3.67	3.11	2.91	2.30	2.54	16.35	46.34	51.79	29.86	
10	7.37	5.84	4.57	3.57	3.03	2.69	2.28	2.57	30.64	47.56	48.53	22.61	
15	6.96	5.62	4.31	3.50	2.87	2.89	2.35	3.00	41.73	39.20	43.04	28.81	
20	6.60	5.52	4.06	3.23	2.80	2.87	2.27	20.28	38.73	44.39	44.10	18.66	
25	6.50	5.31	3.79	3.21	2.89	2.72	2.39	19.53	49.36	40.13	41.19	16.17	
EOM	6.17	4.88	3.56	3.18	2.88	2.71	2.49	8.85	44.61	42.27	36.70	14.70	

WTR YR 1988 LOW 52.19 JUL 9

GROUND-WATER DATA

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 695ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of well casing, 2.6 ft 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, 53.41 ft below land-surface datum, Aug. 18, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.68	20.64	19.54	18.21	17.43	16.99	16.50	16.55	26.63	45.02	51.78	42.56	
10	22.42	20.57	19.15	17.92	17.32	16.87	16.60	16.48	---	47.36	49.39	38.22	
15	21.96	20.27	18.61	17.65	16.86	16.84	16.51	16.77	33.90	42.37	47.87	37.06	
20	21.59	20.03	18.53	17.31	16.82	16.83	16.37	19.90	38.17	44.19	48.80	34.54	
25	21.33	19.80	18.54	17.41	17.05	16.72	16.46	25.65	42.85	44.66	47.68	32.48	
EOM	20.97	19.47	18.11	17.31	16.97	16.82	16.55	22.86	44.06	46.29	44.84	30.85	

WTR YR 1988 HIGH 16.28 APR 23

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.90	20.83	19.76	18.38	17.57	17.37	16.74	16.77	27.24	47.15	52.66	43.65	
10	22.66	20.67	19.33	18.03	17.43	17.03	16.74	16.85	---	49.61	51.18	38.85	
15	22.27	20.47	19.00	17.89	17.18	17.09	16.70	16.99	37.04	43.75	49.19	37.39	
20	21.84	20.28	18.91	17.46	17.30	17.08	16.46	20.98	38.83	46.27	50.56	34.90	
25	21.54	19.96	18.60	17.56	17.24	16.93	16.78	26.34	43.60	45.62	48.74	32.80	
EOM	21.19	19.61	18.36	17.56	17.17	17.08	16.76	23.14	45.14	48.04	46.48	31.20	

WTR YR 1988 LOW 53.41 AUG 18

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, 55.85 ft below land-surface datum, Aug. 19, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	31.70	29.38	27.96	26.53	25.65	25.12	24.57	24.53	30.62	48.99	53.64	50.64	
10	31.48	29.24	27.52	26.22	25.48	24.96	24.72	24.42	35.08	52.01	53.94	48.33	
15	30.87	28.88	26.90	25.95	24.97	24.96	24.61	24.47	37.68	50.17	54.64	46.32	
20	30.42	28.64	26.86	25.54	24.90	24.92	24.45	25.51	42.40	49.14	55.42	44.69	
25	30.12	28.37	26.89	25.62	25.19	24.83	24.50	30.13	45.91	51.11	52.91	42.99	
EOM	29.75	27.94	26.46	25.49	25.13	24.91	24.52	30.22	47.35	52.53	51.42	41.38	

WTR YR 1988 HIGH 24.32 APR 23

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	31.97	29.55	28.10	26.62	25.72	25.25	24.71	24.63	30.98	49.48	54.27	50.89	
10	31.63	29.33	27.67	26.35	25.53	25.05	24.78	24.64	35.59	52.20	54.37	48.75	
15	31.03	29.00	27.31	26.14	25.31	25.22	24.75	24.62	38.65	50.26	54.94	46.56	
20	30.52	28.81	27.25	25.73	25.19	25.12	24.53	25.82	42.63	49.68	55.76	44.84	
25	30.35	28.47	26.95	25.69	25.32	25.01	24.58	30.47	46.20	51.40	53.13	43.29	
EOM	29.87	28.00	26.69	25.66	25.24	25.06	24.65	30.36	47.61	52.85	51.65	41.73	

WTR YR 1988 LOW 55.85 AUG 19

GROUND-WATER DATA

301

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, 9.22 below land-surface datum, Sept. 7, 16, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.61	8.32	8.67	7.90	6.82	5.87	5.42	5.91	6.73	8.28	8.65	8.89
10	7.98	8.50	8.47	7.73	6.42	5.56	5.40	6.05	7.02	8.38	8.74	9.08
15	7.99	8.58	8.15	7.59	6.04	5.63	5.48	6.07	7.22	8.62	8.82	9.13
20	7.99	8.51	8.25	7.31	5.87	5.58	5.48	6.19	7.47	8.61	8.83	8.87
25	8.20	8.62	8.37	7.22	6.02	5.61	5.66	6.29	7.68	8.58	8.85	8.93
EOM	8.34	8.45	7.99	7.03	5.90	5.65	5.79	6.46	7.90	8.63	9.10	8.94

WTR YR 1988 HIGH 5.23 APR 6

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.82	8.58	8.81	8.01	6.89	6.04	5.60	6.04	6.82	8.38	8.76	9.06
10	8.11	8.57	8.62	7.80	6.48	5.72	5.50	6.22	7.18	8.54	8.90	9.21
15	8.10	8.68	8.60	7.78	6.34	5.88	5.64	6.28	7.37	8.75	8.91	9.21
20	8.21	8.78	8.68	7.51	6.10	5.81	5.62	6.28	7.54	8.80	8.89	9.05
25	8.41	8.72	8.46	7.37	6.11	5.71	5.75	6.47	7.83	8.75	9.03	9.10
EOM	8.48	8.55	8.15	7.21	6.07	5.82	5.94	6.64	8.06	8.74	9.18	9.07

WTR YR 1988 LOW 9.22 SEP 7

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, 40.87 ft below land-surface datum, July 6, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	40.13	40.29	40.06	39.73	39.04	39.08	38.88	39.37	40.22	40.78	40.27	40.32
10	40.44	40.46	39.86	39.93	39.14	38.81	38.73	39.46	40.35	40.67	40.30	40.54
15	40.41	40.46	39.62	39.96	38.82	38.95	39.05	39.46	40.43	40.76	40.42	40.61
20	40.29	40.38	39.74	39.38	38.87	38.90	39.06	39.72	40.46	40.56	40.38	40.41
25	40.43	40.38	39.85	39.40	39.22	39.00	39.04	39.88	40.48	40.24	40.39	40.56
EOM	40.45	39.85	39.54	39.49	39.19	39.10	39.29	40.05	40.54	40.37	40.61	40.60

WTR YR 1988 HIGH 38.71 APR 11

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	40.31	40.50	40.09	39.84	39.16	39.17	38.99	39.41	40.26	40.83	40.34	40.46
10	40.48	40.52	39.96	40.01	39.19	38.97	38.82	39.60	40.44	40.74	40.36	40.62
15	40.47	40.54	39.92	40.08	39.09	39.11	39.17	39.60	40.49	40.80	40.45	40.65
20	40.41	40.49	40.02	39.47	39.09	39.08	39.19	39.76	40.50	40.73	40.41	40.57
25	40.55	40.42	39.94	39.47	39.28	39.07	39.12	40.03	40.57	40.30	40.45	40.66
EOM	40.54	39.97	39.63	39.57	39.33	39.17	39.34	40.11	40.58	40.40	40.65	40.67

WTR YR 1988 LOW 40.87 JUL 6

GROUND-WATER DATA

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.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.68	10.73	10.78	9.84	6.08	7.91	7.27	9.23	9.95	10.36	10.37	10.72
10	10.70	10.74	10.79	9.64	7.89	8.41	7.59	9.36	10.03	10.42	10.42	10.76
15	10.71	10.75	10.73	9.99	8.46	8.70	8.19	9.49	10.10	10.47	10.50	10.78
20	10.72	10.76	10.58	9.13	8.68	9.00	8.48	9.62	10.15	10.30	10.55	10.78
25	10.71	10.77	10.49	9.13	8.69	9.18	8.84	9.73	10.23	10.25	10.61	10.80
EOM	10.72	10.73	9.98	9.39	8.66	7.53	9.06	9.83	10.29	10.31	10.68	10.82

WTR YR 1988 HIGH 5.30 FEB 2

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.68	10.74	10.78	9.88	6.61	7.97	7.47	9.26	9.96	10.38	10.37	10.73
10	10.71	10.74	10.79	9.79	7.97	8.54	7.71	9.40	10.05	10.43	10.44	10.76
15	10.71	10.75	10.77	10.01	8.64	8.76	8.28	9.50	10.11	10.48	10.51	10.79
20	10.72	10.77	10.61	9.54	8.74	9.09	8.54	9.64	10.17	10.52	10.57	10.79
25	10.73	10.78	10.57	9.20	8.75	9.27	8.87	9.75	10.24	10.41	10.63	10.81
EOM	10.73	10.73	9.99	9.50	8.79	7.93	9.09	9.85	10.30	10.32	10.69	10.82

WTR YR 1988 LOW 10.82 SEP 29

KOSCIUSKO COUNTY

412554085450001. Local number, KO 6.

LOCATION.--Lat 41°25'54", long 85°45'00", in NW¼SW¼NW¼ sec.5, T.34 N., R.7E., 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.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.98	10.11	10.09	9.75	---	---	9.57	9.43	9.73	10.11	10.32	10.41
10	10.01	10.14	10.02	---	---	9.82	9.32	9.40	9.81	10.19	10.34	10.44
15	10.03	10.16	9.89	---	---	9.83	9.28	9.46	9.93	10.23	10.36	10.48
20	10.05	10.20	9.78	---	---	9.87	9.29	9.50	9.96	10.18	10.37	10.50
25	10.07	10.21	9.73	---	---	9.81	9.31	9.68	9.96	10.21	10.40	10.52
EOM	10.10	10.10	9.70	---	---	9.66	9.38	9.63	10.02	10.27	10.45	10.58

WTR YR 1988 HIGH 9.27 APR 17

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.98	10.12	10.09	9.76	---	---	9.57	9.44	9.75	10.13	10.32	10.42
10	10.01	10.14	10.03	---	---	9.84	9.35	9.40	9.83	10.19	10.35	10.47
15	10.03	10.17	10.01	---	---	9.85	9.28	9.48	9.94	10.25	10.38	10.51
20	10.05	10.21	9.81	---	---	9.88	9.29	9.51	9.97	10.18	10.39	10.50
25	10.08	10.24	9.73	---	---	9.87	9.33	9.69	9.97	10.21	10.42	10.55
EOM	10.10	10.11	9.71	---	---	9.68	9.39	9.66	10.03	10.28	10.47	10.60

WTR YR 1988 LOW 10.60 SEP 29

GROUND-WATER DATA

303

KOSCIUSKO COUNTY

412556085513401. Local number, KO 9.

LOCATION.--Lat 41°25'56", long 85°51'34", in SW¼E¼NW¼ 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, 14.33 ft below land-surface datum, Aug. 10, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.77	13.98	14.10	13.05	12.80	12.57	12.14	11.35	12.00	13.14	14.13	14.22
10	13.80	14.01	14.05	12.98	12.78	12.60	11.59	11.44	12.24	13.46	14.31	14.20
15	13.84	14.04	13.92	12.93	12.76	12.66	11.21	11.56	12.51	13.62	14.26	14.21
20	13.88	14.07	13.69	12.88	12.64	12.68	11.09	11.68	12.58	13.62	14.22	14.23
25	13.91	14.10	13.42	12.87	12.54	12.65	11.13	11.82	12.67	13.61	14.19	14.24
EOM	13.95	14.11	13.16	12.85	12.54	12.43	11.23	11.89	12.85	13.90	14.18	14.26

WTR YR 1988 HIGH 11.07 APR 23

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.77	13.99	14.10	13.06	12.81	12.58	12.21	11.37	12.04	13.20	14.16	14.22
10	13.81	14.02	14.06	12.99	12.78	12.62	11.74	11.48	12.30	13.50	14.33	14.20
15	13.85	14.05	13.97	12.94	12.78	12.68	11.24	11.58	12.54	13.65	14.27	14.22
20	13.88	14.08	13.74	12.90	12.66	12.71	11.11	11.74	12.59	13.63	14.23	14.23
25	13.92	14.11	13.47	12.88	12.55	12.67	11.13	11.83	12.70	13.66	14.20	14.24
EOM	13.96	14.11	13.19	12.89	12.54	12.48	11.26	11.90	12.91	13.94	14.20	14.26

WTR YR 1988 LOW 14.33 AUG 10

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, 16.93 ft below land-surface datum, Aug. 14, 15, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.22	15.43	15.60	14.62	14.40	14.28	14.46	14.01	14.39	15.84	16.62	16.69
10	15.26	15.47	15.59	14.57	14.43	14.31	14.38	14.02	14.54	16.08	16.76	16.68
15	15.29	15.50	15.48	14.53	14.38	14.36	14.20	14.06	14.82	16.06	16.83	16.67
20	15.33	15.53	15.20	14.47	14.27	14.41	14.09	14.12	15.03	16.13	16.77	16.62
25	15.36	15.56	14.93	14.47	14.17	14.44	14.04	14.19	15.34	16.15	16.72	16.62
EOM	15.40	15.58	14.70	14.41	14.21	14.50	14.02	14.28	15.59	16.36	16.71	16.61

WTR YR 1988 HIGH 14.00 MAY 9

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.23	15.44	15.61	14.63	14.41	14.28	14.48	14.01	14.40	15.90	16.68	16.69
10	15.27	15.48	15.60	14.58	14.45	14.32	14.42	14.04	14.59	16.14	16.81	16.68
15	15.30	15.51	15.54	14.54	14.43	14.39	14.23	14.08	14.84	16.09	16.93	16.67
20	15.33	15.53	15.27	14.48	14.31	14.43	14.11	14.18	15.10	16.16	16.78	16.64
25	15.37	15.57	14.98	14.48	14.20	14.46	14.06	14.20	15.37	16.23	16.75	16.63
EOM	15.41	15.58	14.72	14.45	14.24	14.51	14.03	14.30	15.67	16.38	16.71	16.62

WTR YR 1988 LOW 16.93 AUG 14

GROUND-WATER DATA

LAGRANGE COUNTY

414158085253401. Local number, LG 3.

LOCATION.--Lat 41°41'58", long 85°25'34", in SE½SE½SE½ 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, 8.82 ft below land-surface datum, Sept. 2, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.52	8.51	8.23	6.92	7.00	7.05	6.57	6.73	7.33	8.22	8.66	8.48
10	8.55	8.53	8.10	7.04	7.01	7.13	6.03	6.84	7.45	8.36	8.71	8.48
15	8.55	8.54	7.82	7.14	6.99	7.17	6.10	6.93	7.59	8.45	8.76	8.54
20	8.56	8.56	7.27	7.11	6.95	7.20	6.31	7.05	7.73	8.45	8.77	8.45
25	8.55	8.49	6.90	7.22	6.90	7.08	6.47	7.13	7.89	8.48	8.78	8.42
EOM	8.51	8.35	6.83	7.19	6.94	6.75	6.60	7.24	8.04	8.58	8.80	8.43

WTR YR 1988 HIGH 6.01 APR 12

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.53	8.52	8.25	6.95	7.01	7.06	6.60	6.75	7.34	8.24	8.68	8.52
10	8.55	8.53	8.13	7.07	7.04	7.14	6.08	6.87	7.48	8.38	8.72	8.50
15	8.56	8.55	7.97	7.16	7.07	7.19	6.16	6.97	7.62	8.46	8.77	8.55
20	8.57	8.56	7.38	7.14	6.98	7.22	6.33	7.07	7.76	8.46	8.77	8.47
25	8.56	8.57	6.93	7.23	6.90	7.15	6.49	7.15	7.93	8.49	8.79	8.42
EOM	8.52	8.37	6.85	7.27	6.97	6.81	6.63	7.27	8.07	8.58	8.81	8.43

WTR YR 1988 LOW 8.82 SEP 2

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, 17.92 ft below land-surface datum, Aug. 27, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.57	6.36	5.36	3.99	3.50	3.57	2.80	3.09	4.26	13.00	16.54	16.90
10	7.42	6.24	5.08	3.86	3.52	3.53	2.65	3.16	5.87	14.05	16.59	15.62
15	7.13	6.09	4.73	3.80	3.40	3.57	2.65	3.28	8.02	15.06	16.73	14.64
20	6.90	5.93	4.50	3.60	3.32	3.57	2.78	3.51	9.90	15.38	17.16	13.61
25	6.72	5.78	4.25	3.64	3.42	3.42	2.92	3.70	10.90	15.55	17.22	12.83
EOM	6.52	5.48	3.99	3.58	3.50	3.06	3.00	3.92	12.00	15.99	17.40	12.14

WTR YR 1988 HIGH 2.63 APR 11

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.74	6.53	5.51	4.13	3.58	3.71	2.99	3.30	4.41	13.17	16.66	17.19
10	7.63	6.37	5.35	4.01	3.71	3.67	2.88	3.31	6.32	14.21	16.69	15.82
15	7.30	6.37	4.96	3.94	3.60	3.65	2.87	3.41	8.39	15.23	16.88	15.04
20	7.00	6.01	4.61	3.75	3.62	3.96	3.03	3.61	10.13	15.50	17.36	13.83
25	6.99	5.91	4.56	3.71	3.57	3.52	2.98	3.87	11.16	15.73	17.41	13.01
EOM	6.70	5.74	4.19	3.73	3.63	3.26	3.31	4.11	12.27	16.13	17.54	12.32

WTR YR 1988 LOW 17.92 AUG 27

GROUND-WATER DATA

305

LAKE COUNTY

41355908727031. Local number, LK 13.

LOCATION.--Lat 41°35'59", long 87°27'03", in SW1/4NW1/4 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, 0.24 ft below land-surface datum, Apr. 6, 1988; lowest, 5.15 ft below land-surface datum, Sept. 10, 1986.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.18	2.92	2.35	1.73	1.12	1.25	.42	1.63	2.86	4.07	4.31	4.40
10	3.19	3.00	1.96	2.37	1.56	1.26	.66	1.83	3.21	4.27	2.52	4.61
15	3.37	3.03	1.49	2.48	.81	1.44	.87	2.09	3.55	4.44	3.58	4.73
20	3.03	3.01	.57	.65	1.03	1.58	.96	2.46	3.10	3.79	3.83	4.64
25	2.90	2.56	1.18	1.25	1.21	1.28	1.22	1.28	3.82	4.14	4.15	4.78
EOM	3.00	2.27	1.06	.66	1.15	.92	1.33	2.36	3.69	3.79	4.30	4.88

WTR YR 1988 HIGH .24 APR 6

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.27	2.98	2.39	1.94	1.22	1.37	.90	1.71	3.07	4.27	4.50	4.53
10	3.38	3.02	1.98	2.44	1.62	1.30	.70	1.96	3.33	4.47	3.53	4.78
15	3.42	3.06	2.02	2.53	1.17	1.51	.92	2.32	3.80	4.64	3.78	4.85
20	3.12	3.07	1.11	1.03	1.23	1.67	1.10	2.59	4.04	4.23	4.06	4.76
25	2.93	2.89	1.25	1.33	1.35	1.51	1.25	1.40	4.08	4.29	4.37	4.93
EOM	3.03	2.43	1.18	1.05	1.26	.97	1.39	2.65	3.86	4.01	4.48	4.94

WTR YR 1988 LOW 5.00 SEP 27

LA PORTE COUNTY

413700086445401. Local number, LP 8.

LOCATION.--Lat 41°37'00", long 86°44'54", in NE1/4SE1/4 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.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.42	5.60	5.45	5.28	5.01	5.01	4.58	4.74	5.24	5.83	6.04	6.34
10	5.43	5.61	5.23	5.35	5.07	4.97	4.47	4.79	5.40	5.92	5.78	6.39
15	5.50	5.66	4.40	5.43	4.95	5.04	4.59	4.89	5.54	6.03	6.06	6.45
20	5.21	5.68	4.09	4.58	4.92	4.97	4.65	4.96	5.07	5.91	6.08	6.35
25	5.36	5.18	5.12	5.13	5.01	4.29	4.72	4.91	5.64	5.84	6.25	6.49
EOM	5.52	5.33	5.13	4.58	4.88	4.55	4.65	5.13	5.59	5.90	6.27	6.55

WTR YR 1988 HIGH 3.80 APR 6

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.47	5.63	5.45	5.31	5.03	5.01	4.61	4.75	5.26	5.85	6.12	6.35
10	5.46	5.61	5.28	5.37	5.10	4.98	4.49	4.83	5.41	5.95	5.94	6.40
15	5.51	5.66	5.34	5.45	5.03	5.05	4.61	4.89	5.57	6.05	6.11	6.46
20	5.40	5.74	4.81	5.01	5.08	5.02	4.65	4.98	5.66	5.95	6.12	6.45
25	5.42	5.61	5.13	5.13	5.05	4.78	4.72	4.96	5.70	5.86	6.28	6.50
EOM	5.53	5.52	5.19	4.84	4.96	4.63	4.65	5.14	5.70	5.96	6.29	6.56

WTR YR 1988 LOW 6.56 SEP 30

GROUND-WATER DATA

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, 8.23 ft below land-surface datum, Sept. 28-30, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.56	7.01	7.07	---	---	5.70	4.20	---	5.80	6.95	7.71	8.07
10	---	6.99	6.80	---	---	5.75	3.81	---	5.95	7.11	7.79	8.12
15	---	7.00	---	---	---	5.82	4.03	---	6.17	7.25	7.85	8.15
20	7.22	7.04	---	---	---	5.86	---	---	6.38	7.34	7.89	8.18
25	7.15	7.11	---	---	5.40	5.48	---	5.58	6.58	7.43	7.96	8.21
EOM	7.06	7.15	---	---	5.53	4.70	---	5.67	6.77	7.59	8.02	8.23

WTR YR 1988 HIGH 3.78 APR 8

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.59	7.01	7.08	---	---	5.71	4.27	---	5.82	6.98	7.73	8.08
10	---	6.99	6.87	---	---	5.77	3.85	---	5.99	7.14	7.80	8.12
15	---	7.01	---	---	---	5.86	4.04	---	6.21	7.28	7.87	8.16
20	7.23	7.06	---	---	---	5.92	---	---	6.41	7.35	7.91	8.19
25	7.18	7.13	---	---	5.45	5.62	---	5.59	6.62	7.45	7.97	8.21
EOM	7.07	7.17	---	---	5.58	4.80	---	5.69	6.80	7.61	8.03	8.23

WTR YR 1988 LOW 8.23 SEP 28

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 manager's residence at the Mixsawbah Fish Hatchery 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, 9.61 ft below land-surface datum, Sept. 17, 18, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.00	8.65	8.48	7.12	6.12	6.67	4.95	7.19	8.11	8.84	9.38	9.51
10	8.86	8.66	8.14	7.31	6.57	6.75	4.74	7.39	8.26	8.96	9.36	9.55
15	8.79	8.68	7.73	7.39	6.43	6.89	5.82	7.58	8.40	9.05	9.40	9.59
20	8.77	8.69	7.06	6.60	6.34	6.88	6.36	7.74	8.52	9.12	9.46	9.36
25	8.72	8.68	6.89	6.81	6.20	5.83	6.81	7.83	8.63	9.19	9.52	9.24
EOM	8.67	8.59	6.78	6.08	6.36	4.83	7.01	7.98	8.74	9.29	9.55	9.26

WTR YR 1988 HIGH 4.00 APR 7

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.01	8.66	8.49	7.17	6.27	6.75	5.08	7.22	8.13	8.87	9.39	9.52
10	8.89	8.66	8.21	7.37	6.63	6.81	4.94	7.48	8.28	8.97	9.37	9.56
15	8.80	8.68	7.98	7.40	6.60	7.00	6.00	7.61	8.43	9.07	9.42	9.60
20	8.78	8.70	7.28	6.68	6.71	7.02	6.50	7.76	8.55	9.13	9.47	9.49
25	8.73	8.71	6.94	6.90	6.34	6.22	6.88	7.85	8.66	9.20	9.53	9.25
EOM	8.68	8.60	6.97	6.55	6.48	4.98	7.07	8.00	8.76	9.30	9.56	9.26

WTR YR 1988 LOW 9.61 SEP 17

GROUND-WATER DATA

307

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, 10.03 ft below land-surface datum, Sept. 30, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.64	9.27	9.60	7.54	7.02	7.27	6.48	6.49	7.11	8.06	9.01	9.67
10	9.65	9.29	9.47	7.58	7.12	7.37	5.95	6.58	7.23	8.22	9.14	9.76
15	9.47	9.32	9.06	7.67	7.05	7.52	5.94	6.67	7.35	8.44	9.25	9.84
20	9.36	9.38	8.33	7.13	6.91	7.62	6.00	6.84	7.48	8.63	9.36	9.90
25	9.31	9.48	7.56	7.27	6.92	7.60	6.19	6.96	7.65	8.67	9.45	9.96
EOM	9.30	9.55	7.35	7.18	7.05	7.12	6.37	7.02	7.83	8.88	9.59	10.02

WTR YR 1988 HIGH 5.86 APR 17

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.66	9.28	9.60	7.57	7.06	7.30	6.57	6.51	7.12	8.09	9.04	9.70
10	9.68	9.30	9.53	7.64	7.15	7.41	6.02	6.65	7.26	8.26	9.16	9.78
15	9.50	9.34	9.14	7.69	7.24	7.59	5.98	6.71	7.37	8.47	9.27	9.85
20	9.37	9.42	8.44	7.22	7.12	7.70	6.06	6.86	7.52	8.66	9.38	9.92
25	9.34	9.53	7.62	7.34	6.97	7.71	6.22	6.97	7.69	8.71	9.48	9.98
EOM	9.30	9.56	7.48	7.32	7.11	7.44	6.39	7.06	7.88	8.89	9.61	10.03

WTR YR 1988 LOW 10.03 SEP 30

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, 22.46 ft below land-surface datum, Dec. 17, 18, 1987.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.93	22.17	22.37	21.89	21.34	21.08	20.99	20.10	20.32	21.00	21.62	22.02
10	21.99	22.20	22.41	21.75	21.30	21.04	20.94	20.05	20.39	21.15	21.73	22.07
15	22.03	22.22	22.35	21.63	21.23	21.02	20.76	20.03	20.54	21.24	21.76	22.12
20	22.07	22.25	22.39	21.52	21.18	21.01	20.49	20.06	20.68	21.37	21.84	22.16
25	22.11	22.29	22.30	21.45	21.16	21.00	20.30	20.18	20.78	21.42	21.90	22.22
EOM	22.14	22.30	22.05	21.38	21.12	21.07	20.18	20.26	20.91	21.49	21.99	22.27

WTR YR 1988 HIGH 20.03 MAY 15

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.93	22.17	22.38	21.91	21.35	21.09	21.01	20.11	20.33	21.03	21.65	22.03
10	22.00	22.20	22.41	21.78	21.30	21.04	20.97	20.07	20.42	21.18	21.74	22.08
15	22.04	22.23	22.44	21.66	21.25	21.04	20.79	20.05	20.57	21.26	21.77	22.12
20	22.08	22.27	22.44	21.54	21.21	21.03	20.53	20.07	20.71	21.39	21.87	22.18
25	22.11	22.29	22.32	21.47	21.17	21.02	20.34	20.20	20.80	21.43	21.91	22.23
EOM	22.15	22.32	22.08	21.39	21.12	21.08	20.19	20.27	20.93	21.52	22.00	22.28

WTR YR 1988 LOW 22.46 DEC 17

GROUND-WATER DATA

MARION COUNTY

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 September 1988. (Discontinued)

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.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.11	10.09	10.22	9.78	9.30	9.57	9.18	9.53	9.87	10.42	11.42	11.88
10	10.18	10.20	9.93	9.85	9.50	9.21	8.35	9.55	9.96	10.53	11.28	12.03
15	10.16	10.18	9.76	9.90	9.53	9.53	8.96	9.73	10.15	10.34	11.66	12.03
20	10.12	10.24	9.63	9.60	9.28	9.60	9.25	9.70	10.16	10.06	11.85	12.04
25	10.16	10.06	9.57	9.80	9.34	9.37	9.40	9.70	10.30	10.13	11.86	12.10
EOM	10.09	10.01	9.54	9.71	9.48	9.44	9.47	9.92	10.19	10.58	12.08	12.28

WTR YR 1988 HIGH 8.18 APR 9

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.17	10.17	10.28	9.86	9.37	9.67	9.25	9.78	10.03	10.55	11.49	12.31
10	10.23	10.27	9.98	9.88	9.59	9.31	8.55	9.83	10.64	10.61	11.35	12.51
15	10.20	10.28	9.94	9.95	9.62	9.67	9.10	10.25	10.86	10.44	11.82	12.54
20	10.22	10.37	9.78	9.67	9.36	9.71	9.33	10.65	10.32	10.34	11.90	12.08
25	10.23	10.15	9.64	9.86	9.43	9.47	9.46	10.67	10.45	10.19	11.99	12.21
EOM	10.13	10.12	9.65	9.76	9.56	9.53	9.55	10.60	10.32	10.84	12.68	12.85

WTR YR 1988 LOW 12.85 SEP 30

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 September 1988. (Discontinued)

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 71.75 ft below land-surface datum, Apr. 15, 1980; lowest, 75.53 ft below land-surface datum, Sept. 26, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	74.31	---	74.59	---	---	---	73.91	74.18	74.80	75.22	74.86	74.81
10	75.00	---	---	---	---	---	74.12	74.02	74.94	74.95	74.98	75.28
15	74.72	---	---	74.62	---	---	74.08	74.10	74.92	75.04	74.99	75.39
20	74.49	---	---	---	---	---	73.77	74.37	74.85	75.00	74.90	74.90
25	74.86	74.51	---	---	---	---	74.10	74.58	74.81	75.03	74.86	75.25
EOM	---	---	---	---	---	---	74.31	74.72	74.93	75.00	75.34	75.36

WTR YR 1988 HIGH 73.72 APR 6

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	74.69	---	74.66	---	---	---	74.08	74.24	74.91	75.30	74.98	75.17
10	75.12	---	---	---	---	---	74.36	74.32	75.09	75.06	75.07	75.40
15	74.84	---	---	74.65	---	---	74.29	74.30	75.07	75.11	75.07	75.49
20	74.70	---	---	---	---	---	74.07	74.41	74.98	75.06	75.00	75.25
25	75.06	74.60	---	---	---	---	74.27	74.82	74.98	75.09	75.01	75.43
EOM	---	---	---	---	---	---	74.38	74.85	74.98	75.06	75.42	75.48

WTR YR 1988 LOW 75.53 SEP 26

GROUND-WATER DATA

309

MARION COUNTY

393855086120701. Local number, MA 34.

LOCATION.--Lat 39°38'55", long 86°12'07", in NE1/4NW1/4 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, 8.84 ft below land-surface datum, Nov. 23-25, 1987.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.25	8.62	8.76	7.81	6.44	5.81	5.78	5.87	6.65	7.78	8.03	8.02
10	8.33	8.68	8.74	7.90	6.49	5.87	5.39	5.99	6.87	7.94	7.86	8.10
15	8.38	8.74	8.07	7.98	6.44	5.88	5.55	6.11	7.05	8.09	7.82	8.13
20	8.44	8.79	8.11	7.19	6.04	5.91	5.61	6.25	7.22	7.70	7.92	8.14
25	8.51	8.78	7.74	7.56	6.19	5.89	5.63	6.33	7.42	7.98	7.91	8.19
EOM	8.56	8.61	7.49	7.51	6.27	5.98	5.76	6.49	7.60	8.06	8.01	8.24

WTR YR 1988 HIGH 4.69 APR 6

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.27	8.63	8.78	7.84	6.47	5.86	5.81	5.90	6.69	7.82	8.05	8.05
10	8.34	8.69	8.77	7.92	6.51	5.89	5.43	6.03	6.92	7.98	8.09	8.11
15	8.39	8.75	8.74	8.00	6.49	5.92	5.59	6.17	7.08	8.11	7.85	8.15
20	8.45	8.80	8.34	7.31	6.18	5.99	5.67	6.28	7.27	8.14	7.94	8.16
25	8.51	8.84	8.12	7.61	6.21	6.06	5.65	6.36	7.46	7.99	7.94	8.21
EOM	8.57	8.65	7.62	7.77	6.30	6.05	5.78	6.52	7.64	8.07	8.03	8.25

WTR YR 1988 LOW 8.84 NOV 23

MARION COUNTY

394632086092701. Local number, MA 35.

LOCATION.--Lat 39°46'32", long 86°09'27", in NW1/4SW1/4 sec.1, T.15 N., R.3 E., Marion County, Hydrologic Unit 05120201, in the northeast corner of the intersection of Meridian and North Streets in Indianapolis.
 Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 83 ft, cased to 77.5 ft, screened to 83 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 716.40 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.50 ft above land-surface datum.

PERIOD OF RECORD.--September 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 32.14 ft below land-surface datum, May 1, 1988; lowest, 36.95 ft below land-surface datum, Sept. 25, 1987.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	36.08	35.05	34.27	34.20	33.63	33.00	32.47	32.23	32.88	33.80	---	---
10	35.76	34.78	34.18	34.38	33.56	32.88	32.44	32.30	33.12	34.30	---	---
15	35.54	34.60	34.10	34.23	33.42	32.69	32.36	32.43	33.34	34.61	---	35.81
20	35.37	34.51	34.10	34.00	33.29	32.62	32.24	32.65	33.42	34.88	---	35.87
25	35.08	34.43	34.10	33.91	33.20	32.65	32.18	32.75	33.86	34.73	---	35.70
EOM	34.92	34.28	34.07	33.73	33.08	32.53	32.15	32.66	33.98	---	---	35.83

WTR YR 1988 HIGH 32.14 MAY 1

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	36.19	35.27	34.35	34.57	33.72	33.08	32.87	32.49	32.97	34.31	---	---
10	35.87	34.87	34.39	34.63	33.64	32.91	32.50	32.62	33.36	34.56	---	---
15	35.87	34.64	34.28	34.51	33.48	32.77	32.42	32.51	33.74	35.03	---	36.18
20	35.44	34.72	34.14	34.18	33.31	32.69	32.30	33.02	33.89	35.27	---	36.16
25	35.16	34.54	34.17	34.25	33.26	32.94	32.23	32.98	34.18	35.24	---	35.91
EOM	35.09	34.43	34.44	33.79	33.13	32.61	32.20	33.18	34.33	---	---	36.22

WTR YR 1988 LOW 36.59 OCT 3

GROUND-WATER DATA

MARION COUNTY

394626086100201. Local number, MA 36.

LOCATION.--Lat 39°46'26", long 86°10'02", in SW¼SW¼NE¼ sec.2, T.15 N., R.3 E., Marion County, Hydrologic Unit 05120201, in the southwest corner of the intersection of West and Michigan Streets in Indianapolis.

Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 70.6 ft, cased to 65.1 ft, screened to 70.6 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 710.06 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--September 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 28.57 ft below land-surface datum, Apr. 26, 1988; lowest, 33.12 ft below land-surface datum, Sept. 24, 25, 1987.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	32.93	31.85	31.23	30.71	30.10	29.35	28.78	28.62	29.35	30.51	31.79	32.61
10	32.77	31.75	31.16	30.66	29.98	29.22	28.75	28.69	29.48	30.75	31.96	32.58
15	32.56	31.65	31.08	30.57	29.85	29.13	28.68	28.80	29.61	30.99	32.11	32.54
20	32.34	31.54	31.00	30.46	29.73	29.00	28.61	28.92	29.75	31.27	32.26	32.54
25	32.15	31.43	30.91	30.34	29.59	28.93	28.58	29.05	29.95	31.48	32.41	32.54
EOM	31.97	31.30	30.79	30.23	29.47	28.83	28.60	29.20	30.22	31.66	32.54	32.54

WTR YR 1988 HIGH 28.57 APR 26

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	32.96	31.86	31.24	30.72	30.12	29.37	28.79	28.64	29.37	30.57	31.83	32.62
10	32.80	31.78	31.17	30.67	30.00	29.24	28.76	28.72	29.51	30.80	31.99	32.59
15	32.60	31.67	31.10	30.59	29.86	29.14	28.68	28.82	29.63	31.04	32.14	32.54
20	32.38	31.55	31.01	30.47	29.74	29.02	28.63	28.94	29.78	31.31	32.30	32.54
25	32.19	31.44	30.92	30.37	29.62	28.94	28.60	29.08	30.00	31.52	32.45	32.54
EOM	31.99	31.34	30.81	30.26	29.49	28.85	28.61	29.22	30.28	31.69	32.56	32.54

WTR YR 1988 LOW 33.03 OCT 1

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.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	27.28	28.04	28.73	29.53	29.55	29.07	28.08	28.12	28.31	28.61	28.88	29.03
10	27.88	28.40	28.43	29.43	29.26	28.54	28.23	27.94	28.35	28.42	28.97	29.44
15	27.88	28.38	27.90	29.21	28.53	28.67	28.30	27.89	28.42	28.63	29.04	29.62
20	27.77	28.38	28.38	28.57	28.57	28.49	27.90	28.01	28.40	28.60	28.91	29.33
25	27.90	28.40	28.77	29.01	29.17	28.38	28.05	28.10	28.29	28.75	28.95	29.60
EOM	28.17	28.15	29.03	29.15	28.91	28.62	28.21	28.24	28.27	28.89	29.37	29.80

WTR YR 1988 HIGH 27.17 OCT 2

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	27.59	28.41	28.80	29.69	29.82	29.23	28.32	28.19	28.42	28.73	28.95	29.29
10	27.89	28.40	28.62	29.56	29.42	28.69	28.45	28.13	28.52	28.54	29.06	29.57
15	27.88	28.49	28.66	29.46	28.99	28.94	28.44	28.07	28.56	28.70	29.12	29.71
20	27.90	28.61	29.00	28.93	28.97	28.73	28.19	28.07	28.49	28.71	28.96	29.63
25	27.90	28.56	28.91	29.14	29.25	28.49	28.22	28.35	28.43	28.86	29.05	29.79
EOM	28.34	28.23	29.22	29.25	29.14	28.77	28.31	28.37	28.34	28.95	29.44	29.91

WTR YR 1988 LOW 29.91 SEP 30

GROUND-WATER DATA

311

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, 32.25 ft below land-surface datum, Sept. 2, 11, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	31.35	---	---	31.20	30.57	30.18	29.42	29.33	30.58	31.37	31.77	32.04
10	31.51	---	---	31.05	---	29.94	29.25	29.38	30.66	31.53	31.84	32.20
15	31.47	---	---	30.96	30.34	29.86	29.09	29.60	30.84	31.61	31.91	32.21
20	31.41	---	---	30.68	30.22	29.82	28.94	29.83	30.95	31.67	31.93	32.02
25	31.51	---	31.52	30.77	30.29	29.77	29.07	30.10	31.07	31.81	31.95	32.13
EOM	31.48	---	31.21	30.73	30.21	29.79	29.24	30.35	31.22	31.87	32.14	32.19

WTR YR 1988 HIGH 28.90 APR 18

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	31.45	---	---	31.21	30.59	30.21	29.58	29.37	30.61	31.43	31.89	32.12
10	31.53	---	---	31.09	---	29.96	29.35	29.49	30.74	31.56	31.89	32.24
15	31.50	---	---	31.05	30.44	29.95	29.13	29.64	30.86	31.66	31.94	32.23
20	31.48	---	---	30.74	30.32	29.90	28.99	29.87	30.97	31.74	31.95	32.12
25	31.55	---	31.55	30.87	30.32	29.82	29.09	30.20	31.10	31.85	32.01	32.19
EOM	31.54	---	31.26	30.80	30.25	29.89	29.27	30.42	31.25	31.90	32.17	32.21

WTR YR 1988 LOW 32.25 SEP 2

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, 15.81 ft below land-surface datum, Sept. 30, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.80	15.40	15.74	14.81	13.61	12.43	11.97	11.41	12.79	14.00	14.76	15.39
10	14.92	15.48	15.75	14.72	13.13	12.13	10.94	11.61	13.01	14.18	14.86	15.49
15	15.02	15.56	15.65	14.71	12.97	12.00	10.75	11.84	13.22	14.36	14.97	15.57
20	15.14	15.62	15.49	14.58	12.79	11.97	10.86	12.07	13.40	14.43	15.07	15.64
25	15.25	15.66	15.33	14.50	12.65	12.05	11.01	12.30	13.64	14.54	15.18	15.71
EOM	15.33	15.66	14.99	14.45	12.59	12.13	11.20	12.58	13.83	14.66	15.30	15.79

WTR YR 1988 HIGH 10.75 APR 14

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.83	15.43	15.76	14.83	13.76	12.47	12.00	11.45	12.83	14.04	14.78	15.41
10	14.93	15.49	15.76	14.73	13.18	12.18	11.07	11.67	13.05	14.20	14.89	15.52
15	15.05	15.57	15.75	14.72	12.99	12.00	10.77	11.87	13.25	14.40	15.00	15.59
20	15.17	15.63	15.51	14.64	12.84	12.01	10.88	12.11	13.45	14.49	15.09	15.66
25	15.25	15.68	15.37	14.51	12.66	12.07	11.04	12.37	13.67	14.56	15.21	15.72
EOM	15.35	15.69	15.04	14.47	12.59	12.15	11.24	12.62	13.87	14.66	15.33	15.81

WTR YR 1988 LOW 15.81 SEP 30

GROUND-WATER DATA

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, 18.44 ft below land-surface datum, Sept. 29, 30, 1988.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.50	15.75	15.33	11.73	12.18	12.17	10.63	---	13.71	15.59	16.92	17.83
10	15.66	15.81	14.76	12.00	12.20	12.07	---	---	14.20	15.94	17.06	17.99
15	15.67	15.83	14.07	12.27	12.09	12.01	---	---	14.44	16.01	17.16	18.15
20	15.66	15.83	13.14	12.25	11.92	12.10	---	13.02	14.66	16.22	17.37	18.26
25	15.72	15.80	12.25	12.35	11.93	11.85	---	13.25	15.02	16.30	17.53	18.32
EOM	15.76	15.50	11.50	12.50	12.00	10.95	---	13.48	15.34	16.67	17.75	18.43

WTR YR 1988 HIGH 10.50 APR 6

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.55	15.82	15.39	11.81	12.23	12.20	10.71	---	13.76	15.71	16.95	17.88
10	15.68	15.84	14.94	12.06	12.24	12.10	---	---	14.23	15.97	17.11	18.03
15	15.69	15.85	14.35	12.34	12.24	12.14	---	---	14.48	16.05	17.22	18.16
20	15.72	15.91	13.25	12.33	12.08	12.21	---	13.13	14.77	16.25	17.41	18.31
25	15.78	15.85	12.35	12.44	12.00	11.97	---	13.33	15.10	16.38	17.57	18.36
EOM	15.79	15.56	11.63	12.56	12.10	11.13	---	13.60	15.45	16.74	17.84	18.44

WTR YR 1988 LOW 18.44 SEP 29

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, 97.33 ft below land-surface datum, Aug. 29, 30, 1988.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	64.93	58.32	53.47	49.93	47.49	45.71	43.87	43.03	47.68	79.80	94.59	96.95
10	64.02	57.45	52.60	49.38	47.10	45.37	43.87	43.05	51.48	83.28	95.37	96.20
15	62.72	56.51	51.73	48.90	46.50	45.12	43.67	43.14	57.63	86.80	95.97	95.09
20	61.54	55.73	51.29	48.31	46.17	44.86	43.40	44.15	64.11	90.25	96.50	93.80
25	60.44	54.91	50.91	48.04	46.15	44.50	43.29	45.82	70.25	92.61	96.80	92.49
EOM	59.28	53.98	50.21	47.63	45.94	44.33	43.16	46.76	76.31	93.80	97.23	91.15

WTR YR 1988 HIGH 42.97 MAY 9

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	65.22	58.43	53.64	50.02	47.53	45.82	44.01	43.09	48.07	80.47	94.79	97.02
10	64.25	57.63	52.80	49.55	47.17	45.39	43.92	43.20	52.54	83.96	95.49	96.38
15	62.98	56.67	52.06	49.05	46.66	45.23	43.75	43.21	58.92	87.45	96.03	95.30
20	61.73	55.85	51.48	48.42	46.32	44.97	43.48	44.41	65.27	90.91	96.66	93.90
25	60.76	55.03	51.00	48.11	46.22	44.60	43.37	46.10	71.62	92.77	96.90	92.73
EOM	59.44	54.10	50.33	47.74	45.99	44.45	43.24	46.88	76.98	93.95	97.30	91.43

WTR YR 1988 LOW 97.33 AUG 29

GROUND-WATER DATA

313

NEWTON COUNTY

410428087231501. Local number, NE 8.

LOCATION.--Lat 41°04'28", long 87°25'44", in NW1SW1SW1 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, 98.40 ft below land-surface datum, July 29, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.78	24.42	20.47	17.43	15.23	13.48	11.63	10.54	40.74	88.93	94.82	81.41
10	29.61	23.72	19.74	16.97	14.85	13.18	11.54	12.20	42.32	82.30	96.19	75.74
15	28.31	22.92	18.98	16.57	14.29	12.93	11.37	13.47	52.07	93.65	88.77	70.43
20	27.22	22.31	18.63	16.01	13.98	12.67	11.12	27.24	62.17	94.90	88.87	65.54
25	26.24	21.62	18.31	15.78	13.95	12.32	10.95	23.81	80.54	83.71	96.33	61.53
EOM	25.22	20.84	17.67	15.36	13.71	12.09	10.74	20.39	82.72	85.17	84.04	59.69

WTR YR 1988 HIGH 10.54 MAY 5

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	31.13	24.51	20.61	17.51	15.27	13.60	11.76	10.60	43.56	91.96	98.22	83.27
10	29.89	23.86	19.90	17.11	14.92	13.21	11.59	12.39	46.13	92.16	97.02	77.42
15	28.55	23.06	19.30	16.72	14.45	13.04	11.43	14.10	55.61	97.20	93.87	70.98
20	27.39	22.40	18.81	16.10	14.14	12.76	11.19	30.83	64.28	96.64	94.13	66.15
25	26.52	21.74	18.38	15.83	14.00	12.39	11.03	25.62	82.96	88.57	97.28	62.20
EOM	25.37	20.93	17.79	15.47	13.76	12.20	10.84	21.45	85.03	87.17	89.22	60.23

WTR YR 1988 LOW 98.40 JUL 29

NEWTON COUNTY

405959087282902. Local number, NE 9.

LOCATION.--Lat 40°59'59", long 87°28'29", in SE1SW1SE1 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, 15.25 ft below land-surface datum, Sept. 28-30, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.56	13.96	13.71	11.92	11.70	11.52	10.81	10.96	12.07	13.56	14.40	14.91
10	13.62	13.98	13.35	11.90	11.70	11.50	10.42	11.09	12.33	13.76	14.49	14.99
15	13.75	14.04	13.07	12.01	11.68	11.49	10.37	11.26	12.64	13.89	14.55	15.05
20	13.82	14.04	12.71	12.02	11.61	11.57	10.48	11.42	12.93	14.02	14.68	15.08
25	13.90	14.06	12.20	11.88	11.55	11.59	10.59	11.55	13.12	14.16	14.77	15.19
EOM	13.95	13.91	11.96	11.82	11.52	11.22	10.76	11.82	13.31	14.30	14.85	15.24

WTR YR 1988 HIGH 10.36 APR 12

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.59	13.96	13.73	11.93	11.70	11.52	10.88	11.01	12.12	13.61	14.40	14.93
10	13.62	13.99	13.43	11.91	11.70	11.51	10.48	11.10	12.37	13.77	14.49	15.01
15	13.77	14.04	13.12	12.01	11.68	11.51	10.37	11.30	12.70	13.92	14.58	15.06
20	13.83	14.05	12.75	12.02	11.63	11.61	10.49	11.44	12.97	14.02	14.70	15.10
25	13.90	14.06	12.28	11.89	11.60	11.62	10.62	11.57	13.16	14.18	14.80	15.20
EOM	13.95	13.99	11.98	11.83	11.52	11.28	10.81	11.88	13.35	14.35	14.87	15.25

WTR YR 1988 LOW 15.25 SEP 28

GROUND-WATER DATA

NEWTON COUNTY

41028087231502. 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, 6.48 ft below land-surface datum, Sept. 30, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.83	5.75	5.65	4.17	4.46	4.78	3.67	4.42	5.29	6.01	6.42	6.43
10	5.83	5.76	5.06	4.40	4.47	4.89	3.57	4.69	5.41	6.06	6.41	6.42
15	5.80	5.78	4.80	4.71	4.70	5.25	3.69	4.81	5.57	6.13	6.41	6.42
20	5.78	5.83	4.33	4.87	4.75	5.27	4.01	4.98	5.68	6.18	6.41	6.43
25	5.76	5.86	4.14	4.73	4.74	5.30	4.15	4.99	5.88	6.23	6.41	6.45
EOM	5.73	5.84	4.01	4.75	4.77	4.47	4.30	5.19	5.95	6.32	6.41	6.47

WTR YR 1988 HIGH 3.54 APR 8

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.83	5.75	5.80	4.21	4.60	4.80	3.83	4.43	5.33	6.02	6.42	6.43
10	5.83	5.76	5.09	4.43	4.48	4.93	3.58	4.70	5.42	6.07	6.42	6.42
15	5.81	5.78	4.87	4.72	4.70	5.25	3.79	4.87	5.58	6.15	6.41	6.44
20	5.78	5.83	4.46	4.87	4.75	5.27	4.07	4.99	5.72	6.18	6.41	6.43
25	5.77	5.86	4.14	4.75	4.76	5.33	4.17	5.03	5.90	6.24	6.41	6.46
EOM	5.73	5.86	4.03	4.79	4.77	4.62	4.32	5.22	5.96	6.35	6.41	6.48

WTR YR 1988 LOW 6.48 SEP 30

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 670 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, 98.83 ft below land-surface datum, Aug. 5, 6, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	43.72	38.94	35.35	32.68	30.71	28.85	28.17	47.59	85.47	98.59	91.36
10	49.10	42.94	37.97	34.73	32.22	30.31	28.93	28.00	51.68	93.31	97.85	89.36
15	47.84	41.96	36.94	34.14	31.46	30.04	28.72	29.89	---	96.50	94.63	87.60
20	46.72	41.21	36.61	33.45	31.10	29.79	28.43	39.93	---	95.88	96.26	85.79
25	45.73	40.41	36.36	33.23	31.23	29.42	28.36	36.79	80.55	94.21	95.44	84.60
EOM	44.66	39.42	35.55	32.73	30.95	29.37	28.27	45.10	83.10	96.72	94.13	83.16

WTR YR 1988 HIGH 27.90 MAY 9

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	43.83	39.17	35.50	32.77	30.93	29.06	28.28	53.21	88.46	98.83	91.60
10	49.36	43.09	38.27	34.95	32.31	30.37	29.00	28.27	53.57	95.62	98.30	89.68
15	48.09	42.14	37.46	34.40	31.83	30.29	28.90	38.20	---	97.02	95.22	87.93
20	46.94	41.36	37.03	33.67	31.46	30.00	28.56	41.26	---	96.69	96.97	85.93
25	46.11	40.55	36.48	33.33	31.34	29.60	28.49	37.08	81.96	95.52	96.39	84.76
EOM	44.82	39.51	35.83	32.97	31.07	29.58	28.44	48.14	85.64	98.01	94.66	83.53

WTR YR 1988 LOW 98.83 AUG 5

GROUND-WATER DATA

315

NEWTON COUNTY

410917087285801. Local number, NE 14.

LOCATION.--Lat 41°09'17", long 87°28'58", in NE 1/4 SW 1/4 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 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, 7.29 ft below land-surface datum, Apr. 17, 1988; lowest, 31.19 ft below land-surface datum, Aug. 26, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.73	13.45	11.79	10.02	9.04	8.53	7.64	7.52	9.65	24.57	29.34	29.16
10	15.52	13.22	11.36	9.73	8.87	8.43	7.64	7.52	14.38	26.05	29.27	27.13
15	15.03	12.85	10.85	9.53	8.54	8.42	7.47	7.63	17.89	27.33	29.54	25.66
20	14.61	12.60	10.69	9.17	8.50	8.33	7.37	7.88	20.11	27.62	30.03	24.24
25	14.26	12.27	10.54	9.16	8.60	8.13	7.45	8.20	21.67	27.72	30.25	23.23
EOM	13.84	11.86	10.13	9.01	8.52	8.04	7.46	8.46	23.15	28.37	30.13	22.29

WTR YR 1988 HIGH 7.29 APR 17

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.90	13.49	11.86	10.06	9.07	8.55	7.76	7.58	10.72	24.82	29.61	29.54
10	15.62	13.25	11.44	9.79	8.89	8.45	7.69	7.64	15.13	26.25	29.45	27.43
15	15.12	12.89	11.15	9.66	8.69	8.51	7.52	7.71	18.18	27.49	29.90	25.91
20	14.70	12.61	10.86	9.24	8.56	8.41	7.41	7.92	20.36	27.76	30.19	24.35
25	14.39	12.34	10.57	9.19	8.61	8.16	7.45	8.28	21.86	27.78	30.60	23.38
EOM	13.89	11.91	10.19	9.10	8.54	8.12	7.50	8.55	23.41	28.61	30.23	22.52

WTR YR 1988 LOW 31.19 AUG 26

NOBLE COUNTY

411922085221801. Local number, MO 8.

LOCATION.--Lat 41°19'22", long 85°22'18", in SE 1/4 SW 1/4 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.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.99	30.26	30.60	30.55	30.51	30.49	29.92	29.85	29.97	30.33	30.31	30.38
10	30.44	30.59	30.36	30.49	30.48	30.21	30.08	29.68	30.10	30.12	30.47	30.73
15	30.30	30.52	29.93	30.35	29.92	30.28	29.97	29.68	30.04	30.19	30.48	30.81
20	30.22	30.39	30.10	29.98	30.00	30.15	29.74	29.84	30.03	30.34	30.47	30.47
25	30.43	30.39	30.37	30.34	30.49	30.08	29.89	29.96	29.98	30.33	30.39	30.82
EOM	30.47	30.19	30.30	30.32	30.35	30.35	29.98	29.96	30.13	30.37	30.72	30.82

WTR YR 1988 HIGH 29.59 MAY 9

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.18	30.50	30.69	30.65	30.61	30.59	30.07	29.88	30.02	30.37	30.41	30.63
10	30.51	30.60	30.44	30.57	30.56	30.32	30.20	29.90	30.20	30.19	30.54	30.81
15	30.37	30.60	30.45	30.53	30.29	30.48	30.08	29.87	30.12	30.34	30.52	30.89
20	30.29	30.55	30.52	30.21	30.39	30.45	29.91	29.86	30.09	30.36	30.50	30.74
25	30.57	30.57	30.53	30.43	30.57	30.18	30.00	30.07	30.10	30.38	30.46	30.91
EOM	30.59	30.21	30.48	30.41	30.50	30.46	30.03	30.04	30.18	30.43	30.76	30.90

WTR YR 1988 LOW 30.95 SEP 26

GROUND-WATER DATA

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.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.65	17.00	16.27	14.02	13.84	13.91	11.85	12.99	14.33	15.42	16.13	16.51
10	16.90	17.15	15.74	14.35	14.06	13.84	10.96	13.18	14.59	15.50	16.30	16.68
15	16.91	17.19	15.12	14.50	13.97	13.86	11.52	13.42	14.69	15.67	16.42	16.83
20	16.96	17.13	14.23	14.10	13.46	13.67	12.02	13.71	14.83	15.75	16.46	16.57
25	17.02	17.10	13.76	14.48	13.51	12.95	12.46	13.96	14.96	15.84	16.53	16.41
EOM	17.06	16.43	13.59	14.34	13.63	12.18	12.76	14.15	15.19	15.97	16.71	16.48

WTR YR 1988 HIGH 10.96 APR 10

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.71	17.13	16.34	14.17	13.93	14.00	11.90	13.06	14.34	15.47	16.15	16.61
10	16.94	17.17	15.88	14.42	14.17	13.93	10.98	13.41	14.65	15.54	16.35	16.73
15	16.93	17.23	15.60	14.65	14.11	13.95	11.67	13.52	14.71	15.71	16.45	16.87
20	16.98	17.22	14.40	14.24	13.72	13.91	12.05	13.76	14.86	15.77	16.48	16.68
25	17.10	17.26	13.83	14.51	13.57	13.53	12.51	14.06	15.02	15.85	16.56	16.44
EOM	17.12	16.52	13.73	14.54	13.79	12.44	12.83	14.18	15.23	16.03	16.74	16.50

WTR YR 1988 LOW 17.32 NOV 24

NOBLE COUNTY

412405085154501. Local number, NO 11.

LOCATION.--Lat 41°24'05", long 85°15'45", in NW¼NE¼SW¼ sec.16, T.34 N., R.11 E., Noble County, Hydrologic Unit 04100003, on the property of Ron Karst on the south side of County Road 350 North, 0.6 mi west of State Highway 3 and about 22 mi north of Fort Wayne.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 216 ft, cased to 211 ft, screened to 216 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 1,036.94 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.45 ft above land-surface datum.

PERIOD OF RECORD.--November 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 113.35 ft below land-surface datum, Dec. 15, 1987; lowest, 114.64 ft below land-surface datum, Jan. 7, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	114.07	114.30	114.30	114.24	113.71	114.02	114.10	114.16	113.94	113.68
10	---	---	113.90	114.36	114.29	113.86	114.05	113.72	114.10	113.94	114.03	114.10
15	---	114.18	113.35	114.17	113.54	113.82	113.91	113.83	114.16	113.99	114.02	114.21
20	---	114.06	113.67	113.59	113.51	113.84	113.71	113.97	114.07	114.03	113.92	113.74
25	---	114.07	113.94	113.85	114.10	113.87	113.92	114.01	113.90	114.03	113.77	114.08
EOM	---	113.69	114.04	114.00	114.02	114.32	114.01	114.14	113.99	114.06	114.17	114.23

WTR YR 1988 HIGH 113.35 DEC 15

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	114.21	114.49	114.42	114.36	113.86	114.07	114.15	114.24	114.09	113.93
10	---	---	113.94	114.43	114.40	113.97	114.15	113.94	114.23	114.08	114.12	114.22
15	---	114.29	113.96	114.44	113.82	114.06	114.04	114.07	114.26	114.07	114.07	114.34
20	---	114.15	113.97	113.71	113.80	114.12	113.85	114.00	114.13	114.07	113.95	113.98
25	---	114.26	114.12	113.90	114.18	113.96	114.00	114.18	114.07	114.09	113.86	114.21
EOM	---	113.77	114.17	114.11	114.17	114.36	114.10	114.20	114.03	114.13	114.24	114.29

WTR YR 1988 LOW 114.64 JAN 7

GROUND-WATER DATA

NOBLE COUNTY

412405085154501 Local number, NO 11 --Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT
AUG 27...	1055	114.00	500	7.4	12.0	--	200	0	46	22	34	26

DATE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3	BICAR- BONATE WAT WH FET FIELD MG/L AS HCO3	CAR- BONATE WAT WH FET FIELD MG/L AS CO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)
AUG 27...	1	1.6	270	329	0	7.0	1.2	293	<0.10	<0.01	360

GROUND-WATER DATA

NOBLE COUNTY

412405085154504. Local number, NO 14.

LOCATION.--Lat 41°24'05", long 85°15'45".

LANIER BUS. PROD.

in NW1/4 sec.16, T.34 N., R.11 E., Noble County, Hydrologic Unit

04100003, on the property of Ron Karst on the south side of County Road 350 North, 0.6 mi west of State Highway 3 and about 22 mi north of Fort Wayne.

Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 145 ft, cased to 140 ft, screened to 145 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 1,037.24 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--November 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 112.21 ft below land-surface datum, Dec. 15, 1987; lowest, 113.88 ft below land-surface datum, Jan. 7, 14, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	113.22	113.55	113.47	113.45	112.74	113.18	113.24	113.42	113.05	112.82	
10	---	---	112.94	113.54	113.52	113.02	113.19	112.87	113.39	113.05	113.23	113.30	
15	---	113.35	112.21	113.24	112.49	113.01	113.12	112.84	113.27	113.16	113.21	113.47	
20	---	113.14	112.54	112.54	112.53	112.93	112.79	113.12	113.19	113.23	113.05	112.88	
25	---	113.18	113.06	112.95	113.27	112.88	113.05	113.32	112.96	113.17	112.87	113.30	
EOM	---	112.73	113.06	113.11	113.17	113.45	113.25	113.27	113.15	113.23	113.36	113.35	

WTR YR 1988 HIGH 112.21 DEC 15

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	113.36	113.73	113.68	113.64	113.03	113.22	113.34	113.50	113.22	113.19	
10	---	---	113.04	113.71	113.66	113.19	113.33	113.24	113.53	113.21	113.33	113.45	
15	---	113.47	112.87	113.53	113.08	113.33	113.29	113.17	113.44	113.29	113.30	113.60	
20	---	113.25	113.24	112.88	113.17	113.39	113.05	113.17	113.33	113.29	113.14	113.28	
25	---	113.43	113.33	113.14	113.43	113.09	113.23	113.46	113.20	113.26	112.99	113.45	
EOM	---	112.83	113.38	113.29	113.40	113.60	113.33	113.40	113.22	113.32	113.46	113.50	

WTR YR 1988 LOW 113.88 JAN 7

GROUND-WATER DATA

NOBLE COUNTY

412405085154504 Local number, NO 14 --Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT
AUG 27...	1310	112.60	545	7.5	12.0	--	270	0	64	27	16	11
DATE		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3	BICAR- BONATE WATER WH FET FIELD MG/L AS HCO3	CAR- BONATE WATER WH FET FIELD MG/L AS CO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)
AUG 27...		0.4	2.4	289	352	0	11	0.6	344	<0.10	0.02	650

GROUND-WATER DATA

PARKE COUNTY

393619087043001. Local number, PA 6.

LOCATION.--Lat 39°36'19", long 87°04'30", in SE1/4SW1/4 sec.33, T.14 N., R.6 W., Parke County, Hydrologic Unit 05120111, on county right-of-way on north side of road at the Parke-Clay county line, 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, 16.63 ft below land-surface datum, Sept. 30, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.12	15.63	15.62	14.70	14.12	13.52	12.84	12.91	13.64	14.56	15.17	15.82
10	15.37	15.70	15.37	14.58	13.90	13.30	12.89	12.93	13.76	14.73	15.29	16.16
15	15.38	15.67	14.97	14.45	13.68	13.26	12.87	13.01	13.96	14.90	---	16.28
20	15.43	15.64	15.01	14.05	13.60	13.13	12.77	13.15	14.04	14.84	---	16.23
25	15.56	15.69	14.94	14.12	13.70	13.06	12.83	13.29	14.17	14.89	---	16.44
EOM	15.59	15.52	14.76	14.14	13.64	13.01	12.89	13.46	14.37	15.07	---	16.58

WTR YR 1988 HIGH 12.72 APR 23

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.21	15.74	15.68	14.80	14.17	13.63	12.92	12.97	13.67	14.63	15.21	15.95
10	15.43	15.72	15.47	14.61	13.97	13.34	12.95	13.05	13.86	14.80	15.37	16.22
15	15.44	15.73	15.27	14.57	13.85	13.38	12.95	13.09	14.02	14.96	---	16.31
20	15.54	15.76	15.23	14.34	13.74	13.25	12.84	13.21	14.06	14.97	---	16.36
25	15.69	15.74	15.02	14.23	13.74	13.11	12.89	13.36	14.23	14.98	---	16.51
EOM	15.67	15.56	14.83	14.19	13.71	13.12	12.97	13.54	14.44	15.12	---	16.63

WTR YR 1988 LOW 16.63 SEP 30

GROUND-WATER DATA

319

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 54ft, 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.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.03	20.62	20.99	19.60	18.07	16.35	15.31	15.51	17.32	18.70	19.36	20.29
10	20.14	20.70	20.97	19.65	16.76	16.04	14.87	15.86	17.57	18.90	19.53	20.43
15	20.23	20.77	20.94	19.80	16.52	16.04	14.49	16.19	17.82	19.09	19.69	20.56
20	20.33	20.84	20.88	19.62	16.78	16.10	14.25	16.51	18.04	19.05	19.84	20.68
25	20.42	20.93	20.68	19.29	16.54	16.36	14.78	16.79	18.27	19.11	19.99	20.78
EOM	20.53	20.98	19.99	19.23	16.42	16.26	15.15	17.07	18.48	19.21	20.17	20.88

WTR YR 1988 HIGH 14.20 APR 18

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.05	20.63	21.00	19.65	18.30	16.44	15.45	15.59	17.37	18.75	19.39	20.32
10	20.16	20.71	20.97	19.68	16.94	16.06	14.97	15.95	17.62	18.94	19.56	20.45
15	20.25	20.79	20.96	19.82	16.61	16.08	14.56	16.24	17.85	19.13	19.72	20.58
20	20.35	20.86	20.90	19.68	16.85	16.17	14.34	16.57	18.09	19.18	19.87	20.70
25	20.43	20.94	20.73	19.36	16.60	16.43	14.82	16.84	18.30	19.21	20.03	20.80
EOM	20.55	20.99	20.09	19.26	16.44	16.44	15.22	17.12	18.52	19.23	20.19	20.90

WTR YR 1988 LOW 21.00 DEC 2

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. Low water levels between Oct. 1 and Apr. 1 were lost because of equipment malfunction.

PERIOD OF RECORD.--November 1977 to September 1988. (Discontinued)

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 112.99 ft below land-surface datum, Apr. 2, 1979; lowest, 146.14 ft below land-surface datum, July 10, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	132.69	133.10	132.00	133.02	131.53	131.96	130.79	131.72	135.39	138.73	137.54	136.12
10	132.60	132.99	132.80	132.76	131.62	131.66	130.28	132.08	136.31	139.11	137.44	136.62
15	132.63	133.10	132.26	133.62	130.83	131.42	130.49	133.92	136.97	138.47	143.96	136.70
20	132.42	132.81	132.22	132.18	130.95	131.33	130.32	134.16	137.43	138.11	137.08	135.96
25	133.08	132.98	132.56	131.92	131.79	131.17	130.36	133.67	139.02	137.31	138.21	135.23
EOM	132.82	132.50	132.95	131.88	131.93	130.86	130.96	135.05	138.12	137.16	137.04	135.43

WTR YR 1988 HIGH 130.16 APR 9

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	134.39	134.67	134.49	135.54	133.17	135.24	132.02	133.27	138.00	143.58	139.57	138.44
10	133.81	134.59	134.10	134.02	132.84	133.04	132.21	133.93	138.29	146.14	142.43	138.24
15	133.91	133.87	133.27	134.71	132.52	132.72	131.87	137.21	139.96	142.43	143.96	137.64
20	134.48	134.11	133.32	133.29	133.10	133.37	131.55	136.48	141.41	139.07	138.92	137.57
25	135.12	134.23	133.29	133.16	132.82	132.58	131.60	134.99	142.79	139.14	140.42	137.70
EOM	137.28	134.10	134.28	133.15	133.40	131.74	134.35	139.45	141.43	139.21	138.53	136.73

WTR YR 1988 LOW 146.14 JUL 10

GROUND-WATER DATA

PULASKI COUNTY

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.

LANIER BUS. PROD.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.03 ft below land-surface datum, June 15, 1958; lowest, 23.51 ft below land-surface datum, Sept. 30, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	16.87	15.67	13.53	14.04	14.96	12.89	---	17.31	20.22	22.39	22.65
10	16.96	17.18	14.00	14.23	14.23	14.94	12.52	---	17.44	20.14	21.34	23.01
15	16.99	17.81	12.25	14.76	14.13	15.03	---	---	18.09	20.67	21.77	22.98
20	16.96	17.66	13.03	14.62	13.97	15.21	---	16.35	18.77	21.07	21.90	22.88
25	17.28	17.80	---	14.99	14.49	14.98	---	16.51	18.97	21.57	22.24	23.21
EOM	17.11	16.17	12.88	14.96	14.49	13.77	---	16.99	19.23	21.44	22.35	23.42

WTR YR 1988 HIGH 12.25 DEC 15

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	17.34	15.92	13.87	14.31	15.21	12.94	---	17.58	20.62	22.69	23.05
10	17.20	17.33	14.35	14.40	14.43	15.18	12.74	---	17.73	20.47	21.75	23.20
15	17.16	18.09	14.53	14.97	14.86	15.53	---	---	18.41	21.00	22.09	23.11
20	17.26	17.92	13.46	15.03	14.71	15.64	---	16.58	18.94	21.35	22.07	23.16
25	17.53	17.95	---	15.28	14.75	15.25	---	16.80	19.18	21.91	22.35	23.32
EOM	17.28	16.39	13.05	15.29	14.91	14.38	---	17.26	19.51	21.77	22.48	23.51

WTR YR 1988 LOW 23.51 SEP 30

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, 11.70 ft below land-surface datum, Sept. 30, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.48	10.69	10.23	8.57	8.30	8.53	7.71	8.31	9.26	10.41	10.90	11.39
10	10.58	10.73	9.86	8.76	8.39	8.53	7.50	8.43	9.48	10.51	11.03	11.46
15	10.60	10.76	9.47	8.89	8.40	8.59	7.70	8.56	9.65	10.53	11.06	11.54
20	10.63	10.78	9.00	8.79	8.33	8.65	7.88	8.77	9.81	10.65	11.17	11.53
25	10.66	10.75	8.63	8.73	8.35	8.58	8.05	8.85	10.01	10.67	11.23	11.63
EOM	10.68	10.51	8.41	8.64	8.43	7.92	8.18	9.04	10.15	10.82	11.34	11.68

WTR YR 1988 HIGH 7.50 APR 10

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.50	10.72	10.29	8.60	8.31	8.57	7.76	8.35	9.27	10.46	10.97	11.42
10	10.61	10.74	9.96	8.78	8.42	8.56	7.52	8.51	9.51	10.58	11.08	11.48
15	10.63	10.78	9.62	8.92	8.51	8.67	7.78	8.59	9.67	10.55	11.09	11.55
20	10.67	10.83	9.04	8.81	8.46	8.75	7.91	8.79	9.86	10.70	11.19	11.60
25	10.71	10.78	8.68	8.77	8.39	8.64	8.07	8.87	10.07	10.69	11.26	11.66
EOM	10.71	10.56	8.49	8.73	8.48	8.11	8.21	9.07	10.18	10.84	11.39	11.70

WTR YR 1988 LOW 11.70 SEP 30

GROUND-WATER DATA

321

PULASKI COUNTY

405605086551701. Local number, PU 8.

LOCATION.--Lat 40°56'05", long 86°55'17", in SE 1/4 SE 1/4 NW 1/4 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, 2.20 ft below land-surface datum, April 6, 1988; lowest, 11.74 ft below land-surface datum, Aug. 25, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.11	8.69	6.93	4.98	4.40	4.69	3.12	5.03	6.75	8.25	10.38	10.95
10	8.50	8.82	5.76	5.62	4.99	4.51	3.31	5.19	6.53	8.70	10.67	11.02
15	8.48	8.87	4.55	5.85	4.64	4.77	4.08	5.57	6.62	9.01	10.63	11.15
20	8.54	8.93	3.98	5.32	4.20	4.93	4.45	5.69	7.75	---	10.87	11.21
25	8.61	8.27	4.18	5.50	4.33	3.79	4.69	5.79	7.59	9.45	11.51	11.34
EOM	8.74	6.71	3.91	4.36	4.71	2.77	4.89	6.09	8.25	---	10.85	11.44

WTR YR 1988 HIGH 2.20 APR 6

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.19	8.80	7.01	5.12	4.53	4.79	3.33	5.09	6.99	8.70	10.54	10.97
10	8.55	8.84	5.79	5.67	5.07	4.57	3.49	5.31	6.65	8.83	10.81	11.05
15	8.55	8.92	6.10	5.91	4.82	4.92	4.23	6.21	6.73	9.27	11.06	11.17
20	8.62	9.04	4.16	5.51	4.46	5.06	4.54	5.71	7.95	---	10.91	11.27
25	8.71	8.91	4.24	5.58	4.50	4.14	4.74	5.84	7.72	9.60	11.74	11.44
EOM	8.80	6.81	4.10	5.29	4.76	2.94	4.92	6.17	8.45	---	10.97	11.47

WTR YR 1988 LOW 11.74 AUG 25

RANDOLPH COUNTY

401532085085301. Local number, RA 3.

LOCATION.--Lat 40°15'32", long 85°08'53", in NE 1/4 NE 1/4 SE 1/4 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, 15.05 ft below land-surface datum, Sept. 21, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.60	13.82	13.74	11.75	10.62	10.44	9.81	10.96	12.03	13.20	13.67	14.53
10	13.88	13.89	13.46	11.89	10.83	9.55	9.36	11.04	12.33	13.30	13.89	14.85
15	13.82	13.90	12.90	11.93	10.66	9.64	9.77	11.16	12.47	13.54	14.11	14.91
20	13.79	13.78	12.35	11.55	9.65	9.81	10.15	11.45	12.56	13.40	14.30	14.74
25	13.86	13.79	11.89	11.64	9.95	10.03	10.59	11.67	12.72	13.32	14.50	14.86
EOM	13.92	13.60	11.39	11.75	10.18	10.38	10.85	11.88	12.85	13.48	14.68	14.92

WTR YR 1988 HIGH 9.25 APR 7

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.73	13.97	13.79	11.82	10.70	10.53	9.96	11.01	12.07	13.29	13.72	14.77
10	13.94	13.94	13.56	11.94	10.90	9.67	9.40	11.21	12.41	13.37	13.98	14.93
15	13.87	13.97	13.30	12.04	10.74	9.86	9.96	11.25	12.53	13.61	14.17	14.95
20	13.91	13.94	12.56	11.64	9.92	10.06	10.25	11.50	12.66	13.59	14.40	14.89
25	14.01	13.92	12.19	11.74	10.08	10.10	10.65	11.77	12.80	13.37	14.60	14.92
EOM	13.99	13.64	11.56	11.83	10.37	10.43	10.90	12.00	12.92	13.52	14.74	14.97

WTR YR 1988 LOW 15.05 SEP 21

GROUND-WATER DATA

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, 10.01 ft below land-surface datum, Sept. 30, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.51	9.34	9.45	7.60	6.29	6.36	5.97	6.41	8.38	8.98	9.52	9.84
10	9.50	9.34	9.29	7.63	6.37	6.47	5.31	6.79	8.50	9.08	9.58	9.88
15	9.43	9.37	9.04	7.69	6.37	6.64	5.42	7.20	8.61	9.18	9.65	9.93
20	9.40	9.43	8.51	7.35	6.49	6.81	5.65	7.62	8.69	9.28	9.69	9.97
25	9.41	9.49	7.54	6.99	6.54	6.88	5.90	7.98	8.79	9.35	9.74	9.97
EOM	9.37	9.51	7.39	6.87	6.43	6.34	6.12	8.23	8.88	9.45	9.80	10.00

WTR YR 1988 HIGH 5.30 APR 11

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.51	9.34	9.48	7.63	6.31	6.42	6.03	6.49	8.40	9.00	9.54	9.85
10	9.52	9.34	9.33	7.68	6.42	6.52	5.34	6.93	8.52	9.10	9.60	9.89
15	9.44	9.38	9.08	7.70	6.56	6.73	5.50	7.27	8.62	9.20	9.66	9.93
20	9.40	9.44	8.63	7.39	6.69	6.91	5.70	7.70	8.71	9.29	9.70	9.97
25	9.41	9.50	7.61	7.03	6.59	6.99	5.92	8.02	8.80	9.37	9.75	9.98
EOM	9.38	9.52	7.53	6.93	6.44	6.63	6.17	8.27	8.90	9.46	9.81	10.01

WTR YR 1988 LOW 10.01 SEP 30

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, 8.37 ft below land-surface datum, Mar. 1, 1987; lowest, 12.63 ft below land-surface datum, Sept. 17, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.10	10.86	10.58	9.58	9.39	9.21	8.58	9.09	10.34	11.76	12.46	12.26
10	11.15	10.95	10.28	9.68	9.38	9.10	8.55	9.14	10.63	11.97	12.38	12.41
15	11.08	10.92	9.90	9.75	9.15	9.02	8.58	9.37	10.91	11.97	12.30	12.55
20	11.01	10.93	9.76	9.57	9.08	9.03	8.64	9.65	11.00	11.94	12.28	12.38
25	11.02	10.93	9.67	9.52	9.15	8.88	8.79	9.72	11.27	11.83	12.29	12.48
EOM	10.91	10.65	9.48	9.50	9.16	8.80	8.93	10.09	11.48	12.25	12.35	12.57

WTR YR 1988 HIGH 8.45 APR 6

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.16	10.93	10.63	9.64	9.42	9.24	8.63	9.17	10.40	11.88	12.59	12.32
10	11.17	10.98	10.35	9.71	9.40	9.14	8.58	9.23	10.77	12.05	12.52	12.47
15	11.10	10.95	10.14	9.78	9.25	9.10	8.64	9.44	10.97	12.00	12.33	12.59
20	11.03	11.01	9.85	9.60	9.16	9.08	8.67	9.69	11.04	12.01	12.30	12.46
25	11.04	11.00	9.70	9.55	9.20	8.93	8.82	9.77	11.36	11.87	12.35	12.54
EOM	10.96	10.71	9.54	9.58	9.22	8.83	9.00	10.19	11.55	12.31	12.40	12.58

WTR YR 1988 LOW 12.63 SEP 17

GROUND-WATER DATA

323

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 1987 TO SEPTEMBER 1988												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.44	21.80	22.10	20.46	18.45	18.30	18.35	19.06	20.36	21.28	21.25	21.89
10	21.64	21.94	21.90	20.60	18.89	18.05	17.36	19.25	20.54	21.35	21.49	22.10
15	21.65	21.96	21.68	20.73	19.17	18.40	18.04	19.52	20.66	21.40	21.60	22.11
20	21.66	21.95	21.38	20.20	18.49	18.61	18.56	19.76	20.73	21.23	21.67	21.91
25	21.75	21.97	21.08	20.10	18.46	18.73	18.58	19.94	20.94	20.86	21.77	22.12
EOM	21.81	21.87	20.23	20.17	18.71	18.78	18.83	20.18	21.00	21.02	21.92	22.23

WTR YR 1988 HIGH 17.36 APR 10

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.55	21.93	22.10	20.52	18.48	18.43	18.42	19.13	20.39	21.31	21.27	22.02
10	21.67	21.94	21.94	20.65	19.01	18.18	17.38	19.39	20.60	21.37	21.52	22.15
15	21.66	22.00	21.86	20.81	19.20	18.53	18.21	19.57	20.71	21.44	21.64	22.14
20	21.73	22.05	21.53	20.39	18.66	18.75	18.60	19.79	20.75	21.48	21.69	22.03
25	21.81	22.01	21.25	20.13	18.54	18.92	18.60	20.07	20.96	20.89	21.81	22.17
EOM	21.87	21.90	20.28	20.27	18.84	18.82	18.90	20.22	21.03	21.07	21.95	22.23

WTR YR 1988 LOW 22.23 SEP 29

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, Sept. 17, 18, 1988.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.33	6.33	5.82	5.02	4.73	5.14	4.53	5.20	5.67	6.25	6.63	6.83
10	6.37	6.35	5.39	5.22	5.01	5.08	4.41	5.27	5.79	6.19	6.60	6.91
15	6.38	6.38	4.91	5.33	4.89	5.19	4.71	5.35	5.88	6.22	6.72	6.96
20	6.38	6.40	4.58	4.96	4.80	5.27	4.90	5.45	5.96	6.26	6.76	6.71
25	6.29	6.17	4.73	5.14	4.90	4.96	5.04	5.51	6.06	6.36	6.78	6.81
EOM	6.31	6.00	4.70	4.71	5.06	4.41	5.09	5.59	6.11	6.52	6.84	6.87

WTR YR 1988 HIGH 4.18 APR 7

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.35	6.35	5.84	5.06	4.80	5.17	4.56	5.22	5.69	6.27	6.65	6.85
10	6.39	6.36	5.40	5.23	5.04	5.11	4.47	5.31	5.80	6.38	6.71	6.93
15	6.39	6.39	5.41	5.35	5.00	5.24	4.77	5.37	5.89	6.25	6.76	6.97
20	6.40	6.43	4.83	5.06	4.91	5.33	4.92	5.47	5.97	6.27	6.80	6.76
25	6.33	6.36	4.74	5.17	4.96	5.10	5.05	5.52	6.11	6.38	6.83	6.83
EOM	6.33	6.03	4.77	5.11	5.10	4.44	5.12	5.61	6.15	6.55	6.87	6.88

WTR YR 1988 LOW 6.99 SEP 17

GROUND-WATER DATA

STEBEN 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, 18.97 ft below land-surface datum, Sept. 28, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.34	18.63	18.75	18.34	18.17	17.98	17.74	17.54	17.64	18.07	18.35	18.70
10	18.44	18.67	18.72	18.32	18.16	17.96	17.68	17.54	17.72	18.05	18.44	18.77
15	18.46	18.70	18.50	18.30	18.06	17.91	17.62	17.51	17.76	18.15	18.49	18.83
20	18.49	18.71	18.47	18.21	18.04	17.95	17.54	17.60	17.82	18.22	18.56	18.80
25	18.55	18.71	18.44	18.25	---	17.89	17.54	17.60	17.87	18.25	18.61	18.90
EOM	18.61	18.72	18.30	18.21	---	17.85	17.55	17.61	17.95	18.33	18.70	18.95

WTR YR 1988 HIGH 17.51 APR 17

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.37	18.66	18.79	18.36	18.19	18.04	17.80	17.56	17.66	18.09	18.41	18.75
10	18.46	18.68	18.76	18.35	18.19	18.01	17.70	17.61	17.75	18.13	18.49	18.81
15	18.48	18.73	18.69	18.32	18.18	17.98	17.64	17.58	17.79	18.19	18.54	18.85
20	18.52	18.78	18.60	18.30	18.16	18.03	17.58	17.62	17.83	18.23	18.60	18.87
25	18.60	18.79	18.47	18.29	---	17.94	17.58	17.63	17.92	18.28	18.64	18.95
EOM	18.64	18.75	18.38	18.26	---	17.91	17.58	17.65	17.97	18.37	18.72	18.96

WTR YR 1988 LOW 18.97 SEP 28

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, 35.43 ft below land-surface datum, Sept. 2, 3, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	34.98	35.21	34.95	35.15	34.45	33.73	33.29	33.71	34.39	34.98	---	34.97
10	35.18	35.20	34.81	34.97	34.28	33.54	33.33	33.68	34.56	35.00	---	34.97
15	35.07	35.08	34.41	34.78	33.95	33.55	33.32	33.71	34.51	34.80	34.54	35.10
20	34.94	35.00	34.64	34.31	33.74	33.50	33.20	33.96	34.61	---	34.55	34.90
25	35.04	34.97	34.80	34.40	33.90	33.50	33.43	34.03	34.80	---	34.58	34.91
EOM	35.05	34.75	34.85	34.39	33.77	33.49	33.55	34.20	34.75	---	34.73	35.03

WTR YR 1988 HIGH 33.05 APR 18

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	35.14	35.40	35.06	35.22	34.57	33.82	33.48	33.85	34.45	35.07	---	35.09
10	35.29	35.31	34.91	35.01	34.35	33.66	33.45	33.82	34.67	35.14	---	35.09
15	35.13	35.15	34.86	34.91	34.20	33.76	33.48	33.83	34.62	34.90	34.66	35.20
20	35.17	35.20	35.02	34.55	33.99	33.63	33.30	34.03	34.77	---	34.62	35.01
25	35.22	35.10	34.90	34.51	33.98	33.59	33.50	34.19	34.93	---	34.67	35.09
EOM	35.25	34.83	35.05	34.53	33.92	33.59	33.70	34.38	34.85	---	34.92	35.12

WTR YR 1988 LOW 35.43 SEP 2

GROUND-WATER DATA

325

VANDERBURGH COUNTY

380626087344401. Local number, VA 7.

LOCATION.--Lat 38°06'26", long 87°34'44", in NE¼NW¼ 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, 1986; lowest, 24.65 ft below land-surface datum, Dec. 17, 1987.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.45	23.91	24.34	23.99	23.18	22.63	21.91	22.58	23.23	23.82	23.73	23.95
10	24.03	24.13	23.98	23.72	22.91	22.09	21.93	22.54	23.36	23.69	23.81	24.31
15	23.86	24.07	23.44	24.01	22.84	22.39	22.15	22.58	23.37	23.88	23.90	24.43
20	23.79	24.07	23.73	23.33	22.22	22.20	21.98	22.78	23.39	23.84	23.81	24.17
25	23.97	23.99	24.04	23.49	22.76	22.17	22.32	22.93	23.45	23.80	23.93	24.43
EOM	24.06	23.84	23.79	23.55	22.53	22.45	22.56	23.09	23.49	23.76	24.22	24.48

WTR YR 1988 HIGH 21.70 APR 18

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.74	24.23	24.39	24.12	23.24	22.83	22.13	22.67	23.38	23.95	23.78	24.19
10	24.13	24.25	24.12	23.96	23.12	22.25	22.15	22.74	23.52	23.75	23.91	24.45
15	23.96	24.18	24.27	24.07	22.92	22.62	22.33	22.73	23.51	23.95	23.95	24.54
20	24.05	24.25	24.39	23.61	22.62	22.45	22.23	22.86	23.50	23.94	23.90	24.49
25	24.20	24.14	24.15	23.55	22.84	22.33	22.44	23.21	23.52	23.95	23.99	24.58
EOM	24.29	23.88	23.94	23.73	22.76	22.62	22.65	23.20	23.55	23.81	24.32	24.61

WTR YR 1988 LOW 24.65 DEC 17

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.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.27	48.57	48.57	47.01	46.91	45.98	45.72	45.24	46.53	47.80	48.26	48.99
10	48.30	48.61	48.48	46.91	46.63	45.99	45.54	45.41	46.86	47.95	48.36	49.13
15	48.38	48.64	48.39	47.01	46.49	45.91	45.23	45.62	47.18	48.04	48.49	49.27
20	48.46	48.68	48.26	47.12	46.43	45.86	44.98	45.81	47.41	48.12	48.59	49.40
25	48.49	48.71	47.95	47.07	46.25	45.91	44.97	46.06	47.57	48.18	48.69	49.49
EOM	48.52	48.67	47.41	47.05	46.07	45.88	45.03	46.37	47.69	48.20	48.85	49.59

WTR YR 1988 HIGH 44.97 APR 22

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.28	48.57	48.59	47.07	46.96	45.99	45.78	45.27	46.58	47.83	48.27	49.01
10	48.31	48.61	48.49	46.91	46.67	45.99	45.59	45.46	46.91	47.98	48.39	49.17
15	48.40	48.64	48.42	47.03	46.51	45.92	45.30	45.66	47.25	48.06	48.51	49.29
20	48.47	48.69	48.28	47.15	46.44	45.88	45.01	45.85	47.46	48.13	48.61	49.41
25	48.50	48.72	48.02	47.10	46.30	45.95	44.99	46.11	47.59	48.20	48.72	49.51
EOM	48.53	48.69	47.49	47.07	46.11	45.91	45.06	46.40	47.70	48.21	48.87	49.61

WTR YR 1988 LOW 49.61 SEP 30

GROUND-WATER DATA

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, 3.69 ft above land-surface datum (revised).

PERIOD OF RECORD.--August 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 44.86 ft below land-surface datum, Apr. 6, 1988; lowest, 47.99 ft below land-surface datum, Sept. 21, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	46.92	47.23	47.34	46.92	46.63	46.15	45.10	45.54	46.25	46.92	47.17	47.30
10	47.25	47.48	47.18	46.88	46.60	45.91	45.08	45.46	46.32	46.91	47.24	47.62
15	47.26	47.39	46.74	46.78	46.08	45.76	45.04	45.58	46.50	47.01	47.30	47.82
20	47.15	47.33	46.79	46.31	45.95	45.76	45.08	45.76	46.56	47.05	47.40	47.63
25	47.40	47.35	46.86	46.43	46.21	45.67	45.31	45.86	46.57	47.08	47.28	47.74
EOM	47.33	47.13	46.76	46.55	46.10	45.72	45.45	46.18	46.64	47.13	47.60	47.88

WTR YR 1988 HIGH 44.86 APR 6

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	47.10	47.40	47.44	47.04	46.73	46.28	45.25	45.58	46.30	47.08	47.24	47.48
10	47.33	47.53	47.26	46.97	46.66	45.98	45.14	45.59	46.45	47.01	47.31	47.72
15	47.32	47.49	47.09	46.92	46.30	45.93	45.16	45.75	46.58	47.06	47.35	47.86
20	47.23	47.48	47.07	46.41	46.15	45.94	45.14	45.87	46.64	47.06	47.47	47.87
25	47.47	47.50	46.96	46.48	46.32	45.76	45.34	45.99	46.70	47.13	47.35	47.86
EOM	47.53	47.18	46.89	46.65	46.22	45.79	45.54	46.28	46.70	47.21	47.64	47.93

WTR YR 1988 LOW 47.99 SEP 21

WARRICK COUNTY

380624087164801. Local number, WK 4.

LOCATION.--Lat 38°06'24", long 87°16'48", in S¼SW¼SW¼ 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, 17.92 ft below land-surface datum, Sept. 30, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.42	17.09	17.27	14.95	13.34	13.32	13.04	14.37	15.35	16.17	16.35	17.13
10	16.60	17.24	17.21	14.95	13.52	13.23	12.99	14.53	15.42	16.31	16.49	17.34
15	16.68	17.34	17.00	14.97	13.42	13.41	13.29	14.82	15.60	16.45	16.67	17.53
20	16.77	17.52	16.74	14.37	13.09	13.53	13.66	14.99	15.71	16.34	16.73	17.54
25	16.92	17.71	16.32	14.11	13.31	13.56	13.94	15.06	15.87	16.21	16.87	17.72
EOM	17.03	17.21	15.10	14.07	13.47	13.41	14.21	15.24	15.98	16.26	17.04	17.90

WTR YR 1988 HIGH 12.88 APR 7

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.45	17.18	17.29	14.97	13.39	13.36	13.07	14.43	15.38	16.22	16.37	17.20
10	16.61	17.28	17.27	14.98	13.54	13.30	13.01	14.63	15.48	16.34	16.53	17.40
15	16.71	17.38	17.10	15.01	13.45	13.51	13.39	14.84	15.63	16.51	16.69	17.56
20	16.84	17.63	16.81	14.53	13.13	13.57	13.69	15.03	15.74	16.48	16.75	17.61
25	16.95	17.72	16.61	14.14	13.38	13.63	13.97	15.15	15.90	16.28	16.90	17.79
EOM	17.07	17.30	15.20	14.19	13.56	13.47	14.25	15.27	16.01	16.29	17.09	17.92

WTR YR 1988 LOW 17.92 SEP 30

GROUND-WATER DATA

327

WAYNE COUNTY

394426085080601. Local number, WE 6.

LOCATION.--Lat 39°44'26", long 85°08'06", in SE 1/4 NW 1/4 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.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.41	19.28	19.83	19.49	18.26	16.15	15.42	15.00	16.19	17.66	18.79	19.64
10	18.57	19.40	19.86	19.42	17.54	15.90	15.07	15.16	16.42	17.88	18.94	19.75
15	18.73	19.51	19.87	19.43	17.16	15.69	14.78	15.34	16.69	18.09	19.08	19.85
20	18.87	19.61	19.84	19.45	16.88	15.55	14.68	15.53	16.94	18.28	19.22	19.96
25	19.00	19.71	19.80	---	16.48	15.48	14.76	15.70	17.19	---	19.37	20.06
EOM	19.16	19.78	19.63	19.42	16.30	15.44	14.86	15.97	17.43	18.64	19.51	20.16

WTR YR 1988 HIGH 14.68 APR 20

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.45	19.30	19.83	19.51	18.45	16.20	15.44	15.03	16.23	17.71	18.81	19.66
10	18.60	19.42	19.86	19.43	17.64	15.93	15.16	15.20	16.47	17.92	18.97	19.77
15	18.75	19.53	19.87	19.43	17.20	15.72	14.81	15.37	16.73	18.13	19.11	19.87
20	18.90	19.63	19.85	19.45	16.95	15.57	14.70	15.57	16.98	18.31	19.25	19.98
25	19.03	19.73	19.81	---	16.54	15.50	14.76	15.77	17.24	---	19.39	20.08
EOM	19.19	19.80	19.65	19.42	16.33	15.48	14.89	16.01	17.47	18.67	19.54	20.18

WTR YR 1988 LOW 20.18 SEP 30

WELLS COUNTY

404331085064701. Local number, WL 4.

LOCATION.--Lat 40°43'31", long 85°06'47", in SE 1/4 NW 1/4 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, 25.21 ft below land-surface datum, Sept. 24, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.65	23.83	23.71	23.17	22.91	22.70	21.61	22.24	23.18	24.19	24.56	24.72
10	23.96	23.90	23.46	23.23	23.06	22.10	21.41	22.25	23.42	24.28	24.69	24.89
15	23.87	23.86	22.88	23.18	22.70	22.14	21.71	22.34	23.58	24.42	24.79	24.92
20	23.82	23.76	22.67	22.79	22.43	22.19	21.79	22.56	23.69	24.39	24.79	24.97
25	23.92	23.80	22.93	23.02	22.41	21.96	22.06	22.94	23.80	24.39	24.73	24.93
EOM	23.94	23.53	22.67	23.14	22.55	22.17	22.24	23.08	23.89	24.49	24.87	24.95

WTR YR 1988 HIGH 21.41 APR 10

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.74	23.99	23.78	23.24	23.06	22.84	21.85	22.30	23.27	24.28	24.67	24.90
10	24.03	23.98	23.58	23.33	23.11	22.16	21.47	22.46	23.57	24.38	24.78	24.96
15	23.95	23.97	23.33	23.29	23.09	22.40	21.89	22.47	23.68	24.55	24.92	24.97
20	23.96	23.97	23.04	22.98	22.75	22.53	21.93	23.15	23.76	24.50	24.86	24.96
25	24.09	23.94	23.04	23.13	22.55	22.04	22.15	23.01	23.89	24.47	24.86	25.02
EOM	24.05	23.58	22.96	23.24	22.71	22.28	22.30	23.17	24.03	24.55	24.90	25.00

WTR YR 1988 LOW 25.21 SEP 24

GROUND-WATER DATA

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, 3.20 ft above land-surface datum.

PERIOD OF RECORD.--July 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.78 ft below land-surface datum, Apr. 3, 5, 1988; lowest, 12.45 ft below land-surface datum, Aug. 5, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.50	5.75	---	3.43	3.52	3.77	2.85	3.90	9.31	10.59	12.23	6.85
10	5.67	5.72	4.45	3.74	3.65	3.70	2.82	4.48	7.25	10.98	7.27	6.92
15	5.64	5.72	4.00	3.95	3.65	3.81	3.11	5.21	8.75	10.19	6.70	6.99
20	5.64	5.71	3.46	3.93	3.41	4.12	3.34	7.57	10.00	8.65	6.93	6.85
25	5.71	5.50	3.23	4.03	3.47	3.73	3.61	4.72	9.87	8.87	6.74	6.92
EOM	5.71	---	3.02	4.03	3.61	3.04	3.81	5.41	11.17	9.62	6.86	6.92

WTR YR 1988 HIGH 2.78 APR 3

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.58	5.79	---	3.52	3.55	3.80	2.89	4.38	9.67	10.82	12.45	6.91
10	5.71	5.75	4.51	3.78	3.70	3.75	2.86	5.74	9.60	12.39	7.97	6.96
15	5.67	5.75	4.38	4.01	3.76	3.93	3.21	5.52	9.33	11.19	6.73	7.25
20	5.69	5.80	3.58	4.01	3.53	4.56	3.37	7.67	10.76	9.36	7.05	6.94
25	5.78	5.52	3.29	4.07	3.52	3.85	3.63	4.94	10.28	9.74	6.97	6.97
EOM	5.91	---	3.13	4.13	3.69	3.23	3.84	5.63	11.34	11.01	6.88	6.95

WTR YR 1988 LOW 12.45 AUG 5

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.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	51.58	51.90	52.07	51.89	51.74	51.69	51.23	51.24	51.74	52.35	52.22	52.12
10	51.92	52.08	51.94	51.76	51.73	51.57	51.28	51.13	51.87	52.26	52.29	52.38
15	51.87	52.05	51.51	51.65	51.29	51.52	51.09	51.28	52.03	52.17	52.36	52.52
20	51.79	51.96	51.67	51.37	51.33	51.58	50.95	51.48	52.03	52.13	52.32	52.20
25	51.96	51.97	51.86	51.52	51.69	51.46	51.06	51.55	52.02	52.11	52.19	52.41
EOM	52.00	51.77	51.67	51.57	51.63	51.61	51.15	51.68	52.12	52.15	52.41	52.48

WTR YR 1988 HIGH 50.84 APR 17

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	51.74	52.08	52.21	51.96	51.83	51.79	51.39	51.31	51.76	52.43	52.31	52.29
10	51.99	52.11	52.03	51.85	51.80	51.67	51.34	51.34	52.00	52.42	52.38	52.50
15	51.97	52.12	51.87	51.79	51.62	51.76	51.21	51.45	52.13	52.28	52.45	52.56
20	51.90	52.15	52.06	51.54	51.62	51.81	51.06	51.53	52.10	52.18	52.39	52.39
25	52.09	52.12	51.94	51.60	51.82	51.59	51.14	51.64	52.12	52.21	52.29	52.56
EOM	52.09	51.85	51.89	51.73	51.75	51.72	51.24	51.82	52.20	52.24	52.45	52.60

WTR YR 1988 LOW 52.60 SEP 29

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FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI).

Multiply inch-pound units	By	To obtain SI units
<i>Length</i>		
inches (in)	2.54×10^1	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^0	kilometers (km)
<i>Area</i>		
acres	4.047×10^3	square meters (m ²)
	4.047×10^{-1}	square hectometers (hm ²)
	4.047×10^{-3}	square kilometers (km ²)
square miles (mi ²)	2.590×10^0	square kilometers (km ²)
<i>Volume</i>		
gallons (gal)	3.785×10^0	liters (L)
	3.785×10^0	cubic decimeters (dm ³)
	3.785×10^{-3}	cubic meters (m ³)
million gallons	3.785×10^3	cubic meters (m ³)
	3.785×10^{-3}	cubic hectometers (hm ³)
cubic feet (ft ³)	2.832×10^1	cubic decimeters (dm ³)
	2.832×10^{-2}	cubic meters (m ³)
cfs-days	2.447×10^3	cubic meters (m ³)
	2.447×10^{-3}	cubic hectometers (hm ³)
acre-feet (acre-ft)	1.233×10^3	cubic meters (m ³)
	1.233×10^{-3}	cubic hectometers (hm ³)
	1.233×10^{-6}	cubic kilometers (km ³)
<i>Flow</i>		
cubic feet per second (ft ³ /s)	2.832×10^1	liters per second (L/s)
	2.832×10^1	cubic decimeters per second (dm ³ /s)
	2.832×10^{-2}	cubic meters per second (m ³ /s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm ³ /s)
	6.309×10^{-5}	cubic meters per second (m ³ /s)
million gallons per day	4.381×10^1	cubic decimeters per second (dm ³ /s)
	4.381×10^{-2}	cubic meters per second (m ³ /s)
<i>Mass</i>		
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

