October 1, 1978

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). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
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)
	Area	
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)
	Volume	
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)
	Flow	
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)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

Water Resources Data Indiana

Water Year 1981

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT IN-81-1

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

UNITED STATES DEPARTMENT OF THE INTERIOR

JAMES G. WATT, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information write to
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1982

PREFACE

This report was prepared by the U.S. Geological Survey in cooperation with the State of Indiana and with other agencies by personnel of the Indiana district of the Water Resources Division, under the supervision of D. K. Stewart, District Chief, and James E. Biesecker, Regional Hydrologist, Northeastern Region.

This report is one of a series issued State by State under the general direction of Philip Cohen, Chief Hydrologist, and R. J. Dingman, Assistant Chief Hydrologist for Scientific Publications and Data Management.

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16. Abstract (Limit: 200 words)

Water resources data for the 1981 water year for Indiana consists of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; and water levels in wells. This report contains discharge records for 195 gaging stations, stage and contents for 12 lakes and reservoirs, releases from 6 flood control reservoirs, water quality for 51 gaging stations, and water levels for 84 observation wells. Also included are 95 crest-stage partial-record stations and 42 low-flow partial-record stations. Additional water data were collected at various sites, not part of the systematic data-collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Indiana.

17. Document Analysis a. Descriptors

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ILLUSTRATIONS

TABLES

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

(w-discharge, c-chemical, t-temperature, s-sediment)

GROUND-WATER WELL STATIONS FOR WHICH RECORDS ARE PUBLISHED--Continued

INTRODUCTION

Water resources data for the 1981 water year for Indiana consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground-water wells. This volume contains records for water discharge at 195 gaging stations; stage and contents at 12 lakes and reservoirs; water quality at 51 gaging stations, and water levels at 84 observation wells. Also included are data for 95 crest-stage, and 42 low-flow stations. Locations of these sites are shown on figures 4, 5, and 6. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements and analyses. These data represent that part of the National Water Data System operated by the U.S. Geological survey and cooperating State, local, and Federal agencies in Indiana.

Records of discharge and stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from the Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, Virginia, 22202.

For water years 1961 through 1970, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water- quality records for water years 1964 through 1970 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1971 water year, water data for streamflow, water quality, and ground water are published in official Survey reports on a State-boundary basis. These official Survey reports carry 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-80-1." 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, Virginia, 22161.

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

COOPERATION

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

State of Indiana, Department of Natural Resources, James M. Ridenour, director, through Bureau of Water and Mineral Resources, W. J. Andrews, deputy director.

Indiana State Board of Health, R. G. Blankenbaker, M.D., commissioner, and Ralph C. Pickard, assistant commissioner for environmental health.

Indiana State Highway Commission, D. C. Pratt, chairman, H. P. Wehrenberg, executive director, and G. K. Hallock, chief engineer.

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

The following organizations aided in collecting records: The cities of Anderson, Bloomington, Fort Wayne, Hammond, Indianapolis, Muncie, and Richmond; Indianapolis Water Co.; Indianapolis Power and Light Co.; Public Service Co. of Indiana; Container Corporation of America; and Sanitary Dis- trict of Chicago.

DEFINITION OF TERMS

Terms related to streamflow, water quality, and other hydrologic data, as used in this report, are defined as follows. See also table for converting inch-pound units to International System of units (SI) on inside of back cover.

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

Bacteria are microscopic unicellular organisms, typically spherical, rod-like, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, 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 which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

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

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

Cubic feet per second per day $(ft^3/s)/day$ is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, or about 646,000 gallons, and represents a runoff of approximately 0.0372 inch from 1 square mile.

Color unit is produced by 1 milligram per liter of platinum in the form of the chloroplatinate 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.

Cubic feet per second per square mile $(ft^3/s)/mi^2$, cfsm is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

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

Discharge is the volume of water (or more broadly, total fluids), that passes a given point within a given period of time.

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

Instantaneous discharge is the discharge at a particular instant of time. If this discharge is reported instead of the daily mean, the heading of the discharge column in the tables is "Discharge (ft^3/s)"

Dissolved.--That material in a representative water sample which passes through a 0.45 mm 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.

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 may include an estimate of that portion of the total drainage area which does not contribute directly to surface runoff.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the 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 gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is computed.

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

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

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

Milligrams per liter (mg/L, MG/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the weight of solute per unit volume of water. Milligrams or micrograms per liter may be converted to milliequivalents (one thousandth of a gram-equivalent weight of a constituent) per liter by multiplying by the factors in table 1, page 8. Concentration of suspended sediment also is expressed in mg/L, and is based on the weight of sediment per liter of water-sediment mixture. Sediment concentrations may be converted to parts per million by using the factors in table 2, page 8.

National Geodetic Vertical Datum of 1929 (NGVD) 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.

Partial-record station is a particular site where limited streamflow 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 suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

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

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

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

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

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

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

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

Runoff in inches (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.

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).

Suspended-sediment discharge (tons per day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight, or by volume, that is discharged in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Total-sediment discharge or total sediment load is the sum of the suspended-sediment discharge and the bedload discharge. It is the total quantity of sediment, as measured by dry weight or volume, that is discharged during a given time.

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

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions with soil and is an index of sodium or alkali hazard to the soil. This ratio should be known especially for water used for irrigating farmland.

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

Specific conductance is a measure of the ability of a water to conduct an electrical current and is expressed in micromhos per centimeter at 25° C. Because the specific conductance is related to the number and specific chemical types of ions in solution, it can be used for approximating the dissolved-solids concentrations in the water. Commonly, the amount of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in

micromhos/cm at 25°C). This relation is not constant from stream to stream or from well to well, and it may even vary in the same source with changes in the composition of the water.

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

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

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

Total (as used in tables of chemical analyses) refers to the amount of a substance that is present both in solution and in suspension. Analyses are performed on representative samples of water-suspended sediment mixtures.

WRD is used as an abbreviation for "Water-Resources Data" in the REVISED RECORD paragraph to refer to previously published State annual basic-data reports.

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 g/mL and a specific gravity of sediment of 2.65.

DOWNSTREAM ORDER AND STATION NUMBER

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

As an added means of identification, each gaging station, partial-record station, and water-quality station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and gaging stations; therefore, the station number for a partial-record station indicates downstream order position in a list made up of both types of stations. Water-quality stations located at or near gaging stations or partial-record stations have the same number as the gaging or partial-record station. Gaps are left in the series of numbers 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." In this report, the records are listed in downstream order by parts. The part number refers to an area whose boundaries coincide with certain natural drainage lines.

Records in this report are in Part 3 (Ohio River basin), Part 4 (St. Lawrence River basin) and Part 5 (Upper Mississippi River basin). All records for 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.

NUMBERING SYSTEM FOR WELLS

Ground-water wells are listed alphabetically by counties in this report. Each well in Indiana carries dual-identification numbers. The first system is by a 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. The second system is based on the latitude and longitude of the well. An additional identification of the well in this system is given following the seconds of longitude. Each well within the boundary of a particular second of latitude and longitude is numbered by tenths of a unit, with the first established well numbered as ".1".

SPECIAL NETWORK

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National stream-quality accounting network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from direct readings on a non-recording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are described in standard textbooks, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6. Surface areas of lakes or reservoirs are determined from instrument surveys using standard methods. The configuration of the reservoir bottom is determined by sounding at many points.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or

weirs), step-back water techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in 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.

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

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity tables gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

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 on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated on the basis of operator's log, adjoining good record, inflow-outflow studies, and other information.

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

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations 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 revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use; the datum of the present gage referred to National Geodetic Vertical Datum, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS' on page 6.

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging station is given under "REMARKS." For reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE", it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. Under "EXTREMES" are given, first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

The daily table for stream-gaging stations gives the 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 may be 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.

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

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record,

backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents.

Data collected at partial-record stations and miscellaneous sites are given in tables at the end of the surface-water records in this report.

Accuracy of data

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

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

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft^3/s; to tenths between 1.0 and 10 ft^3/fs; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures above 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures 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 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 data available

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

Publications

In each water-supply paper entitled, "Surface Water Supply of the United States: there is a list of numbers of preceding water-supply papers containing streamflow information for the area covered by that report. In addition, there is a list of numbers of water-supply papers containing detailed information on major floods in the area. Records for stations in Indiana for the period October 1960 to September 1965 are in Water-Supply Papers 1908, 1909, 1911, 1912, and 1915.

Two series of summary reports entitled, "Compilation of Records of Surface Waters of the United States" have been published; the first series covers the entire period of record through September 1950 and the second series covers the period October 1950 to September 1960. These reports contain summaries of monthly and annual series of water-supply papers. All records were reexamined and revised where warranted. Estimates of discharge were made to fill short gaps whenever practical. The yearly summary table for each gaging station lists the numbers of the water-supply papers in which daily records were published for that station. Records for stations in Indiana are compiled in Water-Supply Paper 1305, 1307, and 1308 through September 1950, and in 1725, 1727, and 1728 for October 1950 to September 1960.

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

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

Surface-water samples for analyses usually are collected at or near gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

Descriptive statements are given for water-quality stations located at or near streamflow stations. Given are location, drainage area, periods of record for the various water-quality data, extremes of pertinent data, and general remarks, within the format for streamflow gaging stations.

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

Prior to the 1968 water year, data for chemical constituents and concentration of suspended sediment were reported in parts per million (ppm) and water temperatures were reported in degrees Fahrenheit (°F). In October 1967 the U.S. Geological Survey began to use the metric system; data for chemical constituents and concentrations of suspended sediment are now reported in milligrams per liter (mg/L), and water temperatures are given in degrees Celsius (centigrade, °C). In waters with a density of 1.000 g/mL (grams per milliliter), parts per million and milligrams per liter can be considered equal. In waters with a density greater than 1.000 g/mL, values in parts per million should be multiplied by the density to convert to milligrams per liter. To convert temperatures in degrees Celsius to degrees Fehrenheit, see table 3 on page 19.

In October 1968 the Geological Survey began reporting many of the chemical constituents as well as the minor elements in micrograms per liter instead of milligrams per liter. (See "Definition of Terms," p. 3).

Water analysis

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

At chemical quality stations where monitors are installed, the records consist of daily maximum, minimum, and mean values for each constituent measured. More detailed records (hourly values) may be obtained from the district office of the U.S. Geological Survey at the address given on the back of the title page of this report.

Water temperature

Water temperatures are measured at most of the water-quality stations. For daily stations, the water temperatures are taken about the same time each day when sample is collected. Large streams have a small diurnal temperature change while small, shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where continuously recording thermographs are present, the records consist of maximum and minimum temperatures for each day and the monthly averages.

Sediment

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

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the sub-divided day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the sub-divided day method. For periods when no samples are collected, daily loads of suspended sediment are estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

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

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

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.4	104
.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

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

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

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

Only ground-water level data from a basic network of observation wells are published herein. These water-level measurements are intended to provide a sampling and historical record of water-level changes in the nation's most important aquifers.

Measurements 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 insure that measurements at each well are of consistent accuracy and reliability.

Water-level measurements in this report are given in feet with reference to either mean sea level (msl) or land-surface datum (lsd). Mean sea level is the datum plane on which the national network of precise levels is based; land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above mean sea level 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. The highest water levels in wells equipped with recording gages are reported for every fifth day and the end of each month. At the bottom of these tables are shown the minimum and maximum recorded water levels for the month and the minimum and maximum recorded water levels for the current water year.

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

SUMMARY OF HYDROLOGIC CONDITIONS

Average annual rainfall across Indiana ranges from 34 inches in the north to 46 inches in the south. An exception is La Porte, where atmospheric circulation and urban-industrial influences produce an average annual rainfall of 48

inches (National Oceanic and Atmospheric Administration, 1941-70). Moisture is available in each month of the year; but the winter months are usually the wettest in southern Indiana, and rain in June provides the greatest monthly precipitation for central and northern sections. Annual runoff is approximately one-third of precipitation.

In the first half of the 1981 water year, streamflow was below normal at all three index stations: Mississinewa River at Marion, Ind.; East Fork White River at Shoals, Ind.; and Wabash River at Mt. Carmel, Ill. Above normal rainfall increased flows to excessive levels at times in the remaining 6 months; however, yearly discharges remained below normal at all three stations. Monthly and annual mean flows as percentages of median flows (1951-80) at Indiana's index stations are shown in the following table.

	Mississinewa R at Marion	E Fk White R at Shoals	Wabash R at Mt Carmel
Drainage area	682 mi^2 (1,766 km^2)	4,927 mi^2 (12,761 km^2)	28,635 mi^2 (74,165 km^2)
October	70	105	94
November	41	52	60
December	21	31	31
January	15	13	19
February	77	47	53
March	20	29	30
April	81	91	52
May	320	180	222
June	683	320	263
July	211	208	185
August	177	179	227
September	281	122	304
Water Year	85	74	85

Storage in 11 selected reservoirs varied in response to rainfall during the year. Elevations at the end of the 1981 water year were at or near normal.

Rainfall was 2 to 4 inches below normal during the first quarter of the 1981 water year. Surface-water elevations and ground-water levels decreased accordingly.

Streamflow diminished greatly in January as precipitation in the State was generally less than half an inch, and large quantities of water went into temporary storage as ice. Many stream-gaging stations recorded the minimum daily flow for the year, and low ground water levels resulted from the absence of

storms moving across the State. Normal precipitation increased streamflow in February. The key factor was ample runoff over frozen ground during the first half of the month. Low flow continued in March, when rainfall was 2 inches below normal. The stations at Shoals and Mt. Carmel recorded their lowest March flows since 1954, and the station at Marion recorded its lowest March flow since 1941 and second lowest March flow on record. Ground-water levels were also quite low; however, no long-term records are available to establish historic value.

The precipitation deficiency across Indiana during the first half of the water year is summarized in figure 1. A 10-inch deficiency is shown for two areas in the southern part of the State.

The first significant precipitation in the northern two-thirds of the State was recorded in April. Some locations reported as much as 11 inches of rainfall, which exceeded the total precipitation received during the previous 6 months. Flooding was widespread in the Kankakee, Iroquois, and Tippecanoe River basins. Ground-water and lake levels increased in response to the influx of moisture.

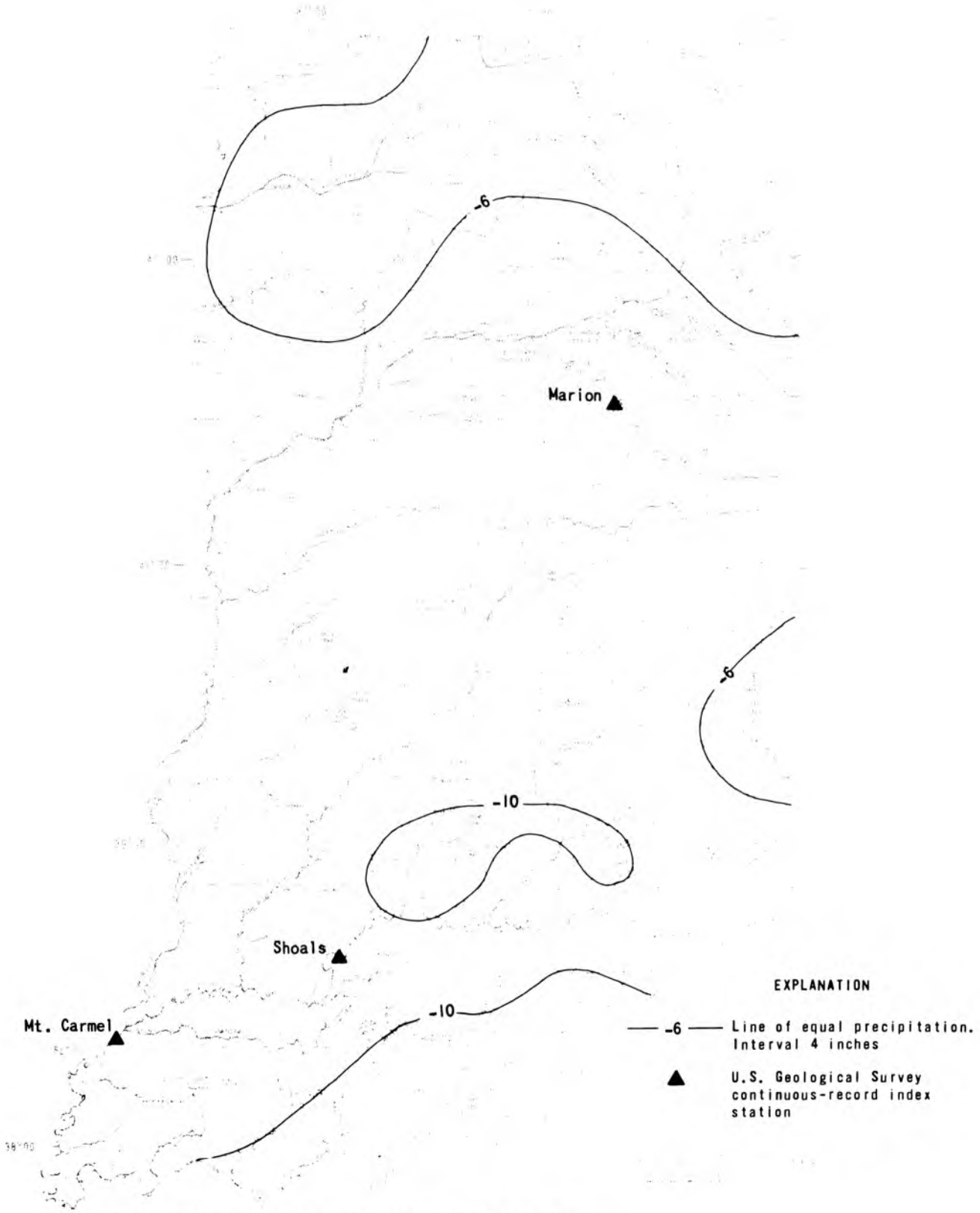
Excessive precipitation continued statewide through May, as central and southwest sections received 4 and 8 inches above normal, respectively. The flow of the Mississinewa River at Marion was highest for May since 1947, and flow of the Wabash River at Mt. Carmel was highest for May since 1961. Heavy thunderstorms moving across the northern one-third of the State during the second week of June produced the worst flooding in northwestern Indiana since 1954. Recurrence intervals of these floods were estimated to be 25 years. Isolated heavy thunderstorms in southeastern Indiana produced local flooding at Brush Creek near Nebraska that exceeded the 100-year recurrence interval. Precipitation totals for the third quarter were 8 inches above normal in the northern one-third of the State, 5 inches above normal in central and southwestern sections, and near normal in south-central and southeastern sections.

Rainfall was near normal for the last quarter of the water year except for isolated heavy thunderstorms that produced local flooding each month. Rainfall in the Rockville area was 7 inches above normal in July and at Lafayette was 9 inches above normal in August.

The excessive precipitation across much of Indiana in the last half of the water year is illustrated in figure 2. Heavy rainfall was recorded in the northeast and west-central parts of the State. Precipitation was below normal in only the extreme southeast part.

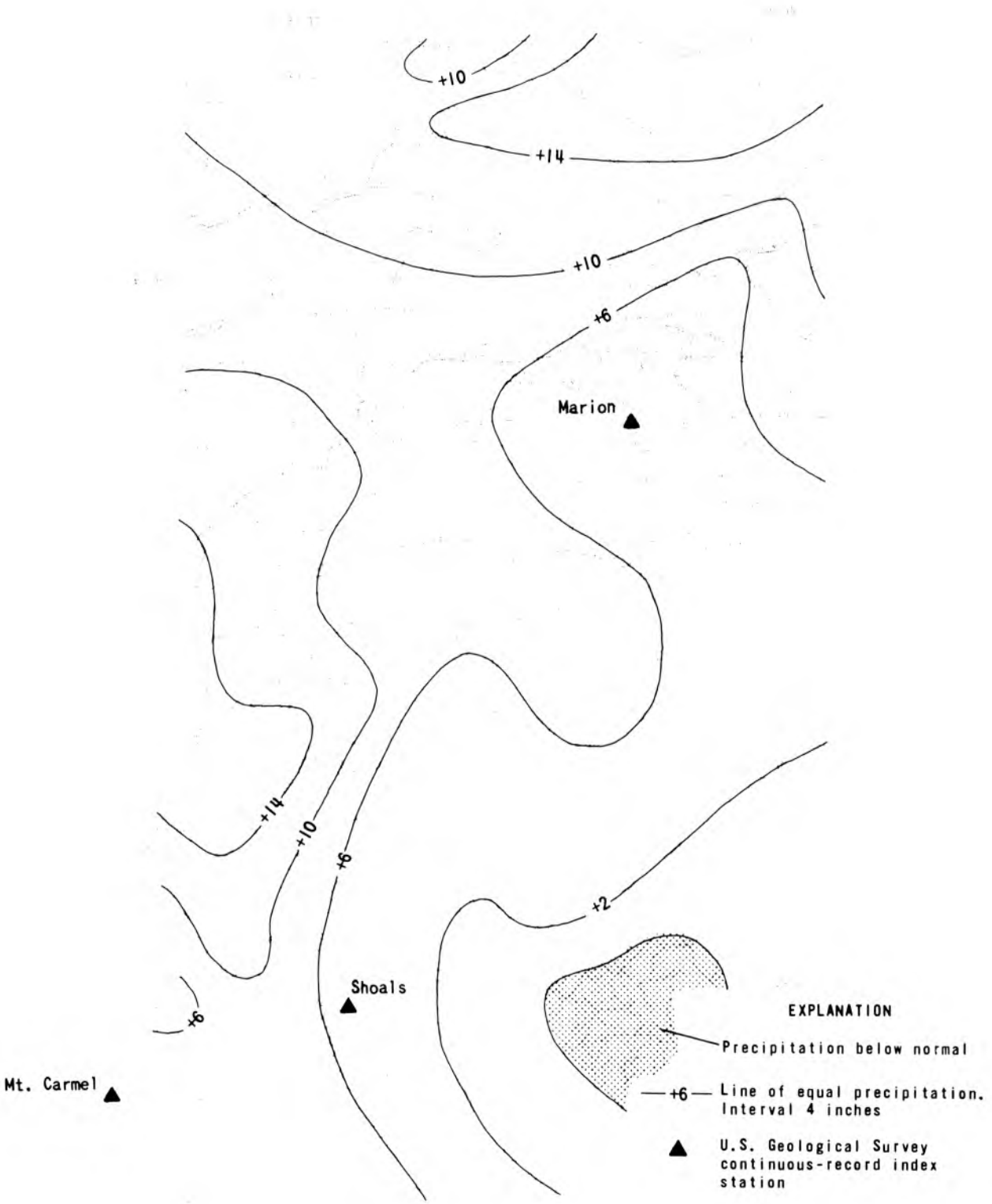
Precipitation departure from normal for the entire water year is shown in figure 3. Rainfall was excessive in the northeastern and west-central parts of the State but was deficient in the southeast.

A 26-percent deficiency in annual flow for the East Fork White River at Shoals, Ind., correlates with the below-normal precipitation recorded in southern Indiana. Flows of the Mississinewa River at Marion, Ind., and Wabash River



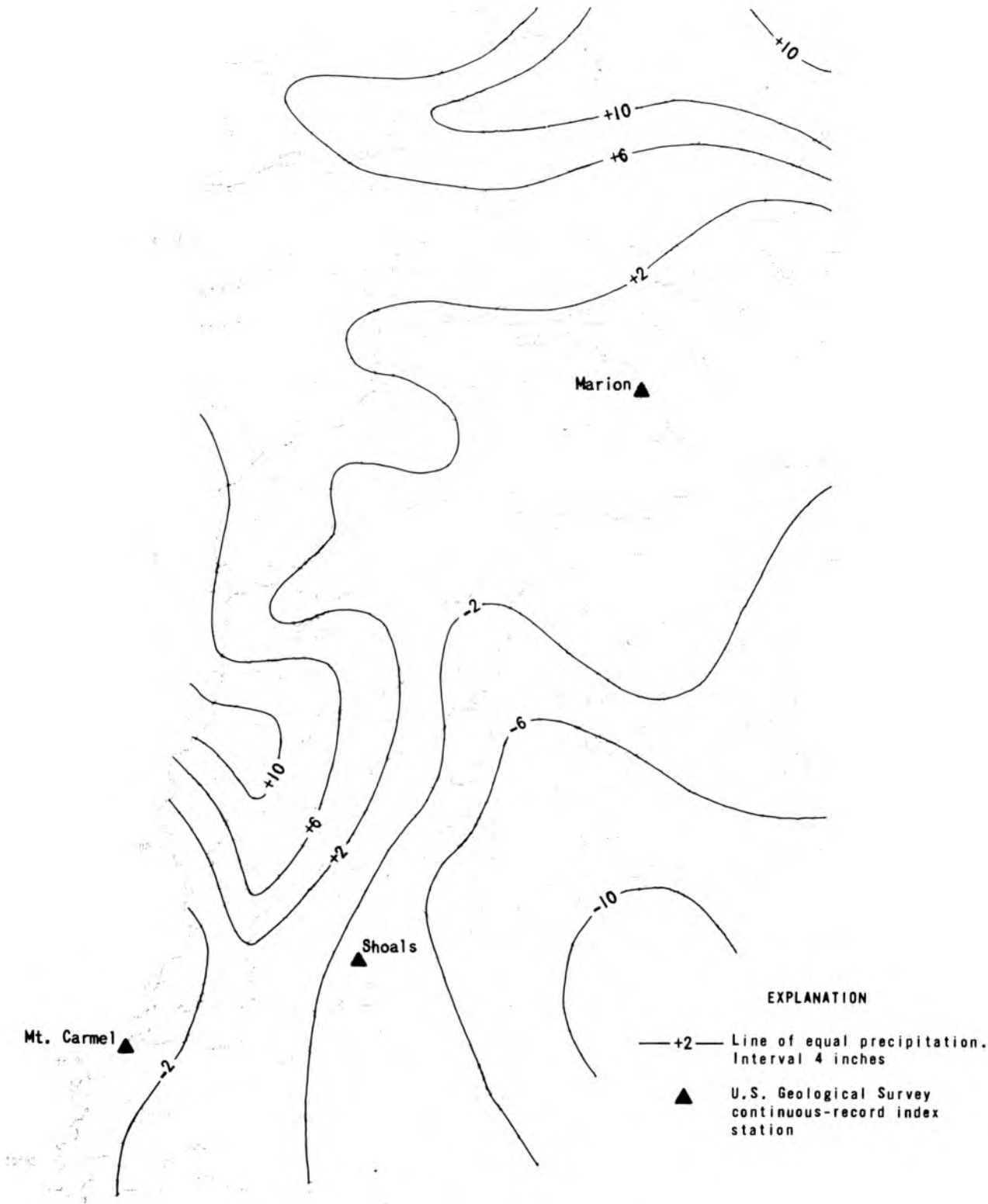
Data from National Oceanic and Atmospheric Administration, 1980-81, Climatological Data, Indiana: Asheville, N.C., National Climatic Center, v.85, nos.10-12, and v.86, nos.1-3.

Figure 1.-- Precipitation departure from normal in Indiana, October 1980 to March 1981.



Data from National Oceanic and Atmospheric Administration, 1980-81, Climatological Data, Indiana: Asheville, N.C., National Climatic Center, v.86, nos.4-9.

Figure 2.-- Precipitation departure from normal in Indiana, April to September 1981.



Data from National Oceanic and Atmospheric Administration, 1980-81, Climatological Data, Indiana: Asheville, N.C., National Climatic Center, v.85, nos.10-12, and v.86, nos.1-9.

Figure 3.--Precipitation departure from normal in Indiana, October 1980 to September 1981.

at Mt. Carmel, Ill., were 15 percent below the median. The excessive precipitation in northern and west-central Indiana in the last half of the water year helped offset the deficiencies experienced during the first half of the year and increased the annual mean flow to near normal values at these two stations.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-one manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing 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) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 604 South Picket Street, Alexandria, VA 22303 (authorized agent of the Superintendent of Documents, Government Printing Office).

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

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

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

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

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

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

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

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

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

3-A6. General procedure for gaging streams, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.

3-A7. Stage measurements at gaging stations, by T. J. Buchanan and W. P. Somers: USGS-TWRI Book 3, Chapter A7. 1968. 28 pages.

3-A8. Discharge measurements at gaging stations, by T. J. Buchanan and W. P. Somers: USGS-TWRI Book 3, Chapter A8. 1969. 65 pages.

3-A11. Measurement of discharge by moving-boat method, by G. F. Smoot and C. E. Novak: USGS-TWRI Book 3, Chapter A11. 1969. 22 pages.

3-A12. Fluorometric procedures for dye tracing, by J. F. Wilson, Jr.: USGS-TWRI Book 3, Chapter A12. 1968. 31 pages. Not currently available.

3-B1. Aquifer-test design, observation, and data analysis, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.

3-B2. Introduction to ground-water hydraulics-a programed text for self-instruction, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.

3-C1. Fluvial sediment concepts, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

3-C2. Field methods for measurement of fluvial sediment, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.

3-C3. Computation of fluvial-sediment discharge, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.

4-A1. Some statistical tools in hydrology, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.

4-A2. Frequency curves, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.

4-B1. Low-flow investigations, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.

4-B2. Storage analyses for water supply, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.

4-B3. Regional analyses of streamflow characteristics, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.

4-D1. Computation of rate and volume of stream depletion by wells, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.

5-A1. Methods for collection and analysis of water samples for dissolved minerals and gases, by Eugene Brown, M. W. Skougstad, and M. J. Fishman: USGS--TWRI Book 5, Chapter A1. 1970. 160 pages.

5-A2. Determination of minor elements in water by emission spectroscopy, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.

5-A3. Methods for analysis or organic substances in water, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.

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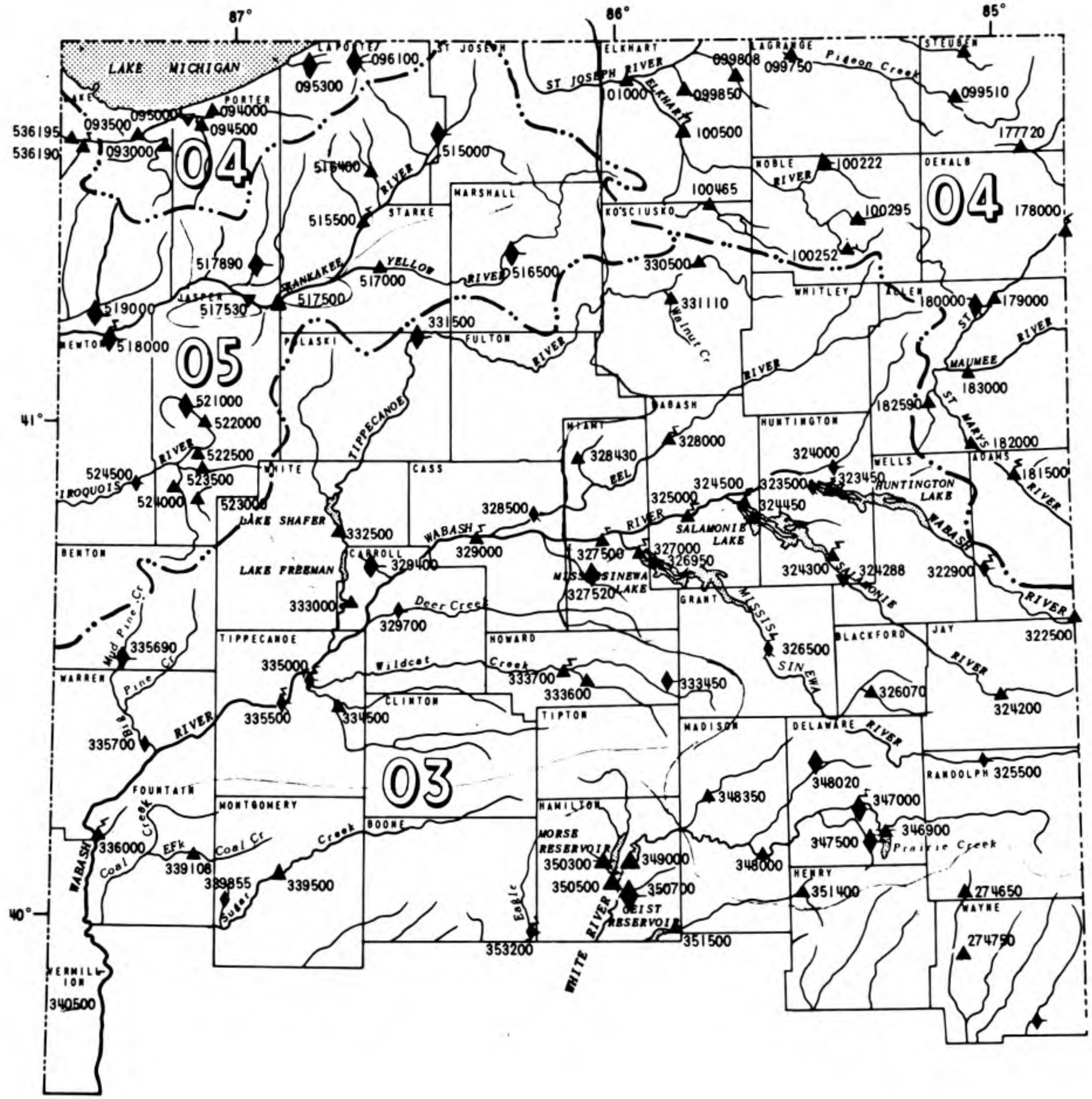
87°
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LAKE MICHIGAN
04
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PORTER
LAKE
NOBLE
DEKALB
MARSHALL
STARKE
KOSCIUSKO
WHITLEY
ALLEN
JASPER
NEWTON
PULASKI
FULTON
WABASH
HUNTINGTON
WELLS
ADAMS
MIAMI
CASS
WHITE
BENTON
CARROLL
GRANT
BLACKFORD
JAY
HOWARD
TIPPECANOE
WARREN
CLINTON
TIPTON
MADISON
DELAWARE
RANDOLPH
FOUNTAIN
MONTGOMERY
BOONE
HAMILTON
HENRY
WAYNE
VERMILLION
ST JOSEPH RIVER
ELKHART
Pigeon Creek
KANKAKEE
YELLOW RIVER
TIPPECANOE
RIVER
IROQUOIS
LAKE SHAFER
LAKE FREEMAN
WABASH
EEL
SALAMONIE LAKE
HUNTINGTON LAKE
MISSISSINEWA LAKE
MAUMEE
ST MARYS
Walnut Cr
Deer Creek
Wildcat Creek
Mud Pine Cr
Pine Cr
Big
Coal Cr
Coal Creek
EFk
Sugar Creek
Eagle
MORSE RESERVOIR
GEIST RESERVOIR
WHITE RIVER
Prairie Creek
536195
536190
093500
093000
095000
094000
094500
095300
096100
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516400
515500
517890
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517500
517530
519000
518000
516500
331500
330500
331110
101000
099850
099808
099750
100500
100465
100222
100295
100252
099510
177720
178000
180000
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335690
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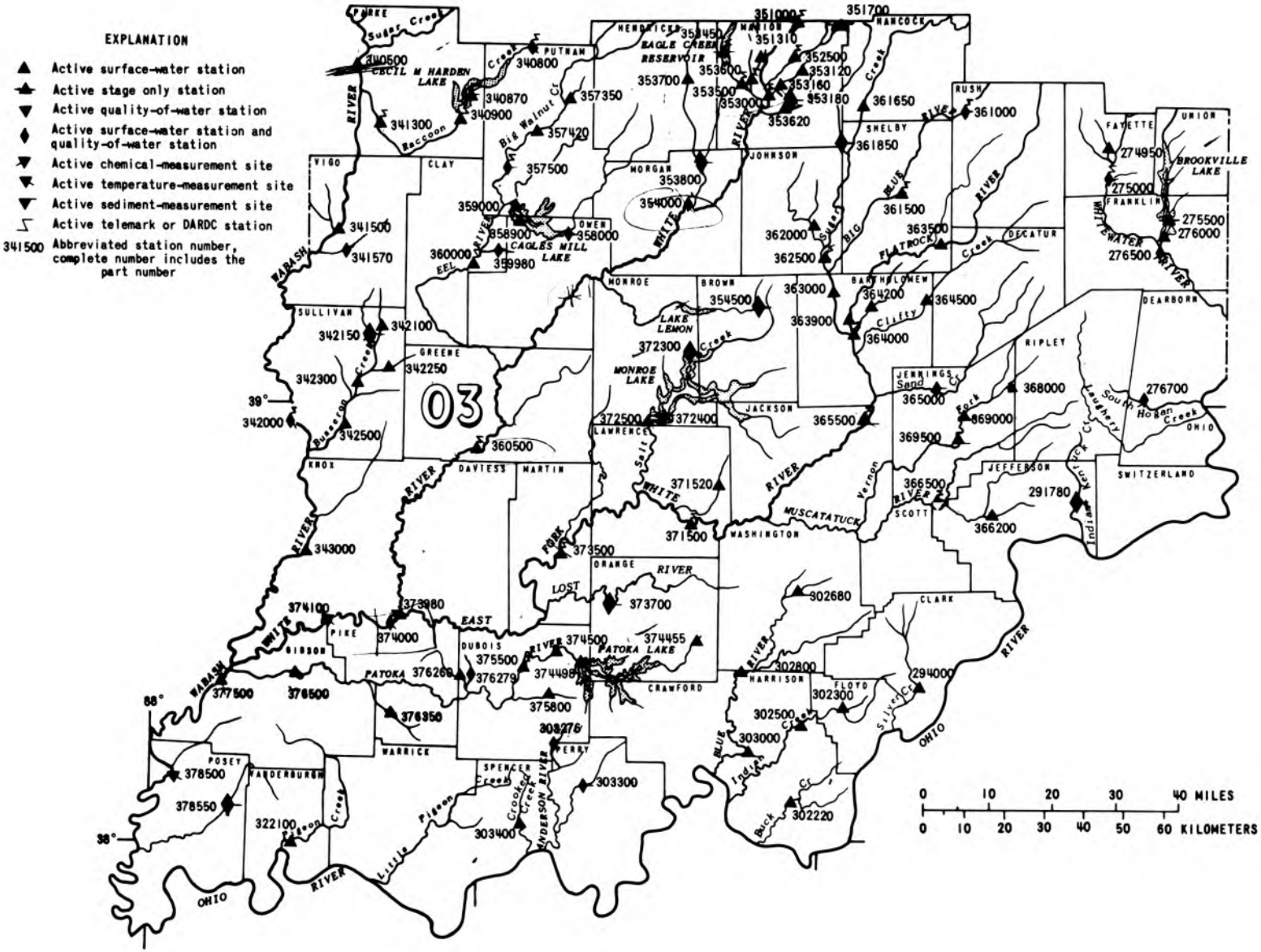


Figure 4.-- Location of stream-flow and water-quality gaging stations in Indiana

03274650 WHITEWATER RIVER NEAR ECONOMY, IN

LOCATION.--Lat 40°00'05", long 85°06'56", in NW¼NE¼ sec.19, T.18 N., R.13 E., Wayne County, Hydrologic Unit 05080003, on right bank 6 ft (1.8 m) downstream from bridge on Wayne County Line Road, 1.7 miles (2.7 km) upstream from Little Creek, 2.4 miles (3.9 km) northwest of Economy, and at mile 91.9 (147.9 km).

DRAINAGE AREA.--10.4 mi^2 (26.9 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 1,066.00 ft (324.917 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--11 years, 11.2 ft^3/s (0.317 m^3/s), 14.62 in/yr (371 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,100 ft^3/s (31.2 m^3/s) Aug. 20, 1979, gage height, 8.85 ft (2.697 m); minimum daily discharge, 0.28 ft^3/s (0.008 m^3/s) Jan. 17, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 200 ft^3/s (5.66 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 11	0100	337	9.54	5.94	1.811
June 5	2400	*383	10.8	*6.18	1.884

Minimum daily discharge, 0.54 ft^3/s (0.015 m^3/s) Jan. 12.

NOTE.--No gage-height record Nov. 8 to Dec. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.80	.79	.88	.93	2.1	5.8	1.2	48	15	14	5.8	3.1
2	.80	.75	.88	.86	2.5	5.3	1.1	26	10	5.8	5.3	3.3
3	.80	.72	.86	.86	1.5	4.3	1.4	14	8.9	4.5	5.3	4.8
4	.64	.80	.81	.80	1.0	4.3	2.6	10	7.8	10	5.0	4.5
5	.64	.80	.81	.71	.90	5.0	2.8	9.1	30	8.3	7.5	3.6
6	.57	.86	.81	.71	.80	5.8	1.9	27	168	5.8	7.5	3.1
7	.64	.80	.86	.64	.74	4.5	1.6	15	44	4.0	5.0	2.9
8	.80	.80	.86	.64	.70	3.6	1.6	10	28	3.6	4.5	2.9
9	.71	.80	1.0	.60	.64	3.3	1.8	8.9	18	3.4	4.3	2.8
10	.71	.80	2.4	.60	33	3.3	1.8	8.6	12	3.3	4.0	2.6
11	.71	.78	2.1	.58	87	2.9	4.0	11	8.6	3.3	4.0	2.6
12	.71	.72	1.9	.54	25	2.6	16	13	7.5	3.1	3.8	2.6
13	.71	.76	1.8	.64	12	2.5	12	9.7	10	2.9	3.4	2.6
14	.71	.76	1.6	.71	7.2	2.2	11	52	10	4.0	3.4	2.6
15	.71	.76	1.6	.72	19	1.9	5.8	57	7.2	3.1	3.4	2.6
16	.71	.72	1.6	.72	58	1.8	3.6	30	6.0	3.1	3.4	2.6
17	.71	.78	1.4	.65	29	1.7	3.3	17	5.3	2.9	3.3	2.6
18	.86	.80	1.3	.76	18	1.6	2.6	38	4.8	2.8	3.1	2.5
19	.86	.74	1.2	.80	17	1.4	2.1	35	4.5	36	3.1	2.5
20	.64	.74	1.1	.80	14	1.3	1.9	17	4.5	53	3.1	2.6
21	.64	.74	1.0	.92	11	1.3	1.5	10	4.3	45	2.9	2.5
22	.57	.71	1.0	.92	10	1.5	1.7	8.9	5.0	15	2.9	2.5
23	.64	.74	1.0	.95	14	1.4	7.5	7.8	4.0	9.4	2.9	2.5
24	1.0	.74	1.0	1.0	11	1.4	4.3	7.2	3.8	7.5	2.9	2.3
25	1.1	.74	.93	1.1	9.4	1.3	2.8	23	5.5	6.0	2.8	2.1
26	.93	.71	.93	1.2	8.1	1.3	2.2	12	3.8	7.8	2.6	2.1
27	.93	.95	.93	1.4	7.2	1.3	1.9	99	3.6	42	2.8	2.2
28	1.1	.93	.93	1.3	6.9	1.1	1.9	61	3.4	28	2.9	2.2
29	.93	.93	.93	1.1	------	1.2	33	33	3.4	13	2.8	2.3
30	.86	.88	.93	1.1	------	1.7	19	33	3.8	8.6	4.5	2.3
31	.80	-----	.93	1.0	------	1.4	-----	28	-----	6.9	3.6	----
TOTAL	23.94	23.55	36.28	26.26	407.68	80.0	155.9	779.2	450.7	366.1	121.8	82.4
MEAN	.77	.79	1.17	.85	14.6	2.58	5.20	25.1	15.0	11.8	3.93	2.75
MAX	1.1	.95	2.4	1.4	87	5.8	33	99	168	53	7.5	4.8
MIN	.57	.71	.81	.54	.64	1.1	1.1	7.2	3.4	2.8	2.6	2.1
CFSM	.07	.08	.11	.08	1.40	.25	.50	2.41	1.44	1.14	.38	.26
IN.	.09	.08	.13	.09	1.46	.29	.56	2.79	1.61	1.31	.44	.29

CAL YR 1980 TOTAL 3291.46 MEAN 8.99 MAX 185 MIN .57 CFSM .86 IN 11.77
WTR YR 1981 TOTAL 2553.81 MEAN 7.00 MAX 168 MIN .54 CFSM .67 IN 9.13

03274750 WHITEWATER RIVER NEAR HAGERSTOWN, IN

LOCATION.--Lat 39°52'25", long 85°09'47", in NE¼NE¼ sec.3, T.16 N., R.12 E., Wayne County, Hydrologic Unit 05080003, on left bank at downstream side of bridge on Jerry Meyers Road, 1.0 mile (1.6 km) upstream from Pronghorn Run, 1.5 miles (2.4 km) north of Interstate 70, 2.0 miles (3.2 km) downstream from Nettle Creek, 2.6 miles (4.2 km) south of Hagerstown, and at mile 84.9 (136.6 km).

DRAINAGE AREA.--58.7 mi² (152.0 km²).

91.9 RM
84.9 RM
7.0
LENGTH SHOULD BE IF MORE THAN ECONOMY

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 950.00 ft (289.560 m) National Geodetic Vertical Datum of 1929 (Indiana Flood Control and Water Resources Commission bench mark).

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

AVERAGE DISCHARGE.--11 years, 69.9 ft³/s (1.980 m³/s), 16.17 in/yr (411 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,300 ft³/s (65.1 m³/s) Jan. 26, 1976, gage height, 10.89 ft (3.319 m); maximum gage height, 11.24 ft (3.426 m) Aug. 1, 1979; minimum daily, 5.3 ft³/s (0.15 m³/s) Aug. 5, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1200 ft³/s (34.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 11	1100	ice jam		*11.08	3.377
May 27	1500	*1280	36.2	8.44	2.572

Minimum daily discharge, 9.0 ft³/s (0.25 m³/s) Jan. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	17	20	14	25	35	18	136	95	45	37	29
2	20	17	20	14	27	33	18	83	80	37	34	26
3	19	17	19	13	16	30	21	62	71	39	34	50
4	18	18	18	11	14	31	26	53	64	49	35	34
5	18	17	18	10	13	39	27	53	66	59	41	28
6	18	17	18	11	12	41	25	111	289	42	53	25
7	19	17	19	11	12	36	23	74	102	35	36	24
8	19	16	19	10	12	31	23	58	75	32	33	25
9	18	16	24	10	11	30	23	52	65	31	30	23
10	18	16	27	10	118	30	23	51	57	30	29	23
11	17	16	24	9.5	700	29	31	67	52	27	29	21
12	17	15	22	9.0	95	27	112	73	51	26	27	21
13	18	16	22	9.5	48	26	73	56	62	27	26	20
14	18	16	21	10	48	24	66	285	58	27	26	20
15	18	16	21	11	100	23	51	240	48	26	26	21
16	18	15	20	11	383	24	44	117	45	25	24	20
17	21	17	19	10	120	23	50	81	42	25	24	19
18	21	17	18	9.4	81	22	43	193	39	24	23	19
19	19	16	18	10	74	22	37	151	38	127	23	19
20	19	16	15	10	66	22	38	86	36	131	22	19
21	18	16	14	11	55	21	33	68	36	183	22	19
22	18	15	15	11	52	20	37	60	39	62	21	19
23	18	16	15	11	62	20	104	54	35	48	20	19
24	20	16	15	12	57	20	65	60	33	42	20	18
25	22	16	13	13	51	19	51	170	47	37	20	17
26	19	15	12	17	45	19	44	82	35	45	20	16
27	19	23	14	17	40	20	40	700	32	114	21	16
28	24	23	13	15	38	18	37	297	30	119	21	16
29	20	22	14	15	----	18	171	140	30	58	20	16
30	19	20	14	14	----	22	77	163	29	47	35	16
31	18	----	14	13	----	20	----	147	----	41	31	----
TOTAL	586	510	555	362.4	2375	795	1431	4023	1781	1660	863	658
MEAN	18.9	17.0	17.9	11.7	84.8	25.6	47.7	130	59.4	53.5	27.8	21.9
MAX	24	23	27	17	700	41	171	700	289	183	53	50
MIN	17	15	12	9.0	11	18	18	51	29	24	20	16
CFSM	.32	.29	.31	.20	1.45	.44	.81	2.22	1.01	.91	.47	.37
IN.	.37	.32	.35	.23	1.51	.50	.91	2.55	1.13	1.05	.55	.42

CAL YR 1980 TOTAL 22210.0 MEAN 60.7 MAX 827 MIN 12 CFSM 1.03 IN 14.07
WTR YR 1981 TOTAL 15599.4 MEAN 42.7 MAX 700 MIN 9.0 CFSM .73 IN 9.89

03274750 WHITEWATER RIVER NEAR HAGERSTOWN, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 04...	0810	18	10	.49

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 mile (2 km) west of Connersville, and 2.6 miles (4.2 km) upstream from mouth.

DRAINAGE AREA.--9.16 mi^2 (23.72 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 842.00 ft (256.642 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--13 years, 10.4 ft^3/s (0.295 m^3/s), 15.42 in/yr (392 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,560 ft^3/s (101 m^3/s) June 22, 1974, gage height, 10.13 ft (3.088 m); minimum daily, 0.35 ft^3/s (0.010 m^3/s) Aug. 6, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 300 ft^3/s (8.50 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 11	2100	392	11.1	4.88	1.487	May 18	1200	516	14.6	5.27	1.606
Apr. 23	0200	433	12.3	5.01	1.527	May 24	2100	643	18.2	5.63	1.716
Apr. 30	2000	353	10.0	4.75	1.448	May 30	1100	*988	28.0	*6.44	1.963

Minimum daily discharge, 0.74 ft^3/s (0.021 m^3/s) Sep. 24-29.

NOTE.--No gage-height record Oct. 1 to Nov. 3, Aug. 18 to Sept. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	1.5	1.8	1.3	6.2	9.6	3.3	34	44	3.2	4.0	1.8
2	1.6	1.5	2.0	1.3	5.1	8.8	3.3	18	37	3.1	3.5	1.6
3	1.5	1.5	1.9	1.3	1.8	7.7	3.3	14	32	3.3	3.4	2.1
4	1.4	1.5	1.7	1.2	1.5	8.4	4.8	13	26	5.3	3.5	3.0
5	1.4	1.5	1.7	1.1	1.4	19	4.8	13	22	9.5	7.0	2.2
6	1.4	1.5	1.7	1.2	1.3	16	3.6	18	20	4.0	15	1.7
7	1.4	1.4	1.7	1.2	1.3	11	3.5	13	16	3.3	2.4	1.5
8	1.4	1.4	1.7	1.2	1.2	10	3.3	12	15	3.0	2.0	1.7
9	1.3	1.4	2.7	1.1	1.2	9.2	3.3	12	14	2.8	1.9	1.6
10	1.3	1.4	2.8	1.2	35	8.3	4.5	13	14	2.5	1.8	1.5
11	1.3	1.4	2.2	1.2	70	7.5	82	13	12	2.5	1.6	1.4
12	1.2	1.4	2.0	1.0	30	6.7	54	12	14	2.7	1.6	1.4
13	1.3	1.4	1.9	1.1	20	6.7	21	11	12	2.7	1.9	1.3
14	1.3	1.4	1.8	1.2	13	6.0	15	43	10	2.5	1.9	1.3
15	1.3	1.4	1.8	1.3	10	6.0	12	29	8.8	2.8	1.3	1.3
16	1.4	1.4	1.8	1.4	50	5.7	11	20	8.2	2.8	1.1	1.2
17	2.6	1.6	1.7	1.4	30	5.4	11	16	7.6	2.5	1.2	1.1
18	2.5	1.8	1.7	1.5	23	4.8	12	112	6.7	2.4	1.2	1.1
19	1.9	1.6	1.7	1.6	22	4.8	11	36	6.2	2.5	1.2	1.0
20	1.7	1.5	1.4	1.7	25	4.5	13	21	5.8	3.1	1.2	1.0
21	1.6	1.6	1.4	1.8	20	4.0	10	16	5.3	16	1.1	1.0
22	1.5	1.7	1.4	1.9	19	4.0	13	13	4.9	8.0	1.1	.91
23	1.4	1.7	1.4	1.8	22	3.8	104	12	4.3	6.4	1.1	.83
24	1.7	1.8	1.4	1.8	16	3.6	20	74	3.9	5.0	1.0	.74
25	2.1	1.8	1.3	2.0	13	3.5	15	56	3.9	3.9	1.0	.74
26	1.8	1.7	1.3	2.2	12	3.5	13	24	3.5	3.8	1.0	.74
27	1.7	3.4	1.3	1.6	10	3.8	12	70	3.3	7.0	1.1	.74
28	2.2	3.3	1.2	1.4	10	3.3	11	30	3.2	14	1.1	.74
29	1.9	2.4	1.3	1.2	-----	3.5	28	20	3.1	6.0	1.0	.74
30	1.7	2.1	1.3	1.4	-----	6.0	56	224	3.0	5.1	1.5	.89
31	1.6	----	1.3	1.2	-----	3.8	-----	62	-----	4.5	2.0	-----
TOTAL	49.8	51.0	52.3	43.8	471.0	208.9	561.7	1074	369.7	146.2	71.7	38.87
MEAN	1.61	1.70	1.69	1.41	16.8	6.74	18.7	34.6	12.3	4.72	2.31	1.30
MAX	2.6	3.4	2.8	2.2	70	19	104	224	44	16	15	3.0
MIN	1.2	1.4	1.2	1.0	1.2	3.3	3.3	11	3.0	2.4	1.0	.74
CFSM	.18	.19	.18	.15	1.83	.74	2.04	3.78	1.34	.52	.25	.14
IN.	.20	.21	.21	.18	1.91	.85	2.28	4.36	1.50	.59	.29	.16

CAL YR 1980 TOTAL 4158.50 MEAN 11.4 MAX 499 MIN 1.2 CFSM 1.25 IN 16.89
WTR YR 1981 TOTAL 3138.97 MEAN 8.60 MAX 224 MIN .74 CFSM .94 IN 12.75

GREAT MIAMI RIVER BASIN

03275000 WHITEWATER RIVER NEAR ALPINE, IN

LOCATION.--Lat 39°34'23", long 85°09'27", in SW¼SE¼ sec.14, T.13 N., R.12 E., Fayette County, Hydrologic Unit 05080003, on right bank 500 ft (152 m) downstream from highway bridge, 0.4 mile (0.6 km) downstream from Wilson Creek, 1.6 miles (2.6 km) northeast of Alpine, 4.6 miles (7.4 km) upstream from Bear Creek, and at mile 54.3 (87.4 km).

DRAINAGE AREA.--529 mi^2 (1,370 km^2).

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. WRD IN-79-1: 1975 (P).

GAGE.--Water-stage recorder. Datum of gage is 750.19 ft (228.658 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 9, 1928, nonrecording gage at same site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--53 years, 550 ft^3/s (15.58 m^3/s), 14.12 in/yr (359 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,100 ft^3/s (1,050 m^3/s) Jan. 14, 1937, gage height, 16.61 ft (5.063 m); minimum daily, 6.0 ft^3/s (0.17 m^3/s) Sept. 8, 9, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 6,500 ft^3/s (184 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 30	1900	*5730	162	*10.59	3.228

Minimum daily discharge, 110 ft^3/s (3.12 m^3/s) Jan. 12.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DISCHARGE: July 1968 to September 1976 (partial-record station).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	174	180	134	186	373	232	1280	1460	508	301	220
2	194	168	179	131	270	347	215	1100	1140	503	274	242
3	195	168	174	127	234	321	211	799	920	446	256	274
4	192	170	168	117	210	312	246	637	791	508	248	316
5	189	170	167	114	180	444	280	555	704	1090	332	244
6	191	168	164	120	162	522	281	786	1770	729	942	212
7	191	166	161	121	154	446	257	849	1540	489	636	196
8	190	166	166	113	148	389	242	643	920	381	572	195
9	186	164	182	115	138	356	235	544	729	333	434	183
10	191	166	207	115	412	338	237	510	624	305	353	174
11	194	162	212	115	3250	326	582	586	546	282	313	167
12	187	163	200	110	951	311	1840	723	684	256	286	159
13	189	159	189	120	576	298	1240	624	541	241	269	161
14	187	160	178	127	421	280	850	1060	575	245	255	174
15	186	158	173	127	419	265	617	3210	503	267	247	161
16	185	157	172	125	1360	265	504	1850	436	241	235	153
17	197	163	167	122	1990	253	487	1150	403	231	227	154
18	214	170	164	115	979	244	680	2100	372	218	216	151
19	197	164	160	125	855	235	485	2190	350	214	206	144
20	190	157	148	125	865	229	481	1290	337	770	199	137
21	188	156	140	122	677	224	422	914	329	976	193	134
22	182	153	140	115	566	218	415	733	333	648	184	131
23	179	152	140	122	672	214	2200	620	313	426	177	128
24	186	159	140	120	702	210	1160	740	289	342	181	125
25	198	158	137	122	583	204	783	1940	337	297	176	124
26	190	151	136	140	496	202	604	1180	412	282	172	121
27	187	193	129	154	435	212	518	2210	313	372	168	117
28	196	217	136	156	401	205	460	3130	278	920	182	117
29	195	199	137	146	-----	200	979	1580	263	675	171	121
30	183	185	135	135	-----	285	1120	3410	252	450	208	126
31	179	----	135	125	-----	257	-----	2330	-----	350	237	----
TOTAL	5898	5016	5016	3875	18292	8985	18863	41273	18464	13995	8850	5061
MEAN	190	167	162	125	653	290	629	1331	615	451	285	169
MAX	214	217	212	156	3250	522	2200	3410	1770	1090	942	316
MIN	179	151	129	110	138	200	211	510	252	214	168	117
CFSM	.36	.32	.31	.24	1.23	.55	1.19	2.52	1.16	.85	.54	.32
IN.	.41	.35	.35	.27	1.29	.63	1.33	2.90	1.30	.98	.62	.36

CAL YR 1980 TOTAL 234318 MEAN 640 MAX 6050 MIN 129 CFSM 1.21 IN 16.48
WTR YR 1981 TOTAL 153588 MEAN 421 MAX 3410 MIN 110 CFSM .80 IN 10.80

03275600 EAST FORK WHITEWATER RIVER AT ABINGTON, IN

LOCATION.--Lat 39°43'57", long 84°57'35", in NE¼SW¼ sec.2, T.12 N., R.2 W., Wayne County, Hydrologic Unit 05080003, at downstream side of center pier of bridge on county road at Abington, 3 miles (5 km) downstream from Elkhorn Creek, 8 miles (13 km) southwest of Richmond, and at mile 26.7 (43.0 km).

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

WATER-DISCHARGE RECORDS

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 (241.097 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--16 years, 234 ft^3/s (6.627 m^3/s), 15.89 in/yr (404 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,400 ft^3/s (379 m^3/s) July 20, 1969, gage height, 16.18 ft (4.932 m); minimum daily, 16 ft^3/s (0.45 m^3/s) July 24, 27, 28, Aug. 4-6, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 3,000 ft^3/s (85.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 30	1800	*3200	90.6	*9.49	2.893

Minimum daily discharge, 30 ft^3/s (0.85 m^3/s) Jan. 12.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL ANALYSES: October 1969 to September 1976.
WATER TEMPERATURE: August 1970 to September 1971, March 1973 to September 1976.
SEDIMENT DISCHARGE: April 1967 to September 1977.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	43	57	38	110	150	132	536	536	466	78	80
2	44	41	64	38	138	136	107	429	396	215	72	76
3	41	41	58	36	69	122	100	291	319	189	68	193
4	40	44	54	32	58	128	143	235	278	229	68	117
5	38	42	56	31	54	253	150	225	312	392	142	82
6	38	42	53	34	51	260	126	369	1180	253	295	66
7	38	41	53	35	49	204	109	330	550	182	354	59
8	38	41	57	34	47	169	100	241	348	150	269	73
9	37	41	106	32	44	153	95	205	281	130	147	56
10	37	41	106	31	301	148	93	208	250	175	106	51
11	36	40	87	32	1290	142	345	302	216	130	88	48
12	34	41	76	30	255	129	1080	415	214	109	76	45
13	35	41	65	31	186	121	569	291	208	106	68	43
14	36	41	57	34	130	108	376	572	204	172	63	43
15	36	41	60	36	129	101	256	1070	179	130	63	45
16	37	40	60	34	627	104	209	600	163	109	59	45
17	79	43	55	33	615	93	269	396	153	96	55	46
18	73	50	55	33	382	89	282	691	142	86	49	43
19	47	46	52	35	410	85	212	739	137	350	43	40
20	43	43	42	38	478	83	215	446	132	760	41	37
21	41	43	40	40	313	78	171	318	136	600	39	37
22	40	42	39	40	280	74	186	260	145	243	37	37
23	38	42	40	37	469	72	632	223	121	148	35	37
24	44	46	41	39	375	69	441	199	111	115	32	36
25	74	45	37	40	287	70	287	228	194	96	32	37
26	48	42	38	51	226	68	226	244	161	116	33	35
27	44	105	37	52	186	80	197	706	122	254	32	34
28	70	92	36	47	171	70	173	654	106	292	70	34
29	53	73	37	42	----	69	548	426	103	183	46	37
30	48	61	39	39	----	294	402	1520	98	122	188	40
31	45	----	38	35	----	178	----	1030	----	94	105	----
TOTAL	1391	1434	1695	1139	7730	3900	8231	14399	7495	6692	2853	1652
MEAN	44.9	47.8	54.7	36.7	276	126	274	464	250	216	92.0	55.1
MAX	79	105	106	52	1290	294	1080	1520	1180	760	354	193
MIN	34	40	36	30	44	68	93	199	98	86	32	34
CFSM	.23	.24	.27	.18	1.38	.63	1.37	2.32	1.25	1.08	.46	.28
IN.	.26	.27	.32	.21	1.44	.73	1.53	2.68	1.39	1.24	.53	.31

CAL YR 1980 TOTAL 85208 MEAN 233 MAX 2930 MIN 34 CFSM 1.17 IN 15.85
WTR YR 1981 TOTAL 58611 MEAN 161 MAX 1520 MIN 30 CFSM .81 IN 10.90

03275990 BROOKVILLE LAKE AT BROOKVILLE, IN

LOCATION.--Lat 39°26'27", long 85°00'10', in NE¼SE¼ sec.17, T.9 N., R.2 W., Franklin County, Hydrologic Unit 05080003, in discharge tower of reservoir on East Fork Whitewater River, 1.4 miles (2.3 km) northeast of Brookville, and 2.2 miles (3.5 km) above mouth.

DRAINAGE AREA.--379 mi² (982 km²).

PERIOD OF RECORD.--January 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 700.00 ft (213.360 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earth and rock-fill dam. Releases normally controlled by two gates, 5.25 ft (1.60 m) wide and 12 ft (3.66 m) high, in circular conduit through dam. Minimum design capacity is 55,600 acre-ft (68.6 hm³), elevation, 713 ft (217.3 m). Seasonal pool capacity is 184,000 acre-ft (227 hm³), elevation, 748 ft (228.0 m). Capacity at uncontrolled spillway is 359,600 acre-ft (443 hm³), elevation, 775 ft (236.2 m). Reservoir is used for flood control and recreation. Reservoir was put in operation on January 22, 1974.

COOPERATION.--Water-stage recorder graph and capacity tables furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 218,110 acre-ft (269 hm³) Aug. 3, 1979, elevation, 754.15 ft (229.865 m); minimum, 127,370 acre-ft (157 hm³) Feb. 3, 1976, elevation, 735.93 ft (224.311 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 193,480 acre-ft (239 hm³) May 19, elevation, 49.77 ft (228.530 m); minimum, 144,860 acre-ft (179 hm³) Dec. 22, elevation, 739.98 ft (225.546 m).

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	747.12	179,420	
Oct. 31	744.01	163,770	-15,650
Nov. 30	740.12	145,490	-18,280
Dec. 31	740.05	145,170	-320
CAL YR 1980			+2,230
Jan. 31	740.05	145,170	0
Feb. 28	740.06	145,220	+50
Mar. 31	740.93	149,180	+3,960
Apr. 30	748.17	184,910	+35,730
May 31	749.62	192,660	+7,750
June 30	748.46	186,450	-6,210
July 31	748.80	188,250	+1,800
Aug. 31	748.40	186,130	-2,120
Sept. 30	748.45	186,400	+270
WTR YR 1981			+6,980

03276000 EAST FORK WHITEWATER RIVER AT BROOKVILLE, IN

LOCATION.--Lat 39°26'02", long 85°00'12", in NE¼NE¼ sec.20, T.9 N., R.2 W., Franklin County, Hydrologic Unit 05080003, on right bank 100 ft (30 m) upstream from bridge on State Highway 101, at Brookville, 0.4 mile (0.6 km) downstream from Brookville Lake, and 1.8 miles (2.9 km) upstream from mouth.

DRAINAGE AREA.--380 mi^2 (984 km^2).

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 (189.512 m) National Geodetic Vertical Datum of 1929. Prior to May 22, 1954, nonrecording gage at site 100 ft (30 m) downstream at datum 2.00 ft (0.610 m) higher. May 22, 1954 to Aug. 20, 1965, water-stage recorder at site 165 ft (50 m) downstream at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good. Flow regulated by Brookville Lake since January 1974 (see sta 03275990).

AVERAGE DISCHARGE.--27 years, 388 ft^3/s (10.99 m^3/s), 13.87 in/yr (352 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,100 ft^3/s (1,020 m^3/s) Jan. 21, 1959; maximum gage height, 17.35 ft (5.288 m) May 24, 1968; minimum daily discharge, 4.7 ft^3/s (0.13 m^3/s) Nov. 15, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,940 ft^3/s (83.3 m^3/s) May 20, gage height, 6.46 ft (1.969 m); minimum daily, 14 ft^3/s (0.40 m^3/s) Apr. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	170	429	263	60	62	123	52	109	1500	62	269	18
2	171	436	174	60	76	123	52	105	1500	62	355	18
3	171	445	174	58	89	123	52	102	1280	61	355	18
4	171	443	135	57	89	123	55	156	1070	62	221	18
5	171	438	92	57	89	184	53	193	626	67	45	18
6	204	440	80	58	87	217	52	479	273	775	94	31
7	239	408	80	58	87	214	52	702	277	1400	154	47
8	239	391	79	58	87	217	53	683	1090	891	156	47
9	242	392	117	58	87	217	52	645	1600	49	154	47
10	242	392	140	57	96	190	52	393	925	49	165	47
11	242	393	138	57	92	165	54	197	473	49	165	47
12	246	393	124	58	289	168	54	203	277	49	165	47
13	246	393	106	60	450	165	53	367	143	49	168	47
14	246	392	104	60	450	168	52	491	148	49	171	47
15	250	393	102	60	450	168	52	596	154	49	171	47
16	250	393	100	58	450	168	42	1100	143	49	168	47
17	274	333	98	58	445	168	50	1080	165	50	165	47
18	285	400	98	58	445	168	49	1090	171	50	90	47
19	284	411	98	58	623	171	49	1480	174	50	53	47
20	289	411	90	58	876	171	50	1700	177	72	53	47
21	288	410	68	55	1330	171	22	1940	177	702	53	47
22	287	404	60	55	1700	171	14	716	125	1130	53	47
23	292	403	61	54	1180	171	68	423	85	575	53	47
24	318	404	61	54	952	123	107	429	60	72	53	47
25	341	406	60	55	944	50	100	398	53	53	54	47
26	345	403	61	55	542	50	100	378	50	53	54	45
27	346	411	60	55	254	52	98	578	50	70	54	45
28	399	412	60	55	123	52	98	762	57	87	54	47
29	437	409	60	55	-----	52	100	768	65	87	54	49
30	433	402	60	55	-----	55	107	907	65	87	34	49
31	433	-----	60	57	-----	52	----	1490	-----	87	18	----
TOTAL	8551	12190	3063	1771	12444	4410	1844	20660	12953	6997	3871	1249
MEAN	276	406	98.8	57.1	444	142	61.5	666	432	226	125	41.6
MAX	437	445	263	60	1700	217	107	1940	1600	1400	355	49
MIN	170	333	60	54	62	50	14	102	50	49	18	18
CFSM	.73	1.07	.26	.15	1.17	.37	.16	1.75	1.14	.60	.33	.11
IN.	.84	1.19	.30	.17	1.22	.43	.18	2.02	1.27	.68	.38	.12

CAL YR 1980	TOTAL	168886	MEAN 461	MAX 2710	MIN 47	CFSM 1.21	IN 16.53		
WTR YR 1981	TOTAL	90003	MEAN 247	MAX 1940	MIN 14	CFSM .65	IN 8.81		

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

LOCATION.--Lat 39°24'24", long 85°00'46", in NE¼NW¼ sec.32, T.9 N., R.2 W., Franklin County, Hydrologic Unit 05080003, on right bank at downstream side of highway bridge, 0.3 mile (0.5 km) downstream from East Fork Whitewater River, 1.1 miles (1.8 km) south of Brookville, and at mile 29.3 (47.1 km).

DRAINAGE AREA.--1,224 mi^2 (3,170 km^2).

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Datum of gage is 595.71 ft (181.572 m) National Geodetic Vertical Datum of 1929. Prior to July 1923, nonrecording gage at same site at datum 1.5 ft (0.457 m) higher. July 1923 to Sept. 27, 1928, nonrecording gage at same site and datum.

REMARKS.--Records good. Flow regulated by Brookville Lake since January 1974 (see sta 03275990).

AVERAGE DISCHARGE.--60 years (water years 1916-17, 1924 to current year), 1,273 ft^3/s (36.05 m^3/s), 14.12 in/yr (359 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,800 ft^3/s (2,320 m^3/s) Jan. 21, 1959, gage height, 27.78 ft (8.467 m), from rating curve extended above 45,000 ft^3/s (1,270 m^3/s) on basis of contracted-opening measurement of peak flow; minimum daily, 60 ft^3/s (1.70 m^3/s) July 27, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 25, 1913, reached a stage of 39.0 ft (11.9 m), at present datum, from floodmarks (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,900 ft^3/s (422 m^3/s) Apr. 22; gage height, 10.72 ft (3.267 m); minimum daily, 189 ft^3/s (5.35 m^3/s) Sept. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	395	638	516	249	303	737	548	1810	3290	439	668	245
2	398	629	386	246	661	686	460	1650	2870	685	740	255
3	394	636	379	244	385	641	420	1310	2420	619	714	277
4	391	628	332	233	328	627	779	1160	2150	1180	568	321
5	391	613	277	210	308	1900	1270	1090	1650	6570	354	292
6	427	606	265	231	317	1420	708	2160	1550	2190	1000	264
7	474	575	260	230	303	1120	582	2140	2340	2250	1100	263
8	472	552	260	214	292	963	516	1800	2100	1560	841	258
9	471	552	358	211	279	877	470	1590	2350	593	723	249
10	467	556	478	211	476	806	450	1290	1880	523	658	241
11	464	553	458	208	3810	743	966	1190	1270	471	751	235
12	460	552	420	198	1790	708	3120	1270	2460	428	588	228
13	459	552	369	215	1200	680	2240	1350	1730	403	543	223
14	462	552	351	214	1050	647	1510	1940	1140	401	518	232
15	461	552	342	210	980	618	1140	4290	976	418	497	247
16	462	560	348	208	1890	626	915	3720	841	399	479	233
17	515	512	342	207	3290	604	1070	2750	780	381	460	228
18	561	589	335	202	2090	580	1320	5270	721	361	361	225
19	544	600	327	204	2060	566	952	5190	681	348	286	215
20	532	594	304	206	2440	556	1120	4180	655	633	270	210
21	529	590	256	207	2420	543	874	3310	661	1530	265	208
22	515	597	252	209	2570	531	762	2050	700	1930	258	204
23	510	595	252	219	2380	517	7820	1560	550	1130	251	201
24	552	605	258	216	2110	458	2740	1420	481	538	247	199
25	596	620	248	218	1950	338	1780	2550	446	444	245	197
26	600	606	242	231	1390	327	1370	2160	522	408	241	195
27	584	699	246	247	987	361	1150	3730	454	488	237	192
28	649	832	242	245	780	371	981	4500	422	892	240	189
29	685	728	243	236	-----	345	1300	2960	413	943	246	193
30	662	683	247	227	-----	1510	1660	3830	400	682	224	197
31	649	-----	251	218	-----	730	-----	5320	-----	569	250	----
TOTAL	15731	18156	9844	6824	38839	22136	40993	80540	38903	30406	14823	6916
MEAN	507	605	318	220	1387	714	1366	2598	1297	981	478	231
MAX	685	832	516	249	3810	1900	7820	5320	3290	6570	1100	321
MIN	391	512	242	198	279	327	420	1090	400	348	224	189
CFSM	.41	.49	.26	.18	1.13	.58	1.12	2.12	1.06	.80	.39	.19
IN.	.48	.55	.30	.21	1.18	.67	1.25	2.45	1.18	.92	.45	.21

CAL YR 1980 TOTAL 514504 MEAN 1406 MAX 10500 MIN 242 CFSM 1.15 IN 15.64
WTR YR 1981 TOTAL 324111 MEAN 888 MAX 7820 MIN 189 CFSM .73 IN 9.85

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

WATER-QUALITY RECORDS

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

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

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 630 micromhos July 27 minimum, 200 micromhos July 5.
WATER TEMPERATURE: Maximum, 24.0°C July 9-12, 14; minimum, 0.0°C Jan. 9-11, Feb. 4.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 06...	1815	468	485	6.6	15.3	.80	8.9	K197	K311	290	83	71
NOV 06...	1430	607	406	7.5	13.0	.50	11.2	20	210	200	20	44
DEC 03...	1230	399	543	7.9	6.0	.90	8.1	1500	437	260	35	61
JAN 05...	1545	237	650	7.7	.3	.50	15.9	181	K44	290	39	71
FEB 06...	0930	314	510	8.0	.1	1.2	13.4	190	260	240	16	65
MAR 09...	1400	874	507	8.0	4.9	.50	----	----	----	300	--	75
APR 07...	1000	590	535	8.0	10.3	5.0	12.7	370	220	270	--	71
MAY 07...	0800	2210	510	7.9	11.1	20	11.1	4500	780	240	--	59
JUN 04...	1500	2130	550	8.2	16.4	6.4	----	K27	K72	260	--	65
JUL 07...	0845	2280	510	7.8	16.4	28	----	K99	1100	250	--	64
AUG 04...	1300	663	490	7.6	19.0	4.2	10.2	----	----	270	--	68
SEP 04...	0700	292	550	7.6	20.4	3.8	7.6	----	700	290	--	72

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT 06...	28	9.1	6	.2	2.6	210	39	18	.3	5.3	326	307
NOV 06...	22	10	10	.3	2.7	180	37	16	.2	1.5	260	248
DEC 03...	25	12	9	.3	2.6	220	37	21	.2	3.6	322	304
JAN 05...	27	10	7	.3	2.1	250	42	17	.2	3.7	343	334
FEB 06...	18	9.0	8	.3	3.2	220	44	21	.2	3.5	343	305
MAR 09...	28	9.1	6	.2	2.9	220	40	20	.2	5.4	331	324
APR 07...	23	8.9	7	.2	2.2	230	41	18	.2	4.4	349	316
MAY 07...	22	8.6	7	.2	2.5	200	38	16	.2	4.2	326	281
JUN 04...	24	8.6	7	.2	2.7	210	37	19	.2	4.2	375	296
JUL 07...	23	9.7	8	.3	3.1	190	38	20	.2	4.8	353	293
AUG 04...	25	9.9	7	.3	2.9	220	41	20	.2	.7	381	310
SEP 04...	26	12	8	.3	2.7	240	30	22	.2	6.4	352	325

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (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, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT												
06...	.44	412	2.0	2.0	1.6	.000	.030	.00	.03	---	.70	---
NOV												
06...	.35	426	1.7	1.4	1.4	.060	.050	.07	.06	.31	.23	.37
DEC												
03...	.44	347	2.3	1.9	2.0	.000	.020	.00	.03	.26	.28	.26
JAN												
05...	.47	219	2.7	2.3	2.3	.080	.040	.10	.05	.28	.34	.36
FEB												
06...	.47	291	2.7	2.1	2.1	.070	.080	.08	.10	.54	.52	.61
MAR												
09...	.45	781	2.9	2.6	2.6	.080	.040	---	.05	.26	.22	.34
APR												
07...	.47	556	2.2	1.9	1.9	.070	.100	---	.13	.12	.17	.19
MAY												
07...	.44	1950	3.0	2.4	2.4	.070	.110	---	.14	.69	.52	.76
JUN												
04...	.51	2160	2.6	2.1	2.1	.060	.040	---	.05	.40	.47	.46
JUL												
07...	.48	2170	4.1	4.7	3.5	.040	.020	---	.03	.74	.62	.78
AUG												
04...	.52	682	2.8	2.3	2.2	.140	.110	---	.14	.43	.53	.57
SEP												
04...	.48	278	2.8	2.3	2.2	.050	.050	---	.06	.51	.58	.56

DATE	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)
OCT											
06...	---	.73	---	----	.070	.21	.030	--	--	--	---
NOV											
06...	.09	.28	1.8	7.8	.040	.12	.020	--	--	--	---
DEC											
03...	.00	.30	2.2	9.6	.030	.09	.020	--	--	--	---
JAN											
05...	.00	.38	2.7	12	.020	.06	.030	1	0	1	100
FEB											
06...	.01	.60	2.7	12	.080	.25	.070	--	--	--	---
MAR											
09...	.00	.26	2.9	13	----	.12	----	--	--	--	---
APR											
07...	.00	.27	2.1	9.3	.040	.12	.020	0	0	0	100
MAY											
07...	.13	.63	3.2	14	.120	.37	.040	--	--	--	---
JUN											
04...	.00	.51	2.6	11	.060	.18	.040	--	--	--	---
JUL											
07...	.14	.64	5.5	24	.090	.28	.040	1	0	2	100
AUG											
04...	.00	.64	2.9	13	.230	.71	.110	--	--	--	---
SEP											
04...	.00	.63	2.9	13	.070	.21	.030	--	--	--	---

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	NICKEL, DIS-SOLVED (UG/L AS NI)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)
OCT 06...	--	--	--	--	--	--	--	--	--	--	--
NOV 06...	--	--	--	--	--	--	--	--	--	--	--
DEC 03...	--	--	--	--	--	--	--	--	--	--	--
JAN 05...	30	70	0	0	3	20	10	10	0	0	0
FEB 06...	--	--	--	--	--	--	--	--	--	--	--
MAR 09...	--	--	--	--	--	--	--	--	--	--	--
APR 07...	30	70	0	0	2	20	10	10	0	0	0
MAY 07...	--	--	--	--	--	--	--	--	--	--	--
JUN 04...	--	--	--	--	--	--	--	--	--	--	--
JUL 07...	40	60	3	0	5	10	0	10	4	3	1
AUG 04...	--	--	--	--	--	--	--	--	--	--	--
SEP 04...	--	--	--	--	--	--	--	--	--	--	--

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)
OCT 06...	--	--	--	----	----	--	--	--	--	---	--
NOV 06...	--	--	--	----	----	--	--	--	--	---	--
DEC 03...	--	--	--	----	----	--	--	--	--	---	--
JAN 05...	4	2	2	110	110	0	9	1	8	20	10
FEB 06...	--	--	--	----	----	--	--	--	--	---	--
MAR 09...	--	--	--	----	----	--	--	--	--	---	--
APR 07...	8	7	1	330	330	0	10	10	0	30	20
MAY 07...	--	--	--	----	----	--	--	--	--	---	--
JUN 04...	--	--	--	----	----	--	--	--	--	---	--
JUL 07...	7	1	6	1100	1000	90	5	1	4	130	70
AUG 04...	--	--	--	----	----	--	--	--	--	---	--
SEP 04...	--	--	--	----	----	--	--	--	--	---	--

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)
OCT											
06...	--	--	--	--	--	--	--	--	--	--	--
NOV											
06...	--	--	--	--	--	--	--	--	--	--	--
DEC											
03...	--	--	--	--	--	--	--	--	--	--	--
JAN											
05...	9	.1	.0	.4	35	32	0	0	0	1	0
FEB											
06...	--	--	--	--	--	--	--	--	--	--	--
MAR											
09...	--	--	--	--	--	--	--	--	--	--	--
APR											
07...	10	.2	.0	.2	14	12	0	0	0	0	0
MAY											
07...	--	--	--	--	--	--	--	--	--	--	--
JUN											
04...	--	--	--	--	--	--	--	--	--	--	--
JUL											
07...	60	.2	.0	.2	8	3	0	0	0	0	0
AUG											
04...	--	--	--	--	--	--	--	--	--	--	--
SEP											
04...	--	--	--	--	--	--	--	--	--	--	--

DATE	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	PHYTOPLANKTON, TOTAL (CELLS PER ML)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT											
06...	--	--	--	--	4.7	---	--	----	34	43	94
NOV											
06...	--	--	--	--	2.8	---	--	2600	15	25	--
DEC											
03...	--	--	--	--	2.6	---	--	----	13	14	--
JAN											
05...	1	30	30	2	----	1.7	.6	----	36	23	62
FEB											
06...	--	--	--	--	3.9	---	--	----	---	---	--
MAR											
09...	--	--	--	--	2.6	---	--	840	47	111	53
APR											
07...	0	60	50	7	----	2.2	.6	----	---	---	--
MAY											
07...	--	--	--	--	10	---	--	1900	144	859	94
JUN											
04...	--	--	--	--	3.1	---	--	530	95	546	--
JUL											
07...	0	20	10	9	----	3.4	.8	840	162	997	71
AUG											
04...	--	--	--	--	3.0	---	--	7200	57	102	61
SEP											
04...	--	--	--	--	2.8	---	--	----	78	61	79

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 miles (1.9 km) northeast of Dillsboro, and 1.5 miles (2.4 km) downstream from Whitaker Creek.

DRAINAGE AREA.--38.1 mi^2 (98.7 km^2).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WRD Ind. 1972: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 571.00 ft (174.041 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those below 1 ft^3/s (0.028 m^3/s) and those for winter periods, which are poor.

AVERAGE DISCHARGE.--20 years, 42.0 ft^3/s (1.189 m^3/s), 14.97 in/yr (380 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft^3/s (368 m^3/s) Apr. 29, 1970, maximum gage height, 12.7 ft (3.87 m), 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 (4.267 m), discharge, 16,300 ft^3/s (462 m^3/s), on basis of contracted-opening measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,500 ft^3/s (70.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 6	1115	3900	110	7.99	2.435
June 10	0045	*12800	362	*12.70	3.871

Minimum daily discharge, .05 ft^3/s (0.001 m^3/s) Sept. 24-25.

NOTE.--No gage-height record Oct. 1 to Nov. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	1.8	9.5	4.2	137	20	20	20	67	1.0	6.5	.75
2	.10	1.7	8.8	3.7	109	17	15	16	41	1.0	3.7	11
3	.10	1.8	7.8	3.0	33	14	14	14	24	12	3.7	4.8
4	.10	1.7	6.5	2.0	15	17	151	12	17	310	3.0	2.6
5	.10	1.4	6.5	1.4	9.5	230	183	12	14	195	3.0	2.0
6	.19	1.7	6.2	1.2	8.4	61	45	185	899	69	8.4	1.5
7	.34	1.6	5.6	1.1	7.2	33	30	63	142	37	4.2	1.2
8	.24	1.3	5.6	1.1	6.2	24	26	32	52	19	8.6	1.0
9	.21	1.3	48	1.0	5.2	20	23	24	170	12	4.8	.85
10	.18	1.2	29	.93	66	19	21	23	2690	9.2	2.6	.73
11	.16	1.2	16	.87	353	17	21	61	120	6.5	2.0	.59
12	.14	1.1	12	.79	42	15	51	36	54	4.7	1.4	.48
13	.13	1.0	8.8	.83	29	14	69	31	51	3.5	1.3	.34
14	.12	.89	7.4	.89	20	12	31	215	35	3.7	.93	.31
15	.11	1.0	6.8	1.0	18	12	24	396	23	3.2	.83	.33
16	.10	1.0	8.4	1.2	66	15	21	101	17	3.7	.76	.25
17	1.0	4.5	8.1	1.2	199	14	259	54	13	3.7	.69	.24
18	66	17	8.1	1.3	104	11	325	384	11	3.0	.56	.24
19	9.9	13	6.8	1.2	124	12	86	206	8.1	17	.52	.24
20	4.5	8.4	4.2	1.3	109	12	262	90	6.8	170	.47	.22
21	2.2	6.5	3.0	14	51	10	60	48	6.8	65	.42	.18
22	1.4	5.6	2.8	18	39	9.9	45	34	15	23	.31	.08
23	1.2	5.3	4.2	8.1	73	9.9	576	26	6.8	12	.30	.07
24	1.7	9.5	4.5	5.6	48	8.8	114	21	4.0	9.2	.39	.05
25	14	12	3.7	7.4	31	8.8	52	17	2.8	6.5	.32	.05
26	5.3	8.4	2.3	12	24	11	42	22	2.6	5.0	.21	.06
27	3.5	137	2.1	9.9	21	12	37	180	2.5	4.5	.14	.06
28	5.9	40	2.3	6.8	20	12	26	108	1.7	4.5	.14	.21
29	6.2	18	2.8	5.3	------	12	24	37	1.4	22	.47	.34
30	3.5	12	3.7	3.7	------	69	22	27	1.2	12	1.3	.34
31	2.8	------	4.0	2.6	------	32	----	23	------	6.8	.85	-----
TOTAL	131.52	318.89	255.5	123.61	1767.5	784.4	2675	2518	4499.7	1054.7	62.81	31.11
MEAN	4.24	10.6	8.24	3.99	63.1	25.3	89.2	81.2	150	34.0	2.03	1.04
MAX	66	137	48	18	353	230	576	396	2690	310	8.6	11
MIN	.10	.89	2.1	.79	5.2	8.8	14	12	1.2	1.0	.14	.05
CFSM	.11	.28	.22	.11	1.66	.66	2.34	2.13	3.94	.89	.05	.03
IN.	.13	.31	.25	.12	1.73	.77	2.61	2.46	4.39	1.03	.06	.03

CAL YR 1980 TOTAL 12234.18 MEAN 33.4 MAX 1330 MIN .06 CFSM .88 IN 11.94
WTR YR 1981 TOTAL 14222.74 MEAN 39.0 MAX 2690 MIN .05 CFSM 1.02 IN 13.89

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

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT											
06...	1150	.34	380	7.7	14.0	9.2	K115	K230	180	39	56
NOV											
06...	1000	1.4	561	8.1	8.0	13.0	K72	K18	220	41	67
DEC											
04...	1100	5.8	525	8.4	2.0	12.1	1430	221	260	67	78
JAN											
05...	1130	1.4	720	7.6	.1	14.2	520	K6	330	96	96
FEB											
05...	1330	8.9	555	8.0	.2	12.8	360	K31	230	80	74
MAR											
09...	1605	26	465	8.3	5.0	----	280	K1330	250	--	76
APR											
06...	1430	41	430	8.4	12.5	15.2	480	K173	220	--	67
MAY											
06...	1240	300	340	7.4	12.8	9.6	K10700	42000	160	--	51
JUN											
04...	1115	16	490	8.1	21.6	----	K54	K162	250	--	75
JUL											
07...	1200	18	477	7.6	23.5	----	K135	560	200	71	64
AUG											
04...	0930	1.1	426	7.8	25.1	7.9	------	K213	200	--	61
SEP											
03...	1230	7.4	405	7.8	22.6	7.7	1820	7700	200	--	62

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	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, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT											
06...	9.5	11	11	.4	5.6	140	49	.2	3.9	274	240
NOV											
06...	13	18	15	.5	5.7	180	71	.2	1.6	342	307
DEC											
04...	15	15	11	.4	4.0	190	79	.2	3.8	363	334
JAN											
05...	21	26	15	.6	3.6	230	120	.2	.2	463	441
FEB											
05...	11	9.3	8	.3	4.4	---	83	.2	4.4	399	303
MAR											
09...	15	12	9	.3	3.6	170	63	.2	3.8	315	299
APR											
06...	12	11	10	.3	4.2	160	55	.2	7.4	301	273
MAY											
06...	8.2	8.0	10	.3	2.3	140	37	.2	6.4	294	209
JUN											
04...	14	10	8	.3	3.2	190	47	.2	4.4	356	282
JUL											
07...	10	14	13	.4	4.9	130	37	.2	9.1	302	254
AUG											
04...	12	14	13	.4	5.0	150	34	.2	1.0	303	239
SEP											
03...	11	8.6	8	.3	3.9	140	57	.3	6.4	266	250

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (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, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)
OCT											
06...	.37	.25	----	.10	.09	----	----	---	---	---	---
NOV											
06...	.47	1.2	.49	.02	.04	.060	.060	.07	.08	.21	.39
DEC											
04...	.49	5.7	.82	.39	.47	.000	.010	.00	.01	.51	.34
JAN											
05...	.63	1.7	1.1	.89	.89	.020	.020	.02	.03	.17	.19
FEB											
05...	.54	9.5	2.2	1.7	1.7	.040	.050	.05	.06	.61	.40
MAR											
09...	.43	22.8	1.3	.97	.97	.050	.020	---	.03	.34	.28
APR											
06...	.41	34.1	1.4	.91	.90	.070	.050	---	.06	.38	.42
MAY											
06...	.40	238	1.3	.51	.55	.100	.060	---	.08	1.2	.73
JUN											
04...	.48	15.4	.94	.48	.48	.060	.040	---	.05	.41	.42
JUL											
07...	.41	14.7	3.8	3.3	3.1	.020	.030	---	.04	.80	.68
AUG											
04...	.41	.90	.66	.13	.14	.030	.030	---	.04	.45	.49
SEP											
03...	.36	5.3	1.3	.57	.68	.040	.020	---	.03	.56	.58

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ARSENIC TOTAL (UG/L AS AS)
OCT											
06...	----	---	---	----	-----	.090	.28	----	.000	.00	-
NOV											
06...	.27	.00	.45	.29	1.3	.060	.18	.050	----	---	-
DEC											
04...	.51	.16	.35	.90	4.0	.080	.25	.040	----	---	-
JAN											
05...	.19	.00	.21	1.1	4.8	.010	.03	.030	----	---	-
FEB											
05...	.65	.20	.45	2.4	10	.110	.34	.090	----	---	-
MAR											
09...	.39	.09	.30	1.4	6.0	.030	.09	.040	----	---	-
APR											
06...	.45	.00	.47	1.4	6.0	.140	.43	.090	----	---	1
MAY											
06...	1.30	.51	.79	1.8	8.0	.340	1.0	.080	----	---	-
JUN											
04...	.47	.01	.46	.95	4.2	.060	.18	.040	----	---	-
JUL											
07...	.82	.11	.71	4.1	18	.090	.28	.070	.070	.21	-
AUG											
04...	.48	.00	.52	.61	2.7	.230	.71	.050	----	---	-
SEP											
03...	.60	.00	.60	1.2	5.2	.130	.40	.080	----	---	2

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
OCT 06...	-	-	---	---	--	--	--	--	--	--	-
NOV 06...	-	-	---	---	--	--	--	--	--	--	-
DEC 04...	-	-	---	---	--	--	--	--	--	--	-
JAN 05...	-	-	---	---	--	--	--	--	--	--	-
FEB 05...	-	-	---	---	--	--	--	--	--	--	-
MAR 09...	-	-	---	---	--	--	--	--	--	--	-
APR 06...	1	0	100	60	40	<1	0	<1	20	20	0
MAY 06...	-	-	---	---	--	--	--	--	--	--	-
JUN 04...	-	-	---	---	--	--	--	--	--	--	-
JUL 07...	-	-	---	---	--	--	--	--	--	--	-
AUG 04...	-	-	---	---	--	--	--	--	--	--	-
SEP 03...	0	2	100	100	2	1	<1	3	10	2	8

DATE	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
OCT 06...	--	-	---	----	---	---	--	-	--	--	--
NOV 06...	--	-	---	----	---	---	--	-	--	--	--
DEC 04...	--	-	---	----	---	---	--	-	--	--	--
JAN 05...	--	-	---	----	---	---	--	-	--	--	--
FEB 05...	--	-	---	----	---	---	--	-	--	--	--
MAR 09...	--	-	---	----	---	---	--	-	--	--	--
APR 06...	<3	4	<10	490	450	37	12	0	12	<4	50
MAY 06...	--	-	---	----	---	---	--	-	--	--	--
JUN 04...	--	-	---	----	---	---	--	-	--	--	--
JUL 07...	--	-	---	----	---	---	--	-	--	--	--
AUG 04...	--	-	---	----	---	---	--	-	--	--	--
SEP 03...	3	7	10	1300	940	360	11	1	10	4	60

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)
OCT 06...	--	--	--	--	--	--	--	-	--	--	-
NOV 06...	--	--	--	--	--	--	--	-	--	--	-
DEC 04...	--	--	--	--	--	--	--	-	--	--	-
JAN 05...	--	--	--	--	--	--	--	-	--	--	-
FEB 05...	--	--	--	--	--	--	--	-	--	--	-
MAR 09...	--	--	--	--	--	--	--	-	--	--	-
APR 06...	30	19	.2	.0	.2	18	0	0	0	0	0
MAY 06...	--	--	--	--	--	--	--	-	--	--	-
JUN 04...	--	--	--	--	--	--	--	-	--	--	-
JUL 07...	--	--	--	--	--	--	--	-	--	--	-
AUG 04...	--	--	--	--	--	--	--	-	--	--	-
SEP 03...	20	41	.1	.0	.1	10	<1	-	<1	<1	-

DATE	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)
OCT 06...	--	---	----	--	--	--	----	---	---	---	---
NOV 06...	--	---	----	--	--	--	----	---	---	---	---
DEC 04...	--	---	----	--	--	--	----	---	---	---	---
JAN 05...	--	---	----	--	--	--	----	---	---	---	---
FEB 05...	--	---	----	--	--	--	----	---	---	---	---
MAR 09...	--	---	----	--	--	--	----	---	---	---	---
APR 06...	0	180	<6.0	40	40	4	----	---	---	---	---
MAY 06...	--	---	----	--	--	--	----	---	---	---	---
JUN 04...	--	---	----	--	--	--	----	---	---	---	---
JUL 07...	--	---	----	--	--	--	----	---	---	---	---
AUG 04...	--	---	----	--	--	--	----	---	---	---	---
SEP 03...	<1	250	6.0	30	20	9	<5.0	<.6	5.5	1.0	5.3

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM DISSOLVED, EXTRACTION (UG/L)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)
OCT										
06...	--	---	---	---	----	--	----	----	--	----
NOV										
06...	--	---	---	5.2	----	--	----	----	--	----
DEC										
04...	--	---	---	4.8	----	--	----	----	--	----
JAN										
05...	--	---	---	3.7	----	--	----	----	--	----
FEB										
05...	--	---	---	5.8	----	--	----	----	--	----
MAR										
09...	--	---	---	3.4	----	--	----	----	--	----
APR										
06...	--	---	---	---	5.4	.5	<.01	----	--	----
MAY										
06...	--	---	---	9.8	----	--	----	----	--	----
JUN										
04...	--	---	---	5.0	----	--	----	----	--	----
JUL										
07...	--	---	---	7.1	----	--	----	----	--	----
AUG										
04...	--	---	---	4.3	----	--	----	----	--	----
SEP										
03...	.9	.14	.36	---	14	.7	<.01	<.10	<1	<.01

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)
OCT											
06...	---	----	--	----	---	----	---	----	---	----	----
NOV											
06...	---	----	--	----	---	----	---	----	---	----	----
JAN											
05...	---	----	--	----	---	----	---	----	---	----	----
MAR											
09...	---	----	--	----	---	----	---	----	---	----	----
MAY											
06...	---	----	--	----	---	----	---	----	---	----	----
AUG											
04...	---	----	--	----	---	----	---	----	---	----	----
SEP											
03...	<.1	<.10	11	<.01	<.1	<.01	<.1	<.01	<.1	<.01	<.01

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT												
06...	---	----	---	----	---	----	----	---	----	---	----	---
NOV												
06...	---	----	---	----	---	----	----	---	----	---	----	---
JAN												
05...	---	----	---	----	---	----	----	---	----	---	----	---
MAR												
09...	---	----	---	----	---	----	----	---	----	---	----	---
MAY												
06...	---	----	---	----	---	----	----	---	----	---	----	---
AUG												
04...	---	----	---	----	---	----	----	---	----	---	----	---
SEP												
03...	<.1	<.01	<.1	<.01	<.1	<.01	<.01	<.1	<.01	<.1	<.01	<.1

DATE	MALATHION, TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL (UG/L)	PERTHANE TOTAL (UG/L)
OCT											
06...	----	----	---	----	----	----	---	----	----	----	----
NOV											
06...	----	----	---	----	----	----	---	----	----	----	----
JAN											
05...	----	----	---	----	----	----	---	----	----	----	----
MAR											
09...	----	----	---	----	----	----	---	----	----	----	----
MAY											
06...	----	----	---	----	----	----	---	----	----	----	----
AUG											
04...	----	----	---	----	----	----	---	----	----	----	----
SEP											
03...	<.01	<.01	<.1	<.01	<.01	<.01	<.1	<.10	<1.0	<.01	<.01

DATE	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT											
06...	----	----	----	----	---	---	---	----	28	.03	99
NOV											
06...	----	----	----	----	---	---	---	----	3	.01	--
JAN											
05...	----	----	----	----	---	---	---	----	64	.24	67
MAR											
09...	----	----	----	----	---	---	---	----	31	2.2	99
MAY											
06...	----	----	----	----	---	---	---	----	152	123	98
AUG											
04...	----	----	----	----	---	---	---	----	43	.13	99
SEP											
03...	<.10	<.10	<1.0	<.01	.11	.01	.02	<.01	51	1.0	98

INDIAN-KENTUCK CREEK BASIN

03291780 INDIAN-KENTUCK CREEK NEAR CANAAN, IN

LOCATION.--Lat 38°52'41", long 85°15'26", in SW¼NW¼ sec.13, T.5 N., R.11 E., Jefferson County, Hydrologic Unit 05140101, on downstream end of left pier of bridge on State Highway 62, 1,500 ft (457 m) upstream from Wilson Fork, 2.0 miles (3.2 km) northeast of Canaan, and at mile 16.7 (26.9 km).

DRAINAGE AREA.--27.5 mi^2 (71.2 km^2).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 590 ft (180 m), from topographic map.

REMARKS.--Records fair except those for periods of no gage-height record, which are poor.

AVERAGE DISCHARGE.--12 years, 32.9 ft^3/s (0.932 m^3/s), 16.25 in/yr (413 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,240 ft^3/s (205 m^3/s) June 10, 1981, maximum gage height, 11.27 ft (3.435 m) Aug. 1, 1979; no flow for many days in 1970, 1972, and 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,000 ft^3/s (28.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 18	0030	4560	129	9.19	2.801	June 10	0300	*7240	205	*10.84	3.304
Apr. 23	0600	2230	63.2	7.27	2.216	July 20	0845	1050	29.7	5.55	1.692
June 6	1245	1220	34.6	5.84	1.780	Aug. 7	1445	1440	40.8	6.21	1.893

Minimum daily discharge, 0.01 ft^3/s (<0.001 m^3/s) Sept. 26-30.

NOTE.--No gage-height record Dec. 22 to Feb. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.15	.85	5.8	5.0	160	18	16	27	47	.41	1.1	.88
2	.13	.75	4.7	3.7	70	15	12	20	30	.31	.87	1.1
3	.10	.69	3.9	3.0	35	11	11	16	17	6.1	.57	5.8
4	.10	.74	3.1	2.5	15	13	131	13	13	92	.40	1.8
5	.10	.71	3.0	1.5	9.0	213	117	10	21	122	24	.96
6	.12	.68	2.7	1.1	6.8	56	42	41	288	60	42	.67
7	.09	.63	2.4	.92	5.8	33	29	23	81	20	185	.51
8	.09	.63	2.5	.84	5.2	24	23	13	36	12	32	.42
9	.09	.60	30	.78	4.6	20	18	9.9	23	8.0	11	.34
10	.08	.57	20	.74	60	16	18	13	1060	6.2	6.0	.30
11	.07	.53	10	.70	220	14	16	30	54	4.9	5.2	.26
12	.06	.49	7.6	.60	69	11	28	15	19	3.8	3.4	.24
13	.05	.47	6.1	.62	35	9.6	27	11	9.9	3.2	2.3	.22
14	.05	.43	4.5	.66	13	8.5	18	70	7.2	2.7	1.7	.21
15	.05	.42	4.2	.72	11	7.5	12	148	3.9	2.1	1.4	.25
16	.05	.42	4.5	.80	19	9.6	10	52	2.6	2.5	1.4	.19
17	.62	3.0	4.0	.80	35	9.0	452	31	1.9	2.2	1.1	.10
18	42	8.7	3.8	.80	57	8.5	820	207	1.4	1.7	.81	.10
19	3.9	3.4	3.8	1.0	74	8.5	104	111	1.1	21	.74	.07
20	1.5	2.2	3.1	1.5	97	8.5	192	57	1.1	167	.67	.04
21	.97	1.7	2.4	4.0	45	8.0	70	36	.86	44	.61	.03
22	.76	1.5	2.1	13	34	7.5	47	26	.72	12	.56	.02
23	.62	1.4	2.0	6.9	52	7.1	613	18	1.1	5.6	.51	.02
24	.72	2.1	3.3	3.7	34	6.2	99	12	2.2	4.1	.42	.02
25	1.8	3.2	2.5	5.4	24	5.4	53	8.9	2.1	2.9	.34	.02
26	1.6	2.2	2.0	7.8	20	5.1	43	15	1.6	2.2	.27	.01
27	1.2	66	1.7	6.4	15	5.1	32	108	1.3	2.0	.22	.01
28	1.4	25	2.0	4.7	15	4.7	25	59	1.0	5.8	.24	.01
29	1.6	12	2.3	3.7	------	4.4	23	29	.83	4.4	21	.01
30	1.3	7.3	2.5	2.8	------	41	30	21	.60	2.4	20	.01
31	1.0	------	3.8	2.0	------	23	----	17	-------	1.5	1.8	-----
TOTAL	62.37	149.31	156.3	88.68	1240.4	631.2	3131	1267.8	1730.41	625.02	367.63	14.62
MEAN	2.01	4.98	5.04	2.86	44.3	20.4	104	40.9	57.7	20.2	11.9	.49
MAX	42	66	30	13	220	213	820	207	1060	167	185	5.8
MIN	.05	.42	1.7	.60	4.6	4.4	10	8.9	.60	.31	.22	.01
CFSM	.07	.18	.18	.10	1.61	.74	3.78	1.49	2.10	.74	.43	.02
IN.	.08	.20	.21	.12	1.68	.85	4.24	1.71	2.34	.85	.50	.02

CAL YR 1980 TOTAL 11098.84 MEAN 30.3 MAX 927 MIN .05 CFSM 1.10 IN 15.01
WTR YR 1981 TOTAL 9464.74 MEAN 25.9 MAX 1060 MIN .01 CFSM .94 IN 12.80

03291780 INDIAN-KENTUCK CREEK NEAR CANAAN, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 05...	1300	.77	13	.03

03294000 SILVER CREEK NEAR SELLERSBURG, IN

LOCATION.--Lat 38°22'15", long 85°43'35", in SW¼SW¼ lot 68, Clark Military Grant, Clark County, Hydrologic Unit 05150101, on upstream side of Straws Mill bridge on Watson Road, 0.3 mile (0.5 km) downstream from Pleasant Run, 2.4 miles (3.9 km) southeast of Sellersburg, and 12.2 miles (19.6 km) upstream from mouth.

DRAINAGE AREA.--189 mi^2 (490 km^2).

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

REVISED RECORDS.--WSP 1705: 1955-58. WRD Ind. 1972: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 429.78 ft (130.997 m) National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to Oct. 6, 1976, nonrecording gage and crest-stage gage at same site and datum.

REMARKS.--Records fair. Some regulation by Deam Lake.

AVERAGE DISCHARGE.--27 years, 221 ft^3/s (6.259 m^3/s), 15.88 in/yr (403 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,600 ft^3/s (555 m^3/s) Jan. 22, 1959, gage height, 30.89 ft (9.415 m), from floodmarks, from rating curve extended above 6,300 ft^3/s (178 m^3/s) on basis of contracted-opening measurements of peak flow, at site 5.2 miles (8.4 km) upstream, drainage area, 165 mi^2 (427 km^2), adjusted to gage site; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 3,000 ft^3/s (85.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 19	0700	*2220	62.9	*13.86	4.225

Minimum daily discharge, 4.1 ft^3/s (0.12 m^3/s) Sept. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	45	30	9.4	40	206	91	232	210	9.2	19	13
2	6.9	41	24	9.8	316	166	68	142	270	8.3	14	104
3	11	40	23	9.8	126	124	56	108	140	10	12	79
4	7.8	44	20	8.4	89	117	57	91	192	14	9.8	34
5	5.9	46	16	7.2	51	528	1300	80	191	18	9.8	17
6	4.7	44	15	6.7	41	407	427	76	156	74	42	12
7	5.2	43	12	6.7	36	234	218	67	293	35	36	9.8
8	5.9	39	10	6.2	32	171	166	55	148	19	32	8.8
9	6.4	39	46	6.2	26	136	136	47	104	15	28	7.5
10	6.1	39	81	5.9	28	117	764	43	975	12	18	5.4
11	5.4	40	52	5.6	413	104	768	73	567	10	12	4.3
12	5.2	40	35	5.4	196	91	385	68	217	10	11	4.4
13	5.2	36	28	5.4	129	83	467	51	176	7.6	14	4.1
14	6.1	15	22	5.6	92	75	266	48	117	6.1	13	17
15	5.2	8.8	19	5.6	79	66	188	112	88	8.6	12	74
16	5.2	6.7	18	5.9	82	66	146	91	73	21	12	54
17	14	5.9	16	5.9	155	64	185	64	60	15	9.4	18
18	68	13	15	5.6	244	59	584	366	51	14	8.4	12
19	52	15	13	5.4	218	58	267	1780	39	13	11	11
20	22	17	9.8	11	220	55	909	1090	34	18	12	8.7
21	14	16	7.8	13	172	47	454	428	38	40	11	7.2
22	16	15	6.7	14	138	42	273	267	30	21	8.6	5.4
23	10	15	6.9	14	138	40	303	201	24	14	6.0	5.8
24	8.1	20	11	15	136	39	262	157	21	11	4.7	6.0
25	21	32	9.0	15	113	36	180	125	18	10	6.4	6.3
26	13	21	9.4	16	99	34	144	113	14	8.3	10	5.8
27	9.1	91	7.5	17	88	31	130	946	14	7.8	8.8	5.4
28	9.8	129	7.5	17	100	28	110	557	13	562	11	5.1
29	32	69	8.4	17	----	27	101	267	12	102	16	6.4
30	36	43	8.8	14	----	86	287	203	10	50	39	5.6
31	41	------	9.1	12	----	130	----	216	----	28	20	-----
TOTAL	465.4	1068.4	596.9	301.7	3597	3467	9692	8164	4295	1191.9	476.9	557.0
MEAN	15.0	35.6	19.3	9.73	128	112	323	263	143	38.4	15.4	18.6
MAX	68	129	81	17	413	528	1300	1780	975	562	42	104
MIN	4.7	5.9	6.7	5.4	26	27	56	43	10	6.1	4.7	4.1
CFSM	.08	.19	.10	.05	.68	.59	1.71	1.39	.76	.20	.08	.10
IN.	.09	.21	.12	.06	.71	.68	1.91	1.61	.85	.23	.09	.11

CAL YR 1980 TOTAL 61480.8 MEAN 168 MAX 3600 MIN 3.0 CFSM .89 IN 12.10
WTR YR 1981 TOTAL 33873.2 MEAN 92.8 MAX 1780 MIN 4.1 CFSM .49 IN 6.67

03302220 BUCK CREEK NEAR NEW MIDDLETOWN, IN

LOCATION.--Lat 38°07'13", long 86°05'16", in SE¼NE¼ sec.32, T.4 S., R.4 E., Harrison County, Hydrologic Unit 05140104, at downstream end of pier of bridge on State Highway 337, 0.6 mile (1.0 km) downstream from South Fork Buck Creek, 3.6 miles (5.8 km) southwest of New Middletown, and 14.4 miles (23.2 km) upstream from mouth.

DRAINAGE AREA.--65.2 mi^2 (168.9 km^2), of which 28.1 mi^2 (72.8 km^2) does not contribute directly to surface runoff.

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

REVISED RECORDS.--WRD Ind. 1972: 1971(P).

GAGE.--Water-stage recorder. Datum of gage is 501.63 ft (152.897 m) National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources).

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

AVERAGE DISCHARGE.--12 years, 82.1 ft^3/s (2.325 m^3/s), 17.10 in/yr (434 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,700 ft^3/s (360 m^3/s) Apr. 2, 1970, gage height, 14.40 ft (4.389 m); minimum daily, 0.90 ft^3/s (0.025 m^3/s) Sept. 13, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,000 ft^3/s (28.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 4	2100	1090	30.9	5.47	1.667
May 19	1815	*1180	33.4	*5.65	1.722

Minimum daily discharge, 3.7 ft^3/s (.10 m^3/s) Oct. 15.

NOTE.--No gage-height record: Oct. 20 to Dec. 10 and Dec. 18 to Feb. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	8.0	20	12	80	96	38	29	151	8.7	6.4	5.8
2	13	8.0	17	11	159	70	33	25	104	8.3	6.4	86
3	11	8.0	15	10	65	54	33	23	78	39	6.2	38
4	10	8.0	13	10	45	57	225	23	75	34	6.3	18
5	9.0	8.0	12	10	39	135	298	22	75	75	6.1	14
6	8.0	7.7	11	10	31	112	138	22	110	44	6.6	8.1
7	7.5	7.4	10	10	27	79	102	20	121	39	51	6.7
8	7.0	7.4	10	9.0	24	61	83	19	91	29	29	6.4
9	6.7	7.4	15	9.0	24	50	74	17	72	18	12	5.8
10	6.4	6.8	60	9.0	27	44	63	19	253	16	9.2	5.6
11	6.0	6.4	43	8.7	139	39	56	21	136	13	8.1	5.4
12	5.4	6.0	35	8.4	69	35	51	17	94	12	7.6	5.2
13	4.8	6.0	30	8.0	50	36	47	16	75	12	7.1	5.0
14	4.2	6.0	25	9.0	37	32	41	17	62	12	6.9	5.6
15	3.7	6.0	23	9.0	32	30	37	19	44	12	7.1	11
16	4.0	6.5	22	8.4	30	33	36	17	38	20	7.1	7.9
17	12	7.0	20	8.4	44	29	43	15	34	12	6.7	6.0
18	144	12	19	8.4	59	29	30	163	30	10	6.4	5.4
19	20	20	18	8.4	58	27	28	534	28	9.6	6.0	4.8
20	15	11	17	9.0	89	26	64	341	29	9.6	5.6	4.6
21	12	9.0	16	15	72	25	50	171	23	9.2	5.4	4.6
22	10	8.0	15	18	62	24	39	122	21	8.4	5.4	4.4
23	9.0	7.4	14	15	53	23	57	96	18	7.8	5.6	4.1
24	8.0	7.4	15	14	42	22	56	78	17	7.9	5.4	4.1
25	12	7.0	14	13	35	24	42	61	12	7.8	5.2	4.4
26	10	7.0	13	13	32	24	35	52	11	7.6	5.0	4.3
27	9.5	25	13	12	30	24	33	122	10	7.1	5.0	5.0
28	9.0	70	12	11	45	24	29	72	9.7	8.1	5.8	4.8
29	9.0	40	12	11	----	24	31	49	9.1	8.5	6.4	4.4
30	8.5	25	13	11	----	51	33	83	8.8	7.3	5.6	4.6
31	8.0	-----	12	10	----	43	----	240	------	6.6	5.4	-----
TOTAL	417.7	369.4	584	328.7	1499	1382	1925	2525	1839.6	519.5	268.0	300.0
MEAN	13.5	12.3	18.8	10.6	53.5	44.6	64.2	81.5	61.3	16.8	8.65	10.0
MAX	144	70	60	18	159	135	298	534	253	75	51	86
MIN	3.7	6.0	10	8.0	24	22	28	15	8.8	6.6	5.0	4.1
CFSM	.21	.19	.29	.16	.82	.68	.99	1.25	.94	.26	.13	.15
IN.	.24	.21	.33	.19	.86	.79	1.10	1.44	1.05	.30	.15	.17

CAL YR 1980 TOTAL 17191.1 MEAN 47.0 MAX 604 MIN 1.8 CFSM .72 IN 9.81
WTR YR 1981 TOTAL 11957.9 MEAN 32.8 MAX 534 MIN 3.7 CFSM .50 IN 6.82

INDIAN CREEK BASIN

03302300 LITTLE INDIAN CREEK NEAR GALENA, IN

LOCATION.--Lat 38°19'19", long 85°55'53", in NE¼SW¼ sec.23, T.2 S., R.5 E., Floyd County, Hydrologic Unit 05140104, on right bank at downstream side of county road bridge, 2 miles (3 km) south of Galena, 3.6 miles (5.8 km) upstream from mouth, and 7.0 miles (11.3 km) northwest of New Albany.

DRAINAGE AREA.--16.1 mi^2 (41.7 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 703.00 ft (214.274 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--13 years, 24.5 ft^3/s (0.694 m^3/s), 20.67 in/yr (525 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,500 ft^3/s (156 m^3/s) July 21, 1973, gage height, 9.30 ft (2.835 m); from rating curve extended above 3,100 ft^3/s (87.8 m^3/s) on basis of contracted-opening measurement at 7.34 ft (2.237 m); no flow for many days in 1969, 1975, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,500 ft^3/s (42.5 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 4	1830	*1160	32.9	*5.46	1.664

Minimum daily discharge, 0.05 ft^3/s (0.001 m^3/s) Oct. 10, 13, 14, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	.44	1.5	.94	25	26	8.2	14	32	.71	.62	.18
2	.10	.44	1.7	.86	10	18	6.6	11	25	.58	.52	9.9
3	.10	.44	1.5	.80	7.0	14	6.2	8.9	20	6.7	.44	3.5
4	.08	.44	1.3	.74	5.6	17	207	7.6	19	2.4	.44	1.2
5	.08	.44	1.2	.70	4.6	48	96	6.9	15	13	.96	1.0
6	.08	.30	1.2	.68	4.1	29	39	6.9	21	38	18	.80
7	.08	.30	1.1	.66	3.7	20	26	6.1	18	7.0	9.4	.64
8	.08	.30	1.2	.64	3.3	16	20	5.0	13	3.6	5.0	.52
9	.07	.44	7.9	.62	3.0	14	16	4.6	10	2.6	2.3	.42
10	.05	.30	5.3	.58	16	12	23	6.0	67	2.3	1.5	.33
11	.06	.30	3.3	.54	49	11	22	8.3	25	1.6	1.2	.26
12	.07	.44	2.8	.40	12	9.3	23	6.1	17	1.4	1.0	.26
13	.05	.30	2.3	.37	9.0	8.6	22	5.1	13	1.2	.84	.22
14	.05	.30	2.1	.37	8.0	7.5	18	6.7	10	1.0	.78	1.7
15	.05	.30	1.9	.39	7.0	7.2	14	7.4	7.5	4.2	.62	67
16	.08	.30	1.7	.39	9.9	8.8	12	5.8	6.0	4.8	.96	4.6
17	.49	.89	1.5	.37	18	7.0	13	4.9	5.1	2.4	.84	2.5
18	4.5	1.9	1.5	.37	17	6.9	11	33	4.1	1.6	.52	2.1
19	1.2	1.2	1.3	.40	15	6.4	18	131	3.9	1.3	.44	1.3
20	.53	.89	1.2	.45	15	5.8	74	81	4.4	1.2	.36	1.0
21	.44	.64	1.2	2.5	12	6.7	33	39	3.4	1.0	.26	.89
22	.30	.53	1.1	2.5	11	6.3	23	27	2.9	1.2	.22	.64
23	.30	.64	1.2	1.9	11	6.5	63	21	2.3	.96	.20	.50
24	.44	1.7	1.5	1.3	9.9	5.7	40	17	1.9	.84	.20	.43
25	.76	1.3	1.2	1.1	8.5	4.7	26	14	1.6	.78	.18	.31
26	.76	1.1	1.1	1.1	7.8	4.1	20	20	1.4	.62	.18	.20
27	.53	13	1.0	1.5	7.0	3.9	16	147	1.2	.62	.18	.41
28	.76	4.6	.96	1.9	22	3.5	12	48	1.0	5.9	.18	.29
29	.76	2.5	.90	1.5	-----	3.2	12	27	.86	2.2	.18	.20
30	.53	1.9	1.1	1.2	-----	16	21	35	.76	1.2	.20	.17
31	.53	-----	1.0	1.2	-----	10	-----	45	------	.96	.18	------
TOTAL	14.02	38.57	55.76	28.97	331.4	363.1	941.0	806.3	353.32	113.87	48.90	103.47
MEAN	.45	1.29	1.80	.93	11.8	11.7	31.4	26.0	11.8	3.67	1.58	3.45
MAX	4.5	13	7.9	2.5	49	48	207	147	67	38	18	67
MIN	.05	.30	.90	.37	3.0	3.2	6.2	4.6	.76	.58	.18	.17
CFSM	.03	.08	.11	.06	.73	.73	1.95	1.62	.73	.23	.10	.21
IN.	.03	.09	.13	.07	.77	.84	2.17	1.86	.82	.26	.11	.24

CAL YR 1980 TOTAL 5380.30 MEAN 14.7 MAX 414 MIN .05 CFSM .91 IN 12.43
WTR YR 1981 TOTAL 3198.68 MEAN 8.76 MAX 207 MIN .05 CFSM .54 IN 7.39

03302500 INDIAN CREEK NEAR CORYDON, IN

LOCATION.--Lat 38°16'35", long 86°06'35", in SW¼SE¼ sec.6, T.3 S., R.4 E., Harrison County, Hydrologic Unit 05140104, on upstream side of bridge on State Highway 335, 0.6 mile (1.0 km) upstream from Raccoon Branch, 4.5 miles (7.2 km) north of Corydon, and at mile 33.7 (54.2 km).

DRAINAGE AREA.--129 mi² (334 km²), of which 10.6 mi² (27.4 km²) 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 (175.906 m) 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 (1.920 m) at same site and datum.

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

AVERAGE DISCHARGE.--38 years, 171 ft³/s (4.843 m³/s), 18.00 in/yr (457 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,700 ft³/s (756 m³/s) Mar. 5, 1964, gage height, 22.64 ft (6.901 m); no flow at times during 1943-44, 1951-54, 1959, 1965, 1972-73, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 4,500 ft³/s (127 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Sept. 15	0800	*2570	72.8	*11.24	3.426

Minimum daily discharge, 2.5 ft³/s (0.071 m³/s) Oct. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	11	19	7.0	30	221	89	98	185	7.8	18	14
2	3.0	10	17	6.4	221	208	82	69	150	7.1	15	28
3	2.8	9.0	16	6.0	85	161	82	57	114	6.7	12	117
4	2.6	9.0	15	5.6	59	134	300	49	93	7.7	11	40
5	2.6	9.5	13	5.4	40	272	1100	44	118	25	9.5	25
6	2.8	8.6	13	5.2	35	323	340	43	89	115	300	19
7	2.8	9.0	13	5.0	30	249	204	42	134	99	89	15
8	3.2	9.0	13	4.8	28	200	151	36	85	40	88	13
9	3.9	11	24	4.7	25	177	117	32	65	29	50	11
10	4.1	11	64	4.4	35	157	112	33	294	24	34	9.9
11	3.4	11	41	4.0	289	137	199	45	216	23	27	8.6
12	3.0	10	30	3.5	88	120	134	41	120	18	22	7.5
13	2.8	9.9	24	3.0	70	109	145	33	89	15	19	6.4
14	2.6	10	21	3.0	59	92	114	42	65	13	17	7.7
15	2.5	10	18	3.2	51	89	86	79	50	12	15	1110
16	3.0	9.5	17	3.2	52	88	71	56	40	30	14	170
17	10	12	16	3.0	93	90	78	43	35	31	20	88
18	51	16	14	3.0	149	95	76	104	30	50	15	60
19	51	24	13	3.2	132	89	64	740	27	25	12	47
20	17	16	12	3.5	115	86	424	851	27	19	10	39
21	10	12	11	15	97	83	283	359	26	22	8.9	33
22	6.8	9.8	9.7	22	83	78	182	226	23	16	7.8	29
23	4.7	9.2	9.9	29	87	72	356	159	20	14	6.8	25
24	6.6	10	10	26	89	72	326	115	17	11	6.5	23
25	7.4	11	9.0	24	77	76	199	90	15	9.7	6.1	20
26	8.4	13	8.4	24	71	70	146	74	13	8.8	5.8	18
27	13	36	7.8	22	68	60	111	602	12	8.1	6.8	17
28	16	84	7.4	20	83	61	87	341	10	180	7.2	16
29	13	36	7.0	18	----	78	76	197	9.5	62	8.1	17
30	12	24	9.0	16	----	99	100	145	8.4	36	7.6	15
31	12	-----	7.8	14	----	107	----	236	------	25	12	------
TOTAL	287.0	470.5	510.0	317.1	2341	3953	5834	5081	2179.9	989.9	881.1	2049.1
MEAN	9.26	15.7	16.5	10.2	83.6	128	194	164	72.7	31.9	28.4	68.3
MAX	51	84	64	29	289	323	1100	851	294	180	300	1110
MIN	2.5	8.6	7.0	3.0	25	60	64	32	8.4	6.7	5.8	6.4
CFSM	.07	.12	.13	.08	.65	.99	1.50	1.27	.56	.25	.22	.53
IN.	.08	.14	.15	.09	.68	1.14	1.68	1.47	.63	.29	.25	.59

CAL YR 1980 TOTAL 38131.1 MEAN 104 MAX 1360 MIN 2.5 CFSM .81 IN 11.00
WTR YR 1981 TOTAL 24893.6 MEAN 68.2 MAX 1110 MIN 2.5 CFSM .53 IN 7.18

03302680 WEST FORK BLUE RIVER AT SALEM, IN

LOCATION.--Lat 38°36'19", long 86°05'40", in SW¼SE¼ sec.17, T.2 N., R.4 E., Washington County, Hydrologic Unit 05140104, on left bank at downstream side of bridge on East Market Street, 0.35 mile (0.56 km) east of County Court House in Salem, 6.0 miles (9.6 km) upstream from Hoggatt Branch, and 6.9 miles (11.1 km) upstream from mouth.

DRAINAGE AREA.--19.0 mi² (49.2 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1970 to current year. Prior to December 10, 1970, nonrecording gage at site 0.55 mile (0.88 km) downstream at datum 5.04 ft (1.536 m) 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 713.00 ft (217.322 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--11 years, 23.2 ft³/s (0.657 m³/s), 16.58 in/yr (421 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,430 ft³/s (125 m³/s) July 10, 1974, gage height, 12.29 ft (3.746 m) from rating curve extended above 900 ft³/s (25.5 m³/s) by a step-backwater analysis; minimum daily, 0.02 ft³/s (0.001 m³/s) Sept. 24, 1970.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 600 ft³/s (17.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 10	0730	*1890	53.5	*8.91	2.716

Minimum daily discharge, 0.08 ft³/s (0.002 m³/s) Aug. 25-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.35	1.7	6.7	1.8	15	13	13	20	121	1.5	.65	2.6
2	.35	1.5	6.2	1.6	23	12	11	15	62	1.3	.54	11
3	.29	1.5	4.9	1.5	12	11	11	13	42	1.2	.46	5.1
4	.35	1.6	4.5	1.4	8.6	13	24	12	31	1.3	.39	2.5
5	.29	1.7	4.2	1.4	7.4	34	37	11	24	2.0	.98	1.6
6	.29	1.5	3.8	1.3	6.5	32	24	10	37	1.6	6.2	1.1
7	.29	1.6	3.5	1.3	5.7	23	19	8.5	27	1.3	21	.81
8	.35	1.7	3.8	1.3	5.3	18	16	7.8	22	1.1	6.7	.80
9	.29	2.0	11	1.2	5.0	16	13	7.4	19	.91	3.0	.55
10	.29	1.7	10	1.2	15	14	29	8.8	250	.62	1.9	.44
11	.29	1.6	8.8	1.1	29	13	25	9.2	45	.58	1.6	.37
12	.24	1.5	8.2	1.0	15	12	36	7.5	27	.52	1.2	.34
13	.24	1.4	7.2	.95	12	11	34	6.7	19	.43	.95	.29
14	.24	1.5	5.7	1.0	9.6	10	26	18	14	.45	.79	8.4
15	.24	1.5	5.3	1.1	10	9.6	19	24	10	.39	.70	6.1
16	.29	1.5	5.3	1.1	17	10	17	17	8.8	.43	.68	2.1
17	9.3	7.2	4.5	1.1	29	8.7	22	13	7.7	.44	.54	1.5
18	14	9.3	4.2	1.1	26	9.0	82	82	6.4	.42	.40	1.4
19	3.8	4.8	3.8	1.1	26	8.6	54	85	5.8	1.2	.32	1.0
20	2.3	3.7	3.5	1.9	23	7.8	87	57	5.5	5.5	.24	.72
21	1.6	3.1	2.9	10	19	7.3	59	43	4.6	2.0	.16	.60
22	1.2	2.5	3.2	7.5	18	6.7	45	34	4.3	1.1	.14	.50
23	.95	2.4	3.5	5.6	18	6.6	40	27	3.4	.69	.12	.46
24	1.5	2.7	3.8	5.0	16	6.2	30	24	2.9	.61	.12	.41
25	5.5	2.5	3.0	4.2	14	5.8	23	23	2.7	.60	.08	.39
26	3.1	2.0	2.6	4.5	13	5.8	19	23	2.4	.70	.08	.34
27	2.6	28	2.4	3.7	12	5.7	16	93	2.0	1.6	.08	.30
28	3.6	17	2.1	3.2	13	5.3	14	43	1.7	2.3	.19	.29
29	2.7	11	2.0	2.8	-----	6.0	16	31	1.6	2.6	4.1	.24
30	2.1	8.2	2.3	2.6	-----	27	36	26	1.5	1.4	1.0	.23
31	1.9	-----	2.0	2.3	-----	16	----	23	-----	.88	.52	-----
TOTAL	60.83	129.9	144.9	76.85	423.1	384.1	897	822.9	811.3	37.67	55.83	52.48
MEAN	1.96	4.33	4.67	2.48	15.1	12.4	29.9	26.5	27.0	1.22	1.80	1.75
MAX	14	28	11	10	29	34	87	93	250	5.5	21	11
MIN	.24	1.4	2.0	.95	5.0	5.3	11	6.7	1.5	.39	.08	.23
CFSM	.10	.23	.25	.13	.80	.65	1.57	1.40	1.42	.06	.10	.09
IN.	.12	.25	.28	.15	.83	.75	1.76	1.61	1.59	.07	.11	.10

CAL YR 1980 TOTAL 5235.22 MEAN 14.3 MAX 295 MIN .24 CFSM .75 IN 10.25
WTR YR 1981 TOTAL 3896.86 MEAN 10.7 MAX 250 MIN .08 CFSM .56 IN 7.63

03302680 WEST FORK BLUE RIVER AT SALEM, IN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
WATER TEMPERATURE: October 1979 to December 1980 (discontinued).
SEDIMENT DISCHARGE: February 1979 to December 1980 (discontinued partial-record station February 1979 to September 1979).

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURE: Maximum, 33°C August 9, 1980; minimum, 0.0°C January 29, 30, 31, February 1, 5, 7, 26, March 2, 1980.
SEDIMENT CONCENTRATION: Maximum observed instantaneous, 5,920 mg/L July 4, 1980; minimum daily, 1 mg/L on many days.
SEDIMENT DISCHARGE: Maximum observed instantaneous, 11,800 tons (10,700 tonnes) July 4, 1980; minimum daily, 0 tons (0 tonnes) many days during August, September, October, and November 1980.

EXTREMES FOR PERIOD OCTOBER TO DECEMBER:
WATER TEMPERATURE: Maximum, 25°C October 1; minimum, 2°C November 21.
SEDIMENT CONCENTRATION: Maximum observed instantaneous, 315 mg/L October 17; minimum daily, 1 mg/L on many days.
SEDIMENT DISCHARGE: Maximum observed instantaneous, 9.0 tons (8.2 tonnes) November 27; minimum daily, 0 tons (0 tonnes) many days during October and November.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT						
01...	1700	25.0	.35	16	.02	--
02...	1800	22.0	.29	23	.02	--
03...	1700	15.0	.29	4	.00	--
04...	1700	14.0	.35	3	.00	--
05...	1500	15.0	.29	15	.01	--
06...	1700	16.0	.29	11	.01	--
07...	1730	17.0	.29	5	.00	--
08...	1800	18.0	.29	5	.00	--
09...	1800	21.0	.29	6	.00	--
10...	1800	22.0	.29	23	.02	--
11...	1630	22.0	.24	8	.01	--
12...	1300	14.0	.24	16	.01	--
13...	1900	15.0	.24	16	.01	--
14...	1700	17.0	.24	14	.01	--
15...	1700	19.0	.24	26	.02	--
16...	1800	22.0	.29	38	.03	--
17...	1800	17.0	4.5	315	3.8	--
18...	1400	17.0	9.3	25	.63	--
19...	1830	15.0	----	---	----	--
20...	1730	14.0	2.0	21	.11	--
21...	0930	13.0	1.7	75	.34	91
21...	0950	13.0	1.7	32	.15	96
21...	1730	15.0	1.5	10	.04	--
22...	1700	17.0	1.0	18	.05	--
23...	1830	--	.84	18	.04	--
24...	1700	14.0	1.7	13	.06	--
25...	1600	10.0	4.9	13	.17	--
26...	1800	9.0	2.9	5	.04	--
27...	1730	8.0	2.9	9	.07	--
28...	0900	6.0	3.8	19	.19	--
29...	1700	7.0	2.6	16	.11	--
30...	1700	9.0	2.0	4	.02	--
31...	1700	10.0	1.7	2	.01	--
NOV						
01...	1400	13.0	1.7	4	.02	--
02...	1300	10.0	1.5	2	.01	--
03...	1630	13.0	1.5	2	.01	--
04...	1730	13.0	1.7	3	.01	--
05...	1800	12.0	1.5	4	.02	--
06...	1800	11.0	1.3	4	.01	--
07...	1400	12.0	1.5	2	.01	--

03302680 WEST FORK BLUE RIVER AT SALEM, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV						
08...	1800	15.0	1.7	5	.02	--
09...	1100	15.0	2.0	4	.02	--
10...	1700	13.0	1.7	3	.06	--
11...	1700	9.0	1.5	3	.01	--
12...	0800	4.0	1.5	1	.00	--
13...	1800	10.0	1.3	2	.01	--
14...	1130	8.0	1.5	2	.01	--
15...	1300	9.0	1.5	3	.01	--
16...	1600	8.0	1.5	2	.01	--
17...	1600	5.0	7.2	37	.72	--
18...	1800	5.0	6.7	10	.18	--
19...	1700	4.0	4.5	3	.04	--
20...	1300	4.0	3.5	4	.04	--
21...	1030	2.0	2.9	7	.05	--
22...	1730	5.0	2.6	5	.04	--
23...	1300	5.0	2.6	4	.03	--
24...	1400	6.0	2.9	3	.02	--
25...	1400	6.0	2.6	1	.01	--
26...	1500	4.0	2.0	1	.01	--
27...	1300	4.0	39	85	9.0	--
28...	1500	4.0	16	6	.26	--
29...	0800	3.0	12	3	.10	--
30...	1100	3.0	8.2	1	.02	--
DEC						
01...	1500	9.0	6.7	3	.05	--
02...	1600	6.0	6.2	2	.03	--
03...	1600	4.0	4.9	2	.03	--
04...	1500	5.0	4.5	2	.02	--
05...	1300	7.0	4.2	3	.03	--
06...	1000	8.0	3.8	3	.03	--
11...	1600	5.0	8.8	23	.55	93

BLUE RIVER BASIN

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 mile (0.8 km) downstream from South Fork Blue River, and at mile 57.1 (91.9 km).

DRAINAGE AREA.--283 mi^2 (733 km^2), of which 76.9 mi^2 (199.2 km^2) does not contribute directly to surface runoff.

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

GAGE.--Water-stage recorder. Datum of gage is 590.00 ft (179.832 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--13 years, 330 ft^3/s (9.346 m^3/s), 15.84 in/yr (402 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft^3/s (340 m^3/s) Apr. 24, 1975, gage height, 22.88 ft (6.974 m); minimum daily, 6.1 ft^3/s (0.17 m^3/s) Oct. 18, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 21, 1959 reached a stage of 29.20 ft (8.900 m), from floodmark, on left upstream wingwall.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 5,000 ft^3/s (85.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 10	1700	*4010	114	*12.75	3.886

Minimum daily discharge, 7.6 ft^3/s (0.22 m^3/s) Oct. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	35	79	26	38	185	171	357	1270	41	31	25
2	14	31	69	24	278	186	135	237	1130	40	27	139
3	13	29	63	23	164	160	115	186	603	36	26	229
4	13	27	54	22	134	145	141	156	433	35	25	90
5	12	27	52	21	99	406	836	136	335	45	26	56
6	11	26	47	21	76	564	507	126	332	72	181	42
7	11	25	44	21	68	378	332	113	358	51	113	34
8	11	25	42	20	64	277	258	97	259	40	219	30
9	12	25	57	20	54	224	209	90	211	35	84	27
10	12	24	100	19	65	192	819	90	1730	36	53	24
11	11	22	90	17	318	169	892	121	888	33	41	22
12	8.9	20	78	15	184	148	556	107	512	29	35	20
13	8.5	20	72	14	157	135	642	90	369	27	30	19
14	8.0	20	64	15	107	120	448	129	280	25	27	22
15	7.6	20	58	17	91	106	320	475	217	26	26	379
16	8.1	21	57	17	92	107	257	338	176	34	26	151
17	26	24	53	17	263	102	260	242	151	29	27	83
18	326	46	48	16	338	94	539	767	129	26	21	63
19	146	69	45	16	303	89	431	2220	113	24	19	52
20	59	48	40	17	294	84	1250	1170	107	48	17	40
21	41	40	32	27	242	78	791	689	96	55	16	29
22	34	35	30	46	200	73	539	492	87	39	15	25
23	29	32	30	48	193	67	448	367	76	29	14	22
24	30	32	34	39	186	63	381	285	68	25	14	21
25	40	31	30	35	163	60	292	241	63	23	13	21
26	47	31	29	34	140	58	238	200	56	21	12	22
27	46	95	28	32	124	56	201	985	52	33	13	24
28	44	273	27	30	125	54	172	664	49	212	15	22
29	43	149	26	27	----	53	177	433	46	108	56	20
30	41	100	29	24	----	191	338	327	41	58	62	18
31	37	----	27	22	----	248	-----	289	-----	40	30	----
TOTAL	1164.1	1402	1534	742	4560	4872	12695	12219	10237	1375	1314	1771
MEAN	37.6	46.7	49.5	23.9	163	157	423	394	341	44.4	42.4	59.0
MAX	326	273	100	48	338	564	1250	2220	1730	212	219	379
MIN	7.6	20	26	14	38	53	115	90	41	21	12	18
CFSM	.13	.17	.18	.08	.58	.56	1.50	1.39	1.21	.16	.15	.21
IN.	.15	.18	.20	.10	.60	.64	1.67	1.61	1.35	.18	.17	.23

CAL YR 1980 TOTAL 90409.1 MEAN 247 MAX 3720 MIN 7.6 CFSM .87 IN 11.88
WTR YR 1981 TOTAL 53885.1 MEAN 148 MAX 2220 MIN 7.6 CFSM .52 IN 7.08

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 (122 m) downstream from Spring Creek, 600 ft (183 m) upstream from bridge on Interstate 64, 0.2 mile (0.3 km) upstream from bridge on State Highway 62, 0.8 mile (1.3 km) north of White Cloud, and at mile 14.7 (23.6 km).

DRAINAGE AREA.--476 mi^2 (1,233 km^2), of which 192 mi^2 (497 km^2) 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.

WATER-DISCHARGE RECORDS

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 (132.362 m) 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.--Records good.

AVERAGE DISCHARGE.--51 years, 626 ft^3/s (17.73 m^3/s), 17.86 in/yr (454 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,500 ft^3/s (807 m^3/s) Jan. 22, 1959, gage height, 23.07 ft (7.032 m); minimum daily, 9.6 ft^3/s (0.27 m^3/s) Oct. 17, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 7,500 ft^3/s (212 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 19	1800	*5170	146	*9.17	2.795

Minimum daily discharge, 26 ft^3/s (0.74 m^3/s) Oct. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	80	194	67	109	442	458	567	740	115	124	98
2	37	76	161	67	347	461	361	503	2230	112	102	301
3	36	71	136	65	487	419	312	407	1170	106	88	602
4	35	67	120	64	288	384	483	356	864	108	78	434
5	34	65	112	57	247	631	1460	321	657	320	74	259
6	33	61	104	58	243	1070	1250	296	561	447	119	169
7	32	59	97	62	202	869	783	279	585	301	358	129
8	32	57	92	55	175	638	609	255	541	223	346	108
9	32	55	149	54	144	515	511	227	449	180	374	93
10	31	53	206	52	155	448	440	223	640	153	236	83
11	30	52	225	49	438	403	1530	305	2580	129	164	74
12	29	50	222	46	553	365	1020	323	1050	121	127	69
13	29	50	189	46	321	335	887	282	826	106	108	64
14	28	49	163	45	321	309	810	313	623	97	96	68
15	28	49	144	46	264	287	617	861	509	90	88	451
16	26	48	131	45	241	275	498	807	437	100	84	736
17	31	53	120	46	353	266	465	587	385	111	77	390
18	200	72	114	45	621	259	474	891	342	116	76	277
19	468	79	106	46	606	244	763	4150	306	120	75	224
20	275	108	92	47	579	229	1690	3070	284	94	67	182
21	146	117	85	59	535	213	1840	1690	262	88	60	154
22	101	95	74	73	458	197	1100	1120	243	117	56	127
23	81	84	78	88	410	184	996	840	217	109	54	105
24	74	86	76	104	388	170	890	667	194	93	51	92
25	85	84	69	97	364	159	689	580	175	81	48	83
26	84	79	76	88	330	150	561	519	160	73	46	77
27	88	146	75	80	299	144	484	679	146	68	45	76
28	93	280	68	78	317	136	428	1430	133	154	46	73
29	93	393	68	77	----	133	395	851	125	412	82	68
30	89	269	67	72	----	379	389	646	118	285	199	66
31	82	----	66	63	----	547	-----	561	-----	178	143	----
TOTAL	2503	2887	3679	1941	9795	11261	23193	24606	17552	4807	3691	5732
MEAN	80.7	96.2	119	62.6	350	363	773	794	585	155	119	191
MAX	468	393	225	104	621	1070	1840	4150	2580	447	374	736
MIN	26	48	66	45	109	133	312	223	118	68	45	64
CFSM	.17	.20	.25	.13	.74	.76	1.62	1.67	1.23	.33	.25	.40
IN.	.20	.23	.29	.15	.77	.88	1.81	1.92	1.37	.38	.29	.45

CAL YR 1980 TOTAL 180640 MEAN 494 MAX 6340 MIN 26 CFSM 1.04 IN 14.12
WTR YR 1981 TOTAL 111647 MEAN 306 MAX 4150 MIN 26 CFSM .64 IN 8.73

03303000 BLUE RIVER NEAR WHITE CLOUD, IN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DISCHARGE: July 1968 to September 1974, and October 1980 to current year (partial-record station).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
DEC									
10...	1230	206	38	21	87	--	---	--	---
FEB									
25...	1245	364	11	11	--	--	---	--	---
APR									
06...	1530	1130	102	311	98	99	100	--	---
23...	1240	1080	63	184	--	--	---	--	---
MAY									
18...	1700	1060	108	309	96	--	---	--	---
19...	0900	4000	918	9910	90	--	---	--	---
19...	2000	5050	725	9890	94	96	98	99	100
20...	0930	3190	275	2370	95	--	---	--	---
20...	2025	2520	189	1290	91	--	---	--	---
JUL									
01...	1100	115	49	15	85	--	---	--	---
AUG									
12...	0900	131	37	13	98	--	---	--	---
SEP									
23...	0930	105	22	6.2	99	--	---	--	---

03303276 TRIBUTARY TO FRIDAY BRANCH NEAR SAINT MEINRAD, IN
(Baseline water-quality station for the coal-mining region of Southwestern Indiana)

LOCATION.--Lat 38°13'21", long 86°47'51", in SW¼SE¼ sec.25, T.3 S., R.4 W., Dubois County, Hydrologic Unit 05140201, on right bank 10 ft (3 m) downstream from County Road 550 East, 0.2 miles (.32 km) upstream from Friday Branch, 3.4 miles (5.47 km) east of Ferdinand, and 3.6 miles (5.79 km) north of St. Meinrad.

DRAINAGE AREA.--.096 mi² (.25 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1, 1980 to September 30, 1981.

GAGE.--Water-stage recorder.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 99 ft³/s (2.80 m³/s) Aug. 28, 1981, gage height 12.39 ft (3.78 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.07	.09	.01	.00	.00	.00	.08
2	.00	.00	.00	.00	.00	.07	.07	.01	.24	.00	.00	.73
3	.00	.00	.00	.00	.00	.06	.07	.00	.44	.03	.00	.30
4	.00	.00	.00	.00	.00	.09	.39	.00	.11	.01	.00	.11
5	.00	.00	.00	.00	.00	.24	.39	.00	.07	.00	.00	.05
6	.00	.00	.00	.00	.00	.17	.14	.01	.03	.00	.00	.03
7	.00	.00	.00	.00	.00	.11	.07	.01	.01	.00	.21	.03
8	.00	.00	.00	.00	.00	.07	.05	.01	.00	.00	.00	.02
9	.00	.00	.01	.00	.00	.06	.03	.09	.03	.00	.00	.01
10	.00	.00	.00	.00	.00	.05	.03	.09	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.05	.02	.06	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.05	.01	.03	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.03	.01	.11	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.03	.00	.11	.00	.00	.00	.00
15	.00	.00	.00	.00	1.1	.03	.00	.05	.00	.00	.00	.00
16	.00	.00	.00	.00	1.1	.03	.00	.03	.00	.00	.00	.00
17	.00	.00	.00	.00	.81	.03	.01	.88	.00	.00	.00	.00
18	.00	.00	.00	.00	.11	.03	.00	1.7	.00	.00	.00	.00
19	.00	.00	.00	.00	.09	.03	.03	.49	.00	.00	.00	.00
20	.00	.00	.00	.00	.07	.03	.09	.09	.00	.00	.00	.00
21	.00	.00	.00	.00	.06	.03	.06	.03	.00	.00	.00	.00
22	.00	.00	.00	.00	.05	.03	.05	.01	.00	.00	.00	.00
23	.00	.00	.00	.00	.05	.03	.05	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.03	.03	.03	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.03	.02	.03	.03	.00	.00	.00	.00
26	.00	.00	.00	.00	.03	.02	.02	.03	.00	.01	.00	.00
27	.00	.09	.00	.00	.03	.02	.01	.03	.00	.03	.00	.00
28	.00	.00	.00	.00	.06	.02	.01	.01	.00	.00	.60	.00
29	.00	.00	.00	.00	----	.03	.02	.00	.00	.00	.51	.00
30	.00	.00	.00	.00	----	.14	.03	.00	.00	.00	.07	.00
31	.00	----	.00	.00	----	.09	----	.00	----	.00	.04	----
TOTAL	.00	.09	.01	.00	3.62	1.79	1.81	3.92	.93	.08	1.43	1.36
MEAN	.000	.003	.000	.000	.13	.058	.060	.13	.031	.003	.046	.045
MAX	.00	.09	.01	.00	1.1	.24	.39	1.7	.44	.03	.60	.73
MIN	.00	.00	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00

WTR YR 1981 TOTAL 15.04 MEAN .041 MAX 1.7 MIN .00

03303276 TRIBUTARY TO FRIDAY BRANCH NEAR SAINT MEINRAD, IN--Continued
(Baseline water-quality station for the coal mining region of Southwestern Indiana)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL ANALYSIS: October 1, 1980 to September 30, 1981.
SPECIFIC CONDUCTANCE: October 1, 1980 to September 30, 1981.
WATER TEMPERATURE: October 1, 1980 to September 30, 1981.
SEDIMENT DISCHARGE: October 1, 1980 to Sepbember 30, 1981.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 185 micromhos Apr. 29, 1981; minimum, 70 micromhos June 5, 1981.
WATER TEMPERATURE: Maximum, 23.5°C July 26 and 27, 1981; minimum, freezing point on many days during 1980-81 winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	OXYGEN, DIS-SOLVED (MG/L)	TEMPER-ATURE (DEG C)	ALKA-LINITY LAB (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)	ACIDITY (MG/L AS H)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)
NOV 05...	1430	.00	184	6.3	---	9.4	47	5.0	.1	110	190
DEC 11...	1600	.00	120	6.6	8.5	6.0	18	10	.2	90	140
FEB 19...	1200	.07	92	6.3	---	5.2	12	10	.2	140	50
MAR 19...	1030	.03	110	6.6	---	3.0	18	----	--	20	60
MAY 07...	1700	.05	120	7.9	---	13.2	18	----	--	50	130
JUN 04...	1700	.23	70	7.4	---	17.6	17	----	--	30	280
JUL 10...	1100	.00	145	6.5	---	22.1	47	.0	.0	100	570
AUG 05...	1400	.00	137	6.7	---	24.3	63	5.0	.1	90	880

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)
NOV 05...	300	180	32	115	.00	.16	--	--	--	--	--
DEC 11...	230	70	26	84	.00	.11	--	--	--	--	--
FEB 19...	190	10	22	66	.01	.09	2	--	38	26	70
MAR 19...	80	120	24	71	.01	.10	13	90	--	--	--
MAY 07...	180	60	22	78	.01	.11	13	90	--	--	--
JUN 04...	310	10	20	63	.04	.09	12	100	--	--	--
JUL 10...	670	390	22	99	.00	.13	--	--	54	7.0	0
AUG 05...	970	530	17	112	.00	.15	--	--	--	--	--

DATE	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CALCIUM DIS-SOLVED (MG/L AS CA)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	POTAS-SIUM 40 DIS-SOLVED (PCI/L AS K40)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
NOV 05...	--	--	----	--	--	---	---	----	---	--	--
DEC 11...	--	--	----	--	--	---	---	----	---	--	--
FEB 19...	0	0	8.3	16	2	<.1	1.0	.70	4.2	3	10
MAR 19...	--	--	----	--	--	---	---	----	---	--	--
MAY 07...	--	--	----	--	--	---	---	----	---	--	--
JUN 04...	--	--	----	--	--	---	---	----	---	--	--
JUL 10...	30	1	13	0	3	<.1	1.4	1.0	5.3	8	80
AUG 05...	--	--	----	--	--	---	---	----	---	--	--

03303276 TRIBUTARY TO FRIDAY BRANCH NEAR SAINT MEINRAD, IN--Continued
(Baseline water-quality station for the coal-mining region of Southwestern Indiana)

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					---	97	107	115	---	---		
2					---	95	105	108	101	---		
3					---	96	104	---	105	---		
4					---	91	128	---	76	---		
5					---	91	117	---	70	---		
6					---	93	108	---	72	---		
7					---	93	102	---	76	---		
8					---	96	100	107	---	---		
9					---	97	101	114	---	---		
10					---	100	100	137	---	---		
11					---	98	101	117	---	---		
12					---	103	103	113	---	---		
13					---	102	106	124	---	---		
14					---	105	---	122	---	---		
15					93	107	---	116	---	---		
16					82	97	---	109	---	---		
17					84	106	---	106	---	---		
18					91	100	---	114	---	---		
19					97	109	119	94	---	---		
20					97	116	110	102	---	---		
21					99	115	120	99	---	---		
22					99	105	100	103	---	---		
23					99	111	131	---	---	---		
24					101	109	108	---	---	---		
25					106	109	101	98	---	---		
26					107	113	103	107	---	135		
27					109	111	104	101	---	130		
28					102	111	107	99	---	---		
29					---	126	185	---	---	---		
30					---	97	166	---	---	---		
31					---	104	---	---	---	---		
MEAN					98	103	113	110	83	133		
MAX					109	126	185	137	105	135		
MIN					82	91	100	94	70	130		

WTR YR 1981 MEAN 106 MAX 185 MIN 70

03303276 TRIBUTARY TO FRIDAY BRANCH NEAR SAINT MEINRAD, IN--Continued
(Baseline water-quality station for the coal-mining region of Southwestern Indiana)

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					---	6.0	11.0	13.0	----	----	----	20.5
2					---	5.0	10.0	12.0	16.5	----	----	20.5
3					---	4.0	11.0	----	16.0	----	----	20.0
4					---	4.5	11.5	----	16.0	----	----	20.0
5					---	5.5	9.5	----	15.5	----	----	20.0
6					---	4.5	9.0	----	16.0	----	----	19.5
7					---	4.0	10.0	----	16.0	----	----	----
8					---	3.5	11.0	13.5	----	----	----	----
9					---	5.0	13.0	13.5	----	----	----	----
10					---	5.0	13.5	13.5	----	----	----	----
11					---	4.5	15.0	11.5	----	----	----	----
12					---	5.0	15.5	11.5	----	----	----	----
13					---	6.0	15.5	12.0	----	----	----	----
14					---	5.5	----	12.5	----	----	----	----
15					.5	4.5	----	12.0	----	----	----	----
16					.5	5.5	----	12.5	----	----	----	----
17					3.5	5.5	----	12.5	----	----	----	----
18					4.5	5.5	----	12.5	----	----	----	----
19					5.5	4.0	14.0	11.5	----	----	----	----
20					5.0	4.0	12.5	12.0	----	----	----	----
21					5.0	5.0	11.0	12.0	----	----	----	----
22					6.5	5.0	11.5	12.5	----	----	----	----
23					5.5	6.0	13.0	----	----	----	----	----
24					5.0	6.5	11.0	----	----	----	----	----
25					5.0	7.0	11.5	15.0	----	----	----	----
26					6.0	8.5	14.0	15.0	----	23.5	----	----
27					6.0	10.0	15.0	14.5	----	23.5	----	----
28					7.5	10.5	15.5	14.5	----	----	20.5	----
29					---	11.0	15.5	----	----	----	20.0	----
30					---	11.0	14.5	----	----	----	20.0	----
31					---	10.5	----	----	----	----	20.5	----
MEAN					4.5	6.0	12.5	13.0	16.0	23.5	20.5	20.0
MAX					7.5	11.0	15.5	15.0	16.5	23.5	20.5	20.5
MIN					.5	3.5	9.0	11.5	15.5	23.5	20.0	19.5

WTR YR 1981 MEAN 11.0 MAX 23.5 MIN .5

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 miles (3.2 km) downstream from Coon Branch, 5.8 miles (9.3 km) upstream from Sulphur Fork Creek, and at mile 14.1 (22.7 km).

DRAINAGE AREA.--39.8 mi^2 (103.1 km^2).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WRD Ind. 1972: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 395.00 ft (120.396 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for periods of no gage-height record, which are fair. Flow regulated by Forest Service and Middle Fork Anderson River Conservancy District control structures beginning June 1967.

AVERAGE DISCHARGE.--20 years, 57.3 ft^3/s (1.623 m^3/s), 19.55 in/yr (497 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,360 ft^3/s (180 m^3/s) Mar. 9, 1964; maximum gage height, 19.33 ft (5.892 m) 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 (6.096 m), from floodmark, discharge, 15,000 ft^3/s (425 m^3/s), from rating curve extended above 7,000 ft^3/s (198 m^3/s). This is the maximum flood since 1905, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 795 ft^3/s (22.5 m^3/s) May 19, gage height, 13.88 (4.231 m); minimum daily, 0.23 ft^3/s (0.006 m^3/s) Oct. 12 to 16.

NOTE.--No gage-height record Apr. 8 to June 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.51	10	18	4.7	45	98	66	45	80	.59	8.0	30
2	.51	11	15	4.4	102	71	47	30	62	.59	5.8	197
3	.45	7.1	11	4.4	61	53	39	24	45	.59	4.4	269
4	.45	6.2	9.6	3.5	20	60	91	23	40	1.8	3.5	125
5	.38	2.2	9.0	3.1	4.5	160	264	25	41	64	3.0	56
6	.32	.97	8.5	2.7	4.0	130	141	28	50	70	9.6	34
7	.32	.86	8.5	2.2	3.7	84	86	31	53	34	33	24
8	.32	.86	9.0	2.4	3.6	59	65	29	49	21	61	18
9	.32	.86	29	2.7	3.5	47	45	25	36	13	36	13
10	.32	.76	36	3.0	23	40	31	35	31	11	23	9.0
11	.27	5.8	29	2.7	74	35	25	92	31	8.5	15	6.7
12	.23	7.5	24	2.2	51	30	21	80	26	5.8	8.5	5.5
13	.23	5.8	20	2.3	35	27	18	45	23	4.4	5.8	4.7
14	.23	4.4	15	2.4	29	25	16	35	18	4.1	4.1	4.4
15	.23	3.5	13	2.4	26	24	13	200	13	4.7	3.8	5.1
16	.23	3.0	11	2.4	40	27	12	100	11	5.5	3.8	5.1
17	3.0	3.5	9.0	2.4	114	27	11	70	9.0	4.4	3.3	5.1
18	32	7.1	8.5	2.4	102	25	56	39	7.5	3.5	2.6	4.4
19	21	7.1	8.0	2.4	76	23	25	750	7.1	5.5	2.2	3.8
20	11	7.1	7.5	2.6	81	21	200	480	7.1	9.0	1.8	2.8
21	6.7	7.1	7.1	3.8	68	20	140	300	7.1	5.8	1.6	2.4
22	4.1	6.7	7.1	4.7	55	18	90	160	6.7	4.4	1.5	2.4
23	3.5	6.2	7.1	5.5	47	17	52	100	6.7	3.3	1.3	2.2
24	3.8	5.5	7.1	5.8	43	15	45	69	6.7	3.0	1.3	2.0
25	9.6	5.1	6.2	5.8	37	13	35	45	6.2	2.6	1.3	1.8
26	8.5	4.7	5.8	6.2	33	12	25	26	6.2	2.6	1.2	1.8
27	8.0	23	5.5	6.2	29	11	22	300	1.6	2.8	1.2	2.2
28	8.5	21	5.1	5.8	57	10	20	250	.59	31	18	2.4
29	15	27	4.7	5.5	------	11	18	150	.51	53	129	2.2
30	13	23	4.7	5.1	------	145	56	80	.51	26	95	2.0
31	11	------	4.7	4.7	------	106	----	37	------	14	46	-----
TOTAL	164.02	224.91	363.7	116.4	1267.3	1444	1775	3703	682.51	420.47	535.6	844.0
MEAN	5.29	7.50	11.7	3.75	45.3	46.6	59.2	119	22.8	13.6	17.3	28.1
MAX	32	27	36	6.2	114	160	264	750	80	70	129	269
MIN	.23	.76	4.7	2.2	3.5	10	11	23	.51	.59	1.2	1.8
CFSM	.13	.19	.29	.09	1.14	1.17	1.49	2.99	.57	.34	.44	.71
IN.	.15	.21	.34	.11	1.18	1.35	1.66	3.46	.64	.39	.50	.79

CAL YR 1980 TOTAL 13296.09 MEAN 36.3 MAX 420 MIN .08 CFSM .91 IN 12.43
WTR YR 1981 TOTAL 11540.91 MEAN 31.6 MAX 750 MIN .23 CFSM .79 IN 10.79

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 miles (2.1 km) east of Santa Claus Post Office, and 1.8 miles (2.9 km) upstream from unnamed right-bank tributary.

DRAINAGE AREA.--7.86 mi^2 (20.36 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 404.34 ft (123.243 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--12 years, 11.3 ft^3/s (0.320 m^3/s), 19.52 in/yr (496 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,100 ft^3/s (116 m^3/s) Apr. 28, 1970, gage height, 9.74 ft (2.969 m), from rating curve extended above 450 ft^3/s (12.7 m^3/s) on basis of two indirect measurements of peak flow at site 1.6 miles (2.6 km) downstream, drainage area, 16.0 mi^2 (41.4 km^2), adjusted to gage site; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 500 ft^3/s (14.2 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Aug. 28	2130	*687	19.5	*8.99	2.740

Minimum daily discharge, no flow Oct. 6-16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.08	.70	.52	16	16	4.2	2.6	4.6	.48	.50	17
2	.03	.06	.61	.41	12	8.7	2.5	2.3	3.0	.16	.36	73
3	.02	.06	.43	.25	2.5	5.2	2.3	2.4	3.3	.21	.46	18
4	.02	.08	.46	.13	1.7	16	30	2.6	2.0	.48	.50	7.5
5	.02	.08	.43	.15	1.5	31	22	2.9	1.1	15	2.0	3.7
6	.00	.08	.39	.16	1.3	15	10	3.3	2.6	1.8	35	2.0
7	.00	.10	.43	.15	1.1	8.3	6.3	3.0	1.3	.94	18	1.2
8	.00	.10	.70	.14	1.0	5.6	4.3	2.5	.78	.66	6.2	.94
9	.00	.08	7.0	.12	4.5	4.3	3.0	2.8	.62	.54	1.7	.70
10	.00	.06	2.1	.10	14	3.4	2.3	13	.69	.43	3.5	.54
11	.00	.05	1.2	.09	23	2.6	2.1	11	.50	.33	1.8	.43
12	.00	.03	1.2	.10	15	2.3	1.8	4.8	.44	.28	.89	.39
13	.00	.02	.99	.11	6.0	2.0	1.6	3.4	.38	.22	.70	.33
14	.00	.03	.84	.12	4.5	1.6	1.4	21	.32	9.4	.70	.39
15	.00	.05	.89	.11	11	1.7	1.1	14	.27	5.9	.74	.39
16	.00	.05	.74	.10	26	2.5	1.2	6.4	.28	1.1	.58	.36
17	3.5	.74	.61	.12	30	2.0	6.3	3.8	.25	.79	.36	.33
18	.70	.66	.50	.18	18	1.7	2.5	75	.20	.66	.28	.25
19	.10	.25	.35	.27	14	1.4	7.0	91	.19	1.2	.17	.22
20	.06	.15	.30	.39	9.8	1.4	22	30	.28	.94	.15	.20
21	.05	.13	.29	.99	6.4	1.2	8.3	13	.25	1.1	.15	.15
22	.03	.10	.29	.74	5.8	1.2	5.3	7.0	.25	.57	.25	.13
23	.03	.15	.31	.66	5.2	1.1	5.1	3.8	.14	.50	.15	.13
24	.22	.17	.31	.61	4.5	.99	3.2	2.5	.09	.43	.08	.12
25	.36	.12	.30	.70	3.2	.94	2.3	5.7	.09	.39	.05	.12
26	.12	.10	.30	.79	2.5	.94	2.1	32	.15	.36	.02	.12
27	.10	16	.35	.66	2.3	.89	1.9	30	.10	3.3	.08	1.4
28	.20	2.6	.42	.54	16	.84	1.8	14	.06	1.9	33	.17
29	.12	1.3	.46	.50	-----	2.6	6.0	6.4	.02	1.2	46	.10
30	.08	.84	.52	.40	-----	24	3.9	3.8	1.4	.94	8.6	.10
31	.08	-----	.56	.47	-----	7.6	-----	8.8	-----	.79	3.4	------
TOTAL	5.88	24.32	24.98	10.78	258.8	175.00	173.8	424.8	25.65	53.00	166.37	130.41
MEAN	.19	.81	.81	.35	9.24	5.65	5.79	13.7	.86	1.71	5.37	4.35
MAX	3.5	16	7.0	.99	30	31	30	91	4.6	15	46	73
MIN	.00	.02	.29	.09	1.0	.84	1.1	2.3	.02	.16	.02	.10
CFSM	.02	.10	.10	.05	1.18	.72	.74	1.74	.11	.22	.68	.55
IN.	.03	.12	.12	.05	1.22	.83	.82	2.01	.12	.25	.79	.62

CAL YR 1980 TOTAL 1984.06 MEAN 5.42 MAX 111 MIN .00 CFSM .69 IN 9.39
WTR YR 1981 TOTAL 1473.79 MEAN 4.04 MAX 91 MIN .00 CFSM .51 IN 6.97

03322100 PIGEON CREEK AT EVANSVILLE, IN

LOCATION.--Lat 38°00'14", long 87°32'19", in SE¼SW¼ sec.16, T.6 N., R.10 W., Vanderburgh County, Hydrologic Unit 05140202, on left bank in the median strip of Old U.S. 41, between two steel truss bridges at Evansville, and at mile 6.0 (9.6 km).

DRAINAGE AREA.--323 mi² (837 km²).

PERIOD OF RECORD.--October 1960 to current year.

REVISED RECORDS.--WSP 2109: 1960. WRD Ind. 1972: 1971.

GAGE.--Water-stage recorder. Datum of gage is 352.24 ft (107.363 m) National Geodetic Vertical Datum of 1929. Nonrecording auxiliary gage at site 1.2 miles (1.9 km) upstream at same datum. Prior to October 1, 1968, water-stage recorder, and October 1, 1968, to September 30, 1971, nonrecording gage at site 1.2 miles (1.9 km) upstream, was used as base gage, and present base gage was used as auxiliary gage.

REMARKS.--Records fair except those for periods of backwater effect, which are poor. Backwater or reverse flow from the Ohio River generally occurs when the stage of the Ohio River at Evansville, In. (Sta. 03322000) exceeds a gage height of about 24 ft (7.3 m).

AVERAGE DISCHARGE.--21 years 348 ft³/s (9.855 m³/s), 14.63 in/yr (372 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,100 ft³/s (343 m³/s) May 10, 1961, gage height, 27.94 ft (8.52 m); minimum daily (unaffected by backwater), 1.0 ft³/s (0.028 m³/s) Aug. 30 to Sept. 1, Oct. 11, 12, 21, 22, 26, 1964; zero or reverse flow occurs at times due to extreme stages on the Ohio River.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,210 ft³/s (176 m³/s) May 27, gage height, 17.21 ft (5.246 m); minimum daily discharge (unaffected by backwater), 6.7 ft³/s (0.190 m³/s), Sept. 26; minimum daily discharge (affected by backwater), no flow Feb. 5, 6, 22-28, Mar. 8, 9, Apr. 21 and June 8-11.

NOTE.--Backwater from Ohio River Feb. 5-7, 20 to Mar. 11, Apr. 17-28, May 21-25 and June 3-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	19	49	12	35	185	76	62	3140	26	17	171
2	16	16	39	13	53	520	51	56	2330	22	16	574
3	15	15	30	14	64	585	39	39	1130	174	16	399
4	18	16	24	13	38	730	138	34	290	381	14	179
5	19	15	20	10	.00	460	434	32	275	226	13	110
6	15	14	20	11	.00	430	224	31	260	145	785	75
7	13	14	20	11	70	165	115	31	160	73	1150	54
8	15	16	23	10	45	.00	84	30	.00	50	1300	42
9	16	18	49	9.5	29	.00	68	37	.00	47	748	34
10	15	23	48	9.0	120	115	60	186	.00	34	219	28
11	15	25	56	8.5	817	285	54	995	.00	25	165	24
12	17	29	37	8.0	415	60	74	654	490	21	103	23
13	19	33	27	11	195	40	58	238	605	20	64	21
14	20	37	23	11	97	35	61	980	705	21	46	27
15	20	40	21	10	74	32	50	1320	500	411	43	27
16	22	40	21	9.5	79	35	50	998	520	352	41	33
17	76	80	20	9.5	321	39	60	415	425	113	50	25
18	202	62	17	11	204	40	130	1380	395	52	33	17
19	155	90	17	12	168	35	170	2590	395	36	22	14
20	39	60	14	14	70	30	290	2590	325	75	15	12
21	22	39	12	23	30	29	.00	2650	170	85	13	12
22	17	30	11	19	.00	29	125	2630	58	44	11	10
23	15	32	10	21	.00	29	475	1910	48	29	11	9.6
24	28	34	11	23	.00	26	400	1080	37	18	9.7	9.0
25	30	27	12	25	.00	21	360	2240	31	15	12	7.7
26	57	27	13	27	.00	19	690	2560	31	13	14	6.7
27	43	198	15	25	.00	18	405	5190	29	22	211	21
28	33	342	15	22	.00	18	185	4070	26	31	678	9.7
29	26	144	14	20	-------	33	89	3590	25	33	1630	9.1
30	29	76	13	17	-------	82	59	3800	25	37	914	8.0
31	23	---	11	17	-------	120	-------	3810	--------	23	273	------
TOTAL	1069	1611	712	456.0	2924.00	4245.00	5074.00	46228	12425.00	2654	8636.7	1991.8
MEAN	34.5	53.7	23.0	14.7	104	137	169	1491	414	85.6	279	66.4
MAX	202	342	56	27	817	730	690	5190	3140	411	1630	574
MIN	13	14	10	8.0	.00	.00	.00	30	.00	13	9.7	6.7
CFSM	.11	.17	.07	.05	.32	.42	.52	4.62	1.28	.27	.86	.21
IN.	.12	.19	.08	.05	.34	.49	.58	5.32	1.43	.31	.99	.23

CAL YR 1980 TOTAL 99103.00 MEAN 271 MAX 3220 MIN 10 CFSM .84 IN 11.41
WTR YR 1981 TOTAL 88026.50 MEAN 241 MAX 5190 MIN .00 CFSM .75 IN 10.14

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 (3m) downstream from county bridge on Indiana-Ohio State line road, 2 miles (3 km) east of New Corydon, 2.8 miles (4.5 km) downstream from Beaver Creek, and at mile 466.0 (749.8 km).

DRAINAGE AREA.--262 mi^2 (678 km^2).

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Datum of gage is 830.10 ft (253.014 m) National Geodetic Vertical Datum of 1929. Prior to June 24, 1953, nonrecording gage at same site and datum.

REMARKS.--Records fair. Occasional regulation by Grand Lake, diversion from or into St. Marys River basin, and into Miami and Erie Canal.

AVERAGE DISCHARGE.--30 years, 198 ft^3/s (5.607 m^3/s), 10.26 in/yr (261 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,720 ft^3/s (247 m^3/s) Jan. 22, 1959; gage height, 20.47 ft (6.239 m), from floodmarks; minimum daily, 0.8 ft^3/s (0.023 m^3/s) Dec. 22, 23, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,500 ft^3/s (70.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 14	1500	*4970	141	*18.48	5.633
June 25	0900	2750	77.9	16.78	5.114

Minimum daily discharge, 6.4 ft^3/s (0.181 m^3/s) Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	42	51	12	25	88	23	600	230	384	82	22
2	7.9	41	48	12	37	74	19	980	163	347	77	21
3	9.3	40	48	11	52	65	20	940	137	364	70	22
4	9.5	38	48	9.8	28	58	26	500	121	340	68	60
5	8.6	38	48	8.7	19	61	54	270	116	323	63	40
6	7.8	38	48	8.6	17	67	43	840	1410	334	67	22
7	6.6	55	48	8.5	16	73	32	1000	737	168	64	17
8	6.4	44	48	7.8	15	77	28	810	381	135	57	17
9	7.2	33	36	7.6	14	69	27	480	1950	121	52	17
10	7.8	33	25	7.4	19	66	27	410	1720	113	50	15
11	8.3	32	25	7.3	540	65	31	580	1080	111	48	14
12	9.0	33	21	7.3	280	60	893	450	631	105	44	12
13	8.8	33	17	7.3	200	58	1060	280	1170	100	41	12
14	8.7	33	14	8.6	134	52	676	890	4480	94	37	19
15	9.7	34	13	8.3	145	45	331	1600	3230	94	37	39
16	11	35	12	8.0	524	45	164	1800	1750	90	35	22
17	11	35	12	7.9	1070	30	314	1700	976	86	33	17
18	13	35	12	7.4	651	28	345	900	673	83	32	14
19	19	35	10	8.0	484	27	143	620	506	80	30	12
20	18	36	9.8	9.0	443	26	95	450	458	349	26	12
21	16	38	9.5	10	308	25	69	310	448	460	25	11
22	15	39	9.0	9.5	213	23	58	210	951	184	24	10
23	15	44	8.8	9.1	359	21	70	172	636	125	21	9.2
24	17	46	9.4	11	341	21	83	134	451	106	19	9.1
25	25	46	9.7	13	217	20	58	172	2330	97	18	8.9
26	41	47	9.2	19	142	20	56	153	1420	274	18	9.1
27	35	48	9.0	120	104	20	51	506	704	247	18	12
28	38	52	8.4	86	94	20	47	1830	464	159	18	13
29	49	52	8.4	64	----	20	860	1090	398	129	17	13
30	48	52	8.8	48	----	20	720	506	372	104	17	13
31	44	----	12	34	----	27	----	391	-----	91	16	-----
TOTAL	538.2	1207	696.0	596.1	6491	1371	6423	21574	30093	5797	1224	534.3
MEAN	17.4	40.2	22.5	19.2	232	44.2	214	696	1003	187	39.5	17.8
MAX	49	55	51	120	1070	88	1060	1830	4480	460	82	60
MIN	6.4	32	8.4	7.3	14	20	19	134	116	80	16	8.9
CFSM	.07	.15	.09	.07	.89	.17	.82	2.66	3.83	.71	.15	.07
IN.	.08	.17	.10	.08	.92	.19	.91	3.06	4.27	.82	.17	.08

CAL YR 1980 TOTAL 80879.3 MEAN 221 MAX 4110 MIN 6.4 CFSM .84 IN 11.48
WTR YR 1981 TOTAL 76544.6 MEAN 210 MAX 4480 MIN 6.4 CFSM .80 IN 10.87

03322900 WABASH RIVER AT LINN GROVE, IN

LOCATION.--Lat 40°39'22", long 85°01'58", in SE¼SE¼ sec.34, T.26 N., R.13 E., Ad ams County, Hydrologic Unit 05120101, on right bank 10 ft (3 m) downstream from bridge on State Highway 218, 800 ft (244 m) downstream from Shoemaker ditch, 0.8 mile (1.3 km) north of Linn Grove, and 2.2 miles (3.5 km) upstream from Rice ditch.

DRAINAGE AREA.--453 mi^2 (1,173 km^2).

WATER-DISCHARGE RECORDS

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 (246.278 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those of winter periods, which are fair. Occasional regulation of Grand Lake, diversion from or into St. Marys River basin, and into Miami and Erie Canal.

AVERAGE DISCHARGE.--17 years, 371 ft^3/s (10.51 m^3/s), 11.12 in/yr (282 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,560 ft^3/s (271 m^3/s) Mar. 17, 1978, gage height, 13.87 ft (4.228 m); minimum daily, 5.1 ft^3/s (0.14 m^3/s) Oct. 8, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in April 1964 reached a stage of 13.13 ft (4.002 m), from floodmark, discharge, 6,900 ft^3/s (195 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,900 ft^3/s (53.8 m^3/s) and maximum(*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 17	0100	3020	85.5	10.34	3.152	June 15	1700	*5640	160	*12.57	3.831
June 11	0600	3030	85.8	10.35	3.155	June 25	0300	4380	124	11.72	3.572

Minimum daily discharge, 11 ft^3/s (.312 m^3/s) Oct. 9, 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	47	54	19	45	167	47	822	533	524	108	40
2	13	45	53	19	60	144	45	1240	355	484	93	74
3	13	44	50	18	90	119	40	1300	284	443	85	83
4	13	42	49	17	70	102	44	702	243	555	82	449
5	13	41	51	16	49	104	61	330	215	1240	78	508
6	13	41	50	15	42	162	93	770	1030	841	112	185
7	13	42	51	15	38	210	77	1330	1560	459	121	91
8	12	60	52	14	36	149	61	1210	1560	251	87	64
9	11	42	56	13	33	113	63	559	2180	189	69	54
10	12	37	53	12	32	96	59	508	2690	156	61	48
11	12	35	41	12	350	92	58	673	2970	136	67	39
12	11	35	39	12	1070	88	698	575	2460	126	76	33
13	11	35	32	12	1030	81	1360	370	2360	115	55	28
14	13	35	27	15	585	75	1440	727	3180	102	47	26
15	13	35	24	14	367	66	1040	1830	5260	96	44	39
16	13	35	23	14	903	59	496	2660	4870	93	42	78
17	14	36	22	14	1360	57	307	2830	3630	86	39	51
18	15	36	22	13	1460	55	551	2100	2450	82	35	38
19	17	35	20	15	1360	51	367	1270	1490	78	34	30
20	22	35	20	16	945	49	223	720	811	313	33	25
21	20	41	18	17	750	47	169	511	625	1060	30	23
22	18	48	17	17	509	45	135	419	767	682	28	22
23	18	48	16	16	522	42	125	321	969	264	27	20
24	20	48	19	17	692	40	143	226	891	168	26	19
25	22	48	18	18	519	39	137	314	3410	130	26	18
26	31	47	17	20	330	39	105	328	3620	209	24	17
27	45	48	16	100	226	40	88	414	3250	773	26	17
28	40	51	15	180	185	40	82	1290	2050	373	32	16
29	48	56	15	120	-----	40	496	1530	1070	296	28	17
30	54	54	17	88	-----	41	1090	1510	634	183	26	19
31	50	----	19	64	-----	42	----	988	-----	132	27	----
TOTAL	628	1282	976	952	13658	2494	9700	30377	57417	10639	1668	2171
MEAN	20.3	42.7	31.5	30.7	488	80.5	323	980	1914	343	53.8	72.4
MAX	54	60	56	180	1460	210	1440	2830	5260	1240	121	508
MIN	11	35	15	12	32	39	40	226	215	78	24	16
CFSM	.05	.09	.07	.07	1.08	.18	.71	2.16	4.23	.76	.12	.16
IN.	.05	.11	.08	.08	1.12	.20	.80	2.49	4.72	.87	.14	.18

CAL YR 1980 TOTAL 126341 MEAN 345 MAX 4610 MIN 11 CFSM .76 IN 10.37
WTR YR 1981 TOTAL 131962 MEAN 362 MAX 5260 MIN 11 CFSM .80 IN 10.84

03322900 WABASH RIVER AT LINN GROVE, IN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: October 1979 to current year.
WATER TEMPERATURE: October 1979 to current year.
SEDIMENT DISCHARGE: July 1971 to current year (partial-record station).

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,020 micromhos Feb. 5-6, 8, 1981; minimum, 254 micromhos Feb. 12, 1981.
WATER TEMPERATURE: Maximum, 29.0°C July 15-16, 1980; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,020 micromhos Feb. 5-6, 8; minimum, 254 micromhos Feb. 12.
WATER TEMPERATURE: Maximum, 24.0°C June 4, Aug. 16, minimum, 0.0° Dec. 19-31, Jun. 1-31, Feb. 1-19.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	672	---	872	---	843		---	564	571		---	686
2	692	---	859	---	863		---	525	580		646	699
3	716	---	759	---	873		---	479	573		645	692
4	731	---	792	---	949		---	497	600		628	662
5	752	---	680	---	1020		---	530	609		588	662
6	675	---	724	---	1020		---	544	538		589	655
7	749	---	728	---	1000		---	544	459		589	647
8	---	---	682	---	1020		---	533	321		584	629
9	---	---	791	---	----		---	530	294		582	620
10	---	---	727	---	----		877	540	---		588	632
11	---	---	781	---	----		892	542	---		585	655
12	---	---	805	---	352		786	547	---		586	686
13	---	---	861	---	361		473	586	---		587	700
14	---	844	910	---	455		477	605	---		590	708
15	---	796	---	---	548		551	637	---		598	714
16	---	741	---	873	453		619	677	---		609	716
17	---	736	---	802	355		678	711	---		618	714
18	---	786	---	862	374		722	716	---		621	702
19	---	738	---	804	468		747	684	---		615	717
20	---	777	---	718	559		744	683	---		608	722
21	---	799	---	780	599		688	643	---		627	715
22	---	756	---	---	644		654	667	---		650	711
23	---	749	---	---	658		666	698	---		660	710
24	---	676	---	---	668		668	698	---		665	712
25	---	632	---	---	656		681	638	---		655	721
26	---	643	---	---	----		677	651	---		664	729
27	---	645	---	---	----		702	641	---		669	746
28	---	621	---	---	----		686	647	---		697	751
29	---	647	---	733	----		694	695	---		702	750
30	---	649	---	723	----		648	660	---		684	727
31	---	---	---	776	----		---	536	---		674	---
MEAN	712	720	784	786	670		682	608	505		627	696
MAX	752	844	910	873	1020		892	716	609		702	751
MIN	672	621	680	718	352		473	479	294		582	620

WTR YR 1981 MEAN 671 MAX 1020 MIN 294

03322900 WABASH RIVER AT LINN GROVE, IN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	585	---	650	---	771		---	527	525		---	669
2	615	---	667	---	785		---	465	535		631	686
3	674	---	707	---	826		---	466	545		592	654
4	633	---	683	---	879		---	480	565		553	655
5	624	---	660	---	943		---	498	540		585	656
6	598	---	665	---	987		---	531	460		584	644
7	558	---	645	---	977		---	525	321		577	630
8	---	---	655	---	1000		---	526	295		581	613
9	---	---	681	---	----		---	515	273		568	613
10	---	---	700	---	----		815	531	---		582	621
11	---	---	721	---	----		802	519	---		576	559
12	---	---	741	---	254		476	518	---		578	657
13	---	---	728	---	268		444	547	---		581	653
14	---	800	750	---	365		457	589	---		583	701
15	---	744	---	---	357		477	607	---		590	709
16	---	722	---	769	331		554	638	---		597	713
17	---	730	---	774	332		621	677	---		611	697
18	---	728	---	808	328		681	682	---		613	657
19	---	729	---	715	376		724	680	---		603	703
20	---	739	---	708	471		693	625	---		603	715
21	---	760	---	718	562		652	624	---		609	658
22	---	695	---	---	600		650	643	---		628	706
23	---	683	---	---	645		654	669	---		651	653
24	---	615	---	---	646		662	641	---		655	658
25	---	611	---	---	652		665	623	---		649	676
26	---	631	---	---	----		668	638	---		652	651
27	---	618	---	---	----		663	621	---		664	651
28	---	612	---	---	----		659	631	---		668	664
29	---	612	---	680	----		652	648	---		651	728
30	---	611	---	681	----		568	538	---		661	712
31	---	---	---	727	----		---	520	---		661	---
MEAN	612	685	690	731	607		630	579	451		611	665
MAX	674	800	750	808	1000		815	682	565		668	728
MIN	558	611	645	680	254		444	465	273		553	559

WTR YR 1981 MEAN 627 **MAX** 1000 **MIN** 254

03322900 WABASH RIVER AT LINN GROVE, IN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	8.0	4.5	.5	.5	---	12.5	13.0	18.5		22.0	23.0
2	15.5	8.5	5.5	.5	.5	---	11.0	12.5	19.5		22.0	23.0
3	13.0	10.0	3.5	.5	.0	---	11.0	14.0	23.0		22.0	22.5
4	12.0	10.0	2.0	.5	.5	---	12.5	16.0	24.0		22.5	22.0
5	10.0	9.0	3.5	.5	.5	---	12.5	16.5	22.5		22.0	21.0
6	10.0	9.0	5.5	.0	.5	---	11.0	16.0	21.5		22.0	21.0
7	13.5	10.0	8.0	.0	.0	---	12.0	13.0	22.0		21.5	21.0
8	---	10.0	9.0	.0	.5	---	13.0	14.0	21.5		21.0	21.0
9	16.0	11.5	8.5	.0	.5	---	15.0	14.5	21.0		22.0	20.5
10	16.0	10.0	6.0	.0	.0	---	14.0	14.5	----		22.0	20.5
11	14.0	7.5	4.0	.0	.0	---	14.5	14.0	----		21.5	21.5
12	11.0	5.5	4.0	.0	.0	---	13.5	13.5	----		21.0	22.0
13	12.0	6.0	3.5	.0	.0	---	12.5	13.0	----		21.5	23.0
14	12.5	6.5	2.0	.0	.0	---	13.0	13.0	----		23.0	23.0
15	14.5	6.0	1.5	.0	.0	---	13.0	11.0	----		23.0	22.0
16	16.0	5.0	2.0	.0	.0	---	12.5	14.0	----		24.0	21.0
17	15.0	4.0	1.0	.0	.0	---	14.5	15.5	----		23.0	18.5
18	15.5	3.5	1.5	.0	.5	5.0	16.0	15.0	----		23.0	17.0
19	13.0	3.5	.5	.0	2.0	3.5	15.0	12.5	----		23.0	17.0
20	12.5	3.5	.5	.0	4.5	2.5	14.0	14.0	----		21.5	18.0
21	13.0	3.0	.5	.0	5.0	3.5	13.5	15.5	----		21.5	18.5
22	12.5	3.0	.5	.0	5.0	3.5	12.5	17.5	----		22.0	18.5
23	11.5	3.5	.5	.5	5.0	4.0	15.0	18.0	----		22.5	17.0
24	10.5	4.0	.5	.5	4.5	4.5	13.5	19.5	----		22.5	16.5
25	9.5	4.0	.5	.5	---	4.5	12.5	20.5	----		23.0	17.0
26	7.0	2.5	.5	.5	---	7.0	12.0	20.0	----		23.0	19.0
27	6.0	2.0	.5	.5	---	7.0	13.5	19.0	----		23.0	19.0
28	6.0	1.5	.5	.5	---	7.0	14.5	17.0	----		22.5	18.0
29	7.0	2.0	.5	.5	---	9.0	13.5	19.5	----		23.5	17.0
30	7.0	3.0	.5	.5	---	10.0	13.5	19.5	----		23.0	17.5
31	7.5	----	.5	.5	---	9.5	----	19.0	----		23.5	----
MEAN	12.0	6.0	2.5	.0	1.5	6.0	13.0	15.5	21.5		22.5	20.0
MAX	17.0	11.5	9.0	.5	5.0	10.0	16.0	20.5	24.0		24.0	23.0
MIN	6.0	1.5	.5	.0	.0	2.5	11.0	11.0	18.5		21.0	16.5

WTR YR 1981 MEAN 10.5 MAX 24.0 MIN 0

03322900 WABASH RIVER AT LINN GROVE, IN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.5	6.0	3.0	.0	.0	---	9.5	12.0	17.5		20.0	22.5
2	13.0	5.5	4.0	.0	.0	---	10.0	11.5	18.0		20.0	22.5
3	11.0	6.5	2.0	.0	.0	---	9.5	12.5	19.0		20.0	22.0
4	10.0	8.5	1.5	.0	.0	---	10.5	13.5	20.0		20.0	20.5
5	8.5	7.0	2.0	.0	.0	---	9.0	16.0	21.0		20.0	20.5
6	7.0	6.0	3.5	.0	.0	---	8.0	13.0	20.5		20.0	20.0
7	9.0	7.0	5.5	.0	.0	---	8.5	12.0	20.0		20.0	20.0
8	---	9.0	8.0	.0	.0	---	10.5	12.5	20.5		20.0	20.5
9	13.5	9.0	6.0	.0	.0	---	12.5	14.0	20.5		20.0	19.5
10	12.0	7.5	4.0	.0	.0	---	12.5	14.0	----		20.0	19.0
11	11.0	6.0	3.0	.0	.0	---	13.0	13.0	----		20.0	19.5
12	9.5	4.5	2.5	.0	.0	---	12.5	12.0	----		20.0	20.5
13	8.0	4.0	2.0	.0	.0	---	11.5	12.5	----		20.0	20.5
14	9.5	6.0	1.0	.0	.0	---	12.0	11.0	----		20.0	22.0
15	11.0	5.0	1.0	.0	.0	---	11.5	11.0	----		22.0	21.0
16	13.5	4.0	.5	.0	.0	---	11.0	11.0	----		22.0	19.0
17	14.5	3.0	.5	.0	.0	---	12.0	13.5	----		20.5	17.0
18	13.0	2.5	.5	.0	.0	3.5	14.0	12.5	----		19.5	16.5
19	10.5	2.0	.0	.0	.0	2.5	13.5	12.0	----		19.5	16.0
20	10.0	2.0	.0	.0	2.0	2.0	12.0	12.0	----		20.0	16.5
21	10.0	2.0	.0	.0	4.0	2.5	10.5	13.5	----		20.0	17.0
22	10.0	1.5	.0	.0	4.5	3.0	11.0	15.0	----		20.0	17.0
23	9.0	2.5	.0	.0	4.5	3.0	12.5	17.0	----		20.0	16.0
24	9.0	3.5	.0	.0	4.0	3.0	11.0	17.5	----		20.0	15.5
25	7.0	3.0	.0	.0	---	3.5	10.0	18.0	----		20.5	16.0
26	5.5	2.0	.0	.0	---	4.0	10.5	18.5	----		20.0	16.5
27	4.5	1.0	.0	.0	---	5.5	11.0	17.0	----		22.0	18.0
28	5.0	1.5	.0	.0	---	5.0	12.0	16.5	----		20.5	17.0
29	4.5	1.0	.0	.0	---	6.5	11.5	17.0	----		20.5	16.0
30	4.5	1.0	.0	.0	---	8.5	10.0	18.5	----		20.5	16.0
31	5.0	---	.0	.0	---	8.0	----	18.0	----		21.0	----
MEAN	9.5	4.5	1.5	.0	1.0	4.5	11.0	14.0	19.5		20.5	18.5
MAX	14.5	9.0	8.0	.0	4.5	8.5	14.0	18.5	21.0		22.0	22.5
MIN	4.5	1.0	.0	.0	.0	2.0	8.0	11.0	17.5		19.5	15.5

WTR YR 1981 MEAN 9.0 MAX 22.5 MIN .0

03322900 WABASH RIVER AT LINN GROVE, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV					
18...	1330	36	19	1.8	--
DEC					
15...	1520	24	86	5.6	--
FEB					
03...	1410	94	66	17	99

03323450 HUNTINGTON LAKE NEAR HUNTINGTON, IN

LOCATION.--Lat 40°50'45", long 85°28'07", in SW¼SW¼ sec.25, T.28 N., R.9 E., Huntington County, Hydrologic Unit 05120101, in operating pylon of dam of reservoir on Wabash River at State Highway 5, 1.5 miles (2.4 km) southeast of Huntington, and at mile 411.4 (661.9 km).

DRAINAGE AREA.--717 mi^2 (1,857 km^2).

PERIOD OF RECORD.--January 1969 to current year. Prior to September 1970, published as Huntington "Reservoir".

GAGE.--Water-stage recorder. Datum of gage is 700.00 ft (213.360 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by concrete and rolled-earth fill dam which is State Highway 5. Releases normally controlled by six sluices, 6.0 ft (1.83 m) wide and 6.0 ft (1.83 m) high and spillway, crest elevation, 765 ft (233.2 m), with three taintor gates, 45 ft (13.7 m) by 36.5 ft (11.13 m) setting atop spillway. Minimum design capacity is 4,100 acre-ft (5.06 hm^3), elevation, 737 ft (224.6 m). Seasonal pool capacity is 12,500 acre-ft (15.4 hm^3), elevation, 749 ft (228.3 m). Capacity at flood control pool is 153,100 acre-ft (189 hm^3), elevation, 798 ft (243.2 m). Reservoir is used for flood control and recreation. Reservoir put into operation on Jan. 9, 1969.

COOPERATION.--Water-stage recorder graph, dam tenders records, and capacity tables furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 115,900 acre-ft (142.9 hm^3) Mar. 25, 1978, elevation, 792.46 ft (241.542 m); minimum, 1,760 acre-ft (2.17 hm^3) Nov. 18, 1974, elevation, 731.27 ft (222.891 m), lowered reservoir for repairs.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 77,364 acre-ft (95.4 hm^3) June 18, elevation, 783.90 ft (238.933 m); minimum, 3,825 acre-ft (4.72 hm^3) Dec. 25, elevation, 736.40 ft (224.455 m).

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	746.80	10,577	
Oct. 31	742.58	7,406	-3,171
Nov. 30	737.06	4,150	-3,256
Dec. 31	737.02	4,130	-20
CAL YR 1980			-1,032
Jan. 31	737.34	4,292	+162
Feb. 28	737.75	4,505	+213
Mar. 31	737.60	4,426	-79
Apr. 30	750.60	13,974	+9,548
May 31	757.10	20,984	+7,010
June 30	764.10	30,440	+9,456
July 31	749.44	12,882	-17,558
Aug. 31	749.15	12,616	-266
Sept. 30	745.00	9,149	-3,467
WTR YR 1981			-1,428

03323500 WABASH RIVER AT HUNTINGTON, IN

LOCATION.--Lat 40°51'20", long 85°29'53", in SW¼NE¼ sec.27, T.28 N., R.9 E., Huntington County, Hydrologic Unit 0512101, on right bank at the Huntington Water and Light Plant, 2 miles (3 km) south of Huntington, 2.4 miles (3.9 km) downstream from Huntington Lake, 3.2 miles (5.1 km) upstream from Little River, and at mile 409.0 (658.1 km).

DRAINAGE AREA.--721 mi² (1,867 km²).

WATER-DISCHARGE RECORDS

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

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

GAGE.--None. Datum of gage was 700.04 ft (213.372 m) National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). July 6, 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.

REMARKS.--Flow regulated by Huntington Lake (See sta 03323450). Daily discharge computed from relation between discharge, head, and gate openings for Huntington Lake beginning Oct. 1, 1974.

COOPERATION.--Records of daily discharge furnished by Corps of Engineers beginning Oct. 1, 1976.

AVERAGE DISCHARGE.--30 years, 602 ft³/s (17.05 m³/s), 11.34 in/yr (288 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,900 ft³/s (422 m³/s) Feb. 10, 1959; maximum gage height, 3.20 ft (7.071 m) Feb. 10, 1959 (backwater from ice); minimum daily discharge, 2.4 ft³/s (0.068 m³/s) Oct. 28, 29, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 22.7 ft (6.92 m), from high-water mark by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 4,060 ft³/s (115 m³/s) June 19; minimum daily discharge, 24 ft³/s (0.68 m³/s) Dec. 26-29, 1980.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
WATER TEMPERATURE: October 1963 to June 1977.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	89	80	25	133	385	37	955	884	2680	232	49
2	67	89	70	32	212	284	38	1020	1370	1800	209	43
3	56	88	89	36	158	243	38	1170	1640	1480	125	33
4	56	87	94	36	114	79	39	1300	1470	1520	94	28
5	56	87	94	44	118	64	40	1280	863	1520	95	175
6	71	86	93	48	86	41	41	1250	510	1520	95	236
7	76	85	93	48	61	159	42	1340	881	1350	50	237
8	76	85	94	45	65	184	43	1740	1130	1490	222	234
9	75	84	128	38	74	207	44	1630	711	1150	127	228
10	75	83	144	35	92	202	46	1040	1470	421	127	218
11	74	82	144	35	107	146	47	774	2820	220	121	210
12	74	82	142	35	185	98	49	791	3480	197	94	206
13	74	81	142	35	352	145	507	712	2180	201	94	154
14	73	92	89	35	429	167	1160	758	1180	192	94	87
15	68	96	71	35	426	128	1100	992	1240	119	94	75
16	66	96	59	35	422	107	1120	1080	1750	61	94	54
17	65	108	61	35	736	106	1640	1130	3020	83	72	43
18	70	112	65	35	1160	86	1590	1910	3820	126	55	366
19	71	111	65	35	1570	66	786	2750	4060	126	52	597
20	71	109	50	35	2080	56	506	2970	4010	182	52	568
21	71	107	43	35	2250	71	335	2860	3940	503	52	183
22	70	105	44	35	2170	71	248	2730	3960	853	52	38
23	70	104	44	36	2060	66	248	1630	3970	777	52	38
24	69	103	91	36	1960	62	177	547	3970	415	52	38
25	69	113	57	44	1820	75	126	416	3990	233	52	38
26	69	110	24	71	913	89	184	452	4030	231	52	38
27	85	99	24	97	350	94	203	510	4030	207	48	38
28	119	98	24	216	317	94	166	518	3370	429	43	38
29	104	130	24	292	-----	94	225	553	3050	521	43	38
30	90	136	25	255	-----	55	642	591	3210	462	59	38
31	90	----	25	93	-----	36	-----	617	-----	284	61	----
TOTAL	2297	2937	2292	1947	20420	3760	11467	38016	76009	21353	2764	4366
MEAN	74.1	97.9	73.9	62.8	729	121	382	1226	2534	689	89.2	146
MAX	119	136	144	292	2250	385	1640	2970	4060	2680	232	597
MIN	56	81	24	25	61	36	37	416	510	61	43	28
CFSM	.10	.14	.10	.09	1.01	.17	.53	1.70	3.52	.96	.12	.20
IN.	.12	.15	.12	.10	1.05	.19	.59	1.96	3.92	1.10	.14	.23

CAL YR 1980 TOTAL 181858 MEAN 497 MAX 4470 MIN 24 CFSM .69 IN 9.38
WTR YR 1981 TOTAL 187628 MEAN 514 MAX 4060 MIN 24 CFSM .71 IN 9.68

03324000 LITTLE RIVER NEAR HUNTINGTON, IN

LOCATION.--Lat 40°54'14", long 85°24'22", in NE¼NW¼ sec.9, T.28 N., R.10 E., Huntington County, Hydrologic Unit 05120101, on right bank on upstream side of highway bridge, 5 miles (8 km) east of Huntington, and at mile 7.5 (12.1 km).

DRAINAGE AREA.--263 mi^2 (681 km^2).

WATER-DISCHARGE RECORDS

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 (221.925 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1948, nonrecording gage 4 miles (6 km) downstream at datum 8.79 ft (2.679 m) lower, and Oct. 1, 1948, to Sept. 5, 1950, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter periods, which are fair. During periods of extreme high water in St. Marys River, some water leaves the St. Marys River basin through Junk ditch and flows into Little River basin via Graham McCulloch ditch.

AVERAGE DISCHARGE.--38 years, 222 ft^3/s (6.287 m^3/s), 11.46 in/yr (291 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,990 ft^3/s (170 m^3/s) Jan. 4, 1950; maximum gage height, 18.43 ft (5.617 m) Feb. 11, 1959; minimum daily discharge, 1.1 ft^3/s (0.031 m^3/s) Oct. 8, 1946, site and datum then in use.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,800 ft^3/s (79.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 14	2000	*3900	110	*15.63	4.764

Minimum daily discharge, 17 ft^3/s (.481 m^3/s) Aug. 20.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DISCHARGE: October 1969 to September 1978 (partial-record station).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	36	35	43	191	272	50	340	106	461	42	35
2	26	33	50	43	401	220	43	394	93	152	38	41
3	29	31	51	41	259	176	44	257	87	101	36	299
4	28	30	41	38	140	156	77	190	81	86	35	303
5	26	30	36	35	118	175	93	169	74	87	32	142
6	24	28	35	37	102	156	66	765	98	70	37	82
7	23	29	37	39	97	124	51	478	81	58	43	57
8	22	28	109	40	91	106	48	264	74	52	36	56
9	21	29	495	40	87	96	62	199	1120	48	32	51
10	21	26	382	39	92	94	84	277	685	43	28	38
11	21	23	224	38	258	92	271	556	305	40	27	32
12	21	24	148	38	364	88	445	330	183	38	26	29
13	20	29	123	40	239	86	1010	224	1430	37	26	28
14	21	28	95	42	190	79	2350	1250	3790	35	24	27
15	22	27	75	42	195	75	2190	2670	3600	33	24	26
16	23	26	67	42	1040	74	1090	1970	2410	33	24	25
17	25	26	51	43	1790	68	605	860	1060	32	22	28
18	40	26	41	44	1770	64	401	455	517	30	20	27
19	33	25	36	47	1700	61	287	307	312	32	18	25
20	29	24	37	49	1990	59	240	220	214	371	17	25
21	25	25	34	53	1230	53	185	172	170	368	19	23
22	24	26	33	56	824	46	162	141	524	146	18	22
23	23	25	34	57	751	42	183	123	375	85	21	22
24	23	27	37	56	772	41	157	112	197	63	21	24
25	29	26	42	54	569	39	125	124	177	53	21	26
26	34	26	41	96	413	39	106	123	160	61	21	25
27	30	26	38	321	330	42	101	119	113	64	21	25
28	39	30	36	453	303	45	95	136	91	64	37	27
29	55	34	37	254	-----	46	634	114	82	108	31	28
30	47	33	39	160	-----	49	384	181	94	66	51	41
31	40	----	42	132	-----	50	-----	151	-----	49	51	----
TOTAL	869	836	2581	2512	16306	2813	11639	13671	18303	2966	899	1639
MEAN	28.0	27.9	83.3	81.0	582	90.7	388	441	610	95.7	29.0	54.6
MAX	55	36	495	453	1990	272	2350	2670	3790	461	51	303
MIN	20	23	33	35	87	39	43	112	74	30	17	22
CFSM	.11	.11	.32	.31	2.21	.35	1.48	1.68	2.32	.36	.11	.21
IN.	.12	.12	.37	.36	2.31	.40	1.65	1.93	2.59	.42	.13	.23

CAL YR 1980 TOTAL 76331 MEAN 209 MAX 3880 MIN 16 CFSM .80 IN 10.80
WTR YR 1981 TOTAL 75034 MEAN 206 MAX 3790 MIN 17 CFSM .78 IN 10.61

03324200 SALAMONIE RIVER AT PORTLAND, IN

LOCATION.--Lat 40°25'40", long 85°02'20", in NE¼SE¼ sec.23, T.23 N., R.13 E., Jay County, Hydrologic Unit 05120102, on right bank at downstream side of county road bridge, 2.3 miles (3.7 km) downstream from Butternut Creek, 3.2 miles (5.1 km) west of Portland, 3.7 miles (6.0 km) downstream from Little Salamonie River, and at mile 70.5 (113.4 km).

DRAINAGE AREA.--85.6 mi² (221.7 km²).

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

REVISED RECORDS.--WSP 2109: Drainage area. WRD Ind. 1972: 1971.

GAGE.--Water-stage recorder. Datum of gage is 877.59 ft (267.489 m) 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 miles (2.3 km) upstream at datum 6.43 ft (1.960 m) higher.

REMARKS.--Records good except those for winter periods which are fair. Natural flow partially affected by sewage effluent.

AVERAGE DISCHARGE.--22 years, 72.7 ft³/s (2.059 m³/s), 11.53 in/yr (293 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,460 ft³/s (98.0 m³/s) Mar. 5, 1963, gage height, 16.96 ft (5.169 m); minimum daily, 0.4 ft³/s (0.01 m³/s) Sept. 27, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,400 ft³/s (39.6 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 14	2300	1700	48.1	11.40	3.475	June 14	0700	2380	67.4	13.70	4.176
June 6	0900	*2620	74.2	*14.45	4.404	June 25	0800	1990	56.4	12.42	3.786

Minimum daily discharge, 1.4 ft³/s (0.040 m³/s) Oct. 11-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	2.1	2.9	4.5	8.3	29	5.4	520	58	27	11	13
2	4.9	1.7	2.8	4.2	19	24	5.2	323	37	18	9.8	34
3	4.1	1.6	2.6	3.4	14	19	8.0	115	29	31	8.6	96
4	3.6	2.6	2.2	2.6	12	18	14	64	23	22	8.7	137
5	2.9	2.6	2.1	2.0	11	47	16	48	368	18	8.7	48
6	2.6	2.3	1.9	2.3	10	81	13	310	2350	16	10	20
7	2.1	2.6	3.8	2.7	9.3	45	9.4	145	411	13	7.3	12
8	1.8	2.3	6.4	3.1	8.7	30	8.8	68	116	10	6.3	13
9	1.5	2.0	12	3.4	8.2	25	8.8	78	265	9.0	5.3	9.2
10	1.7	1.8	15	3.3	8.9	23	7.7	95	164	8.5	14	6.9
11	1.4	2.1	13	3.1	52	22	32	130	76	7.4	27	6.0
12	1.4	2.3	9.6	2.8	122	19	591	107	47	5.6	9.6	4.5
13	1.4	2.4	8.4	2.9	47	17	393	61	366	6.5	6.5	3.7
14	2.8	2.6	6.9	3.2	27	13	291	739	2100	6.4	5.7	40
15	2.3	3.0	7.5	3.2	25	11	121	1150	320	5.6	4.9	109
16	2.4	2.4	7.2	3.3	344	13	69	281	90	5.7	4.3	29
17	3.2	2.6	6.0	3.4	173	11	246	114	55	4.6	3.8	18
18	5.4	3.8	4.5	3.5	104	11	136	92	37	4.4	3.5	13
19	1.8	3.4	3.9	3.6	89	8.9	68	142	27	8.1	3.2	8.5
20	1.5	2.8	3.4	3.7	111	8.8	53	68	23	62	3.0	6.2
21	2.4	2.8	3.1	3.8	91	7.4	37	45	26	66	3.0	5.2
22	2.8	2.4	3.1	4.0	69	6.3	32	34	127	25	3.0	4.4
23	2.7	2.3	3.3	4.2	123	6.3	57	26	41	13	2.6	3.9
24	4.3	2.4	3.6	4.5	105	5.7	57	30	83	9.4	2.2	3.5
25	8.0	2.8	3.5	4.8	70	6.0	32	141	1550	7.3	2.6	3.2
26	2.4	2.8	3.5	59	46	5.5	24	63	210	202	2.0	2.8
27	2.3	4.4	3.4	72	34	6.2	20	550	73	115	3.2	6.3
28	7.8	5.1	3.4	27	33	5.1	24	552	40	82	3.8	3.0
29	3.2	3.9	3.5	13	------	4.5	407	134	27	53	3.3	5.5
30	2.8	3.5	5.6	8.0	------	7.8	151	85	20	24	3.3	5.9
31	2.3	----	4.8	7.1	------	6.9	------	131	----	16	4.0	-----
TOTAL	92.7	81.4	162.9	271.6	1774.4	543.4	2937.3	6441	9159	901.5	194.2	670.7
MEAN	2.99	2.71	5.25	8.76	63.4	17.5	97.9	208	305	29.1	6.26	22.4
MAX	8.0	5.1	15	72	344	81	591	1150	2350	202	27	137
MIN	1.4	1.6	1.9	2.0	8.2	4.5	5.2	26	20	4.4	2.0	2.8
CFSM	.04	.03	.06	.10	.74	.20	1.14	2.43	3.56	.34	.07	.26
IN.	.04	.04	.07	.12	.77	.24	1.28	2.80	3.98	.39	.08	.29

CAL YR 1980 TOTAL 23649.2 MEAN 64.6 MAX 2420 MIN 1.4 CFSM .76 IN 10.28
WTR YR 1981 TOTAL 23230.1 MEAN 63.6 MAX 2350 MIN 1.4 CFSM .74 IN 10.10

03324288 SALAMONIE RIVER AT WARREN, IN

LOCATION.--Lat 40°40'13", long 85°25'15", in SE¼SW¼ sec.29, T.26 N., R.10 E., Huntington County, Hydrologic Unit 05120102, on right abutment at upstream side of abandoned bridge on County Road 150 East, 0.15 mile (0.24 km) upstream from Weasel Creek, 0.8 mile (1.3 km) south of Warren, and at mile 33.8 (54.5 km).

DRAINAGE AREA.--402 mi² (1,041 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
WATER TEMPERATURE: October 1980 to current year.
SPECIFIC CONDUCTANCE: October 1980 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Water discharge obtained from station Salamonie River near Warren (See sta 03324300).

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 29°C July 10, 14; minimum, 0.0°C Jan. 21, 26-31, Feb. 1-8, 11-18.
SPECIFIC CONDUCTANCE: Maximum, 975 micromhos Jan. 7-8; minimum, 251 micromhos Feb. 13.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	8.0	4.5	.5	.5	---	16.5	14.0	---	23.5	25.0	24.5
2	19.5	7.5	5.5	1.0	.0	---	17.5	13.0	---	23.5	26.0	24.5
3	17.5	9.5	4.0	.5	.0	---	15.5	15.0	---	23.5	24.5	24.0
4	14.5	9.5	3.0	.5	.0	---	15.5	17.0	23.0	23.5	27.0	23.5
5	13.5	9.0	3.5	.5	.0	---	14.5	18.0	22.0	22.5	27.0	22.5
6	13.5	8.5	6.0	.5	.0	---	12.5	17.0	21.5	24.0	25.5	23.0
7	15.0	10.0	8.0	.5	.0	---	14.0	---	22.5	25.5	26.0	23.5
8	16.5	10.0	9.5	.5	.5	---	14.5	---	23.0	27.0	25.0	24.0
9	16.5	11.5	8.5	.5	.5	---	15.0	---	22.5	28.5	26.0	23.0
10	16.5	10.0	7.0	.5	.5	---	13.5	---	20.0	29.0	25.5	23.5
11	14.5	7.5	4.0	.5	.5	---	14.0	---	20.0	28.0	26.5	---
12	12.5	6.0	4.5	.5	.0	---	14.5	---	20.5	26.0	25.5	---
13	12.0	6.5	4.0	.5	.0	---	13.5	---	21.5	28.0	26.5	---
14	13.5	6.5	3.0	.5	.0	---	14.0	---	23.5	29.0	25.5	---
15	15.0	6.0	2.0	.5	.0	---	14.0	---	25.5	26.0	25.0	---
16	16.0	5.5	2.5	.5	.0	---	13.5	---	25.5	27.0	25.0	---
17	15.5	4.5	1.5	.5	.0	---	15.5	---	23.0	27.5	25.0	---
18	15.5	4.0	2.0	.5	.0	5.5	16.5	---	22.0	28.0	25.0	---
19	14.0	4.0	1.5	.5	---	3.5	16.0	---	22.0	26.5	25.0	---
20	13.0	4.0	1.5	.5	---	3.0	15.0	---	22.5	25.5	25.5	---
21	13.5	3.5	1.5	.5	---	6.5	14.0	---	23.0	25.0	26.0	---
22	12.5	3.5	1.5	.5	---	7.5	13.0	---	23.5	24.0	26.5	---
23	12.0	4.0	1.5	.5	---	9.5	16.0	---	23.0	23.0	26.5	---
24	11.0	4.5	1.0	.5	---	10.5	14.5	---	24.5	24.0	26.0	---
25	10.5	4.0	1.0	.5	---	10.5	13.0	---	23.0	24.0	26.0	---
26	8.0	3.5	.5	.5	---	11.5	15.0	---	22.5	24.0	26.5	---
27	7.0	2.5	1.0	.0	---	11.5	18.0	---	22.0	23.5	25.5	---
28	7.0	2.0	.5	.0	---	13.5	20.5	---	22.0	23.0	26.0	---
29	7.0	2.0	.5	.5	---	14.0	18.5	---	23.5	22.5	27.0	---
30	7.0	3.0	.5	.5	---	13.5	15.5	---	24.5	22.5	27.0	---
31	7.5	---	.5	1.0	---	17.0	---	---	---	23.5	26.0	---
MEAN	13.0	6.0	3.0	.5	.0	10.0	15.0	15.5	22.5	25.0	26.0	23.5
MAX	21.0	11.5	9.5	1.0	.5	17.0	20.5	18.0	25.5	29.0	27.0	24.5
MIN	7.0	2.0	.5	.0	.0	3.0	12.5	13.0	20.0	22.5	24.5	22.5

WTR YR 1981 MEAN 13.0 MAX 29.0 MIN .0

03324277 SALAMONIE RIVER AT WARREN, IN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	6.0	2.5	.5	.0	---	13.5	12.5	---	22.5	22.0	24.0
2	17.5	5.5	3.5	.5	.0	---	12.0	11.5	---	22.0	23.0	24.0
3	14.5	6.5	3.0	.5	.0	---	13.5	12.5	---	22.0	24.0	23.5
4	13.5	8.0	2.0	.5	.0	---	14.5	14.0	20.0	22.0	24.0	22.5
5	11.5	6.5	2.5	.5	.0	---	10.5	16.5	21.0	21.0	25.0	22.0
6	10.5	6.0	3.5	.5	.0	---	9.0	14.5	20.5	22.5	24.5	22.0
7	11.5	7.5	6.0	.5	.0	---	10.0	----	20.5	23.5	24.0	21.5
8	12.5	9.0	8.0	.5	.0	---	11.5	----	21.5	24.5	23.5	21.5
9	13.5	9.5	7.0	.5	.5	---	13.5	----	20.0	25.5	23.0	20.0
10	13.0	7.0	4.0	.5	.5	---	12.5	----	19.5	25.5	23.5	19.5
11	12.5	5.5	3.0	.5	.0	---	12.5	----	19.0	24.5	23.5	----
12	11.0	4.5	3.0	.5	.0	---	13.5	----	19.0	24.0	23.5	----
13	9.0	4.5	3.0	.5	.0	---	13.0	----	20.0	24.5	23.0	----
14	10.5	6.0	2.0	.5	.0	---	13.0	----	21.0	25.0	23.5	----
15	12.0	5.0	1.5	.5	.0	---	12.0	----	23.5	24.0	23.5	----
16	14.0	4.0	1.0	.5	.0	---	11.5	----	23.0	23.0	23.0	----
17	15.0	3.5	1.0	.5	.0	---	13.0	----	21.0	23.0	20.5	----
18	13.5	3.0	1.0	.5	.0	3.5	15.0	----	20.0	24.0	20.0	----
19	11.5	2.5	.5	.5	--	2.0	14.0	----	21.0	25.0	20.0	----
20	11.0	2.0	1.0	.5	--	1.5	13.0	----	20.5	24.0	20.5	----
21	11.0	2.5	1.0	.0	--	1.5	11.5	----	21.5	24.0	21.0	----
22	10.5	2.0	.5	.5	--	3.5	12.0	----	21.5	22.5	21.0	----
23	9.5	3.0	1.0	.5	--	4.5	13.0	----	21.0	22.0	21.5	----
24	9.5	4.0	.5	.5	--	5.5	11.5	----	21.5	21.0	22.0	----
25	8.5	3.0	.5	.5	--	6.5	10.5	----	21.5	22.0	22.5	----
26	7.0	2.0	.5	.0	--	8.0	12.0	----	21.5	22.5	23.0	----
27	6.0	1.5	.5	.0	--	9.0	13.5	----	21.5	22.5	23.5	----
28	6.0	1.5	.5	.0	--	8.5	16.5	----	20.0	22.5	23.5	----
29	5.0	1.0	.5	.0	--	11.0	15.5	----	21.5	21.5	23.5	----
30	5.0	1.0	.5	.0	--	12.5	14.0	----	23.0	20.5	24.0	----
31	5.0	---	.5	.0	--	11.5	----	----	----	21.0	24.5	----
MEAN	11.0	4.5	2.0	.5	.0	6.5	12.5	13.5	21.0	23.0	23.0	22.0
MAX	19.0	9.5	8.0	.5	.5	12.5	16.5	16.5	23.5	25.5	25.0	24.0
MIN	5.0	1.0	.5	.0	.0	1.5	9.0	11.5	19.0	20.5	20.0	19.5

WTR YR 1981 MEAN 11.5 MAX 25.5 MIN .0

03324277 SALAMONIE RIVER AT WARREN, IN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	813	821	835	878	648	---	709	610	---	585	607	659
2	815	832	848	870	655	---	731	610	---	580	632	650
3	807	840	837	887	710	---	738	554	---	596	646	577
4	798	840	833	924	700	---	732	575	729	626	666	565
5	779	836	834	957	689	---	708	596	735	625	680	549
6	775	838	828	974	709	---	728	598	736	491	681	558
7	766	837	825	975	722	---	726	---	383	527	672	543
8	763	836	821	975	744	---	720	---	419	558	591	542
9	769	830	805	970	768	---	706	---	452	602	574	326
10	784	825	733	939	789	---	582	---	461	636	583	264
11	794	828	752	927	763	---	606	---	505	657	595	---
12	801	836	735	926	388	---	594	---	556	674	635	---
13	805	842	700	932	293	---	518	---	575	688	634	---
14	810	844	704	939	365	---	585	---	461	696	595	---
15	814	848	713	962	400	---	635	---	452	707	571	---
16	820	849	727	974	376	---	666	---	475	715	553	---
17	822	847	744	970	293	---	693	---	509	717	558	---
18	799	843	748	960	340	660	694	---	545	660	568	---
19	799	836	784	950	392	669	658	---	569	658	577	---
20	801	838	829	951	436	673	670	---	583	635	585	---
21	807	834	857	941	---	671	669	---	608	564	596	---
22	812	835	876	931	---	667	660	---	610	500	606	---
23	818	828	888	899	---	669	658	---	622	523	627	---
24	812	833	891	878	---	667	655	---	623	556	626	---
25	801	839	884	876	---	674	661	---	579	582	627	---
26	821	848	879	864	---	679	666	---	412	593	630	---
27	828	848	861	684	---	675	675	---	428	509	633	---
28	818	835	887	552	---	677	682	---	487	499	641	---
29	824	831	902	586	---	687	677	---	520	515	646	---
30	821	829	906	614	---	697	644	---	561	544	654	---
31	819	---	904	630	---	697	---	---	---	578	661	---
MEAN	804	837	818	880	559	676	668	591	541	600	618	523
MAX	828	849	906	975	789	697	738	610	736	717	681	659
MIN	763	821	700	552	293	660	518	554	383	491	553	264

WTR YR 1981 MEAN 700 MAX 975 MIN 264

03324277 SALAMONIE RIVER AT WARREN, IN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	806	814	826	862	618	---	696	599	---	567	577	646
2	803	818	831	861	623	---	709	542	---	571	606	567
3	792	816	828	871	656	---	727	538	---	581	633	565
4	778	830	827	887	673	---	665	555	693	595	645	530
5	774	823	827	928	682	---	660	577	725	471	676	526
6	760	830	823	952	685	---	683	583	362	481	653	539
7	760	835	815	965	709	---	704	---	368	495	593	539
8	756	828	804	968	719	---	707	---	384	526	574	334
9	758	822	732	940	744	---	479	---	422	559	568	263
10	770	822	702	924	766	---	506	---	453	603	572	255
11	785	825	737	918	366	---	585	---	467	637	583	---
12	785	827	702	917	258	---	496	---	508	663	596	---
13	791	834	696	922	251	---	494	---	452	675	598	---
14	798	839	697	924	296	---	522	---	440	685	572	---
15	807	842	703	938	366	---	587	---	441	692	556	---
16	812	844	712	962	261	---	637	---	458	705	548	---
17	788	842	724	953	258	---	666	---	477	646	544	---
18	788	836	742	940	294	649	659	---	512	637	554	---
19	790	829	747	940	345	652	649	---	546	614	561	---
20	786	828	789	943	394	657	650	---	569	544	569	---
21	789	829	826	931	---	653	661	---	589	485	578	---
22	782	825	859	900	---	644	657	---	606	484	589	---
23	805	823	871	874	---	651	653	---	599	497	606	---
24	792	827	884	863	---	653	650	---	581	522	617	---
25	789	829	877	862	---	661	652	---	414	555	617	---
26	801	828	861	683	---	609	659	---	382	523	619	---
27	819	833	856	557	---	621	665	---	388	476	625	---
28	810	829	862	519	---	669	667	---	433	485	631	---
29	817	824	888	528	---	674	646	---	489	497	639	---
30	809	824	902	587	---	686	602	---	522	515	642	---
31	808	---	879	612	---	685	---	---	---	545	650	---
MEAN	791	829	801	853	498	655	633	566	492	566	600	476
MAX	819	844	902	968	766	686	727	599	725	705	676	646
MIN	756	814	696	519	251	609	479	538	362	471	544	255

WTR YR 1981 MEAN 672 **MAX** 968 **MIN** 251

03324300 SALAMONIE RIVER NEAR WARREN, IN

LOCATION.--Lat 40°42'45", long 85°27'13", in SE¼SE¼ sec.12, T.26 N., R.9 E., Huntington County, Hydrologic Unit 05120102, on right bank at downstream side of bridge on County Road 800 South , 0.4 mile (0.6 km) downstream from Detamore ditch, 0.4 mile (0.6 km) downstream from Interstate 69, 0.8 mile (1.3 km) upstream from concrete and stone dam, 2.4 miles (3.9 km) northwest of Warren, and at mile 30.0 (48.3 km).

DRAINAGE AREA.--425 mi² (1,101 km²).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder and concrete dam. Datum of gage is 784.65 ft (239.161 m) 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.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--24 years, 385 ft³/s (10.90 m³/s), 12.30 in/yr (312 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,200 ft³/s (374 m³/s) Feb. 10, 1959, gage height, 17.05 ft (5.197 m); minimum daily, 5.1 ft³/s (0.14 m³/s) Jan. 2, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 3,000 ft³/s (84.96 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 18	1600	ice jam		11.71	3.569	June 13	2100	*5660	160	*12.18	3.712
June 8	1000	4210	119	10.88	3.316	July 5	1200	3110	88.1	9.89	3.014

Minimum daily discharge, 16 ft³/s (0.45 m³/s) Oct. 10-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	26	31	30	92	232	53	887	395	181	123	123
2	36	20	39	32	129	201	49	1890	247	154	87	162
3	32	18	35	30	140	166	49	1040	191	115	71	206
4	28	18	27	26	100	148	64	488	161	95	64	823
5	24	19	22	23	78	157	108	313	141	2070	58	560
6	21	20	19	23	61	196	118	836	1560	569	142	226
7	21	23	22	22	46	227	88	1220	3190	233	207	118
8	20	24	53	23	41	171	73	566	4100	149	98	80
9	18	24	96	22	37	140	264	333	3100	109	58	63
10	16	26	238	22	41	129	192	410	1810	87	44	55
11	16	26	186	22	300	124	144	562	1020	84	39	50
12	16	26	114	20	794	114	1000	596	534	70	100	45
13	16	27	81	22	389	109	2260	435	1890	63	51	43
14	18	30	64	23	155	100	2120	894	5280	60	34	44
15	19	27	56	23	120	88	1090	2840	4640	56	31	67
16	19	24	51	23	580	81	563	2890	3850	58	29	240
17	21	23	46	23	2110	69	370	1690	1300	55	25	102
18	23	21	41	23	930	65	598	611	538	54	22	77
19	29	19	37	23	620	60	392	536	348	66	24	54
20	32	20	29	24	1400	58	250	486	249	315	25	43
21	27	20	29	26	918	55	201	291	199	918	28	36
22	22	20	26	26	679	54	169	215	187	500	31	33
23	20	21	26	27	610	51	158	179	252	197	36	29
24	21	22	29	27	709	48	161	185	186	108	37	26
25	24	21	27	29	582	47	166	799	1250	75	34	25
26	26	21	26	105	397	48	118	887	2370	245	37	24
27	34	24	26	427	287	54	97	654	2150	1500	42	28
28	41	25	26	321	250	52	94	2090	464	1100	47	25
29	32	28	27	176	-----	50	510	2130	236	834	59	27
30	27	31	29	109	-----	51	1230	740	165	360	66	33
31	29	----	30	77	-----	53	-----	493	-----	188	78	----
TOTAL	764	694	1588	1829	12595	3198	12749	28186	42003	10668	1827	3467
MEAN	24.6	23.1	51.2	59.0	450	103	425	909	1400	344	58.9	116
MAX	41	31	238	427	2110	232	2260	2890	5280	2070	207	823
MIN	16	18	19	20	37	47	49	179	141	54	22	24
CFSM	.06	.05	.12	.14	1.06	.24	1.00	2.14	3.29	.81	.14	.27
IN.	.07	.06	.14	.16	1.10	.28	1.12	2.47	3.68	.93	.16	.30

CAL YR 1980 TOTAL 135813 MEAN 371 MAX 5210 MIN 16 CFSM .87 IN 11.89
WTR YR 1981 TOTAL 119568 MEAN 328 MAX 5280 MIN 16 CFSM .77 IN 10.47

03324450 SALAMONIE LAKE AT DORA, IN

LOCATION.--Lat 40°48'25", long 85°40'38", in SW¼NW¼ sec.7, T.27 N., R.8 E., Wabash County, Hydrologic Unit 05120102, in discharge tower of reservoir on Salamonie River, 1.1 miles (1.8 km) northwest of Dora, and 3.4 miles (5.5 km) upstream from mouth.

DRAINAGE AREA.--553 mi² (1,432 km²).

PERIOD OF RECORD.--April 1967 to current year. Prior to September 1970, published as Salamonie "Reservoir".

GAGE.--Water-stage recorder. Datum of gage is 700.00 ft (213.360 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earth-fill dam. Releases normally controlled by three gates, 4.75 ft (1.45 m) wide and 16.0 ft (4.88 m) high, in semi-elliptical conduit through dam. Minimum design capacity is 13,100 acre-ft (16.2 hm³), elevation, 730 ft (222.5 m). Seasonal pool capacity is 60,700 acre-ft (74.8 hm³), elevation, 755 ft (230.1 m). Capacity at uncontrolled spillway elevation, 793 ft (241.7 m) is 263,000 acre-ft (325 hm³). Reservoir is used for flood control and recreation. Reservoir put in operation on Apr. 17, 1967.

COOPERATION.--Water-stage recorder graph and capacity tables furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 176,885 acre-ft (218 hm³) June 29, 1981, elevation, 781.63 ft (238.241 m); minimum, 10,000 acre-ft (12.3 hm³) Mar. 11, 1969, elevation, 726.44 ft (221.419 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 176,885 acre-ft (218 hm³) June 29, elevation, 781.63 ft (238.241 m); minimum, 13,076 acre-ft (16.1 hm³) Feb. 9, elevation, 729.97 ft (222.495 m).

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	751.06	50,157	
Oct. 31	740.70	27,892	-22,265
Nov. 30	730.10	13,203	-14,689
Dec. 31	730.30	13,400	+197
CAL YR 1980			+15,631
Jan. 31	730.35	13,449	+49
Feb. 28	739.57	25,887	+12,438
Mar. 31	732.60	15,856	-10,031
Apr. 30	750.09	47,766	+31,910
May 31	767.08	102,709	+54,943
June 30	781.10	173,583	+70,874
July 31	755.59	62,397	-111,186
Aug. 31	755.31	61,584	-813
Sept. 30	751.10	50,257	-11,327
WTR YR 1981			+100

03324500 SALAMONIE RIVER AT DORA, IN

LOCATION.--Lat 40°48'42", long 85°41'02", in NE¼NE¼ sec.12, T.27 N., R.7 E., Wabash County, Hydrologic Unit 05120102, on right bank, 0.4 mile (0.6 km) downstream from Salamonie Lake, 1.5 miles (2.4 km) northwest of Dora, and 3.0 miles (4.8 km) upstream from mouth.

DRAINAGE AREA.--557 mi^2 (1,443 km^2).

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

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

GAGE.--None. Datum of gage was 673.96 ft (205.423 m) National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Oct. 9, 1961, to Sept. 30, 1974, water-stage recorder at site described in "LOCATION" paragraph. Prior to Oct. 1, 1951, nonrecording gage at site 1.5 miles (2.4 km) upstream at datum 688.59 ft (209.882 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers) and Oct. 1, 1951, to Oct. 8, 1961, water-stage recorder located on left bank 2,000 ft (610 m) upstream at datum 679.77 ft (207.194 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Flow regulated by Salamonie Lake (See sta 03324450). Daily discharge computed from relation between discharge, head, and gate openings for Salamonie Lake beginning Oct. 1, 1974.
COOPERATION.-Records of daily discharge furnished by Corps of Engineers beginning Oct. 1, 1976.

AVERAGE DISCHARGE.--57 years (1924 to current year), 509 ft^3/s (14.41 m^3/s), 12.41 in/yr (315 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,500 ft^3/s (467 m^3/s) May 18, 1943, gage height, 14.75 ft (4.496 m), from graph based on gage readings, site and datum then in use; minimum daily, 0.70 ft^3/s (0.020 m^3/s) Oct. 30, 1968, result of abnormal regulation.

EXTREMES FOR 1981 WATER YEAR.--Maximum daily discharge, 3,970 ft^3/s (112 m^3/s) July 15; minimum daily, 26 ft^3/s (0.74 m^3/s) Dec. 3-6, Aug 23-Sept. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	607	477	71	52	135	1620	28	34	102	1630	537	26
2	552	475	41	65	136	1550	28	34	143	2200	304	26
3	499	473	26	72	137	1480	28	35	162	2470	249	313
4	497	471	26	71	137	1410	28	35	162	2980	249	512
5	495	468	26	71	272	952	28	35	161	3390	249	203
6	492	465	26	71	384	347	28	35	160	3380	234	48
7	490	463	27	71	380	337	28	35	160	3460	249	245
8	487	460	27	71	215	338	28	460	161	3520	249	516
9	485	458	27	71	107	338	28	630	123	3520	249	514
10	482	455	27	71	90	337	29	230	104	3810	249	512
11	480	452	52	71	204	336	29	121	104	3920	249	510
12	477	450	181	71	339	335	29	121	104	3860	163	509
13	474	447	332	71	356	298	30	121	105	3900	120	493
14	472	444	217	71	364	282	31	186	106	3910	120	478
15	469	441	37	71	362	98	32	175	106	3970	120	465
16	467	439	37	71	369	36	32	98	107	3940	120	616
17	464	436	37	71	393	36	32	99	107	3940	87	506
18	462	433	37	47	418	36	32	100	107	3810	41	643
19	459	430	192	35	439	36	33	100	107	3690	311	639
20	456	426	366	44	465	36	33	100	107	3330	506	636
21	453	422	241	52	467	36	33	100	107	1950	302	526
22	450	419	53	52	476	36	33	100	107	956	106	596
23	447	415	53	62	480	36	33	100	107	420	26	656
24	479	411	176	71	781	32	33	100	107	249	26	654
25	493	372	267	71	1540	27	33	100	107	249	26	495
26	491	352	266	72	1760	27	33	100	107	249	26	650
27	489	347	263	218	1740	27	33	101	107	724	26	649
28	487	342	153	460	1670	27	33	101	107	1410	26	647
29	484	336	52	480	-----	27	33	102	924	1550	26	645
30	482	147	52	245	-----	28	34	102	1400	1540	26	643
31	480	-----	52	135	-----	28	----	102	----	917	26	-----
TOTAL	15001	12626	3440	3227	14616	10569	925	3892	5678	78844	5297	14571
MEAN	484	421	111	104	522	341	30.8	126	189	2543	171	486
MAX	607	477	366	480	1760	1620	34	630	1400	3970	537	656
MIN	447	147	26	35	90	27	28	34	102	249	26	26
CFSM	.87	.76	.20	.19	.94	.61	.06	.23	.34	4.57	.31	.87
IN.	1.00	.84	.23	.22	.98	.71	.06	.26	.38	5.27	.35	.97

CAL YR 1980 TOTAL 211456 MEAN 578 MAX 3670 MIN 24 CFSM 1.04 IN 14.12
WTR YR 1981 TOTAL 168686 MEAN 462 MAX 3970 MIN 26 CFSM .83 IN 11.27

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 miles (11.4 km) downstream from Salamonie River, and at mile 387.2 (623.0 km).

DRAINAGE AREA.--1,768 mi² (4,579 km²).

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.

GAGE.--Water-stage recorder. Datum of gage is 642.66 ft (195.883 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1954, nonrecording gage at same site and datum.

REMARKS.--Records good, except those for winter periods which are fair. Flow regulated by Huntington Lake (See sta 03323450) and Salamonie Lake (See sta 03324450).

AVERAGE DISCHARGE.--58 years, 1,485 ft³/s (42.06 m³/s), 11.41 in/yr (290 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,600 ft³/s (1,400 m³/s) May 18, 1943; maximum gage height, 24.44 (7.499 m) Feb. 11, 1959 (ice jam); minimum daily discharge, 19 ft³/s (0.54 m³/s) July 21, 1936.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 28.7 ft (8.748 m) Mar. 26, 1913, from floodmark, determined by Corps of Engineers, discharge 90,000 ft³/s (2,550 m³/s), from rating curve extended above 49,000 ft³/s (1,390 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,900 ft³/s (365 m³/s) June 14, gage height, 15.75 ft (4.801 m); minimum daily, 101 ft³/s (2.86 m³/s) Aug. 24.

REVISIONS.--Revised figures of discharge for the water year 1979, superseding those published in the report WRD IN-80-1, are given herein:

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	467	461	287	168	471	2700	174	1650	1030	4770	722	176
2	511	451	208	164	620	2540	179	1870	1740	3900	580	140
3	589	446	171	176	640	2280	174	1630	2860	3770	464	409
4	568	443	182	182	520	2200	226	1700	3240	3850	365	1200
5	563	438	180	188	600	1880	255	1640	3530	4360	356	890
6	556	433	173	195	645	951	240	2230	3100	4330	354	507
7	570	431	178	214	551	739	198	2230	3140	4250	353	500
8	575	430	213	223	420	693	194	2290	2570	4420	337	839
9	571	424	795	223	316	700	195	2760	4480	4420	457	831
10	565	420	984	219	311	710	214	2010	2770	3920	381	814
11	565	415	747	215	650	692	311	2170	3730	3720	375	799
12	564	409	629	213	1220	586	670	1820	4210	3590	318	788
13	560	406	768	211	1370	492	1340	1710	6420	3610	253	735
14	565	414	670	213	1200	399	4680	3450	10200	3620	253	530
15	561	425	334	215	1180	385	4580	6410	5960	3600	262	470
16	551	424	309	220	1700	332	2990	4580	5030	3490	251	559
17	562	417	247	222	4640	316	2380	2880	4700	3490	239	758
18	565	436	225	200	4580	306	2560	2440	4550	3570	167	651
19	575	441	289	193	4890	281	1530	3100	4800	3570	217	1240
20	569	436	758	200	5310	239	1080	3480	4600	3610	525	1270
21	562	433	687	203	4640	245	780	3290	4470	2880	475	1110
22	555	428	190	206	3960	253	635	3090	4840	2130	169	485
23	549	426	183	206	3720	244	642	2710	4890	1420	112	405
24	497	426	224	206	3850	205	611	1040	4460	1030	101	402
25	440	454	472	206	4220	184	443	889	4400	572	105	402
26	432	575	444	322	3810	190	397	775	4420	531	106	403
27	437	551	390	694	2980	223	437	924	4370	762	111	417
28	474	540	354	1310	2610	227	451	949	4220	1560	114	404
29	527	541	209	1500	-----	224	1010	911	3470	2030	135	418
30	497	469	186	1050	-----	230	1280	1040	4470	1990	168	419
31	473	-----	172	646	-----	197	-----	1080	------	1360	171	-----
TOTAL	16615	13443	11858	10603	61624	21843	30856	68748	126670	94125	8996	18971
MEAN	536	448	383	342	2201	705	1029	2218	4222	3036	290	632
MAX	589	575	984	1500	5310	2700	4680	6410	10200	4770	722	1270
MIN	432	406	171	164	311	184	174	775	1030	531	101	140
CFSM	.30	.25	.22	.19	1.25	.40	.58	1.26	2.39	1.72	.16	.36
IN.	.35	.28	.25	.22	1.30	.46	.65	1.45	2.67	1.98	.19	.40

CAL YR 1980 TOTAL 535065 MEAN 1462 MAX 7590 MIN 105 CFSM .83 IN 11.26
WTR YR 1981 TOTAL 484352 MEAN 1327 MAX 10200 MIN 101 CFSM .75 IN 10.19

03325500 MISSISSINEWA RIVER NEAR RIDGEVILLE, IN

LOCATION.--Lat 40°16'49", long 84°59'44", in SE¼SE¼ sec.7, T.21 N., R.14 E., Randolph County, Hydrologic Unit 05120103, on right bank 10 ft (3 m) downstream from highway bridge, 0.8 mile (1.3 km) downstream from Mud Creek, 2 miles (3 km) east of Ridgeville, and at mile 99.5 (160.0 km).

DRAINAGE AREA.--133 mi^2 (344 km^2).

WATER-DISCHARGE RECORDS

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 (294.217 m) 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.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--35 years, 126 ft^3/s (3.568 m^3/s), 12.86 in/yr (327 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,900 ft^3/s (394 m^3/s) June 10, 1958, gage height, 16.25 ft (4.953 m) from rating curve extended above 5,000 ft^3/s (142 m^3/s) on basis of contracted-opening measurement of peak flow; minimum daily, 0.1 ft^3/s (0.003 m^3/s) Oct. 24, 1946.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,400 ft^3/s (68.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 6	0600	*3930	111	*12.81	3.904
June 14	0400	2410	68.2	11.04	3.365

Minimum daily discharge, 4.5 ft^3/s (0.127 m^3/s) Jan. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.4	11	8.1	7.3	14	110	31	545	147	240	26	69
2	7.9	14	10	6.2	24	98	28	426	110	81	24	35
3	8.4	15	12	5.4	16	83	31	206	90	195	21	76
4	7.7	19	9.2	4.8	9.2	83	66	144	74	150	21	69
5	6.6	21	8.5	4.5	8.2	154	100	119	423	163	52	31
6	5.7	16	8.1	5.1	8.2	176	68	685	3250	83	73	20
7	6.3	16	8.9	6.0	8.4	126	33	326	825	57	61	16
8	6.8	20	11	6.8	8.4	101	31	170	251	43	185	17
9	6.8	16	28	7.0	8.6	94	28	123	141	43	50	16
10	6.7	5.7	53	7.1	55	93	28	102	97	68	30	12
11	6.4	5.4	25	7.4	431	87	92	121	67	34	28	11
12	6.0	6.5	17	7.4	240	80	1010	126	53	28	22	9.6
13	5.6	7.5	14	7.2	139	77	719	97	351	26	19	25
14	6.3	7.8	11	7.2	97	64	486	770	1690	36	17	95
15	6.8	8.7	11	7.4	128	60	238	1490	334	26	18	130
16	6.8	7.8	11	7.6	376	61	169	583	161	23	16	60
17	8.7	6.7	9.8	7.6	330	54	201	287	102	21	14	47
18	17	8.7	9.3	7.4	247	52	150	330	77	19	13	32
19	14	9.4	7.9	7.5	277	48	115	412	65	39	12	24
20	7.9	8.5	6.4	7.7	285	45	103	208	57	319	11	19
21	8.9	8.3	5.7	8.0	185	42	84	143	945	164	11	16
22	9.7	7.9	5.6	7.6	147	37	83	112	850	80	10	14
23	10	7.3	5.8	7.8	346	36	139	94	220	50	9.4	12
24	12	7.0	6.7	8.3	250	35	120	84	147	38	8.4	12
25	28	7.2	6.0	14	185	34	89	138	705	30	8.7	10
26	13	7.3	5.6	31	144	33	75	101	164	142	8.7	9.0
27	10	10	5.7	52	124	34	69	1040	93	130	9.1	8.1
28	16	17	5.8	32	123	31	64	1080	68	130	9.5	7.3
29	16	9.9	6.2	19	------	31	503	369	56	67	8.4	9.3
30	13	8.8	7.5	14	------	45	242	230	54	43	25	13
31	11	-----	7.4	12	------	39	----	263	-----	32	40	-----
TOTAL	303.4	321.4	347.2	340.3	4214.0	2143	5195	10924	11667	2600	861.2	924.3
MEAN	9.79	10.7	11.2	11.0	151	69.1	173	352	389	83.9	27.8	30.8
MAX	28	21	53	52	431	176	1010	1490	3250	319	185	130
MIN	5.6	5.4	5.6	4.5	8.2	31	28	84	53	19	8.4	7.3
CFSM	.07	.08	.08	.08	1.14	.52	1.30	2.65	2.93	.63	.21	.23
IN.	.08	.09	.10	.10	1.18	.60	1.45	3.06	3.26	.73	.24	.26

CAL YR 1980 TOTAL 54477.0 MEAN 149 MAX 5640 MIN 5.4 CFSM 1.12 IN 15.24
WTR YR 1981 TOTAL 39840.8 MEAN 109 MAX 3250 MIN 4.5 CFSM .82 IN 11.14

03325500 MISSISSINEWA RIVER NEAR RIDGEVILLE, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM
OCT 21...	1335	11.5	7.6	3	.06	--	--	--	---
DEC 02...	1315	5.5	11	78	2.3	--	--	--	---
JAN 06...	1100	.0	5.1	83	1.1	--	--	--	---
FEB 18...	1055	9.0	237	81	52	--	--	--	---
APR 07...	1045	9.0	33	61	5.4	80	--	--	---
MAY 13...	1035	12.0	98	47	12	92	95	97	100
JUN 23...	1030	----	215	269	156	97	--	--	---
SEP 15...	1030	----	13	194	7.0	98	--	--	---

03326070 BIG LICK CREEK NEAR HARTFORD CITY, IN

LOCATION.--Lat 40°25'20", long 85°21'04", in SE¼SE¼ sec.23, T.23 N., R.10 E., Blackford County, Hydrologic Unit 05120103, on right bank, 6 ft (2 m) downstream from bridge on County Road 100 East and 2.0 miles (3.2 km) southeast of Hartford City.

DRAINAGE AREA.--29.2 mi^2 (75.6 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 865.00 ft (263.652 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--10 years, 28.2 ft^3/s (0.799 m^3/s), 13.11 in/yr (333 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1940 ft^3/s (54.9 m^3/s) June 6, 1981, gage height, 16.14 ft (4.919 m); minimum daily, 0.38 ft^3/s (0.011 m^3/s) Sept. 25, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 450 ft^3/s (12.74 m^3/s) (revised) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 6	unknown	*1940	54.9	*16.14	4.919	June 25	0700	536	15.2	11.42	3.481
June 14	0200	847	24.0	13.27	4.045						

Minimum daily discharge, 1.2 ft^3/s (0.03 m^3/s) Dec. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	2.0	5.9	5.3	12	6.7	6.3	190	57	41	5.2	20
2	4.8	1.9	4.4	4.8	17	5.1	5.9	105	36	19	4.5	26
3	3.9	1.8	2.6	4.5	12	3.6	6.6	47	21	11	4.2	31
4	3.3	1.8	1.6	4.0	9.5	13	15	40	18	8.2	3.9	50
5	2.8	1.8	1.4	3.6	8.3	37	13	33	205	7.5	18	17
6	2.4	1.8	1.2	4.7	7.4	39	6.6	218	1580	6.4	58	7.6
7	2.2	1.8	17	5.3	7.3	23	6.1	61	410	5.4	15	5.2
8	2.5	1.7	25	5.8	7.4	18	5.7	46	155	4.9	7.4	5.6
9	2.4	1.7	40	5.7	7.6	16	5.5	61	71	4.3	4.9	4.8
10	2.3	1.7	37	5.5	11	15	5.4	66	59	6.1	4.0	3.5
11	2.3	1.7	21	5.3	74	13	51	60	37	4.1	4.3	2.9
12	2.3	1.6	16	5.2	53	13	269	46	23	3.6	3.6	2.7
13	2.2	1.6	15	5.2	35	12	160	35	192	3.4	3.2	2.4
14	2.2	2.1	12	5.3	23	11	93	97	535	3.4	3.0	9.2
15	2.2	1.9	12	5.4	160	10	44	449	112	3.2	3.3	37
16	2.2	1.8	12	5.2	122	9.5	30	288	56	3.6	3.5	7.5
17	4.5	2.4	11	5.2	176	8.8	79	177	36	3.2	3.0	11
18	8.0	2.2	10	5.1	77	8.1	61	119	21	2.9	3.2	5.6
19	5.4	2.1	9.5	5.2	77	7.6	46	162	15	4.0	2.8	4.0
20	3.7	2.0	8.1	5.3	60	7.2	31	90	12	54	2.9	3.3
21	2.1	1.9	7.6	5.9	35	6.7	20	46	10	39	2.9	2.8
22	2.9	1.8	6.8	6.0	25	6.2	18	33	12	11	2.8	2.9
23	3.1	3.4	6.8	5.8	31	6.0	34	25	8.4	6.1	2.7	2.8
24	3.9	3.3	7.0	7.1	30	5.9	25	21	19	4.9	3.0	2.6
25	5.7	2.8	6.6	11	17	6.0	20	48	472	4.1	3.8	2.4
26	3.1	2.3	6.5	35	10	5.7	17	23	142	112	3.7	2.6
27	2.4	3.1	6.3	30	7.8	5.8	16	300	53	70	5.5	3.4
28	4.4	5.3	5.8	20	7.7	5.4	14	328	29	53	5.1	4.1
29	4.6	3.4	6.1	15	------	5.5	171	158	16	22	10	3.9
30	2.6	3.2	7.2	11	------	8.5	91	71	40	10	55	6.1
31	2.1	----	6.1	9.5	------	7.9	------	81	------	6.5	35	-----
TOTAL	102.6	67.9	335.5	257.9	1120.0	346.2	1366.1	3524	4452.4	537.8	287.4	289.9
MEAN	3.31	2.26	10.8	8.32	40.0	11.2	45.5	114	148	17.3	9.27	9.66
MAX	8.0	5.3	40	35	176	39	269	449	1580	112	58	50
MIN	2.1	1.6	1.2	3.6	7.3	3.6	5.4	21	8.4	2.9	2.7	2.4
CFSM	.11	.08	.37	.29	1.37	.38	1.56	3.90	5.07	.59	.32	.33
IN.	.13	.09	.43	.33	1.43	.44	1.74	4.49	5.67	.69	.37	.37

CAL YR 1980 TOTAL 10551.5 MEAN 28.8 MAX 697 MIN 1.2 CFSM .99 IN 13.44
WTR YR 1981 TOTAL 12687.7 MEAN 34.8 MAX 1580 MIN 1.2 CFSM 1.19 IN 16.16

03326500 MISSISSINEWA RIVER AT MARION, IN

LOCATION.--Lat 40°34'34", long 85°39'34", in SE¼NE¼ sec.31, T.25 N., R.8 E., Grant County, Hydrologic Unit 05120103, on left bank 12 ft (4 m) downstream from Highland Avenue bridge in Marion, 0.1 mile (0.2 km) downstream from old mill dam, 1.0 mile (2.0 km) upstream from Hummel Creek, 4.6 miles (7.4 km) downstream from Lugar Creek, and at mile 35.8 (57.6 km).

DRAINAGE AREA.--682 mi² (1,766 km²).

WATER-DISCHARGE RECORDS

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 (236.086 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 9, 1933, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow periodically regulated by dam above station.

AVERAGE DISCHARGE.--58 years, 628 ft³/s (17.78 m³/s), 12.50 in/yr (318 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,000 ft³/s (708 m³/s) Mar. 21, 1927, gage height, 17.40 ft (5.305 m) from graph based on gage readings, from rating curve extended above 18,000 ft³/s (510 m³/s); minimum daily, 3.4 ft³/s (0.096 m³/s) Oct. 25, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 19.20 ft (5.852 m) from information by State of Indiana, Department of Natural Resources.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 5,600 ft³/s (158 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 7	2100	*10200	290	*10.82	3.298
June 14	1100	8040	228	9.58	2.920

Minimum daily discharge, 54 ft³/s (1.529 m³/s) Jan. 13.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL ANALYSES: November 1975 to September 1976, February 1979 to September 1979.
WATER TEMPERATURE: November 1975 to September 1976, February 1979 to September 1979.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	79	83	76	140	415	129	1850	1040	400	265	519
2	73	79	98	74	170	380	125	2300	689	418	211	687
3	69	81	100	68	158	330	133	1790	535	404	187	544
4	67	74	97	62	128	300	158	993	441	359	171	589
5	66	72	93	56	108	292	173	689	689	404	270	755
6	65	73	88	58	98	392	194	1200	6540	400	424	408
7	64	75	100	64	92	524	214	2020	9460	328	603	255
8	63	74	106	61	87	412	182	1480	6840	256	432	197
9	62	73	128	58	82	335	233	802	2370	216	315	158
10	63	71	194	57	86	296	184	789	1320	202	291	133
11	59	70	219	57	461	282	210	874	900	198	207	120
12	57	68	207	56	667	268	1750	916	557	216	170	109
13	57	68	169	54	390	251	3380	789	1730	179	153	97
14	56	70	140	56	285	233	2840	1260	6880	166	139	276
15	56	70	122	57	260	213	1850	3660	5090	151	131	169
16	55	70	115	58	1000	199	1080	3970	2420	148	121	561
17	71	70	108	58	1940	188	799	2740	1030	148	111	353
18	80	69	98	58	1940	181	853	1460	703	139	101	255
19	76	70	94	59	1810	172	691	1590	535	145	95	205
20	74	70	77	62	1600	163	523	1580	363	395	91	160
21	74	70	74	65	1260	155	441	943	360	596	89	133
22	74	70	70	67	964	147	387	546	667	636	83	116
23	72	68	69	68	833	140	376	503	1640	354	79	103
24	72	68	70	69	960	135	397	494	746	244	77	95
25	71	68	70	71	883	129	435	1860	1020	195	76	89
26	70	68	69	110	669	131	346	2140	2190	381	72	88
27	70	68	71	303	526	129	297	1550	854	1020	69	108
28	95	73	69	316	453	124	293	3810	509	1370	87	85
29	95	75	74	290	-----	124	1020	3810	386	1120	88	97
30	91	80	78	200	-----	127	2110	2060	315	504	305	91
31	85	----	78	130	-----	133	-----	1210	-----	366	397	----
TOTAL	2170	2154	3228	2898	18050	7300	21803	51678	58819	12058	5910	7555
MEAN	70.0	71.8	104	93.5	645	235	727	1667	1961	389	191	252
MAX	95	81	219	316	1940	524	3380	3970	9460	1370	603	755
MIN	55	68	69	54	82	124	125	494	315	139	69	85
CFSM	.10	.11	.15	.14	.95	.35	1.07	2.44	2.88	.57	.28	.37
IN.	.12	.12	.18	.16	.98	.40	1.19	2.82	3.21	.66	.32	.41

CAL YR 1980 TOTAL 234186 MEAN 640 MAX 15700 MIN 55 CFSM .94 IN 12.77
WTR YR 1981 TOTAL 193623 MEAN 530 MAX 9460 MIN 54 CFSM .78 IN 10.56

03326950 MISSISSINEWA LAKE AT PEORIA, IN

LOCATION.--Lat 40°42'52", long 85°57'27", in NW¼SW¼ sec.10, T.26 N., R.5 E., Miami County, Hydrologic Unit 05120103, in discharge tower of reservoir on Mississinewa River at Peoria, 6.8 miles (10.9 km) southeast of Peru, and 7.3 miles (11.7 km) above mouth.

DRAINAGE AREA.--807 mi² (2,090 km²).

PERIOD OF RECORD.--April 1968 to current year. Prior to September 1970, published as Mississinewa "Reservoir".

GAGE.--Water-stage recorder. Datum of gage is 700.00 ft (213.360 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers)

REMARKS.--Reservoir is formed by earth-fill dam. Releases normally controlled by three gates, 4.75 ft (1.45 m) wide and 16.0 ft (4.88 m) high, in semi-elliptical conduit through dam. Minimum design capacity is 23,300 acre-ft (28.7 hm³), elevation, 712 ft (217.0 m). Seasonal pool capacity is 75,200 acre-ft (92.7 hm³), elevation, 737 ft (224.6 m). Capacity of uncontrolled spillway elevation, 779 ft (237.4 m) is 368,400 acre-ft (454 hm³). Reservoir is used for flood control and recreation. Reservoir put in operation on April 23, 1968.

COOPERATION.--Water-stage recorder graph and capacity tables furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 212,290 acre-ft (262 hm³) Mar. 28, 1978, elevation, 763.54 ft (232.727 m); minimum, 17,446 acre-ft (21.5 hm³) Mar. 5, 1980, elevation, 707.03 ft (215.503 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 184,713 acre-ft (228 hm³) June 29, elevation, 759.68 ft (231.550 m); minimum, 23,187 acre-ft (28.6 hm³) Dec. 20, elevation, 711.92 ft (216.993 m).

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	736.11	72,403	
Oct. 31	731.30	58,999	-13,404
Nov. 30	712.20	23,548	-35,451
Dec. 31	712.07	23,380	-168
CAL YR 1980			-23,676
Jan. 31	712.17	23,509	+129
Feb. 28	717.10	30,476	+6,967
Mar. 31	715.28	27,758	-2,718
Apr. 30	737.58	77,050	+49,292
May 31	740.53	87,247	+10,197
June 30	758.57	177,381	+90,134
July 31	737.93	78,197	-99,184
Aug. 31	738.04	78,562	+365
Sept. 30	736.41	73,329	-5,233
WTR YR 1981			+926

03327000 MISSISSINEWA RIVER AT PEORIA, IN

LOCATON.--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 mile (1.0 km) downstream from Mississinewa Lake, 6.5 miles (10.4 km) southeast of Peru, and 6.7 miles (10.8 km) upstream from mouth.

DRAINAGE AREA.--808 mi^2 (2,092 km^2).

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

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

GAGE.--None. Datum of gage was 660.00 ft (201.168 m) 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 (762 m) upstream, and Oct. 7, 1954, to Sept. 30, 1962, water-stage recorder on right bank at site 2,500 ft (762 m) upstream at same datum.

REMARKS.--Flow regulated by Mississinewa Lake (See sta. 03326950). Daily discharge computed from relation between discharge, head, and gate openings for Mississinewa Lake beginning Oct. 1, 1974.

COOPERATION.--Records of daily discharge furnished by Corps of Engineers beginning Oct. 1, 1976.

AVERAGE DISCHARGE.--29 years, 708 ft^3/s (20.05 m^3/s), 11.90 in/yr (302 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,000 ft^3/s (793 m^3/s) June 11, 1958, gage height, 19.26 ft (5.870 m), site then in use; minimum daily, 6.1 ft^3/s (0.17 m^3/s) Oct. 3, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 3,990 ft^3/s (113 m^3/s) July 14; minimum daily, 20 ft^3/s (0.57 m^3/s) Mar. 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	269	777	280	224	286	2240	21	527	3150	3400	348	293
2	269	1040	280	194	291	1530	21	1420	2260	3510	343	608
3	269	323	280	168	246	921	21	2080	1200	3490	343	785
4	269	322	280	147	224	494	22	1820	716	3500	343	785
5	269	322	259	112	224	399	22	1210	501	3490	343	785
6	268	322	224	112	290	399	22	543	463	3480	544	785
7	268	1330	224	112	337	412	22	712	478	3500	686	652
8	268	2010	287	136	304	464	22	1510	957	3510	686	485
9	268	1990	297	168	247	533	23	1500	976	3500	468	305
10	268	1370	281	168	224	474	23	1500	978	3700	359	274
11	268	309	281	168	318	334	23	919	937	3980	359	274
12	267	309	398	168	428	290	24	493	1020	3930	349	274
13	267	949	426	168	677	290	26	493	704	3980	343	274
14	309	1490	284	168	923	290	29	495	117	3990	343	274
15	334	1470	280	168	592	286	31	455	119	2480	343	457
16	333	899	280	168	430	281	31	407	120	701	252	465
17	710	295	280	168	507	281	32	413	120	173	206	598
18	1330	294	280	168	587	281	32	415	120	97	206	684
19	952	697	247	168	597	183	32	416	113	98	413	640
20	330	1010	149	168	609	113	32	417	120	313	618	614
21	329	1000	128	168	617	113	33	900	120	556	417	523
22	329	996	112	168	621	113	33	1160	120	810	136	435
23	329	566	145	168	624	113	33	2310	121	774	136	471
24	686	283	201	189	1080	92	33	3460	121	573	99	544
25	1280	283	224	225	1950	40	33	3590	121	368	55	544
26	916	307	224	251	2580	20	33	3620	121	274	55	503
27	325	347	224	398	2890	20	33	3600	122	851	55	475
28	325	326	224	494	2850	21	33	3590	122	1650	55	474
29	325	284	224	361	-----	21	34	3600	1390	1530	55	474
30	325	281	224	286	-----	21	34	3600	2900	913	129	510
31	325	-----	224	280	-----	21	----	3570	-----	494	98	-----
TOTAL	13279	22201	7751	6209	21553	11090	843	50745	20427	63615	9185	15264
MEAN	428	740	250	200	770	358	28.1	1637	681	2052	296	509
MAX	1330	2010	426	494	2890	2240	34	3620	3150	3990	686	785
MIN	267	281	112	112	224	20	21	407	113	97	55	274
CFSM	.53	.92	.31	.25	.95	.44	.04	2.03	.84	2.54	.37	.63
IN.	.61	1.02	.36	.29	.99	.51	.04	2.34	.94	2.93	.42	.70

CAL YR 1980 TOTAL 307210 MEAN 839 MAX 3580 MIN 22 CFSM 1.04 IN 14.14
WTR YR 1981 TOTAL 242162 MEAN 663 MAX 3990 MIN 20 CFSM .82 IN 11.15

03327500 WABASH RIVER AT PERU, IN

LOCATION.--Lat 40°44'35", long 86°05'45", in SE¼NE¼ sec.32, T.27 N., R.4 E., Miami County, Hydrologic Unit 05120101, on right bank at upstream side of bridge on U.S. Highway 31, 0.5 mile (0.8 km) southwest of Peru, 4.4 miles (7.1 km) downstream from Mississinewa River, and at mile 370.5 (596.1 km).

DRAINAGE AREA.--2,686 mi² (6,956 km²).

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

REVISED RECORDS.--WSP 2109: Drainage area. WRD Ind. 1974: 1973.

GAGE.--Water-stage recorder. Datum of gage is 617.94 ft (188.348 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to June 20, 1961, nonrecording gage at same site and datum.

REMARKS.--Records fair. Flow regulated by Huntington Lake (See sta 03323450), Salamonie Lake (See sta 03324450), and Mississinewa Lake (See sta 03326950).

AVERAGE DISCHARGE.--38 years, 2,347 ft³/s (66.47 m³/s), 11.87 in/yr (301 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 68,000 ft³/s (1,930 m³/s) May 18, 1943, gage height, 24.46 ft (7.455 m), from floodmark; minimum daily, 72 ft³/s (2.04 m³/s) Oct. 5, 1946.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 26, 1913, reached a stage of 28.1 ft (8.56 m), discharge, 115,000 ft³/s (3,260 m³/s), from rating curve extended above 63,000 ft³/s (1,780 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,200 ft³/s (317 m³/s) June 14, gage height, 10.50 ft (3.200 m); minimum daily, 180 ft³/s (5.10 m³/s) Aug. 26.

REVISIONS.--Revised figures of discharge for the water year 1979, superseding those published in the report WRD IN-80-1, are given herein:

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	610	1190	582	3090	445	4300	5540	1370	1340	389	2550	1920
2	620	1140	390	4530	435	5800	4050	1160	1050	633	3740	993
3	620	1150	631	4960	390	6850	3320	965	744	913	2260	670
4	620	935	3040	7490	365	10700	3140	1240	754	630	1980	606
5	615	732	5370	6510	370	10000	3110	1190	753	524	1960	583
6	618	745	4500	5730	370	8500	2360	1100	641	470	2080	553
7	620	745	2550	4480	360	7380	1930	1050	837	448	3810	513
8	620	738	2980	2330	355	7880	1440	986	1970	445	4080	473
9	620	731	4360	1200	350	8560	1590	911	2060	868	4010	395
10	620	719	4050	860	340	8640	1970	878	2090	2030	4110	349
11	594	694	2500	620	335	9250	2380	806	2040	1920	3560	307
12	588	681	1400	520	350	9310	4290	769	3160	1950	3660	699
13	625	668	1050	640	390	9190	3790	762	3820	1920	4090	882
14	625	817	780	750	355	10000	3150	728	3680	1390	4000	858
15	643	986	640	660	310	9750	3180	774	3510	2540	3700	1240
16	1010	964	600	550	300	8280	3000	908	3030	2640	3520	1770
17	1080	1120	590	530	300	8720	4200	858	1880	3430	3610	1710
18	1240	1510	585	570	305	8600	4290	820	951	4050	2790	1080
19	1320	2080	580	590	310	8920	4250	761	845	4210	1570	1030
20	1320	1930	575	580	315	9150	3880	649	735	4250	940	1030
21	1440	1390	570	540	330	8980	4540	592	761	3410	1120	1050
22	1410	1270	575	570	410	8860	4320	567	911	1480	1810	911
23	1260	1100	630	700	620	8560	3820	519	1040	759	2130	956
24	1240	1020	750	880	2500	8580	4140	464	1000	645	2870	925
25	1220	949	710	840	6560	8300	3210	452	971	747	3550	918
26	1290	993	540	660	5400	7860	3570	494	670	1530	3530	904
27	1290	1120	410	560	3830	7320	3200	865	498	2040	2850	900
28	1220	1080	360	490	3210	5830	2510	1670	406	2190	2360	909
29	1190	1020	380	470	-----	5680	2410	1950	372	2250	2210	911
30	1210	879	460	450	-----	8360	1920	1820	379	2300	2240	911
31	1350	-----	756	450	-----	8740	-----	1610	-----	2420	2770	-----
TOTAL	29348	31096	43894	53800	29910	256850	98500	29688	42898	55421	89460	26956
MEAN	947	1037	1416	1735	1068	8285	3283	958	1430	1788	2886	899
MAX	1440	2080	5370	7490	6560	10700	5540	1950	3820	4250	4110	1920
MIN	588	668	360	450	300	4300	1440	452	372	389	940	307
CFSM	.35	.39	.53	.65	.40	3.09	1.22	.36	.53	.67	1.07	.34
IN.	.41	.43	.61	.75	.41	3.56	1.36	.41	.59	.77	1.24	.37

CAL YR 1978 TOTAL 970690 MEAN 2659 MAX 15000 MIN 320 CFSM .99 IN 13.44
WTR YR 1979 TOTAL 787821 MEAN 2158 MAX 10700 MIN 300 CFSM .80 IN 10.91

03327500 WABASH RIVER AT PERU, IN--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	675	952	538	330	799	4820	252	1700	4130	8360	1180	452
2	678	1880	486	324	940	4080	241	3150	3880	8200	879	820
3	783	701	396	306	910	3320	251	3530	3930	8040	759	1210
4	789	668	386	295	830	2670	275	3630	3830	8200	643	1930
5	781	668	386	282	820	2460	298	2780	4030	8960	574	1880
6	779	668	364	275	880	1590	306	2730	3860	8820	720	1370
7	775	1410	358	285	940	1230	289	2620	3480	8820	1000	1100
8	775	2530	393	314	843	1140	262	3460	4550	8940	1000	1080
9	775	2510	737	364	670	1180	277	4160	5790	9110	970	991
10	775	2120	1200	366	545	1230	266	3760	4130	8460	749	952
11	775	663	1020	364	826	1050	290	3480	4400	7840	743	944
12	775	644	871	360	1400	938	576	2550	4740	7420	710	933
13	775	1180	1290	358	1950	848	1110	2240	6510	7360	479	921
14	812	1980	1000	356	2210	720	4110	3390	11200	7300	461	772
15	813	1980	644	353	1930	687	4910	7350	6620	6250	485	683
16	813	1490	513	348	2270	527	3370	5460	5470	4420	456	839
17	1050	651	476	343	4710	477	2410	3760	5090	3680	400	1270
18	1890	644	421	340	5240	463	2670	2850	4620	3630	367	1360
19	1680	983	396	338	5260	441	1950	3440	4830	3680	461	1560
20	853	1510	655	304	5730	349	1360	3890	4720	3780	958	1570
21	836	1510	796	290	5400	308	980	4020	4660	3720	931	1500
22	826	1510	585	288	4610	312	814	4180	5120	3030	461	923
23	817	1150	330	288	4280	313	762	4640	6010	2410	269	648
24	1060	644	326	288	4310	311	748	4670	5410	1760	224	662
25	1830	644	483	307	5580	259	619	4380	4700	984	192	687
26	1580	747	728	353	6240	240	507	4290	4560	790	180	679
27	709	980	560	600	5630	258	495	4370	4550	1080	184	690
28	736	954	494	1430	5090	281	536	4400	4320	2890	192	648
29	746	850	438	1890	-----	282	842	4370	4720	3580	261	644
30	790	760	347	1480	-----	288	1360	4500	7060	2950	395	644
31	763	-----	332	890	-----	286	-----	4540	------	2230	357	-----
TOTAL	28514	35581	17949	14709	80843	33358	33136	118290	150920	166694	17640	30362
MEAN	920	1186	579	474	2887	1076	1105	3816	5031	5377	569	1012
MAX	1890	2530	1290	1890	6240	4820	4910	7350	11200	9110	1180	1930
MIN	675	644	326	275	545	240	241	1700	3480	790	180	452
CFSM	.34	.44	.22	.18	1.08	.40	.41	1.42	1.87	2.00	.21	.38
IN.	.39	.49	.25	.20	1.12	.46	.46	1.64	2.09	2.31	.24	.42

CAL YR 1980 TOTAL 857849 MEAN 2344 MAX 10200 MIN 276 CFSM .87 IN 11.88
WTR YR 1981 TOTAL 727996 MEAN 1995 MAX 11200 MIN 180 CFSM .74 IN 10.08

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 (46 m) downstream from bridge on County Road 125 West, 0.5 mile (0.8 km) northeast of Bunker Hill, and at mile 11.4 (18.3 km).

DRAINAGE AREA.--159 mi^2 (412 km^2).

WATER-DISCHARGE RECORDS

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 (224.333 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--13 years, 143 ft^3/s (4.050 m^3/s), 12.21 in/yr (310 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,960 ft^3/s (112 m^3/s) Jan. 21, 1974, gage height, 14.93 ft (4.551 m); minimum daily, 3.3 ft^3/s (0.093 m^3/s) Feb. 1, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,000 ft^3/s (28.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 16	2200	----	----	8.36[a]	2.548	June 5	2000	*2040	57.8	*10.86	3.310
May 15	0400	1280	36.2	8.56	2.609	June 14	2100	1920	54.4	10.51	3.203

Minimum daily discharge, 8.2 ft^3/s (0.232 m^3/s) Jan. 13.

[a]Backwater from ice.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	9.6	11	16	28	135	26	356	162	63	80	367
2	11	9.0	12	15	36	114	24	383	132	63	61	357
3	13	8.4	9.8	14	25	93	24	256	114	54	52	332
4	12	8.7	11	13	21	84	30	188	97	48	48	324
5	12	8.6	9.6	11	19	89	30	150	497	47	176	198
6	12	8.0	9.6	12	17	84	29	241	645	49	707	121
7	12	8.3	10	12	16	70	27	296	267	44	453	85
8	11	8.6	14	12	15	60	26	204	275	39	344	74
9	11	8.8	27	12	15	55	106	156	585	36	210	59
10	10	8.4	32	12	27	52	153	210	533	34	141	48
11	9.9	7.9	31	11	117	51	129	619	350	32	190	40
12	9.5	7.9	27	11	110	48	428	462	219	31	96	36
13	9.7	9.2	24	11	80	46	712	312	695	31	70	32
14	11	8.8	22	12	59	42	680	669	1680	30	56	30
15	12	8.5	20	12	100	39	409	1210	1340	28	56	389
16	11	8.6	20	12	463	39	280	842	426	28	49	310
17	12	8.4	18	13	488	37	224	485	274	27	41	239
18	16	8.3	17	13	404	36	180	338	199	26	37	186
19	15	8.3	16	13	407	34	137	328	154	28	33	134
20	13	8.3	15	13	634	32	121	265	123	122	31	97
21	13	8.3	14	14	430	31	100	207	106	88	28	71
22	12	8.2	13	14	321	29	96	168	102	51	26	54
23	12	8.1	12	14	296	27	122	140	86	38	25	42
24	12	8.5	12	15	298	26	108	120	74	34	24	37
25	13	8.6	12	15	255	26	87	164	224	30	23	34
26	15	8.3	13	40	200	26	74	196	116	42	22	31
27	14	9.1	13	37	159	29	68	206	82	54	25	47
28	16	11	14	27	151	27	69	357	68	358	27	79
29	16	12	16	22	----	26	203	253	61	394	33	61
30	12	11	18	20	----	27	223	311	56	213	78	79
31	10	-----	17	20	----	27	----	230	----	121	233	----
TOTAL	379.1	263.7	510.0	488	5191	1541	4925	10322	9742	2283	3475	3993
MEAN	12.2	8.79	16.5	15.7	185	49.7	164	333	325	73.6	112	133
MAX	16	12	32	40	634	135	712	1210	1680	394	707	389
MIN	9.5	7.9	9.6	11	15	26	24	120	56	26	22	30
CFSM	.08	.06	.10	.10	1.16	.31	1.03	2.09	2.04	.46	.70	.84
IN.	.09	.06	.12	.11	1.21	.36	1.15	2.41	2.28	.53	.81	.93

CAL YR 1980 TOTAL 50229.8 MEAN 137 MAX 2750 MIN 7.9 CFSM .86 IN 11.75
WTR YR 1981 TOTAL 43112.8 MEAN 118 MAX 1680 MIN 7.9 CFSM .74 IN 10.09

03327520 PIPE CREEK NEAR BUNKER HILL, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 03...	1030	7.7	18	.37

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 (61 m) downstream from Main Street bridge in North Manchester, 1.3 miles (2.1 km) upstream from Pony Creek, and at mile 52.7 (84.8 km).

DRAINAGE AREA.--417 mi² (1,080 km²), 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 (224.942 m) National Geodetic Vertical Datum of 1929. Prior to July 24, 1953, nonrecording gage on downstream side of Second Street bridge, 700 ft (213 m) upstream at same datum.

REMARKS.--Records good except those for winter periods which are fair. Records include flow of Pony Creek.

AVERAGE DISCHARGE.--52 years, 356 ft³/s (10.08 m³/s), 11.59 in/yr (294 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,940 ft³/s (225 m³/s) Dec. 22, 1967, gage height, 13.55 ft (4.130 m); maximum gage height, 14.00 ft (4.267 m) Feb. 27, 1936; minimum daily discharge, 16 ft³/s (0.45 m³/s) Oct. 19, 1956.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,200 ft³/s (62.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 17	1700	3290	93.2	8.69	2.649	May 15	2000	3270	92.6	8.64	2.633
Feb. 17	2400	----	----	8.89[a]	2.710	June 14	1100	*5560	157	*11.67	3.557
Apr. 14	1100	4830	137	10.93	3.331						

Minimum daily discharge, 68 ft³/s (1.92 m³/s) Oct. 16.

[a]Backwater from ice.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	145	116	161	215	644	143	1170	278	429	183	169
2	110	127	183	140	315	568	138	1120	244	434	169	213
3	106	120	303	118	290	491	170	740	232	371	163	787
4	102	117	218	101	245	446	206	587	219	334	157	1400
5	99	112	180	95	210	440	188	493	204	309	149	921
6	91	109	165	105	184	404	168	593	201	285	189	548
7	86	107	169	118	170	358	153	501	190	255	311	382
8	85	108	430	115	158	329	154	422	214	237	215	333
9	82	107	1430	110	152	310	186	373	1000	221	175	291
10	79	102	1060	108	155	300	331	582	1050	218	156	238
11	76	97	689	105	316	290	553	1360	741	204	146	205
12	74	95	512	104	804	277	663	820	516	194	136	181
13	72	93	428	102	650	266	1870	582	1460	188	129	168
14	71	95	339	102	490	241	4360	1410	5060	175	127	158
15	72	99	276	104	370	232	3510	3070	4480	169	170	151
16	72	98	231	106	882	227	2920	2920	4130	168	138	143
17	85	95	201	108	2730	214	2290	2280	3600	162	124	139
18	117	93	181	108	3010	205	1680	1570	2900	156	117	137
19	119	93	157	110	3080	195	1060	974	2230	160	111	133
20	104	91	138	114	2870	191	841	717	1770	260	106	127
21	96	90	160	117	2550	186	681	584	1270	600	102	124
22	89	88	184	120	2160	179	600	493	1830	378	101	119
23	84	87	173	122	1880	169	600	428	1770	257	97	115
24	84	90	158	125	1630	160	524	383	1490	209	95	113
25	100	89	142	128	1310	155	449	351	1150	187	92	112
26	107	86	135	135	1010	153	397	322	864	263	94	113
27	105	89	145	291	823	154	374	318	677	290	106	141
28	132	102	155	406	716	152	392	318	569	294	120	134
29	188	111	160	318	-----	150	1410	315	494	348	167	136
30	175	110	156	256	-----	150	1340	368	442	256	238	195
31	157	----	162	225	-----	149	-----	344	-----	209	189	----
TOTAL	3127	3045	9136	4477	29375	8385	28351	26508	41275	8220	4572	8126
MEAN	101	102	295	144	1049	270	945	855	1376	265	147	271
MAX	188	145	1430	406	3080	644	4360	3070	5060	600	311	1400
MIN	71	86	116	95	152	149	138	315	190	156	92	112
CFSM	.24	.25	.71	.35	2.52	.65	2.27	2.05	3.30	.64	.35	.65
IN.	.28	.27	.82	.40	2.62	.75	2.53	2.36	3.68	.73	.41	.72

CAL YR 1980 TOTAL 137946 MEAN 377 MAX 3860 MIN 60 CFSM .90 IN 12.31
WTR YR 1981 TOTAL 174597 MEAN 478 MAX 5060 MIN 71 CFSM 1.15 IN 15.58

03328430 WEESAU CREEK NEAR DEEDSVILLE, IN

LOCATION.--Lat 40°54'34", long 86°07'36", in NW¼NW¼ sec.6, T.28 N., R.4 E., Miami County, Hydrologic Unit 05120104, on left bank 100 ft (30 m) downstream from bridge on County Road 1000 North, and 1.5 miles (2.4 km) west of Deedsville.

DRAINAGE AREA.--8.87 mi² (22.97 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 785.00 ft (239.268 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--11 years, 8.98 ft³/s (0.254 m³/s), 13.75 in/yr (349 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 284 ft³/s (8.04 m³/s) Mar. 3, 1979, gage height, 5.86 ft (1.786 m); minimum daily, 0.26 ft³/s (0.07 m³/s) Feb. 1, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 75 ft³/s (2.12 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 16	1800	174	4.93	4.78	1.457	May 15	0500	*188	5.32	*4.93	1.503
Apr. 14	0800	102	2.89	3.91	1.192	June 13	2200	100	2.83	3.87	1.180
May 11	0100	122	3.46	4.19	1.277						

Minimum daily discharge, .80 ft³/s (.023 m³/s) Sept. 15, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.4	2.2	1.9	6.1	7.6	2.0	9.7	5.2	4.2	1.6	1.5
2	1.2	1.4	3.0	1.6	10	6.5	2.0	7.5	4.8	3.9	1.5	1.3
3	1.1	1.2	2.8	1.4	14	5.4	2.4	6.3	5.0	3.7	1.5	2.3
4	1.1	1.3	2.1	1.3	4.7	5.7	5.0	5.4	4.6	3.6	1.5	3.1
5	1.1	1.3	1.9	1.2	3.2	6.2	4.3	5.5	4.6	3.3	1.5	2.2
6	1.1	1.3	2.3	1.2	2.0	5.2	3.2	6.8	6.8	3.1	1.5	1.4
7	.99	1.2	3.6	1.3	1.4	4.5	2.7	5.7	5.4	2.9	1.3	1.1
8	.99	1.3	28	1.3	1.2	4.1	2.6	5.0	8.0	2.7	1.3	1.1
9	.99	1.2	35	1.3	1.1	3.9	3.3	4.7	30	2.6	1.3	1.0
10	.99	1.1	19	1.4	5.0	3.8	4.0	42	13	2.6	1.3	.95
11	.99	1.1	11	1.4	32	3.7	8.3	71	8.0	2.4	1.2	.89
12	.99	1.1	8.1	1.5	16	3.6	18	28	6.5	2.3	1.2	.86
13	.99	1.1	6.9	1.4	5.9	3.4	15	18	34	2.2	1.2	.82
14	1.1	1.2	5.7	1.2	4.5	3.1	57	89	47	2.0	1.1	.82
15	1.1	1.1	5.0	1.0	5.5	3.1	25	139	17	2.1	1.2	.80
16	.99	1.1	4.3	.97	105	3.0	14	58	11	2.2	1.1	.82
17	1.3	1.1	3.9	.98	102	2.9	11	32	7.9	2.0	1.1	.84
18	1.3	1.1	3.2	.98	68	2.7	8.1	22	6.6	2.0	1.0	.84
19	1.2	1.1	2.7	.94	51	2.7	6.9	16	5.9	2.3	.99	.82
20	1.2	1.0	2.3	.92	35	2.6	6.6	12	5.3	6.7	.99	.82
21	1.1	1.0	2.1	.94	23	2.5	5.6	10	6.1	4.5	.99	.81
22	1.1	1.0	1.9	.96	19	2.4	5.6	8.8	37	2.8	.88	.80
23	.99	1.1	1.8	1.0	18	2.3	6.1	7.7	15	2.2	.84	.84
24	1.2	1.1	1.7	1.1	19	2.2	5.4	6.9	11	2.0	.84	.82
25	1.2	1.0	1.7	1.2	14	2.2	4.6	6.7	23	1.8	.82	.81
26	1.2	1.0	1.6	4.6	11	2.2	4.2	6.3	11	2.1	.88	.82
27	1.2	1.2	1.6	9.5	9.3	2.3	3.9	6.8	7.7	2.1	.97	1.0
28	1.8	1.4	1.7	9.0	8.7	2.2	8.3	6.5	6.2	2.2	.94	.90
29	1.8	1.3	1.8	6.2	-----	2.2	28	6.0	5.1	2.1	.88	1.1
30	1.7	1.3	1.9	4.2	-----	2.2	13	6.2	4.5	1.9	1.0	1.1
31	1.5	----	1.9	2.8	-----	2.0	-----	5.6	-----	1.7	1.1	-----
TOTAL	36.61	35.1	172.7	66.69	595.6	108.4	286.1	661.1	363.2	84.2	35.52	33.28
MEAN	1.18	1.17	5.57	2.15	21.3	3.50	9.54	21.3	12.1	2.72	1.15	1.11
MAX	1.8	1.4	35	9.5	105	7.6	57	139	47	6.7	1.6	3.1
MIN	.99	1.0	1.6	.92	1.1	2.0	2.0	4.7	4.5	1.7	.82	.80
CPSM	.13	.13	.63	.24	2.40	.40	1.08	2.40	1.36	.31	.13	.13
IN.	.15	.15	.72	.28	2.50	.45	1.20	2.77	1.52	.35	.15	.14

CAL YR 1980 TOTAL 2858.71 MEAN 7.81 MAX 139 MIN .99 CPSM .88 IN 11.99
WTR YR 1981 TOTAL 2478.50 MEAN 6.79 MAX 139 MIN .80 CPSM .77 IN 10.39

03328500 EEL RIVER NEAR LOGANSPORT, IN

LOCATION.--Lat 40°46'55", long 86°15'50", in NE¼SE¼ sec.14, T.27 N., R.2 E., Cass County, Hydrologic Unit 05120105, on right bank at downstream side of bridge on Adamsboro Road, 5.5 miles (8.8 km) northeast of Logansport, and 7.4 miles (11.9 km) upstream from mouth.

DRAINAGE AREA.--789 mi² (2,044 km²).

WATER-DISCHARGE RECORDS

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 (189.433 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 16, 1956, nonrecording gage at same site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--38 years, 729 ft³/s (20.64 m³/s), 12.55 in/yr (319 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,200 ft3/s (402 m3/s) Dec. 9, 1966, gage height, 12.20 ft (3.719 m); minimum daily, 70 ft³/s (1.98 m³/s) Mar. 15, 1960, results of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 18, 1943, reached a stage of 13.2 ft (4.02 m), from floodmark, discharge, 17,000 ft³/s (481 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 5,000 ft³/s (142 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 18	1500	ice jam		*8.90	2.713	May 15	1600	6610	187	8.60	2.621
Feb. 19	0200	6230	176	8.39	2.557	June 15	0100	*7130	202	8.88	2.707
Apr. 15	2000	6250	177	8.40	2.560						

Minimum daily discharge, 181 ft³/s (5.13 m³/s) Aug. 26.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
WATER TEMPERATURE: October 1969 to September 1980.
SEDIMENT DISCHARGE: August 1969 to September 1980.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	279	314	254	291	447	988	297	1620	582	753	353	419
2	269	298	272	282	621	876	286	1860	524	734	322	441
3	262	281	321	267	449	773	289	1430	498	642	308	1380
4	256	267	422	246	434	700	335	962	482	568	297	2150
5	248	258	382	234	411	675	391	783	501	533	287	1880
6	243	253	345	230	394	651	379	812	556	498	284	1190
7	234	246	334	232	377	587	344	914	512	460	281	746
8	227	243	382	228	360	537	322	716	606	425	401	573
9	222	239	1270	222	344	507	328	624	2090	405	332	499
10	217	233	1920	218	349	486	346	862	2540	403	291	434
11	211	228	1330	214	364	476	401	3310	1600	390	265	375
12	205	223	857	212	835	460	766	2590	1060	364	247	332
13	203	221	672	217	1070	444	1080	1630	1730	355	235	304
14	217	223	584	224	784	426	2870	2270	5930	344	225	286
15	214	227	517	232	680	404	5890	6090	6970	326	248	268
16	213	229	468	236	1530	394	5290	5910	6040	326	289	258
17	224	226	431	238	3390	382	3760	4220	5120	320	262	250
18	230	222	397	238	4780	370	2840	3040	4190	309	233	243
19	252	220	373	242	5480	360	2120	2120	3170	315	219	238
20	264	218	288	248	4370	350	1510	1510	2460	406	207	230
21	249	216	338	256	3700	344	1130	1110	1990	588	198	221
22	237	215	425	266	3150	335	917	898	2660	799	192	213
23	226	216	353	272	2780	324	873	777	2870	547	188	208
24	223	216	316	276	2510	316	833	696	2200	420	187	204
25	228	219	286	278	2170	312	717	633	2100	364	183	202
26	232	218	270	284	1750	308	627	584	1570	350	181	202
27	251	225	265	387	1390	311	574	576	1120	438	206	234
28	265	232	278	602	1130	309	555	591	887	480	272	234
29	287	242	290	579	-----	305	1240	561	768	509	293	246
30	345	250	286	464	-----	304	2110	585	685	528	472	255
31	340	----	292	416	-----	304	-----	666	-----	409	480	-----
TOTAL	7573	7118	15218	8831	46049	14318	39420	50950	64011	14308	8438	14715
MEAN	244	237	491	285	1645	462	1314	1644	2134	462	272	491
MAX	345	314	1920	602	5480	988	5890	6090	6970	799	480	2150
MIN	203	215	254	212	344	304	286	561	482	309	181	202
CFSM	.31	.30	.62	.36	2.09	.59	1.67	2.08	2.71	.59	.35	.62
IN.	.36	.34	.72	.42	2.17	.68	1.86	2.40	3.02	.67	.40	.69

CAL YR 1980 TOTAL 267115 MEAN 730 MAX 7330 MIN 187 CFSM .93 IN 12.59
WTR YR 1981 TOTAL 290949 MEAN 797 MAX 6970 MIN 181 CFSM 1.01 IN 13.72

03329000 WABASH RIVER AT LOGANSPORT, IN

LOCATION.--Lat 40°44'47", long 86°22'39", in SW¼NE¼ sec.35, T.27 N., R.1 E., Cass County, Hydrologic Unit 05120105, on left bank 150 ft (46 m) downstream from Cicott Street bridge in Logansport, 1,000 ft (305 m) downstream from Eel River, and at mile 353.7 (569.1 km).

DRAINAGE AREA.--3,779 mi² (9,788 km²).

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.

GAGE.--Water-stage recorder. Datum of gage is 573.28 ft (174.736 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). See WSP 1705 for history of changes prior to Oct. 1, 1927.

REMARKS.--Records good. Flow partially regulated by Huntington Lake (See sta 03323450), Salamonie Lake (See sta 03324450), and Mississinewa Lake (See sta 03326950).

AVERAGE DISCHARGE.--58 years (1923 to current year), 3,291 ft³/s (93.2 m³/s), 11.83 in/yr (300 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 89,800 ft³/s (2,540 m³/s) May 18, 1943, gage height, 21.32 ft (6.500 m); minimum daily, 135 ft³/s (3.82 m³/s) Sept. 26, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 25.3 ft (7.711 m) Mar. 26, 1913, from floodmarks, discharge, 140,000 ft³/s (3,960 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21,300 ft³/s (603 m³/s) Jun. 14, gage height, 10.22 ft (3.115 m); minimum daily, 441 ft³/s (12.5 m³/s) Aug. 26.

REVISIONS.--Revised figures of discharge for the water year 1979, superseding those published in the report WRD IN-79-1, are given herein:
Extremes.--Minimum daily discharge, 500 ft³/s (14.2 m³/s) Feb. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	806	1510	1020	4830	680	7600	11900	2640	1810	950	3300	2650
2	806	1380	841	6990	665	11200	8260	2200	1550	1100	4300	1450
3	828	1390	979	5430	620	13500	6510	2160	1170	1330	3000	1010
4	869	1310	3060	7340	590	21900	5580	2560	1150	970	2400	910
5	889	1020	6120	7760	580	21200	5790	2530	1140	780	2400	886
6	901	1020	5260	7130	575	17100	4840	2140	1240	733	2700	854
7	883	1020	3330	6370	565	13300	3780	1980	1710	704	4200	807
8	869	996	3680	3580	560	12600	3110	1850	2800	693	4850	747
9	860	992	5770	1800	555	12800	3800	1680	2820	1210	4620	678
10	854	991	5070	1300	545	12300	4900	1590	2870	2750	4810	598
11	887	974	3900	1000	535	12300	4980	1540	2680	2790	4420	531
12	878	966	2550	900	540	11900	10100	1560	3850	2220	4200	619
13	894	986	1700	940	580	11300	8910	1680	4480	2630	4740	1020
14	908	1260	1300	1090	555	12700	6410	1650	4240	2630	4610	1030
15	919	1420	1100	1020	520	13000	5670	1750	4070	3770	4420	1110
16	1170	1450	990	900	505	10700	4820	2040	3410	3430	3960	1790
17	1330	1510	950	850	500	10800	5750	1860	2100	3890	4290	2130
18	1440	1870	920	860	500	10500	5750	1640	1260	4570	3500	1300
19	1590	2610	900	890	505	10900	5730	1530	1170	4790	2170	1190
20	1560	2630	890	890	510	11400	5010	1400	1160	4820	1680	1190
21	1670	1920	885	870	525	11100	5590	1260	1530	4090	1540	1220
22	1690	1720	885	880	640	10700	5550	1180	2100	1890	2200	1100
23	1500	1550	940	960	2490	10500	4900	1100	1750	1110	2730	1130
24	1460	1430	1070	1180	10000	11300	5140	1030	1400	968	3730	1090
25	1460	1320	1010	1130	12000	10800	4540	979	1050	1150	4510	1070
26	1530	1320	860	970	9900	9950	4880	987	900	1960	4430	1060
27	1530	1530	740	840	7590	9230	4780	1170	820	2800	3710	1060
28	1490	1480	650	760	6200	8150	4400	2140	770	2660	3070	1070
29	1440	1410	620	730	-----	9910	4180	2450	760	2740	2770	1090
30	1440	1370	670	700	-----	14100	3430	2320	840	2760	2650	1070
31	1570	-----	1110	690	-----	16100	------	2070	-----	2950	3230	-----
TOTAL	36921	42355	59770	71580	60530	380840	168990	54666	58600	71838	109140	33460
MEAN	1191	1412	1928	2309	2162	12290	5633	1763	1953	2317	3521	1115
MAX	1690	2630	6120	7760	12000	21900	11900	2640	4480	4820	4850	2650
MIN	806	966	620	690	500	7600	3110	979	760	693	1540	531
CFSM	.32	.37	.51	.61	.57	3.25	1.49	.47	.52	.61	.93	.30
IN.	.36	.42	.59	.70	.60	3.75	1.66	.54	.58	.71	1.07	.33

CAL YR 1978 TOTAL 1335013 MEAN 3658 MAX 23100 MIN 474 CFSM .97 IN 13.14
WTR YR 1979 TOTAL 1148690 MEAN 3147 MAX 21900 MIN 500 CFSM .83 IN 11.31

03329000 WABASH RIVER AT LOGANSPORT, IN--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	970	1040	938	590	1490	6750	637	3500	5600	9410	1810	1670
2	969	2130	803	580	1720	5760	595	5490	5080	9130	1340	1670
3	1010	1450	766	570	1820	4660	611	5530	4810	8610	1190	3030
4	1060	971	802	575	1430	3850	720	5420	4800	8270	1090	4280
5	1030	954	799	570	1450	3590	782	4120	5140	8970	1000	4170
6	1020	932	751	578	1580	2720	779	4130	7330	8880	1560	2930
7	1010	938	726	575	1680	2130	725	4060	4880	8850	1900	2240
8	1020	2870	793	560	1510	1910	667	4700	5520	8760	1910	1790
9	1020	2950	1420	650	1260	1910	688	5370	9680	8880	1710	1710
10	1000	2900	2950	712	1060	1940	855	5460	8000	8450	1280	1540
11	1000	1520	2510	700	1380	1750	896	8230	7040	8580	1250	1450
12	984	891	1840	689	2480	1600	1680	6460	6460	8300	1170	1390
13	980	874	1900	661	3210	1460	3040	4640	8690	8250	925	1330
14	1040	2130	1750	642	3830	1330	7360	5810	20600	8330	835	1240
15	1030	2310	1390	636	3730	1240	12100	15900	16800	7610	891	1260
16	1020	2260	1060	705	4800	1110	9600	14100	12800	5310	883	1490
17	1050	1170	971	708	7400	1010	6730	9800	11200	4250	786	1700
18	1800	874	920	678	9700	977	5820	6880	9410	4080	724	1920
19	2130	880	828	625	10400	952	4480	6240	8680	4160	654	1970
20	1410	1620	607	592	11700	847	3070	6110	7720	4330	1110	1990
21	1060	1750	1050	587	10500	781	2370	5830	7070	4730	1420	1920
22	1030	1730	1180	604	8860	761	1960	5900	8100	4020	946	1480
23	1010	1690	814	606	7950	753	1830	5810	9760	3300	564	1020
24	1010	985	707	597	7650	736	1770	6440	8370	2490	521	1010
25	1710	869	664	624	8730	683	1560	5690	7330	1590	471	1020
26	2020	895	919	704	9050	635	1310	5630	6610	1250	441	1020
27	1280	1170	948	937	8000	653	1200	5640	6120	1300	479	1160
28	985	1210	856	1970	7170	667	1250	5890	5780	3550	580	1060
29	993	1170	806	3000	------	671	2040	5750	5170	4860	632	1090
30	1080	1020	697	2790	------	673	3690	5980	7970	4020	1170	1110
31	1080	-----	600	1830	------	668	-----	6080	------	3200	1720	-----
TOTAL	35811	44153	33765	26845	141540	55177	80815	196590	242520	185720	32962	52660
MEAN	1155	1472	1089	866	5055	1780	2694	6342	8084	5991	1063	1755
MAX	2130	2950	2950	3000	11700	6750	12100	15900	20600	9410	1910	4280
MIN	969	869	600	560	1060	635	595	3500	4800	1250	441	1010
CFSM	.31	.39	.29	.23	1.34	.47	.71	1.68	2.14	1.59	.28	.46
IN.	.35	.43	.33	.26	1.39	.54	.80	1.94	2.39	1.83	.32	.52

CAL YR 1980 TOTAL 1226127 MEAN 3350 MAX 18500 MIN 550 CFSM .89 IN 12.07
WTR YR 1981 TOTAL 1128558 MEAN 3092 MAX 20600 MIN 441 CFSM .82 IN 11.11

03329400 RATTLESNAKE CREEK NEAR PATTON, IN

LOCATION.--Lat 40°42'06", long 86°41'49", in NW¼SW¼ sec.7, T.26 N., R.2 W., Carroll County, Hydrologic Unit 05120105, on left bank 5 ft (2 m) downstream from bridge on County Road 900 West, and 2.5 miles (4.0 km) northeast of Patton.

DRAINAGE AREA.--6.83 mi² (17.69 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 644.97 ft (196.587 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 28, 1979, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--13 years, 6.97 ft³/s (0.197 m³/s), 13.86 in/yr (352 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 456 ft³/s (12.91 m³/s) June 5, 1981, gage height, 5.12 ft (1.56 m); maximum gage height, 5.30 ft (1.615 m) June 14, 1975; minimum daily discharge, 0.14 ft³/s (0.004 m³/s) Sept. 23, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 65 ft³/s (1.84 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 16	1600	91	2.58	3.81	1.16	June 5	1700	*456	12.9	*5.12	1.56
Apr. 28	2100	92	2.61	3.83	1.17	June 9	0400	137	3.88	4.33	1.32
May 10	2100	366	10.4	4.92	1.50	June 22	0300	88	2.49	3.76	1.15
May 15	0100	342	9.69	4.86	1.48	June 24	2400	88	2.49	3.76	1.15

Minimum daily discharge, 0.48 ft³/s (0.014 m³/s) Jan. 9-11.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DISCHARGE: February 1979 to September 1980 (partial-record station).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.66	.60	.90	.66	1.6	3.0	1.1	13	3.9	4.3	1.1	1.5
2	.78	.60	1.4	.60	1.4	2.6	1.1	9.0	3.7	3.9	1.1	2.7
3	.85	.60	1.0	.58	.77	2.3	1.4	7.1	3.6	3.6	1.1	11
4	.78	.66	.76	.56	.63	2.4	1.8	5.8	3.3	3.6	1.1	7.9
5	.73	.60	.67	.54	.60	2.4	1.2	5.3	103	3.6	1.1	3.0
6	.70	.55	.56	.52	.57	2.0	.99	5.6	53	3.0	1.1	2.0
7	.67	.55	.99	.50	.56	1.8	1.1	4.8	25	3.0	.99	1.7
8	.64	.55	6.0	.49	.55	1.6	1.2	4.3	18	2.8	.98	1.5
9	.62	.55	6.4	.48	.54	1.6	1.4	4.3	57	2.8	.92	1.3
10	.60	.55	3.8	.48	1.0	1.6	1.2	126	23	2.7	.86	1.1
11	.58	.55	2.2	.48	2.0	1.6	2.4	94	13	2.6	.83	1.1
12	.56	.55	1.8	.49	.92	1.6	18	46	9.4	2.6	.82	.92
13	.55	.55	1.4	.50	.90	1.5	12	32	11	2.4	.81	.92
14	.70	.66	1.2	.50	1.8	1.3	22	118	8.8	2.2	.85	.92
15	.92	.66	1.0	.50	5.6	1.5	12	169	6.9	2.0	1.1	.85
16	1.5	.66	.95	.51	61	1.4	8.2	52	6.3	2.0	.88	.78
17	2.3	.66	.90	.52	28	1.4	6.7	33	5.3	1.8	.76	.78
18	2.0	.66	.80	.53	15	1.3	4.8	26	4.9	1.8	.72	.85
19	1.0	.60	.72	.55	11	1.3	4.6	22	4.6	2.0	.70	.78
20	.75	.60	.66	.60	10	1.4	4.3	18	4.4	2.3	.67	.72
21	.66	.55	.54	.60	7.3	1.5	3.7	15	4.4	1.8	.64	.72
22	.60	.55	.72	.55	7.3	1.3	4.1	12	48	1.4	.62	.72
23	.56	.66	.85	.58	8.2	1.1	4.9	10	14	1.2	.60	.72
24	.60	.60	.72	.62	8.1	1.1	4.0	8.8	15	1.2	.58	.72
25	.80	.55	.65	.74	5.6	1.1	3.2	7.7	43	1.3	.58	.72
26	.70	.55	.60	1.0	4.1	1.2	2.9	6.5	15	1.3	.79	.72
27	.60	.72	.58	.78	3.9	1.1	2.8	6.0	8.8	1.5	1.0	1.1
28	1.1	.72	.56	.66	3.3	1.1	20	5.3	6.3	1.6	1.4	.99
29	.98	.66	.63	.58	------	1.2	39	4.9	5.1	1.4	.95	1.1
30	.76	.70	.72	.55	------	1.3	19	4.8	4.6	1.2	1.3	.92
31	.68	-----	.72	.55	------	1.1	------	4.0	-----	1.1	2.3	-----
TOTAL	25.93	18.22	41.40	17.80	192.24	48.7	211.09	880.2	532.3	70.0	29.25	50.75
MEAN	.84	.61	1.34	.57	6.87	1.57	7.04	28.4	17.7	2.26	.94	1.69
MAX	2.3	.72	6.4	1.0	61	3.0	39	169	103	4.3	2.3	11
MIN	.55	.55	.54	.48	.54	1.1	.99	4.0	3.3	1.1	.58	.72
CFSM	.12	.09	.20	.08	1.01	.23	1.03	4.16	2.59	.33	.14	.25
IN.	.14	.10	.23	.10	1.05	.27	1.15	4.79	2.90	.38	.16	.28

CAL YR 1980 TOTAL 1955.73 MEAN 5.34 MAX 220 MIN .41 CFSM .78 IN 10.65
WTR YR 1981 TOTAL 2117.88 MEAN 5.80 MAX 169 MIN .48 CFSM .85 IN 11.53

03329400 RATTLESNAKE CREEK NEAR PATTON, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV 05...	1110	6.5	.60	61	.10

03329700 DEER CREEK NEAR DELPHI, IN

LOCATION.--Lat 40°35'25", long 86°37'15", in NE¼NE¼ sec.27, T.25 N., R.2 W., Carroll County, Hydrologic Unit 05120105, on downstream side of left wingwall of highway bridge, 2.6 miles (4.2 km) northeast of Delphi Post Office, and 4.8 miles (7.7 km) upstream from mouth.

DRAINAGE AREA.--274 mi^2 (710 km^2).

WATER-DISCHARGE RECORDS

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 (168.801 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark, levels by State of Indiana, Department of Natural Resources).

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

AVERAGE DISCHARGE.--38 years, 238 ft^3/s (6.740 m^3/s), 11.80 in/yr (300 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,400 ft^3/s (408 m^3/s) June 10, 1958, gage height, 18.26 ft (5.566 m); minimum daily, 6.2 ft^3/s (0.18 m^3/s) Sept. 25-28, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1943 reached a stage of 19.8 ft (6.035 m), from floodmarks, discharge, 18,000 ft^3/s (510 m^3/s), from rating curve extended above 8,000 ft^3/s (227 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,000 ft^3/s (56.6 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 16	1800	ice jam		*8.12	2.475	Aug. 5	1800	2040	57.8	6.90	2.103
May 15	0500	*2400	68.0	7.41	2.259	Aug. 31	1700	2010	56.9	6.86	2.091
June 24	2400	2340	66.3	7.34	2.237						

Minimum daily discharge, 31 ft^3/s (0.88 m^3/s) Oct. 12-15.

NOTE.--No gage-height record Nov. 6-Dec. 10.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DISCHARGE: August 1969 to September 1978 October 1979 to September 1980 (partial-record station).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	40	48	53	63	169	49	468	364	112	97	1150
2	40	40	57	48	80	150	47	450	272	107	82	716
3	41	38	48	44	73	130	52	315	224	100	76	558
4	40	38	52	42	68	121	65	240	189	96	73	403
5	39	38	46	41	62	123	62	202	201	94	579	294
6	38	37	45	40	56	116	58	216	610	90	1140	222
7	38	36	46	39	51	104	53	247	324	84	699	177
8	36	36	78	39	47	94	51	209	219	77	475	151
9	35	35	117	39	46	88	59	179	629	70	292	128
10	33	35	97	39	70	83	162	502	568	66	203	110
11	32	34	77	38	107	82	184	1370	385	63	240	96
12	31	33	73	38	98	80	623	981	263	60	249	87
13	31	33	67	38	86	77	859	669	653	60	162	80
14	31	33	61	39	78	73	1100	948	1480	58	121	80
15	31	34	56	39	141	69	818	2280	770	57	117	219
16	32	37	53	40	869	67	524	1500	436	56	105	257
17	39	37	50	40	961	66	399	931	300	55	93	209
18	35	36	48	45	637	63	308	739	226	52	82	233
19	34	36	46	38	467	63	242	696	182	62	75	178
20	33	35	44	44	595	61	218	534	166	67	70	140
21	33	35	42	42	482	58	184	409	185	93	66	115
22	34	37	41	41	368	56	174	327	216	74	64	96
23	33	38	46	40	331	55	238	278	146	61	60	84
24	34	37	42	40	325	52	250	242	319	54	56	76
25	37	37	39	56	290	51	191	215	1190	51	54	70
26	35	39	36	86	234	51	155	193	425	95	51	66
27	36	45	40	76	194	53	138	201	267	122	54	81
28	47	60	44	72	182	53	146	223	187	465	72	77
29	44	56	48	68	----	51	347	243	144	332	93	101
30	44	52	54	66	----	51	319	562	126	201	227	97
31	43	----	54	64	----	51	----	593	-----	128	973	----
TOTAL	1128	1157	1695	1474	7061	2461	8075	17162	11666	3162	6800	6351
MEAN	36.4	38.6	54.7	47.5	252	79.4	269	554	389	102	219	212
MAX	47	60	117	86	961	169	1100	2280	1480	465	1140	1150
MIN	31	33	36	38	46	51	47	179	126	51	51	66
CFSM	.13	.14	.20	.17	.92	.29	.98	2.02	1.42	.37	.80	.77
IN.	.15	.16	.23	.20	.96	.33	1.10	2.33	1.58	.43	.92	.86

CAL YR 1980	TOTAL	98827	MEAN 270	MAX 6020	MIN 31	CFSM .99	IN 13.42		
WTR YR 1981	TOTAL	68192	MEAN 187	MAX 2280	MIN 31	CFSM .68	IN 9.26		

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 10 ft (3 m) downstream from dam at Tippecanoe Lake Outlet in Oswego, 3 miles (5 km) east of Leesburg, and at mile 158.9 (255.7 km).

DRAINAGE AREA.--113 mi^2 (293 km^2).

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

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 830.00 ft (252.984 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 12, 1953, nonrecording gage at same site and datum.

REMARKS.--Records good. Occasional regulation by flashboards at lake outlet.

AVERAGE DISCHARGE.--32 years, 99.8 ft^3/s (2.826 m^3/s), 12.00 in/yr (305 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 700 ft^3/s (19.8 m^3/s) Oct. 17, 1954, gage height, 8.64 ft (2.633 m); maximum gage height, 8.65 ft (2.636 m) June 22, 1981, minimum daily, 0.08 ft^3/s (0.002 m^3/s) Aug. 4, 5, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 645 ft^3/s (18.3m^3/s) June 22, gage height, 8.65 ft (2.636 m); minimum daily, 13 ft^3/s (0.37 m^3/s) Nov. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	187	56	87	92	45	355	71	390	198	376	146	55
2	178	55	87	89	46	341	56	382	188	339	136	65
3	166	57	86	87	45	324	22	371	182	297	124	70
4	156	61	84	84	45	310	22	357	178	266	98	100
5	145	64	82	82	45	297	27	347	173	246	57	107
6	130	66	80	81	45	279	56	334	169	229	56	104
7	114	77	79	80	45	263	77	310	164	215	56	101
8	101	99	86	79	45	249	77	283	157	201	57	90
9	89	91	98	78	44	237	113	263	157	188	60	56
10	33	85	108	76	47	226	129	275	157	177	63	54
11	15	80	120	75	51	216	140	282	154	165	65	46
12	15	78	129	73	52	207	141	271	152	155	68	24
13	15	76	137	72	54	199	143	264	182	140	67	25
14	15	76	153	71	55	191	205	275	252	123	63	25
15	15	74	165	70	59	176	266	297	354	115	61	25
16	24	70	165	69	68	160	369	321	447	78	59	25
17	46	67	161	68	85	145	482	374	518	29	51	25
18	48	50	158	67	119	131	556	411	566	30	25	25
19	52	13	154	65	163	118	596	421	593	37	25	25
20	54	14	149	64	205	108	601	413	597	74	25	25
21	54	16	145	60	253	100	571	400	580	95	26	26
22	54	17	140	57	304	73	539	374	617	99	26	26
23	54	25	129	55	343	20	508	344	604	94	30	25
24	54	46	121	52	365	30	473	320	588	73	47	25
25	56	47	112	50	376	58	434	301	578	59	47	25
26	54	47	103	49	378	78	401	280	550	65	46	26
27	53	49	98	48	373	78	368	259	518	74	46	27
28	56	50	93	46	366	77	357	240	476	114	45	35
29	56	79	96	45	----	75	393	224	437	144	31	60
30	56	90	95	45	----	75	390	218	408	153	25	72
31	56	----	94	44	----	73	----	209	-----	149	26	----
TOTAL	2201	1775	3594	2073	4121	5269	8583	9810	10894	4599	1757	1419
MEAN	71.0	59.2	116	66.9	147	170	286	316	363	148	56.7	47.3
MAX	187	99	165	92	378	355	601	421	617	376	146	107
MIN	15	13	79	44	44	20	22	209	152	29	25	24
CFSM	.63	.52	1.03	.59	1.30	1.50	2.53	2.80	3.21	1.31	.50	.42
IN.	.72	.58	1.18	.68	1.36	1.73	2.83	3.23	3.59	1.51	.58	.47

CAL YR 1980 TOTAL 43485 MEAN 119 MAX 340 MIN 13 CFSM 1.05 IN 14.32
WTR YR 1981 TOTAL 56095 MEAN 154 MAX 617 MIN 13 CFSM 1.36 IN 18.47

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 (3 m) upstream from bridge on County Road 200 South, 0.3 mile (0.5 km) downstream from small right-bank tributary, and 2.5 miles (4.0 km) south of court house in Warsaw.

DRAINAGE AREA.--19.6 mi^2 (50.8 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 823.00 ft (250.850 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are poor. Flow occasionally regulated by lakes upstream.

AVERAGE DISCHARGE.--12 years, 17.0 ft^3/s (0.481 m^3/s), 11.78 in/yr (299 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 561 ft^3/s (15.89 m^3/s) June 13, 1981, gage height, 5.38 ft (1.622 m); minimum daily, 0.49 ft^3/s (0.014 m^3/s) Sept. 11, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 561 ft^3/s (15.89 m^3/s) June 13, gage height, 5.38 ft (1.622 m); minimum daily, 3.4 ft^3/s (0.096 m^3/s) Sept. 25 and 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	8.0	13	10	8.0	27	9.0	79	22	70	11	7.8
2	9.3	7.3	17	8.6	20	24	8.4	80	18	67	9.3	7.8
3	9.0	6.6	19	7.2	21	20	8.1	73	16	49	8.8	11
4	8.5	6.2	16	6.5	19	24	10	58	15	35	8.0	24
5	8.0	5.9	14	6.0	15	28	12	47	17	27	7.1	22
6	7.1	5.6	13	5.8	13	26	11	44	17	22	6.8	18
7	6.6	5.3	19	5.6	11	23	9.8	37	15	19	6.6	15
8	6.3	5.2	35	5.8	10	20	8.6	31	14	16	6.3	13
9	6.0	4.9	52	6.0	8.8	19	9.9	27	40	14	5.8	14
10	5.8	4.6	51	6.1	8.2	18	12	48	40	12	5.6	12
11	5.6	4.2	42	6.1	22	18	16	100	32	11	5.1	9.9
12	5.3	3.8	34	6.0	37	17	20	92	25	9.6	4.5	8.5
13	5.1	3.9	28	6.2	32	16	54	74	261	9.1	4.2	7.6
14	5.2	4.4	24	6.5	24	14	339	89	389	8.3	4.0	6.5
15	5.3	5.2	21	6.8	20	13	298	167	368	7.8	4.2	6.3
16	5.9	5.0	19	6.7	43	13	220	160	260	7.4	4.5	5.7
17	6.6	5.0	17	6.8	88	13	135	119	156	7.2	4.2	5.2
18	7.3	4.7	15	6.6	128	12	103	93	108	6.5	4.2	4.9
19	6.8	4.5	13	6.5	140	12	91	76	87	6.1	3.9	4.5
20	6.2	4.3	12	6.5	120	11	80	61	72	13	3.9	4.1
21	5.7	4.3	11	6.7	96	11	67	49	61	33	4.0	4.3
22	6.1	4.1	10	6.9	78	10	57	40	81	31	4.0	4.2
23	6.7	4.2	9.9	7.1	70	10	54	34	67	23	5.2	3.8
24	6.6	4.6	9.7	7.1	65	9.6	46	29	54	16	5.3	3.6
25	9.8	4.6	9.5	7.1	55	9.2	38	27	43	12	4.3	3.4
26	11	4.3	9.3	8.9	43	9.0	32	25	35	19	4.1	3.4
27	7.6	5.0	9.1	13	35	9.3	29	25	28	19	4.6	4.0
28	8.1	6.0	8.7	16	30	9.1	42	24	25	22	4.9	4.0
29	9.7	6.5	8.4	12	------	9.1	90	22	23	22	6.2	4.4
30	9.5	9.2	9.6	9.8	------	9.6	84	29	21	19	6.3	6.7
31	8.3	-----	11	8.6	------	9.3	------	27	----	14	7.4	-----
TOTAL	225.0	157.4	580.2	235.5	1260.0	473.2	1993.8	1886	2410	647.0	174.3	249.6
MEAN	7.26	5.25	18.7	7.60	45.0	15.3	66.5	60.8	80.3	20.9	5.62	8.32
MAX	11	9.2	52	16	140	28	339	167	389	70	11	24
MIN	5.1	3.8	8.4	5.6	8.0	9.0	8.1	22	14	6.1	3.9	3.4
CFSM	.37	.27	.95	.39	2.30	.78	3.39	3.10	4.10	1.07	.29	.42
IN.	.43	.30	1.10	.45	2.39	.90	3.78	3.58	4.57	1.23	.33	.47

CAL YR 1980 TOTAL 7113.2 MEAN 19.4 MAX 193 MIN 1.4 CFSM .99 IN 13.50
WTR YR 1981 TOTAL 10292.0 MEAN 28.2 MAX 389 MIN 3.4 CFSM 1.44 IN 19.53

03331500 TIPPECANOE RIVER NEAR ORA, IN

LOCATION.--Lat 41°09'26", long 86°33'49", in SE¼SE¼ sec.6, T.31 N., R.1 W., Pulaski County, Hydrologic Unit 05120106, on right bank at downstream side of highway bridge, 1.0 mile (1.6 km) upstream from Bartee ditch, 1.3 miles (2.1 km) southwest of Ora, and at mile 78.5 (126.3 km).

DRAINAGE AREA.--856 mi^2 (2,217 km^2).

WATER-DISCHARGE RECORDS

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. Altitude of gage is 694 ft (212 m) (by barometer). Prior to July 30, 1956, nonrecording gage on upstream side of old highway bridge, 120 ft (37 m) 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 (152 m) downstream. All gages at same datum.

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

AVERAGE DISCHARGE.--38 years, 819 ft^3/s (23.19 m^3/s), 12.99 in/yr (330 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,660 ft^3/s (245 m^3/s) June 15, 1981, gage height, 15.08 ft (4.596 m); minimum daily, 87 ft^3/s (2.46 m^3/s) Sept. 13, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,300 ft^3/s (65.01 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 18	2000	3880	110	12.02	3.664	May 12	1900	4750	134	12.72	3.877
Apr. 16	0400	7020	199	14.19	4.325	May 16	1400	6100	173	13.63	4.154
Apr. 30	1800	2560	72.5	10.64	3.243	June 15	1800	*8660	245	*15.08	4.596

Minimum daily discharge, 282 ft^3/s (7.99 m^3/s) Sep. 25.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DISCHARGE: July 1968 to October 1974 (partial-record station).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	596	448	414	520	455	1710	508	2400	1630	2210	919	415
2	570	434	469	510	445	1600	489	2180	1510	2040	841	395
3	550	423	573	484	440	1480	481	2120	1400	1900	780	427
4	541	409	604	450	465	1400	520	2030	1410	1780	736	689
5	519	396	593	430	500	1350	555	1940	1340	1720	689	803
6	499	390	570	415	540	1280	538	1880	1610	1640	658	763
7	477	389	557	400	560	1200	515	1790	1580	1540	628	708
8	461	381	668	395	510	1140	491	1640	1340	1430	593	674
9	448	381	1100	390	485	1080	512	1520	1660	1340	570	616
10	430	376	1280	400	475	1030	544	1640	2210	1260	538	561
11	414	375	1190	405	470	982	609	2810	2080	1170	510	516
12	399	374	1090	410	490	952	689	4530	1760	1080	488	469
13	382	375	1020	415	550	918	936	4430	2420	1040	469	433
14	360	379	954	415	650	874	2570	4110	5710	986	450	415
15	345	380	881	420	600	833	5980	5000	8450	916	483	413
16	338	386	820	420	1210	801	6810	6010	8330	883	510	381
17	350	389	753	420	2070	764	5960	5730	7410	827	488	372
18	377	386	713	420	3270	734	5280	4950	6420	776	461	368
19	384	381	681	420	3370	704	4620	4280	5530	783	438	356
20	395	376	650	430	3050	674	4050	3760	4770	960	413	336
21	392	371	620	435	2930	646	3580	3320	4170	1360	381	318
22	393	358	600	430	2740	621	3230	2960	4040	1440	358	310
23	413	344	580	425	2530	602	3010	2620	3970	1200	342	302
24	422	340	560	420	2390	576	2800	2330	4000	1070	329	290
25	428	337	550	420	2260	549	2560	2150	3900	919	322	282
26	417	336	540	430	2110	513	2330	2010	3750	938	329	286
27	411	344	520	475	1950	507	2120	1910	3430	1130	384	379
28	429	375	510	565	1830	511	1970	1780	3060	1200	456	402
29	449	395	500	549	-----	525	2120	1660	2720	1230	483	381
30	459	406	520	500	-----	533	2510	1710	2430	1130	458	424
31	457	-----	530	470	-----	521	-----	1740	------	1020	438	-----
TOTAL	13505	11434	21610	13688	39345	27610	68887	88940	104040	38918	15942	13484
MEAN	436	381	697	442	1405	891	2296	2869	3468	1255	514	449
MAX	596	448	1280	565	3370	1710	6810	6010	8450	2210	919	803
MIN	338	336	414	390	440	507	481	1520	1340	776	322	282
CFSM	.51	.45	.81	.52	1.64	1.04	2.68	3.35	4.05	1.47	.60	.53
IN.	.59	.50	.94	.59	1.71	1.20	2.99	3.87	4.52	1.69	.69	.59

CAL YR 1980 TOTAL 335208 MEAN 916 MAX 5270 MIN 247 CFSM 1.07 IN 14.57
WTR YR 1981 TOTAL 457403 MEAN 1253 MAX 8450 MIN 282 CFSM 1.46 IN 19.88

03332500 TIPPECANOE RIVER NEAR MONTICELLO, IN

LOCATION.--Lat 40°46'48", long 86°45'36", in NW¼NE¼ sec.21, T.27 N., R.3 W., White County, Hydrologic Unit 05120106, at Norway plant of Northern Indiana Public Service Co., 2 miles (3 km) north of Monticello, and at mile 32.0 (51.5 km).

DRAINAGE AREA.--1,732 mi² (4,486 km²).

PERIOD OF RECORD.--October 1931 to current year.

REVISED RECORDS.--WSP 2109: Drainage area.

REMARKS.--Discharge computed on basis of records of operation of powerplant and flow over dam.

COOPERATION.--Records of daily discharges furnished by Northern Indiana Public Service Co.

AVERAGE DISCHARGE.--50 years, 1,508 ft³/s (42.71 m³/s), 11.83 in/yr (300 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 16,800 ft³/s (476 m³/s) June 13, 1958; minimum daily, 103 ft³/s (2.92 m³/s) July 27, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 16,300 ft³/s (462 m³/s) May 15; minimum daily, 520 ft³/s (14.7 m³/s) Oct. 16, Nov. 20, 23, Jan. 6, 7, Feb. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	915	748	683	915	869	2400	767	3790	2700	3060	1500	1090
2	800	748	921	915	865	2430	767	3350	2520	2770	1570	915
3	783	710	913	882	668	2060	734	3060	2510	2650	1430	915
4	783	750	915	718	520	2250	915	2910	2310	2410	1170	1570
5	832	634	1020	522	569	2140	841	2580	2490	2310	1320	1430
6	710	672	829	520	750	2000	915	2860	2420	2310	1190	1320
7	823	672	958	520	800	1810	800	2700	2570	2070	1070	1320
8	734	672	1320	634	750	1660	767	2590	2640	1960	1020	1150
9	672	729	2160	693	783	1630	899	2310	4210	1810	958	1130
10	748	655	2280	633	750	1560	816	4580	3750	1810	1020	1020
11	563	596	2060	672	767	1540	1110	9350	3520	1650	734	915
12	668	634	1730	634	659	1410	1380	7970	3140	1510	915	915
13	634	748	1670	634	899	1430	1500	7990	4670	1500	767	783
14	634	634	1570	634	759	1280	6930	11100	10600	1430	799	833
15	652	685	1430	672	915	1260	8980	16300	10800	1220	800	849
16	520	652	1320	634	2610	1260	9390	13500	12200	1320	899	750
17	667	585	1240	634	4480	1170	10100	11700	12200	1280	750	734
18	672	584	1190	596	3810	1020	9100	9890	11000	1190	767	718
19	634	536	915	638	4400	1110	7140	8200	8880	1190	734	718
20	672	520	537	672	5360	1130	6200	6700	7540	2230	750	718
21	634	610	602	634	3950	915	5060	5620	6400	2310	750	635
22	634	634	672	672	3500	915	4760	5010	7770	2190	652	602
23	634	520	882	710	3590	915	4680	4170	7180	1980	619	586
24	672	634	915	710	3890	915	4390	4220	6040	1760	635	602
25	672	548	849	748	3200	849	3580	3770	8340	1590	619	586
26	629	615	783	937	3190	833	3440	3360	6630	1800	800	635
27	785	615	750	1020	2780	783	2930	2880	5130	2000	915	1310
28	672	615	817	956	2800	816	3060	2970	4600	2310	1240	1320
29	828	729	915	1030	-----	783	4110	2620	4180	2310	1190	973
30	785	751	849	754	-----	915	3760	2990	3510	2040	1130	1210
31	785	-----	1000	759	-----	833	------	2780	------	1860	1340	-----
TOTAL	21846	19435	34695	22302	58883	42022	109821	173820	172450	59830	30053	28252
MEAN	705	648	1119	719	2103	1356	3661	5607	5748	1930	969	942
MAX	915	751	2280	1030	5360	2430	10100	16300	12200	3060	1570	1570
MIN	520	520	537	520	520	783	734	2310	2310	1190	619	586
CFSM	.41	.37	.65	.42	1.21	.78	2.11	3.24	3.32	1.11	.56	.54
IN.	.47	.42	.75	.48	1.26	.90	2.36	3.73	3.70	1.29	.65	.61

CAL YR 1980 TOTAL 588230 MEAN 1607 MAX 8880 MIN 260 CFSM .93 IN 12.63
WTR YR 1981 TOTAL 773409 MEAN 2119 MAX 16300 MIN 520 CFSM 1.22 IN 16.61

03333000 TIPPECANOE RIVER NEAR DELPHI, IN

LOCATION.--Lat 40°37'02", long 86°45'39", in NW¼NE¼ sec.16, T.25 N., R.3 W., Carroll County, Hydrologic Unit 05120106, on right bank 2 miles (3 km) northeast of Springboro, 1.7 miles (2.7 km) downstream from Big Creek, 5 miles (8 km) northwest of Delphi, and at mile 15.1 (24.3 km).

DRAINAGE AREA.--1,865 mi² (4,830 km²).

PERIOD OF RECORD.--March to December 1903, March to December 1904, March 1905 to July 1906, November and December 1908, July 1939 to current year. Published as "at Springboro" 1903.

REVISED RECORDS.--WSP 973: 1942. WSP 1335: 1905-6. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 552.01 ft (168.253 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Mar. 14, 1903, to July 20, 1906, and Nov. 2 to Dec. 31, 1908, nonrecording gage at site 5.5 miles (8.8 km) downstream at different datum.

REMARKS.--Records excellent. Flow regulated by upstream reservoirs.

AVERAGE DISCHARGE.--42 years (water years 1940 to current year), 1,641 ft³/s (46.47 m³/s), 11.95 in/yr (304 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,600 ft³/s (640 m³/s) Feb. 10, 1959, gage height, 15.10 ft (4.602 m); minimum daily, 1.0 ft³/s (0.028 m³/s) Nov. 2, 3, 1954, caused by repair work at Oakdale Dam, 6.5 miles (10.5 km) upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19,200 ft³/s (544 m³/s) May 15, gage height, 13.85 ft (4.221 m); Minimum daily, 512 ft³/s (14.50 m³/s) Nov. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	827	634	792	1210	925	2590	984	3870	2710	3060	1740	1390
2	948	878	1010	859	977	2480	846	3500	2370	2870	1630	1170
3	761	649	893	1060	823	2240	966	3090	2460	2660	1430	1400
4	1000	1020	1160	695	676	2250	1220	2950	2340	2430	1340	1900
5	894	531	1130	902	663	2250	756	2830	2780	2430	1600	1870
6	768	673	828	587	789	2240	1210	2830	2660	2510	1160	1450
7	982	644	1390	585	1020	1940	774	2680	2570	2030	1230	1410
8	878	659	1340	602	825	1700	1050	2680	2410	1940	1100	1500
9	695	881	2280	909	793	1740	1240	2480	4200	1950	1100	1140
10	683	513	2490	776	988	1810	954	5220	3670	1930	1040	1130
11	819	512	2250	761	871	1530	1210	9910	3280	1720	891	1130
12	570	672	2030	723	804	1580	1790	8000	3180	1560	1030	1130
13	570	721	1710	699	1060	1560	2210	7930	4180	1570	903	768
14	824	726	1730	705	931	1430	6050	10900	9600	1450	931	857
15	706	515	1610	740	1200	1430	8780	18400	9990	1240	1050	1030
16	580	753	1500	823	2790	1350	8460	13700	11200	1370	1040	803
17	878	610	1360	756	4770	1210	9470	11300	11100	1280	779	844
18	577	721	1440	578	4000	1210	8410	9500	10500	1290	1030	825
19	577	515	1010	859	4160	1210	6930	8360	8180	1250	749	777
20	868	689	690	737	5270	1210	5850	7270	7270	2260	815	826
21	571	640	599	738	4100	1210	5000	5370	5860	2370	840	619
22	801	585	934	694	3860	1030	4780	3720	7920	2120	744	679
23	570	763	912	697	3760	1070	4410	3920	7050	2030	734	656
24	657	597	1040	820	3980	1050	4310	4010	5580	1930	705	743
25	710	519	1070	778	3360	960	3530	3450	8370	1540	639	630
26	664	536	811	1040	3220	877	3410	3120	6440	1940	916	773
27	757	713	832	1200	3200	964	3030	3130	5050	2040	1180	1320
28	826	689	1010	995	2880	977	3260	2800	4530	2430	1470	1470
29	854	731	1220	1020	-----	947	4740	2730	4110	2340	1340	1070
30	862	696	820	900	-----	1170	3980	2890	3460	2130	1400	1410
31	957	-----	1120	912	-----	850	------	2720	------	1950	1470	-----
TOTAL	23634	19985	39011	25360	62695	46065	109610	175260	165020	61620	34026	32720
MEAN	762	666	1258	818	2239	1486	3654	5654	5501	1988	1098	1091
MAX	1000	1020	2490	1210	5270	2590	9470	18400	11200	3060	1740	1900
MIN	570	512	599	578	663	850	756	2480	2340	1240	639	619
CFSM	.41	.36	.68	.44	1.20	.80	1.96	3.03	2.95	1.07	.59	.59
IN.	.47	.40	.78	.51	1.25	.92	2.19	3.50	3.29	1.23	.68	.65

CAL YR 1980 TOTAL 627223 MEAN 1714 MAX 10800 MIN 331 CFSM .92 IN 12.51
WTR YR 1981 TOTAL 795006 MEAN 2178 MAX 18400 MIN 512 CFSM 1.17 IN 15.86

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 mile (0.8 km) downstream from Mud Creek, 1.5 miles (2.4 km) southeast of Jerome, and at mile 79.9 (128.6 km).

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

WATER DISCHARGE RECORDS

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 (249.948 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--20 years, 128 ft^3/s (3.625 m^3/s), 11.90 in/yr (302 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,140 ft^3/s (174 m^3/s) June 3, 1980; gage height, 13.34 ft (4.066 m); minimum daily, 0.89 ft^3/s (0.025 m^3/s) Jan. 24-26, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of about 18 ft (5.5 m), from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,180 ft^3/s (33.4 m^3/s) June 6; gage height, 6.79 ft (2.07 m) no peak above base of 1,200 ft^3/s (34.0 m^3/s); minimum daily, 4.3 ft^3/s (0.12 m^3/s) Dec. 5, Jan. 12-14.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DISCHARGE: October 1978 to September 1980 (partial-record station).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	9.0	5.2	7.2	10	120	24	300	142	43	104	71
2	5.8	7.7	4.8	6.3	12	104	23	236	122	42	75	220
3	6.0	7.4	4.6	5.4	11	88	23	167	109	41	60	174
4	6.0	7.2	4.4	4.8	8.0	80	34	130	97	39	50	134
5	5.6	7.1	4.3	4.5	6.7	87	38	114	89	39	60	89
6	5.2	7.0	5.7	4.5	6.3	97	33	221	897	38	218	61
7	5.2	6.8	8.6	4.5	6.1	87	28	219	710	35	198	46
8	6.0	6.7	12	4.9	6.0	74	27	158	361	30	135	40
9	6.3	6.8	17	4.9	6.0	65	32	128	230	26	81	33
10	6.5	6.8	23	4.5	8.9	61	34	242	184	25	55	27
11	6.3	6.7	17	4.5	93	59	60	651	128	24	53	23
12	6.3	6.6	12	4.3	58	55	638	577	101	21	50	19
13	6.7	6.5	8.0	4.3	34	54	880	392	193	21	38	17
14	6.7	6.5	5.2	4.3	22	48	557	543	679	20	31	116
15	7.1	6.4	6.3	4.9	55	44	358	1070	351	19	31	780
16	7.6	6.4	7.2	4.9	342	45	256	813	193	18	31	613
17	10	6.5	5.1	4.9	409	41	206	512	130	18	26	447
18	12	6.5	5.8	5.2	262	40	160	396	101	16	21	299
19	8.0	6.4	5.3	5.2	322	38	125	519	85	21	19	198
20	7.0	6.3	5.2	5.2	574	36	114	375	189	50	17	142
21	7.6	6.2	5.1	5.2	439	33	96	256	228	72	15	102
22	8.2	6.2	5.1	5.6	311	31	93	195	211	47	13	77
23	9.0	6.0	5.0	5.6	281	29	97	158	142	33	12	56
24	10	5.9	4.9	6.0	293	27	93	138	98	27	12	45
25	13	5.8	4.8	8.4	242	27	78	333	85	24	11	38
26	8.0	5.5	4.9	13	184	26	66	324	70	56	10	34
27	12	5.4	5.1	15	149	27	64	340	59	158	10	33
28	17	13	5.6	11	138	26	64	555	52	470	14	30
29	11	10	6.7	9.4	------	26	254	372	49	518	15	27
30	7.4	6.0	8.0	8.4	------	29	264	256	44	284	21	31
31	11	-----	8.0	8.0	------	28	----	186	----	162	40	----
TOTAL	249.0	207.3	229.9	194.8	4289.0	1632	4819	10876	6129	2437	1526	4022
MEAN	8.03	6.91	7.42	6.28	153	52.6	161	351	204	78.6	49.2	134
MAX	17	13	23	15	574	120	880	1070	897	518	218	780
MIN	4.5	5.4	4.3	4.3	6.0	26	23	114	44	16	10	17
CFSM	.06	.05	.05	.04	1.05	.36	1.10	2.40	1.40	.54	.34	.92
IN.	.06	.05	.06	.05	1.09	.42	1.23	2.77	1.56	.62	.39	1.02

CAL YR 1980 TOTAL 49126.4 MEAN 134 MAX 4840 MIN 4.3 CFSM .92 IN 12.52
WTR YR 1981 TOTAL 36611.0 MEAN 100 MAX 1070 MIN 4.3 CFSM .69 IN 9.33

03333450 WILDCAT CREEK NEAR JEROME, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM
OCT									
02...	1245	19.0	5.8	34	.53	--	--	--	---
10...	0950	13.0	6.5	28	.49	--	--	--	---
16...	1155	15.0	7.5	34	.69	--	--	--	---
24...	1705	12.0	12	21	.68	--	--	--	---
30...	1420	9.0	17	19	.87	--	--	--	---
NOV									
05...	1415	10.0	13	21	.74	--	--	--	---
15...	0915	7.0	12	23	.75	--	--	--	---
19...	0825	3.0	9.2	20	.50	--	--	--	---
27...	0945	4.0	11	9	.27	--	--	--	---
MAY									
18...	1518	10.5	384	93	96	97	99	--	---
18...	2030	10.5	439	91	108	97	99	--	---
19...	0720	10.5	543	78	114	96	98	99	100
19...	1420	10.5	531	66	95	97	--	--	---
JUN									
05...	0845	15.5	83	44	9.9	97	--	--	---
JUL									
20...	1635	21.5	61	32	5.3	--	--	--	---

03333600 KOKOMO CREEK NEAR KOKOMO, IN

LOCATION.--Lat 40°26'28", long 86°05'20", in NW¼SW¼ sec.16, T.23 N., R.4E., Howard County, Hydrologic Unit 05120107, on left bank at upstream side of bridge on County Road 200 East, 2.6 miles (4.2 km) southeast of intersection of U.S. Highways 31 and 35 in Kokomo, and 4.2 miles (6.8 km) upstream from mouth.

DRAINAGE AREA.--24.7 mi² (64.0 km²).

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

REVISED RECORDS.--WSP 2109: Drainage area. WRD Ind. 1972: 1970-71(P).

GAGE.--Water-stage recorder. Datum of gage is 807.68 ft (246.181 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--22 years, 21.0 ft³/s (0.595 m³/s), 11.55 in/yr (293 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,040 ft³/s (29.4 m³/s) Apr. 20, 1964, gage height, 9.88 ft (3.011 m); minimum daily, 0.08 ft³/s (0.002 m³/s) Aug. 20, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 260 ft³/s (7.36 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 14	2300	268	7.59	4.59	1.399	Sep. 14	1900	*451	12.8	*6.12	1.865
Aug. 5	2000	419	11.9	5.87	1.789						

Minimum daily discharge, 0.55 ft³/s (0.016 m³/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.55	3.5	2.0	2.6	3.8	15	4.7	31	17	8.0	5.6	13
2	.66	3.1	1.9	2.3	3.5	14	4.2	25	15	5.3	4.5	40
3	.79	2.9	1.8	2.0	2.4	11	5.0	19	14	4.7	4.0	21
4	.72	2.8	1.6	1.8	1.8	11	6.9	15	12	6.5	3.8	13
5	.66	2.7	1.7	1.6	1.6	13	6.5	17	11	11	102	8.8
6	.66	2.6	2.2	1.7	1.5	13	5.3	38	21	6.5	166	6.5
7	.72	2.6	3.0	1.7	1.5	11	4.7	30	16	4.7	42	5.3
8	.66	2.5	4.7	1.8	1.5	9.6	5.0	21	12	4.0	23	4.7
9	.66	2.6	6.5	1.8	1.6	8.8	6.9	18	11	3.5	14	4.0
10	.66	2.6	8.4	1.7	5.9	8.8	8.0	44	12	3.1	9.2	3.3
11	.72	2.5	7.6	1.7	16	8.4	14	130	9.6	2.8	6.9	2.9
12	.79	2.5	6.5	1.6	7.8	7.6	145	87	8.8	2.8	5.3	2.6
13	1.2	2.4	5.9	1.6	5.5	7.6	131	48	39	2.8	4.2	2.4
14	2.0	2.5	4.7	1.7	5.5	6.9	58	151	167	2.6	3.8	161
15	2.3	2.5	4.7	1.8	22	7.2	34	234	47	2.4	4.2	296
16	2.4	2.5	4.5	1.9	81	7.6	25	126	25	2.4	3.5	149
17	3.3	2.4	4.2	1.9	51	7.2	22	63	18	2.3	2.9	137
18	3.5	2.4	4.0	1.9	32	6.9	17	63	14	2.1	2.6	79
19	3.1	2.4	3.1	1.9	67	6.9	14	79	12	3.8	2.4	42
20	2.7	2.4	2.3	1.9	159	6.2	13	45	11	4.2	2.3	26
21	3.1	2.4	2.0	2.0	74	6.2	11	31	11	3.3	2.1	18
22	3.5	2.3	1.9	2.0	47	5.3	12	25	11	2.6	2.0	13
23	4.0	2.3	1.8	2.1	38	5.3	13	21	8.4	2.3	1.8	8.8
24	4.5	2.2	1.8	2.3	38	5.0	11	18	7.2	2.1	1.7	7.2
25	5.3	2.2	1.8	3.3	29	4.5	10	31	7.2	2.0	1.6	6.2
26	3.6	2.1	1.8	4.5	23	4.7	8.8	25	6.2	7.2	2.8	6.9
27	6.2	2.0	1.9	6.2	20	5.0	8.4	43	5.3	4.7	2.9	58
28	5.3	4.0	2.1	4.2	18	4.5	9.6	63	5.0	41	2.4	21
29	4.5	3.8	2.6	3.3	-----	4.7	41	38	4.7	25	2.3	17
30	3.2	2.5	3.3	2.6	-----	5.6	29	28	5.3	12	2.3	20
31	4.2	----	3.1	2.1	-----	5.6	-----	21	-----	7.6	5.0	------
TOTAL	76.15	78.2	105.4	71.5	758.9	244.1	684.0	1628	563.7	195.3	439.1	1193.6
MEAN	2.46	2.61	3.40	2.31	27.1	7.87	22.8	52.5	18.8	6.30	14.2	39.8
MAX	6.2	4.0	8.4	6.2	159	15	145	234	167	41	166	296
MIN	.55	2.0	1.6	1.6	1.5	4.5	4.2	15	4.7	2.0	1.6	2.4
CFSM	.10	.11	.14	.09	1.10	.32	.92	2.13	.76	.26	.58	1.61
IN.	.11	.12	.16	.11	1.14	.37	1.03	2.45	.85	.29	.66	1.80

CAL YR 1980 TOTAL 8787.45 MEAN 24.0 MAX 748 MIN .55 CFSM .97 IN 13.23
WTR YR 1981 TOTAL 6037.95 MEAN 16.5 MAX 296 MIN .55 CFSM .67 IN 9.09

03333700 WILDCAT CREEK AT KOKOMO, IN

LOCATION.--Lat 40°28'24", long 86°09'26", in NE¼NW¼ sec.2, T.23 N., R.3 E., Howard County, Hydrologic Unit 05120107, on right bank on property of Penn-Dixie Steel Corporation in Kokomo, 0.5 mile (0.8 km) downstream from Kokomo Creek, 0.4 mile (0.6 km) upstream from Dixon Road bridge, and at mile 62.5 (100.6 km).

DRAINAGE AREA.--242 mi^2 (627 km^2).

PERIOD OF RECORD.--October 1955 to current year.

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 775.62 ft (236.409 m) National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources).

REMARKS.--Records fair. Some regulation for municipal water supply by regulation of Kokomo Reservoirs No. 1 and No. 2, combined capacity, 4,170 acre-ft (5,140,000 m^3), and by Kokomo Sewage Treatment Plant.

AVERAGE DISCHARGE.--26 years, 225 ft^3/s (6.372 m^3/s), 12.63 in/yr (321 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,110 ft^3/s (230 m^3/s) June 4, 1980; 12.01 ft (3.661 m) minimum daily discharge, 7.2 ft^3/s (0.20 m^3/s) Sept. 30, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,980 ft^3/s (56.1 m^3/s) Sept. 14, gage height, 5.94 ft (1.810 m) no peak above base of 2,100 ft^3/s (59.5 m^3/s); minimum daily, 16 ft^3/s (0.45 m^3/s) Dec. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	32	20	21	45	179	35	392	244	176	166	128
2	43	31	21	20	42	156	34	377	208	97	121	310
3	40	30	19	23	43	136	54	275	185	73	125	320
4	31	30	18	24	42	132	60	211	162	83	94	233
5	34	29	19	23	32	128	43	241	144	126	613	172
6	32	28	21	23	36	128	37	351	529	92	910	124
7	32	28	21	20	31	125	41	370	955	78	549	94
8	32	29	44	20	29	108	45	276	509	64	350	86
9	32	28	36	20	26	95	114	233	366	60	211	75
10	36	28	36	21	65	84	97	394	327	55	155	64
11	35	27	26	19	96	53	117	874	227	51	116	58
12	32	27	23	21	83	47	650	889	174	47	97	57
13	32	27	21	21	71	48	1220	657	273	48	84	54
14	36	26	18	21	60	44	848	929	976	49	78	704
15	39	27	20	20	78	39	568	1610	648	47	93	1450
16	34	27	23	20	336	40	400	1350	348	47	73	1260
17	58	27	19	23	525	41	327	829	241	44	66	839
18	36	27	20	19	409	41	265	694	176	45	60	623
19	29	27	20	19	466	39	218	735	148	94	55	416
20	30	26	19	23	758	40	191	611	169	58	53	301
21	35	26	16	22	667	38	156	436	235	50	51	220
22	34	26	18	20	476	32	198	334	294	47	50	172
23	35	25	21	20	392	32	169	273	220	45	47	128
24	54	25	21	24	375	36	169	240	159	46	45	105
25	40	25	18	23	343	34	144	371	142	45	45	94
26	30	24	17	31	271	36	119	478	115	125	46	126
27	40	26	20	31	225	40	112	497	91	128	52	291
28	55	27	19	27	198	36	152	716	75	567	60	172
29	41	24	23	26	----	32	291	577	70	697	49	165
30	30	21	26	26	----	33	424	468	97	426	68	154
31	43	----	23	26	----	37	----	321	----	253	119	----
TOTAL	1148	810	686	697	6220	2089	7298	17009	8507	3863	4701	8995
MEAN	37.0	27.0	22.1	22.5	222	67.4	243	549	284	125	152	300
MAX	58	32	44	31	758	179	1220	1610	976	697	910	1450
MIN	29	21	16	19	26	32	34	211	70	44	45	54
CFSM	.15	.11	.09	.09	.92	.28	1.00	2.27	1.17	.52	.63	1.24
IN.	.18	.12	.11	.11	.96	.32	1.12	2.61	1.31	.59	.72	1.38

CAL YR 1980 TOTAL 94853 MEAN 259 MAX 7390 MIN 16 CFSM 1.07 IN 14.58
WTR YR 1981 TOTAL 62023 MEAN 170 MAX 1610 MIN 16 CFSM .70 IN 9.53

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 (12 m) upstream from bridge on State Highway 26, 0.5 mile (0.8 km) upstream from Middle Fork, 4.4 miles (7.1 km) upstream from mouth, and 5 miles (8 km) east of Lafayette.

DRAINAGE AREA.--243 mi² (629 km²).

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 (172.700 m) National Geodetic Vertical Datum of 1929 (Indiana State Highway Commission bench mark). Prior to July 29, 1954, nonrecording gage at site 40 ft (12 m) downstream at same datum.

REMARKS.--Records good except those below 110 ft³/s (3.12 m³/s) October through July, which are poor.

AVERAGE DISCHARGE.--38 years, 237 ft³/s (6.712 m³/s), 13.24 in/yr (336 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,600 ft³/s (357 m³/s) June 10, 1958, gage height, 15.28 (4.657 m), from rating curve extended above 6,000 ft³/s (170 m³/s) on basis of contracted-opening measurement at 16.8 ft (5.121 m); minimum daily, 15 ft³/s (0.42 m³/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 (5.12 m), from floodmarks, discharge, 17,900 ft³/s (507 m³/s) by contracted-opening measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 3,000 ft³/s (85.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Aug. 31	1900	*5620	159	*12.63	3.85

Minimum daily discharge, 35 ft³/s (0.991 m³/s) Jan. 14-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	46	46	43	49	114	54	327	256	64	121	4700
2	40	46	46	42	63	103	52	264	231	72	95	1990
3	46	44	46	41	68	94	52	196	217	70	81	1280
4	46	43	45	40	62	90	68	147	198	64	77	931
5	42	43	46	39	56	106	63	144	171	65	97	716
6	40	43	43	39	53	135	58	261	159	65	396	568
7	39	45	44	38	51	121	55	261	149	62	259	470
8	39	44	46	38	49	105	53	207	136	59	179	391
9	38	43	63	37	45	94	55	169	128	55	124	318
10	37	43	64	37	46	90	62	451	119	52	96	262
11	37	41	63	36	68	86	73	1580	109	49	85	218
12	36	41	60	36	126	83	345	1190	105	47	78	188
13	36	41	57	36	97	78	663	810	109	47	68	161
14	36	42	54	35	76	77	475	1090	138	48	65	141
15	36	43	51	35	86	74	322	2390	169	49	70	140
16	37	43	50	35	342	72	246	1530	131	47	78	186
17	40	42	49	35	629	71	214	968	111	46	65	248
18	45	41	48	35	370	67	179	852	99	44	59	228
19	44	42	46	35	290	66	135	1000	93	56	54	180
20	40	42	45	35	423	66	133	741	88	76	50	150
21	40	41	44	36	426	65	109	567	86	66	48	131
22	40	41	44	38	304	62	103	465	121	59	47	116
23	39	41	43	39	258	60	163	399	119	53	45	105
24	40	42	44	41	246	58	175	352	93	48	43	96
25	42	41	43	43	228	57	129	339	124	43	43	90
26	49	41	43	48	190	57	108	307	96	40	43	91
27	43	44	43	54	147	56	96	310	80	90	43	119
28	46	46	43	53	126	55	88	433	73	179	86	151
29	56	48	43	48	----	54	370	430	68	325	100	128
30	51	46	43	49	----	54	324	355	66	262	800	416
31	49	----	44	49	----	55	----	301	----	168	5000	-----
TOTAL	1287	1289	1489	1245	4974	2425	5022	18836	3842	2470	8495	14909
MEAN	41.5	43.0	48.0	40.2	178	78.2	167	608	128	79.7	274	497
MAX	56	48	64	54	629	135	663	2390	256	325	5000	4700
MIN	36	41	43	35	45	54	52	144	66	40	43	90
CFSM	.17	.18	.20	.17	.73	.32	.69	2.50	.53	.33	1.13	2.05
IN.	.20	.20	.23	.19	.76	.37	.77	2.88	.59	.38	1.30	2.28

CAL YR 1980 TOTAL 85834 MEAN 235 MAX 5200 MIN 36 CFSM .97 IN 13.14
WTR YR 1981 TOTAL 66283 MEAN 182 MAX 5000 MIN 35 CFSM .75 IN 10.15

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 (60 m) downstream of bridge on County Road 2A East, 2.8 miles (4.5 km) downstream from South Fork Wildcat Creek, 3.7 miles (6.0 km) northeast of courthouse in Lafayette, and 4.8 miles (7.7 km) upstream from mouth.

DRAINAGE AREA.--794 mi^2 (2,056 km^2).

WATER-DISCHARGE RECORDS

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 (160.831 m) National Geodetic Vertical Datum of 1929 (Indiana Flood Control and Water Resources Commission bench mark). Nonrecording gage prior to June 13, 1957, and August 21, 1974, to May 20, 1976, at present site and datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--27 years, 750 ft^3/s (21.24 m^3/s), 12.82 in/yr (326 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,000 ft^3/s (708 m^3/s) June 10, 1958, gage height, 21.52 ft (6.559 m), from rating curve extended above 18,000 ft^3/s (510 m^3/s); minimum daily, 46 ft^3/s (1.30 m^3/s) Sept. 28, 29, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1913 reached a stage of about 25.4 ft (7.74 m), from profile by State of Indiana, Department of Natural Resources.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 6,300 ft^3/s (178 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 15	0800	6480	184	11.46	3.493
Aug. 31	2300	*11400	323	*15.46	4.712

Minimum daily discharge, 115 ft^3/s (3.26 m^3/s) Nov. 13, 14, 20-24.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL ANALYSES: December 1970 to August 1974.
WATER TEMPERATURE: December 1970 to August 1974.
SEDIMENT DISCHARGE: July 1968 to December 1978 (partial-record station).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	133	128	140	150	149	537	152	1090	1010	237	496	6990
2	138	135	128	147	159	497	140	1010	855	375	360	3550
3	149	133	117	142	200	438	163	909	777	306	284	2460
4	154	128	117	138	280	419	220	773	710	260	242	1930
5	147	124	117	135	250	477	205	727	655	250	396	1470
6	138	119	117	132	218	457	190	909	627	286	1300	1160
7	133	122	117	129	194	419	163	1050	891	273	1760	943
8	128	124	152	127	188	400	159	972	1340	237	1100	805
9	128	122	166	125	186	382	173	835	965	209	783	680
10	128	122	200	123	185	364	267	1260	828	190	570	567
11	126	122	212	122	235	347	293	3860	761	181	445	497
12	124	119	188	121	325	313	607	3470	651	174	396	457
13	124	115	176	120	460	280	1890	2750	616	177	324	434
14	122	115	163	119	380	263	2130	2850	725	176	269	423
15	119	117	156	118	315	269	1700	6010	1370	173	219	1580
16	119	119	152	118	1090	296	1260	4960	975	171	233	2330
17	135	119	140	118	1730	263	1030	3730	670	167	203	2180
18	140	119	138	118	1440	215	891	2900	521	164	183	1660
19	159	119	135	119	1200	215	766	3160	434	224	168	1210
20	149	115	136	121	1440	215	702	2430	389	264	157	883
21	138	115	138	127	1500	200	642	1900	386	275	148	684
22	126	115	141	132	1320	188	589	1540	509	227	145	533
23	126	115	149	138	1050	188	713	1290	571	204	142	465
24	126	115	145	144	917	176	747	1110	465	191	140	410
25	128	117	144	152	865	176	651	1010	541	186	138	370
26	142	117	143	159	790	176	584	1050	457	212	136	370
27	163	200	142	166	670	163	529	1170	347	412	164	700
28	161	344	142	161	602	176	504	1340	293	505	295	1370
29	163	234	144	142	-----	163	828	1570	260	975	279	943
30	190	163	146	147	-----	163	1010	1500	240	1070	4550	1290
31	152	----	148	142	-----	152	-----	1340	-----	736	8890	-----
TOTAL	4308	4071	4549	4152	18338	8987	19898	60475	19839	9487	24915	39344
MEAN	139	136	147	134	655	290	663	1951	661	306	804	1311
MAX	190	344	212	166	1730	537	2130	6010	1370	1070	8890	6990
MIN	119	115	117	118	149	152	140	727	240	164	136	370
CFSM	.18	.17	.19	.17	.83	.37	.84	2.46	.83	.39	1.01	1.65
IN.	.20	.19	.21	.19	.86	.42	.93	2.83	.93	.44	1.17	1.84

CAL YR 1980 TOTAL 279899 MEAN 765 MAX 11900 MIN 115 CFSM .96 IN 13.11
WTR YR 1981 TOTAL 218363 MEAN 598 MAX 8890 MIN 115 CFSM .75 IN 10.23

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 (6 m) downstream from Brown Street in Lafayette, 0.2 mile (0.3 km) upstream from Main Street bridge, 0.3 mile (0.5 km) downstream from Harrison Memorial Bridge, 5.1 miles (8.2 km) downstream from Wildcat Creek, and at mile 311.9 (501.8 km).

DRAINAGE AREA.--7,267 mi² (18,822 km²).

WATER-DISCHARGE RECORDS

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.

GAGE.--Water-stage recorder. datum of gage is 504.14 ft (153.662 m) National Geodetic Vertical Datum of 1929. Prior to May 2, 1903, nonrecording gage 0.5 mile (0.8 km) upstream at different datum. Oct. 7, 1923, to Nov. 20, 1933, nonrecording gage at same site and datum.

REMARKS.--Records good except those for the winter period which are fair. Flow partially regulated by upstream reservoirs and power development.

AVERAGE DISCHARGE.--58 years (1923 to current year), 6,404 ft³/s (181.4 m³/s), 11.97 in/yr (304 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 131,000 ft³/s (3,710 m³/s) May 19, 1943, gage height, 28.47 ft (8.678 m); minimum daily, 399 ft³/s (11.3 m³/s) Sept. 26, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 26, 1913, reached a stage of 32.9 ft (10.03 m), from floodmark determined by National Weather Service, discharge, 190,000 ft³/s (5,380 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 44,500 ft³/s (1,260 m³/s) May 16, gage height, 19.11 ft (5.825 m); minimum daily, 1,380 ft³/s (39.1 m³/s) Jan. 8.

REVISIONS.--Revised figures of discharge for the water year 1979, superseding those published in the report WRD IN-79-1, are given herein:

Extremes.--Minimum daily discharge, 1,170 ft³/s (33.1 m³/s) Feb 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1440	2160	2230	6000	1600	15600	25800	9140	3830	1970	5150	4230
2	1430	2120	1970	9400	1630	21300	20100	7670	3480	2100	7910	3370
3	1420	1870	2180	8500	1540	24700	15800	7340	3220	1790	8360	2510
4	1480	2040	2700	7200	1470	39500	13100	7670	2950	7450	6130	2050
5	1530	1790	5330	7500	1420	48800	13000	7960	2900	6380	4890	1900
6	1550	1710	7200	7600	1390	42500	12800	7260	2950	3650	5450	1770
7	1480	1650	6150	6700	1350	36300	10100	6520	3230	2640	4580	1700
8	1550	1530	5460	5300	1320	31200	9030	6110	4030	2440	5500	1640
9	1490	1700	6480	4000	1300	26800	11100	5450	4910	2750	5580	1560
10	1610	1600	6570	3300	1300	24600	12500	5030	4870	3660	5390	1460
11	1520	1620	6140	2700	1400	22400	13800	5000	4290	4290	5530	1260
12	1530	1610	4880	2380	1420	20200	25200	5170	4400	4120	5220	1240
13	1530	1620	3890	2220	1350	18300	28500	5530	5550	4070	5320	1370
14	1540	2170	3150	2200	1300	18600	22500	5840	5800	4920	5570	1670
15	1670	2450	2700	2150	1240	20200	17500	6230	5440	5520	5290	1630
16	1550	2230	2350	2030	1180	18000	14200	6470	5180	5910	4820	1780
17	1710	2280	2140	1930	1170	16100	12200	6200	4320	5000	4630	2370
18	2070	2710	2150	1890	1200	15800	11200	5480	3330	5090	5060	2550
19	2040	2870	2160	1850	1240	15700	11100	4970	2860	5440	4590	1920
20	2110	3330	2180	1830	1300	16900	9760	4530	2670	5300	4150	1760
21	2060	3190	2200	1820	1420	16800	9260	4260	3240	5310	4870	1840
22	2250	2530	2010	1860	2200	15700	9530	3740	3530	4330	4600	1790
23	2270	2610	2000	1920	4050	15500	8750	3520	3430	2820	4650	1720
24	2090	2430	2030	2200	11800	16600	8270	3590	2910	2240	4930	1670
25	2050	2340	2280	2340	17300	17500	9160	3250	2670	2500	5780	1700
26	2210	2190	2050	2100	18700	16000	9400	3160	2530	3250	5910	1610
27	2180	2320	1940	1900	17600	14300	11400	3010	2320	3930	5370	1650
28	2060	2450	1630	1720	13200	13300	10600	3190	1980	4480	4580	1610
29	2100	2330	1450	1620	------	17300	10900	3950	2000	4110	4420	1620
30	2010	2250	1750	1560	------	22200	10400	4010	2340	4150	3950	1670
31	2050	-----	2090	1580	------	26200	------	3950	------	3980	3950	-----
TOTAL	55580	65700	99440	107300	113390	684900	406960	165200	107160	125590	162130	56620
MEAN	1793	2190	3208	3461	4050	22090	13570	5329	3572	4051	5230	1887
MAX	2270	3330	7200	9400	18700	48800	28500	9140	5800	7450	8360	4230
MIN	1420	1530	1450	1560	1170	13300	8270	3010	1980	1790	3950	1240
CFSM	.25	.30	.44	.48	.56	3.04	1.87	.73	.49	.56	.72	.26
IN.	.28	.34	.51	.55	.58	3.51	2.08	.85	.55	.64	.83	.29

CAL YR 1978	TOTAL	2488470	MEAN	6818	MAX	49500	MIN	1170	CFSM .94	IN 12.74
WTR YR 1979	TOTAL	2149970	MEAN	5890	MAX	48800	MIN	1170	CFSM .81	IN 11.01

03335500 WABASH RIVER AT LAFAYETTE, IN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: July 1954 to September 1964, August 1967 to September 1975.
SEDIMENT DISCHARGE: March 1978 to September 1980.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2600	2530	2440	1900	2950	10900	1960	9520	9840	12700	5930	18900
2	2490	2160	2160	1750	2700	10000	2010	10000	8990	13800	4380	10600
3	2250	3470	2260	1650	2600	8690	1910	10600	8140	12600	3920	9100
4	2490	2530	2330	1560	2550	7640	2390	9920	8120	12200	3500	9520
5	2310	2250	2210	1500	2500	7020	2250	9400	7790	12000	3700	9630
6	2410	1900	2610	1430	3480	6720	2220	8520	13300	12400	5960	7790
7	2370	2130	2170	1400	3870	5600	2260	8510	11500	12300	6090	6000
8	2450	2440	2470	1380	4170	4880	2030	8470	9710	11700	5220	5220
9	2220	3880	3380	1390	3350	4660	2260	8890	13100	11600	4720	4560
10	2070	4000	5020	1750	3370	4480	2700	11500	16800	11600	4070	4080
11	2390	3570	5610	1700	2830	4440	2360	24300	13400	11200	3450	3790
12	1940	2060	5020	1680	2660	4110	3910	25700	11700	10800	3300	3590
13	1960	1880	4100	1640	3200	4000	7320	20500	11500	10600	3080	3420
14	1990	2060	4360	1580	4890	3740	10900	19900	22700	10700	2780	2780
15	2300	3390	3940	1560	5160	3500	21100	37100	30900	10300	2700	3880
16	2200	3270	3340	1610	7530	3390	22300	43200	29600	9030	2740	4860
17	2220	3420	3080	1650	15300	3040	20300	36200	26500	7050	2430	4870
18	2400	2120	3000	1600	19400	2890	17600	28300	24200	6340	2420	4870
19	3040	2050	2790	1530	17900	2870	14900	23400	20800	6380	2370	4530
20	3270	1860	1590	1500	19400	2840	11800	19600	17700	6560	1850	4210
21	2540	2870	1770	1580	19000	2680	9820	16800	15900	7940	2310	4000
22	2090	2920	2270	1510	16100	2560	8230	13200	16000	7510	2860	3630
23	2280	2790	2860	1500	14500	2110	8040	12000	19100	6760	2290	2900
24	2040	2880	3620	1530	13500	2520	7950	12500	17400	5850	1770	2450
25	2180	2040	2620	1650	13700	2280	6960	11600	20300	4810	1730	2440
26	3120	1810	2720	1670	13600	2000	6040	10600	18600	4330	1640	2370
27	3080	2100	3200	2000	13200	2130	5710	10500	14300	4340	2110	3170
28	2750	2260	3350	2570	11900	2010	5290	10100	12400	5640	2790	3900
29	2320	2540	3240	3380	------	2160	7700	10500	11400	8270	2910	3650
30	2280	2330	2700	3980	------	2070	9310	10200	10800	8710	6080	3650
31	2410	-----	2240	3300	------	2010	------	11100	------	7200	15000	------
TOTAL	74460	77510	94470	56430	245310	129940	229530	502630	472490	283220	116100	158360
MEAN	2402	2584	3047	1820	8761	4192	7651	16210	15750	9136	3745	5279
MAX	3270	4000	5610	3980	19400	10900	22300	43200	30900	13800	15000	18900
MIN	1940	1810	1590	1380	2500	2000	1910	8470	7790	4330	1640	2370
CFSM	.33	.36	.42	.25	1.21	.58	1.05	2.23	2.17	1.26	.52	.73
IN.	.38	.40	.48	.29	1.26	.67	1.17	2.57	2.42	1.45	.59	.81

CAL YR 1980 TOTAL 2444070 MEAN 6678 MAX 46200 MIN 1590 CFSM .92 IN 12.51
WTR YR 1981 TOTAL 2440450 MEAN 6686 MAX 43200 MIN 1380 CFSM .92 IN 12.49

03335500 WABASH RIVER AT LAFAYETTE, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
NOV										
09...	0645	----	3780	70	714	85	--	--	---	---
10...	0800	----	3780	72	735	88	--	--	---	---
12...	1620	8.5	1880	32	162	--	--	--	---	---
DEC										
12...	1200	4.0	5050	78	1060	84	--	--	---	---
FEB										
23...	1140	3.0	14600	91	3590	83	89	98	100	---
APR										
10...	1200	14.0	2880	68	529	83	96	99	100	---
JUN										
01...	1320	19.5	9740	76	2000	89	--	--	---	---
JUL										
08...	1330	25.0	11600	90	2820	90	95	97	99	100
SEP										
22...	1545	20.5	3420	96	886	93	--	--	---	---

03335690 MUD PINE CREEK NEAR OXFORD, IN

LOCATION.--Lat 40°31'24", long 87°20'30", in NE¼SE¼ sec.17, T.24 N., R.8 W., Benton County, Hydrologic Unit 05120108, on right bank 5 ft (2 m) downstream from county road bridge, 0.3 mile (0.5 km) north of Chase, 2 miles (3 km) east of Boswell, and 5 miles (8 km) west of Oxford.

DRAINAGE AREA.--39.4 mi² (102.0 km²).

WATER-DISCHARGE RECORDS

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

REVISED RECORD.--WRD 80-1: 1971-79 (P).

GAGE.--Water-stage recorder. Datum of gage is 718.00 ft (218.846 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--10 years (1972 to current year), 39.8 ft³/s (1.127 m³/s), 13.72 in/yr (348 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,420 ft³/s (96.9 m³/s) June 2, 1980, gage height, 11.67 ft (3.557 m); minimum daily, 0.25 ft³/s (0.007 m³/s) Sept. 24, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 800 ft³/s (22.7 m³/s) (revised) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 28	2130	1010	28.6	8.87	2.704	May 15	0215	1650	46.7	9.93	3.027
May 11	0200	1430	40.5	9.62	2.932	Aug. 31	0615	*2450	69.4	*10.85	3.307

Minimum daily discharge, 0.55 ft³/s (0.016 m³/s) Dec. 21.

PERIOD OF RECORD.--
SEDIMENT DISCHARGE: October 1979 to September 1980 (partial-record station).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.66	.74	1.8	2.2	4.4	15	3.0	152	24	18	11	639
2	.72	.74	2.9	1.2	5.0	13	2.7	103	23	16	9.6	256
3	.81	.77	2.3	.95	3.0	11	3.6	80	22	15	8.9	201
4	.87	.75	1.4	.83	2.3	12	9.4	61	19	15	8.0	144
5	.68	.73	1.4	.75	2.0	12	5.2	51	31	15	11	111
6	.69	.71	1.2	.72	1.8	10	3.6	61	23	13	16	91
7	.65	.70	1.9	.69	1.7	9.4	3.3	49	18	11	9.5	79
8	.68	.70	13	.69	1.6	7.8	3.9	42	18	11	7.6	66
9	.63	.76	13	.70	1.6	7.5	6.0	40	16	11	6.4	54
10	.58	.66	6.5	.72	1.5	7.6	8.2	448	15	9.6	5.7	46
11	.61	.64	4.3	.75	1.5	7.2	27	671	13	8.9	5.4	39
12	.56	.68	3.2	.77	1.7	7.0	133	218	13	8.6	4.9	34
13	.56	.63	2.5	.80	1.9	6.7	103	163	19	8.4	4.5	31
14	.62	.65	2.1	.82	2.2	5.6	120	512	18	7.9	4.4	70
15	.70	.81	1.7	.84	63	6.1	83	895	15	7.5	9.8	76
16	.71	.77	1.4	.86	430	5.5	60	224	15	7.3	6.3	42
17	1.3	.69	1.3	.88	450	5.1	48	156	13	6.6	4.5	35
18	3.1	.66	1.2	.90	124	4.8	35	174	12	6.1	3.9	33
19	1.1	.64	.84	.94	60	4.7	34	148	12	7.2	3.6	31
20	.91	.66	.58	1.1	41	4.5	34	113	12	15	3.4	27
21	.72	.64	.55	1.3	28	4.2	31	92	15	10	3.2	24
22	.71	.59	.71	1.2	27	4.0	52	77	387	7.0	3.0	20
23	.66	.88	1.1	1.0	45	3.5	82	69	107	6.0	2.8	18
24	.77	.80	.92	.96	42	3.5	54	61	81	5.5	2.7	18
25	1.1	.81	.85	.94	30	3.4	39	54	226	5.2	30	17
26	1.1	.72	.85	7.6	22	3.5	35	48	66	24	570	16
27	.89	.79	.89	5.1	19	3.5	30	43	38	23	189	16
28	1.4	1.5	.92	3.5	18	3.1	258	38	28	74	164	13
29	1.4	1.5	1.1	2.5	------	3.7	313	35	23	38	118	22
30	.93	1.4	1.6	2.0	------	4.5	162	32	20	20	871	30
31	.81	-----	2.7	1.7	------	3.3	------	26	----	14	1670	----
TOTAL	27.63	23.72	76.71	45.91	1431.2	202.7	1781.9	4936	1342	444.8	3768.1	2299
MEAN	.89	.79	2.47	1.48	51.1	6.54	59.4	159	44.7	14.3	122	76.6
MAX	3.1	1.5	13	7.6	450	15	313	895	387	74	1670	639
MIN	.56	.59	.55	.69	1.5	3.1	2.7	26	12	5.2	2.7	13
CFSM	.02	.02	.06	.04	1.30	.17	1.51	4.04	1.14	.36	3.10	1.94
IN.	.03	.02	.07	.04	1.35	.19	1.68	4.66	1.27	.42	3.56	2.17

CAL YR 1980 TOTAL 11493.77 MEAN 31.4 MAX 1800 MIN .49 CFSM .80 IN 10.85
WTR YR 1981 TOTAL 16379.67 MEAN 44.9 MAX 1670 MIN .55 CFSM 1.14 IN 15.46

03335690 MUD PINE CREEK NEAR OXFORD, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV 13...	1535	7.0	.60	8	.01

03335700 BIG PINE CREEK NEAR WILLIAMSPORT, IN

LOCATION.--Lat 40°19'03", long 87°17'26", in SW¼SE¼ sec.26, T.22 N., R.8 W., Warren County, Hydrologic Unit 05120108, on downstream side of county road bridge, 1.6 miles (2.6 km) north of city limits of Williamsport, and 3.7 miles (6.0 km) upstream from mouth.

DRAINAGE AREA.--323 mi² (837 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1955 to current year.

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 511.68 ft (155.960 m) National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to May 19, 1967, nonrecording gage and crest-stage gage at same site and datum.

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

AVERAGE DISCHARGE.--26 years, 263 ft³/s (7.448 m³/s), 11.06 in/yr (281 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,600 ft³/s (357 m³/s) Feb. 10, 1959, from rating curve extended above 8,000 ft³/s (227 m³/s) on basis of contracted-opening measurement, gage height, 16.00 ft (4.877 m), from floodmark; minimum daily, 6.5 ft³/s (0.18 m³/s) Oct. 6-8, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,800 ft³/s (79.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 28	2200	3330	94.3	9.15	2.789	Aug. 5	1600	2820	79.9	8.54	2.603
May 10	2000	4550	129	10.41	3.173	Aug. 31	1800	*6580	186	*12.14	3.700
May 14	2400	5290	150	11.08	3.377						

Minimum daily discharge, 12 ft³/s (0.510 m³/s) Oct. 11-16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	21	29	33	45	142	37	1330	247	189	135	3480
2	14	19	31	30	65	126	33	734	237	163	110	2110
3	14	19	31	26	57	111	34	527	233	142	96	1810
4	14	19	30	23	50	103	42	413	219	132	87	1440
5	14	19	30	20	44	111	52	413	219	177	593	974
6	14	19	29	19	42	106	49	514	360	233	321	706
7	14	19	29	18	41	92	39	398	272	135	178	571
8	14	18	38	18	41	85	38	328	215	114	123	490
9	15	18	95	19	41	80	39	293	193	98	97	406
10	14	18	100	19	42	77	46	2300	177	90	79	345
11	12	18	73	20	44	75	80	3530	159	80	69	292
12	12	18	54	20	47	70	482	2140	159	74	63	246
13	12	18	46	21	51	68	701	1470	159	71	60	215
14	12	18	41	21	56	64	712	2380	193	70	56	196
15	12	19	35	22	66	60	644	4310	177	74	92	309
16	12	21	31	22	1190	58	455	2690	155	68	88	232
17	16	20	29	23	1340	56	360	1770	145	63	65	186
18	20	19	28	23	1050	54	282	1690	129	61	57	174
19	19	19	27	24	546	52	228	1400	126	97	51	158
20	19	19	26	25	393	52	252	1010	120	105	44	146
21	19	19	25	27	298	51	223	772	123	210	39	130
22	18	19	24	29	242	47	360	639	580	124	37	117
23	16	19	23	27	287	46	570	565	772	86	36	102
24	15	19	23	25	351	42	455	514	514	70	34	94
25	16	19	23	25	282	41	328	464	739	64	32	90
26	17	19	23	56	210	39	277	413	965	229	490	109
27	18	23	23	62	170	39	237	384	723	351	527	331
28	25	29	24	55	159	39	624	346	365	623	547	159
29	25	29	25	45	----	37	1910	319	267	485	374	308
30	23	28	28	39	----	38	1510	309	223	284	2130	393
31	21	----	34	33	----	38	-----	277	----	182	4270	-----
TOTAL	500	601	1107	869	7250	2099	11099	34642	9165	4944	10980	16319
MEAN	16.1	20.0	35.7	28.0	259	67.7	370	1117	306	159	354	544
MAX	25	29	100	62	1340	142	1910	4310	965	623	4270	3480
MIN	12	18	23	18	41	37	33	277	120	61	32	90
CFSM	.05	.06	.11	.09	.80	.21	1.15	3.46	.95	.49	1.10	1.68
IN.	.06	.07	.13	.10	.83	.24	1.28	3.99	1.06	.57	1.26	1.88

CAL YR 1980 TOTAL 91506 MEAN 250 MAX 6600 MIN 12 CFSM .77 IN 10.54
WTR YR 1981 TOTAL 99575 MEAN 273 MAX 4310 MIN 12 CFSM .85 IN 11.47

03335700 BIG PINE CREEK NEAR WILLIAMSPORT, IN--Continued
(Baseline water-quality station for the coal-mining region of Southwestern Indiana)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL ANALYSIS: October 1, 1980 to September 30, 1981.
SPECIFIC CONDUCTANCE: October 1, 1980 to September 30, 1981.
WATER TEMPERATURE: October 1, 1980 to September 30, 1981
SEDIMENT DISCHARGE: October 1, 1980 to September 30, 1981.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 937 micromhos Aug. 25, 1981; minimum, 256 micromhos Feb. 18, 1981.
WATER TEMPERATURE: Maximum, 28.0°C July 9, 1981; minimum, freezing point on many days during 1980 winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	OXYGEN, DIS-SOLVED (MG/L)	TEMPER-ATURE (DEG C)	ALKA-LINITY LAB (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)	ACIDITY (MG/L AS H)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)
OCT 08...	1430	70	610	8.2	10.8	14.4	240	---	--	40	250
NOV 07...	1500	79	655	8.1	----	10.9	270	5.0	.1	50	130
DEC 09...	1600	180	710	8.1	8.1	7.2	240	---	--	30	690
JAN 13...	1200	58	887	8.0	----	1.1	310	---	--	30	140
FEB 17...	1500	1170	266	7.2	----	.5	46	---	--	160	6900
MAR 16...	1430	116	680	8.2	----	7.2	210	---	--	60	130
MAY 05...	1400	848	635	8.0	----	16.1	190	---	--	10	1600
JUN 02...	1530	288	665	8.1	----	20.9	200	---	--	10	290
JUL 06...	1300	678	315	7.7	----	23.1	98	---	--	<10	11000
AUG 03...	1000	175	654	7.7	----	23.0	220	---	--	20	540

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)
OCT 08...	290	40	67	377	71.6	.51	24	--	---	--	----
NOV 07...	180	20	69	397	84.8	.54	13	--	---	--	----
DEC 09...	720	50	66	408	198	.55	185	95	---	--	----
JAN 13...	170	30	84	504	79.2	.69	---	--	---	--	----
FEB 17...	7100	190	20	154	487	.21	---	--	88	42	4700
MAR 16...	190	30	74	379	119	.52	41	81	---	--	----
MAY 05...	1600	60	56	393	900	.53	109	97	---	--	----
JUN 02...	300	10	56	427	332	.58	58	95	---	--	----
JUL 06...	11000	480	27	231	423	.31	10	75	150	49	0
AUG 03...	560	30	57	408	193	.55	---	--	---	--	----

03335700 BIG PINE CREEK NEAR WILLIAMSPORT, IN--Continued
(Baseline water-quality station for the coal-mining region of Southwestern Indiana)

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CALCIUM DIS-SOLVED (MG/L AS CA)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	POTAS-SIUM 40 DIS-SOLVED (PCI/L AS K40)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT											
08...	--	--	--	--	--	--	---	---	----	--	--
NOV											
07...	--	--	--	--	--	--	---	---	----	--	--
DEC											
09...	--	--	--	--	--	--	---	---	----	--	--
JAN											
13...	--	--	--	--	--	--	---	---	----	--	--
FEB											
17...	0	0	23	35	16	.2	4.2	3.1	7.3	16	60
MAR											
16...	--	--	--	--	--	--	---	---	----	--	--
MAY											
05...	--	--	--	--	--	--	---	---	----	--	--
JUN											
02...	--	--	--	--	--	--	---	---	----	--	--
JUL											
06...	60	1	39	1	16	.2	1.8	1.3	12	20	80
AUG											
03...	--	--	--	--	--	--	---	---	----	--	--

03335700 BIG PINE CREEK NEAR WILLIAMSPORT, IN--Continued
(Baseline water-quality station for the coal-mining region of Southwestern Indiana)

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	614	665	---	805	646	741	603	402	670	668	605	263
2	602	666	---	811	541	745	611	471	696	676	647	308
3	603	661	---	823	616	751	645	558	722	684	671	285
4	606	660	---	865	696	745	635	576	746	685	685	280
5	604	663	---	929	734	722	630	607	796	661	584	284
6	613	661	---	920	744	726	585	574	680	512	359	281
7	615	659	---	916	736	728	541	579	769	497	502	275
8	617	---	---	894	743	714	548	612	804	593	640	278
9	616	---	699	878	766	661	579	629	775	612	727	295
10	618	---	731	876	751	636	595	498	726	625	796	316
11	628	---	695	883	701	661	533	330	700	603	840	341
12	638	---	718	889	675	634	493	443	703	626	866	365
13	644	---	731	886	686	634	552	524	665	601	886	383
14	649	---	734	872	721	636	592	508	681	606	903	392
15	654	---	741	844	725	640	607	495	707	599	907	398
16	657	---	746	847	427	644	615	473	740	605	901	403
17	644	---	751	854	267	662	628	500	686	613	898	402
18	638	---	751	869	256	652	649	508	677	624	900	399
19	650	---	777	866	323	631	642	523	715	558	906	402
20	651	---	841	869	364	569	604	597	809	530	914	410
21	662	---	882	855	425	537	622	630	858	592	921	417
22	669	---	896	839	535	579	607	643	862	589	925	424
23	669	---	871	827	615	581	565	649	741	573	930	429
24	671	---	815	820	647	548	656	652	704	587	932	432
25	672	---	825	799	678	485	731	656	696	600	937	---
26	670	---	845	747	697	471	732	660	487	448	911	---
27	667	---	852	687	711	494	738	659	478	444	582	---
28	647	---	867	679	726	593	710	658	466	409	465	---
29	649	---	865	684	---	702	330	662	459	472	467	---
30	655	---	851	699	---	698	392	664	665	542	452	---
31	657	---	823	723	---	620	---	670	---	581	408	---
MEAN	640	662	796	831	613	640	599	568	696	581	744	353
MAX	672	666	896	929	766	751	738	670	862	685	937	432
MIN	602	659	695	679	256	471	330	330	459	409	359	263

WTR YR 1981 MEAN 645 **MAX** 937 **MIN** 256

03335700 BIG PINE CREEK NEAR WILLIAMSPORT, IN--Continued
(Baseline water-quality station for the coal-mining region of Southwestern Indiana)

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.5	7.0	---	1.0	.0	6.0	15.0	13.0	17.0	22.0	22.0	21.5
2	16.5	6.5	---	1.0	.0	5.5	14.0	13.0	18.5	22.0	23.0	21.0
3	13.5	8.0	---	1.0	.0	5.0	14.5	14.5	21.0	22.0	23.5	20.0
4	11.5	9.5	---	1.0	.0	5.5	15.5	16.0	21.5	22.0	24.0	20.0
5	10.5	8.5	---	1.0	.5	5.5	12.5	16.0	22.0	21.5	23.5	20.0
6	10.5	7.0	---	1.0	1.0	4.5	11.0	13.0	22.0	25.5	22.5	19.5
7	12.5	8.5	---	1.0	1.0	4.5	12.5	13.0	20.5	25.5	23.0	19.5
8	14.0	---	---	1.0	1.0	4.5	14.0	14.0	21.5	27.0	22.5	19.5
9	15.0	---	7.0	1.0	1.0	5.0	15.5	15.0	21.5	28.0	22.0	19.0
10	14.0	---	4.5	1.0	1.0	6.0	14.5	13.0	21.0	27.0	22.0	19.5
11	13.0	---	3.5	1.0	1.0	6.0	15.0	9.5	20.0	26.0	22.0	20.5
12	11.0	---	4.0	1.0	.5	6.5	15.5	10.0	19.0	25.5	22.0	21.5
13	11.0	---	4.0	1.0	.5	7.5	14.0	12.0	20.5	26.5	22.5	22.0
14	12.0	---	2.5	1.0	1.0	7.5	14.0	11.0	23.0	27.0	22.0	22.0
15	14.0	---	3.0	1.0	1.0	7.5	12.5	11.0	25.0	24.5	21.5	20.5
16	15.5	---	2.5	1.0	.5	7.5	12.0	13.5	23.0	23.5	21.5	19.0
17	16.5	---	1.0	1.0	.5	6.5	14.0	14.5	21.0	24.0	21.0	16.0
18	14.5	---	2.0	1.0	1.0	6.0	16.5	12.0	21.5	25.5	20.5	15.0
19	11.5	---	1.0	1.0	2.0	4.5	14.5	11.5	21.0	25.0	20.5	15.5
20	11.5	---	.5	1.0	3.5	4.5	13.0	12.5	21.0	25.0	21.0	17.0
21	12.0	---	.5	1.0	4.5	6.0	12.5	13.5	22.0	24.5	21.5	18.0
22	11.5	---	.5	1.0	5.0	7.0	12.5	14.5	22.0	22.5	22.0	18.0
23	11.5	---	.5	1.0	5.0	7.5	13.5	15.0	21.5	22.0	22.0	15.5
24	11.5	---	.5	1.0	4.5	8.5	12.0	15.5	21.5	22.5	22.5	----
25	9.0	---	1.0	1.0	5.0	8.5	11.5	16.5	22.0	23.5	23.0	----
26	7.0	---	1.0	.5	5.5	10.0	13.5	16.5	22.0	22.5	23.0	----
27	6.0	---	1.0	.0	6.0	11.0	16.5	16.0	21.5	21.5	21.5	----
28	6.5	---	1.0	.0	7.0	12.0	18.0	16.0	20.5	21.0	21.5	----
29	5.5	---	1.0	.5	---	13.0	14.0	17.0	21.5	19.5	21.5	----
30	5.0	---	1.0	.5	---	13.0	13.0	18.0	22.0	20.0	21.5	----
31	6.0	---	1.0	.5	---	13.5	----	17.0	----	21.0	21.5	----
MEAN	11.5	8.0	2.0	1.0	2.0	7.5	14.0	14.0	21.5	23.5	22.0	19.0
MAX	17.5	9.5	7.0	1.0	7.0	13.5	18.0	18.0	25.0	28.0	24.0	22.0
MIN	5.0	6.5	.5	.0	.0	4.5	11.0	9.5	17.0	19.5	20.5	15.0

WTR YR 1981 MEAN 12.5 MAX 28.0 MIN .0

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 miles (4.7 km) downstream from Oppossum Run, 3.6 miles (5.8 km) upstream from Spring Creek, and at mile 271.1 (436.2 km).

DRAINAGE AREA.--8,218 mi² (21,285 km²).

PERIOD OF RECORD.--October 1939 to current year. Gage-height records collected at site 0.4 mile (0.6 km) downstream January 1927 to December 1930, and near center span of old U.S. Highway 136 bridge prior to September 1979, and at present site since are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 1275: Drainage area. WRD Ind. 1973: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 473.97 ft (144.466 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Flow partially regulated by upstream reservoirs and power development.

AVERAGE DISCHARGE.--42 years, 7,284 ft³/s (206.3 m³/s), 12.04 in/yr (306 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 147,000 ft³/s (4,160 m³/s) May 20, 1943, gage height, 32.44 ft (9.888 m); minimum daily, 487 ft³/s (13.8 m³/s) Sept. 29, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 35.1 ft (10.70 m), from floodmark determined by National Weather Service, discharge, 200,000 ft³/s (5,600 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 44,600 ft³/s (1,260 m³/s) May 17, gage height, 23.63 ft (7.202 m); minimum daily, 1,300 ft³/s (36.8 m³/s) Jan. 10-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2800	2500	2500	2400	3500	11500	2340	13300	11900	12700	8000	24800
2	2600	2500	2400	2200	3200	10500	2340	12400	11600	13900	6500	24500
3	2500	2500	2400	2100	2800	9500	2610	12200	10500	14000	5600	19400
4	2400	3000	2400	1800	2400	9000	2800	11800	10000	13100	5000	15500
5	2400	2600	2400	1600	2600	8200	2660	11200	9830	13000	6000	13500
6	2400	2300	2500	1700	3000	7600	2480	11000	11100	13700	10000	11900
7	2400	2200	2400	1500	3300	6800	2610	10300	14700	13400	9500	9510
8	2400	2300	2500	1400	3700	6000	2560	9910	11900	12800	8500	7870
9	2300	3000	3000	1400	3600	5400	2480	9880	11300	12400	7400	6840
10	2300	3800	4000	1300	3300	5100	2780	12700	15800	12400	6500	5950
11	2200	3800	5500	1300	2900	4900	3030	22000	15700	12100	6400	5300
12	2200	3500	5400	1300	2700	4700	3500	26500	13700	11800	6000	4850
13	2100	2600	4500	1300	2500	4640	6470	28100	12400	11500	5000	4550
14	2100	2300	4000	1300	3000	4360	9900	26200	14800	11300	4300	4230
15	2100	3000	3700	1400	4000	4300	15400	29900	22200	11000	4000	3840
16	2300	3300	3500	1400	6000	3950	20800	37900	25900	11000	3500	5060
17	2300	3200	3200	1400	11000	3750	21500	43000	27400	9500	3000	5690
18	2300	2900	2800	1500	17000	3430	20200	39900	26700	8150	2700	5670
19	2800	2400	2500	1500	19500	3310	17500	35200	24900	6930	2640	5540
20	3000	2200	2200	1600	19000	3310	14700	30400	21900	6900	2510	5080
21	2900	2300	1700	1700	18000	3290	12000	25900	18600	7310	2210	4790
22	2600	3000	2000	1700	16000	3140	10300	21300	17700	8920	2620	4410
23	2400	2900	2500	1700	15000	2950	9980	16800	19200	8200	2860	4100
24	2300	2900	3300	1800	15000	2590	9550	14900	20200	6430	2390	3390
25	2300	3000	2900	1900	14000	2840	8950	14900	19300	5940	1980	3000
26	2600	2200	2500	2000	13000	2660	7870	13500	21000	5600	2080	2960
27	3000	2100	3000	2300	13000	2390	7100	12700	19000	7000	2800	3520
28	3000	2300	3200	2500	12000	2560	6670	12600	15100	11000	4040	4140
29	2800	2600	3200	2900	------	2520	10100	12400	13200	12000	4510	5110
30	2600	2600	3000	3400	------	2500	12500	12400	12000	11000	9120	5330
31	2500	-----	2600	4000	------	2610	------	12200	------	9000	19500	------
TOTAL	76900	81800	93700	57300	235000	150300	253680	603390	499530	323980	167160	230330
MEAN	2481	2727	3023	1848	8393	4848	8456	19460	16650	10450	5392	7678
MAX	3000	3800	5500	4000	19500	11500	21500	43000	27400	14000	19500	24800
MIN	2100	2100	1700	1300	2400	2390	2340	9880	9830	5600	1980	2960
CFSM	.30	.33	.37	.23	1.02	.59	1.03	2.37	2.03	1.27	.66	.93
IN.	.35	.37	.42	.26	1.06	.68	1.15	2.73	2.26	1.47	.76	1.04

CAL YR 1980 TOTAL 2767060 MEAN 7560 MAX 45800 MIN 1700 CFSM .92 IN 12.53
WTR YR 1981 TOTAL 2773070 MEAN 7597 MAX 43000 MIN 1300 CFSM .92 IN 12.55

03339000 VERMILION RIVER NEAR DANVILLE, IL

LOCATION.--Lat 40°05'53", long 87°35'37", in SE¼NW¼ sec.22, T.19 N., R.11 W., Vermilion County, Illinois, Hydrologic Unit 05120109, on left bank 1.5 mi (2.4 km) upstream from Stony Creek and 2.5 mi (4.0 km) southeast of Danville, and at mile 19.2 (30.9 km).

DRAINAGE AREA.--1,290 mi² (3,341 km²).

PERIOD OF RECORD.--October 1914 to September 1921, June 1928 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 853: 1936(M). WSP 973: 1939. WSP 1305: 1915-16, 1920, 1929. WSP 1335: 1934(m). WSP 1909: 1960. WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 503.33 ft (153.415 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Jan. 9, 1935, nonrecording gage at site 0.3 mi (0.5 km) upstream at same datum.

REMARKS.--Records good except those for winter periods, which are poor. Flow regulated at times by storage at Lake Vermilion on North Fork Vermilion River, 4.5 mi (7.2 km) above station, usable capacity, 7,440 acre-ft (9.17 hm³), and by Danville sewage-disposal plant.

AVERAGE DISCHARGE.--60 years, 941 ft³/s (26.65 m³/s), 9.91 in/yr (252 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,700 ft³/s (1,380 m³/s) Mar. 13, 1939, gage height, 28.59 ft (8.714 m); minimum daily, 2 ft³/s (0.057 m³/s) Oct. 9-14, 1920, Aug. 10, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 6,000 ft³/s (170 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 29	1515	7860	223	12.32	3.755	Aug. 7	2000	6940	197	11.44	3.487
May 11	2315	9730	276	14.00	4.267	Aug. 28	1445	9200	261	13.54	4.127
May 15	1130	*10800	306	*14.96	4.560	Sept. 30	0930	6600	187	11.12	3.389
July 28	1115	7800	221	12.26	3.737						

Minimum daily discharge, 40 ft³/s (1.13 m³/s) Nov. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	74	86	56	80	553	119	4890	945	1860	1860	4340
2	52	63	105	54	93	487	115	3700	825	999	1320	4090
3	57	60	112	52	100	425	108	2120	780	727	1100	3540
4	67	60	122	51	110	396	137	2070	700	595	981	3330
5	65	58	117	51	95	430	160	1550	651	1320	795	2700
6	57	55	101	50	85	497	178	2290	634	2710	5210	1710
7	52	57	105	50	75	507	135	2780	634	1600	6600	1120
8	49	52	119	50	70	435	112	2070	574	1080	5090	1360
9	63	55	160	50	64	377	124	1390	558	886	2440	1080
10	47	49	563	50	65	350	458	3130	553	733	2940	869
11	52	52	440	50	66	324	1480	9200	522	857	3810	770
12	57	46	307	50	65	287	1680	9190	553	657	2610	651
13	49	40	231	50	64	252	3160	6740	945	522	1500	601
14	46	45	200	50	64	241	2880	5180	1020	497	1140	739
15	43	46	165	52	65	213	2720	10200	892	1450	1850	542
16	43	47	145	52	100	197	2740	9670	770	3050	4330	507
17	63	46	120	53	1000	190	1960	7240	969	2970	4000	482
18	74	47	100	52	3490	174	1450	5500	840	1850	2720	463
19	80	47	87	50	2370	165	1200	6650	640	2070	1430	444
20	88	45	72	50	1630	160	1050	5450	537	5210	1030	425
21	65	46	64	50	1010	148	927	3640	487	5660	782	391
22	63	46	60	51	939	140	957	2800	3390	4160	606	345
23	53	46	56	53	1160	127	1860	2420	4120	2180	507	320
24	52	49	54	55	1420	122	2500	2040	4040	1410	449	299
25	58	50	62	60	1220	110	1730	1860	1980	1090	391	287
26	50	58	53	70	975	110	1400	1680	2030	2010	1420	287
27	62	69	60	84	788	110	1540	1360	1680	4820	3350	2500
28	94	92	56	100	612	112	1420	1120	1040	7520	7800	4110
29	72	86	69	95	-----	112	6420	1110	820	6800	5500	3600
30	88	78	72	80	-----	115	6170	1130	880	4480	4700	6200
31	86	----	69	72	-----	115	-----	1050	-----	2580	4650	-----
TOTAL	1897	1664	4132	1793	17875	7981	46890	121220	35009	74353	82911	48102
MEAN	61.2	55.5	133	57.8	638	257	1563	3910	1167	2398	2675	1603
MAX	94	92	563	100	3490	553	6420	10200	4120	7520	7800	6200
MIN	43	40	53	50	64	110	108	1050	487	497	391	287
CFSM	.05	.04	.10	.05	.50	.20	1.21	3.03	.91	1.86	2.07	1.24
IN.	.05	.05	.12	.05	.52	.23	1.35	3.50	1.01	2.14	2.39	1.39

CAL YR 1980 TOTAL 285583 MEAN 780 MAX 17000 MIN 40 CFSM .61 IN 8.24
WTR YR 1981 TOTAL 443827 MEAN 1216 MAX 10200 MIN 40 CFSM .94 IN 12.80

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 miles (2.4 km) east of Hillsboro, 3.7 miles (6.0 km) northwest of Waynetown, and 9.6 miles (15.4 km) upstream from mouth.

DRAINAGE AREA.--33.4 mi^2 (86.5 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 673.76 ft (205.362 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--13 years, 37.5 ft^3/s (1.062 m^3/s), 15.25 in/yr (387 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,610 ft^3/s (73.9 m^3/s) Oct. 1, 1977, gage height, 10.33 ft (3.149 m); minimum daily, 3.5 ft^3/s (0.099 m^3/s) Jan. 16, 17, Feb. 6, 7, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft^3/s (19.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 10	2015	977	27.7	6.47	1.972	July 5	0315	926	26.2	6.33	1.929
May 14	2330	*1780	50.4	*8.56	2.609	Aug. 5	1845	1160	32.9	6.99	2.131

Minimum daily discharge, 4.5 ft^3/s (0.127 m^3/s) Oct. 16.

NOTE.--No gage-height reecord Dec. 18 to Feb 17, Feb. 22 to Mar. 1, and Mar. 7 to Apr. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	16	29	8.0	11	15	5.7	73	19	31	38	435
2	6.8	16	23	7.5	14	14	5.4	44	18	23	31	253
3	6.4	15	17	6.8	10	13	5.4	32	18	13	28	112
4	6.0	15	15	6.0	8.6	13	70	25	18	48	25	73
5	6.0	15	14	5.5	7.8	18	18	24	17	418	376	51
6	6.0	13	13	5.8	7.3	21	10	24	16	37	202	45
7	5.6	13	13	6.0	7.2	18	8.0	21	15	23	66	44
8	5.6	12	24	6.0	7.2	15	7.0	19	15	21	45	39
9	5.6	10	43	6.0	7.5	13	7.0	20	14	16	43	34
10	5.2	9.1	36	5.9	40	12	20	345	13	13	37	30
11	5.2	8.1	25	5.7	25	12	100	290	12	11	31	25
12	5.2	7.2	18	5.0	15	11	120	114	21	10	27	22
13	5.2	7.6	15	6.0	12	10	60	71	32	9.5	23	21
14	4.8	12	12	6.2	10	9.6	35	510	47	5.6	21	19
15	4.8	16	11	6.2	9.0	9.2	23	677	30	31	27	18
16	4.5	16	11	6.2	15	9.0	17	157	25	16	25	17
17	8.6	15	9.1	6.1	30	8.5	16	95	22	12	20	16
18	9.5	16	8.0	6.4	53	8.2	15	285	19	11	18	16
19	8.6	15	7.4	6.9	32	7.9	15	144	18	123	15	16
20	8.1	14	7.0	7.4	56	7.5	15	77	16	53	14	16
21	8.1	14	7.0	7.8	34	7.2	13	53	16	31	13	16
22	8.6	14	7.2	8.0	28	7.0	18	43	255	21	13	15
23	10	15	7.2	8.0	24	6.8	23	38	37	18	13	15
24	16	15	7.2	8.0	22	6.5	18	36	31	18	13	14
25	24	14	6.9	9.5	19	6.4	15	94	28	17	13	14
26	21	12	6.8	11	18	6.2	17	60	24	148	13	14
27	21	21	6.8	12	17	6.1	15	45	21	304	30	15
28	32	22	7.0	11	16	6.0	69	33	18	278	83	15
29	22	23	7.2	10	-----	6.0	285	27	17	98	23	45
30	19	23	7.6	9.2	-----	5.9	118	24	61	52	231	44
31	18	-----	8.0	9.0	-----	5.9	------	21	----	44	231	----
TOTAL	323.4	434.0	429.4	229.1	555.6	314.9	1163.5	3521	913	1954.1	1788	1509
MEAN	10.4	14.5	13.9	7.39	19.8	10.2	38.8	114	30.4	63.0	57.7	50.3
MAX	32	23	43	12	56	21	285	677	255	418	376	435
MIN	4.5	7.2	6.8	5.0	7.2	5.9	5.4	19	12	5.6	13	14
CPSM	.31	.43	.42	.22	.59	.31	1.16	3.41	.91	1.89	1.73	1.51
IN.	.36	.48	.48	.26	.62	.35	1.30	3.92	1.02	2.18	1.99	1.68

CAL YR 1980 TOTAL 11077.9 MEAN 30.3 MAX 1100 MIN 4.5 CPSM .91 IN 12.34
WTR YR 1981 TOTAL 13135.0 MEAN 36.0 MAX 677 MIN 4.5 CPSM 1.08 IN 14.63

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 (100 m) upstream from Crawfordsville Electric Light and Power Co.'s dam at Crawfordsville, 0.5 mile (0.8 km) upstream from bridge on State Highway 43, 1.0 mile (1.6 km) downstream from Walnut Fork Sugar Creek, and at mile 40.4 (65.0 km).

DRAINAGE AREA.--509 mi² (1,318 km²).

WATER-DISCHARGE RECORDS

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. Datum of gage is 657.77 ft (200.488 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--43 years, 485 ft³/s (13.74 m³/s), 12.94 in/yr (329 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,300 ft³/s (745 m³/s) June 28, 1957, gage height, 14.48 ft (4.414 m); minimum daily, 2.4 ft³/s (0.068 m³/s) Sept. 24-27, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913, reached a stage of 17.3 ft (5.27 m) from information by local resident, discharge, about 36,000 ft³/s (1,020 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft³/s (113 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 11	0400	4050	115	4.30	1.311	Aug. 31	1900	*13100	371	*9.95	3.033
May 14	2400	5910	167	5.26	1.603						

Minimum daily discharge, 25 ft³/s (0.71 m³/s) Jan. 12.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DISCHARGE: February 1972 to July 1979.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	59	50	48	61	191	70	877	415	826	469	10000
2	36	52	50	43	58	167	66	667	367	347	333	5370
3	36	46	46	41	50	149	66	455	334	212	268	3070
4	36	46	44	29	45	144	82	354	413	164	230	1500
5	36	43	44	26	42	171	94	307	304	200	330	1000
6	36	41	44	28	41	235	87	335	277	216	656	650
7	36	43	45	28	40	231	75	405	263	160	434	500
8	34	41	49	29	39	188	69	348	225	123	283	400
9	34	41	59	29	40	163	69	309	208	105	213	330
10	34	40	73	29	47	147	78	1040	195	95	362	290
11	32	39	77	28	82	139	112	3750	177	83	924	260
12	30	39	75	25	142	133	331	2820	321	74	419	240
13	30	41	69	29	110	127	730	1710	576	70	252	220
14	30	45	64	30	90	121	473	2180	985	74	190	200
15	30	45	61	31	82	111	327	5230	678	156	237	190
16	30	44	63	30	475	109	252	3230	389	134	287	210
17	34	43	55	30	1040	105	228	1780	267	95	204	190
18	45	40	53	31	695	99	208	1820	208	74	160	170
19	51	41	42	33	531	97	183	2540	179	474	133	160
20	40	39	34	36	722	94	178	1540	168	1460	118	150
21	42	38	32	38	729	90	160	1020	160	940	105	145
22	40	37	32	40	484	85	151	763	540	442	95	140
23	36	38	32	42	397	80	202	604	454	266	87	143
24	37	39	34	43	367	76	250	519	243	197	81	135
25	41	39	32	46	339	82	222	617	179	160	84	130
26	50	37	32	55	278	75	193	534	179	874	87	128
27	46	42	35	61	227	72	175	627	141	2250	88	152
28	58	47	39	61	205	70	173	1410	119	3240	221	150
29	66	50	45	52	----	70	869	1010	112	2450	160	164
30	61	50	49	47	----	70	900	709	105	1220	7280	276
31	62	----	47	44	----	72	----	529	----	725	12300	-----
TOTAL	1243	1286	1506	1162	7458	3763	7073	40039	9181	17906	27090	26663
MEAN	40.1	42.9	48.6	37.5	266	121	236	1292	306	578	874	889
MAX	66	59	77	61	1040	235	900	5230	985	3240	12300	10000
MIN	30	37	32	25	39	70	66	307	105	70	81	128
CFSM	.08	.08	.10	.07	.52	.24	.46	2.54	.60	1.14	1.72	1.75
IN.	.09	.09	.11	.08	.55	.28	.52	2.93	.67	1.31	1.98	1.95

CAL YR 1980 TOTAL 153570 MEAN 420 MAX 6400 MIN 30 CFSM .83 IN 11.22
WTR YR 1981 TOTAL 144370 MEAN 396 MAX 12300 MIN 25 CFSM .78 IN 10.55

03339855 TRIBUTARY TO SUGAR CREEK NEAR DEER MILL, IN
(Baseline water-quality station for the coal-mining region of Southwestern Indiana)

LOCATION.--Lat 39°56'57", long 87°03'28", in SE¼NE¼ sec.2, T.17 N., R.6 W., Montgomery County, Hydrologic Unit 05120110, on right bank 100 ft (30 m) downstream from bridge on State Road 234, .30 miles (.48 km) upstream from confluence with Sugar Creek, 2.25 miles (3.62 km) south of Alamo, and 4.55 miles (7.32 km) north of Waveland.

DRAINAGE AREA.--.45 mi^2 (1.17 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1, 1980 to May 19, 1981.

GAGE.--Water-stage recorder.

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 203 ft^3/s (5.8 m^3/s) May 14, 1982, gage height 12.47 ft (3.80 m); minimum daily, .04 ft^3/s (.001 m^3/s) Mar. 13, 14, and 15, 1981.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		.06	.14	.19	.12	.08	.11	.44				
2		.06	.16	.13	.19	.08	.11	.25				
3		.06	.12	.11	.31	.05	.16	.19				
4		.06	.11	.08	.16	.06	.22	.13				
5		.06	.11	.08	.11	.08	.13	.16				
6		.06	.11	.08	.09	.08	.13	.25				
7		.06	.11	.08	.09	.06	.13	.19				
8		.06	.16	.08	.09	.06	.13	.11				
9		.06	.22	.08	.09	.06	.13	.19				
10		.06	.19	.08	.09	.06	.63	5.4				
11		.06	.13	.08	.09	.06	.25	1.9				
12		.06	.11	.08	.09	.05	.22	1.1				
13		.06	.11	.08	.09	.04	.13	1.1				
14		.06	.10	.08	.09	.04	.11	7.5				
15		.06	.09	.08	.09	.04	.09	7.9				
16		.06	.09	.08	.09	.05	.08	2.4				
17		.06	.09	.08	.09	.06	.08	1.9				
18		.06	.09	.08	.09	.08	.08	4.8				
19		.06	.09	.08	.29	.08	.08	2.9				
20		.06	.09	.08	.25	.08	.08	----				
21		.06	.09	.08	.16	.08	.08	----				
22		.06	.09	.08	.11	.08	.09	----				
23		.06	.09	.08	.11	.08	.22	----				
24		.06	.09	.08	.11	.08	.16	----				
25		.06	.09	.08	.09	.08	.13	----				
26		.06	.09	.08	.08	.08	.13	----				
27		.14	.09	.08	.06	.09	.13	----				
28		.19	.09	.08	.11	.09	.34	----				
29		.19	.09	.08	----	.09	.98	----				
30		.15	.19	.08	----	.11	.50	----				
31		----	.19	.08	----	.11	----	----				
TOTAL		2.23	3.61	2.67	3.43	2.22	5.84	----				
MEAN		.074	.12	.086	.12	.072	.19	----				
MAX		.19	.22	.19	.31	.11	.98	----				
MIN		.06	.09	.08	.06	.04	.08	----				

03339855 TRIBUTARY TO SUGAR CREEK NEAR DEEP MILL, IN--Continued
(Baseline water-quality station for the coal-mining region of Southwestern Indiana)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL ANALYSIS: October 8, 1980 to September 30, 1981.
SPECIFIC CONDUCTANCE: October 1, 1980 to September 30, 1981.
WATER TEMPERATURE: October 1, 1980 to September 30, 1981.
SEDIMENT DISCHARGE: October 1, 1980 to September 30, 1981.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 853 micromhos December 21, 1980; minimum, 451 micromhos February 16, 1981.
WATER TEMPERATURE: Maximum, 8.5°C December 7, 1980; minimum, freezing point on many days during 1980-81 winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	OXYGEN, DIS-SOLVED (MG/L)	TEMPER-ATURE (DEG C)	ALKA-LINITY LAB (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)	ACIDITY (MG/L AS H)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)
OCT											
08...	1200	.01	590	8.0	9.4	13.6	260	----	--	30	60
NOV											
07...	1100	.06	670	8.2	----	8.7	310	5.0	.1	30	60
DEC											
09...	1300	.21	640	8.2	10.8	6.3	280	----	--	90	120
JAN											
13...	1100	---	740	8.0	----	.0	320	----	--	10	90
FEB											
17...	1300	---	534	7.9	----	.0	180	----	--	30	140
MAR											
16...	1130	.08	740	8.2	----	3.6	290	----	--	20	110
MAY											
05...	1100	.06	685	7.7	----	14.9	280	----	--	20	90
JUN											
02...	1100	.10	665	7.9	----	17.5	280	----	--	30	140
JUL											
07...	1300	.11	625	7.8	----	23.2	270	----	--	<10	120
AUG											
03...	1300	.15	652	---	----.	19.4	290	10	.2	30	130

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)
OCT											
08...	90	10	36	346	.01	.47	9	--	---	--	--
NOV											
07...	90	0	31	389	.06	.53	21	--	---	--	--
DEC											
09...	140	10	39	372	.21	.51	--	--	---	--	--
JAN											
13...	100	10	44	414	---	.56	--	--	---	--	--
FEB											
17...	170	10	38	330	---	.45	--	--	240	64	70
MAR											
16...	130	10	48	413	.09	.56	51	65	---	--	--
MAY											
05...	110	30	48	416	.07	.57	96	96	---	--	--
JUN											
02...	170	10	38	386	.11	.52	52	80	---	--	--
JUL											
07...	120	10	37	367	.11	.50	41	96	300	28	0
AUG											
03...	160	30	36	382	.15	.52	--	--	---	--	--

03339855 TRIBUTARY TO SUGAR CREEK NEAR DEEP MILL, IN--Continued
(Baseline water-quality station for the coal-mining region of Southwestern Indiana)

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CALCIUM DIS-SOLVED (MG/L AS CA)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	POTAS-SIUM 40 DIS-SOLVED (PCI/L AS K40)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT 08...	--	--	--	--	--	--	---	---	--	--	--
NOV 07...	--	--	--	--	--	--	---	---	--	--	--
DEC 09...	--	--	--	--	--	--	---	---	--	--	--
JAN 13...	--	--	--	--	--	--	---	---	--	--	--
FEB 17...	0	0	63	15	2	.1	2.8	2.1	21	3	10
MAR 16...	--	--	--	--	--	--	---	---	--	--	--
MAY 05...	--	--	--	--	--	--	---	---	--	--	--
JUN 02...	--	--	--	--	--	--	---	---	--	--	--
JUL 07...	60	1	78	0	3	.2	3.1	2.3	25	4	20
AUG 03...	--	--	--	--	--	--	---	---	--	--	--

03339855 TRIBUTARY TO SUGAR CREEK NEAR DEEP MILL, IN--Continued
(Baseline water-quality station for the coal-mining region of Southwestern Indiana)

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	669	679	670	725						
2		---	677	690	676	731						
3		---	693	701	721	738						
4		---	691	769	750	707						
5		---	682	814	781	706						
6		---	685	778	751	738						
7		---	676	750	742	745						
8		---	650	763	738	742						
9		---	652	756	758	744						
10		---	682	743	736	739						
11		---	693	743	552	737						
12		---	697	750	659	737						
13		---	696	738	701	735						
14		672	696	735	739	738						
15		668	696	721	754	735						
16		672	695	717	451	734						
17		666	705	725	505	736						
18		663	691	724	565	738						
19		668	748	716	585	731						
20		669	844	701	623	729						
21		669	853	691	652	730						
22		671	787	688	643	733						
23		664	775	695	663	---						
24		666	760	697	705	---						
25		669	816	687	721	---						
26		677	800	653	725	---						
27		670	787	662	727	---						
28		630	768	674	697	---						
29		644	726	710	---	---						
30		660	694	737	---	---						
31		---	687	771	---	---						
MEAN		665	722	722	678	733						
MAX		677	853	814	781	745						
MIN		630	650	653	451	706						

WTR YR 1981 MEAN 707 MAX 853 MIN 451

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

03339855 TRIBUTARY TO SUGAR CREEK NEAR DEEP MILL, IN--Continued
(Baseline water-quality station for the coal-mining region of Southwestern Indiana)

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	4.5	.5	.0	3.5						
2		---	4.5	.0	.0	3.0						
3		---	.5	.0	.0	1.5						
4		---	1.5	.0	.0	2.5						
5		---	5.0	.0	.0	3.0						
6		---	7.5	.0	.0	1.5						
7		---	8.5	.0	.0	1.0						
8		---	8.5	.0	.0	1.5						
9		---	6.0	.0	.0	1.5						
10		---	3.0	.0	.0	3.0						
11		---	3.0	.0	.0	2.0						
12		---	4.0	.0	.0	3.0						
13		---	3.0	.0	.0	3.5						
14		7.5	2.0	.0	.0	2.5						
15		6.0	3.0	.0	.0	3.0						
16		4.0	2.0	.0	.0	3.0						
17		3.5	.5	.0	.0	3.0						
18		3.0	2.5	.0	---	1.5						
19		1.5	.0	.0	1.0	1.0						
20		1.5	.0	.0	1.0	2.5						
21		2.0	.0	.0	2.0	3.0						
22		1.5	.0	.5	2.5	3.5						
23		4.0	.0	.0	1.5	---						
24		5.0	.0	.0	2.5	---						
25		2.5	.0	.0	2.5	---						
26		1.0	.0	.5	2.5	---						
27		.5	.0	.5	3.5	---						
28		1.5	.0	.0	5.0	---						
29		2.0	.0	.0	---	---						
30		2.0	.0	.0	---	---						
31		---	.0	.0	---	---						
MEAN		3.0	2.0	.0	1.0	2.5						
MAX		7.5	8.5	.5	5.0	3.5						
MIN		.5	.0	.0	.0	1.0						

WTR YR 1981 MEAN 1.5 MAX 8.5 MIN .0

03340500 WABASH RIVER AT MONTEZUMA, IN

LOCATION.--Lat 39°47'33", long 87°22'26", in SE¼NE¼ sec.35, T.16 N., R.9 W., Parke County, Hydrologic Unit 05120108, on downstream side of first pier from left bank of bridge on U.S. Highway 36 at Montezuma, 2.0 miles (3.2 km) upstream from Raccoon Creek, 4.9 miles (7.9 km) downstream from Sugar Creek, and at mile 240.0 (386.0 km).

DRAINAGE AREA.--11,118 mi^2 (28,796 km^2).

PERIOD OF RECORD.--October 1927 to current year. July 1924 to September 1927 (gage height only) in reports of State of Indiana, Department of Natural Resources.

REVISED RECORDS.--WSP 1335: 1929, 1931(M). WSP 1505: 1954. WSP 1915: 1954(m). WSP 2109: Drainage area. WRD Ind. 1974: 1973.

GAGE.--Water-stage recorder. Datum of gage is 457.75 ft (139.522 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Oct. 1, 1927, to July 12, 1950, nonrecording gage at same site and datum.

REMARKS.--Records fair. Flow partially regulated by upstream reservoirs.

AVERAGE DISCHARGE.--54 years, 9,664 ft^3/s (274 m^3/s), 11.80 in/yr (300 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 184,000 ft^3/s (5,210 m^3/s) May 20, 1943, gage height, 32.83 ft (10.007 m); minimum daily, 571 ft^3/s (16.2 m^3/s) Sept. 24, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 27, 1913, reached a stage of 34.0 ft (10.36 m), from floodmarks, discharge, 230,000 ft^3/s (6,510 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 62,500 ft^3/s (1,770 m^3/s) May 19, gage height, 24.50 ft (7.468 m); minimum daily, 1,800 ft^3/s (51.0 m^3/s) Jan. 9-14.

NOTE.--No gage-height record Jan. 5-22 and May 23 to July 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3700	3490	3230	3000	4380	14100	2900	21500	17000	15000	13600	36000
2	3580	3540	3110	2900	4190	13000	2900	19900	16000	16000	11500	39500
3	3410	3350	3090	2900	3520	11900	2900	18000	15000	17000	9430	36200
4	3360	3850	3040	2330	2500	10800	3000	17000	14000	17000	8230	29100
5	3260	3880	2950	2100	2200	9980	3100	16000	13000	20000	9150	23200
6	3380	3410	3040	2000	2600	9440	3100	16000	14000	21000	20300	19200
7	3290	3010	3090	1900	3200	9050	3100	15000	15000	19000	18800	15900
8	3280	2960	3040	1900	3670	8110	3000	15000	17000	16000	16900	13400
9	3350	3050	3250	1800	3700	7120	2900	14000	16000	15600	13600	11800
10	3250	4020	3760	1800	3640	6600	3800	19000	18000	15100	10600	10100
11	3100	4680	5420	1800	3350	6350	5000	30700	18000	14700	11200	8790
12	3070	4460	6280	1800	3140	6190	6240	35200	18000	14100	10900	8080
13	3110	3770	5860	1800	2900	5850	8510	37200	18000	13300	9000	7460
14	2930	3080	5030	1800	2700	5590	13200	37900	18000	13100	7700	7160
15	2930	2970	4820	1900	3300	5340	16100	44600	22000	15300	8200	6730
16	3140	3540	4620	1900	4940	5040	21000	51600	26000	18700	9200	6680
17	3200	3960	4160	1900	13200	4820	23200	54700	28000	15700	10000	7810
18	3210	4040	3780	2000	21200	4570	22900	57700	29000	13100	8200	7980
19	3360	3470	3520	2100	23000	4310	21000	61600	28000	11600	6970	7850
20	3540	2900	3100	2200	22200	4000	18000	54800	27000	16800	6050	7490
21	4060	2780	2600	2300	21900	3900	16000	44900	25000	17700	5440	6960
22	3910	3060	2200	2300	21300	3800	14000	37000	24000	16800	5130	6630
23	3320	3540	2100	2330	19500	3700	15000	34000	25000	13900	5340	6130
24	3270	3500	2900	2320	18000	3500	15000	30000	25000	11300	5090	5640
25	3170	3550	3050	2390	17100	3400	14000	27000	24000	9820	4570	5080
26	3130	3140	2500	2580	16400	3400	12000	24000	24000	10200	4330	4830
27	3590	2780	2400	2720	15900	3200	11000	23000	24000	17100	7140	5330
28	4190	2780	2500	3060	15300	3000	10000	21000	22000	24300	14000	8980
29	4070	3010	2900	3230	------	3000	16000	20000	19000	23200	16100	10800
30	3570	3150	3110	3590	------	3000	21100	19000	17000	20100	15300	14300
31	3470	------	3250	3760	------	3000	------	18000	------	16700	28000	------
TOTAL	105200	102720	107700	72410	278930	189060	329950	935300	616000	499220	329970	385110
MEAN	3394	3424	3474	2336	9962	6099	11000	30170	20530	16100	10640	12840
MAX	4190	4680	6280	3760	23000	14100	23200	61600	29000	24300	28000	39500
MIN	2930	2780	2100	1800	2200	3000	2900	14000	13000	9820	4330	4830
CFSM	.31	.31	.31	.21	.90	.55	.99	2.71	1.85	1.45	.96	1.16
IN.	.35	.34	.36	.24	.93	.63	1.10	3.13	2.06	1.67	1.10	1.29

CAL YR 1980 TOTAL 3715040 MEAN 10150 MAX 55300 MIN 2100 CFSM .91 IN 12.43
WTR YR 1981 TOTAL 3951570 MEAN 10830 MAX 61600 MIN 1800 CFSM .97 IN 13.22

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 miles (2.6 km) upstream from Ramp Creek, 3.1 miles (5.0 km) west of Fincastle, and at mile 48.8 (78.5 km).

DRAINAGE AREA.--130 mi^2 (360 km^2).

WATER-DISCHARGE RECORDS

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. WRD Ind 1979: 1978.

GAGE.--Water-stage recorder. Datum of gage is 686.03 ft (209.102 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--24 years, 141 ft^3/s (3.993 m^3/s), 13.78 in/yr (350 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,100 ft^3/s (428 m^3/s) Jan. 26, 1962; maximum gage height, 15.68 ft (4.779 m) Jan. 26, 1962 (ice jam); minimum daily discharge, 1.8 ft^3/s (0.051 m^3/s) Sept. 16, 17, and Oct. 5, 6, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 28, 1957, reached a stage of 19.10 ft (5.822 m), discharge, 39,900 ft^3/s (1,130 m^3/s), from slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,900 ft^3/s (53.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 15	0900	2020	57.2	9.07	2.765	July 15	2200	*2250	63.7	*9.53	2.905
May 18	2300	1930	54.7	8.89	2.710						

Minimum daily discharge, 3.3 ft^3/s (0.09 m^3/s) Oct. 14.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL ANALYSES: October 1975 to September 1977.
WATER TEMPERATURE: July 1965 to September 1977. Prior to October 1975 fragmentary instantaneous observations.
SEDIMENT DISCHARGE: August 1959 to September 1971, October 1973 to March 1979 (partial-record station, October 1971 to September 1973).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	6.2	11	19	11	34	18	227	120	42	101	71
2	4.2	5.5	11	18	14	32	16	155	107	41	78	80
3	4.5	6.0	9.4	18	10	30	17	109	95	41	67	65
4	4.3	6.0	9.3	6.5	9.0	30	24	87	172	44	61	55
5	4.1	6.0	9.5	5.8	8.2	44	28	77	124	134	167	47
6	4.1	6.1	9.4	6.0	8.0	64	25	121	95	105	516	42
7	4.5	6.1	9.9	6.2	7.8	51	22	149	81	66	181	38
8	4.5	6.1	11	6.3	7.8	41	19	107	71	55	106	36
9	4.1	6.1	15	6.3	8.0	37	20	95	68	49	77	34
10	4.1	6.4	15	6.2	9.0	34	29	463	64	46	64	32
11	3.8	5.4	15	6.0	80	32	367	1290	59	44	76	31
12	3.8	5.9	14	5.6	60	30	265	616	529	42	58	30
13	3.8	5.7	13	6.0	35	29	178	373	477	44	49	29
14	3.3	6.6	11	6.4	30	28	123	740	199	111	45	29
15	3.8	8.6	12	6.6	25	27	87	1550	123	969	89	29
16	4.5	6.4	10	6.5	282	26	71	598	91	601	98	29
17	6.0	7.1	9.8	6.4	458	25	67	359	77	207	59	30
18	7.6	7.5	11	6.6	186	24	62	1000	68	115	48	30
19	7.9	8.1	9.3	7.0	110	24	55	1010	63	82	43	29
20	8.0	7.4	7.5	7.7	98	24	55	447	64	368	39	28
21	7.3	7.3	7.0	8.1	84	23	51	291	59	304	36	28
22	7.3	6.9	7.1	8.3	62	22	50	213	58	149	34	27
23	6.5	7.2	18	8.5	55	21	219	170	55	97	33	26
24	7.3	7.6	7.2	8.6	53	20	172	167	50	77	32	26
25	8.7	7.6	7.0	9.0	49	20	104	280	48	65	31	25
26	8.8	7.3	7.0	11	43	19	86	194	46	341	30	25
27	9.1	10	7.0	12	38	19	87	259	45	794	33	28
28	12	12	7.1	12	36	19	72	366	44	823	34	27
29	8.3	12	18	11	------	19	201	251	43	376	34	30
30	8.2	11	18	10	------	19	230	183	42	225	32	34
31	7.2	-----	19	9.0	------	19	----	150	----	144	93	----
TOTAL	185.4	218.1	345.5	270.6	1876.8	886	2820	12097	3237	6601	2444	1070
MEAN	5.98	7.27	11.1	8.73	67.0	28.6	94.0	390	108	213	78.8	35.7
MAX	12	12	19	19	458	64	367	1550	529	969	516	80
MIN	3.3	5.4	7.0	5.6	7.8	19	16	77	42	41	30	25
CFSM	.04	.05	.08	.06	.48	.21	.68	2.81	.78	1.53	.57	.26
IN.	.05	.06	.09	.07	.50	.24	.75	3.24	.87	1.77	.65	.29

CAL YR 1980 TOTAL 34325.0 MEAN 93.8 MAX 1430 MIN 3.3 CFSM .68 IN 9.19
WTR YR 1981 TOTAL 32051.4 MEAN 87.8 MAX 1550 MIN 3.3 CFSM .63 IN 8.58

03340870 CECIL M. HARDEN LAKE AT FERNDALE, IN

LOCATION.--Lat 39°43'02", long 87°04'20", in SE¼NE¼ sec.28, T.15 N., R.6 W., Parke County, Hydrologic Unit 05120108, in discharge tower of reservoir on Big Raccoon Creek at Ferndale, 4.4 miles (7.1 km) upstream from Rocky Fork Creek, 6.1 miles (9.8 km) northeast of Mansfield, and at mile 33.8 (54.4 km).

DRAINAGE AREA.--216 mi^2 (559 km^2).

PERIOD OF RECORD.--December 1960 to current year. Published as "Mansfield Reservoir" prior to October 1970 and as "Mansfield Lake" October 1970 to September 1974.

GAGE.--Water-stage recorder. Datum of gage is 600.00 ft (182.880 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earth-fill dam. Releases normally controlled by three gates, 4 ft (1.22 m) wide and 8 ft (2.44 m) high, in semi-elliptical concrete conduit through dam. Minimum design capacity is 16,180 acre-ft (19.9 hm^3), elevation, 640 ft (195.1 m). Seasonal pool capacity is 49,300 acre-ft (60.8 hm^3), elevation, 661 ft (201.5 m). Capacity at uncontrolled spillway elevation, 690 ft (210.3 m) is 133,000 acre-ft (164 hm^3). Reservoir is used for flood control and recreation. Reservoir put in operation on Dec. 6,1960.

COOPERATION.--Water-stage recorder graph and capacity tables furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 87,510 acre-ft (107 hm^3) May 4, 1964, elevation, 676.52 ft (206.203 m); minimum, 16,080 acre-ft (19.8 hm^3), many times, elevation, 639.9 ft (195.04 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 69,410 acre-ft (85.58 hm^3) June 16, elevation, 669.82 ft (204.161 m); minimum, 16,010 acre-ft (19.74 hm^3) Jan. 20-22, elevation, 639.84 ft (195.023 m).

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	660.16	47,550	
Oct. 31	648.33	26,920	-20,630
Nov. 30	640.12	16,320	-10,600
Dec. 31	640.00	16,180	-140
CAL YR 1980			-3,660
Jan. 31	639.90	16,080	-100
Feb. 28	642.98	19,650	+3,570
Mar. 31	643.08	19,770	+120
Apr. 30	649.17	28,180	+8,410
May 31	669.62	68,910	+40,730
June 30	666.02	60,240	-8,670
July 31	664.80	57,430	-2,810
Aug. 31	661.29	49,860	-7,570
Sept. 30	660.22	47,670	-2,190
WTR YR 1981			+120

WABASH RIVER BASIN

03340900 BIG RACCOON CREEK ~~AT~~ NEAR FERNDALE, IN

LOCATION.--Lat 39°41'44", long 87°05'01", in SE¼SW¼ sec.33, T.15 N., R.6 W., Parke County, Hydrologic Unit 05120108, on right bank 1.1 miles (1.8 km) southwest of Ferndale, 1.8 miles (2.9 km) northeast of Mansfield, 2.0 miles (3.2 km) upstream from Rocky Fork Creek, 2.2 miles (3.5 km) downstream from Cecil M. Harden Lake, and at mile 31.6 (50.8 km).

DRAINAGE AREA.--222 mi^2 (575 km^2).

PERIOD OF RECORD.--October 1956 to current year. Prior to October 1963, published as Raccoon Creek at Ferndale.

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--None. Datum of gage was 582.36 ft (177.503 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Oct. 1, 1974, water-stage recorder at site described in "LOCATION" paragraph.

REMARKS.--Flow regulated by Cecil M. Harden Lake (See sta 03340870). 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 furnished by Corps of Engineers beginning Oct. 1, 1976.

AVERAGE DISCHARGE.--25 years, 226 ft^3/s (6.400 m^3/s), 13.82 in/yr (351 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,500 ft^3/s (1,150 m^3/s) June 28, 1957, gage height, 19.87 ft (6.056 m), from rating curve extended above 5,000 ft^3/s (142 m^3/s) on basis of records for station at Big Raccoon Creek at Mansfield; minimum daily, 2.7 ft^3/s (0.076 m^3/s) Oct. 11, 1956; no flow Aug. 23, 24, 1977, due to regulation.

EXTREMES FOR CURRENT YEAR:--Maximum daily discharge, 975 ft^3/s (27.6 m^3/s) July 9; minimum daily, 17 ft^3/s (0.48 m^3/s) Feb. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	661	48	22	17	158	20	23	32	197	792	48
2	53	654	31	22	22	158	20	23	32	196	871	48
3	56	646	31	22	22	158	58	23	32	195	865	48
4	56	475	28	22	22	157	20	23	32	194	859	48
5	56	234	24	22	22	158	20	23	32	393	736	48
6	56	165	22	22	22	158	20	23	32	192	49	48
7	56	165	22	22	22	158	20	24	32	338	372	48
8	56	164	22	22	22	158	58	24	32	845	544	48
9	56	160	25	22	22	93	20	24	32	975	542	48
10	56	157	26	22	22	48	20	25	32	967	540	48
11	56	157	26	22	22	29	20	26	32	626	538	48
12	56	156	26	22	22	20	21	26	32	130	279	48
13	56	156	26	22	22	20	21	27	32	59	81	48
14	217	155	26	22	23	20	21	27	126	48	81	48
15	401	150	26	22	23	20	21	28	176	74	81	154
16	436	146	26	22	80	20	21	28	176	231	82	206
17	392	146	26	22	156	20	21	28	176	723	82	206
18	306	146	21	22	158	20	21	29	176	857	82	206
19	352	132	21	22	158	20	21	30	176	852	82	206
20	429	126	22	22	158	20	21	30	176	537	81	206
21	614	125	22	22	159	20	21	31	176	620	81	205
22	726	125	22	22	159	20	21	31	176	403	81	205
23	720	125	22	22	159	20	22	31	176	239	81	205
24	714	124	22	22	159	20	22	31	176	200	65	205
25	708	163	22	22	159	20	22	31	176	65	48	205
26	701	196	22	22	159	20	22	31	502	48	48	205
27	695	195	22	22	159	20	22	31	664	49	48	204
28	689	162	22	22	158	20	22	32	931	50	48	204
29	682	130	22	22	----	20	22	32	563	113	48	204
30	675	87	22	22	----	20	23	32	199	51	48	204
31	668	----	22	22	----	58	----	32	----	293	48	----
TOTAL	10842	6383	767	682	2308	1871	704	859	5337	10760	8283	3902
MEAN	350	213	24.7	22.0	82.4	60.4	23.5	27.7	178	347	267	130
MAX	726	661	48	22	159	158	58	32	931	975	871	206
MIN	48	87	21	22	17	20	20	23	32	48	48	48
CFSM	1.58	.96	.11	.10	.37	.27	.11	.13	.80	1.56	1.20	.59
IN.	1.82	1.07	.13	.11	.39	.31	.12	.14	.89	1.80	1.39	.65

CAL YR 1980 TOTAL 62899 MEAN 172 MAX 980 MIN 21 CFSM .78 IN 10.54
WTR YR 1981 TOTAL 52698 MEAN 144 MAX 975 MIN 17 CFSM .65 IN 8.83

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 mile (1.3 km) upstream from Rock Run, 1.5 miles (2.4 km) downstream from Little Raccoon Cre ek, 2.1 miles (3.4 km) northwest of Rosedale, and at mile 13.1 (21.1 km).

DRAINAGE AREA.--448 mi^2 (1,160 km^2).

PERIOD OF RECORD.--October 1956 to current year. Prior to October 1963, published as Raccoon Creek at Coxville.

REVISED RECORDS.--WSP 2109: Drainage area. WRD Ind. 1974: 1973.

GAGE.--Water-stage recorder. Datum of gage is 494.00 ft (150.571 m) National Geodetic Vertical Datum of 1929 (Indiana Flood Control and Water Resources Commission bench mark).

REMARKS.--Records good. Flow regulated by Cecil M. Harden Lake (See sta 03340870).

AVERAGE DISCHARGE.--25 years, 478 ft^3/s (13.54 m^3/s), 14.49 in/yr (368 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 108,000 ft^3/s (3,060 m^3/s) June 28, 1957, gage height, 21.23 ft (6.471 m), from rating curve extended above 35,000 ft^3/s (991 m^3/s) on basis of an estimate made by slope-area study; minimum daily, 6.5 ft^3/s (0.18 m^3/s) Oct. 10, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,960 ft^3/s (225 m^3/s) MaY 19, gage height, 13.30 ft (4.054 m); minimum daily, 40 ft^3/s (1.13 m^3/s) Jan 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	716	102	52	51	203	95	313	400	897	793	321
2	81	710	95	50	63	194	78	276	342	900	1000	389
3	85	704	88	49	54	188	82	227	425	901	998	261
4	86	653	83	45	52	196	120	195	408	934	987	220
5	87	427	77	43	50	323	104	196	396	2310	1120	196
6	87	269	69	44	48	306	92	463	401	979	1420	177
7	87	245	68	45	48	266	84	294	363	695	666	169
8	87	234	69	45	47	243	80	225	407	915	793	159
9	86	226	78	44	46	226	105	207	584	1140	733	150
10	86	214	86	43	46	191	112	868	547	1120	696	145
11	85	210	81	42	350	163	360	2060	286	1050	827	142
12	85	207	76	40	200	143	493	1110	261	463	705	136
13	87	205	73	44	160	131	372	754	392	295	353	130
14	97	201	70	45	130	123	267	1430	354	772	300	130
15	279	197	69	45	110	116	198	4120	285	884	435	129
16	416	189	67	45	449	114	168	1430	247	976	457	179
17	471	188	68	44	724	109	157	928	225	893	342	184
18	341	186	67	46	373	105	146	3440	211	1060	287	186
19	313	181	63	48	314	103	132	3310	200	1020	252	181
20	452	168	59	49	303	101	142	1250	194	1550	225	175
21	517	164	56	50	274	98	127	870	191	921	207	171
22	709	162	54	47	251	95	131	663	186	880	195	168
23	727	161	52	46	248	92	620	552	179	472	185	166
24	742	158	59	46	253	90	401	509	173	396	178	165
25	755	154	50	47	238	87	278	635	167	313	157	164
26	746	138	50	49	224	85	245	468	200	292	145	163
27	745	148	50	49	213	83	274	800	778	3710	157	173
28	751	151	51	47	211	83	219	691	844	2230	155	166
29	742	129	53	44	----	83	350	497	870	981	156	272
30	731	116	52	44	----	82	328	820	884	627	156	366
31	724	----	54	47	----	81	----	579	-----	461	175	----
TOTAL	11367	7811	2089	1424	5530	4503	6360	30180	11400	31037	15255	5733
MEAN	367	260	67.4	45.9	198	145	212	974	380	1001	492	191
MAX	755	716	102	52	724	323	620	4120	884	3710	1420	389
MIN	80	116	50	40	46	81	78	195	167	292	145	129
CFSM	.82	.58	.15	.10	.44	.32	.47	2.17	.85	2.23	1.10	.43
IN.	.94	.65	.17	.12	.46	.37	.53	2.51	.95	2.58	1.27	.48

CAL YR 1980 TOTAL 129735 MEAN 354 MAX 2420 MIN 50 CFSM .79 IN 10.77
WTR YR 1981 TOTAL 132689 MEAN 364 MAX 4120 MIN 40 CFSM .81 IN 11.02

03341500 WABASH RIVER AT TERRE HAUTE, IN

LOCATION.--Lat 39°28'00", long 87°25'08", in NE¼SW¼ sec.21, T.12 N., R.9 W., Vigo County, Hydrologic Unit 05120111, on left bank at upstream side of Wabash Avenue bridge at Terre Haute, 2.4 miles (3.9 km) upstream from Sugar Creek, 4.2 miles (6.8 km) downstream from Lost Creek, and at mile 214.4 (345.0 km).

DRAINAGE AREA.--12,265 mi^2 (31,766 km^2).

PERIOD OF RECORD.--August 1902 to December 1903 (gage height only), February 1905 to July 1906, October 1927 to current year. Gage-height records collected at site 3,300 ft (1,010 m) 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. WRD Ind. 1973: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 442.90 ft (134.996 m) National Geodetic Vertical Datum of 1929. See WSP 1725 for history of changes prior to Oct. 27, 1928.

REMARKS.--Records good. Flow partially regulated by upstream reservoirs.

AVERAGE DISCHARGE.--54 years, 10,670 ft^3/s (302.2 m^3/s), 11.81 in/yr (300 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 189,000 ft^3/s (5,350 m^3/s) May 20, 1943, gage height, 30.50 ft (9.296 m); minimum daily, 701 ft^3/s (19.9 m^3/s) Aug. 3, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 27, 1913, reached a stage of 31.1 ft (9.48 m), present site and datum, discharge, 245,000 ft^3/s (6,940 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 67,400 ft^3/s (1,910 m^3/s) May 19, gage height, 24.15 ft (7.361 m); minimum daily, 1,800 ft^3/s (51.0 m^3/s) Jan. 9-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3460	3580	3110	3380	4130	15800	3160	23200	18600	16600	16600	32000
2	3330	3580	3110	3130	4500	14500	3070	22300	17600	18000	13900	36800
3	3220	3570	3060	3100	3670	13400	2970	19900	16300	18300	11700	38800
4	3100	3520	2990	2810	2420	12300	3180	17700	15100	17800	9860	37000
5	3010	3970	2940	2280	2160	11600	3290	16600	14300	22800	9190	31200
6	3040	3510	2930	2050	2410	11200	3420	17100	13800	24100	20400	24700
7	3030	3100	2960	2000	3020	10500	3350	16800	15100	21600	22700	19700
8	3000	2830	3070	1900	3360	9640	3240	16000	17300	19300	19700	15700
9	2990	2840	3060	1800	3550	8420	3230	14800	15500	17800	17000	13100
10	2990	3130	3320	1800	3780	7540	3250	17100	17200	16900	13100	11200
11	2900	4050	4610	1800	3850	7100	6780	29400	19300	16400	12200	9770
12	2760	4240	6290	1800	3440	6840	8770	33900	18900	15800	12700	8660
13	2840	3960	6570	1800	3160	6520	9960	36500	18700	14800	10500	7940
14	2730	3240	6010	1800	3140	6140	13100	38500	17700	14300	8290	7610
15	2690	2880	5280	1800	3970	5840	16000	44000	20000	14900	7870	7620
16	2860	2940	5110	1900	5420	5530	20100	50900	24600	20000	9100	6960
17	3210	3580	4750	1900	11200	5210	23600	53000	27300	18600	10600	7700
18	3250	3730	4260	2000	20900	4960	24500	56800	29100	15900	10100	8220
19	3200	3710	3930	2000	24300	4640	23300	66000	29700	13200	8350	8160
20	3290	3050	3630	2100	24300	4420	20900	63200	29100	17900	6700	7900
21	3760	2800	3130	2200	23700	4300	17700	54100	26800	19800	5880	7390
22	4000	2700	2190	2200	23200	4200	15000	46000	23600	18800	5140	6970
23	3690	3160	2100	2300	21800	4050	16600	39900	24700	16700	5050	6500
24	3400	3370	2710	2400	20200	3860	16500	34100	25700	13500	5100	6050
25	3400	3350	2990	2500	19000	3560	15300	29600	25900	11400	4600	5370
26	3310	3300	2480	2600	18000	3600	13500	26300	24400	10200	4090	4870
27	3390	2950	2280	2700	17300	3490	12000	25000	24800	16300	6130	4800
28	3980	2780	2280	2900	16800	3240	10900	23600	23500	27400	10900	7050
29	4170	2840	2750	3150	------	3200	12800	21200	20000	28100	17200	9630
30	3920	2970	3160	3200	------	3190	21100	20200	17500	24200	15500	12700
31	3630	-----	3330	3550	------	3190	------	20000	------	20300	23100	------
TOTAL	101550	99230	110390	72850	296680	211980	350570	993700	632100	561700	353250	412070
MEAN	3276	3308	3561	2350	10600	6838	11690	32050	21070	18120	11400	13740
MAX	4170	4240	6570	3550	24300	15800	24500	66000	29700	28100	23100	38800
MIN	2690	2700	2100	1800	2160	3190	2970	14800	13800	10200	4090	4800
CFSM	.27	.27	.29	.19	.86	.56	.95	2.61	1.72	1.48	.93	1.12
IN.	.31	.30	.33	.22	.90	.64	1.06	3.01	1.92	1.70	1.07	1.25

CAL YR 1980 TOTAL 3780850 MEAN 10330 MAX 52400 MIN 2100 CFSM .84 IN 11.47
WTR YR 1981 TOTAL 4196070 MEAN 11500 MAX 66000 MIN 1800 CFSM .94 IN 12.73

03341570 HONEY CREEK NEAR RILEY, IN
(Baseline water-quality station for the coal-mining region of Southwestern Indiana)

LOCATION.--Lat 39°24'27", long 87°17'45", in SE¼SE¼ sec.9, T.11 N., R.8 W., Vigo County, Hydrologic Unit 05120111, on left bank 10 ft (3 m) downstream from bridge on 90 South Road, 1 mile (1.61 km) north of Riley, 2.5 miles (4.02 km) southeast of junction of State Road 46 and Interstate 70, and 6 miles (9.65 km) southeast of Terre Haute.

DRAINAGE AREA.--5.79 mi² (15.0 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1, 1980 to September 30, 1981.

GAGE.--Waster-stage recorder.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 678 ft³/s (19.2 m³/s) May 27, 1981, gage height 15.78 ft (4.81 m); minimum daily, 1.4 ft³/s (0.40 m³/s) Nov. 3 and 7, 1980.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	2.9	4.8	2.0	19	9.1	4.0	29	28	9.5	4.8	64
2	1.7	1.5	3.7	1.8	29	7.4	4.5	21	22	9.1	4.5	86
3	1.9	1.4	4.5	1.6	18	5.1	5.7	16	19	11	4.8	34
4	1.9	3.5	3.5	1.5	13	9.5	18	14	19	9.9	4.8	18
5	3.3	4.0	2.7	1.5	10	55	15	15	17	24	94	13
6	2.9	1.6	2.7	1.5	7.6	25	9.5	82	14	14	65	11
7	1.9	1.4	4.2	1.6	6.6	14	6.7	45	12	10	22	9.9
8	3.1	4.2	4.8	1.6	5.7	11	6.0	23	9.5	9.9	13	8.2
9	3.7	4.8	5.1	1.6	5.2	9.5	6.3	19	16	6.7	10	6.7
10	3.7	4.5	4.5	1.6	4.8	8.2	19	218	138	5.1	7.8	3.3
11	3.5	3.3	2.7	1.6	4.9	7.1	63	123	40	7.1	4.5	5.1
12	2.9	2.2	2.3	1.6	5.1	5.4	43	59	24	8.2	4.5	6.4
13	2.9	2.3	2.2	1.6	5.3	4.8	27	34	22	9.9	4.8	5.7
14	1.9	2.9	2.0	1.6	6.8	4.5	16	142	15	11	5.1	6.0
15	1.6	2.8	2.7	1.7	20	6.0	13	236	11	14	37	4.8
16	1.5	2.7	2.7	1.7	57	6.0	10	74	9.9	14	15	11
17	15	3.1	2.2	1.8	40	4.5	9.5	39	10	13	7.8	8.6
18	7.8	3.5	2.1	1.8	30	3.5	7.1	207	12	31	4.5	8.2
19	7.6	2.9	1.9	1.9	21	3.5	7.4	98	12	18	3.1	7.1
20	6.3	2.7	1.8	2.0	17	4.2	9.5	48	13	18	3.3	7.4
21	2.3	2.7	1.8	2.1	14	3.7	7.1	30	38	13	3.1	5.1
22	1.5	2.5	1.7	2.4	12	5.4	43	23	19	12	3.1	4.0
23	1.5	3.1	1.6	2.9	10	4.8	167	19	14	9.5	3.5	5.7
24	3.3	3.3	1.6	3.6	16	3.1	53	73	13	9.1	4.0	6.0
25	5.1	2.9	1.6	17	11	3.5	31	75	13	8.2	3.3	3.5
26	2.9	2.9	1.7	18	8.6	4.8	22	40	15	7.4	3.1	5.4
27	3.5	9.5	1.7	14	7.8	7.4	18	391	15	103	3.5	7.8
28	6.3	9.9	1.8	11	8.2	7.8	18	99	14	42	2.9	5.4
29	2.9	6.7	1.9	8.6	-----	6.7	52	50	11	14	3.3	6.4
30	2.3	5.7	2.0	7.4	-----	5.7	42	131	9.9	8.6	3.7	7.1
31	1.9	-----	2.2	9.1	-----	4.5	-----	50	-----	5.7	5.7	-----
TOTAL	110.2	107.4	82.7	129.7	413.6	260.7	753.3	2523	625.3	485.9	359.5	380.8
MEAN	3.55	3.58	2.67	4.18	14.8	8.41	25.1	81.4	20.8	15.7	11.6	12.7
MAX	15	9.9	5.1	18	57	55	167	391	138	103	94	86
MIN	1.5	1.4	1.6	1.5	4.8	3.1	4.0	14	9.5	5.1	2.9	3.3

WTR YR 1981 TOTAL 6232.1 MEAN 17.1 MAX 391 MIN 1.4

03341570 HONEY CREEK NEAR RILEY, IN--Continued
(Baseline water-quality station for the coal-mining region of Southwestern Indiana)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL ANALYSIS: October 1, 1980 to September 30, 1981.
SPECIFIC CONDUCTANCE: October 1, 1980 to September 30, 1981.
WATER TEMPERATURE: October 1, 1980 to September 30, 1981.
SEDIMENT DISCHARGE: October 1, 1980 to September 30, 1981.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum 3,790 micromhos January 4, 1981; minimum, 522 micromhos May 27, 1981.
WATER TEMPERATURE: Maximum, 27°C July 13, 14, and 18, 1981; minimum, freezing point on many days during 1980-81 winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	OXYGEN, DIS-SOLVED (MG/L)	TEMPER-ATURE (DEG C)	ALKA-LINITY LAB (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)	ACIDITY (MG/L AS H)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)
OCT 08...	1730	4.4	3280	7.8	9.3	16.8	220	--	--	80	810
NOV 13...	1600	2.1	3300	7.7	----	9.4	250	15	.3	80	850
DEC 10...	0930	4.7	2560	7.8	12.1	3.8	160	--	--	60	940
JAN 14...	1000	----	3020	7.1	8.1	.1	230	--	--	620	270
FEB 17...	1730	----	740	7.2	----	.5	64	--	--	340	620
MAR 17...	1800	4.4	2620	7.5	----	9.4	130	--	--	40	1100
MAY 06...	1500	95	990	7.7	----	14.5	73	--	--	60	7900
JUN 03...	1400	----	----	---	----	----	---	--	--	---	----
JUL 08...	1500	10	2690	7.5	----	28.3	120	--	--	40	720
AUG 04...	1300	4.9	2850	7.6	----	24.4	150	--	--	60	570

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)
OCT 08...	890	270	2000	3180	37.5	4.3	12	--	----	----	---
NOV 13...	930	270	1800	3080	17.6	4.2	12	--	----	----	---
DEC 10...	1000	500	1300	2240	28.4	3.1	522	97	----	----	---
JAN 14...	890	1200	1700	2870	-----	3.9	---	--	----	----	---
FEB 17...	960	490	390	710	-----	.97	---	--	----	----	---
MAR 17...	1100	1600	1100	1990	23.7	2.7	200	99	1100	970	100
MAY 06...	8000	550	430	797	205	1.1	603	40	----	----	---
JUN 03...	----	----	----	----	-----	----	94	95	----	----	---
JUL 08...	760	530	1600	2580	70.7	3.5	243	87	1500	1400	0
AUG 04...	630	290	1600	2720	36.0	3.7	---	--	----	----	---

03341570 HONEY CREEK NEAR RILEY, IN--Continued
(Basline water-quality station for the coal-mining region of Southwestern Indiana)

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CALCIUM DIS-SOLVED (MG/L AS CA)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	POTAS-SIUM 40 DIS-SOLVED (PCI/L AS K40)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT											
08...	---	-	---	--	-	--	---	---	---	--	--
NOV											
13...	---	-	---	--	-	--	---	---	---	--	--
DEC											
10...	---	-	---	--	-	--	---	---	---	--	--
JAN											
14...	---	-	---	--	-	--	---	---	---	--	--
FEB											
17...	---	-	---	--	-	--	---	---	---	--	--
MAR											
17...	340	1	260	20	2	.2	7.8	5.8	110	90	70
MAY											
06...	---	-	---	--	-	--	---	---	---	--	--
JUN											
03...	---	-	---	--	-	--	---	---	---	--	--
JUL											
08...	350	1	340	0	3	.3	8.7	6.5	160	23	30
AUG											
04...	---	-	---	--	-	--	---	---	---	--	--

03341570 HONEY CREEK NEAR RILEY, IN--Continued
(Basline water-quality station for the coal-mining region of Southwestern Indiana)

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2920	2820	2630	3060	2470	2750	2970	1680	990	3140	2790	2450
2	2950	2740	2720	3340	2430	2790	3040	1740	1130	3260	2780	2320
3	3030	2830	2860	3610	2810	2770	2970	1820	1320	3240	2760	2410
4	3050	3040	2740	3790	3210	2290	2230	1930	1530	2950	3070	2490
5	3060	3070	2680	3700	3270	2280	2570	1920	1620	1700	1810	2570
6	3060	2960	2810	3520	3110	2320	2710	1220	1680	2420	2240	2650
7	3370	3020	2820	3370	3060	2340	2690	1020	1740	2530	2300	2720
8	3560	3230	2650	3310	3010	2370	2580	1060	1800	2630	2360	2780
9	3580	3320	2490	3290	3070	2400	2630	1080	1680	2870	2510	2840
10	3600	3370	2460	3270	2910	2440	2220	874	750	2920	2590	2810
11	3350	3360	2500	3230	2910	2480	1520	691	880	2920	2650	2920
12	3080	3310	2550	3200	2860	2520	1530	697	959	3050	2670	2950
13	3070	3230	2650	3120	2900	2560	1500	743	1050	3180	2750	2970
14	3090	3210	2670	2980	2870	2590	1580	661	1150	3260	2750	2960
15	3100	3200	2790	2880	2400	2630	1770	538	1230	3200	2260	2960
16	2680	3180	2920	2860	2120	2670	1980	594	1310	3240	2280	2940
17	2630	3150	3000	2750	1950	2640	2130	671	1400	3330	2430	2930
18	2840	3170	3110	2770	2280	2730	2280	604	1480	2970	2450	2940
19	3040	3220	3530	2740	2290	2680	2360	561	1540	3010	2510	2960
20	3040	3280	3760	2640	2340	2710	2210	629	1630	2900	2530	2980
21	2970	3290	3780	2670	2350	2760	2320	701	1510	3040	2670	3010
22	2940	3270	3450	2660	2360	2670	2230	778	1980	3070	2730	3020
23	2750	3230	3260	2720	2370	2680	1320	850	2580	3020	2830	3000
24	2360	3210	3520	2710	2410	2840	1440	866	2550	3030	2900	3050
25	2570	3210	3690	2630	2460	2860	1510	690	2570	3030	2920	3080
26	2680	2970	3490	2650	2550	2860	1630	763	2610	3020	2890	3110
27	2350	2260	3470	2710	2630	2850	1780	522	2710	2360	2960	3120
28	2290	2350	3380	2750	2700	2860	1940	600	2720	2550	2950	3110
29	2500	2420	3210	2810	----	2900	1760	671	2940	2650	2910	3100
30	2540	2570	3040	2710	----	2880	1680	598	3170	2740	2970	3140
31	2750	----	2920	2660	----	2920	----	710	----	2690	2960	----
MEAN	2930	3050	3020	3000	2650	2650	2100	919	1740	2900	2650	2880
MAX	3600	3370	3780	3790	3270	2920	3040	1930	3170	3330	3070	3140
MIN	2290	2260	2460	2630	1950	2280	1320	522	750	1700	1810	2320

WTR YR 1981 MEAN 2540 MAX 3790 MIN 522

03341570 HONEY CREEK NEAR RILEY, IN--Continued
(Basline water-quality station for the coal-mining region of Southwestern Indiana)

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.5	7.5	6.0	.5	.5	5.5	15.5	16.0	19.0	24.0	22.0	22.5
2	12.5	9.5	2.0	.5	.5	4.5	14.0	15.0	20.5	23.5	23.5	23.0
3	10.5	10.0	2.0	.5	.5	5.0	15.0	16.0	21.5	23.0	23.5	23.0
4	10.0	8.5	6.0	.5	.5	4.5	15.5	17.0	22.5	22.5	24.5	22.5
5	10.5	7.5	9.5	.5	.5	4.5	11.0	17.5	23.5	22.5	24.0	21.5
6	12.5	10.0	11.0	.5	.5	4.0	11.0	15.0	23.0	24.5	25.0	21.5
7	13.5	11.0	10.5	.5	.5	4.0	12.5	15.0	22.0	25.5	25.0	21.0
8	15.5	12.0	8.0	.5	.5	4.0	14.0	15.5	23.0	26.5	23.0	20.0
9	15.0	9.5	4.5	.5	.5	6.0	16.5	16.5	23.5	26.5	22.5	17.5
10	13.0	6.5	4.0	.5	.5	5.5	15.0	15.5	22.5	25.5	22.5	18.0
11	10.5	6.0	5.0	.5	.5	6.0	16.0	14.0	22.0	24.0	22.0	20.5
12	9.5	7.0	4.0	.5	.5	8.0	17.5	13.5	22.5	25.5	21.0	21.5
13	12.0	8.5	2.5	.5	.5	6.5	18.0	14.0	24.0	27.0	21.5	22.5
14	14.0	7.5	3.5	.5	.5	6.0	17.0	14.0	25.5	27.0	22.0	22.0
15	16.0	5.5	3.5	.5	.5	7.0	14.5	14.0	26.0	25.0	21.5	20.0
16	16.5	4.5	1.5	.5	.5	6.0	14.0	15.5	23.0	25.0	22.0	18.5
17	14.5	4.0	3.0	.5	3.0	8.0	17.5	16.0	21.0	25.5	20.5	16.5
18	11.5	3.5	1.0	.5	4.5	6.0	18.0	13.0	22.0	27.0	18.5	16.5
19	11.5	3.0	.5	.5	5.0	4.5	15.5	12.5	21.5	26.5	19.0	16.5
20	13.0	3.5	.5	.5	6.0	4.5	14.0	14.0	22.5	26.0	19.0	18.0
21	12.5	3.0	.5	.5	7.0	6.0	13.0	15.5	22.5	25.0	19.0	18.5
22	13.0	5.0	.5	.5	5.0	7.0	14.0	17.0	23.5	23.5	20.0	16.0
23	12.0	6.0	.5	.5	5.5	7.5	16.0	18.0	22.5	22.5	20.0	14.5
24	9.0	3.5	.5	.5	6.0	8.5	13.5	19.0	23.5	24.0	21.0	16.0
25	7.0	2.0	.5	.5	7.0	8.5	13.5	19.5	24.0	24.5	22.5	17.5
26	6.5	1.5	.5	.5	7.5	11.5	17.0	19.0	23.0	24.5	22.0	19.5
27	8.0	2.5	.5	.5	9.0	13.0	19.0	17.5	22.5	24.0	21.5	19.5
28	6.5	3.0	.5	.5	6.0	13.0	20.0	18.5	23.0	23.5	21.5	15.5
29	5.5	3.5	.5	.5	---	13.5	17.5	20.0	24.5	21.0	21.5	12.5
30	6.5	6.5	.5	.5	---	14.0	16.5	20.5	24.0	20.5	22.5	16.5
31	7.5	----	.5	.5	---	15.0	----	19.5	----	21.0	23.0	----
MEAN	11.5	6.0	3.0	.5	3.0	7.5	15.5	16.0	23.0	24.5	22.0	19.0
MAX	16.5	12.0	14.0	.5	9.0	15.0	20.0	20.5	26.0	27.0	25.0	23.0
MIN	5.5	1.5	.5	.5	.5	4.0	11.0	12.5	19.0	20.5	18.5	12.5

WTR YR 1981 MEAN 12.5 MAX 27.0 MIN .5

03342000 WABASH RIVER AT RIVERTON, IN

LOCATION.--Lat 39°01'13", long 87°34'07", in NE¼SW¼ sec.30, T.7 N., R.10 W., Sullivan County, Hydrologic Unit 05120111, on left bank at downstream side of Illinois Central Railroad bridge at Riverton, 0.5 mile (0.8 km) downstream from Turtle Creek, and at mile 162.0 (260.7 km).

DRAINAGE AREA.--13,161 mi² (34,087 km²).

WATER-DISCHARGE RECORDS

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 Corps of Engineers office, Louisville, Ky.

REVISED RECORDS.--WSP 1335: 1939, 1950. WRD Ind. 1973: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 414.65 ft (126.385 m) National Geodetic Vertical Datum of 1929. Prior to July 17, 1951, nonrecording gage at same site and datum.

REMARKS.--Records good except period of no gage-height record, which are fair. Flow partially regulated by upstream reservoirs.

AVERAGE DISCHARGE.--43 years, 11,620 ft³/s (329.1 m³/s), 11.98 in/yr (304 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 201,000 ft³/s (5,690 m³/s) May 21, 1943, gage height, 29.36 ft (8.949 m); minimum daily, 858 ft³/s (24.3 m³/s) Sept. 27-30, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 28, 1913, reached a stage of 26.4 ft (8.05 m), from graph based on once-daily readings by Illinois Central Railroad Co., discharge, 250,000 ft³/s (7,080 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 70,900 ft³/s (2,010 m³/s) May 21, gage height, 21.08 ft (6.425 m); minimum daily, 2,000 ft³/s (56.6 m³/s) Jan. 10-17.

NOTE.--No gage-height record June 18 to July 23.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
WATER TEMPERATURE.--July 1954 to September 1978.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4070	3990	3410	3390	3640	15000	3410	19300	22500	19000	18400	21500
2	3950	3920	3520	3380	4120	14100	3380	20600	20100	17000	15000	28500
3	3820	3930	3470	3220	4300	13100	3320	19600	18100	17000	12800	31300
4	3690	3900	3430	3180	3660	12200	3310	17600	16400	18000	10900	33300
5	3600	3900	3350	2930	2820	12100	3490	15800	15000	18000	9710	34800
6	3500	4200	3290	2560	2530	12000	3580	15300	14200	17000	11900	34600
7	3530	3850	3280	2310	2670	10900	3630	15700	13600	22000	19600	30000
8	3500	3480	3300	2100	3140	10000	3510	15300	14900	22000	19700	22500
9	3490	3240	3410	2100	3410	9110	3460	14600	15800	20000	17700	16500
10	3480	3220	3430	2000	3730	8080	3550	16100	20000	19000	15000	13300
11	3460	3540	3690	2000	4730	7330	3950	23300	22900	18000	12600	11300
12	3350	4310	4630	2000	4490	6900	7150	27200	20700	17000	12000	9930
13	3230	4450	5790	2000	3830	6640	8850	29600	19000	16000	11600	8970
14	3270	4160	5890	2000	3510	6330	9760	32300	18100	15000	9830	8290
15	3180	3590	5430	2000	3500	5990	12300	36500	17200	14000	8580	8670
16	3130	3260	5000	2000	4740	5730	14700	41700	19600	14000	8830	8090
17	3410	3350	4880	2000	8050	5450	18300	47000	22100	17000	9300	7760
18	3710	3860	4580	2100	13300	5190	20700	52900	24000	18000	10100	8080
19	3680	4010	4220	2200	19500	4940	21600	60500	25000	16000	9500	8320
20	3590	3920	3930	2200	21700	4660	21000	66800	26000	15000	8120	8180
21	3660	3400	3670	2300	21800	4470	18900	70300	27000	15000	6940	7910
22	4030	3130	3260	2460	21500	4360	17000	69700	26000	18000	6250	7560
23	4260	3090	2600	2540	21100	4260	17500	65300	25000	18000	5730	7520
24	4060	3450	2470	2570	19900	4130	18000	59300	23000	14600	5670	6900
25	3840	3640	2900	2560	18400	3970	16000	53800	25000	12300	5620	6420
26	3780	3650	3060	2560	17200	3760	14100	47400	24000	10700	5220	5820
27	3720	3660	2730	2690	16200	3760	12600	43700	24000	10500	5350	5470
28	3870	3350	2570	2850	15600	3670	11300	39500	23000	18300	6840	5470
29	4340	3210	2580	3040	------	3500	10600	33200	23000	24400	11300	7410
30	4490	3290	2940	3240	------	3450	13800	27700	21000	24900	15000	9390
31	4240	------	3250	3320	------	3430	------	25100	------	22300	14700	------
TOTAL	114930	109950	113960	77800	273070	218510	322750	1122700	626200	538000	339790	423760
MEAN	3707	3665	3676	2510	9753	7049	10760	36220	20870	17350	10960	14130
MAX	4490	4450	5890	3390	21800	15000	21600	70300	27000	24900	19700	34800
MIN	3130	3090	2470	2000	2530	3430	3310	14600	13600	10500	5220	5470
CFSM	.28	.28	.28	.19	.74	.54	.82	2.75	1.59	1.32	.83	1.07
IN.	.32	.31	.32	.22	.77	.62	.91	3.17	1.77	1.52	.96	1.20

CAL YR 1980 TOTAL 4226540 MEAN 11550 MAX 52100 MIN 2470 CFSM .88 IN 11.95
WTR YR 1981 TOTAL 4281420 MEAN 11730 MAX 70300 MIN 2000 CFSM .89 IN 12.10

03342100 BUSSERON CREEK NEAR HYMERA, IN

LOCATION.--Lat 39°12'54", long 87°18'41", in NW¼NW¼ sec.21, T.9 N., R.8 W., Sullivan County, Hydrologic Unit 05120111, on right bank at downstream side of bridge on County Road 900 North, 1.3 miles (2.1 km) upstream from East Fork Busseron Creek, 1.9 miles (3.1 km) northwest of Hymera, 4.1 miles (6.6 km) upstream from West Fork Busseron Creek, and at mile 30.3 (48.8 km).

DRAINAGE AREA.--16.7 mi^2 (43.3 km^2).

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

REVISED RECORDS.--WRD Ind. 1972: 1971.

GAGE.--Water-stage recorder. Concrete control since Sept. 12, 1969. Datum of gage is 480.00 ft (146.304 m) National Geodetic Vertical Datum of 1929 (U.S. Soil Conservation Service benchmark).

REMARKS.--Records fair except those of winter periods which are poor. Flow affected by U.S. Soil Conservation Service floodwater-retarding structures.

AVERAGE DISCHARGE.--15 years, 18.4 ft^3/s (0.521 m^3/s), 14.96 in/yr (380 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,890 ft^3/s (53.5 m^3/s) Sept. 12, 1974, gage height, 18.58 ft (5.761 m) maximum gage height, 18.99 ft (5.788 m) June 28, 1980; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,490 ft^3/s (42.2 m^3/s) May 27, gage height, 18.49 ft (5.636m); minimum daily, 0.05 ft^3/s (0.001 m^3/s) Aug. 22 to 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	2.8	5.3	1.3	2.5	7.8	3.1	6.1	46	1.7	.09	.68
2	2.6	2.6	8.8	1.3	4.5	6.9	2.8	5.1	36	1.7	.07	5.6
3	2.1	2.6	7.5	1.2	3.7	6.1	2.8	4.6	27	1.7	.09	1.1
4	1.6	2.6	6.4	1.2	3.1	9.4	4.6	4.1	20	1.7	.09	.75
5	1.2	2.3	5.8	1.2	2.5	119	4.8	5.3	16	2.0	.38	.53
6	.83	2.2	5.3	1.2	2.1	55	3.9	16	16	1.7	.68	.40
7	.75	2.2	4.8	1.1	1.8	36	4.8	7.8	13	1.5	.31	.33
8	.75	2.2	5.1	1.1	1.5	23	3.5	6.1	10	1.6	.24	.33
9	.60	2.1	7.8	1.1	1.7	16	3.7	6.9	7.0	1.7	.18	.24
10	.48	2.0	7.2	1.1	72	13	11	167	93	1.6	.16	.22
11	.48	2.0	5.6	1.1	75	10	9.8	98	140	1.5	.18	.22
12	.40	2.1	4.8	1.2	84	8.5	13	64	74	1.5	.11	.22
13	.40	2.5	3.9	1.2	43	7.2	11	47	42	1.4	.07	.22
14	.57	2.5	3.3	1.3	21	6.4	9.8	119	28	1.3	.07	.24
15	.57	2.3	3.3	1.3	21	6.7	6.4	308	18	1.7	.53	.24
16	.53	2.3	3.1	1.4	83	5.8	6.1	90	11	1.2	.29	.27
17	6.7	3.0	2.8	1.4	64	5.3	5.1	70	8.4	.96	.16	.27
18	2.1	3.0	2.5	1.4	51	4.6	5.1	165	6.6	.89	.09	.24
19	1.5	4.1	2.2	1.3	43	4.4	6.7	104	5.6	.96	.08	.27
20	1.2	5.6	1.8	1.5	38	4.1	9.1	73	5.0	2.2	.07	.22
21	1.1	3.1	1.8	1.9	26	3.9	6.4	59	4.8	1.1	.06	.22
22	1.0	2.2	1.9	2.3	23	3.9	19	47	5.2	.83	.05	.20
23	.89	2.2	1.9	2.1	24	3.5	67	36	4.1	.60	.05	.18
24	4.4	2.1	1.8	2.0	25	3.3	26	64	3.4	.57	.05	.18
25	4.1	1.9	1.7	2.3	17	3.1	15	71	2.3	.48	.06	.18
26	2.5	1.7	1.7	2.4	13	3.3	10	72	2.3	.40	.07	.18
27	3.5	13	1.6	2.1	10	4.4	7.8	624	2.2	.38	.13	.20
28	8.8	11	1.5	2.0	9.1	3.5	6.4	114	2.0	.68	.33	.18
29	4.6	8.8	1.5	1.7	-----	4.1	9.4	84	2.0	.40	1.6	.20
30	3.5	6.7	1.4	1.7	-----	4.8	7.5	75	1.7	.29	1.6	.22
31	3.3	-----	1.4	1.5	-----	3.7	-----	59	-----	.09	.75	-----
TOTAL	66.55	105.7	115.5	46.9	765.5	396.7	301.6	2672.0	652.6	36.33	8.69	14.53
MEAN	2.15	3.52	3.73	1.51	27.3	12.8	10.1	86.2	21.8	1.17	.28	.48
MAX	8.8	13	8.8	2.4	84	119	67	624	140	2.2	1.6	5.6
MIN	.40	1.7	1.4	1.1	1.5	3.1	2.8	4.1	1.7	.09	.05	.18
CFSM	.13	.21	.22	.09	1.64	.77	.61	5.16	1.31	.07	.02	.03
IN.	.15	.24	.26	.10	1.71	.88	.67	5.95	1.45	.08	.02	.03

CAL YR 1980 TOTAL 6246.54 MEAN 17.1 MAX 611 MIN .40 CFSM 1.02 IN 13.91
WTR YR 1981 TOTAL 5182.60 MEAN 14.2 MAX 624 MIN .05 CFSM .85 IN 11.54

03342150 WEST FORK BUSSERON CREEK NEAR HYMERA, IN

LOCATION.--Lat 39°11'10", long 87°19'44", in NW¼NW¼ sec.32, T.9 N., R.8 W., Sullivan County, Hydrologic Unit 05120111, on right bank at downstream side of bridge on State Highway 48, 1.4 miles (2.3 km) upstream from mouth, 1.5 miles (2.4 km) west of Hymera, and 3.7 miles (6.0 km) east of U.S. Highway 41.

DRAINAGE AREA.--14.4 mi² (37.3 km²).

WATER-DISCHARGE RECORDS PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 476.00 ft (1 45.085 m) National Geodetic Vertical Datum of 1929 (Indiana State Highway Commission bench mark).

REMARKS.--Records poor.

AVERAGE DISCHARGE.--15 years, 13.5 ft³/s (0.382 m³/s), 12.73 in/yr (323 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,930 ft³/s (54.7 m³/s) July 26, 1973, gage height, 13.23 ft (4.033 m); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 500 ft³/s (14.2 m³/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft³/s)	(m³/s)	(ft)	(m)	Date	Time	(ft³/s)	(m³/s)	(ft)	(m)
May 15	0615	670	19.0	11.27	3.435	May 27	0845	*1340	37.9	*12.35	3.764
May 18	1415	565	16.0	10.95	3.338	June 10	0915	744	21.1	11.42	3.481

Minimum daily discharge, .02 ft³/s (0.001 m³/s) Aug. 24, Sept. 28.

NOTE.--No gage-height record Oct. 29 to Mar. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	1.7	4.5	1.2	2.0	6.6	2.8	3.9	5.3	.39	.12	1.9
2	2.7	1.4	4.2	1.1	3.3	5.8	2.5	3.4	4.6	.26	.06	5.1
3	2.7	1.3	3.7	1.1	3.8	5.2	2.8	2.8	4.1	.23	.08	2.2
4	2.4	1.2	3.5	1.0	2.8	8.2	4.6	2.6	3.8	.23	.20	1.1
5	1.8	1.1	3.2	1.0	2.3	96	5.1	3.3	3.6	2.9	3.2	.79
6	1.5	1.0	2.9	.99	1.7	54	3.8	9.1	5.9	1.4	3.8	.56
7	1.5	1.1	2.7	.98	1.5	33	3.4	3.5	3.9	.39	.71	.71
8	1.2	1.1	3.0	.97	1.3	21	3.3	2.5	2.8	.20	.39	.98
9	.88	1.0	5.9	.96	1.5	14	3.6	3.6	2.4	.12	.23	.98
10	.44	.95	5.2	.95	61	11	7.2	202	208	2.2	.26	.39
11	.26	.86	4.4	.97	64	9.5	7.5	98	14	1.2	.98	.20
12	.12	.78	4.0	1.0	70	8.0	9.1	26	8.2	.60	.39	.23
13	.10	.76	3.5	1.1	47	6.6	5.9	16	6.4	.32	.14	.30
14	.12	.76	2.9	1.1	25	5.2	4.0	191	4.3	.19	.08	.39
15	.14	.80	2.8	1.2	18	5.8	3.0	221	3.2	2.0	3.0	2.5
16	.06	.85	2.6	1.2	70	5.2	2.8	32	3.2	.63	1.9	.71
17	3.0	.91	2.4	1.2	60	4.5	2.8	18	2.5	.23	.44	.39
18	3.9	1.0	2.1	1.1	48	4.0	2.4	189	1.9	.14	.20	.30
19	2.5	1.6	1.7	1.1	40	3.7	2.7	80	1.7	.12	.12	.26
20	1.5	1.1	1.5	1.4	32	3.5	6.5	21	1.5	3.5	.09	.08
21	1.5	1.0	1.6	1.7	24	3.3	3.5	13	3.3	1.3	.06	.08
22	1.4	.95	1.6	2.0	20	3.2	6.2	10	2.9	.71	.04	.10
23	1.2	.90	1.7	1.7	20	3.0	102	8.8	1.7	.44	.03	.23
24	2.7	.85	1.6	1.9	21	2.9	3.9	71	1.3	.39	.02	.45
25	7.9	.83	1.5	2.1	15	2.7	2.3	95	.98	.30	.15	1.1
26	5.1	.80	1.4	1.9	11	2.9	3.0	80	.88	.34	.64	.25
27	5.0	15	1.3	1.7	8.8	3.7	3.3	677	.71	.50	.98	.04
28	9.7	9.0	1.3	1.6	7.5	2.9	3.5	71	.56	1.2	1.4	.02
29	7.0	6.3	1.2	1.5	-----	3.4	5.9	15	.50	.74	3.8	.12
30	4.8	5.4	1.2	1.4	-----	3.9	4.7	15	.44	.50	3.9	.56
31	2.7	-----	1.2	1.3	-----	3.3	-----	8.0	------	.23	1.4	-----
TOTAL	79.62	62.30	82.3	40.42	682.5	346.0	224.1	2192.5	304.57	23.90	28.81	23.02
MEAN	2.57	2.08	2.65	1.30	24.4	11.2	7.47	70.7	10.2	.77	.93	.77
MAX	9.7	15	5.9	2.1	70	96	102	677	208	3.5	3.9	5.1
MIN	.06	.76	1.2	.95	1.3	2.7	2.3	2.5	.44	.12	.02	.02
CFSM	.18	.14	.18	.09	1.69	.78	.52	4.91	.71	.05	.07	.05
IN.	.21	.16	.21	.10	1.76	.89	.58	5.66	.79	.06	.07	.06

CAL YR 1980 TOTAL 3972.29 MEAN 10.9 MAX 664 MIN .03 CFSM .76 IN 10.26
WTR YR 1981 TOTAL 4090.04 MEAN 11.2 MAX 677 MIN .02 CFSM .78 IN 10.57

03342150 WEST FORK BUSSERON CREEK NEAR HYMERA, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 28...	1425	8.0	11	13	.39

03342250 MUD CREEK NEAR DUGGER, IN

LOCATION.--Lat 39°06'28", long 87°16'42", in SE¼NE¼ sec.27, T.8 N., R.8 W., Sullivan County, Hydrologic Unit 05120111, on right bank at downstream side of bridge on County Road 700 East, 0.6 mile (1.0 km) north of County Road 100 North, 1.7 miles (2.7 km) upstream from mouth, and 2.5 miles (4.0 km) northwest of Dugger.

DRAINAGE AREA.--11.9 mi^2 (30.8 km^2).

PERIOD OF RECORD.--June 1966 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 466.41 ft (142.162 m) National Geodetic Vertical Datum of 1929 (U.S. Soil Conservation Service bench mark).

REMARKS.--Records poor. Flow affected by surface-mined areas.

AVERAGE DISCHARGE.--15 years, 14.1 ft^3/s (0.399 m^3/s), 16.09 in/yr (409 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,270 ft^3/s (36.0 m^3/s) July 27, 1979, gage height, 14.83 ft (4.520 m) from flood mark; minimum daily, 0.40 ft^3/s (0.011 m^3/s) Jan. 17, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,080 ft^3/s (30.6 m^3/s) May 27, gage height, 14.02 ft (4.273 m); minimum daily, 0.90 ft^3/s (0.025 m^3/s) Oct. 14.

NOTE.--No gage-height record July 28 to Sep 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	3.7	3.5	1.3	2.6	8.8	6.1	20	16	6.7	2.6	23
2	1.7	3.5	3.5	1.2	4.3	8.2	5.7	17	15	6.7	2.7	13
3	1.6	3.4	3.2	1.2	3.6	7.6	5.5	16	14	6.6	3.0	12
4	1.4	3.3	3.1	1.1	2.8	12	8.0	15	13	6.7	2.9	6.0
5	1.3	3.2	3.1	1.1	2.3	65	6.3	17	13	9.1	32	5.3
6	1.3	3.0	3.0	1.1	1.9	22	4.9	29	14	7.0	21	4.8
7	1.2	3.1	3.1	1.1	1.6	16	4.4	20	13	6.7	14	4.8
8	1.1	3.0	4.8	1.1	1.5	14	15	16	12	6.5	8.6	4.8
9	1.0	2.9	7.5	1.1	6.3	13	14	16	11	7.0	6.1	4.6
10	.91	2.8	5.7	1.1	113	12	32	272	105	8.0	7.0	4.3
11	.93	2.6	4.8	1.1	129	11	26	75	30	6.6	8.8	4.3
12	.95	2.6	4.1	1.1	64	11	53	31	15	6.3	8.3	4.2
13	.92	2.6	3.2	1.2	36	10	29	25	13	6.2	8.1	4.2
14	.90	2.5	3.1	1.2	32	9.5	20	80	11	6.2	7.3	4.2
15	.92	2.4	3.0	1.3	36	9.7	16	96	10	7.3	11	4.6
16	1.0	2.4	2.7	1.4	87	9.3	15	35	9.5	6.7	8.8	5.7
17	4.7	2.9	2.4	1.4	25	8.7	15	27	9.3	6.5	8.1	4.2
18	2.8	2.9	2.3	1.3	19	8.2	15	160	8.7	6.3	7.3	3.9
19	2.2	2.2	1.8	1.3	18	7.8	16	76	8.4	6.3	7.8	3.8
20	2.1	2.2	1.6	1.6	23	7.7	21	39	8.4	12	6.5	3.6
21	2.1	2.0	1.8	2.1	15	7.5	15	31	8.7	9.1	6.0	3.5
22	2.0	2.1	1.8	2.1	14	7.2	30	27	8.4	4.7	6.0	3.5
23	2.0	2.1	1.8	2.0	16	6.9	186	24	7.8	3.4	5.7	3.4
24	5.5	2.1	1.7	2.2	16	6.6	31	83	7.5	3.2	5.6	3.4
25	5.1	2.0	1.6	2.3	12	6.3	23	129	7.2	3.1	5.7	3.5
26	4.2	2.2	1.6	2.1	11	6.2	20	132	7.0	3.2	6.1	3.5
27	4.7	18	1.5	1.9	10	6.3	18	450	6.9	3.2	8.1	3.6
28	5.2	5.8	1.4	1.8	9.4	6.2	16	53	6.9	4.0	11	3.4
29	4.2	4.4	1.4	1.7	-----	7.5	23	28	6.9	3.5	7.3	8.3
30	3.9	3.7	1.3	1.5	-----	13	31	21	6.7	2.9	7.3	5.2
31	3.7	-----	1.3	1.5	-----	7.2	-----	18	-----	2.7	7.5	-----
TOTAL	73.43	101.6	86.7	45.5	712.3	352.4	720.9	2078	423.3	184.4	258.2	166.6
MEAN	2.37	3.39	2.80	1.47	25.4	11.4	24.0	67.0	14.1	5.95	8.33	5.55
MAX	5.5	18	7.5	2.3	129	65	186	450	105	12	32	23
MIN	.90	2.0	1.3	1.1	1.5	6.2	4.4	15	6.7	2.7	2.6	3.4
CFSM	.20	.29	.24	.12	2.13	.96	2.02	5.63	1.19	.50	.70	.47
IN.	.23	.32	.27	.14	2.23	1.10	2.25	6.50	1.32	.58	.81	.52

CAL YR 1980 TOTAL 3267.13 MEAN 8.93 MAX 123 MIN .90 CFSM .75 IN 10.21
WTR YR 1981 TOTAL 5203.33 MEAN 14.3 MAX 450 MIN .90 CFSM 1.20 IN 16.26

03342300 BUSSERON CREEK NEAR SULLIVAN, IN

LOCATION.--Lat 39°04'33", long 87°23'11", in SE¼NW¼ sec.2, T.7 N., R.9 W., Sullivan County, Hydrologic Unit 05120111, on left bank at upstream side of bridge on State Highway 54, 1.5 mi les (2.4 km) southeast of Sullivan, 1.6 miles (2.6 km) east of intersection of U.S. Highway 41 and State Highway 54, 1.7 miles (2.7 km) upstream from Buttermilk Creek, and at mile 16.7 (26.9 km).

DRAINAGE AREA.--138 mi^2 (357 km^2).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WRD Ind. 1972: 1971.

GAGE.--Water-stage recorder. Datum of gage is 440.00 ft (134.112 m) National Geodetic Vertical Datum of 1929 (Indiana State Highway Commission bench mark).

REMARKS.--Records good except those for winter periods, which are fair. Flow affected by surface-mined areas and U.S. Soil Conservation Service floodwater-retarding structures.

AVERAGE DISCHARGE.--15 years, 145 ft^3/s (4.106 m^3/s), 14.27 in/yr (362 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,050 ft^3/s (171 m^3/s) July 29, 1979, gage height, 16.28 ft (4.962 m); minimum daily, 0.9 ft^3/s (0.025 m^3/s) Sept. 8, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,440 ft^3/s (97.4 m^3/s) May 28, gage height, 14.67 ft (4.471 m); minimum daily, 6.3 ft^3/s (0.178 m^3/s) Oct. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	17	52	12	23	78	42	116	498	20	10	29
2	12	15	46	11	42	69	34	82	295	19	10	46
3	12	14	48	10	33	59	30	65	222	18	11	35
4	10	13	39	10	27	69	33	55	177	18	12	24
5	9.7	12	33	9.9	22	630	52	53	142	31	28	19
6	9.4	12	30	9.8	19	565	44	148	132	43	146	16
7	8.7	13	28	9.8	16	279	35	139	110	26	40	14
8	8.0	12	28	9.7	13	189	32	81	86	20	25	13
9	8.7	12	52	9.6	25	144	37	65	71	23	19	12
10	8.0	11	67	9.5	50	119	80	484	942	39	16	10
11	7.1	9.7	53	9.4	670	99	136	1270	1410	21	17	8.8
12	6.5	9.0	43	9.4	500	84	289	970	750	17	14	8.0
13	6.7	8.9	35	10	300	75	302	503	424	15	12	7.8
14	6.3	9.3	30	11	175	66	163	541	278	14	11	7.1
15	6.5	10	27	12	350	61	109	1060	178	16	19	7.8
16	7.1	10	27	13	700	61	81	1100	112	25	25	9.3
17	22	11	24	12	622	52	73	538	84	18	16	11
18	44	18	22	12	358	49	74	680	67	14	12	8.9
19	21	17	18	11	250	44	63	1230	56	13	10	7.8
20	22	14	14	11	210	44	137	844	50	29	9.3	7.1
21	32	15	16	19	190	42	99	477	50	51	8.4	6.6
22	31	13	20	19	166	37	86	303	53	20	7.6	6.4
23	29	13	21	18	176	35	785	188	42	14	7.1	6.6
24	31	13	21	18	197	32	438	274	35	13	6.4	9.6
25	56	12	17	20	153	29	212	830	31	12	9.3	11
26	50	11	16	21	120	28	149	596	27	13	9.1	10
27	42	52	15	23	96	31	114	1660	25	13	14	9.9
28	57	116	14	20	86	36	89	3080	23	13	19	9.1
29	64	87	14	17	----	32	131	2360	22	12	29	11
30	49	65	13	15	----	66	151	1250	20	11	44	20
31	35	-----	12	13	----	55	----	773	----	10	27	-----
TOTAL	725.7	644.9	895	415.1	5589	3259	4100	21815	6412	621	643.2	401.8
MEAN	23.4	21.5	28.9	13.4	200	105	137	704	214	20.0	20.7	13.4
MAX	64	116	67	23	700	630	785	3080	1410	51	146	46
MIN	6.3	8.9	12	9.4	13	28	30	53	20	10	6.4	6.4
CFSM	.17	.16	.21	.10	1.45	.76	.99	5.10	1.55	.15	.15	.10
IN.	.20	.17	.24	.11	1.51	.88	1.11	5.88	1.73	.17	.17	.11

CAL YR 1980 TOTAL 40720.8 MEAN 111 MAX 1370 MIN 6.3 CFSM .80 IN 10.98
WTR YR 1981 TOTAL 45521.7 MEAN 125 MAX 3080 MIN 6.3 CFSM .91 IN 12.27

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
OCT								
08...	1630	17.0	8.0	10	.22	--	--	--
15...	1540	16.0	6.5	12	.21	--	--	--
22...	1515	6.0	30	16	1.3	--	--	--
30...	1415	9.0	47	16	2.0	--	--	--
NOV								
06...	1610	9.0	12	10	.33	--	--	--
11...	1450	4.0	9.4	8	.20	--	--	--
14...	1445	9.0	9.4	7	.18	--	--	--
19...	1450	4.0	16	8	.35	--	--	--
25...	1730	4.0	12	7	.23	--	--	--
DEC								
11...	1010	----	54	25	3.6	--	--	--
MAR								
05...	0935	----	639	196	338	--	--	--
05...	1025	----	675	1700	3100	--	--	--
05...	1225	----	744	1930	3880	--	--	--
05...	1830	4.5	839	974	2210	--	--	--
APR								
08...	1100	----	24	298	19	--	--	--
23...	1430	14.0	941	660	1680	--	--	--
23...	1530	----	934	1850	4670	--	--	--
JUN								
10...	1430	22.0	1190	958	3080	36	48	56
25...	1045	23.5	24	68	4.4	--	--	--
JUL								
31...	0910	19.5	10	137	3.7	--	--	--
SEP								
16...	1345	19.0	8.9	21	.52	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT								
08...	--	--	--	--	---	---	---	---
15...	--	--	--	--	---	---	---	---
22...	--	--	--	--	---	---	---	---
30...	--	--	--	--	---	---	---	---
NOV								
06...	--	--	--	--	---	---	---	---
11...	--	--	--	--	---	---	---	---
14...	--	--	--	--	---	---	---	---
19...	--	--	--	--	---	---	---	---
25...	--	--	--	--	---	---	---	---
DEC								
11...	--	--	--	--	---	---	---	---
MAR								
05...	--	--	85	91	94	98	100	---
05...	--	--	76	83	91	96	99	100
05...	--	--	71	80	89	95	99	100
05...	--	--	71	79	86	95	99	100
APR								
08...	--	--	--	--	---	---	---	---
23...	--	--	72	80	91	96	99	100
23...	--	--	96	98	99	100	---	---
JUN								
10...	69	80	85	91	96	99	100	---
25...	--	--	97	99	100	---	---	---
JUL								
31...	--	--	98	--	---	---	---	---
SEP								
16...	--	--	98	--	---	---	---	---

03342500 BUSSERON CREEK NEAR CARLISLE, IN

LOCATION.--Lat 38°58'26", long 87°25'33", in NW¼ survey 17, Vincennes Tract, Sullivan County, Hydrologic Unit 05120111, on left bank 10 ft (3 m) downstream from bridge on State Highway 58, 1.5 miles (2.4 km) northwest of Carlisle, and 7.2 miles (11.6 km) upstream from mouth.

DRAINAGE AREA.--228 mi^2 (591 km^2).

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

REVISED RECORDS.--WSP 1335: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 425.36 ft (129.650 m) National Geodetic Vertical Datum of 1929 (Indiana State Highway Commission 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 (61 m) upstream at same datum.

REMARKS.--Records good. Flow affected by U.S. Soil Conservation Service floodwater-retarding structures and surface-mined areas.

AVERAGE DISCHARGE.--38 years, 222 ft^3/s (6.287 m^3/s), 13.22 in/yr (336 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,800 ft^3/s (249 m^3/s) Jan. 5, 1950, gage height, 20.05 ft (6.111 m); maximum gage height, 20.30 ft (6.187 m) May 9, 1961; no flow many days in 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,200 ft^3/s (62.3 m^3/s) and maximum(*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 27	1400	4420	125.2	17.19	5.240

Minimum daily discharge, 13 ft^3/s (0.368 m^3/s) Oct. 13 and Sept. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	40	85	25	38	115	66	211	1710	43	24	97
2	24	31	74	24	67	104	54	147	828	41	24	122
3	23	27	70	24	81	91	48	112	399	39	24	75
4	22	24	66	23	55	97	48	90	295	39	25	51
5	20	23	58	23	38	814	70	84	239	48	103	38
6	19	21	53	22	34	1010	69	242	228	70	489	30
7	18	21	51	22	30	554	54	244	188	55	115	26
8	18	22	50	22	26	310	49	146	141	42	75	24
9	17	21	80	21	24	229	49	109	115	37	57	22
10	17	20	109	21	256	186	149	671	1220	84	62	21
11	15	18	94	21	984	155	214	1400	1590	50	93	19
12	14	18	75	20	857	131	414	1420	1580	39	48	18
13	13	19	67	20	504	115	528	1290	1220	35	39	13
14	14	17	58	21	297	99	282	1030	530	31	34	15
15	16	17	54	23	251	89	183	1340	305	29	65	19
16	14	18	52	24	628	92	135	1380	193	40	71	21
17	31	21	47	23	1020	81	117	1320	145	37	49	25
18	77	30	43	22	671	72	140	1310	118	31	38	21
19	49	31	39	22	458	65	110	1740	100	28	32	19
20	33	27	26	21	408	62	242	1650	92	48	29	17
21	44	23	25	20	318	64	182	1420	86	74	27	16
22	45	24	28	36	254	60	137	822	90	47	25	16
23	44	22	31	34	266	54	904	446	80	36	22	16
24	47	23	33	33	284	47	1000	546	73	32	20	16
25	92	22	29	33	234	46	451	1390	63	29	20	19
26	77	20	27	38	179	46	255	1350	57	29	20	19
27	64	68	27	44	146	44	186	3580	52	28	62	19
28	92	183	27	40	128	51	143	3480	48	29	75	19
29	98	145	26	36	----	50	221	3480	45	30	90	18
30	78	108	25	29	----	96	277	3220	44	29	55	30
31	63	----	25	24	----	95	----	2470	-----	27	59	----
TOTAL	1224	1104	1554	811	8536	5124	6777	38140	11874	1256	1971	881
MEAN	39.5	36.8	50.1	26.2	305	165	226	1230	396	40.5	63.6	29.4
MAX	98	183	109	44	1020	1010	1000	3580	1710	84	489	122
MIN	13	17	25	20	24	44	48	84	44	27	20	13
CFSM	.17	.16	.22	.12	1.34	.72	.99	5.40	1.74	.18	.28	.13
IN.	.20	.18	.25	.13	1.39	.84	1.11	6.22	1.94	.20	.32	.14

CAL YR 1980 TOTAL 68387 MEAN 187 MAX 1880 MIN 12 CFSM .82 IN 11.16
WTR YR 1981 TOTAL 79252 MEAN 217 MAX 3580 MIN 13 CFSM .95 IN 12.93

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 (9.1 m) east of Illinois State Highway 33, 300 ft (91 m) upstream from Kelso Creek, 570 ft (174 m) downstream from U.S. Highway 50 bridge, 5.1 miles (8.2 km) downstream from Maria Creek, 7.5 miles (12.1 km) upstream from Embarras River and at mile 129.6 (208.5 km) .

DRAINAGE AREA.--13,706 mi² (35,498 km²).

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 miles (2.9 km) 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. WRD Ind. 1973: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 394.43 ft (120.222 m) National Geodetic Vertical Datum of 1929. Oct. 1, 1968, to June 19, 1979, recording gage at site 570 ft (174 m) upstream at same datum. Oct. 1, 1960, to September 30, 1968, nonrecording gage at site 1.8 miles (2.9 km) downstream at same datum. Oct. 1, 1960, to Sept. 30, 1968, auxiliary water-stage recorder at site 2.8 miles (4.5 km) upstream from base gage at datum 0.80 ft (0.244 m) lower. See WSP 1725 for history of changes prior to Oct. 1, 1960.

REMARKS.--Records good. Flow partially regulated by upstream reservoirs.

AVERAGE DISCHARGE.--52 years, 11,810 ft³/s (334.5 m³/s), 11.70 in/yr (297 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 189,000 ft³/s (5,350 m³/s) May 22, 23, 1943, gage height, 29.33 ft (8.940 m), at former site 1.8 miles (2.9 km) downstream and at present datum; minimum daily, 770 ft³/s (21.8 m³/s) Aug. 4, 5, 1934.
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 29, 1913, reached a stage of 26.3 ft (8.02 m), at former site 1.8 miles (2.9 km) downstream and at present datum, from floodmarks, determined by Corps of Engineers, discharge, 255,000 ft³/s (7,220 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 60,500 ft³/s (1,710 m³/s) May 22, gage height, 22.82 (6.956 m); minimum daily, 2,100 ft³/s (59.5 m³/s) Jan. 11-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3950	4060	3390	3330	3500	15800	3840	17900	29100	18300	21500	19800
2	3880	3880	3480	3440	3890	15100	3720	20600	24700	16700	17700	25100
3	3710	3840	3510	3350	4280	14000	3700	20900	21300	16900	15300	28200
4	3560	3860	3460	3210	4140	13200	3620	19300	19000	17500	13100	30200
5	3430	3770	3420	3150	3330	13300	3720	17400	17100	17500	11300	31200
6	3360	3990	3350	2860	2770	13800	3890	16400	16100	16700	11700	32200
7	3290	4020	3290	2590	2600	12900	3950	16900	15400	22300	17300	31700
8	3330	3620	3330	2330	2910	11400	3980	16600	15500	21800	20700	27800
9	3290	3310	3410	2220	3260	10400	3860	15900	16800	20000	19400	21000
10	3280	3140	3490	2200	3850	9200	3960	16300	19500	18600	17300	16200
11	3270	3160	3590	2100	5530	8200	4140	22400	25600	17800	14800	13800
12	3200	3730	4060	2100	5380	7620	6090	26500	25200	16700	13200	11700
13	3090	4310	5320	2100	4700	7270	9230	28500	23500	15800	13000	10000
14	3050	4290	6040	2100	3950	6940	10200	30300	22000	14800	11700	9300
15	3060	3870	5840	2100	3670	6610	12000	31800	19900	14000	9870	8800
16	2980	3360	5310	2100	4440	6330	14400	33400	19700	14000	9430	9300
17	3160	3200	5040	2100	7590	6060	17400	35900	22100	16900	10100	8600
18	3560	3510	4860	2200	11700	5740	20100	40100	23900	17800	11100	8600
19	3580	3890	4480	2200	17800	5450	21300	46700	25100	15800	10900	8780
20	3480	3970	4130	2300	20800	5160	21600	52700	25900	15300	9580	8770
21	3450	3670	3880	2400	21400	4900	20400	57300	26400	14800	8000	8410
22	3630	3210	3600	2500	21500	4720	18000	59800	26200	18100	6960	7980
23	4030	3070	3110	2520	21200	4620	17000	59800	24800	18000	6260	7830
24	4140	3160	2640	2620	20600	4510	18700	57800	23700	16800	5950	7420
25	3910	3470	2660	2630	19400	4350	18200	55800	23700	14500	5890	6910
26	3750	3550	3070	2660	18100	4160	16300	51300	24100	12600	5590	6290
27	3670	3760	2990	2700	17100	4050	14600	52400	23800	11600	5430	5800
28	3730	3710	2770	2830	16400	4030	13100	49200	23200	14800	6520	5590
29	4020	3430	2630	2930	------	3930	12100	44100	22900	21800	10200	6510
30	4390	3310	2750	3120	------	3900	12900	38900	21200	24300	15700	9050
31	4360	------	3110	3250	------	3870	------	33700	------	24200	16400	------
TOTAL	110590	109120	116010	80240	275790	241520	336000	1086600	667400	536700	371880	432840
MEAN	3567	3637	3742	2588	9850	7791	11200	35050	22250	17310	12000	14430
MAX	4390	4310	6040	3440	21500	15800	21600	59800	29100	24300	21500	32200
MIN	2980	3070	2630	2100	2600	3870	3620	15900	15400	11600	5430	5590
CFSM	.26	.27	.27	.19	.72	.57	.82	2.56	1.62	1.26	.88	1.05
IN.	.30	.30	.31	.22	.75	.66	.91	2.95	1.81	1.46	1.01	1.17

CAL YR 1980 TOTAL 4185150 MEAN 11430 MAX 41900 MIN 2630 CFSM .83 IN 11.36
WTR YR 1981 TOTAL 4364690 MEAN 11960 MAX 59800 MIN 2100 CFSM .87 IN 11.85

03345500 EMBARRAS RIVER AT STE. MARIE, IL

LOCATION.--Lat 38°56'10", long 88°01'10", in NW¼NW¼ sec.30, T.6 N., R.14 W., Lawrence County, IL, Hydrologic Unit 05120112, on right bank at upstream side of hgihway bridge at Ste. Marie and at mile 48.2 (77.6 km).

DRAINAGE AREA.--1,516 mi² (3,926 km²).

PERIOD OF RECORD.--October 1909 to December 1912, August 1914 to current year.

REVISED RECORDS.--WSP 1083: 1943. WSP 1113: 1910-31, 1933, 1939-40, 1945(M). WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 445.75 ft (135.865 m) National Geodetic Vertical Datum of 1929. (levels by Corps of Engineer). Prior to June 29, 1940, nonrecording gage and June 29, 1940, to Jan. 24, 1967, water-stage recorder at same site at datum 1.00 ft (0.305 m) higher.

REMARKS.--Water-discharge records good except those for winter periods, which are poor.

AVERAGE DISCHARGE.--70 years, 1,208 ft³/s (34.21 m³/s), 10.82 in/yr (275 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44,800 ft³/s (1,270 m³/s) Jan. 4, 1950, gage height, 25.95 ft (7.910 m), present datum, from rating curve extended above 29,000 ft³/s (821 m³/s); maximum gage height, 26.54 ft (8.089 m), present datum, June 30, 1957; minimum discharge, 1 ft³/s (0.028 m³/s) Oct. 5-9, 1914.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 6,500 ft³/s (180 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 21	1945	*7470	212	*17.97	5.477
Sep. 3	1215	7070	200	17.51	5.337

Minimum daily discharge, 57 ft³/s (1.61 m³/s) Nov. 13, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	162	90	159	110	80	745	252	1250	1450	455	2030	4200
2	152	89	186	120	80	671	240	1230	1280	438	1570	6100
3	145	85	175	120	83	596	230	1170	1170	547	1010	6920
4	136	84	153	110	85	553	251	1020	1060	559	734	5340
5	130	82	154	100	85	962	308	869	980	624	628	2890
6	127	78	179	95	80	1250	304	886	909	578	1650	1990
7	118	75	191	90	78	1090	271	1040	846	1370	1700	1560
8	114	74	190	90	76	1040	258	1070	785	2360	1450	1300
9	109	71	197	85	74	898	249	965	724	3000	1830	1120
10	106	67	213	80	80	771	240	1630	2200	3040	1730	976
11	99	62	211	80	150	678	336	3370	5430	2150	1860	860
12	96	59	205	75	400	609	449	3820	5470	1260	1710	759
13	92	57	259	75	350	562	979	3170	2550	906	1600	675
14	88	57	284	75	350	516	1680	3200	1980	733	1390	619
15	86	58	275	75	396	481	2000	3490	1910	639	1770	954
16	83	59	255	75	1250	451	2120	3820	1870	593	4350	1710
17	89	60	239	75	3590	426	1880	3350	1630	526	3560	1160
18	98	64	222	75	3240	405	1510	3900	1360	486	2310	1040
19	92	65	207	75	2180	387	1230	6090	1190	478	2150	928
20	81	65	200	76	1840	366	1040	6860	1060	785	1800	846
21	86	65	200	80	1820	351	941	7390	944	883	1370	779
22	84	66	190	85	1530	335	816	7010	856	498	985	721
23	80	69	180	90	1320	319	1510	6450	904	425	751	680
24	78	73	180	100	1160	302	2490	5940	866	407	631	650
25	78	69	190	110	1040	285	2010	5440	782	368	554	620
26	78	70	190	110	978	268	1770	4160	685	1370	504	600
27	77	77	170	112	938	257	1490	4660	614	897	976	580
28	89	84	150	102	837	251	1120	3240	565	2150	1940	560
29	88	93	130	96	-----	253	1020	2140	520	2170	4120	600
30	87	113	120	90	-----	263	1100	1850	480	1540	4540	1500
31	87	----	110	85	-----	258	-----	1670	-----	1940	4260	-----
TOTAL	3115	2180	5964	2816	24170	16599	30094	102150	43070	34175	57463	49237
MEAN	100	72.7	192	90.8	863	535	1003	3295	1436	1102	1854	1641
MAX	162	113	284	120	3590	1250	2490	7390	5470	3040	4540	6920
MIN	77	57	110	75	74	251	230	869	480	368	504	560

CAL YR 1980 TOTAL 283635 MEAN 775 MAX 7380 MIN 57
WTR YR 1981 TOTAL 371033 MEAN 1017 MAX 7390 MIN 57

03346000 NORTH FORK EMBARRAS RIVER NEAR OBLONG, IL

LOCATION.--Lat 39°00'37", long 87°56'47", in NW¼NW¼ sec.35, T.7 N., R.14 W., Crawford County, Illinois, Hydrologic Unit 05120112, on left bank at downstream side of bridge on State Highway 33, 0.8 mi (1.3 km) upstream from Illinois Central Gulf Railroad bridge, 2 mi (3 km) west of Oblong, and at mile 10.5 (16.9 km).

DRAINAGE AREA.--318 mi^2 (824 km^2).

PERIOD OF RECORD.--October 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 456.19 ft (139.047 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 11, 1940, nonrecording gage and Dec. 11, 1940, to Sept. 30, 1964, water-stage recorder at same site at datum 2.00 ft (0.610 m) higher. Oct. 8, 1971, to May 15, 1979, water-stage recorder at site 0.8 mi (1.3 km) downstream at present datum.

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

AVERAGE DISCHARGE.--40 years, 251 ft^3/s (7.108 m^3/s), 10.69 in/yr (272 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,100 ft^3/s (767 m^3/s) Jan. 4, 1950, gage height, 24.38 ft (7.431 m), present datum, from rating curve extended above 16,000 ft^3/s (453 m^3/s); no flow for many days in 1953-54, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,860 ft^3/s (109 m^3/s) Mar. 31, gage height, 17.31 ft (5.276 m), no peak above base of 4,000 ft^3/s (119 m^3/s); minimum daily discharge, 6.8 ft^3/s (0.19 m^3/s) Oct. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	9.7	46	12	8.0	74	28	182	174	19	18	904
2	15	8.6	56	11	9.0	65	25	99	139	18	13	1950
3	14	7.9	50	13	10	56	23	68	113	18	11	2520
4	13	6.8	41	11	9.0	54	24	54	90	100	10	2620
5	12	6.4	31	11	8.5	334	43	47	76	50	15	627
6	12	6.0	26	8.6	8.0	577	56	133	66	35	267	197
7	11	5.8	24	8.5	7.5	228	37	185	61	30	438	134
8	11	5.5	22	8.5	7.5	137	30	100	53	24	97	104
9	11	5.8	26	8.6	7.0	106	29	69	45	20	47	88
10	10	5.8	35	8.8	8.0	91	30	629	1100	36	55	74
11	9.9	5.5	37	8.9	50	80	80	1970	2410	20	403	61
12	8.5	5.5	37	8.9	200	71	109	1510	3190	15	170	51
13	8.2	5.7	31	9.0	100	64	181	351	654	14	76	44
14	7.7	6.5	26	8.5	80	59	140	473	199	12	43	40
15	7.7	6.1	23	8.5	134	52	89	1360	134	11	261	279
16	7.3	6.0	21	8.5	738	49	63	1450	100	11	924	242
17	11	6.8	21	8.7	1620	47	51	337	77	24	270	121
18	23	7.5	19	9.1	1410	44	47	809	66	16	110	104
19	16	8.1	16	8.2	600	41	47	2180	55	13	67	100
20	14	9.1	13	8.6	380	38	82	3020	50	54	47	76
21	10	9.6	13	9.8	272	36	132	1500	45	90	36	58
22	8.9	8.8	11	11	198	34	83	293	40	30	30	46
23	6.7	9.0	11	10	287	33	580	193	37	18	26	37
24	6.5	9.4	11	11	320	31	733	286	34	14	23	31
25	6.6	9.5	11	11	253	29	213	1480	30	11	20	28
26	6.4	10	11	11	150	28	128	1030	28	14	41	26
27	7.1	13	10	10	108	27	97	1650	25	11	1100	25
28	9.0	16	10	9.0	86	27	77	1660	22	23	1110	24
29	14	18	11	8.5	------	27	129	421	20	166	617	24
30	13	31	11	8.5	------	27	185	267	19	70	362	31
31	11	-----	11	8.0	------	29	----	365	----	28	267	-----
TOTAL	341.5	269.4	722	295.7	7068.5	2595	3571	24171	9152	1015	6974	10666
MEAN	11.0	8.98	23.3	9.54	252	83.7	119	780	305	32.7	225	356
MAX	23	31	56	13	1620	577	733	3020	3190	166	1110	2620
MIN	6.4	5.5	10	8.0	7.0	27	23	47	19	11	10	24

CAL YR 1980 TOTAL 66959.9 MEAN 183 MAX 3250 MIN 5.5
WTR YR 1981 TOTAL 66841.1 MEAN 183 MAX 3190 MIN 5.5

03346900 PRAIRIE CREEK RESERVOIR NEAR MUNCIE, IN

LOCATION.--Lat 40°08'46", long 85°17'35", in NE¼NE¼ sec.32, T.20 N., R.11 E., Delaware County, Hydrologic Unit 05120201, at intake tower of reservoir on Prairie Creek, 0.3 mile (0.5 km) above mouth, and 5.8 miles (9.3 km) southeast of Muncie.

DRAINAGE AREA.--16.8 mi^2 (43.5 km^2).

PERIOD OF RECORD.--1962 to current year.

GAGE.--Water-stage recorder.

REMARKS.--Reservoir is formed by earth-fill dam. Releases normally controlled by three 24-inch (610 mm) valves. Capacity at uncontrolled spillway elevation, 990 ft (301.8 m) is 21,900 acre-ft (27.0 hm^3). Reservoir is used for low-flow augmentation of the water supply for Muncie and recreation. Reservoir was filled for the first time in the spring of 1963.

COOPERATION.--Records furnished by Muncie Water Works Company.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	989.2	20,860	
Oct. 31	988.0	19,410	-1,450
Nov. 30	988.0	19,410	0
Dec. 31	988.5	20,010	+600
CAL YR 1980			+1,850
Jan. 31	989.0	20,610	+600
Feb. 28	989.2	20,860	+250
Mar. 31	989.3	20,980	+120
Apr. 30	990.0	21,850	+870
May 31	990.0	21,850	0
June 30	990.0	21,850	0
July 31	990.0	21,850	0
Aug. 31	990.0	21,850	0
Sept. 30	989.8	21,600	-250
WTR YR 1981			+740

Diversion for municipal supply for City of Muncie

Water supply for the city of Muncie is from White River and augmented by Prairie Creek Reservoir. Water is diverted at Muncie Water Works on Burlington Drive, 3.0 miles (4.8 km) upstream from White River at Muncie (03347000) and returned at sewage disposal plant 3.9 miles (6.3 km) downstream from station.

Diversion, monthly and yearly means in ft^3/s

Oct.	Nov.	Dec.	1980 Cal. year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	1981 Water year
19.6	18.6	18.4	19.0	19.2	18.9	17.0	16.6	16.7	16.6	17.6	16.5	16.9	17.7

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 (61 m) downstream from Walnut Street bridge in Muncie, 6 miles (10 km) upstream from Bell Creek, and at mile 315.8 (508.1 km).

DRAINAGE AREA.--241 mi^2 (624 km^2).

WATER-DISCHARGE RECORDS

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 from 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 (279.532 m) 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 (0.914 m) higher.

REMARKS.--Records good except those for winter periods, which are fair. Natural flow affected by regulation of Prairie Creek Reservoir and by diversion of municipal water supply by Muncie Water Works Co. (See sta 03346900). Records of diversion available since October 1937.

AVERAGE DISCHARGE.--50 years (1931 to current year), 208 ft^3/s (5.890 m^3/s), 11.71 in/yr (297 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,300 ft^3/s (405 m^3/s) Apr. 21, 1964, gage height, 14.98 ft (4.566 m) present datum; maximum gage height, 21.07 ft (6.422 m) Jan. 15, 1937, present datum; minimum daily discharge, 1.1 ft^3/s (0.031 m^3/s) Sept. 16, 17, 23-25, 1954, and Oct. 10, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 22.6 ft (6.89 m) in March 1913, presentdatum,discharge, 20,000 ft^3/s (566 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,500 ft^3/s (70.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 11	2100	----	----	7.94[a]	2.420	June 6	2200	*4170	118	*8.96	2.731
May 28	0900	2900	82.1	7.79	2.374						

Minimum daily discharge, 15 ft^3/s (.425 m^3/s) Aug. 22, 23.

[a]Backwater from ice.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	42	39	31	50	139	47	678	519	324	90	59
2	23	42	41	30	64	120	39	687	377	220	76	52
3	22	39	42	28	82	105	44	426	300	132	68	53
4	25	37	38	26	61	100	64	302	244	95	59	70
5	26	37	35	24	52	135	84	275	385	140	55	58
6	24	39	35	23	47	172	85	704	3520	110	135	44
7	21	38	36	25	45	150	68	678	2830	86	96	37
8	21	38	39	29	44	123	63	382	1080	68	76	37
9	19	38	58	28	44	104	54	274	587	58	60	34
10	31	37	91	27	100	96	61	233	444	50	52	31
11	32	37	80	26	350	92	94	236	337	47	64	25
12	33	36	66	26	950	88	404	254	269	41	42	22
13	32	31	56	27	340	81	738	221	246	40	36	21
14	32	30	49	29	265	75	991	568	280	69	33	37
15	32	32	43	31	250	70	526	1600	243	64	31	21
16	32	32	40	33	450	67	313	1190	187	45	26	26
17	40	33	38	35	1210	66	264	703	153	42	22	27
18	39	31	36	37	654	62	248	587	131	35	21	26
19	43	32	36	38	524	60	193	993	116	67	18	24
20	36	31	27	40	456	56	166	618	104	1020	18	24
21	34	30	33	42	345	52	138	389	100	787	18	20
22	33	33	31	41	276	50	126	288	132	369	15	37
23	33	35	29	40	298	46	223	232	125	205	15	45
24	40	33	29	36	344	44	267	282	106	141	17	47
25	42	32	31	36	274	43	197	766	107	111	20	47
26	55	24	32	65	208	43	152	492	88	120	22	37
27	48	32	31	78	168	41	128	1370	77	191	44	43
28	46	46	31	66	150	41	123	2460	70	583	53	32
29	43	52	32	56	----	43	526	1210	62	280	43	40
30	44	41	33	50	----	53	558	764	56	172	65	39
31	42	----	32	47	----	50	----	779	-----	118	66	----
TOTAL	1043	1070	1269	1150	8101	2467	6984	20641	13275	5830	1456	1115
MEAN	33.6	35.7	40.9	37.1	289	79.6	233	666	443	188	47.0	37.2
MAX	55	52	91	78	1210	172	991	2460	3520	1020	135	70
MIN	19	24	27	23	44	41	39	221	56	35	15	20
CFSM	.14	.15	.17	.15	1.20	.33	.97	2.76	1.84	.78	.20	.15
IN.	.16	.17	.20	.18	1.25	.38	1.08	3.19	2.05	.90	.22	.17

CAL YR 1980 TOTAL 81156 MEAN 222 MAX 4890 MIN 19 CFSM .92 IN 12.53
WTR YR 1981 TOTAL 64401 MEAN 176 MAX 3520 MIN 15 CFSM .73 IN 9.94

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 mile (1.6 km) upstream from Muncie Water Works Co. pumping station, 4.2 miles (6.8 km) southeast of court house in Muncie, and at mile 10.6 (17.0 km).

DRAINAGE AREA.--35.5 mi^2 (91.9 km^2).

WATER-DISCHARGE RECORDS

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 (287.935 m) National Geodetic Vertical Datum of 1929. Prior to May 5, 1955, nonrecording gage at same site and datum.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--27 years, 32.2 ft^3/s (.912 m^3/s), 13.66 in/yr (347 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,780 ft^3/s (50.4 m^3/s) Apr. 21, 1964, gage height, 13.96 ft (4.255 m); minimum daily, 4.7 ft^3/s (0.13 m^3/s) Jan. 17, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 15 ft (4.6 m), from information by local residents. Date unknown.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 400 ft^3/s (11.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 11	0300	518	14.67	8.30	2.530	June 6	0400	*842	23.85	*10.41	3.173
May 27	1700	802	22.71	10.19	3.106						

Minimum daily discharge, 10 ft^3/s (.28 m^3/s) Jan. 5.

NOTE.--No gage-height record Dec. 3 to Jan. 7, Mar. 3 to Apr. 8.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DISCHARGE: June 1979 to September 1980.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	19	21	12	17	26	12	44	61	24	30	26
2	20	19	23	12	18	25	13	36	52	23	28	27
3	19	19	21	11	26	23	14	30	46	22	28	77
4	19	19	20	11	20	22	17	27	41	23	28	56
5	21	19	19	10	17	31	16	26	54	27	42	37
6	20	18	18	14	15	29	14	77	380	26	79	30
7	19	18	18	16	13	27	13	51	102	23	39	28
8	19	18	20	18	12	24	17	38	68	21	32	27
9	19	18	27	17	19	23	18	34	55	21	29	25
10	18	17	24	16	51	22	19	32	51	21	34	22
11	19	17	21	15	229	21	25	33	44	19	47	21
12	20	17	19	14	55	20	64	97	42	19	31	20
13	20	17	17	13	38	20	57	32	42	19	28	19
14	19	17	16	14	24	19	53	97	44	19	27	18
15	17	18	15	15	61	19	36	119	37	19	27	18
16	17	17	14	13	161	19	31	68	35	19	26	18
17	20	17	14	17	87	18	33	47	33	18	25	18
18	24	17	14	16	63	18	28	76	32	18	24	17
19	23	17	13	12	57	18	25	78	31	70	24	17
20	21	17	12	12	51	17	24	48	31	195	22	17
21	19	17	12	12	42	16	22	38	30	158	22	17
22	18	16	12	12	39	15	23	33	31	64	22	17
23	18	16	13	12	40	14	42	30	27	45	21	18
24	21	17	14	13	38	14	34	34	25	37	21	17
25	25	16	13	14	34	14	28	147	25	33	22	17
26	20	16	12	17	31	13	24	80	24	37	22	17
27	19	22	12	15	29	13	23	440	23	93	25	18
28	22	24	13	13	28	14	22	250	23	72	24	18
29	20	21	15	12	----	15	66	109	22	46	23	18
30	19	20	14	12	----	14	45	95	23	37	39	20
31	19	----	13	13	----	13	----	84	----	32	31	----
TOTAL	612	540	509	423	1315	596	858	2430	1534	1300	922	715
MEAN	19.7	18.0	16.4	13.6	47.0	19.2	28.6	78.4	51.1	41.9	29.7	23.8
MAX	25	24	27	18	229	31	66	440	380	195	79	77
MIN	17	16	12	10	12	13	12	26	22	18	21	17
CFSM	.56	.51	.46	.38	1.32	.54	.81	2.21	1.44	1.18	.84	.67
IN.	.64	.57	.53	.44	1.38	.62	.90	2.55	1.61	1.36	.97	.75

CAL YR 1980 TOTAL 15088 MEAN 41.2 MAX 520 MIN 12 CFSM 1.16 IN 15.81
WTR YR 1981 TOTAL 11754 MEAN 32.2 MAX 440 MIN 10 CFSM .91 IN 12.32

03347500 BUCK CREEK NEAR MUNCIE, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
JAN							
07...	1410	16	27	1.2	--	--	--
FEB							
19...	1330	55	91	14	--	--	--
APR							
08...	1210	17	136	6.2	--	--	--
MAY							
13...	1500	31	80	6.7	14	21	31
18...	1355	76	147	30	--	--	--
18...	1700	124	249	83	--	--	--
18...	1905	137	272	101	--	--	--
19...	0632	87	120	28	--	--	--
AUG							
06...	1135	70	24	4.6	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM
JAN						
07...	--	--	--	--	---	---
FEB						
19...	--	--	--	--	---	---
APR						
08...	--	--	85	--	---	---
MAY						
13...	47	65	80	88	96	100
18...	--	--	96	99	100	---
18...	--	--	93	97	98	100
18...	--	--	94	97	99	100
19...	--	--	92	--	---	---
AUG						
06...	--	--	98	--	---	---

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 (76 m) upstream from municipal water-supply plant in Anderson, 1 mile (2 km) upstream from Killbuck Creek, and at mile 293.3 (471.9 km).

DRAINAGE AREA.--406 mi^2 (1,052 km^2).

PERIOD OF RECORD.--July 1925 to September 1926, October 1931 to current year. Monthly discharge only for some periods, published in WSP 1305. Gage-height records collected at site 950 ft (290 m) downstream December 1910 to February 1918, 250 ft (76 m) 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. Datum of gage is 825.02 ft (251.466 m) 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 (76 m) downstream at same datum. Sept. 15, 1973, to Sept. 23, 1976, nonrecording gage at present site and datum.

REMARKS.--Records good, except those for winter periods which are fair. Prior to Sept. 15, 1973, the City of Anderson diverted water for its municipal supply above the gage then in use.

AVERAGE DISCHARGE.--51 years, 316 ft^3/s (8.95 m^3/s), 12.68 in/yr (322 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,700 ft^3/s (530 m^3/s) Apr. 21, 1964, gage height, 19.41 ft (5.916 m); maximum gage height, 19.96 ft (6.084 m) June 14, 1958; minimum daily discharge, 9.1 ft^3/s (0.26 m^3/s) Sept. 24, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 23.6 (7.19 m) Mar. 25, 1913, at site 250 ft (76 m) downstream and at present datum, based on determination of National Weather Service at site then in use, discharge, 28,000 ft^3/s (793 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,700 ft^3/s (76.5 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 28	1000	4690	133	10.75	3.277
June 6	2200	*5330	151	*11.28	3.438

Minimum daily discharge, 62 ft^3/s (1.76 m^3/s) Jan. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	109	122	84	104	205	122	811	1040	199	212	196
2	100	107	126	74	120	188	117	919	765	453	190	166
3	96	108	131	66	141	177	117	590	605	265	181	174
4	91	109	119	62	114	171	168	409	505	221	178	297
5	91	107	112	75	100	202	197	360	514	219	170	210
6	89	107	108	86	93	239	182	761	4200	244	331	166
7	91	111	110	89	89	227	166	1140	4620	210	282	147
8	91	110	113	86	88	200	155	613	2050	185	208	150
9	87	111	150	85	88	182	147	439	1130	174	180	138
10	82	105	175	84	121	171	149	372	796	159	161	128
11	96	106	177	82	866	163	209	366	626	150	231	122
12	96	105	155	82	1060	157	472	387	518	143	189	114
13	98	107	136	84	408	157	915	367	465	138	159	110
14	105	102	123	86	322	147	1210	598	552	143	146	128
15	105	103	117	87	297	142	723	2080	460	169	143	127
16	103	102	117	90	791	139	423	1880	380	154	138	106
17	119	103	109	92	1550	136	359	1180	328	140	129	120
18	155	110	105	95	1010	131	329	893	287	134	122	104
19	119	104	100	97	764	126	266	1500	262	205	116	97
20	117	104	90	99	591	124	238	1070	251	1080	111	92
21	112	103	97	100	482	122	205	684	248	1590	106	92
22	112	98	102	96	378	119	195	512	286	740	102	90
23	103	100	99	90	359	114	304	422	281	382	100	106
24	102	105	92	89	417	117	391	417	233	268	101	113
25	148	105	84	93	370	112	293	1780	368	225	102	112
26	121	98	88	120	295	110	231	1280	240	240	97	113
27	122	108	93	141	242	110	204	2230	209	331	103	132
28	137	144	89	135	220	107	194	4270	194	887	118	115
29	123	134	88	115	-----	112	724	2470	183	500	111	111
30	113	129	95	100	-----	139	878	1570	176	319	205	132
31	114	----	90	91	-----	126	-----	1430	-----	249	207	----
TOTAL	3327	3254	3512	2855	11480	4672	10283	33800	22772	10516	4929	4008
MEAN	107	108	113	92.1	410	151	343	1090	759	339	159	134
MAX	155	144	177	141	1550	239	1210	4270	4620	1590	331	297
MIN	82	98	84	62	88	107	117	360	176	134	97	90
CFSM	.26	.27	.28	.23	1.01	.37	.85	2.69	1.87	.84	.39	.33
IN.	.30	.30	.32	.26	1.05	.43	.94	3.10	2.09	.96	.45	.37

CAL YR 1980 TOTAL 156322 MEAN 427 MAX 7310 MIN 82 CFSM 1.05 IN 14.32
WTR YR 1981 TOTAL 115408 MEAN 316 MAX 4620 MIN 62 CFSM .78 IN 10.57

03348020 KILLBUCK CREEK NEAR GASTON, IN

LOCATION.--Lat 40°15'45", long 85°30'53", in SE¼SW¼ sec.16, T.21 N., R.9 E., Delaware County, Hydrologic Unit 05120201, on right bank 30 ft (9 m) upstream from bridge on County Road 500 North, 3.6 miles (5.8 km) southwest of Gaston, and at mile 15.6 (25.1 km).

DRAINAGE AREA.--25.5 mi^2 (66.0 km^2).

WATER-DISCHARGE RECORDS PERIOD OF RECORD.--June 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 873.00 ft (266.090 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--13 years, 25.0 ft^3/s (.708 m^3/s), 13.31 in/yr (338 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1200 ft^3/s (34.0 m^3/s) June 2, 1980, gage height, 12.70 ft (3.871 m) minimum daily, 0.76 ft^3/s (0.022 m^3/s) Jan. 19, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 250 ft^3/s (7.08 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 28	0600	*267	7.56	*9.67	2.947

Minimum daily discharge, 4.3 ft^3/s (.122 m^3/s) Sep. 26.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DISCHARGE: October 1977 to September 1980 (partial-record station).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	6.7	6.4	6.2	7.4	23	8.1	107	48	10	23	26
2	7.4	6.6	6.4	6.0	11	22	7.7	106	40	10	19	26
3	7.9	6.5	6.0	5.8	9.2	20	7.7	62	34	12	20	46
4	7.6	6.4	5.6	5.5	7.4	19	9.4	41	29	9.8	17	55
5	7.4	6.4	5.6	5.1	6.7	24	13	32	33	9.3	15	29
6	7.2	6.3	5.5	5.4	6.5	34	11	96	148	8.6	15	22
7	7.0	6.2	5.6	5.4	6.4	28	9.4	82	90	7.7	24	17
8	7.0	6.2	6.2	5.5	6.3	24	8.8	47	50	7.1	22	15
9	6.6	6.0	11	5.2	6.3	22	8.5	46	36	6.8	15	13
10	6.3	5.6	17	5.1	9.9	21	8.0	62	32	6.7	12	11
11	6.2	5.5	12	5.0	61	20	12	60	27	6.3	11	10
12	6.0	5.4	9.9	4.8	29	19	96	50	23	6.0	9.9	9.2
13	5.7	5.5	8.8	4.9	18	18	101	39	31	6.0	9.1	8.2
14	5.5	5.7	7.9	5.0	11	17	79	80	203	7.3	8.7	8.0
15	5.5	5.8	7.9	5.1	18	16	52	186	114	6.2	9.0	8.9
16	5.6	5.4	7.7	5.2	66	15	37	120	56	6.0	8.6	8.0
17	6.7	5.0	7.1	5.1	81	14	33	75	37	5.7	8.1	8.9
18	9.6	4.9	7.0	5.0	59	13	30	72	30	5.4	7.7	8.0
19	8.4	4.8	6.7	5.0	56	12	24	94	26	6.7	7.5	7.1
20	6.4	4.7	6.1	5.1	62	12	22	60	23	39	7.1	6.5
21	6.2	4.7	5.8	5.2	50	11	19	43	23	35	7.0	6.0
22	6.1	4.7	6.0	5.2	42	11	18	35	36	19	6.9	5.6
23	6.0	4.6	6.2	5.2	40	10	22	31	26	12	6.7	5.2
24	6.3	4.7	6.3	5.2	39	9.3	22	29	21	9.9	6.5	4.8
25	7.9	4.6	6.0	6.6	35	8.8	18	174	26	8.3	6.4	4.6
26	7.9	4.5	5.7	12	29	8.5	15	116	22	83	6.2	4.3
27	7.0	5.0	5.8	10	26	8.3	14	165	17	108	6.3	4.8
28	7.9	6.6	5.8	8.3	25	8.0	13	239	14	88	7.0	5.3
29	7.9	6.2	6.1	7.2	-----	7.9	87	116	12	59	10	4.9
30	7.0	5.9	6.4	6.3	-----	9.0	71	75	11	38	29	5.8
31	6.7	-----	6.3	6.1	-----	8.9	-----	65	----	28	33	-----
TOTAL	214.1	167.1	222.8	182.7	824.1	493.7	876.6	2605	1318	670.8	393.7	394.1
MEAN	6.91	5.57	7.19	5.89	29.4	15.9	29.2	84.0	43.9	21.6	12.7	13.1
MAX	9.6	6.7	17	12	81	34	101	239	203	108	33	55
MIN	5.5	4.5	5.5	4.8	6.3	7.9	7.7	29	11	5.4	6.2	4.3
CFSM	.27	.22	.28	.23	1.15	.62	1.15	3.29	1.72	.85	.50	.51
IN.	.31	.24	.33	.27	1.20	.72	1.28	3.80	1.92	.98	.57	.57

CAL YR 1980 TOTAL 11337.3 MEAN 31.0 MAX 966 MIN 4.5 CFSM 1.22 IN 16.54
WTR YR 1981 TOTAL 8362.7 MEAN 22.9 MAX 239 MIN 4.3 CFSM .90 IN 12.20

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 (6 m) downstream from bridge on County Road 500 West, at northeast edge of Frankton.

DRAINAGE AREA.--113 mi^2 (293 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 810.00 ft (246.888 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--13 years, 104 ft^3/s (2.945 m^3/s), 12.50 in/yr (318 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,340 ft^3/s (123 m^3/s) June 3, 1980, gage height, 14.78 ft (4.505 m); minimum daily, 4.2 ft^3/s (0.119 m^3/s) Oct. 6, 7, 1970.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 10, 1958, reached a stage of 15.5 ft (4.72 m), from floodmark determined by State of Indiana, Department of Natural Resources, discharge, 4,900 ft^3/s (139 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 700 ft^3/s (19.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 6	1900	1070	30.3	8.93	2.722
June 14	2100	*1200	34.0	*9.26	2.822

Minimum daily discharge, 8.9 ft^3/s (0.25 m^3/s) Jan. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	17	21	13	17	62	25	312	91	53	56	35
2	17	15	23	12	20	55	24	283	76	55	46	39
3	17	14	19	11	17	48	23	169	66	63	41	39
4	16	14	16	10	15	46	30	116	57	50	37	35
5	15	14	15	8.9	14	76	36	93	81	39	33	30
6	14	14	15	11	13	108	32	253	807	32	35	25
7	13	14	16	13	13	83	26	253	613	27	37	21
8	13	14	18	13	13	66	25	144	248	23	48	20
9	13	14	34	12	14	57	26	109	147	27	35	19
10	13	13	53	11	20	54	25	108	106	28	29	17
11	12	13	42	11	169	50	39	127	83	20	28	16
12	12	13	32	9.8	100	46	349	125	67	19	24	14
13	12	12	28	11	54	44	458	105	84	18	23	13
14	12	13	24	12	32	40	308	188	851	17	21	23
15	12	13	23	12	47	37	202	530	803	16	23	23
16	12	13	22	12	320	36	138	415	355	16	22	21
17	16	13	19	11	356	34	116	230	200	15	20	22
18	21	13	18	10	224	32	101	217	134	15	18	20
19	19	13	17	10	188	31	81	297	97	27	17	17
20	17	13	15	11	209	30	74	179	78	112	16	15
21	16	13	13	12	155	28	64	119	78	114	16	14
22	15	13	12	12	131	26	61	91	108	56	15	13
23	14	13	12	12	120	26	73	75	72	36	14	12
24	14	13	14	12	116	25	75	69	53	28	13	12
25	18	13	13	15	100	24	63	326	50	24	13	12
26	18	12	12	35	82	24	53	280	41	205	12	11
27	18	14	11	25	71	24	49	356	35	329	12	15
28	21	19	11	19	67	23	46	512	31	350	17	12
29	22	20	13	15	----	24	222	299	29	225	15	13
30	20	17	15	13	----	27	241	181	27	118	26	17
31	18	----	14	12	----	27	----	123	----	75	27	----
TOTAL	487	419	610	406.7	2697	1313	3085	6684	5568	2232	789	595
MEAN	15.7	14.0	19.7	13.1	96.3	42.4	103	216	186	72.0	25.5	19.8
MAX	22	20	53	35	356	108	458	530	851	350	56	39
MIN	12	12	11	8.9	13	23	23	69	27	15	12	11
CFSM	.14	.12	.17	.12	.85	.38	.91	1.91	1.65	.64	.23	.18
IN.	.16	.14	.20	.13	.89	.43	1.02	2.20	1.83	.73	.26	.20

CAL YR 1980 TOTAL 39652.6 MEAN 108 MAX 3640 MIN 7.7 CFSM .96 IN 13.05
WTR YR 1981 TOTAL 24885.7 MEAN 68.2 MAX 851 MIN 8.9 CFSM .60 IN 8.19

03349000 WHITE RIVER AT NOBLESVILLE, IN

LOCATION.--Lat 40°02'50", long 86°01'00", in SE¼SE¼ sec.36, T.19 N., R.4 E., Hamilton County, Hydrologic Unit 05120201, on right bank at downstream side of Logan Street bridge in Noblesville, 1.5 miles (2.4 km) upstream from Cicero Creek, 5.1 miles (8.2 km) downstream from dam at Clare, and at mile 263.5 (424.0 km).

DRAINAGE AREA.--858 mi^2 (2,222 km^2).

WATER-DISCHARGE RECORDS PERIOD OF RECORD.--October 1946 to current year. Gage-height records collected at present site from December 1913 to December 1935, and after June 1951, and at site 400 ft (122 m) 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 (224.991 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow slightly regulated by powerplant above station.

AVERAGE DISCHARGE.--35 years, 836 ft^3/s (23.68 m^3/s), 13.23 in/yr (336 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,800 ft^3/s (759 m^3/s) Apr. 22, 1964, gage height, 21.31 ft (6.495 m); minimum daily, 44 ft^3/s (1.25 m^3/s) Sept. 28, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 6,000 ft^3/s (170 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 29	0400	6170	175	12.20	3.719
June 7	1600	*6390	181	*12.43	3.789

Minimum daily discharge, 140 ft^3/s (3.96 m^3/s) Jan. 10-12.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
WATER TEMPERATURE: November 1952 to September 1976.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	206	227	234	200	201	550	259	1710	1940	369	663	630
2	210	213	236	194	214	497	244	1980	1490	590	554	562
3	214	208	246	170	178	447	238	1600	1230	577	490	489
4	203	206	237	160	170	425	297	1120	1040	496	458	498
5	195	197	225	150	170	512	366	899	918	449	916	528
6	193	196	216	152	170	675	366	1140	3650	448	840	387
7	190	198	213	150	170	670	339	2110	6200	422	775	320
8	189	205	223	148	165	558	303	1570	4610	371	526	291
9	185	201	252	142	165	476	285	1130	2250	331	428	272
10	178	194	341	140	219	438	287	1040	1590	342	351	252
11	174	190	383	140	910	415	340	1360	1260	306	322	232
12	180	192	354	140	1180	397	990	1440	1050	277	400	216
13	175	191	310	147	950	378	2240	1240	950	267	311	204
14	181	190	274	150	659	361	2200	1320	2030	262	270	208
15	183	187	254	150	641	341	1880	3460	2600	269	272	348
16	181	187	250	150	1220	325	1250	4180	1780	285	259	291
17	202	187	239	150	2720	315	984	2900	1110	260	237	335
18	260	195	226	150	2620	302	865	2130	875	242	222	298
19	248	201	214	156	1800	296	744	2770	738	350	206	258
20	213	194	188	159	1760	285	650	2540	650	1010	194	233
21	207	190	175	172	1530	274	570	1690	694	2460	185	217
22	199	185	182	177	1190	261	514	1260	832	1650	178	207
23	194	182	195	177	1030	250	631	1020	831	905	169	198
24	194	182	194	176	1040	246	784	881	643	647	163	211
25	219	189	195	179	1010	240	748	2590	660	524	163	214
26	251	186	181	210	832	237	596	3390	699	668	159	211
27	227	200	199	290	682	236	504	3460	519	1580	165	243
28	255	232	187	295	602	236	456	5610	446	2630	180	243
29	258	253	193	257	-----	233	972	5530	410	2410	198	233
30	239	249	207	223	-----	262	1980	3180	389	1400	1220	273
31	230	----	209	196	-----	283	-----	2340	-----	891	1100	----
TOTAL	6433	6007	7232	5450	24198	11421	22882	68590	44084	23688	12574	9102
MEAN	208	200	233	176	864	368	763	2213	1469	764	406	303
MAX	260	253	383	295	2720	675	2240	5610	6200	2630	1220	630
MIN	174	182	175	140	165	233	238	881	389	242	159	198
CFSM	.24	.23	.27	.21	1.01	.43	.89	2.58	1.71	.89	.47	.35
IN.	.28	.26	.31	.24	1.05	.50	.99	2.97	1.91	1.03	.55	.39

CAL YR 1980 TOTAL 338780 MEAN 926 MAX 16900 MIN 174 CFSM 1.08 IN 14.69
WTR YR 1981 TOTAL 241661 MEAN 662 MAX 6200 MIN 140 CFSM .77 IN 10.48

03350300 MORSE RESERVOIR NEAR NOBLESVILLE, IN

LOCATION.--Lat 40°04'21", long 86°02'47", in SE¼SW¼ sec.23, T.19 N., R.4 E., Hamilton County, Hydrologic Unit 05120201, in intake structure of reservoir on Cicero Creek, 2.5 miles (4.0 km) northwest of courthouse in Noblesville, and 4.8 miles (7.7 km) above mouth.

DRAINAGE AREA.--214 mi^2 (554 km^2).

PERIOD OF RECORD.--December 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 760.00 ft (231.648 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earth-fill dam. Releases normally controlled by two 36-inch (914 mm) valves or one 16-inch (406 mm) valve. Minimum design capacity is essentially empty at invert of outlet conduit at elevation of 763.50 ft (232.715 m). Capacity at uncontrolled spillway elevation, 810 ft (246.9 m) is 21,180 acre-ft (26.1 hm^3). Reservoir is used for water supply for Indianapolis and recreation. Reservoir put in operation on Dec. 9, 1955, and was filled for the first time on Feb. 3, 1957.

COOPERATION.--Records furnished by Indianapolis Water Company.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 25,310 acre-ft (31.2 hm^3) June 28, 1957, elevation, 812.95 ft (247.787 m); minimum, 14,120 acre-ft (17.4 hm^3) Jan. 5, 1964, elevation, 804.26 ft (245.138 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 22,340 acre-ft (27.5 hm^3) May 28, elevation, 810.84 ft (247.144 m); minimum, 21,060 acre-ft (26.0 hm^3) Oct. 14, elevation, 809.91 ft (246.861 m).

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	810.03	21,220	
Oct. 31	809.98	21,150	-70
Nov. 30	810 06	21,260	+110
Dec. 31	810.04	21,230	-30
CAL YR 1980			-300
Jan. 31	810.06	21,260	+30
Feb. 28	810.20	21,450	+190
Mar. 31	810.05	21,240	-210
Apr. 30	810.30	21,590	+350
May 31	810.38	21,700	+110
June 30	810.08	21,280	-420
July 31	810.33	21,630	+350
Aug. 31	810.72	22,170	+540
Sept. 30	810.09	21,300	-870
WTR YR 1981			+80

03350700 STONY CREEK NEAR NOBLESVILLE, IN

LOCATION.--Lat 40°01'44", long 85°59'42", in NE¼NE¼ sec.7, T.18 N., R.5 E., Hamilton County, Hydrologic Unit 05120201, on left bank at downstream side of county road bridge, 1.4 miles (2.3 km) upstream from mouth, and 1.4 miles (2.3 km) southeast of Noblesville.

DRAINAGE AREA.--50.8 mi^2 (131.6 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 749.00 ft (228.295 m) National Geodetic Vertical Datum of 1929 (Indiana State Highway Commission bench mark).

REMARKS.--Records good except those below 80 ft^3/s (2.27 m^3/s) between Apr. 13 and Aug. 11, and the winter periods, which are poor.

AVERAGE DISCHARGE.--14 years, 47.7 ft^3/s (1.351 m^3/s), 12.75 in/yr (324 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,640 ft^3/s (46.4 m^3/s) Feb. 23, 1979, gage height, 7.47 ft (2.277 m); minimum daily, 2.3 ft^3/s (0.065 m^3/s) Aug. 4, 5, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 300 ft^3/s (8.496 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 27	2215	*783	22.2	*6.20	1.890
Aug. 30	1730	388	11.0	4.43	1.350

Minimum daily discharge, 7.0 ft^3/s (0.198 m^3/s) Feb. 9.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DISCHARGE: October 1978 to September 1980 (partial-record station).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.2	7.7	11	9.7	9.2	20	12	83	117	11	22	126
2	8.2	7.7	10	9.0	11	18	11	67	104	11	18	132
3	9.5	7.7	10	8.8	10	16	12	50	95	10	15	116
4	9.0	7.7	11	8.4	9.3	18	16	33	78	15	12	90
5	9.0	7.7	10	8.0	8.5	29	18	78	66	21	15	63
6	9.0	8.6	9.0	8.1	8.0	40	14	90	80	28	17	42
7	9.0	8.6	9.0	8.3	7.6	30	13	88	62	22	15	34
8	9.0	8.6	9.0	8.4	7.3	25	13	78	50	18	13	29
9	8.6	8.2	11	8.6	7.0	22	12	57	41	15	12	23
10	8.6	7.7	13	8.2	48	21	25	82	35	12	11	20
11	8.2	7.3	13	8.0	100	20	63	118	29	11	50	18
12	7.7	7.7	12	7.8	80	18	91	110	34	11	34	16
13	7.7	7.7	11	7.7	58	18	89	92	42	10	14	15
14	7.3	7.7	10	7.6	40	17	76	109	51	9.2	16	15
15	7.7	7.7	9.5	8.2	25	16	66	203	39	8.6	16	28
16	7.7	7.7	9.5	8.3	138	18	55	155	30	8.0	15	27
17	9.5	7.7	9.5	7.5	103	15	45	115	27	7.5	13	36
18	11	8.2	9.0	7.6	73	15	37	140	24	7.4	12	33
19	8.6	8.6	8.9	7.8	69	14	31	172	22	28	12	28
20	8.2	9.0	8.8	7.9	65	13	25	121	20	83	12	23
21	8.2	9.0	8.6	8.0	49	13	35	98	25	65	10	38
22	8.6	8.6	8.4	8.2	39	13	54	60	30	52	10	30
23	8.2	8.2	8.5	8.4	36	13	82	48	26	41	9.5	26
24	8.2	8.6	8.8	8.3	37	12	66	78	21	34	9.0	25
25	9.0	8.2	8.6	9.5	32	12	50	286	17	27	9.0	25
26	8.6	8.2	8.6	13	28	12	37	215	15	50	8.2	24
27	9.0	11	9.0	12	24	13	27	523	14	91	8.6	26
28	9.5	14	9.0	11	22	13	78	598	13	97	11	25
29	8.6	12	9.5	9.6	------	13	111	256	12	79	9.5	26
30	8.2	11	9.8	9.0	------	15	99	178	11	51	239	31
31	7.7	-----	10	8.6	------	13	----	143	----	33	226	----
TOTAL	265.5	258.3	303.0	269.5	1143.9	545	1363	4524	1230	966.7	893.8	1190
MEAN	8.56	8.61	9.77	8.69	40.9	17.6	45.4	146	41.0	31.2	28.8	39.7
MAX	11	14	13	13	138	40	111	598	117	97	239	132
MIN	7.3	7.3	8.4	7.5	7.0	12	11	33	11	7.4	8.2	15
CFSM	.17	.17	.19	.17	.81	.35	.89	2.87	.81	.61	.57	.78
IN.	.19	.19	.22	.20	.84	.40	1.00	3.31	.90	.71	.65	.87

CAL YR 1980 TOTAL 16503.5 MEAN 45.1 MAX 737 MIN 7.3 CFSM .89 IN 12.09
WTR YR 1981 TOTAL 12952.7 MEAN 35.5 MAX 598 MIN 7.0 CFSM .70 IN 9.48

03350700 STONY CREEK NEAR NOBLESVILLE, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
OCT										
02...	1300	19.0	8.2	80	1.8	--	--	---	--	---
18...	1745	15.0	10	35	.94	--	--	---	--	---
27...	1115	6.5	8.9	48	1.2	--	--	---	--	---
31...	2155	6.0	7.7	16	.33	--	--	---	--	---
NOV										
08...	1340	5.5	8.6	6	.14	--	--	---	--	---
21...	1200	4.0	9.0	9	.22	--	--	---	--	---
DEC										
31...	1245	2.0	10	20	.54	--	--	---	--	---
FEB										
02...	1600	.0	11	56	1.7	90	--	---	--	---
APR										
06...	1340	12.5	14	27	1.0	--	--	---	--	---
MAY										
22...	1250	17.0	60	127	21	75	98	100	--	---
27...	1130	11.0	504	478	650	97	99	100	--	---
27...	1230	11.0	534	515	743	97	99	100	--	---
27...	1430	11.0	616	493	820	96	99	100	--	---
27...	1800	----	733	334	661	93	--	---	--	---
28...	1200	----	611	131	216	93	96	98	99	100
28...	1445	----	566	117	179	93	--	---	--	---
JUL										
13...	1230	27.0	10	29	.78	--	--	---	--	---
SEP										
21...	1100	18.0	20	59	3.2	93	--	---	--	---

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 miles (3 km) east of Nora, 14 miles (23 km) upstream from Fall Creek, and at mile 247.9 (398.9 km).

DRAINAGE AREA.--1,219 mi² (3,157 km²).

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 (216.695 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers), Oct. 26, 1929 to July 29, 1942, at site 200 ft (61 m) downstream at same datum. Supplemental water-stage recorder 4.5 miles (7.2 km) downstream.

REMARKS.--Records good. Flow slightly regulated by Morse Reservoir (See sta 03350300).

AVERAGE DISCHARGE.--52 years, 1,094 ft³/s (30.98 m³/s), 12.19 in/yr (310 mm/yr) .

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,400 ft³/s (918 m³/s) May 19, 1943; maximum gage height, 18.65 ft (5.685 m) Apr. 23, 1964; minimum daily discharge, 49 ft³/s (1.39 m³/s) Sept. 17, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 26, 1913, reached a stage of 22.4 ft (6.83 m), from floodmark, determined by State Highway Department of Indiana, discharge, 58,500 ft³/s (1,660 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 7,000 ft³/s (198 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 29	0200	*7160	203	*9.56	2.914

Minimum daily discharge, 190 ft³/s (5.38 m³/s) Jan. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	284	290	310	250	275	759	333	2120	2460	513	1050	1930
2	285	285	310	220	305	690	321	2230	2040	548	815	1670
3	281	270	337	210	250	629	305	1970	1750	755	690	1420
4	279	265	298	205	250	587	376	1530	1500	629	639	1130
5	262	270	289	200	250	707	447	1220	1260	672	685	1050
6	255	259	282	235	240	862	440	1410	2380	610	2070	820
7	247	249	280	230	240	906	409	2150	5820	576	1660	664
8	242	257	291	220	240	783	374	2040	5780	502	1110	578
9	241	257	338	210	235	679	360	1590	2780	448	824	507
10	238	257	401	200	333	617	366	1530	1970	425	658	448
11	229	257	465	200	1060	581	438	2120	1630	420	573	408
12	237	243	463	190	1780	541	900	2350	1370	380	585	378
13	234	241	424	200	1400	518	2500	2070	1240	363	524	359
14	224	237	386	210	950	496	2620	2040	1760	356	449	339
15	227	253	348	210	900	450	2310	3630	2830	364	436	452
16	226	254	338	200	1500	470	1740	4900	2360	371	444	545
17	263	246	328	200	2690	414	1360	3740	1590	359	400	550
18	306	259	307	210	2970	406	1160	2940	1170	337	360	559
19	327	258	280	230	2210	393	981	3330	954	442	339	464
20	291	246	240	255	2160	384	903	3270	851	1000	324	407
21	272	242	230	267	2140	364	781	2390	835	2500	306	375
22	267	246	240	260	1800	356	756	1870	980	2230	295	353
23	252	239	260	252	1570	344	973	1560	1120	1330	288	323
24	252	237	260	244	1490	333	1050	1340	909	862	278	309
25	275	262	260	243	1460	324	991	2830	800	684	263	316
26	312	249	240	256	1170	312	829	4090	968	753	260	314
27	292	271	260	311	939	311	719	4450	746	1950	261	352
28	306	312	250	365	831	306	674	6470	629	3070	280	364
29	319	333	260	344	-----	300	1230	6860	558	3290	292	351
30	303	327	270	308	-----	314	2290	4230	514	2260	1960	444
31	290	----	270	273	-----	349	-----	2910	-----	1550	2980	-----
TOTAL	8318	7871	9515	7408	31638	15485	28936	87180	51554	30549	22098	18179
MEAN	268	262	307	239	1130	500	965	2812	1718	985	713	606
MAX	327	333	465	365	2970	906	2620	6860	5820	3290	2980	1930
MIN	224	237	230	190	235	300	305	1220	514	337	260	309
CFSM	.22	.22	.25	.20	.93	.41	.79	2.31	1.41	.81	.59	.50
IN.	.25	.24	.29	.23	.97	.47	.88	2.66	1.57	.93	.67	.55

CAL YR 1980 TOTAL 447830 MEAN 1224 MAX 18100 MIN 224 CFSM 1.00 IN 13.67
WTR YR 1981 TOTAL 318731 MEAN 873 MAX 6860 MIN 190 CFSM .72 IN 9.73

03351310 CROOKED CREEK AT INDIANAPOLIS, IN

LOCATION.--Lat 39°49'47", long 86°12'22", in NW¼SE¼ sec.16, T.16 N., R.3 E., Marion County, Hydrologic Unit 05120201, on left bank 150 ft (46 m) downstream from 42nd Street bridge in Indianapolis, and at mile 1.6 (2.6 km).

DRAINAGE AREA.--17.9 mi^2 (46.4 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 711.00 ft (216.713 m) National Geodetic Vertical Datum of 1929 (Indiana State Highway Commission bench mark).

REMARKS.--Records fair except those for periods of no gage-height record, which are poor.

AVERAGE DISCHARGE.--12 years, 18.8 ft^3/s (0.532 m^3/s), 14.26 in/yr (362 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,500 ft^3/s (156 m^3/s) June 26, 1978, gage height, 13.31 ft (4.057 m); minimum daily, 0.47 ft^3/s (0.013 m^3/s) Dec. 2, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 400 ft^3/s (11.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 18	unknown	456	12.9	5.15	1.570	May 27	1100	*933	26.4	*6.63	2.021
May 25	0415	762	21.6	5.82	1.774						

Minimum daily discharge, 1.0 ft^3/s (0.028 m^3/s) Jan. 12.

NOTE.--No gage-height record Dec. 9 to Mar. 4 and Apr. 17 to May 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.0	3.3	1.9	10	3.5	6.1	30	19	8.0	7.8	5.9
2	3.5	2.0	4.5	1.8	5.0	3.2	7.3	20	18	9.0	6.9	18
3	2.6	2.4	4.7	1.7	3.0	3.0	15	15	16	6.0	6.3	8.9
4	2.2	2.5	2.7	1.6	2.4	13	27	13	13	10	6.2	5.9
5	1.8	2.3	2.5	1.5	2.0	23	15	70	17	90	16	3.9
6	1.8	2.7	2.5	1.4	1.7	15	11	80	13	10	17	3.0
7	1.7	3.0	2.9	1.3	1.6	10	7.1	30	10	8.0	7.6	2.5
8	1.7	3.2	4.8	1.3	1.5	7.6	5.7	20	7.8	7.0	5.3	3.3
9	1.4	3.4	11	1.2	1.4	6.3	5.6	30	6.8	6.2	4.2	2.5
10	1.3	3.2	7.0	1.1	20	5.8	19	60	7.0	6.4	3.6	2.1
11	1.2	3.2	5.0	1.1	10	5.5	31	40	5.7	8.4	4.1	1.8
12	1.2	3.3	7.0	1.0	6.0	4.8	37	30	58	8.6	3.2	2.0
13	1.4	3.2	4.0	1.1	4.5	4.5	32	25	28	9.6	2.9	2.1
14	1.7	3.4	3.0	1.1	4.0	3.9	18	120	16	14	2.7	2.0
15	1.8	3.9	4.0	1.2	8.0	3.7	13	60	12	26	8.6	2.0
16	1.7	4.3	3.0	1.1	20	3.6	11	30	8.5	16	4.8	13
17	15	4.4	2.5	1.1	15	3.3	17	22	7.0	10	3.0	7.0
18	6.2	5.8	2.2	1.1	12	3.5	11	250	6.2	8.1	2.4	4.1
19	3.3	4.3	1.9	1.2	10	3.0	13	76	4.8	18	2.1	3.0
20	2.9	4.1	1.7	1.5	8.0	3.0	14	35	4.2	45	1.9	2.6
21	2.7	4.0	1.5	2.0	7.0	3.1	9.6	22	30	15	1.8	2.1
22	2.2	3.7	1.6	1.9	6.0	2.8	30	17	10	12	1.8	1.9
23	2.0	4.0	1.7	1.9	10	3.3	70	13	6.0	11	1.7	1.7
24	4.1	4.2	1.9	2.0	9.0	2.7	25	30	5.0	15	1.6	1.7
25	8.1	4.1	1.9	2.5	6.0	2.6	15	268	8.0	10	1.6	1.7
26	4.0	3.7	2.0	3.0	4.5	2.3	14	100	5.0	29	1.5	1.6
27	2.9	14	2.1	2.3	3.3	2.7	11	502	4.0	63	1.9	7.9
28	7.3	9.0	2.1	2.1	4.0	2.9	15	99	3.5	29	4.5	2.3
29	4.5	5.8	2.3	1.9	-----	4.1	100	45	3.0	17	2.4	7.5
30	2.8	4.2	2.1	1.8	-----	11	50	36	20	12	37	12
31	2.2	-----	2.0	2.0	-----	8.3	-----	26	-----	8.9	13	-----
TOTAL	99.0	123.3	101.4	49.7	195.9	175.0	655.4	2214	372.5	546.2	185.4	136.0
MEAN	3.19	4.11	3.27	1.60	7.00	5.65	21.8	71.4	12.4	17.6	5.98	4.53
MAX	15	14	11	3.0	20	23	100	502	58	90	37	18
MIN	1.2	2.0	1.5	1.0	1.4	2.3	5.6	13	3.0	6.0	1.5	1.6
CFSM	.18	.23	.18	.09	.39	.32	1.22	3.99	.69	.98	.33	.25
IN.	.21	.26	.21	.10	.41	.36	1.36	4.60	.77	1.14	.39	.28

CAL YR 1980 TOTAL 5055.1 MEAN 13.8 MAX 161 MIN 1.2 CFSM .77 IN 10.50
WTR YR 1981 TOTAL 4853.8 MEAN 13.3 MAX 502 MIN 1.0 CFSM .74 IN 10.09

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 (27 m) upstream from bridge on County Road 750 North, 1 mile (2 km) southeast of Middletown.

DRAINAGE AREA.--5.80 mi^2 (15.02 km^2).

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

REVISED RECORDS.--WDR IN-75-1: 1969-74.

GAGE.--Water-stage recorder. Datum of gage is 950.00 ft (289.560 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--13 years, 6.02 ft^3/s (0.170 m^3/s), 14.10 in/yr (358 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,100 ft^3/s (31.2 m^3/s) April 28, 1975, gage height, 7.72 ft (2.353 m); minimum daily, 0.02 ft^3/s (0.001 m^3/s) Aug. 30 to Sept. 2, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 120 ft^3/s (3.40 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 27	1115	*181	5.13	*5.68	1.731	July 27	1445	129	3.65	5.26	1.603
July 20	2245	126	3.57	5.23	1.594						

Minimum daily discharge 0.12 ft^3/s (0.003 m^3/s) Jan. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.27	.51	.28	.17	.54	2.7	1.0	6.9	10	1.0	2.6	3.6
2	.35	.54	.32	.16	.55	2.5	.98	5.5	7.3	1.0	2.2	3.0
3	.36	.48	.34	.14	.49	2.1	1.1	4.6	5.8	1.0	2.0	7.8
4	.32	.46	.30	.13	.40	2.2	2.0	3.8	4.6	1.0	2.0	5.5
5	.29	.48	.29	.15	.35	3.4	2.8	3.8	4.3	3.1	1.8	3.0
6	.27	.51	.29	.17	.33	4.2	1.8	16	4.2	3.6	2.8	2.1
7	.23	.51	.29	.15	.32	3.1	1.5	8.7	3.4	2.0	2.3	1.6
8	.20	.40	.32	.17	.32	2.7	1.2	6.2	3.0	1.5	2.0	1.3
9	.20	.36	.54	.17	.29	2.5	1.4	5.2	2.6	1.3	1.7	.98
10	.20	.33	.65	.17	.48	2.4	1.4	4.9	2.4	1.2	22	.86
11	.20	.32	.56	.15	7.2	2.3	4.4	6.4	1.9	.98	25	.74
12	.17	.31	.45	.12	3.1	2.1	13	7.1	2.2	.92	7.5	.64
13	.17	.30	.41	.13	1.9	2.0	11	5.8	4.6	.92	4.3	.59
14	.17	.29	.36	.13	1.4	1.8	8.7	22	6.4	.92	3.1	.50
15	.14	.29	.36	.14	2.0	1.7	5.7	24	2.9	.86	2.9	.50
16	.14	.29	.34	.14	13	1.7	4.9	12	2.4	.86	2.5	.55
17	.22	.29	.31	.14	14	1.6	4.9	8.1	2.0	.86	2.0	.53
18	.24	.29	.29	.14	10	1.6	3.9	19	1.7	.80	1.7	.59
19	.20	.29	.25	.14	7.4	1.6	3.4	18	1.6	22	1.5	.59
20	.17	.29	.21	.14	8.4	1.5	3.0	9.1	1.5	60	1.4	.59
21	.17	.28	.20	.14	6.9	1.4	2.7	6.5	1.6	44	1.3	.59
22	.16	.26	.20	.14	6.0	1.3	2.7	5.4	3.5	12	1.2	.59
23	.16	.26	.20	.15	5.5	1.3	8.4	4.6	1.8	6.0	1.2	.59
24	.37	.25	.20	.19	5.0	1.2	6.4	8.2	1.4	4.0	1.1	.59
25	.48	.25	.20	.30	4.3	1.2	4.4	36	1.5	2.9	1.0	.55
26	.43	.23	.21	.49	3.5	1.2	3.8	16	1.3	7.5	.98	.55
27	.40	.40	.20	.41	3.0	1.2	3.2	110	1.2	53	1.2	.69
28	.49	.39	.19	.36	2.9	1.1	3.1	57	1.2	26	1.2	.64
29	.49	.30	.17	.30	------	1.2	15	26	1.1	9.8	1.1	.74
30	.47	.27	.17	.24	------	1.6	8.2	28	1.0	5.2	9.6	.92
31	.47	-----	.17	.20	------	1.3	------	18	----	3.5	6.9	-----
TOTAL	8.60	10.43	9.27	5.87	109.57	59.7	135.98	512.8	90.4	279.72	120.08	42.01
MEAN	.28	.35	.30	.19	3.91	1.93	4.53	16.5	3.01	9.02	3.87	1.40
MAX	.49	.54	.65	.49	14	4.2	15	110	10	60	25	7.8
MIN	.14	.23	.17	.12	.29	1.1	.98	3.8	1.0	.80	.98	.50
CFSM	.05	.06	.05	.03	.67	.33	.78	2.85	.52	1.56	.67	.24
IN.	.06	.07	.06	.04	.70	.38	.87	3.29	.58	1.79	.77	.27

CAL YR 1980 TOTAL 1511.98 MEAN 4.13 MAX 167 MIN .14 CFSM .71 IN 9.70
WTR YR 1981 TOTAL 1384.43 MEAN 3.79 MAX 110 MIN .12 CFSM .65 IN 8.88

03351500 FALL CREEK NEAR FORTVILLE, IN

LOCATION.--Lat 39°57'15", long 85°52'05", in NW¼NE¼ sec.5, T.17 N., R.6 E., Hamilton County, Hydrologic Unit 05120201, on right bank 100 ft (30 m) downstream from bridge on State Highway 238, 0.2 mile (0.3 km) downstream from Lick Creek, 2 miles (3 km) northwest of Fortville, and at mile 26.1 (42.0 km).

DRAINAGE AREA.--169 mi² (437 km²).

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 (240.009 m) National Geodetic Vertical Datum of 1929 (levels by Indianapolis Water Co.). Prior to June 27, 1942, nonrecording gage at same site and datum.

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

AVERAGE DISCHARGE.--40 years, 166 ft³/s (4.701 m³/s), 13.34 in/yr (339 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,750 ft³/s (248 m³/s) Apr. 21, 1964, gage height, 9.88 ft (3.011 m); minimum daily, 5.0 ft³/s (0.14 m³/s) Sept. 23, 24, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 12 ft (3.7 m) March 1913 (information by local resident).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,300 ft³/s (36.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 28	1400	*2340	66.3	*7.59	2.313

Minimum daily discharge, 30 ft³/s (0.85 m³/s) Jan. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	45	55	42	42	95	53	204	424	76	115	209
2	43	44	58	41	50	87	50	173	342	75	101	151
3	45	43	56	40	44	81	52	143	288	73	94	139
4	46	44	53	39	38	82	77	124	245	73	93	168
5	43	43	52	38	35	103	110	118	214	97	93	122
6	42	42	50	36	34	123	94	228	207	113	106	95
7	41	42	49	35	33	111	78	269	189	104	99	82
8	40	44	49	35	32	94	71	187	170	84	84	76
9	38	43	59	34	31	87	68	159	159	75	76	70
10	37	41	73	34	50	84	70	154	150	71	70	62
11	36	40	69	32	500	79	84	165	136	66	268	58
12	35	40	62	30	240	76	179	191	131	61	202	56
13	36	40	58	33	150	73	234	176	150	61	123	52
14	36	41	53	36	120	69	251	229	201	72	97	52
15	36	42	52	39	100	65	179	552	159	62	90	55
16	36	42	51	38	500	65	144	410	131	61	83	54
17	40	44	49	35	647	64	136	278	120	59	70	58
18	51	44	47	37	322	61	129	314	111	55	64	56
19	47	43	45	39	276	60	111	502	103	115	59	52
20	41	43	40	40	262	58	108	336	101	466	55	49
21	40	43	40	40	215	57	97	244	105	484	54	48
22	38	43	40	40	181	55	98	193	143	276	51	44
23	36	41	41	39	161	53	178	168	139	176	49	43
24	37	44	40	38	149	52	211	195	108	136	47	43
25	46	45	39	42	133	51	156	1030	102	112	46	42
26	51	43	40	42	117	51	126	741	100	139	45	41
27	47	51	41	44	104	52	113	1480	91	320	44	49
28	51	68	42	41	100	50	103	2260	85	568	52	46
29	52	63	44	38	----	50	252	1440	79	283	50	46
30	48	58	45	34	----	60	277	691	76	184	250	54
31	46	----	44	45	----	60	----	589	----	139	369	----
TOTAL	1302	1349	1536	1176	4666	2208	3889	13943	4759	4736	3099	2172
MEAN	42.0	45.0	49.5	37.9	167	71.2	130	450	159	153	100	72.4
MAX	52	68	73	45	647	123	277	2260	424	568	369	209
MIN	35	40	39	30	31	50	50	118	76	55	44	41
CFSM	.25	.27	.29	.22	.99	.42	.77	2.66	.94	.91	.59	.43
IN.	.29	.30	.34	.26	1.03	.49	.86	3.07	1.05	1.04	.68	.48

CAL YR 1980 TOTAL 63197 MEAN 173 MAX 2520 MIN 35 CFSM 1.02 IN 13.91
WTR YR 1981 TOTAL 44835 MEAN 123 MAX 2260 MIN 30 CFSM .73 IN 9.87

03351700 GEIST RESERVOIR NEAR OAKLANDON, IN

LOCATION.--Lat 39°54'26", long 85°59'07", in SW¼NE¼ sec.20, T.17 N., R.5 E., Marion County, Hydrologic Unit 05120201, in intake structure of reservoir on Fall Creek, 2.6 miles (4.2 km) northwest of Oaklandon, 17.6 miles (28.3 km) above mouth.

DRAINAGE AREA.--215 mi² (556 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 755.00 ft (230.124 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earth-fill dam. Releases normally controlled b y a 36-inch (914 mm) valve. Minimum design capacity is essentially empty at invert on outlet conduit at elevation of 756.75 ft (230.657 m). Capacity at uncontrolled spillway elevation, 785 ft (239.3 m) is 21,180 acre-ft (26.1 hm³). Reservoir is used for water supply for Indianapolis and recreation. Reservoir filled for first time on Mar. 17, 1943.

COOPERATION.--Records furnished by Indianapolis Water Company.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 27,360 acre-ft (33.7 hm³) May 18, 1943, elevation, 788.02 ft (240.188 m); minimum, 11,230 acre-ft (13.8 hm³) Jan. 5, 1964, elevation, 778.42 ft (237.262 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 22,450 acre-ft (27.7 hm³) May 28, elevation, 786.48 ft (239.719 m); minimum, 20,360 acre-ft (25.1 hm³) Nov. 23, elevation, 784.54 ft (239.128 m).

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	785.15	21,460	
Oct. 31	784.94	21,070	-390
Nov. 30	784.65	20,550	-520
Dec. 31	785.16	21,480	+930
CAL YR 1980			-480
Jan. 31	785.16	21,480	0
Feb. 28	785.24	21,630	+150
Mar. 31	785.18	21,520	-110
Apr. 30	785.46	22,050	+530
May 31	785.79	22,710	+660
June 30	785.18	21,520	-1,190
July 31	785.31	21,760	+240
Aug. 31	785.52	22,170	+410
Sept. 30	785.08	21,330	-840
WTR YR 1981			-130

Diversion for municipal supply for city of Indianapolis

Water supply for the city of Indianapolis is from White River, Fall Creek, and Eagle Creek. Water from White River is diverted below White River near Nora (03351000) into Indianapolis Water Canal at Westfield Boulevard. Water from Fall Creek is diverted below Fall Creek at Millersville (03352500) at pumping station at Keystone Avenue. Water from Eagle Creek is taken from Eagle Creek Reservoir (see sta 03353450). The return flow of the diversion is made below White River at Indianapolis (03353000). Major return flow is made at mouth of Eagle Creek and minor return flow is made at Southport Road.

Diversion, monthly and yearly means in ft³/s

Oct.	Nov.	Dec.	1980 Cal. year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	1981 Water year
145	140	138	162	141	138	135	140	142	163	169	165	155	148

03352500 FALL CREEK AT MILLERSVILLE, IN

LOCATION.--Lat 39°51'07", long 86°05'15", in NE¼NE¼ sec.9, T.16 N., R.4 E., Marion County, Hydrologic Unit 05120201, on right bank at downstream side of Emerson Way bridge at Millersville, and 9.2 miles (14.8 km) upstream from mouth.

DRAINAGE AREA.--298 mi^2 (772 km^2).

PERIOD OF RECORD.--October 1929 to current year. Monthly discharges only for some periods, published in WSP 1305. Twice-daily chain gage readings at former site from July 1925 to September 1926 are available from the district office.

REVISED RECORDS.--WSP 1335: 1930-31, 1933, 1936-38, 1942-43. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 722.16 ft (220.114 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 21, 1961, water-stage recorder at site 500 ft (152 m) downstream at same datum.

REMARKS.--Records good. Flow regulated by Geist Reservoir (See sta 03351700).

AVERAGE DISCHARGE.--52 years, 282 ft^3/s (7.986 m^3/s), 12.85 in/yr (326 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,900 ft^3/s (365 m^3/s) May 28, 1956, gage height, 13.53 ft (4.124 m); minimum daily, 7.8 ft^3/s (0.22 m^3/s) Sept. 28, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 16.3 ft (4.97 m) Mar. 26, 1913, from floodmarks, discharge, 22,000 ft^3/s (623 m^3/s) by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,030 ft^3/s (114 m^3/s) May 28, gage height, 9.55 ft (2.911 m); minimum daily, 45 ft^3/s (1.27 m^3/s) Jan. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	71	66	56	84	156	84	526	886	100	184	495
2	62	71	60	56	97	144	88	391	703	90	149	352
3	56	76	57	54	85	130	84	303	583	80	122	283
4	54	78	55	55	76	146	144	247	498	79	128	243
5	55	77	53	54	68	219	194	261	435	186	125	213
6	54	74	57	52	62	214	177	515	419	186	155	170
7	60	71	61	52	58	210	139	495	340	151	142	134
8	62	70	64	52	54	181	115	397	293	121	112	123
9	69	70	82	50	50	160	115	346	276	98	96	103
10	64	70	80	50	130	140	125	361	264	91	86	82
11	56	69	64	50	605	133	169	438	226	74	102	75
12	54	68	62	45	454	118	244	400	286	68	224	74
13	57	69	64	50	278	119	372	372	352	63	188	73
14	69	50	63	55	199	113	413	484	327	69	142	74
15	69	63	69	60	173	100	346	819	309	79	127	87
16	72	60	83	55	419	115	268	865	247	79	124	98
17	100	61	69	50	878	96	254	624	205	67	103	91
18	95	61	54	55	734	107	237	856	175	59	76	88
19	76	58	52	58	583	91	199	1120	156	98	67	69
20	73	57	50	60	529	87	231	794	146	355	67	60
21	70	57	47	60	464	87	142	565	186	572	66	64
22	71	57	47	60	382	95	151	432	205	505	68	70
23	74	63	47	60	324	87	363	337	199	314	68	60
24	80	64	47	61	301	67	425	425	166	233	61	46
25	92	62	46	61	268	67	346	2250	153	167	61	61
26	83	57	48	67	233	66	278	1950	140	228	63	69
27	80	82	50	69	184	76	231	2610	121	461	72	77
28	92	88	52	70	162	70	194	3930	106	742	76	72
29	78	74	54	64	----	66	587	3280	96	602	78	74
30	74	69	57	62	----	96	609	1710	94	366	448	95
31	73	----	57	60	----	105	----	1220	----	252	638	----
TOTAL	2183	2017	1817	1763	7934	3661	7324	29323	8592	6635	4218	3675
MEAN	70.4	67.2	58.6	56.9	283	118	244	946	286	214	136	123
MAX	100	88	83	70	878	219	609	3930	886	742	638	495
MIN	54	50	46	45	50	66	84	247	94	59	61	46
CFSM	.24	.23	.20	.19	.95	.40	.82	3.17	.96	.72	.46	.41
IN.	.27	.25	.23	.22	.99	.46	.91	3.66	1.07	.83	.53	.46

CAL YR 1980 TOTAL 113754 MEAN 311 MAX 2950 MIN 46 CFSM 1.04 IN 14.20
WTR YR 1981 TOTAL 79142 MEAN 217 MAX 3930 MIN 45 CFSM .73 IN 9.88

03353000 WHITE RIVER AT INDIANAPOLIS, IN

LOCATION.--Lat 39°45'05", long 86°10'30", in NW¼NW¼ sec.14, T.15 N., R.3 E., Marion County, Hydrologic Unit 05120201, on downstream side of second pier from right bank of Morris Street bridge in Indianapolis, 2.6 miles (4.2 km) downstream from Fall Creek, and at mile 230.3 (370.6 km).

DRAINAGE AREA.--1,635 mi² (4,235 km²).

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 miles (1.8 km) upstream Feb. 8, 1911, to Mar. 25, 1913, and at site 2.3 miles (3.7 km) 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 (201.857 m) National Geodetic Vertical Datum of 1929. March 1904 to July 1906, nonrecording gage at railroad bridge 0.8 mile (1.3 km) upstream at datum approximately 2.9 ft (0.88 m) higher. April 1930 to July 20, 1931, nonrecording gage at Indianapolis sanitation plant, 2.5 miles (4.0 km) downstream at datum 660.00 ft (201.168 m) 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 (201.168 m) lower.

REMARKS.--Records good. Natural flow affected by regulation of Morse Reservoir (See sta 03350300) and Geist Reservoir (See sta 03351700), and by diversion of municipal water supply (See sta 03351700) by the Indianapolis Water Co.

AVERAGE DISCHARGE.--52 years (water years 1905, 1931 to current year), 1,390 ft³/s (39.36 m³/s), 11.55 in/yr (293 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,200 ft³/s (1,050 m³/s) May 18, 1943; maximum gage height, 21.57 ft (6.575 m) Jan. 16, 1937; minimum daily discharge, 8.0 ft³/s (0.23 m³/s) Sept. 29, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 26, 1913, reached a stage of 30.0 ft (9.14 m), from floodmarks determined by Indianapolis Water Co., discharge, 70,000 ft³/s (1,980 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 8,500 ft³/s (241 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 29	0100	10600	300	*11.15	3.399

Minimum daily discharge, 140 ft³/s (3.96 m³/s) Jan. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	266	291	300	235	304	890	380	2660	3370	591	1150	2590
2	267	291	300	220	374	804	343	2220	2510	540	875	1840
3	267	273	330	200	240	736	442	2010	1940	670	724	1620
4	252	268	300	170	210	713	677	1570	1650	650	645	1330
5	235	286	290	150	210	1030	643	1490	1440	1100	689	1120
6	228	268	280	160	200	1100	578	1990	1750	875	1440	965
7	212	251	280	180	200	1110	528	2100	5310	657	1480	748
8	215	231	290	175	190	986	473	2260	6020	553	1130	621
9	208	244	330	170	190	813	405	1730	3310	494	854	484
10	211	240	400	160	654	701	610	1870	1830	410	730	444
11	199	239	450	160	1500	662	819	2800	1490	415	595	367
12	186	243	450	140	1840	607	1100	2880	1720	370	612	325
13	182	247	430	160	1600	566	2150	2380	1430	332	647	307
14	186	233	390	170	1300	574	2770	2940	1440	311	515	348
15	189	233	350	170	1200	516	2290	4290	2600	528	556	307
16	198	253	340	160	1900	499	1660	5650	2250	415	488	544
17	491	253	320	160	3240	481	1400	4650	1470	340	442	570
18	431	256	300	170	3710	423	1190	4980	1150	304	357	589
19	348	258	280	180	2860	432	1030	4780	972	478	312	474
20	326	254	260	190	2550	417	997	4260	843	1060	290	384
21	277	239	225	197	2550	396	819	3070	1010	1900	269	344
22	255	233	196	204	2140	366	884	2090	940	2350	252	299
23	255	237	204	200	1860	368	1560	1630	1080	1450	245	306
24	289	231	228	193	1600	333	1320	1830	940	1010	235	254
25	355	227	210	188	1500	315	1250	5600	811	758	209	250
26	300	237	194	211	1300	312	1040	6370	875	851	202	268
27	336	431	219	230	1200	318	884	8560	780	1980	244	327
28	371	395	218	279	1020	314	780	10000	630	3540	251	335
29	354	339	222	290	-----	312	1800	10200	546	3740	269	418
30	316	326	231	259	-----	414	2540	7100	623	2430	1270	468
31	301	----	243	240	-----	399	-----	4360	-----	1550	4410	-----
TOTAL	8506	8007	9060	5971	37642	17907	33362	120320	52730	32652	22387	19246
MEAN	274	267	292	193	1344	578	1112	3881	1758	1053	722	642
MAX	491	431	450	290	3710	1110	2770	10200	6020	3740	4410	2590
MIN	182	227	194	140	190	312	343	1490	546	304	202	250
CFSM	.17	.16	.18	.12	.82	.35	.68	2.37	1.08	.64	.44	.39
IN.	.19	.18	.21	.14	.86	.41	.76	2.74	1.20	.74	.51	.44

CAL YR 1980 TOTAL 555691 MEAN 1518 MAX 19300 MIN 182 CFSM .93 IN 12.64
WTR YR 1981 TOTAL 367790 MEAN 1008 MAX 10200 MIN 140 CFSM .62 IN 8.37

03353120 PLEASANT RUN AT ARLINGTON AVENUE AT INDIANAPOLIS, IN

LOCATION.--Lat 39°46'33", long 86°03'50", in SW¼NW¼ sec.2, T.15 N., R.4 E., Marion County, Hydrologic Unit 05120201, on right bank 46 ft (14 m) upstream from Arlington Avenue bridge in Indianapolis, 0.5 mile (0.8 km) downstream from small left-bank tributary, and at mile 7.9 (12.7 km).

DRAINAGE AREA.--7.58 mi^2 (19.63 km^2).

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 (237.744 m) National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources).

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

AVERAGE DISCHARGE.--21 years (water years 1961 to current year), 7.63 ft^3/s (0.216 m^3/s), 13.67 in/yr (347 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,600 ft^3/s (73.6 m^3/s) June 25, 1978, gage height, 13.86 ft (4.225 m); no flow at times in 1960-62.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1956 reached a stage of 16.0 ft (4.88 m), from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 450 ft^3/s (12.7 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 18	1115	643	18.2	6.78	2.067
May 24	2330	*785	22.2	*7.38	2.249

Minimum daily discharge, 0.50 ft^3/s (0.014 m^3/s) Jan. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.51	.68	1.5	.81	3.0	1.6	1.2	9.9	6.1	.91	.63	4.0
2	1.5	.61	7.1	.77	1.5	1.4	1.2	4.8	4.6	.97	.61	5.3
3	2.3	.55	1.7	.75	.90	1.3	19	3.1	3.3	.83	.65	2.6
4	.80	.71	1.2	.73	.75	10	22	2.3	2.7	1.6	.67	1.2
5	.69	.71	1.1	.65	.67	22	5.8	39	2.9	28	2.7	.83
6	.51	.65	.96	.68	.63	5.8	3.6	36	2.1	3.0	1.7	.69
7	.51	.66	1.1	.65	.60	4.0	1.9	7.9	1.4	1.2	.72	.66
8	.51	.65	6.1	.62	.58	2.8	1.5	4.4	1.4	.90	.58	2.7
9	.55	.61	11	.60	.56	2.3	1.5	8.0	1.5	.83	.53	.78
10	.55	.56	3.5	.53	40	1.9	19	21	1.6	.74	7.9	.79
11	.59	.61	1.9	.54	20	1.5	28	11	1.0	.66	1.7	.74
12	.59	.62	2.7	.50	10	1.3	17	5.7	53	.62	.69	.72
13	.55	.72	1.2	.57	7.0	1.3	6.0	4.3	6.0	.86	.63	.66
14	.59	.70	.96	.60	4.5	1.2	4.0	43	2.2	2.2	.61	20
15	.60	1.4	1.8	.65	7.0	1.0	2.5	20	1.5	13	5.6	2.2
16	.60	.78	1.3	.60	24	1.2	2.2	6.5	1.2	1.6	.73	14
17	22	3.1	.95	.64	14	1.2	9.7	3.9	.95	.92	.62	4.0
18	2.8	2.5	1.1	.70	8.8	1.2	2.3	134	1.0	.77	.54	3.6
19	.91	1.0	.82	.80	7.3	1.3	3.7	18	.94	24	.55	.97
20	.71	.79	.72	.90	7.7	1.5	4.2	7.3	.89	7.6	.56	.75
21	.79	.67	.82	1.0	4.3	1.2	1.6	4.3	21	9.8	.53	.73
22	.60	.59	.84	.80	4.0	1.2	28	3.0	3.0	2.1	.53	.73
23	.59	.92	.84	.85	5.8	1.2	50	2.7	1.2	1.1	.51	.70
24	8.4	1.3	.81	.90	4.8	1.3	7.4	138	.96	1.7	.55	.69
25	2.8	.75	.80	1.0	2.9	1.3	4.0	107	.99	.84	.56	.66
26	.76	.62	.92	1.2	2.2	1.2	3.7	25	.79	6.7	.55	.62
27	2.2	30	.90	.90	1.8	2.1	2.3	140	.73	49	.88	3.2
28	6.6	6.4	.89	.80	1.9	1.2	13	17	.74	5.4	.74	.63
29	1.1	3.4	1.5	.76	------	5.2	60	8.0	.72	1.5	.79	10
30	.77	1.8	1.3	.70	------	6.2	28	43	2.3	.91	27	2.8
31	.70	-----	.88	.74	------	1.5	-----	9.7	------	.72	3.9	-----
TOTAL	63.68	65.06	59.21	22.94	187.19	89.4	354.3	887.8	128.71	170.98	65.46	87.95
MEAN	2.05	2.17	1.91	.74	6.69	2.88	11.8	28.6	4.29	5.52	2.11	2.93
MAX	22	30	11	1.2	40	22	60	140	53	49	27	20
MIN	.51	.55	.72	.50	.56	1.0	1.2	2.3	.72	.62	.51	.62
CFSM	.27	.29	.25	.10	.88	.38	1.56	3.77	.57	.73	.28	.39
IN.	.31	.32	.29	.11	.92	.44	1.74	4.36	.63	.84	.32	.43

CAL YR 1980 TOTAL 2203.53 MEAN 6.02 MAX 82 MIN .51 CFSM .79 IN 10.81
WTR YR 1981 TOTAL 2182.68 MEAN 5.98 MAX 140 MIN .50 CFSM .79 IN 10.71

03353160 PLEASANT RUN AT BROOKVILLE ROAD AT INDIANAPOLIS, IN

LOCATION.--Lat 39°45'52", long 86°05'43", in NE¼NW¼ sec.9, T.15 N., R.4 E., Marion County, Hydrologic Unit 05120201, on right bank at downstream side of Brookville Road bridge in Indianapolis, 2.2 miles (3.5 km) downstream from Arlington Avenue, and at mile 5.7 (9.2 km).

DRAINAGE AREA.--10.1 mi^2 (26.2 km^2).

PERIOD OF RECORD.--November 1959 to May 1981 (discontinued).

REVISED RECORDS.--WSP 1909: 1960. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 752.00 ft (229.210 m) National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources).

REMARKS.--Records poor.

AVERAGE DISCHARGE.--20 years (water years 1961-80), 10.11 ft^3/s (0.286 m^3/s), 13.59 in/yr (345 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,000 ft^3/s (85.0 m^3/s) June 25, 1978, gage height, 11.28 ft (3.438 m); no flow at times in 1960-68.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 520 ft^3/s (14.73 m^3/s) and maximum (*) during period October 1980 to May 1981:

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 10	1800	ice jam		*5.28	1.609
Apr. 29	0100	*430	12.2	4.65	1.417

Minimum daily discharge, 0.70 ft^3/s (0.020 m^3/s) Jan. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.72	.88	2.1	1.1	4.0	1.8	1.5	12				
2	1.7	.88	6.0	.98	2.0	1.6	1.4	6.7				
3	2.5	.80	2.6	.98	1.2	1.5	21	5.2				
4	1.3	.88	1.8	.98	1.0	7.4	25	4.5				
5	.98	.88	1.5	.88	.90	19	6.6	41				
6	.80	.88	1.3	.88	.85	4.6	3.9	39				
7	.72	.88	1.5	.88	.81	3.1	3.1	9.4				
8	.72	.88	6.0	.80	.78	2.6	2.7	6.2				
9	.80	.88	14	.80	.76	2.3	2.5	8.8				
10	.80	.72	4.4	.72	50	2.2	17	23				
11	.80	.72	2.5	.72	25	2.0	26	12				
12	.72	.80	3.5	.70	15	1.8	15	7.3				
13	.80	.88	2.1	.75	10	1.7	5.9	5.6				
14	.80	.88	1.6	.80	5.5	1.5	4.4	----				
15	.80	2.0	2.2	.90	9.2	1.4	3.2	----				
16	.80	1.1	2.3	.80	30	1.4	2.9	----				
17	30	3.5	1.4	.85	9.7	1.4	9.2	----				
18	3.5	4.2	1.4	.90	7.0	1.3	3.3	----				
19	1.2	2.0	1.2	1.0	5.5	1.4	3.5	----				
20	.98	1.1	1.0	1.1	6.2	1.4	5.5	----				
21	.88	.88	.96	1.2	3.6	1.3	2.5	----				
22	.98	.88	.98	1.0	3.4	1.2	27	----				
23	.88	1.1	.98	1.0	4.5	1.1	49	----				
24	8.8	2.0	1.2	1.1	4.2	1.1	7.7	----				
25	4.2	1.4	1.0	1.2	2.8	1.2	4.8	----				
26	1.2	.98	1.1	1.5	2.3	1.2	4.5	----				
27	1.4	32	1.1	1.2	2.0	1.8	3.5	----				
28	7.8	6.4	1.1	1.1	2.0	1.4	15	----				
29	1.6	3.3	1.1	1.0	------	2.7	75	----				
30	1.1	2.3	1.1	.90	------	7.7	34	----				
31	.98	-----	1.1	1.0	------	1.9	-----	----				
TOTAL	81.26	76.98	72.12	29.72	210.20	84.0	386.6	----				
MEAN	2.62	2.57	2.33	.96	7.51	2.71	12.9	----				
MAX	30	32	14	1.5	50	19	75	----				
MIN	.72	.72	.96	.70	.76	1.1	1.4	----				
CFSM	.26	.25	.23	.10	.74	.27	1.28	----				
IN.	.30	.28	.27	.11	.77	.31	1.42	----				

CAL YR 1980 TOTAL 2716.18 MEAN 7.42 MAX 110 MIN .63 CFSM .74 IN 10.00

03353180 BEAN CREEK AT INDIANAPOLIS, IN

LOCATION.--Lat 39°43'45", long 86°07'14", in NW¼SW¼ sec.20, T.15 N., R.4 E., Marion County, Hydrologic Unit 05120201, on left bank 80 ft (24 m) upstream from Keystone Avenue bridge and west edge of Sarah Shank Golf Course in Indianapolis, and at mile 1.8 (2.9 km).

DRAINAGE AREA.--4.40 mi^2 (11.40 km^2).

WATER-DISCHARGE RECORDS PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 735.00 ft (224.028 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--11 years, 5.30 ft^3/s (0.150 m^3/s), 16.36 in/yr (416 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 770 ft^3/s (21.8 m^3/s) June 25, 1978, gage height, 7.77 ft (2.368 m); minimum daily, 0.54 ft^3/s (0.015 m^3/s) Jan. 18, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 120 ft^3/s (3.40 m^3/s) (revised) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 18	1115	328	9.29	5.26	1.603	May 27	0745	314	8.89	5.16	1.573
May 24	2315	*408	11.6	*5.79	1.765						

Minimum daily discharge, 0.80 ft^3/s (0.023 m^3/s) Jan. 12.

NOTE.--No gage-height record Aug. 31 to Sept. 30.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DISCHARGE: October 1977 to September 1980 (partial-record station).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	.93	1.3	1.9	6.0	1.5	1.2	13	5.5	1.8	1.5	1.5
2	2.2	.90	2.2	1.8	3.0	1.4	1.1	5.3	4.6	1.9	1.4	10
3	2.4	.90	1.1	1.6	2.0	1.4	4.0	3.7	4.0	1.7	1.6	4.5
4	1.2	.96	1.1	1.3	1.5	4.8	8.0	3.2	3.6	3.0	1.6	2.5
5	.86	1.0	1.1	1.3	1.3	12	4.0	18	4.0	8.6	2.4	1.7
6	.92	1.0	1.1	1.2	1.2	3.4	2.2	22	3.3	1.9	1.8	1.4
7	1.0	1.0	1.1	1.0	1.1	2.4	1.6	6.1	2.7	1.6	1.5	1.2
8	.98	1.2	2.3	.96	1.0	2.0	1.4	4.2	2.6	1.5	1.4	1.5
9	.92	1.1	3.2	.93	1.0	1.9	1.3	5.9	2.7	1.4	1.4	1.3
10	.96	1.2	1.7	.90	30	1.9	7.0	13	2.9	1.4	8.4	1.2
11	.90	1.4	1.4	.85	10	1.9	15	8.7	2.5	1.2	2.1	1.1
12	.90	1.2	1.4	.80	5.0	1.8	12	5.4	12	1.2	1.6	1.0
13	.86	1.3	1.4	.85	4.0	1.7	7.0	5.2	2.8	1.2	1.5	.93
14	1.0	1.3	1.2	.90	3.0	1.4	4.0	29	2.3	1.3	1.6	2.5
15	1.1	1.2	1.6	1.0	10	1.3	2.0	14	2.0	6.9	4.1	1.5
16	1.1	.99	1.4	.90	30	1.4	2.4	6.6	2.0	1.4	1.4	8.0
17	10	1.9	1.4	.95	15	1.6	2.9	4.7	2.0	1.2	1.4	4.5
18	1.4	1.4	1.4	1.0	10	1.5	1.9	77	2.0	1.1	1.5	2.5
19	.84	1.1	1.3	1.0	8.0	1.6	2.4	14	2.0	6.5	1.4	1.9
20	.97	1.1	1.2	1.1	6.5	1.5	2.6	7.4	1.9	2.1	1.4	1.4
21	1.2	1.0	1.3	1.2	5.0	1.4	1.8	5.8	3.9	1.4	1.4	1.2
22	1.4	.97	1.5	1.1	4.0	1.2	11	4.6	1.9	1.2	1.3	1.1
23	1.4	1.1	1.9	1.1	3.4	1.1	22	3.9	1.8	1.1	1.2	1.1
24	4.3	1.0	2.1	1.2	2.9	1.3	4.5	78	1.8	1.1	1.3	1.1
25	1.8	.96	1.8	1.5	2.5	1.3	2.9	66	7.6	1.1	1.5	1.1
26	1.1	.96	1.9	1.8	2.2	1.3	3.1	18	2.0	1.9	1.3	1.0
27	2.0	14	1.9	1.4	1.9	1.6	2.2	93	1.8	24	2.1	7.9
28	3.7	2.1	2.9	1.2	1.6	1.2	4.9	13	1.7	2.9	1.6	2.5
29	1.3	1.5	2.8	1.1	-----	1.2	24	7.2	1.8	2.1	1.2	8.0
30	1.1	1.3	2.2	1.0	-----	3.5	25	23	2.0	1.8	12	3.0
31	1.0	-----	2.0	1.2	-----	1.5	-----	7.6	----	1.7	2.0	-----
TOTAL	52.21	47.97	52.2	36.04	173.1	65.0	185.4	586.5	93.7	89.2	67.9	80.13
MEAN	1.68	1.60	1.68	1.16	6.18	2.10	6.18	18.9	3.12	2.88	2.19	2.67
MAX	10	14	3.2	1.9	30	12	25	93	12	24	12	10
MIN	.84	.90	1.1	.80	1.0	1.1	1.1	3.2	1.7	1.1	1.2	.93
CFSM	.38	.36	.38	.26	1.41	.48	1.41	4.30	.71	.66	.50	.61
IN.	.44	.41	.44	.30	1.46	.55	1.57	4.96	.79	.75	.57	.68

CAL YR 1980 TOTAL 1355.08 MEAN 3.70 MAX 49 MIN .84 CFSM .84 IN 11.45
WTR YR 1981 TOTAL 1529.35 MEAN 4.19 MAX 93 MIN .80 CFSM .95 IN 12.93

03353200 EAGLE CREEK AT ZIONSVILLE, IN

LOCATION.--Lat 39°56'56", long 86°15'22", in SW¼NW¼ sec.1, T.17 N., R.2 E., Boone County, Hydrologic Unit 05120201, on downstream side of second pier from right bank of bridge on State Highway 334 at Zionsville, 200 ft (61 m) upstream from Long Branch, and at mile 24.7 (39.7 km).

DRAINAGE AREA.--103 mi^2 (267 km^2).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 816.85 ft (248.976 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 9, 1957, nonrecording gage at same site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--24 years, 97.8 ft^3/s (2.770 m^3/s), 12.89 in/yr (327 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,400 ft^3/s (351 m^3/s) Apr. 20, 1964, gage height, 14.64 ft (4.462 m); no flow at times during 1959, 1963-68, 1970, 1971.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 28, 1957, reached a stage of 19.20 ft (5.852 m), from floodmark.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,500 ft^3/s (42.5 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Aug. 30	2100	*5200	147	*11.02	3.359

Minimum daily discharge, 2.4 ft^3/s (0.07 m^3/s) Oct. 15.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DISCHARGE: October 1969 to September 1979 (partial-record station).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	13	19	11	13	56	20	174	96	83	64	483
2	4.8	11	21	9.7	21	50	19	121	85	34	48	457
3	5.3	10	18	8.4	11	42	26	93	74	24	41	311
4	4.8	9.7	15	7.0	8.2	48	42	76	64	20	41	230
5	4.8	9.1	15	5.3	7.6	115	41	73	56	66	41	168
6	4.8	9.0	15	5.4	7.4	121	32	140	54	67	93	123
7	4.7	8.7	16	5.5	7.3	88	27	117	47	37	62	98
8	4.1	10	18	5.6	7.2	71	24	88	42	26	43	80
9	3.8	10	31	5.6	7.1	63	25	77	40	20	33	62
10	3.8	7.7	48	5.5	38	60	33	226	38	16	26	50
11	3.2	7.2	38	5.3	201	57	88	567	33	14	27	41
12	2.8	6.8	30	5.0	89	52	172	351	36	12	28	35
13	2.7	6.6	27	5.4	61	50	142	206	54	11	22	30
14	2.5	6.4	22	5.8	40	43	103	500	96	10	18	27
15	2.4	6.6	19	5.9	88	40	76	854	73	12	21	26
16	2.7	6.5	20	5.8	421	40	64	331	50	14	22	42
17	7.6	7.2	18	5.7	264	37	64	204	39	11	17	56
18	16	7.5	16	6.4	180	36	58	413	32	8.6	14	41
19	12	7.4	15	7.0	166	34	51	372	29	157	11	32
20	8.5	7.4	10	7.8	180	33	57	201	29	182	9.6	27
21	7.2	7.1	8.3	8.1	140	31	48	144	28	101	8.6	23
22	6.0	6.8	8.1	8.3	115	27	54	112	67	56	7.8	20
23	4.9	7.4	8.2	8.3	105	26	123	93	62	37	6.6	18
24	5.8	7.7	8.4	8.5	108	25	98	90	38	28	5.4	16
25	7.7	14	8.2	10	90	24	73	243	29	23	5.1	14
26	9.0	7.8	8.0	16	76	23	63	155	27	191	4.2	13
27	8.6	11	8.2	21	64	23	57	684	23	567	4.5	29
28	19	18	8.6	18	63	23	52	398	20	470	14	30
29	23	19	9.1	13	------	22	189	208	17	243	14	26
30	18	18	9.7	11	------	26	147	155	22	147	2220	151
31	16	-----	9.8	8.3	------	24	----	119	----	93	1600	----
TOTAL	230.8	284.6	525.6	259.6	2578.8	1410	2068	7585	1400	2780.6	4571.8	2759
MEAN	7.45	9.49	17.0	8.37	92.1	45.5	68.9	245	46.7	89.7	147	92.0
MAX	23	19	48	21	421	121	189	854	96	567	2220	483
MIN	2.4	6.4	8.0	5.0	7.1	22	19	73	17	8.6	4.2	13
CFSM	.07	.09	.17	.08	.89	.44	.67	2.38	.45	.87	1.43	.89
IN.	.08	.10	.19	.09	.93	.51	.75	2.74	.51	1.00	1.65	1.00

CAL YR 1980 TOTAL 30790.4 MEAN 84.1 MAX 1760 MIN 2.4 CFSM .82 IN 11.12
WTR YR 1981 TOTAL 26453.8 MEAN 72.5 MAX 2220 MIN 2.4 CFSM .70 IN 9.55

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 (240 m) upstream from Interstate Highway 74, 0.5 mile (0.8 km) downstream from School Branch, 1.0 mile (1.6 km) northeast of Clermont, and 2 miles (3 km) west of Indianapolis.

DRAINAGE AREA.--162 mi² (419 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 780.00 ft (237.744 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earth-fill dam. Low flow is controlled through a 48-inch (1,219 mm) diameter conduit. Spillway elevation, 783 ft (238.7 m) is an ogee section with 6 taintor gates, each 40 ft (12.2 m) wide and 25 ft (7.6 m) high. Permanent pool capacity is 24,000 acre-ft (29.6 hm³), elevation, 790.00 ft (240.792 m). Reservoir is used for flood control, low-flow maintenance, water supply, and recreation. Reservoir put into operation Nov. 27, 1969.

COOPERATION.--Water-stage recorder graph and capacity tables furnished by Indianapolis Flood Control District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 27,350 acre-ft (33.7 hm³) June 26, 1978, elevation, 792.39 ft (241.520 m); minimum, 13,750 acre-ft (17.0 hm³) Nov. 28, 1971, elevation, 781.25 ft (238.125 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 25,610 acre-ft (31.6 hm³) Aug. 31, elevation, 791.15 ft (241.143 m); minimum, 17,620 acre-ft (21.7 hm³) Sept. 17, elevation, 784.93 ft (239.247 m).

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	789.87	830	
Oct. 31	789.40	23,220	-610
Nov. 30	789.29	23,080	-140
Dec. 31	789.62	23,510	+430
CAL YR 1980			-490
Jan. 31	789.54	23,400	-110
Feb. 28	790.01	24,010	+610
Mar. 31	790.08	24,110	+100
Apr. 30	790.06	24,080	-30
May 31	790.08	24,110	+30
June 30	789.99	23,990	-120
July 31	790.02	24,030	+40
Aug. 31	790.17	24,240	+210
Sept. 30	785.48	18,280	-5,960
WTR YR 1981			-5,550

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 (183 m) south of intersection of West 10th Street and Lynhurst Drive, 0.5 mile (0.8 km) downstream from West 10th Street bridge, 1.0 mile (1.6 km) upstream from Vermont Street bridge, 3.0 miles (4.8 km) upstream from Little Eagle Creek, and 7.1 miles (11.4 km) from mouth.

DRAINAGE AREA.--174 mi^2 (451 km^2).

PERIOD OF RECORD.--November 1938 to current year.

REVISED RECORDS.--WSP 953: 1939. WSP 1625: 1958. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 699.00 ft (213.055 m) 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 (2.198 m) higher.

REMARKS.--Records fair. Flow regulated since November 1969 by Eagle Creek Reservoir, 4.7 miles (7.6 km) upstream (See sta 03353450).

AVERAGE DISCHARGE.--42 years (water years 1940 to current year), 154 ft^3/s (4.361 m^3/s), 12.02 in/yr (305 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,800 ft^3/s (816 m^3/s) June 28, 1957, gage height, 23.59 ft (7.190 m), from rating curve extended above 9,000 ft^3/s (255 m^3/s) on basis of a combined current-meter measurement and slope-area measurement; no flow for several days in August 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 23.2 ft (7.07 m), from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,200 ft^3/s (147 m^3/s) September 17, gage height, 7.24 ft (2.207 m) unusual regulation; minimum daily, 4.0 ft^3/s (0.11 m^3/s) Jan. 12.

NOTE.--No gage-height record Aug. 11 to Sept. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	7.1	6.7	6.6	12	18	13	268	191	42	99	800
2	8.0	7.5	7.2	6.7	9.7	65	14	208	138	56	23	700
3	7.8	7.1	8.0	6.3	8.0	81	16	138	130	17	22	500
4	8.3	6.9	8.3	6.0	7.5	57	101	87	132	18	23	500
5	8.3	7.6	7.6	5.0	7.0	154	85	226	95	212	132	260
6	7.8	8.0	6.9	5.0	6.7	151	17	344	113	77	34	210
7	7.2	7.4	8.1	5.0	6.4	108	14	200	22	21	185	190
8	7.7	7.8	9.2	5.0	6.2	108	12	210	19	18	44	180
9	7.1	7.0	11	5.0	6.0	99	13	160	101	53	43	20
10	7.4	7.4	9.5	5.0	34	18	108	400	18	18	34	100
11	7.1	7.3	9.0	5.0	40	101	198	1050	67	17	21	16
12	7.7	7.4	8.4	4.0	125	16	363	650	198	15	28	16
13	7.8	7.1	8.9	5.0	14	43	233	400	62	16	30	15
14	7.1	6.4	9.4	5.0	91	83	194	800	106	16	30	18
15	6.7	6.8	9.4	5.0	19	17	125	1550	120	26	37	15
16	6.8	7.0	10	5.0	565	72	18	640	72	17	30	358
17	13	8.1	10	5.0	483	16	146	400	20	15	29	2710
18	8.0	8.9	8.9	5.0	348	15	81	1000	18	15	27	23
19	7.4	8.0	9.6	5.0	201	15	21	900	38	20	28	13
20	8.0	7.5	9.1	5.0	307	20	93	442	17	194	24	10
21	7.4	7.1	7.9	5.0	157	18	15	201	41	160	26	8.4
22	7.7	7.1	7.3	5.0	208	16	117	169	22	20	24	8.3
23	7.7	7.1	6.6	5.2	127	15	302	166	125	53	25	8.1
24	10	7.1	6.4	6.0	198	15	212	191	25	18	24	7.8
25	10	7.6	6.3	7.0	110	15	101	835	21	17	16	6.1
26	9.4	7.7	6.9	7.5	97	14	74	448	21	185	16	5.5
27	9.7	14	6.9	7.9	85	14	60	1730	21	513	16	8.4
28	10	9.9	6.9	7.5	89	14	113	1040	20	708	19	6.5
29	8.7	8.6	6.9	8.0	------	14	454	489	16	281	19	13
30	8.7	7.8	6.9	7.3	------	16	358	394	15	157	1080	7.2
31	7.5	-----	6.7	7.5	------	14	---	191	----	70	2100	------
TOTAL	253.6	232.3	250.9	178.5	3367.5	1422	3671	15927	2004	3065	4288	6733.3
MEAN	8.18	7.74	8.09	5.76	120	45.9	122	514	66.8	98.9	138	224
MAX	13	14	11	8.0	565	154	454	1730	198	708	2100	2710
MIN	6.7	6.4	6.3	4.0	6.0	14	12	87	15	15	16	5.5
CFSM	.05	.04	.05	.03	.69	.26	.70	2.95	.38	.57	.79	1.29
IN.	.05	.05	.05	.04	.72	.30	.78	3.41	.43	.66	.92	1.44

CAL YR 1980 TOTAL 37036.4 MEAN 101 MAX 1690 MIN 6.3 CFSM .58 IN 7.92
WTR YR 1981 TOTAL 41393.1 MEAN 113 MAX 2710 MIN 4.0 CFSM .65 IN 8.85

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 downstream side of 16th Street bridge in Speedway, 0.6 mile (1.0 km) upstream from Dry Run, and 2.3 miles (3.7 km) upstream from mouth.

DRAINAGE AREA.--23.9 mi^2 (61.9 km^2) including 5.57 mi^2 (14.43 km^2) from Dry Run basin. Since June 1964 part of the flow from the 5.57 mi^2 (14.43 km^2) of Dry Run basin has been diverted into Little Eagle Creek above gage.

PERIOD OF RECORD.--October 1959 to current year. Figures of runoff for June 1964 to September 1966 have been found to be in error and should not be used.

GAGE.--Water-stage recorder. Datum of gage is 707.82 ft (215.744 m) 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 (0.914 m) higher.

REMARKS.--Records fair except those for winter periods, which are poor. High-water flow is diverted from Dry Run basin into Little Eagle Creek above gage.

AVERAGE DISCHARGE.--17 years (water years 1965 to current year) 20.4 ft^3/s (0.578 m^3/s), 11.59 in/yr (294 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,330 ft^3/s (94.3 m^3/s) July 28, 1979, gage height, 12.13 ft (3.697 m); no flow at times in 1960-64, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 450 ft^3/s (12.7 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 18	1130	505	14.3	4.90	1.494	May 26	1245	459	13.0	4.72	1.439
May 25	0500	915	25.9	6.29	1.917	May 27	1100	*1270	36.0	*7.29	2.222

Minimum daily discharge, 0.99 ft^3/s (0.028 m^3/s) Aug. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.7	2.8	2.5	20	4.4	2.1	46	26	12	3.8	3.6
2	3.4	1.6	3.4	2.3	10	3.9	2.1	28	20	5.0	3.1	24
3	1.8	2.7	2.6	2.2	4.0	3.2	12	21	16	4.0	2.8	9.0
4	1.8	1.3	2.8	2.1	3.0	12	31	17	13	8.0	2.8	6.0
5	1.5	1.3	2.6	2.0	2.5	30	12	62	14	100	4.5	3.4
6	1.5	1.5	2.5	1.9	2.3	15	5.2	114	19	10	9.7	3.0
7	1.4	1.4	2.6	1.8	2.1	8.0	3.8	41	11	6.0	4.6	2.3
8	1.4	1.4	6.9	1.7	2.0	5.7	3.4	27	8.4	5.0	2.7	3.0
9	1.6	1.4	14	1.6	1.9	4.2	3.2	37	7.5	4.5	2.4	3.0
10	1.7	1.5	8.0	1.6	40	3.8	29	149	7.9	4.4	2.0	2.2
11	1.7	1.7	3.7	1.5	20	3.5	40	130	6.6	4.3	1.7	1.8
12	1.6	1.6	7.2	1.5	10	3.4	40	59	108	4.1	1.5	1.8
13	1.7	1.5	4.0	1.7	6.0	3.2	55	38	46	3.8	1.3	1.8
14	1.8	1.5	3.0	1.9	4.6	2.8	27	158	20	3.6	1.2	5.1
15	1.9	2.1	5.0	2.0	12	3.1	12	94	12	37	11	3.0
16	1.8	2.9	4.0	1.9	60	2.9	7.5	43	10	13	4.0	16
17	28	7.8	3.5	2.1	38	2.8	12	29	7.3	5.5	2.2	10
18	9.0	8.2	3.0	2.3	25	2.5	6.3	252	6.2	4.3	1.3	4.3
19	2.5	5.0	2.7	2.5	18	2.5	7.6	102	6.0	23	1.1	3.4
20	1.9	3.0	2.4	2.7	14	2.5	10	46	5.7	75	1.0	2.5
21	1.6	2.5	2.2	3.0	9.4	2.5	4.9	31	31	13	.99	2.3
22	1.6	2.0	2.3	2.7	7.5	2.5	30	24	9.7	6.8	1.1	2.3
23	1.5	2.5	2.5	2.8	13	2.4	96	22	6.0	5.7	1.3	2.3
24	9.9	3.5	2.5	2.9	14	2.2	32	67	5.0	9.9	1.3	2.3
25	10	2.5	2.5	3.3	7.9	2.1	21	432	7.0	3.6	1.2	3.0
26	3.4	2.1	2.7	4.0	5.7	1.9	19	156	5.0	19	1.1	2.8
27	3.3	37	2.8	3.0	4.6	2.4	14	661	4.5	78	2.5	20
28	8.1	14	2.8	2.8	4.6	2.1	20	122	4.0	31	7.8	4.6
29	3.3	4.9	3.0	2.6	-----	3.2	130	60	3.5	12	3.5	14
30	2.3	3.2	2.8	2.4	-----	6.3	72	74	32	6.5	21	8.2
31	1.9	-----	2.6	2.5	-----	3.1	-----	42	-----	4.6	6.7	-----
TOTAL	116.5	125.3	115.4	71.8	362.1	150.1	760.1	3184	478.3	522.6	113.19	171.0
MEAN	3.76	4.18	3.72	2.32	12.9	4.84	25.3	103	15.9	16.9	3.65	5.70
MAX	28	37	14	4.0	60	30	130	661	108	100	21	24
MIN	1.4	1.3	2.2	1.5	1.9	1.9	2.1	17	3.5	3.6	.99	1.8
CFSM	.16	.18	.16	.10	.54	.20	1.06	4.31	.67	.71	.15	.24
IN.	.18	.20	.18	.11	.56	.23	1.18	4.96	.74	.81	.18	.27

CAL YR 1980 TOTAL 6997.70 MEAN 19.1 MAX 219 MIN 1.3 CFSM .80 IN 10.89
WTR YR 1981 TOTAL 6170.39 MEAN 16.9 MAX 661 MIN .99 CFSM .71 IN 9.60

03353620 LICK CREEK AT INDIANAPOLIS, IN

LOCATION.--Lat 39°42'21", long 86°06'13", in NE¼NE¼ sec.32, T.15 N., R.4 E., Marion County, Hydrologic Unit 05120201, on left bank at upstream side of Sherman Drive bridge in Indianapolis, and at mile 6.2 (10.0 km).

DRAINAGE AREA.--15.6 mi² (40.4 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 742.00 ft (226.162 m) National Geodetic Vertical Datum of 1929 (Indiana Flood Control and Water Resources Commission bench mark).

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

AVERAGE DISCHARGE.--11 years, 19.4 ft³/s (0.549 m³/s), 16.89 in/yr (429 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,500 ft³/s (70.8 m³/s) June 25, 1978, gage height, 9.61 ft (2.929 m); minimum daily, 0.49 ft³/s (0.014 m³/s) Oct. 9, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 300 ft³/s (8.50 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 29	0230	350	9.91	3.92	1.195	May 27	0745	875	24.8	5.35	1.631
May 18	1230	717	20.3	4.96	1.512	Aug. 10	1715	489	13.8	4.35	1.326
May. 24	2345	*1310	37.1	*6.33	1.929						

Minimum daily discharge, 0.64 ft³/s (0.018 m³/s) Jan. 12.

NOTE.--No gage-height record Jan. 14 to Feb. 18, June 6 to July 8, and Aug. 29 to Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.2	2.0	1.1	5.2	5.4	3.5	72	19	1.2	1.5	3.0
2	2.8	1.1	4.6	.95	2.0	4.8	3.1	28	13	1.0	1.1	15
3	3.0	1.1	2.2	.92	1.5	4.2	15	17	9.4	.84	1.0	5.0
4	2.1	1.3	1.4	.88	1.3	12	32	12	7.5	3.0	.99	2.5
5	1.1	1.4	1.2	.84	1.1	57	15	48	6.5	20	1.5	1.8
6	1.0	1.4	1.2	.80	1.0	21	7.7	104	6.8	5.0	2.1	1.5
7	1.0	1.4	1.1	.77	.96	12	5.6	35	5.0	2.5	1.1	1.4
8	1.1	1.4	2.7	.74	.92	9.1	4.8	18	4.0	1.4	.87	3.0
9	1.1	1.4	14	.72	.90	7.7	4.4	18	4.2	.97	.78	2.0
10	1.1	1.2	7.9	.70	90	6.9	27	39	4.5	.81	38	1.6
11	1.9	1.3	2.9	.67	40	6.1	66	35	3.5	.74	17	1.4
12	1.4	1.3	2.1	.64	20	5.5	65	19	50	.68	3.4	1.3
13	1.2	1.4	1.7	.68	13	5.1	26	15	6.0	.65	2.1	1.2
14	4.4	1.4	1.3	.74	9.0	4.4	16	94	4.0	1.2	1.6	10
15	2.3	2.4	1.5	.80	30	4.3	10	63	3.0	15	8.0	3.0
16	1.6	2.7	1.7	.70	86	4.3	10	26	2.3	3.3	2.8	12
17	16	4.1	1.2	.80	60	3.8	10	15	2.0	1.2	1.5	7.0
18	5.2	6.2	1.1	1.0	40	3.7	6.7	267	1.8	.88	1.1	3.0
19	1.8	3.5	.96	1.3	28	3.6	6.7	81	1.6	16	.93	2.0
20	1.4	2.5	.85	1.5	25	3.4	8.8	33	1.5	7.4	.87	1.5
21	1.2	2.1	.85	1.3	17	3.2	5.1	18	20	2.6	.86	1.4
22	1.5	1.7	.90	1.1	14	3.0	31	12	4.0	2.2	.84	1.3
23	1.6	2.0	.95	1.1	14	2.8	110	8.7	2.5	1.0	.81	1.2
24	4.1	2.7	1.1	1.3	13	2.6	29	258	1.9	.88	.83	1.2
25	4.4	2.8	1.0	1.5	9.0	2.5	15	406	2.5	.80	.85	1.1
26	1.2	2.0	1.2	1.7	9.2	2.4	12	94	2.0	2.6	.85	1.0
27	4.0	44	1.3	1.5	6.4	4.3	8.9	390	1.6	96	1.2	7.0
28	12	14	1.4	1.2	5.9	3.4	13	87	1.5	19	2.6	2.0
29	3.1	5.5	1.5	1.0	------	4.2	128	38	1.4	6.0	1.5	10
30	1.5	2.9	1.3	.90	------	13	102	93	2.0	4.4	50	2.5
31	1.3	-----	1.2	1.0	------	4.6	-----	40	-----	3.1	8.0	-----
TOTAL	89.0	119.4	66.31	30.85	544.38	230.3	797.3	2483.7	195.0	222.35	156.58	107.9
MEAN	2.87	3.98	2.14	1.00	19.4	7.43	26.6	80.1	6.50	7.17	5.05	3.60
MAX	16	44	14	1.7	90	57	128	406	50	96	50	15
MIN	1.0	1.1	.85	.64	.90	2.4	3.1	8.7	1.4	.65	.78	1.0
CFSM	.18	.26	.14	.06	1.24	.48	1.71	5.14	.42	.46	.32	.23
IN.	.21	.28	.16	.07	1.30	.55	1.90	5.92	.46	.53	.37	.26

CAL YR 1980 TOTAL 4857.31 MEAN 13.3 MAX 400 MIN .85 CFSM .85 IN 11.58
WTR YR 1981 TOTAL 5043.07 MEAN 13.8 MAX 406 MIN .64 CFSM .89 IN 12.03

03353700 WEST FORK WHITE LICK CREEK AT DANVILLE, IN

LOCATION.--Lat 39°45'36", long 86°30'47", in NW¼NE¼ sec.10, T.15 N., R.1 W., Hendricks County, Hydrologic Unit 05120201, on downstream side of bridge on U.S. Highway 36, 0.1 mile (0.2 km) east of city limits of Danville, 0.5 mile (0.8 km) upstream from small left-bank tributary and 7 miles (11.3 km) west of Avon.

DRAINAGE AREA.--28.8 mi^2 (74.6 km^2).

PERIOD OF RECORD.--May 1958 to current year.

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 828.83 ft (252.627 m) 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.--Records poor. Low flow affected by releases from Danville Filtration Plant.

AVERAGE DISCHARGE.--23 years, 28.2 ft^3/s (0.798 m^3/s), 13.30 in/yr (338 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,330 ft^3/s (94.3 m^3/s) July 14, 1962, gage height, 12.13 ft (3.697 m) July 13, 1979; no flow at times during 1961-67, 1970, 1971, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 28, 1957, reached a stage of 16.0 ft (4.88 m), from floodmarks, discharge, 6,660 ft^3/s (189 m^3/s), from contracted-opening measurement .

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 700 ft^3/s (19.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 16	unknown	*829	(23.5)	*5.53	(1.686)	June 12	1500	742	(21.0)	5.14	(1.567)
May 18	1300	811	(23.0)	5.45	(1.661)						

Minimum daily discharge, 0.50 ft^3/sec (0.014 m^3/s) Oct. 15, 16.

NOTE.--No gage-height October 1 to December 9, January 4-23 and February 2-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.90	5.6	13	5.8	7.3	15	4.7	107	48	4.7	6.7	8.4
2	1.1	4.5	11	4.9	30	12	4.0	63	35	4.2	5.2	38
3	.95	4.1	7.8	4.5	7.0	9.2	5.8	43	28	4.0	4.9	26
4	.87	4.0	7.2	3.5	2.8	15	11	32	22	4.9	4.5	16
5	.80	3.5	8.0	2.5	2.2	49	8.8	48	20	11	19	10
6	.74	3.3	7.6	3.2	2.0	33	6.4	180	18	7.3	28	7.0
7	.70	3.1	7.0	3.5	1.9	21	5.5	95	16	4.9	11	4.9
8	.66	3.0	10	3.4	1.8	17	5.5	57	14	4.0	7.0	4.5
9	.62	3.5	23	3.2	1.7	15	5.5	44	13	3.4	4.9	3.0
10	.60	3.7	23	2.8	70	14	16	193	12	3.0	3.6	2.4
11	.57	3.0	15	2.4	54	13	77	347	11	2.5	3.2	2.0
12	.55	2.6	12	2.0	25	12	93	192	215	2.4	2.5	1.7
13	.53	2.4	9.6	2.4	10	11	52	107	125	2.8	2.3	1.5
14	.51	2.3	7.7	2.6	6.0	8.8	33	285	57	5.2	2.0	1.4
15	.50	2.8	8.0	2.7	60	8.8	21	206	33	38	5.8	1.5
16	.50	3.2	7.3	2.5	350	8.4	19	101	25	33	4.0	2.8
17	8.0	2.9	5.8	2.0	160	7.7	18	67	19	13	2.4	3.2
18	6.0	3.3	6.1	2.6	80	7.3	15	390	15	8.0	1.8	3.0
19	2.0	3.2	5.5	3.0	64	7.0	13	237	13	9.6	1.3	2.3
20	1.3	2.9	4.0	3.2	57	6.4	13	114	12	15	1.2	1.9
21	.80	2.6	3.8	3.3	38	6.4	11	63	14	13	1.0	1.5
22	.80	3.1	3.8	3.3	31	5.8	15	43	11	7.7	.85	1.3
23	1.0	3.5	3.8	3.2	33	5.2	90	28	8.0	5.8	.78	1.2
24	5.3	3.1	4.0	3.0	35	4.7	49	35	7.3	7.0	.78	1.1
25	18	2.8	3.8	3.4	26	4.7	31	118	6.7	4.7	.78	1.0
26	7.0	2.5	3.8	4.5	21	4.9	33	69	5.8	4.9	.72	1.0
27	4.5	12	3.8	3.6	18	5.2	29	328	4.9	64	2.4	1.4
28	14	16	4.5	3.0	18	4.5	30	188	4.7	57	25	1.2
29	10	18	5.8	2.4	------	4.9	149	98	4.5	24	13	2.8
30	7.0	17	5.8	2.1	------	6.4	107	85	4.2	13	6.7	3.8
31	6.2	-----	6.1	1.9	------	4.9	-----	79	-----	8.8	3.8	-----
TOTAL	103.00	147.5	247.6	96.4	1212.7	348.2	971.2	4042	822.1	390.8	177.11	157.8
MEAN	3.32	4.92	7.99	3.11	43.3	11.2	32.4	130	27.4	12.6	5.71	5.26
MAX	18	18	23	5.8	350	49	149	390	215	64	28	38
MIN	.50	2.3	3.8	1.9	1.7	4.5	4.0	28	4.2	2.4	.72	1.0
CFSM	.12	.17	.28	.11	1.50	.39	1.13	4.51	.95	.44	.20	.18
IN.	.13	.19	.32	.12	1.57	.45	1.25	5.22	1.06	.50	.23	.20

CAL YR 1980 TOTAL 8222.94 MEAN 22.5 MAX 379 MIN .31 CFSM .78 IN 10.62
WTR YR 1981 TOTAL 8716.41 MEAN 23.9 MAX 390 MIN .50 CFSM .83 IN 11.26

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 mile (1.4 km) downstream from McCracken Creek, 2.0 miles (3.2 km) upstream from East Fork White Lick Creek, and at mile 11.4 (18.3 km).

DRAINAGE AREA.--212 mi^2 (549 km^2).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 644.64 ft (196.486 m) National Geodetic Vertical Datum of 1929. Dec. 10, 1963 to Sept. 30, 1964, nonrecording gage at bridge 1,950 ft (594 m) upstream at datum 1.39 ft (0.424 m) higher.

REMARKS.--Records good.

AVERAGE DISCHARGE.--24 years, 222 ft^3/s (6.287 m^3/s), 14.22 in/yr (361 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,000 ft^3/s (538 m^3/s) July 13, 1979, gage height, 23.31 ft (7.105 m); minimum daily, 2.0 ft^3/s (0.057 m^3/s) Dec. 24, 25, 1960, Sept. 2, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 28, 1957, reached a stage of 22.5 ft (6.86 m), from levels to high-water mark by State of Indiana, Department of Natural Resources.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft^3/s (85.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 18	1800	4740	134	18.28	5.572	May 27	1500	*6310	179	*19.78	6.029
May 25	0700	4820	137	18.37	5.599	July 27	1400	3480	98.6	16.55	5.044

Minimum daily discharge, 18 ft^3/s (0.51 m^3/s) Jan. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.90	5.6	13	5.8	7.3	15	4.7	107	48	4.7	6.7	8.4
2	1.1	4.5	11	4.9	30	12	4.0	63	35	4.2	5.2	38
3	.95	4.1	7.8	4.5	7.0	9.2	5.8	43	28	4.0	4.9	26
4	.87	4.0	7.2	3.5	2.8	15	11	32	22	4.9	4.5	16
5	.80	3.5	8.0	2.5	2.2	49	8.8	48	20	11	19	10
6	.74	3.3	7.6	3.2	2.0	33	6.4	180	18	7.3	28	7.0
7	.70	3.1	7.0	3.5	1.9	21	5.5	95	16	4.9	11	4.9
8	.66	3.0	10	3.4	1.8	17	5.5	57	14	4.0	7.0	4.5
9	.62	3.5	23	3.2	1.7	15	5.5	44	13	3.4	4.9	3.0
10	.60	3.7	23	2.8	70	14	16	193	12	3.0	3.6	2.4
11	.57	3.0	15	2.4	54	13	77	347	11	2.5	3.2	2.0
12	.55	2.6	12	2.0	25	12	93	192	215	2.4	2.5	1.7
13	.53	2.4	9.6	2.4	10	11	52	107	125	2.8	2.3	1.5
14	.51	2.3	7.7	2.6	6.0	8.8	33	285	57	5.2	2.0	1.4
15	.50	2.8	8.0	2.7	60	8.8	21	206	33	38	5.8	1.5
16	.50	3.2	7.3	2.5	350	8.4	19	101	25	33	4.0	2.8
17	8.0	2.9	5.8	2.0	160	7.7	18	67	19	13	2.4	3.2
18	6.0	3.3	6.1	2.6	80	7.3	15	390	15	8.0	1.8	3.0
19	2.0	3.2	5.5	3.0	64	7.0	13	237	13	9.6	1.3	2.3
20	1.3	2.9	4.0	3.2	57	6.4	13	114	12	15	1.2	1.9
21	.80	2.6	3.8	3.3	38	6.4	11	63	14	13	1.0	1.5
22	.80	3.1	3.8	3.3	31	5.8	15	43	11	7.7	.85	1.3
23	1.0	3.5	3.8	3.2	33	5.2	90	28	8.0	5.8	.78	1.2
24	5.3	3.1	4.0	3.0	35	4.7	49	35	7.3	7.0	.78	1.1
25	18	2.8	3.8	3.4	26	4.7	31	118	6.7	4.7	.78	1.0
26	7.0	2.5	3.8	4.5	21	4.9	33	69	5.8	4.9	.72	1.0
27	4.5	12	3.8	3.6	18	5.2	29	328	4.9	64	2.4	1.4
28	14	16	4.5	3.0	18	4.5	30	188	4.7	57	25	1.2
29	10	18	5.8	2.4	------	4.9	149	98	4.5	24	13	2.8
30	7.0	17	5.8	2.1	------	6.4	107	85	4.2	13	6.7	3.8
31	6.2	-----	6.1	1.9	------	4.9	-----	79	-----	8.8	3.8	-----
TOTAL	103.00	147.5	247.6	96.4	1212.7	348.2	971.2	4042	822.1	390.8	177.11	157.8
MEAN	3.32	4.92	7.99	3.11	43.3	11.2	32.4	130	27.4	12.6	5.71	5.26
MAX	18	18	23	5.8	350	49	149	390	215	64	28	38
MIN	.50	2.3	3.8	1.9	1.7	4.5	4.0	28	4.2	2.4	.72	1.0
CFSM	.12	.17	.28	.11	1.50	.39	1.13	4.51	.95	.44	.20	.18
IN.	.13	.19	.32	.12	1.57	.45	1.25	5.22	1.06	.50	.23	.20

CAL YR 1980 TOTAL 8222.94 MEAN 22.5 MAX 379 MIN .31 CFSM .78 IN 10.62
WTR YR 1981 TOTAL 8716.41 MEAN 23.9 MAX 390 MIN .50 CFSM .83 IN 11.26

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM
OCT									
30...	1200	11.0	45	4	.49	--	--	--	---
MAY									
12...	1125	----	184	140	70	88	--	--	---
29...	1030	----	915	113	279	87	--	--	---
JUN									
22...	1115	22.5	102	130	36	--	--	--	---
JUL									
28...	1045	----	619	146	244	90	95	99	100
29...	1420	----	317	71	61	96	--	--	---

03354000 WHITE RIVER NEAR CENTERTON, IN

LOCATION.--Lat 39°29'51", long 86°24'02", in NE¼NE¼ sec.10, T.12 N., R.1 E., Morgan County, Hydrologic Unit 05120201, on right bank at upstream side of bridge on Blue Bluff Road, 0.8 mile (1.3 km) downstream from White Lick Creek, 1 mile (1.6 km) south of Centerton, and at mile 199.3 (321.0 km).

DRAINAGE AREA.--2,444 mi² (6,330 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1925 to September 1930 (gage heights only), October 1930 to March 1932, October 1946 to current year. Monthly discharge only for October and November 1946, published in WSP 1305. Published as West Fork White River at Martinsville prior to March 1932, and as West Fork White River near Centerton October 1946 to September 1948.

REVISED RECORDS.--WSP 1335: 1948-49. WSP 1909: 1931(M). WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 595.44 ft (181.490 m) 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 mile (0.6 km) downstream at same datum.

REMARKS.--Records good. Flow regulated by upstream reservoirs.

AVERAGE DISCHARGE.--36 years (1930-31, 1946 to current year), 2,401 ft³/s (68.00 m³/s), 13.34 in/yr (339mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,500 ft³/s (1,430 m³/s) Apr. 22, 1964, gage height, 17.57 ft (5.355 m) at site 0.4 mile (0.6 km) downstream; minimum daily, 131 ft³/s (3.71 m³/s) Nov. 15, 1930.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 22.8 ft (6.95 m) at Martinsville site (from information by Indiana State Highway Commission) and 21.9 ft (6.68 m) at site 0.4 mile (0.6 km) downstream (from information by Corps of Engineers), discharge, 90,000 ft³/s (2,5 50 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 9,500 ft³/s (269 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 19	0400	15300	433	12.09	3.685	May 28	0500	*23800	674	*14.91	4.545
May 25	1400	15900	450	12.32	3.755						

Minimum daily discharge, 310 ft³/s (8.78 m³/s) Jan. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	601	612	719	510	547	1640	812	5470	6620	1230	2240	4210
2	587	603	688	490	803	1520	748	4210	5310	1120	1750	3320
3	594	581	693	450	673	1380	740	3610	4380	1080	1470	2890
4	594	574	687	400	581	1370	1110	2910	3700	1260	1330	2470
5	567	579	645	340	527	2350	1320	2600	3170	1790	1750	2060
6	520	565	603	370	500	2350	1170	4900	2990	1920	2560	1850
7	520	555	601	410	480	2130	1040	4190	4760	1410	2620	1540
8	520	547	605	390	475	1910	946	3910	6990	1200	2120	1360
9	514	541	699	370	476	1670	886	3280	6080	1080	1650	1220
10	501	534	841	360	608	1540	853	3560	3910	1020	1430	1050
11	507	539	861	340	3130	1380	1790	6410	2980	911	1600	972
12	489	545	871	310	2060	1330	2770	5730	3280	869	1220	861
13	446	547	886	330	2090	1230	3000	4650	4320	812	1240	795
14	464	528	833	340	1730	1180	4100	5790	2820	963	1140	812
15	460	514	772	345	1500	1140	3550	8520	3340	1080	1180	928
16	462	514	755	340	2890	1040	3020	8050	3650	1550	1160	878
17	536	514	723	340	5090	1050	2530	7470	2930	1030	1020	2530
18	1060	515	688	350	5180	946	2370	9060	2250	894	920	2080
19	723	541	671	360	4570	903	1940	12500	1940	903	820	1070
20	636	553	580	380	3850	894	1840	7750	1720	1650	763	886
21	622	553	568	393	3630	869	1650	5930	1680	2270	717	787
22	551	553	518	410	3280	820	1460	4430	1840	3150	680	748
23	542	541	508	434	2830	787	5750	3610	1750	2660	665	644
24	533	540	507	446	2740	795	3500	3310	1760	1930	630	615
25	601	540	507	440	2450	732	2670	13600	1560	1510	620	567
26	658	530	479	440	2270	717	2370	10200	1440	1330	600	560
27	637	647	471	489	1990	710	2060	16500	1470	4410	680	601
28	642	1110	470	520	1800	717	1730	21200	1280	5620	740	740
29	688	897	480	560	-----	695	3560	15400	1130	5080	800	740
30	686	777	500	574	-----	836	4130	14700	1050	4210	2000	989
31	633	-----	520	560	-----	836	-----	11000	-----	2980	5000	-----
TOTAL	18094	17689	19949	12791	58750	37467	65415	234450	92100	58922	43115	40773
MEAN	584	590	644	413	2098	1209	2181	7563	3070	1901	1391	1359
MAX	1060	1110	886	574	5180	2350	5750	21200	6990	5620	5000	4210
MIN	446	514	470	310	475	695	740	2600	1050	812	600	560
CFSM	.24	.24	.26	.17	.86	.50	.89	3.10	1.26	.78	.57	.56
IN.	.28	.27	.30	.19	.89	.57	1.00	3.57	1.40	.90	.66	.62

CAL YR 1980 TOTAL 890202 MEAN 2432 MAX 21000 MIN 446 CFSM 1.00 IN 13.55
WTR YR 1981 TOTAL 699515 MEAN 1916 MAX 21200 MIN 310 CFSM .78 IN 10.65

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 (5 m) downstream from bridge on State Highway 135, 0.3 mile (0.5 km) south of Beanblossom, 2.7 miles (4.3 km) upstream from North Fork Beanblossom Creek, and at mile 42.1 (67.7 km).

DRAINAGE AREA.--14.6 mi^2 (37.8 km^2).

WATER-DISCHARGE RECORDS PERIOD OF RECORD.--October 1951 to current year. Prior to October 1965, published as Beanblossom Creek at Beanblossom.

REVISED RECORDS.--WSP 1555: 1952, 1953(M), 1956-57. WSP 1705: 1952(P). WRD 1979: 1978.

GAGE.--Water-stage recorder. Datum of gage is 673.65 ft (205.329 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--30 years, 15.8 ft^3/s (0.447 m^3/s), 14.70 in/yr (373 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,140 ft^3/s (231 m^3/s) June 23, 1960, gage height, 11.78 ft (3.591 m), from curve extended above 2,000 ft^3/s (56.6 m^3/s) on basis of contracted-opening measurement at gage height 11.78 ft (3.591 m); no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 700 ft^3/s (19.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 23	0330	827	23.4	6.96	2.121	May 25	0045	*1690	47.9	*9.93	3.027
May 18	1300	755	21.4	6.61	2.015	May 27	0800	1060	30.0	8.05	2.454

Minimum daily discharge, 0.05 ft^3/s (0.001 m^3/s) Aug. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	.77	4.2	2.7	9.0	9.4	11	24	29	.77	.10	.50
2	.36	.67	4.5	2.4	12	8.2	8.6	19	27	.77	.10	.77
3	.36	.67	3.9	1.6	7.8	7.0	7.4	15	20	.77	.10	.50
4	.26	.67	3.6	1.2	7.0	11	10	12	18	.77	.10	.36
5	.31	.67	3.6	.76	3.5	56	11	11	16	4.5	20	.31
6	.15	.58	3.3	.80	2.4	32	9.0	18	15	2.2	11	.26
7	.15	.58	3.3	.82	2.2	22	8.2	13	12	1.4	1.4	.21
8	.15	.58	3.9	.82	2.1	17	7.4	10	6.6	1.0	.58	.26
9	.21	.58	7.4	.82	2.0	14	7.4	9.4	5.4	.77	.50	.15
10	.21	.50	7.0	.80	85	12	17	23	55	.58	.50	.14
11	.15	.50	6.2	.78	166	10	58	33	18	.50	.58	.11
12	.15	.42	5.4	.70	55	8.6	97	22	13	.42	.36	.10
13	.15	.42	4.8	.76	18	7.8	52	17	9.0	.36	.31	.10
14	.15	.42	4.2	.79	11	6.6	30	144	6.6	.31	.26	.22
15	.21	.42	4.2	.81	9.0	6.2	22	112	5.1	.31	1.0	.23
16	.10	.42	4.2	.82	77	7.0	17	44	3.9	.36	.67	.45
17	1.5	.77	3.6	.82	51	5.8	28	26	2.9	.36	.36	.45
18	1.5	1.1	3.9	.81	30	5.1	61	253	2.2	.36	.26	.28
19	.42	1.0	3.6	.88	28	4.8	26	112	1.9	.77	.21	.22
20	.31	.88	2.4	1.5	45	4.5	29	43	1.9	1.0	.15	.21
21	.31	.88	2.0	2.4	27	4.2	24	26	7.0	1.2	.15	.26
22	.36	.77	2.2	2.7	21	3.9	30	19	5.1	.58	.42	.23
23	.31	.88	2.4	2.4	20	3.6	327	14	3.1	.42	.26	.24
24	.50	1.0	2.7	2.4	20	3.3	58	429	2.7	.36	.15	.21
25	1.4	1.0	2.4	2.7	16	3.1	33	469	1.9	.31	.10	.21
26	1.1	.88	2.2	3.3	13	2.9	54	92	1.9	.31	.05	.23
27	.58	12	2.2	3.1	11	3.9	35	536	1.5	.31	.58	.23
28	1.2	8.6	2.0	2.7	11	3.9	24	142	1.2	.42	.50	.21
29	1.1	6.2	2.2	2.2	----	4.5	34	47	1.1	.42	.50	.45
30	.88	4.8	2.4	2.0	----	20	30	39	.88	.21	.42	.83
31	.77	-----	2.7	1.7	----	14	------	35	------	.10	.42	----
TOTAL	15.47	49.63	112.6	48.99	762.0	322.3	1166.0	2808.4	294.88	22.92	42.09	8.93
MEAN	.50	1.65	3.63	1.58	27.2	10.4	38.9	90.6	9.83	.74	1.36	.30
MAX	1.5	12	7.4	3.3	166	56	327	536	55	4.5	20	.83
MIN	.10	.42	2.0	.70	2.0	2.9	7.4	9.4	.88	.10	.05	.10
CFSM	.03	.11	.25	.11	1.86	.71	2.66	6.21	.67	.05	.09	.02
IN.	.04	.13	.29	.12	1.94	.82	2.97	7.16	.75	.06	.11	.02

CAL YR 1980 TOTAL 5016.07 MEAN 13.7 MAX 274 MIN .10 CFSM .94 IN 12.78
WTR YR 1981 TOTAL 5654.21 MEAN 15.5 MAX 536 MIN .05 CFSM 1.06 IN 14.41

03354500 BEAN BLOSSOM CREEK AT BEANBLOSSOM, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM
OCT									
05...	1000	12.0	.26	21	.01	97	--	---	---
12...	1000	12.0	.15	52	.02	95	--	---	---
16...	1100	11.0	.15	55	.02	--	--	---	---
19...	1100	15.0	.36	38	.04	89	--	---	---
26...	1000	10.0	2.2	28	.17	--	--	---	---
NOV									
02...	1100	9.0	.67	52	.09	95	--	---	---
09...	1000	15.0	.50	36	.05	95	--	---	---
25...	1030	2.0	1.0	7	.02	--	--	---	---
26...	1000	10.0	.77	28	.06	95	--	---	---
30...	1100	9.0	4.8	23	.30	91	--	---	---
JAN									
08...	1415	.5	1.9	8	.04	--	--	---	---
FEB									
19...	1430	----	9.0	11	.27	--	--	---	---
19...	1710	5.5	27	13	.95	--	--	---	---
23...	0930	----	18	461	22	76	96	99	100
APR									
02...	1430	15.0	8.6	11	.26	--	--	---	---
23...	0930	----	301	461	375	--	--	---	---
MAY									
07...	1430	17.5	12	15	.49	99	--	---	---
19...	0845	10.5	116	71	22	92	98	100	---
19...	1700	13.0	77	38	7.9	93	98	100	---
JUN									
18...	1515	26.0	1.9	30	.15	95	--	---	---
JUL									
30...	1430	24.0	.15	67	.03	97	--	---	---
SEP									
09...	1755	21.0	.21	9	.01	--	--	---	---

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 mile (0.8 km) west of Groveland, and 4.5 miles (7.2 km) east of Bainbridge.

DRAINAGE AREA.--3.00 mi^2 (7.77 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 828.44 ft (252.509 m) National Geodetic Vertical Datum of 1929 (Indiana State Highway Commission bench mark).

REMARKS.--Records fair.

AVERAGE DISCHARGE.--12 years, 3.71 ft^3/s (0.105 m^3/s), 16.79 in/yr (426 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 744 ft^3/s (21.1 m^3/s) June 30, 1977, gage height, 5.75 ft (1.753 m); no flow at times during 1970, 1975-77.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 150 ft^3/s (4.25 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 10	1415	154	4.36	3.20	0.975
May 18	1115	*270	7.65	*3.60	1.097

Minimum daily discharge, 0.03 ft^3/s (0.001 m^3/s) Oct. 1, 3-5, 7, 9, 10, July 8-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.30	.62	.35	.99	1.5	.59	11	5.5	.06	1.2	5.1
2	.04	.25	.60	.29	.60	1.3	.54	5.8	4.3	.06	1.2	9.1
3	.03	.23	.44	.27	.35	1.1	1.1	4.0	3.2	.06	.89	4.2
4	.03	.22	.40	.14	.20	2.6	2.1	2.8	2.3	.07	.80	2.7
5	.03	.20	.46	.09	.14	7.9	1.3	5.8	2.0	.28	24	1.6
6	.04	.18	.42	.11	.12	4.9	.99	12	1.8	.08	12	1.2
7	.03	.18	.38	.11	.11	2.8	.92	6.2	1.3	.04	4.9	1.0
8	.04	.17	.59	.11	.11	2.2	1.1	4.1	1.1	.03	2.5	.92
9	.03	.20	1.3	.10	.10	1.8	1.2	3.7	1.0	.03	1.6	.67
10	.03	.19	1.3	.09	8.4	1.7	2.1	57	1.2	.03	1.2	.54
11	.04	.16	.98	.08	5.8	1.5	2.9	32	1.5	.03	1.0	.45
12	.06	.16	.87	.06	2.4	1.4	4.1	16	4.6	.03	.81	.38
13	.04	.17	.71	.07	.92	1.3	2.8	11	4.5	.70	.75	.31
14	.04	.21	.58	.08	.67	1.0	2.1	51	2.9	5.2	.62	.32
15	.04	.12	.62	.08	11	1.1	1.4	26	1.8	7.8	3.9	.29
16	.04	.13	.59	.07	40	1.0	1.2	12	1.6	2.4	1.6	.40
17	.51	.14	.53	.07	11	.88	1.2	8.1	1.3	.99	1.6	.34
18	.35	.19	.54	.07	6.8	.83	.91	69	1.1	.61	1.9	.34
19	.12	.18	.41	.07	6.8	.80	1.0	19	1.0	.51	1.5	.24
20	.07	.16	.21	.08	6.1	.77	1.0	11	.99	4.4	1.1	.19
21	.05	.14	.20	.11	4.1	.74	.77	7.0	1.1	4.3	.32	.15
22	.05	.13	.20	.14	3.9	.66	1.6	5.1	1.1	1.2	.29	.12
23	.06	.14	.20	.16	5.2	.61	8.4	4.0	.52	.80	.24	.09
24	.39	.17	.21	.19	5.5	.60	3.4	12	.16	.97	.23	.09
25	1.0	.16	.21	.26	3.2	.57	2.0	12	.14	.63	.23	.08
26	.41	.13	.20	.47	2.3	.56	2.0	6.9	.12	.77	.17	.07
27	.30	.70	.20	.36	1.9	.55	1.6	42	.10	31	2.1	.14
28	.80	.91	.22	.28	1.8	.55	1.3	16	.09	12	2.5	.07
29	.56	.70	.31	.19	------	.58	8.6	8.6	.08	5.8	.75	2.1
30	.40	.68	.33	.15	------	.76	16	11	.06	3.1	.71	.99
31	.34	----	.37	.12	------	.65	-----	8.0	-----	1.7	.49	-----
TOTAL	6.00	7.60	15.20	4.82	130.51	45.21	76.22	500.1	48.46	85.68	73.10	34.19
MEAN	.19	.25	.49	.16	4.66	1.46	2.54	16.1	1.62	2.76	2.36	1.14
MAX	1.0	.91	1.3	.47	40	7.9	16	69	5.5	31	24	9.1
MIN	.03	.12	.20	.06	.10	.55	.54	2.8	.06	.03	.17	.07
CFSM	.06	.08	.16	.05	1.55	.49	.85	5.37	.54	.92	.79	.38
IN.	.07	.09	.19	.06	1.62	.56	.94	6.20	.60	1.06	.91	.42

CAL YR 1980 TOTAL 764.21 MEAN 2.09 MAX 36 MIN .03 CFSM .70 IN 9.47
WTR YR 1981 TOTAL 1027.09 MEAN 2.81 MAX 69 MIN .03 CFSM .94 IN 12.73

03357420 BIG WALNUT CREEK AT GREENCASTLE, IN

LOCATION.--Lat 39°40'01", long 86°51'57", in NW¼SW¼ sec.9, T.14 N., R.4 W., Putnam County, Hydrologic Unit 05120203, on left bank, 80 ft (24.4 m) downstream from concrete dam at the Greencastle Waterworks, 0.2 mile (0.3 km) downstream from Snyder Branch, 0.3 mile (0.5 km) upstream from bridge on U.S. Highway 231, 1.1 miles (1.8 km) north of Greencastle, and at mile 21.1 (33.9 km).

DRAINAGE AREA.--216 mi² (559 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1974 to current year.

REVISED RECORDS,--WDR IN-79-1: 1975, 1978.

GAGE.--Water-stage recorder. Datum of the gage is 665.00 ft (202.692 m) National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to Sept. 9, 1979, water-stage recorder at site 110 ft (33.5 m) upstream at same datum.

REMARKS.--Water-discharge records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--7 years, 225 ft³/s (6.372 m³/s), 14.16 in/yr (360 m).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,500 ft³/s (184 m³/s), Mar. 4, 1979, gage height, 13.96 ft (4.255 m); minimum daily, 3.1 ft³/s (0.088 m³/s) Oct. 18, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 28, 1957, reached a stage of 24.1 ft (7.35 m), from flood profile by State of Indiana, Department of Natural Resources.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,800 ft³/s (51.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 11	0100	3940	112	9.99	3.045	May 27	1900	1930	54.6	7.81	2.380
May 15	0300	3670	104	9.73	2.966	July 27	2100	2130	60.3	8.01	2.441
May 18	1600	*4700	133	*10.68	3.255						

Minimum daily discharge, 16 ft³/s (0.453 m³/s) Jan. 12.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL ANALYSIS: December 1973 to September 1977.
WATER TEMPERATURE: December 1973 to September 1977.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	52	55	33	39	121	46	675	345	62	174	267
2	23	46	56	31	44	107	43	485	286	62	137	572
3	21	40	51	27	40	92	45	364	236	52	114	324
4	21	40	46	19	33	105	82	270	204	56	104	218
5	21	37	45	17	27	256	85	383	181	82	97	161
6	21	36	45	20	25	315	66	779	176	97	522	120
7	21	35	44	21	24	226	55	596	151	70	281	95
8	21	33	43	21	23	172	52	429	137	59	178	85
9	21	33	66	21	22	147	50	357	127	51	133	71
10	20	30	84	21	25	131	75	1340	147	46	109	61
11	19	29	82	19	163	137	488	2600	116	44	97	52
12	19	28	72	16	155	127	518	1560	216	42	87	46
13	17	28	65	20	104	116	409	874	514	40	79	44
14	17	27	59	22	99	87	298	2040	278	100	74	43
15	17	26	55	22	85	81	206	2510	190	135	99	44
16	75	26	51	21	480	78	161	1060	141	312	121	47
17	167	24	49	20	828	70	155	746	120	141	89	50
18	183	25	46	22	535	68	141	2960	100	95	75	49
19	157	27	39	22	433	64	120	1900	90	78	69	46
20	129	25	32	22	413	62	121	909	84	84	64	41
21	112	24	30	22	321	58	105	625	79	170	61	39
22	95	23	29	22	259	56	121	482	78	121	57	38
23	79	25	28	23	256	51	493	402	70	89	56	36
24	75	28	27	26	270	50	443	373	64	82	55	35
25	107	28	28	30	226	47	304	676	61	76	50	34
26	89	27	28	33	183	45	343	489	56	71	49	34
27	72	38	29	34	149	45	246	1580	53	1060	49	38
28	75	62	32	32	137	45	194	1280	51	1230	49	45
29	75	64	33	24	----	47	646	765	49	628	94	133
30	69	59	33	24	----	55	606	716	47	367	104	147
31	64	----	33	24	----	51	----	597	----	243	90	----
TOTAL	1925	1025	1415	731	5398	3112	6717	30822	4447	5845	3417	3015
MEAN	62.1	34.2	45.6	23.6	193	100	224	994	148	189	110	101
MAX	183	64	84	34	828	315	646	2960	514	1230	522	572
MIN	17	23	27	16	22	45	43	270	47	40	49	34
CFSM	.29	.16	.21	.11	.89	.46	1.04	4.60	.69	.88	.51	.47
IN.	.33	.18	.24	.13	.93	.54	1.16	5.31	.77	1.01	.59	.52

CAL YR 1980 TOTAL 67364 MEAN 184 MAX 2260 MIN 17 CFSM .85 IN 11.60
WTR YR 1981 TOTAL 67869 MEAN 186 MAX 2960 MIN 16 CFSM .86 IN 11.69

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 miles (2.4 km) southwest of Reelsville, and 4.1 miles (6.6 km) upstream from Mill Creek.

DRAINAGE AREA.--326 mi² (844 km²).

WATER-DISCHARGE RECORDS

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 (179.296 m) 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.--Records good. Flow partly regulated by Soil Conservation Service control structures on tributaries to Little Walnut Creek beginning in 1971.

AVERAGE DISCHARGE.--32 years, 345 ft³/s (9.770 m³/s), 14.37 in/yr (365 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,400 ft³/s (776 m³/s) June 28, 1957, gage height, 18.63 ft (5.678 m), from rating curve extended above 18,000 ft³/s (510 m³/s) on basis of slope-conveyance method; minimum daily, 1.4 ft³/s (0.040 m³/s) Sept. 8, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,800 ft³/s (79.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 11	0100	5070	144	11.84	3.609	May 30	1200	3390	96.0	9.58	2.920
May 15	0700	4210	119	10.73	3.270	July 27	2200	4250	120	10.78	3.286
May 18	1800	*6060	172	*13.05	3.978						

Minimum daily discharge, 35 ft³/s (0.99 m³/s) Jan. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	150	80	57	57	219	86	825	716	86	308	256
2	82	142	80	52	86	198	79	598	576	105	246	944
3	83	133	75	48	70	178	99	436	483	91	217	504
4	83	129	68	40	60	198	198	351	417	96	191	334
5	83	122	67	37	52	536	202	532	366	239	184	254
6	82	117	65	38	45	426	146	1170	345	175	791	202
7	82	114	61	39	43	345	119	787	302	134	417	165
8	80	111	63	39	42	286	112	521	264	111	280	148
9	80	108	100	39	41	249	103	417	244	96	214	129
10	79	111	127	39	45	231	783	2260	278	86	175	112
11	77	102	120	38	858	221	720	3860	231	79	156	102
12	75	63	105	35	504	212	640	2300	209	75	136	93
13	74	49	93	40	280	200	433	1260	583	71	122	88
14	74	47	83	41	221	171	322	2150	413	178	112	103
15	74	47	78	41	212	154	256	3390	299	214	196	89
16	158	47	75	39	1010	156	231	1540	239	394	207	122
17	239	46	70	41	1250	142	224	1010	202	224	146	105
18	256	48	66	42	741	133	193	3540	178	146	117	96
19	219	47	63	43	565	125	219	3300	163	117	103	88
20	196	46	60	43	529	120	193	1540	150	129	95	80
21	180	46	58	43	420	116	167	1010	140	182	88	73
22	167	44	54	44	360	111	1070	753	134	171	82	68
23	165	44	52	47	366	103	1000	613	125	123	78	65
24	163	47	51	54	391	97	633	583	116	108	74	62
25	212	46	49	66	331	93	404	858	111	102	72	59
26	184	45	51	68	283	91	430	704	103	91	70	58
27	169	62	53	58	249	95	366	1990	96	1810	77	63
28	184	93	55	47	236	91	291	1940	92	2070	150	61
29	175	92	59	42	----	91	837	1140	88	1020	200	224
30	169	87	59	41	----	106	800	1700	86	613	144	278
31	158	----	59	41	----	96	-----	1020	----	417	123	----
TOTAL	4150	2385	2199	1382	9347	5590	11356	44098	7749	9553	5571	5025
MEAN	134	79.5	70.9	44.6	334	180	379	1423	258	308	180	168
MAX	256	150	127	68	1250	536	1070	3860	716	2070	791	944
MIN	48	44	49	35	41	91	79	351	86	71	70	58
CFSM	.41	.24	.22	.14	1.03	.55	1.16	4.37	.79	.95	.55	.52
IN.	.47	.27	.25	.16	1.07	.64	1.30	5.03	.88	1.09	.64	.57

CAL YR 1980 TOTAL 104073 MEAN 284 MAX 3310 MIN 40 CFSM .87 IN 11.88
WTR YR 1981 TOTAL 108405 MEAN 297 MAX 3860 MIN 35 CFSM .91 IN 12.37

03357500 BIG WALNUT CREEK NEAR REELSVILLE, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
OCT										
29...	1450	8.5	171	6	2.8	--	--	---	---	---
DEC										
10...	1000	6.0	127	10	3.4	--	--	---	---	---
MAR										
06...	1430	5.5	430	80	93	71	84	96	100	---
APR										
23...	1020	15.0	1110	889	2660	83	89	94	99	100
MAY										
13...	1500	----	1180	329	1050	80	88	96	100	---
28...	1200	----	1960	533	2820	76	--	---	---	---
JUN										
02...	1300	----	572	356	550	99	--	---	---	---
23...	1200	21.5	125	50	17	74	96	100	---	---
JUL										
30...	0920	----	632	207	353	90	--	---	---	---

03358000 MILL CREEK NEAR CATARACT, IN

LOCATION.--Lat 39°26'00", long 86°45'48", in NE¼SE¼ sec.32, T.12 N., R.3 W., Owen County, Hydrologic Unit 05120203, on right bank at downstream side of bridge on U.S. Highway 231, 3 miles (5 km) east of Cataract, and at mile 17.5 (28.2 km).

DRAINAGE AREA.--245 mi^2 (635 km^2).

WATER-DISCHARGE RECORDS

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 (215.311 m) 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 (30 m) upstream at same datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--32 years, 262 ft^3/s (7.420 m^3/s), 14.52 in/yr (369 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,400 ft^3/s (323 m^3/s) June 24, 1960, gage height, 22.58 ft (6.882 m); minimum daily, 0.1 ft^3/s (0.003 m^3/s) Sept. 7, 28, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,500 ft^3/s (70.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 17	0100	2790	79.0	12.89	3.929	May 15	2200	3030	85.8	13.34	4.066
Apr. 23	1000	2790	79.0	12.89	3.929	May 19	1600	3190	90.3	13.64	4.157
May 11	1600	2880	81.6	13.05	3.978	May 28	1600	*4490	127	*15.85	4.831

Minimum daily discharge, 20 ft^3/s (0.57 m^3/s) Jan. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	49	81	42	45	143	53	806	746	65	141	77
2	34	44	77	37	87	124	46	466	506	48	89	941
3	33	39	70	38	60	106	46	321	361	40	76	468
4	31	39	58	25	40	115	72	244	294	69	67	240
5	30	37	57	22	29	577	101	224	236	272	321	148
6	28	34	55	23	28	514	71	1460	208	246	1200	101
7	28	33	50	24	27	294	56	797	169	137	325	78
8	28	34	50	24	26	216	52	412	141	88	153	69
9	28	33	68	24	26	179	53	313	125	67	98	58
10	26	31	103	24	142	162	61	1210	255	57	75	47
11	24	28	92	22	1780	146	328	2790	165	48	188	41
12	24	26	77	20	465	128	548	2070	127	43	89	36
13	24	26	70	23	291	119	418	720	151	40	59	33
14	24	27	59	26	184	101	261	1400	128	675	49	31
15	26	28	56	28	252	92	174	2890	94	558	127	58
16	26	28	58	29	1500	97	133	2010	78	639	160	48
17	39	28	51	27	2310	83	122	626	69	226	87	76
18	83	32	48	26	721	79	180	1680	61	125	61	53
19	53	33	45	26	464	72	118	3060	56	193	49	43
20	41	30	30	27	480	69	155	1820	54	422	42	36
21	36	28	31	28	348	65	113	576	60	200	36	31
22	33	27	33	29	280	61	170	381	72	111	33	27
23	30	27	39	30	297	57	2480	296	48	76	30	24
24	33	29	44	34	388	54	1150	409	46	66	29	22
25	90	30	36	38	277	52	433	2720	54	57	27	21
26	59	27	35	47	209	51	457	2500	50	49	27	21
27	44	57	36	49	170	57	382	3350	43	812	31	21
28	73	178	35	39	160	57	256	4310	40	1710	114	22
29	89	127	37	29	-----	54	935	3300	39	571	139	38
30	65	94	41	27	-----	73	770	1900	37	274	78	114
31	54	----	41	25	-----	70	-----	2110	----	164	129	----
TOTAL	1270	1283	1663	912	11086	4067	10194	47171	4513	8148	4129	3023
MEAN	41.0	42.8	53.6	29.4	396	131	340	1522	150	263	133	101
MAX	90	178	103	49	2310	577	2480	4310	746	1710	1200	941
MIN	24	26	30	20	26	51	46	224	37	40	27	21
CFSM	.17	.18	.22	.12	1.62	.54	1.39	6.21	.61	1.07	.54	.41
IN.	.19	.19	.25	.14	1.68	.62	1.55	7.16	.69	1.24	.63	.46

CAL YR 1980 TOTAL 78498 MEAN 214 MAX 2790 MIN 21 CFSM .87 IN 11.92
WTR YR 1981 TOTAL 97459 MEAN 267 MAX 4310 MIN 20 CFSM 1.09 IN 14.80

03358000 MILL CREEK NEAR CATARACT, IN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	545	461	449	521	533	560			---	520		---
2	550	459	452	506	451	564			---	521		---
3	551	457	445	508	526	566			---	524		---
4	559	457	452	548	557	563			---	481		---
5	563	456	457	604	601	507			---	515		---
6	570	454	460	629	607	488			---	482		---
7	569	451	459	634	606	504			---	518		---
8	569	454	454	624	580	518			---	549		---
9	566	454	444	611	580	518			---	563		---
10	481	454	443	614	565	523			---	571		---
11	470	452	449	620	181	525			---	574		---
12	471	450	454	632	290	526			---	571		---
13	476	448	462	638	353	526			---	569		---
14	480	450	465	639	407	528			---	560		---
15	477	452	465	629	418	525			---	422		---
16	471	457	465	607	346	517			---	432		---
17	466	458	467	605	275	520			---	514		---
18	461	450	468	623	300	516			---	545		504
19	457	447	473	626	336	514			---	551		517
20	460	449	510	622	380	512			---	403		533
21	467	448	568	604	414	512			---	452		545
22	467	445	593	579	443	508			---	497		549
23	464	447	586	553	464	504			---	526		553
24	462	448	563	548	477	499			503	550		562
25	445	452	536	536	496	497			513	565		576
26	425	454	557	515	514	491			519	569		598
27	429	454	568	471	530	---			518	568		595
28	425	400	572	457	551	---			520	---		599
29	436	410	566	475	---	---			524	---		600
30	447	435	561	504	---	---			527	---		583
31	458	---	529	527	---	---			---	---		---
MEAN	488	449	497	574	456	520			518	523		563
MAX	570	461	593	639	607	566			527	574		600
MIN	425	400	443	457	181	488			503	403		504

WTR YR 1981 MEAN 505 MAX 639 MIN 181

03358000 MILL CREEK NEAR CATARACT, IN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	528	456	436	505	433	551			---	512		---
2	516	457	437	501	430	559			---	509		---
3	533	454	439	505	456	560			---	432		---
4	521	455	444	514	524	516			---	427		---
5	559	451	451	553	558	422			---	337		---
6	561	449	456	610	599	443			---	434		---
7	556	448	454	622	583	488			---	477		---
8	544	450	443	604	566	504			---	521		---
9	543	449	430	606	567	510			---	550		---
10	454	448	431	610	139	514			---	556		---
11	457	445	443	615	137	518			---	558		---
12	462	443	449	623	185	517			---	552		---
13	466	443	455	634	294	518			---	555		---
14	467	443	457	629	356	515			---	147		---
15	451	445	460	606	360	514			---	268		---
16	451	449	460	598	165	507			---	248		---
17	421	446	462	599	160	505			---	437		---
18	425	438	464	609	275	508			---	515		480
19	442	435	468	619	301	506			---	303		506
20	451	441	472	603	338	502			---	188		518
21	456	441	515	578	381	500			---	326		535
22	464	440	572	552	414	493			---	456		546
23	462	439	561	543	443	489			---	499		545
24	440	442	535	538	463	488			486	527		549
25	396	444	530	517	477	487			497	549		564
26	421	445	535	473	496	477			510	562		578
27	421	386	560	448	513	---			510	145		585
28	420	386	563	446	531	---			512	---		591
29	424	399	559	454	---	---			518	---		593
30	438	404	528	476	---	---			512	---		567
31	447	---	516	505	---	---			---	---		---
MEAN	471	439	483	558	398	504			506	429		551
MAX	561	457	572	634	599	560			518	562		593
MIN	396	386	430	446	137	422			486	145		480

WTR YR 1981 MEAN 476 MAX 634 MIN 137

03358000 MILL CREEK NEAR CATARACT, IN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	538	459	444	511	498	556	---		---	516		---
2	537	458	443	503	435	564	---		---	515		---
3	543	456	442	505	506	563	---		---	484		---
4	547	456	449	536	542	543	---		---	447		---
5	561	454	455	579	586	439	---		---	424		---
6	565	451	458	612	603	468	---		---	465		---
7	563	450	457	544	596	496	---		---	506		---
8	559	452	451	614	575	508	---		---	536		---
9	557	452	436	609	573	515	---		---	557		---
10	467	451	437	612	468	518	---		---	564		---
11	465	449	446	618	152	523	---		---	568		---
12	467	446	452	628	---	523	---		---	564		---
13	470	445	458	635	329	522	---		---	561		---
14	474	447	461	560	387	521	---		---	351		---
15	466	449	463	620	402	517	---		---	346		---
16	459	454	462	601	256	513	---		---	333		---
17	443	454	464	601	235	511	---		---	483		---
18	436	446	466	617	287	512	---		---	531		491
19	452	440	471	624	---	510	---		---	507		512
20	454	445	493	615	360	508	---		---	292		523
21	462	444	549	591	398	506	---		---	386		539
22	465	443	584	566	427	502	---		---	481		548
23	463	444	578	549	454	499	---		---	513		548
24	454	445	551	542	469	493	---		498	540		554
25	421	449	532	529	487	492	---		506	557		570
26	423	450	547	495	506	484	---		515	566		588
27	425	423	565	461	521	277	---		515	407		589
28	422	397	567	453	541	---	---		517	167		594
29	432	404	562	465	---	---	---		521	---		598
30	444	420	545	493	---	---	---		519	---		573
31	454	---	521	521	---	---	---		---	---		---
MEAN	480	444	491	562	446	437	---		513	470		556
MAX	565	459	584	635	603	564	---		521	568		598
MIN	421	397	436	453	152	277	---		498	167		491

WTR YR 1981 MEAN 450 MAX 635 MIN 152

03358000 MILL CREEK NEAR CATARACT, IN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.0	8.5	7.0	.5	.5	7.0	16.5		----	25.0		----
2	18.0	8.0	7.5	.5	.0	5.5	16.0		----	25.0		----
3	16.5	9.5	5.5	.5	.0	5.0	15.5		----	25.0		----
4	14.0	10.5	3.5	.5	.0	5.0	15.5		----	23.0		----
5	11.5	10.0	5.5	.5	.5	4.5	14.5		----	22.0		----
6	11.0	8.5	9.0	.5	.5	4.0	12.0		----	23.0		----
7	12.0	9.5	11.0	.5	.0	4.0	13.5		----	24.5		----
8	13.0	11.0	11.5	.5	.5	4.0	14.0		----	26.5		----
9	14.5	12.5	10.5	.5	.5	4.0	17.5		----	28.0		----
10	15.5	11.5	8.0	.5	.0	6.0	----		----	28.5		----
11	14.5	9.5	4.5	.5	.0	6.0	----		----	29.0		----
12	13.0	7.0	5.0	.5	.0	6.5	----		----	28.0		----
13	11.5	7.0	5.5	.5	.0	8.5	----		----	28.0		----
14	12.0	7.5	4.0	.5	.0	8.0	----		----	27.0		----
15	13.5	7.5	3.5	.5	.0	7.0	----		----	25.0		----
16	15.5	7.0	3.5	.5	.0	8.0	----		----	22.0		----
17	16.0	5.5	3.5	.0	.5	7.5	----		----	24.5		----
18	15.5	4.5	3.5	.0	3.0	7.5	----		----	25.0		17.5
19	14.5	3.5	3.5	.0	4.5	5.5	----		----	25.0		17.5
20	12.0	3.5	1.0	.0	5.0	4.0	----		----	24.5		18.0
21	12.5	4.0	1.0	.5	5.5	6.0	----		----	24.5		20.0
22	12.5	4.0	.5	.5	6.0	7.0	----		----	23.0		17.5
23	13.0	4.5	.5	.5	6.0	8.5	----		----	22.5		18.5
24	12.5	5.5	.5	.5	4.5	10.0	----		25.5	23.0		18.0
25	11.0	5.0	.5	.5	5.5	10.0	----		24.5	23.5		18.5
26	8.0	4.0	.5	.5	6.5	11.5	----		24.5	23.5		20.0
27	6.5	3.5	.5	.5	6.0	14.5	----		25.0	24.0		20.0
28	7.0	3.5	.5	.5	8.0	14.5	----		24.5	----		19.0
29	7.0	3.5	.5	.5	---	14.0	----		26.0	----		16.5
30	7.0	4.0	.5	.5	---	14.5	----		25.5	----		15.0
31	7.5	----	.5	.5	---	16.0	----		----	----		----
MEAN	12.5	7.0	4.0	.5	2.5	8.0	15.0		25.0	25.0		18.0
MAX	18.0	12.5	11.5	.5	8.0	16.0	17.5		26.0	29.0		20.0
MIN	6.5	3.5	.5	.0	.0	4.0	12.0		24.5	22.0		15.0

WTR YR 1981 MEAN 9.5 MAX 29.0 MIN .0

03358000 MILL CREEK NEAR CATARACT, IN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	6.5	4.0	.5	.0	5.5	14.0		----	24.0		----
2	17.0	6.5	5.5	.0	.0	4.5	12.5		----	23.5		----
3	14.0	7.0	3.0	.5	.0	3.5	13.5		----	23.0		----
4	11.5	9.0	2.5	.5	.0	4.0	14.5		----	22.5		----
5	10.0	8.5	3.0	.5	.0	3.5	10.5		----	21.0		----
6	9.5	7.0	5.5	.5	.0	3.0	8.5		----	20.5		----
7	10.0	8.0	9.0	.5	.0	3.0	9.5		----	22.0		----
8	11.0	9.5	10.5	.0	.0	3.0	12.0		----	24.5		----
9	12.5	11.0	8.0	.0	.0	3.0	14.0		----	25.5		----
10	14.0	9.5	4.5	.0	.0	4.5	----		----	25.5		----
11	13.0	7.0	3.5	.0	.0	5.0	----		----	25.0		----
12	11.5	6.0	4.0	.0	.0	4.0	----		----	25.0		----
13	10.5	5.5	4.5	.0	.0	6.0	----		----	25.0		----
14	10.5	6.5	3.5	.0	.0	6.0	----		----	24.0		----
15	11.5	7.0	3.0	.0	.0	5.5	----		----	21.0		----
16	13.0	5.5	3.0	.0	.0	6.0	----		----	21.0		----
17	15.0	4.0	2.5	.0	.0	5.0	----		----	21.5		----
18	14.5	3.5	2.5	.0	.5	5.0	----		----	22.5		16.5
19	12.0	3.0	1.0	.0	3.0	4.0	----		----	24.0		15.5
20	11.0	2.5	.5	.0	4.0	2.5	----		----	23.0		15.5
21	11.0	3.0	.5	.0	5.0	3.0	----		----	23.0		16.5
22	11.5	3.0	.5	.0	5.5	5.0	----		----	22.0		16.5
23	11.5	3.5	.5	.0	4.5	5.0	----		----	20.5		15.5
24	11.0	4.5	.5	.0	3.5	6.0	----		23.5	20.5		15.5
25	8.5	4.0	.5	.0	4.5	7.0	----		23.0	21.5		16.0
26	6.5	3.0	.5	.0	5.5	8.5	----		22.5	22.0		16.5
27	6.0	2.5	.5	.0	5.5	10.5	----		22.0	21.0		17.0
28	6.0	2.5	.5	.0	6.5	11.0	----		21.5	----		16.0
29	6.5	2.5	.5	.0	---	13.0	----		22.0	----		15.0
30	5.5	3.0	.5	.0	---	12.5	----		23.0	----		14.0
31	5.5	----	.5	.0	---	12.0	----		----	----		----
MEAN	11.0	5.5	3.0	.0	1.5	6.0	12.0		22.5	23.0		16.0
MAX	17.0	11.0	10.5	.5	6.5	13.0	14.5		23.5	25.5		17.0
MIN	5.5	2.5	.5	.0	.0	2.5	8.5		21.5	20.5		14.0

WTR YR 1981 MEAN 8.0 MAX 25.5 MIN .0

03358000 MILL CREEK NEAR CATARACT, IN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.5	7.5	5.5	.5	.0	6.5	15.0		----	24.5		----
2	17.5	7.5	7.0	.5	.0	5.0	14.0		----	24.5		----
3	15.5	8.0	4.0	.5	.0	4.0	14.5		----	24.0		----
4	12.5	9.5	3.0	.5	.0	4.5	15.0		----	23.0		----
5	10.5	9.0	4.0	.5	.0	4.0	12.5		----	21.5		----
6	10.0	7.5	7.5	.5	.0	3.5	10.0		----	22.0		----
7	11.0	9.0	10.0	.5	.0	3.5	11.5		----	23.5		----
8	12.0	10.5	11.0	.5	.0	3.5	13.0		----	25.5		----
9	13.5	11.5	9.5	.5	.0	4.0	15.0		----	26.5		----
10	14.0	11.0	6.0	.5	.0	5.5	----		----	27.0		----
11	14.0	8.0	4.0	.5	.0	5.5	.0		----	26.5		----
12	12.5	6.5	4.5	.5	.0	5.0	.0		----	26.5		----
13	11.0	6.0	5.0	.5	.0	7.0	.0		----	27.0		----
14	11.0	7.5	3.5	.0	.0	7.0	.0		----	25.0		----
15	12.5	7.5	3.0	.0	.0	6.5	.0		----	24.0		----
16	14.0	6.0	3.5	.0	.0	6.5	.0		----	21.5		----
17	15.5	5.0	3.0	.0	.0	6.0	.0		----	23.0		----
18	15.0	4.0	3.0	.0	2.0	6.0	----		----	24.0		17.0
19	13.0	3.0	2.0	.0	3.5	4.5	----		----	24.5		16.5
20	11.5	3.0	.5	.0	4.5	3.5	----		----	24.0		17.0
21	12.0	3.5	.5	.0	5.5	4.5	----		----	23.5		18.0
22	12.0	3.5	.5	.0	6.0	6.0	----		----	22.5		17.0
23	12.0	4.0	.5	.0	5.0	6.5	----		----	21.5		17.0
24	12.0	5.0	.5	.0	4.0	8.0	----		25.0	22.0		16.5
25	10.0	4.5	.5	.0	5.0	8.5	----		23.5	22.5		17.0
26	7.5	3.0	.5	.0	6.0	10.0	----		23.5	23.0		18.0
27	6.5	3.0	.5	.0	6.0	12.0	----		23.5	22.5		18.5
28	6.5	3.0	.5	.0	7.5	13.0	----		23.0	22.0		17.5
29	6.5	3.0	.5	.0	---	13.5	----		24.0	----		15.5
30	6.0	3.5	.5	.5	---	13.5	----		24.5	----		14.5
31	6.5	----	.5	.5	---	14.0	----		----	----		----
MEAN	11.5	6.0	3.5	.0	2.0	7.0	7.5		24.0	24.0		17.0
MAX	17.5	11.5	11.0	.5	7.5	14.0	15.0		25.0	27.0		18.5
MIN	6.0	3.0	.5	.0	.0	3.5	.0		23.0	21.5		14.5

WTR YR 1981 MEAN 8.5 MAX 27.0 MIN .0

03358900 CAGLES MILL LAKE NEAR MANHATTAN, IN

LOCATION.--Lat 39°29'14", long 86°55'02", in NE¼NW¼ sec.13, T.12 N., R.5 W., Putnam County, Hydrologic Unit 05120203, in discharge tower of reservoir on Mill Creek, 1.5 miles (2.4 km) upstream from Deer Creek, 2.7 miles (4.3 km) above mouth, and 5.8 miles (9.3 km) south of Manhattan.

DRAINAGE AREA.--293 mi^2 (759 km^2).

PERIOD OF RECORD.--July 1953 to current year. Prior to September 1970, published as Cagles Mill "Reservoir".

GAGE.--Water-stage recorder. Datum of gage is 600.00 ft (182.880 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Oct. 1, 1975, at datum 18.17 ft (5.538 m) lower.

REMARKS.--Reservoir is formed by earth and rock-fill dam. Releases normally controlled by three gates, 5 ft (1.5 m) wide and 10 ft (3.0 m) high, in 12 ft (3.7 m) by 12 ft (3.7 m) concrete-lined tunnel 496 ft (151.2 m) long through right abutment. Minimum design capacity is 27,110 acre-ft (33.4 hm^3), elevation, 636 ft (193.9 m). Capacity at uncontrolled spillway elevation, 704 ft (214.6 m) is 228,000 acre-ft (218 hm^3). Reservoir is used for flood control and recreation. Reservoir put in operation on July 6, 1953.

COOPERATION.--Water-stage recorder graph and capacity tables furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 165,210 acre-ft (204 hm^3) Aug. 30, 1979, elevation, 689.61 ft (210.193 m); minimum, 21,700 acre-ft (26.8 hm^3) Oct. 21-26, 1964, elevation, 631.89 ft (192.600 m). Pool lowered to elevation, 597.57 ft (182.139 m) Oct. 23, 1971 (contents, dry) due to drainage of lake to kill fish.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 134,070 acre-ft (165.31 hm^3) Jun. 14, elevation, 681.16 ft (207.618 m); minimum, 27,110 acre-ft (33.43 hm^3) Jan. 13 elevation, 636.00 ft (193.853 m).

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	637.44	29,180	
Oct. 31	637.47	29,220	+40
Nov. 30	638.05	30,070	+850
Dec. 31	637.44	29,180	-890
CAL YR 1980			-4,760
Jan. 31	636.11	27,270	-1,910
Feb. 28	636.25	27,470	+200
Mar. 31	636.55	27,890	+420
Apr. 30	644.94	41,360	+13,470
May 31	679.75	129,300	+87,940
June 30	669.32	97,030	-32,270
July 31	639.80	32,740	-64,290
Aug. 31	637.60	29,410	-3,330
Sept. 30	637.59	29,400	-10
WTR YR 1981			+220

03359000 MILL CREEK NEAR MANHATTAN, IN

LOCATION.--Lat 39°29'22", long 86°55'50", in SW¼SE¼ sec.11, T.12 N., R.5 W., Putnam County, Hydrologic Unit 05120203, on left bank 200 ft (61 m) downstream from Cagles Mill, 0.7 mile (1.1 km) downstream from Cagles Mill Lake, 0.8 mile (1.3 km) upstream from Deer Creek, 5.8 miles (9.3 km) south of Manhattan, and at mile 2.0 (3.2 km).

DRAINAGE AREA.--294 mi^2 (761 km^2).

PERIOD OF RECORD.--May to September 1931 (fragmentary), October 1938 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 1335: 1940-41. WSP 2109: Drainage area.

GAGE.--None. Datum of gage was 581.83 ft (177.342 m) National Geodetic Vertical Datum of 1929. May 12, 1941 to Sept. 30, 1974, water-stage recorder at site described in "LOCATION" paragraph. See WSP 1725 for history of changes prior to May 12, 1941.

REMARKS.--Flow regulated by Cagles Mill Lake (See sta 03358900). Daily discharg computed from relation between discharge, head, and gate openings for Cagles Mill Lake beginning Oct. 1, 1974.

COOPERATION.--Records of daily discharge furnished by Corps of Engineers beginning Oct. 1, 1976.

AVERAGE DISCHARGE.--43 years (1938 to current year), 303 ft^3/s (8.581 m^3/s), 14.00 in/yr (356 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,960 ft^3/s (254 m^3/s) Jan. 5, 1950, gage height, 18.38 ft (5.602 m); no flow Aug. 7, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,050 ft^3/s (58.1 m^3/s) July 9; minimum daily, 18 ft^3/s (0.51 m^3/s) Jan. 14-22, Mar. 26, 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	69	232	228	39	276	19	1070	110	1840	977	70
2	50	69	300	226	142	150	96	1120	110	1940	418	73
3	50	69	218	225	154	137	19	1200	110	1930	33	76
4	37	55	69	224	47	188	19	1090	110	1910	34	185
5	33	50	69	223	47	191	19	905	110	1890	90	416
6	33	50	69	121	47	366	97	254	110	1870	126	493
7	33	50	69	31	47	651	19	401	110	1850	399	498
8	33	50	70	31	46	758	19	718	110	1970	740	493
9	33	50	70	31	46	411	97	772	110	2050	848	385
10	33	50	209	31	47	205	19	506	111	2020	612	199
11	33	39	278	31	50	272	20	108	111	1990	112	50
12	27	33	174	31	53	229	71	110	111	1960	78	50
13	20	33	69	22	353	236	242	112	111	1930	287	50
14	20	33	69	18	473	229	466	113	111	1910	197	50
15	20	33	97	18	470	190	640	117	111	1600	51	50
16	20	33	106	18	472	107	635	120	111	1420	164	65
17	20	33	98	18	227	107	630	121	372	1690	184	105
18	20	33	63	18	211	107	366	122	913	1830	89	116
19	40	33	50	18	431	107	209	104	1070	1800	76	102
20	50	33	50	18	668	107	209	98	1060	1770	55	60
21	42	33	50	18	757	92	209	99	1490	1740	50	50
22	33	33	50	18	753	83	178	99	1600	1700	42	37
23	33	33	42	25	865	83	130	99	1720	1440	33	25
24	33	33	33	31	1070	83	114	99	1330	1080	33	33
25	33	33	33	43	1130	41	105	101	1430	1140	33	33
26	58	33	33	61	1110	18	105	101	1740	90	25	33
27	83	33	33	65	662	51	432	103	1730	91	57	33
28	229	34	33	65	288	18	1160	105	1720	100	70	33
29	246	72	33	65	-----	18	474	107	1710	307	70	33
30	106	92	33	52	-----	19	392	109	1690	949	284	75
31	83	----	113	43	-----	96	----	110	-----	1260	161	----
TOTAL	1634	1327	2915	2067	10705	5626	7210	10293	21342	47067	6428	3971
MEAN	52.7	44.2	94.0	66.7	382	181	240	332	711	1518	207	132
MAX	246	92	300	228	1130	758	1160	1200	1740	2050	977	498
MIN	20	33	33	18	39	18	19	98	110	90	25	25
CFSM	.18	.15	.32	.23	1.30	.62	.82	1.13	2.42	5.16	.70	.45
IN.	.21	.17	.37	.26	1.35	.71	.91	1.30	2.70	5.96	.81	.50

CAL YR 1980 TOTAL 106488 MEAN 291 MAX 1780 MIN 19 CFSM .99 IN 13.47
WTR YR 1981 TOTAL 120585 MEAN 330 MAX 2050 MIN 18 CFSM 1.12 IN 15.26

03359980 JORDAN CREEK NEAR JORDAN, IN
(Baseline water-quality station for the coal-mining region of Southwestern Indiana)

LOCATION.--Lat 39°24'09", long 86°55'34", in SE¼SE¼ sec.11, T.11 N., R.5 W., Owen County, Hydrologic Unit 05120203, on right bank at upstream side of bridge on county road, .45 miles (.72 km) downstream from North Fork Jordan Creek, .57 miles (.92 km) northwest of Jordan, and 3.1 miles (4.99 km) southeast of Poland.

DRAINAGE AREA.--25.9 mi² (41.7 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1980 to September 1981.

GAGE.--Water-stage recorder.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 866 ft³/s (24.5 m³/s) Apr. 23, 1981, gage height, 13.17 ft (4.01 m); minimum daily, 3.6 ft³/s (.10 m³/s) Aug. 25, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 866 ft³/s (24.5 m³/s) Apr. 23, gage height, 13.17 ft (4.01 m); minimum daily, 3.6 ft³/s (.10 m³/s) Aug. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	7.2	11	8.0	18	14	11	37	50	6.8	4.6	8.5
2	4.4	6.6	14	7.0	24	13	9.6	27	39	6.4	4.4	45
3	4.2	6.4	12	6.0	18	12	11	21	29	6.1	4.4	29
4	4.0	6.2	11	5.6	15	18	20	17	23	5.7	4.4	11
5	3.8	6.1	11	5.5	13	138	20	27	20	6.4	110	8.7
6	3.8	6.1	11	5.4	11	45	14	79	20	6.1	38	7.4
7	3.9	6.2	10	5.5	9.4	26	12	30	17	5.4	10	6.4
8	3.8	5.9	11	5.6	7.8	19	11	19	15	4.6	7.2	6.6
9	3.8	5.9	16	5.6	6.8	17	12	20	14	4.2	6.2	5.9
10	3.9	5.5	15	5.5	6.2	17	56	498	55	4.2	7.6	5.4
11	3.9	5.2	13	5.5	6.7	16	424	451	19	3.9	6.8	5.0
12	3.9	5.0	12	5.4	7.4	14	271	113	16	3.8	5.2	4.9
13	4.2	5.2	11	5.3	9.0	13	94	51	15	3.8	4.7	4.7
14	4.9	6.2	10	5.1	11	12	49	382	13	6.8	4.6	5.7
15	5.0	5.4	11	5.0	14	12	29	471	12	7.2	18	5.7
16	5.7	5.4	11	4.8	132	12	24	89	11	7.2	8.5	8.2
17	12	6.2	9.6	4.7	73	11	22	43	11	6.1	6.2	7.8
18	10	7.8	8.3	4.6	48	10	19	449	10	5.4	5.2	6.8
19	6.8	7.0	7.5	4.5	43	9.2	18	153	9.6	9.9	4.6	5.7
20	6.1	7.0	7.1	4.6	40	8.7	22	56	9.9	12	4.3	5.9
21	5.9	6.4	7.0	4.9	26	8.2	17	34	13	7.8	4.0	4.9
22	5.5	5.9	6.6	5.0	24	7.8	37	26	12	6.6	3.9	4.7
23	5.7	6.4	6.5	5.5	31	7.5	596	21	10	5.7	3.8	4.4
24	12	6.8	6.6	6.2	34	7.2	92	140	9.4	5.5	3.8	4.3
25	16	6.4	6.7	7.4	22	7.0	42	383	9.6	5.2	3.6	4.3
26	8.2	5.9	6.8	9.9	18	6.7	31	83	8.9	5.4	3.8	4.2
27	8.9	37	7.0	9.2	16	7.7	23	670	8.5	5.2	6.6	4.9
28	15	21	7.4	8.0	16	9.1	19	184	8.2	5.7	8.5	4.4
29	12	15	7.7	11	-----	10	88	66	8.0	6.4	6.8	5.7
30	8.5	12	8.5	15	-----	17	61	288	7.4	5.4	6.4	7.2
31	7.8	-----	8.7	11	-----	12	------	93	-----	4.9	5.2	-----
TOTAL	207.4	245.3	302.0	202.3	700.3	537.1	2154.6	5021	503.5	185.8	321.3	243.3
MEAN	6.69	8.18	9.74	6.53	25.0	17.3	71.8	162	16.8	5.99	10.4	8.11
MAX	16	37	16	15	132	138	596	670	55	12	110	45
MIN	3.8	5.0	6.5	4.5	6.2	6.7	9.6	17	7.4	3.8	3.6	4.2
CFSM	.26	.32	.38	.25	.97	.67	2.77	6.25	.65	.23	.40	.31
IN.	.30	.36	.44	.29	1.01	.77	3.09	7.21	.72	.26	.46	.35

WTR YR 1981 TOTAL 10623.9 MEAN 29.1 MAX 670 MIN 3.6 CFSM 1.12 IN 15.26

03359980 JORDAN CR NR JORDAN, IN--Continued
(Baseline water-quality station for the coal-mining region of Southwestern Indiana)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL ANALYSIS: October 1, 1980 to September 30, 1981
SPECIFIC CONDUCTANCE: October 1, 1980 to September 30, 1981.
WATER TEMPERATURE: October 1, 1980 to September 30, 1981.
SEDIMENT DISCHARGE: October 1, 1980 to September 30, 1981 (partial-record station).

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 322 micromhos Sept. 27, 1981; minimum, 99 micromhos May 27, 1981.
WATER TEMPERATURE: Maximum, 27.0° C July 8, 1981; minimum freezing point on many days during 1980-81 winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	OXYGEN, DIS-SOLVED (MG/L)	TEMPER-ATURE (DEG C)	ALKA-LINITY LAB (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)	ACIDITY (MG/L AS H)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)
OCT											
09...	1000	3.8	310	7.9	9.5	13.1	140	--	--	60	600
NOV											
14...	1430	5.7	280	7.8	----	8.5	140	10	.2	40	910
DEC											
10...	1230	15	270	7.6	11.5	5.2	110	--	--	90	600
JAN											
14...	1400	----	317	7.4	----	.1	130	--	--	70	550
FEB											
18...	1100	55	180	8.5	----	3.0	57	--	--	190	1200
MAR											
17...	1000	11	285	7.3	----	3.4	100	--	--	50	630
MAY											
06...	1200	81	175	7.0	----	12.5	60	--	--	70	1500
JUN											
03...	1030	31	215	7.2	----	18.5	83	--	--	60	660
JUL											
08...	1100	4.8	295	7.2	----	23.6	130	--	--	40	330
AUG											
04...	0900	4.5	294	7.5	----	19.7	140	--	--	80	440

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)
OCT											
09...	660	140	12	186	1.9	.25	16	--	---	----	---
NOV											
14...	950	190	9.7	181	2.8	.25	6	--	---	----	---
DEC											
10...	690	130	19	167	6.8	.23	80	97	---	----	---
JAN											
14...	620	200	17	179	----	.24	---	--	---	----	---
FEB											
18...	1400	150	25	139	20.6	.19	80	--	96	39	760
MAR											
17...	680	200	22	161	4.8	.22	24	96	---	----	---
MAY											
06...	1600	120	20	118	25.7	.16	149	49	---	----	---
JUN											
03...	720	90	19	131	10.8	.18	36	73	---	----	---
JUL											
08...	370	80	11	176	2.3	.24	26	95	140	7.0	0
AUG											
04...	520	100	9.4	270	3.3	.37	---	--	---	----	---

03359980 JORDAN CR NR JORDAN, IN--Continued
(Baseline water-quality station for the coal-mining region of Southwestern Indiana)

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CALCIUM DIS-SOLVED (MG/L AS CA)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	POTAS-SIUM 40 DIS-SOLVED (PCI/L AS K40)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT 09...	--	-	--	--	-	---	---	----	---	-	--
NOV 14...	--	-	--	--	-	---	---	----	---	-	--
DEC 10...	--	-	--	--	-	---	---	----	---	-	--
JAN 14...	--	-	--	--	-	---	---	----	---	-	--
FEB 18...	0	0	27	16	5	<.1	1.8	1.3	7.0	7	20
MAR 17...	--	-	--	--	-	---	---	----	---	-	--
MAY 06...	--	-	--	--	-	---	---	----	---	-	--
JUN 03...	--	-	--	--	-	---	---	----	---	-	--
JUL 08...	30	1	39	0	3	.1	1.0	.70	9.5	4	20
AUG 04...	--	-	--	--	-	---	--	----	---	-	--

03359980 JORDAN CREEK NEAR JORDAN, IN--Continued
(Baseline water-quality station for the coal-mining region of Southwestern Indiana)

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	290	264	253	252	247	221	241	153	126	---	318	278
2	287	269	249	253	234	224	242	155	132	---	320	238
3	282	273	243	257	250	225	243	162	183	---	320	226
4	285	277	249	272	262	224	238	170	222	---	295	251
5	287	277	253	291	273	189	234	173	---	---	229	262
6	288	277	255	286	266	185	237	151	---	---	183	271
7	289	278	258	277	259	193	242	150	---	---	222	268
8	289	278	258	279	256	199	245	158	---	279	244	269
9	289	281	252	276	261	204	248	165	---	286	255	269
10	289	279	247	276	220	207	230	136	---	289	256	276
11	291	278	248	277	166	208	171	102	---	292	222	288
12	293	278	251	286	199	213	182	112	---	293	259	296
13	294	278	252	277	217	217	198	122	---	296	271	303
14	296	280	254	273	224	218	217	112	---	265	278	307
15	296	278	254	266	227	222	221	100	---	264	236	306
16	300	275	253	266	210	223	220	113	---	271	248	304
17	272	267	254	271	192	222	223	124	---	285	273	294
18	256	262	257	271	204	240	229	109	---	291	287	291
19	268	262	258	268	209	241	222	102	---	272	293	292
20	277	256	275	259	215	241	207	116	---	265	296	297
21	282	262	285	251	215	242	197	126	---	283	299	297
22	285	265	285	248	213	243	195	135	---	292	300	297
23	286	266	271	252	210	244	137	141	---	294	300	300
24	274	264	260	254	205	246	143	139	---	301	302	295
25	241	262	272	252	208	246	148	105	---	303	305	307
26	256	264	275	238	212	246	161	119	---	304	307	312
27	262	225	268	238	215	243	173	99	---	302	288	322
28	247	227	268	245	218	243	184	101	---	300	279	320
29	241	239	262	252	---	245	164	117	---	292	279	311
30	258	247	256	259	---	235	152	112	---	301	283	303
31	263	---	253	266	---	237	---	113	---	310	283	---
MEAN	278	266	259	264	225	225	205	129	166	289	275	288
MAX	300	281	285	291	273	246	248	173	222	310	320	322
MIN	241	225	243	238	166	185	137	99	126	264	183	226

WTR YR 1981 MEAN 244 MAX 322 MIN 99

03359980 JORDAN CREEK NEAR JORDAN, IN--Continued
(Baseline water-quality station for the coal-mining region of Southwestern Indiana)

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.5	7.0	6.5	1.5	1.0	5.5	13.5	13.5	16.5	---	21.0	21.5
2	16.0	7.0	6.0	.5	.0	4.5	12.5	13.0	18.0	---	22.0	21.0
3	12.5	9.0	2.5	.5	.0	3.5	13.5	14.0	19.5	---	21.5	21.0
4	10.5	9.5	2.5	.0	.0	4.0	14.0	15.0	19.0	---	22.5	21.0
5	9.5	7.5	6.0	.0	.0	3.5	10.0	15.0	----	---	22.0	20.0
6	9.5	6.5	9.0	.0	.0	3.0	9.0	13.5	----	---	22.5	20.0
7	11.5	9.0	10.0	.0	.0	3.0	10.5	13.0	----	---	23.0	19.5
8	12.5	10.5	10.0	.0	.0	3.0	12.5	13.5	----	27.0	21.0	19.5
9	14.0	11.5	8.0	.0	.0	3.0	15.0	14.5	----	25.0	21.0	17.5
10	13.5	9.0	4.5	.0	.0	5.0	13.0	13.5	----	25.0	21.5	18.0
11	12.0	6.0	4.0	.0	.0	4.5	13.5	12.0	----	23.5	21.0	19.0
12	10.0	5.0	5.0	.0	.0	5.0	14.5	11.5	----	23.5	20.5	20.0
13	9.0	6.5	4.0	.0	.0	6.0	15.0	12.0	----	25.5	20.5	21.0
14	11.0	8.0	3.0	.0	.0	5.0	15.0	12.5	----	24.5	20.5	20.0
15	13.5	7.0	3.5	.0	.5	4.5	12.0	13.0	----	22.5	20.5	19.0
16	15.0	5.5	3.5	.0	.0	5.5	11.0	13.5	----	23.0	20.0	16.5
17	15.5	4.0	1.5	.0	1.0	3.0	14.0	13.5	----	24.0	19.5	14.5
18	14.0	4.0	3.5	.0	2.5	5.0	16.0	11.5	----	24.0	18.5	14.0
19	10.5	3.0	.5	.0	4.0	3.0	13.5	11.0	----	23.5	19.5	14.5
20	10.5	3.0	.0	.0	4.5	3.0	12.5	12.5	----	24.0	19.5	15.5
21	11.5	3.5	.0	.0	5.0	5.0	11.5	14.0	----	23.0	20.0	16.5
22	11.5	3.0	.0	.0	6.0	5.5	12.0	15.5	----	21.5	20.5	15.5
23	12.0	5.0	.0	.5	4.5	6.5	14.0	16.0	----	19.5	20.0	13.5
24	11.5	6.0	.0	1.0	4.0	7.0	11.0	17.0	----	21.5	21.0	14.0
25	9.0	3.5	.0	2.0	4.5	7.5	11.5	17.0	----	22.5	21.5	16.5
26	7.5	2.0	.0	2.5	5.0	10.0	14.5	16.0	----	22.5	21.5	18.5
27	6.5	2.0	.0	1.5	5.5	11.5	17.0	15.5	----	22.5	21.0	18.5
28	8.0	2.5	.0	1.0	7.0	11.5	18.5	16.0	----	22.0	21.0	15.0
29	7.0	3.0	.5	.0	---	12.5	16.0	17.5	----	19.0	21.5	12.0
30	5.5	3.5	1.0	.0	---	12.5	14.5	18.0	----	19.5	22.0	15.0
31	6.5	----	1.0	.0	---	13.5	----	17.0	----	20.0	23.0	----
MEAN	11.0	6.0	3.0	.5	2.0	6.0	13.5	14.0	18.5	23.0	21.0	17.5
MAX	16.5	11.5	10.0	2.5	7.0	13.5	18.5	18.0	19.5	27.0	23.0	21.5
MIN	5.5	2.0	.0	.0	.0	3.0	9.0	11.0	16.5	19.0	18.5	12.0

WTR YR 1981 MEAN 10.5 MAX 27.0 MIN .0

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 (152 m) downstream from bridge on State Highway 46 at Bowling Green, 0.2 mile (0.3 km) downstream from Jordan Creek, and at mile 38.4 (61.8 km).

DRAINAGE AREA.--830 mi² (2,150 km²).

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 (167.036 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). See WSP 1725 for history of changes prior to Dec. 1, 1949.

REMARKS.--Records good. Flow regulated by Cagles Mill Lake (See sta 03358900).

AVERAGE DISCHARGE.--50 years, 870 ft³/s (24.64 m³/s), 14.23 in/yr (361 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,000 ft³/s (963 m³/s) Jan. 4, 1950, gage height, 23.53 ft (7.172 m); minimum daily, 11 ft³/s (0.31 m³/s) Oct. 7, 8, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 30.0 ft (9.14 m) in 1875, present datum, from information by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,800 ft³/s (278 m³/s) May 11, gage height, 18.34 ft (5.590 m); minimum daily, 90 ft³/s (2.549 m³/s) Jan. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	161	296	323	330	150	637	242	2120	1590	1880	1660	262
2	173	279	482	328	240	508	227	2100	1310	2050	1140	1790
3	199	270	476	333	282	406	217	1920	1110	2040	435	1290
4	195	257	262	333	227	454	325	2040	977	2030	353	727
5	184	242	223	330	190	1380	448	1920	862	2180	577	780
6	181	236	217	230	170	1180	375	3090	792	2130	1170	849
7	181	232	209	110	150	1160	286	1790	726	2070	968	780
8	177	227	205	103	145	1310	238	1880	654	2050	1110	744
9	175	221	251	102	140	957	268	1840	609	2160	1250	673
10	173	221	343	100	250	605	372	3380	941	2120	1170	469
11	170	213	421	97	1280	577	2230	8670	671	2090	495	279
12	168	192	386	90	531	531	1720	5620	588	2060	310	232
13	160	160	264	105	589	473	1470	2400	801	2030	354	217
14	155	151	244	110	942	492	1170	2840	865	2130	476	209
15	153	148	236	110	798	418	1220	5990	673	2060	356	291
16	170	147	253	110	1450	389	1090	3390	575	2070	492	251
17	289	148	246	100	2650	372	1040	1910	600	1930	552	354
18	424	156	225	110	1470	354	926	3540	1100	2060	305	296
19	338	155	190	110	1340	340	561	7890	1780	1990	259	282
20	313	151	150	110	1460	333	621	3180	1780	1990	227	236
21	289	147	160	110	1450	323	558	1840	1790	1980	201	201
22	264	145	165	110	1330	291	561	1450	1800	1970	188	186
23	251	143	160	115	1370	279	3240	1220	1890	1870	170	166
24	257	145	155	120	1670	270	1690	1340	1790	1210	161	160
25	367	150	148	151	1670	257	972	2510	1440	502	155	153
26	346	145	152	160	1560	211	809	1590	1910	365	151	150
27	325	229	160	172	1360	219	918	4970	1890	916	165	148
28	395	315	160	165	703	232	1510	4970	1880	3360	291	150
29	492	291	156	153	-----	209	2320	2250	1860	1820	482	161
30	364	291	158	142	-----	251	1670	2820	1850	1570	370	608
31	333	----	161	126	-----	275	-----	3090	-----	1880	485	-----
TOTAL	7822	6103	7341	4875	25567	15693	29294	95560	37104	58563	16478	13094
MEAN	252	203	237	157	913	506	976	3083	1237	1889	532	436
MAX	492	315	482	333	2650	1380	3240	8670	1910	3360	1660	1790
MIN	153	143	148	90	140	209	217	1220	575	365	151	148
CFSM	.30	.25	.29	.19	1.10	.61	1.18	3.71	1.49	2.28	.64	.53
IN.	.35	.27	.33	.22	1.15	.70	1.31	4.28	1.66	2.62	.74	.59

CAL YR 1980 TOTAL 286889 MEAN 784 MAX 5280 MIN 93 CFSM .95 IN 12.86
WTR YR 1981 TOTAL 317494 MEAN 870 MAX 8670 MIN 90 CFSM 1.05 IN 14.23

03360500 WHITE RIVER AT NEWBERRY, IN

LOCATION.--Lat 38°55'42", long 87°01'00", in NE¼NE¼ sec.25, T.6 N., R.6 W., Greene County, Hydrologic Unit 05120202, on right bank 500 ft (152 m) upstream from bridge on State Highway 57 at Newberry, 2.3 miles (3.7 km) downstream from Doans Creek, and at mile 112.7 (181.3 km).

DRAINAGE AREA.--4,688 mi² (12,142 km²).

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 (141.912 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 21, 1928, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are poor. Flow slightly regulated by upstream reservoirs.

AVERAGE DISCHARGE.--53 years, 4,694 ft³/s (133 m³/s), 13.60 in/yr (345 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 76,900 ft³/s (2,180 m³/s) May 21, 1943, gage height, 24.19 ft (7.373 m); minimum daily, 200 ft³/s (5.66 m³/s) Oct. 1, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1875, 27.5 ft (8.38 m) Mar. 27, 1913, from floodmarks by Indiana State Highway Commission; discharge, 130,000 ft³/s (3,6 80 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 37,400 ft³/s (1,059 m³/s) May 30, gage height 20.10 ft (6.126 m); minimum daily, 540 ft³/s (15.3 m³/s) Jan. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1130	1290	1580	868	892	3660	1930	7430	29400	3420	5520	2190
2	1090	1200	1460	889	1100	3270	1830	7950	24400	3440	4620	4940
3	1050	1140	1470	1030	1120	2920	1670	7920	15700	3580	3730	5790
4	1030	1110	1490	990	1120	2650	1650	6840	9290	3560	2900	5060
5	1030	1050	1390	889	1100	5340	1780	6380	7570	3980	2650	3930
6	1000	1010	1240	800	1060	8090	2170	6130	6640	4150	4930	3400
7	968	1000	1180	720	1010	6550	2140	8030	6040	4440	6590	3090
8	944	994	1150	660	970	5090	2010	7940	5860	4120	4660	2850
9	930	985	1230	640	940	4560	1860	6880	7410	3760	4060	2540
10	915	964	1420	620	1000	4000	1880	7470	11600	3720	4320	2330
11	897	934	1500	600	4680	3340	2720	14000	12000	3520	4670	2040
12	864	915	1570	540	5740	2990	6620	15300	7290	3380	3190	1780
13	843	902	1590	640	4360	2780	7820	16200	5630	3280	2570	1540
14	813	878	1490	720	3510	2590	6800	16500	6300	3190	2240	1420
15	781	856	1390	740	3300	2460	6250	18000	5570	3210	2380	1360
16	771	835	1340	700	4180	2380	6080	18700	4820	3420	2450	1450
17	895	846	1290	660	8100	2270	5500	18900	5090	3550	2380	1510
18	1310	905	1270	700	9830	2160	5490	18700	4760	3440	2220	1650
19	1490	916	1220	700	8720	2070	5190	20200	4400	3310	1980	2890
20	1490	920	1100	700	8440	1950	4900	20400	4520	3240	1740	2080
21	1270	896	956	720	7810	1910	4240	21400	4500	3540	1600	1640
22	1160	867	919	760	6830	1850	3750	20700	5010	3880	1490	1420
23	1080	849	948	800	6380	1780	7720	13300	4540	4440	1410	1270
24	1020	849	943	840	6330	1710	13200	8750	4280	4680	1340	1170
25	1100	845	917	870	6120	1660	12900	17700	4230	3870	1280	1100
26	1180	843	890	896	5520	1620	8260	21000	3690	2920	1230	1050
27	1250	1090	878	859	4980	1570	6170	25300	3870	2410	1220	997
28	1290	1770	874	860	4500	1560	5290	34500	3830	2930	1440	950
29	1430	1890	827	848	------	1560	5090	37000	3700	7550	1400	953
30	1490	1820	831	825	------	1810	6470	37300	3530	6940	1550	1000
31	1410	----	842	808	------	1980	------	34800	------	6160	1510	-----
TOTAL	33921	31369	37195	23892	119642	90130	149380	521620	225470	121030	85270	65390
MEAN	1094	1046	1200	771	4273	2907	4979	16830	7516	3904	2751	2180
MAX	1490	1890	1590	1030	9830	8090	13200	37300	29400	7550	6590	5790
MIN	771	835	827	540	892	1560	1650	6130	3530	2410	1220	950
CFSM	.23	.22	.26	.16	.91	.62	1.06	3.59	1.60	.83	.59	.47
IN.	.27	.25	.30	.19	.95	.72	1.19	4.14	1.79	.96	.68	.52

CAL YR 1980	TOTAL	1678525	MEAN	4586	MAX	19200	MIN	771	CFSM	.98	IN	13.32
WTR YR 1981	TOTAL	1504309	MEAN	4121	MAX	37300	MIN	540	CFSM	.88	IN	11.94

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 (91 m) upstream from highway bridge, 0.5 mile (0.8 km) northwest of Carthage, 2.2 miles (3.5 km) downstream from Three Mile Creek, and at mile 50.7 (81.6 k m).

DRAINAGE AREA.--184 mi^2 (477 km^2).

WATER-DISCHARGE RECORDS

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 (261.924 m) National Geodetic Vertical Datum of 1929. Prior to July 19, 1951, nonrecording gage at site 300 ft (91 m) downstream at same datum.

REMARKS.--Records good. Flow partly regulated by Big Blue River Conservancy District control structures on tributaries to Big Blue River beginning in 1969.

AVERAGE DISCHARGE.--31 years, 198 ft^3/s (5.607 m^3/s), 14.61 in/yr (371 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,900 ft^3/s (365 m^3/s) Mar. 4, 1963, gage height, 14.62 ft (4.456 m), from floodmarks, from rating curve extended above 6,200 ft^3/s (176 m^3/s); minimum daily, 17 ft^3/s (0.48 m^3/s) Jan. 18, Aug. 5, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,000 ft^3/s (56.6 m^3/s) and maximum (*);

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 27	2400	*2910	82.4	*8.48	2.585

Minimum daily discharge, 55 ft^3/s (1.56 m^3/s) Jan. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	70	79	64	68	99	63	358	497	537	157	108
2	70	69	84	62	87	92	61	268	426	239	130	112
3	67	69	78	61	70	87	66	203	373	164	124	159
4	66	71	75	60	68	98	97	167	332	188	112	150
5	65	69	73	55	66	145	111	154	305	592	117	107
6	65	68	71	60	64	175	87	347	252	407	193	90
7	66	68	72	63	60	138	77	284	213	265	135	82
8	65	68	73	64	58	114	72	203	195	201	112	89
9	65	67	99	60	56	101	71	169	184	169	98	79
10	64	66	109	60	90	95	71	161	214	154	91	74
11	64	66	96	59	894	90	107	192	173	121	100	71
12	63	66	87	59	230	84	389	188	164	109	88	70
13	63	66	81	64	160	81	290	164	167	103	82	68
14	66	67	76	63	120	76	242	346	159	103	79	69
15	66	68	76	62	158	73	167	610	140	103	83	70
16	65	66	76	61	709	73	187	382	143	99	79	71
17	74	69	71	59	606	70	224	270	149	92	74	74
18	92	73	70	61	359	69	211	486	128	86	71	71
19	71	70	68	61	312	68	189	648	113	187	69	68
20	68	67	66	62	282	67	189	388	110	580	68	66
21	68	67	66	60	222	66	168	275	120	412	67	65
22	67	67	66	58	188	64	178	217	127	267	66	64
23	66	68	66	58	186	64	420	183	112	192	65	63
24	71	70	66	59	176	63	315	195	102	163	64	63
25	117	69	60	59	151	62	209	1000	163	134	63	63
26	77	66	60	64	130	62	162	561	133	218	63	62
27	72	102	63	63	115	64	140	1600	106	322	67	62
28	93	109	63	61	108	62	123	2030	94	352	68	61
29	81	92	64	59	----	62	427	719	90	230	65	66
30	76	82	66	57	----	79	328	751	92	222	138	72
31	73	----	64	58	----	67	----	675	----	198	136	----
TOTAL	2212	2155	2284	1876	5793	2610	5441	14194	5576	7209	2924	2389
MEAN	71.4	71.8	73.7	60.5	207	84.2	181	458	186	233	94.3	79.6
MAX	117	109	109	64	894	175	427	2030	497	592	193	159
MIN	63	66	60	55	56	62	61	154	90	86	63	61
CFSM	.39	.39	.40	.33	1.13	.46	.98	2.49	1.01	1.27	.51	.43
IN.	.45	.44	.46	.38	1.17	.53	1.10	2.87	1.13	1.46	.59	.48

CAL YR 1980 TOTAL 76633 MEAN 209 MAX 1490 MIN 60 CFSM 1.14 IN 15.49
WTR YR 1981 TOTAL 54663 MEAN 150 MAX 2030 MIN 55 CFSM .82 IN 11.05

03361000 BIG BLUE RIVER AT CARTHAGE, IN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: July 1973 to September 1977, November 1979 to current year.
WATER TEMPERATURE: November 1974 to September 1977, November 1979 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1977 to August 1981 (discontinued).

INSTRUMENTATION.--Water-quality monitor and automatic pumping sediment sampler.

REMARKS.--Sediment-discharge and water-quality record fair.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURE: Maximum, 26.5°C July 11, 1976; minimum, 0.0°C on many days during winter periods.
SPECIFIC CONDUCTANCE: Maximum, 996 micromhos Feb. 7, 1977; minimum, 114 micromhos Jan. 27, 1976.
SEDIMENT CONCENTRATIONS: Maximum daily, 1550 mg/L June 8, 1980; minimum daily, 7 mg/L Dec. 14, 1980.
SEDIMENT LOADS: Maximum daily, 7100 tons (6440 tonnes) June 8, 1980; minimum daily, 1.4 tons (1.27 tonnes) Dec. 14, 1980.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 25.5°C July 10; minimum, 0.0°C Dec. 20-23, and 25-28, Jan. 4-7, and 10-20, Feb. 3-6, and 11-14.
SPECIFIC CONDUCTANCE: Maximum, 769 micromhos Jan. 12; minimum 305 micromhos Feb. 16.
SEDIMENT CONCENTRATIONS: Maximum daily, 740 mg/L July 1; minimum daily, 7 mg/L Dec. 14.
SEDIMENT LOADS: Maximum daily load, 2050 tons (1860 tonnes) May 27; minimum daily, 1.4 tons (1.27 tonnes) Dec. 14.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM
OCT								
01...	0940	66	15	2.7	--	--	--	---
FEB								
20...	1530	270	71	52	90	--	--	---
APR								
13...	1340	281	67	51	86	96	99	100
29...	0755	620	476	797	83	--	--	---
MAY								
06...	0815	341	127	117	90	--	--	---
06...	1020	360	127	123	90	--	--	---
09...	1035	169	85	39	63	--	--	---
27...	0615	756	285	582	81	--	--	---
27...	0940	1200	414	1340	80	--	--	---
JUN								
05...	1130	306	124	102	67	--	--	---
JUL								
20...	0840	586	648	1030	94	--	--	---
31...	0920	200	100	54	81	--	--	---
AUG								
26...	0855	63	38	6.5	--	--	--	---

03361000 BIG BLUE RIVER AT CARTHAGE, IN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	664	706	664	694	723	637	604	550	534	531	---	520
2	663	707	706	691	---	653	619	569	545	622	---	531
3	675	695	692	675	---	647	632	586	588	691	---	523
4	651	694	660	688	---	631	640	592	604	699	---	434
5	651	710	686	718	---	642	602	600	662	584	---	483
6	651	696	686	734	---	625	591	598	737	602	---	505
7	659	709	669	704	---	610	698	580	699	658	---	504
8	659	713	673	710	---	588	703	591	707	701	---	504
9	673	686	674	744	---	566	693	598	710	710	---	507
10	682	680	661	758	---	559	673	600	722	705	---	521
11	671	693	656	745	---	565	684	601	640	692	---	532
12	669	698	674	769	488	591	596	621	671	705	---	532
13	660	678	682	742	550	580	641	606	720	708	---	541
14	663	694	669	699	637	593	661	618	715	717	---	532
15	670	696	671	700	706	584	653	504	690	710	---	514
16	674	701	682	712	512	577	677	511	717	703	---	511
17	662	661	690	724	420	585	592	522	695	708	---	490
18	659	687	707	723	488	618	583	525	650	710	---	477
19	612	694	694	723	527	612	576	482	---	703	---	481
20	643	691	691	705	561	600	563	501	---	490	---	504
21	651	680	708	703	567	589	550	513	---	511	---	513
22	668	687	728	727	594	594	544	521	---	539	---	599
23	674	683	721	734	618	589	537	523	---	556	---	576
24	674	697	690	729	615	587	560	528	740	575	---	575
25	693	698	682	---	613	601	578	462	715	586	---	571
26	601	684	675	---	621	600	585	465	672	608	657	584
27	624	674	656	---	643	589	589	466	690	531	632	583
28	653	699	655	---	637	589	614	445	700	544	640	582
29	658	634	658	---	---	584	574	501	702	576	602	536
30	638	659	712	---	---	506	546	510	733	565	591	603
31	703	---	730	737	---	577	---	515	---	---	470	---
MEAN	660	689	684	720	584	596	612	542	678	631	599	529
MAX	703	713	730	769	723	653	703	621	740	717	657	603
MIN	601	634	655	675	420	506	537	445	534	490	470	434

WTR YR 1981 MEAN 628 MAX 769 MIN 420

03361000 BIG BLUE RIVER AT CARTHAGE, IN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	655	693	645	670	675	625	484	532	516	367	---	460
2	649	694	658	656	---	623	478	553	534	533	---	512
3	651	669	665	663	---	626	613	571	546	612	---	423
4	641	677	643	674	---	620	592	581	592	607	---	410
5	645	684	644	686	---	605	578	586	599	467	---	415
6	645	681	669	699	---	591	581	539	658	532	---	463
7	649	690	641	678	---	582	593	548	685	606	---	460
8	646	662	643	692	---	556	692	574	683	655	---	487
9	651	666	635	712	---	548	667	591	687	695	---	485
10	661	652	629	709	---	546	652	588	608	688	---	469
11	656	657	625	723	306	545	554	587	607	659	---	519
12	648	667	659	737	364	555	503	591	643	668	---	523
13	650	658	668	700	489	561	561	590	659	700	---	530
14	657	672	659	673	499	574	627	466	688	703	---	509
15	660	676	648	679	455	572	635	471	678	644	---	502
16	658	662	664	692	305	559	588	503	688	661	---	479
17	635	643	680	704	322	573	572	513	628	681	---	461
18	615	636	683	708	424	587	575	405	618	681	---	446
19	599	673	663	689	490	582	555	458	---	537	---	450
20	611	658	661	680	528	565	551	478	---	408	---	455
21	642	659	693	688	551	555	542	499	---	431	---	486
22	653	649	707	705	568	561	533	514	---	480	---	503
23	662	669	684	707	592	557	518	516	---	541	---	551
24	657	679	659	705	602	563	524	469	719	555	---	551
25	598	662	672	---	603	577	562	387	645	571	---	548
26	589	664	653	---	604	573	576	443	619	476	620	554
27	602	637	640	---	616	576	580	349	652	485	605	570
28	622	606	637	---	626	570	577	363	661	462	590	539
29	623	596	647	---	---	482	463	448	679	549	565	512
30	624	637	660	---	---	467	513	464	701	534	436	520
31	688	---	683	697	---	460	---	470	---	---	413	---
MEAN	640	661	659	693	506	566	568	505	640	573	538	493
MAX	688	694	707	737	675	626	692	591	719	703	620	570
MIN	589	596	625	656	305	460	463	349	516	367	413	410

WTR YR 1981 MEAN 591 MAX 737 MIN 305

03361000 BIG BLUE RIVER AT CARTHAGE, IN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	659	700	653	684	689	631	590	542	528	470	---	481
2	655	701	679	673	---	632	573	564	540	580	---	521
3	664	683	679	666	---	635	625	579	571	660	---	495
4	647	683	649	681	---	625	620	588	599	671	---	422
5	648	695	675	698	---	621	587	595	635	523	---	452
6	648	689	677	719	---	607	586	558	690	568	---	489
7	653	697	654	688	---	601	634	561	692	641	---	487
8	653	690	663	698	---	572	700	583	693	680	---	496
9	664	675	654	720	---	557	677	595	697	703	---	496
10	672	666	640	727	---	554	669	597	676	697	---	498
11	665	679	636	734	---	558	655	594	616	680	---	525
12	660	684	669	753	435	567	545	600	658	691	---	530
13	654	670	673	720	527	574	596	597	686	704	---	535
14	660	680	663	685	565	586	641	561	699	710	---	519
15	666	687	657	689	635	580	642	486	685	686	---	509
16	666	681	671	703	388	571	634	508	701	688	---	503
17	652	653	683	715	369	579	585	518	650	697	---	475
18	640	651	692	717	459	600	579	474	631	693	---	460
19	604	685	675	704	510	597	565	467	---	679	---	462
20	634	676	676	691	543	577	557	493	---	456	---	483
21	645	667	701	694	561	564	547	508	---	474	---	502
22	662	668	718	713	583	572	540	518	---	515	---	560
23	667	675	697	721	605	576	528	521	---	549	---	565
24	667	688	672	719	607	577	547	514	737	567	---	560
25	651	677	677	---	608	588	572	418	690	582	---	559
26	594	676	664	---	613	591	583	457	652	560	629	574
27	613	652	648	---	631	584	584	398	670	521	619	576
28	630	655	650	---	632	580	592	404	682	504	621	563
29	641	614	653	---	---	550	512	470	694	563	588	524
30	630	652	675	---	---	488	532	487	708	545	535	562
31	678	---	707	714	---	533	---	500	---	---	439	---
MEAN	650	675	670	705	553	582	593	524	659	609	572	513
MAX	678	701	718	753	689	635	700	600	737	710	629	576
MIN	594	614	636	666	369	488	512	398	528	456	439	422

WTR YR 1981 MEAN 611 MAX 753 MIN 369

03361000 BIG BLUE RIVER AT CARTHAGE, IN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.5	10.0	7.5	3.0	3.0	6.5	15.0	14.0	17.5	23.0	----	21.0
2	17.0	9.0	8.0	2.5	1.5	6.0	16.5	15.0	18.5	22.0	----	20.5
3	15.5	10.5	5.0	2.0	.5	24.5	13.5	16.0	20.0	21.5	----	20.5
4	12.5	11.5	4.0	.5	.5	6.0	13.0	17.0	21.0	20.5	----	18.5
5	12.0	10.5	7.0	.5	1.0	5.0	12.5	16.0	20.5	21.5	----	20.0
6	11.5	9.0	9.0	.5	1.0	5.0	12.0	15.0	21.0	23.0	----	20.5
7	13.5	11.0	10.0	.5	---	4.5	12.5	14.5	20.5	23.5	----	20.0
8	14.5	12.0	11.0	.5	---	4.5	14.0	15.5	21.0	24.5	----	20.0
9	15.5	13.0	10.0	.5	---	5.5	16.5	16.5	22.0	25.0	----	19.5
10	15.0	11.5	8.0	.5	---	6.5	14.5	15.5	20.5	25.5	----	19.5
11	14.0	8.5	5.0	.5	.5	6.0	16.0	14.5	20.0	24.0	----	20.5
12	12.0	7.0	6.0	1.0	.5	7.5	15.5	15.0	19.5	23.0	----	21.0
13	11.0	8.0	6.0	.5	.5	8.5	16.0	14.0	21.0	24.5	----	22.0
14	12.5	9.0	4.0	.5	1.0	8.0	16.0	13.5	23.5	25.0	----	20.5
15	14.5	8.5	4.0	.5	3.5	7.0	15.0	13.0	24.5	23.0	----	19.5
16	15.5	7.0	4.5	.5	2.0	8.0	13.5	15.0	23.5	22.5	----	18.0
17	15.0	6.0	4.0	.5	3.5	8.0	16.0	15.5	21.5	23.5	----	15.5
18	15.0	5.5	5.0	.5	5.5	7.0	18.0	14.5	22.0	24.0	----	16.0
19	13.5	5.0	4.5	.5	5.5	5.0	16.0	12.5	----	23.0	----	16.5
20	12.0	5.0	.5	.5	6.5	4.0	15.0	14.5	----	22.5	----	17.5
21	12.5	5.5	.5	2.5	7.0	7.0	14.0	15.5	----	22.5	----	18.0
22	12.5	5.5	.5	3.5	6.5	6.5	13.5	17.0	----	21.5	----	17.5
23	12.5	6.0	1.5	4.0	6.5	9.0	15.5	17.5	----	21.5	----	15.5
24	11.5	7.0	2.0	4.0	6.0	10.0	13.5	18.5	23.0	21.5	----	15.5
25	11.0	6.5	1.0	---	7.0	10.0	14.0	18.0	23.0	21.5	----	16.0
26	8.5	4.5	.5	---	6.5	11.0	16.0	17.5	22.5	21.5	22.5	19.0
27	7.0	3.5	.5	---	7.0	12.5	19.0	16.0	22.0	22.0	21.0	19.5
28	8.0	4.0	1.0	---	7.5	13.0	19.5	17.5	22.5	21.5	21.0	17.0
29	8.0	4.0	2.5	---	---	13.0	17.5	18.0	24.0	20.5	22.5	14.5
30	7.5	5.0	3.0	---	---	14.0	14.5	18.0	24.0	20.5	21.0	17.0
31	9.0	----	3.0	2.5	---	14.5	----	18.5	----	----	20.5	----
MEAN	12.5	7.5	4.5	1.5	4.0	8.5	15.0	16.0	21.5	22.5	21.5	18.5
MAX	17.5	13.0	11.0	4.0	7.5	24.5	19.5	18.5	24.5	25.5	22.5	22.0
MIN	7.0	3.5	.5	.5	.5	4.0	12.0	12.5	17.5	20.5	20.5	14.5

WTR YR 1981 MEAN 12.5 MAX 25.5 MIN .5

03361000 BIG BLUE RIVER AT CARTHAGE, IN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	8.0	5.0	2.5	2.0	5.5	10.5	12.5	16.0	22.0	----	19.5
2	15.5	7.0	5.0	1.5	.5	4.0	9.0	11.5	16.5	20.5	----	20.0
3	12.5	8.0	3.0	.5	.0	3.5	12.5	12.5	18.0	20.0	----	18.5
4	11.0	10.0	2.5	.0	.0	4.0	12.5	13.5	19.0	20.0	----	17.5
5	10.0	9.0	4.5	.0	.0	4.0	8.5	15.0	20.0	20.5	----	16.5
6	9.0	7.0	7.0	.0	.0	3.5	7.5	13.0	19.5	20.5	----	18.0
7	10.5	8.5	9.0	.0	---	3.0	8.5	11.5	18.0	21.0	----	17.5
8	11.5	10.5	10.0	.5	---	3.0	10.5	11.5	18.5	22.0	----	18.0
9	13.5	11.0	7.5	.5	---	3.0	13.0	15.0	19.5	22.5	----	16.5
10	13.0	8.5	5.0	.0	---	4.5	12.0	14.5	19.5	23.0	----	16.0
11	12.0	6.5	4.0	.0	.0	4.5	14.0	12.0	19.0	21.0	----	17.0
12	10.5	5.0	4.5	.0	.0	3.5	14.5	12.5	18.5	20.5	----	17.5
13	8.5	6.0	4.0	.0	.0	5.5	13.0	12.5	19.0	21.5	----	19.0
14	10.0	8.0	3.0	.0	.0	5.0	13.5	13.0	20.0	22.0	----	19.5
15	12.0	6.5	3.5	.0	.5	5.0	11.5	12.5	21.5	20.5	----	18.0
16	13.5	6.0	3.5	.0	1.0	5.5	11.5	12.0	20.0	20.0	----	15.0
17	14.5	4.0	3.0	.0	1.0	4.5	13.5	13.5	18.0	20.5	----	14.5
18	13.5	3.5	3.5	.0	3.5	4.5	15.0	11.0	18.5	21.0	----	14.0
19	10.5	3.0	.5	.0	5.0	3.0	14.0	10.5	16.5	21.0	----	13.5
20	9.5	3.0	.0	.0	4.5	2.0	12.5	11.5	----	22.0	----	14.5
21	10.5	3.5	.0	.5	5.5	2.5	10.5	12.0	----	21.5	----	15.5
22	11.0	3.5	.0	2.5	6.0	4.5	12.0	14.0	----	20.0	----	15.0
23	10.5	4.5	.0	2.5	5.0	4.5	13.0	15.5	----	19.0	----	13.0
24	10.5	6.0	1.0	2.5	4.5	6.0	11.0	16.5	20.0	18.5	----	13.0
25	8.5	4.5	.0	---	4.5	6.5	10.5	16.5	21.0	20.0	----	14.0
26	7.0	3.0	.0	---	5.0	8.0	12.5	16.0	20.0	20.5	19.5	15.0
27	6.0	3.0	.0	---	4.0	9.0	14.5	15.5	19.0	20.0	20.0	17.0
28	7.0	3.5	.0	---	7.0	8.5	16.5	15.5	18.5	21.0	19.5	14.5
29	6.0	3.0	1.0	---	---	11.0	14.0	15.5	20.0	18.5	19.5	13.0
30	5.5	3.0	2.5	---	---	12.5	13.0	17.0	21.5	17.5	18.5	13.0
31	7.0	----	2.5	.5	---	13.0	----	16.5	----	----	18.0	----
MEAN	10.5	6.0	3.0	.5	2.5	5.5	12.0	13.5	19.0	20.5	19.0	16.0
MAX	15.5	11.0	10.0	2.5	7.0	13.0	16.5	17.0	21.5	23.0	20.0	20.0
MIN	5.5	3.0	.0	.0	.0	2.0	7.5	10.5	16.0	17.5	18.0	13.0

WTR YR 1981 MEAN 10.5 MAX 23.0 MIN .0

03361000 BIG BLUE RIVER AT CARTHAGE, IN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.5	9.0	6.0	3.0	2.5	6.0	13.0	13.5	16.5	22.5	----	20.0
2	16.0	8.0	7.0	2.0	.5	5.0	13.0	13.5	17.5	21.0	----	20.5
3	13.5	9.0	4.0	1.5	.5	4.5	13.0	14.5	19.0	20.5	----	19.5
4	11.5	10.5	3.5	.5	.5	5.0	12.5	15.5	20.0	20.5	----	18.0
5	11.0	9.5	5.5	.5	.5	4.5	10.5	15.5	20.0	21.0	----	18.0
6	10.5	8.0	8.0	.0	.5	4.0	10.0	14.0	20.0	21.5	----	19.0
7	12.0	9.5	9.5	.5	---	4.0	11.0	13.0	19.5	22.5	----	18.5
8	13.0	11.0	10.5	.5	---	4.0	12.5	14.0	19.5	23.5	----	19.0
9	14.5	12.0	8.5	.5	---	4.5	14.0	15.0	21.0	24.0	----	18.0
10	14.0	10.5	6.0	.5	---	5.5	13.5	15.0	20.0	24.0	----	17.5
11	13.0	7.5	4.5	.5	.0	5.0	15.0	13.5	19.5	22.5	----	19.0
12	11.0	6.0	5.0	.5	.0	5.5	15.0	13.0	19.0	22.0	----	19.5
13	10.0	7.0	5.0	.5	.0	7.0	15.0	13.5	20.0	23.0	----	20.5
14	11.0	8.5	3.5	1.5	.5	6.5	15.0	13.0	22.0	23.5	----	20.0
15	13.0	8.0	4.0	.5	2.0	6.5	13.5	13.0	23.0	21.0	----	19.0
16	14.5	6.5	4.0	.5	1.5	6.5	13.0	13.5	22.0	21.0	----	16.5
17	15.0	5.0	3.5	.5	2.0	6.0	15.0	14.5	20.0	22.0	----	15.0
18	14.5	4.5	4.0	.5	4.5	5.5	16.5	12.0	20.5	22.5	----	14.5
19	12.0	4.0	2.5	.5	5.5	4.0	14.5	11.5	----	22.0	----	15.0
20	10.5	4.0	.5	.0	5.5	3.5	13.5	13.5	----	22.5	----	16.0
21	11.5	4.5	.5	1.5	6.0	5.5	12.5	14.0	----	22.0	----	16.5
22	11.5	4.0	.5	3.0	6.5	6.0	12.5	15.5	----	20.5	----	16.0
23	11.5	5.5	.5	3.0	6.0	7.0	14.5	16.5	----	19.5	----	14.5
24	11.0	6.5	2.0	3.0	5.0	8.0	12.0	17.0	22.0	20.0	----	14.0
25	10.0	5.5	.5	---	6.0	8.5	12.5	17.0	22.0	21.0	----	15.0
26	7.5	3.5	.0	---	6.0	9.5	14.0	16.5	21.5	21.0	21.0	17.0
27	6.5	3.5	.5	---	5.5	10.5	17.0	16.0	20.5	21.0	20.5	18.5
28	7.5	4.0	.5	---	7.0	11.0	18.0	16.5	20.5	21.5	20.5	16.0
29	7.0	3.5	2.0	---	---	12.0	15.5	17.0	22.0	19.5	21.0	13.5
30	6.5	4.0	2.5	---	---	13.0	14.0	17.5	22.5	19.0	20.5	15.0
31	8.0	----	2.5	1.5	---	13.5	----	17.5	----	----	19.0	----
MEAN	11.5	7.0	4.0	1.0	3.0	6.5	13.5	14.5	20.5	21.5	20.5	17.5
MAX	16.5	12.0	10.5	3.0	7.0	13.5	18.0	17.5	23.0	24.0	21.0	20.5
MIN	6.5	3.5	.0	.0	.0	3.5	10.0	11.5	16.5	19.0	19.0	13.5

WTR YR 1981 MEAN 11.5 MAX 24.0 MIN .0

03361000 BIG BLUE RIVER AT CARTHAGE, IN--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	48	8.6	30	5.7	17	3.6	---	-----	44	8.1	---	-----
2	93	18	26	4.8	28	6.4	---	-----	27	6.3	---	-----
3	67	12	28	5.2	25	5.3	---	-----	36	6.8	---	-----
4	45	8.0	39	7.5	23	4.7	---	-----	44	8.1	48	13
5	35	6.1	55	10	22	4.3	---	-----	46	8.2	34	13
6	25	4.4	34	6.2	21	4.0	---	-----	30	5.2	---	-----
7	48	8.6	27	5.0	20	3.9	---	-----	33	5.3	---	-----
8	44	7.7	21	3.9	20	3.9	---	-----	19	3.0	---	-----
9	56	9.8	22	4.0	19	5.1	---	-----	26	3.9	---	-----
10	53	9.2	17	3.0	20	5.9	---	-----	215	90	---	-----
11	38	6.6	20	3.6	11	2.9	---	-----	367	988	---	-----
12	31	5.3	18	3.2	10	2.3	---	-----	---	------	---	-----
13	34	5.8	13	2.3	9	2.0	---	-----	---	------	---	-----
14	12	2.1	33	6.0	7	1.4	---	-----	---	------	---	-----
15	28	5.0	---	----	8	1.6	---	-----	66	43	---	-----
16	62	11	---	----	23	4.7	128	21	257	600	---	-----
17	---	----	---	----	67	13	105	17	162	265	---	-----
18	---	----	---	----	67	13	107	18	64	62	43	8.0
19	---	----	---	----	48	8.8	103	17	40	34	43	7.9
20	---	----	---	----	53	9.4	78	13	32	24	45	8.1
21	---	----	---	----	45	8.0	67	11	23	14	44	7.8
22	---	----	---	----	55	9.8	68	11	28	14	43	7.4
23	---	----	---	----	55	9.8	---	-----	32	16	40	6.9
24	---	----	---	----	52	9.3	---	-----	33	16	30	5.1
25	---	----	---	----	73	12	---	-----	42	17	28	4.7
26	---	----	---	----	73	12	---	-----	---	------	40	6.7
27	---	----	---	----	75	13	---	-----	---	------	42	7.3
28	---	----	12	3.5	---	-----	---	-----	---	------	28	4.7
29	35	7.7	12	3.0	---	-----	---	-----	---	------	26	4.4
30	37	7.6	17	3.8	---	-----	73	11	---	------	32	6.8
31	36	7.1	---	----	---	-----	57	8.9	---	------	25	4.5
TOTAL	---	150.6	---	80.7	---	180.1	---	127.9	---	2237.9	---	116.3

03361000 BIG BLUE RIVER AT CARTHAGE, IN--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	APRIL MEAN CONCEN-TRATION (MG/L)	APRIL LOADS (T/DAY)	MAY MEAN CONCEN-TRATION (MG/L)	MAY LOADS (T/DAY)	JUNE MEAN CONCEN-TRATION (MG/L)	JUNE LOADS (T/DAY)	JULY MEAN CONCEN-TRATION (MG/L)	JULY LOADS (T/DAY)	AUGUST MEAN CONCEN-TRATION (MG/L)	AUGUST LOADS (T/DAY)	SEPTEMBER MEAN CONCEN-TRATION (MG/L)	SEPTEMBER LOADS (T/DAY)
1	42	7.1	161	156	110	148	740	1160	83	35		
2	38	6.3	105	76	120	138	256	165	102	36		
3	48	8.6	102	56	115	116	118	52	90	30		
4	45	12	73	33	99	89	138	70	---	---		
5	29	8.7	40	17	90	74	550	914	---	---		
6	15	3.5	145	140	89	61	270	297	---	---		
7	16	3.3	85	65	92	53	114	82	---	---		
8	25	4.9	90	49	88	46	109	59	---	---		
9	35	6.7	84	38	72	36	110	50	---	---		
10	25	4.8	88	38	95	55	124	52	---	---		
11	48	14	82	43	64	30	111	36	---	---		
12	164	172	---	----	84	37	113	33	---	---		
13	60	47	---	----	86	39	107	30	---	---		
14	---	-----	125	167	63	27	105	29	---	---		
15	---	-----	166	273	73	28	101	28	---	---		
16	---	-----	---	----	74	29	96	26	---	---		
17	---	-----	---	----	65	26	92	23	---	---		
18	---	-----	---	----	56	19	89	21	---	---		
19	---	-----	---	----	65	20	256	248	---	---		
20	---	-----	---	----	78	23	580	908	---	---		
21	---	-----	---	----	90	29	372	414	---	---		
22	---	-----	---	----	72	25	176	127	---	---		
23	---	-----	---	----	82	25	101	52	---	---		
24	80	68	---	----	88	24	76	33	---	---		
25	---	-----	---	----	117	51	48	17	---	---		
26	---	-----	---	----	81	29	127	91	---	---		
27	---	-----	413	2050	88	25	245	213	---	---		
28	---	-----	181	1060	94	24	105	100	---	---		
29	273	366	113	219	100	24	85	53	---	---		
30	156	138	155	314	116	31	75	45	---	---		
31	---	-----	114	208	---	----	83	44	---	---		
TOTAL	---	870.9	---	5002	---	1381	---	5472	---	101		

TOTAL LOAD FOR YEAR: 15720.4 TONS.

03361500 BIG BLUE RIVER AT SHELBYVILLE, IN

LOCATION.--Lat 39°31'45", long 85°46'55", in SE¼SE¼ sec.31, T.13 N., R.7 E., Shelby County, Hydrologic Unit 05120204, on left bank 0.2 mile (0.3 km) downstream from bridge on U.S. Highway 421 at Shelbyville, 0.6 mile (1.0 km) downstream from Little Blue River, and at mile 23.9 (38.4 km).

DRAINAGE AREA.--421 mi² (1,090 km²).

WATER-DISCHARGE RECORDS

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 (224.842 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1953, nonrecording gage at bridge 0.2 mile (0.3 km) upstream at datum 3.5 ft (1.07 m) higher.

REMARKS.--Records good.

AVERAGE DISCHARGE.--38 years, 464 ft³/s (13.14 m³/s), 14.97 in/yr (380 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,800 ft³/s (447 m³/s) Mar. 5, 1963, gage height, 17.70 ft (5.395 m); minimum daily, 27 ft³/s (0.76 m³/s) Jan. 18, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of about 20.2 ft (6.16 m) from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 3,400 ft³/s (96.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 25	1400	3410	96.6	11.01	3.356	May 30	2300	3900	110	11.66	3.554
May 28	2300	*5960	169	*13.88	4.231						

Minimum daily discharge, 79 ft³/s (2.24 m³/s) Jan. 30.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DISCHARGE: July 1968 to September 1978 (partial-record station).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	126	117	154	102	97	253	145	1020	1910	515	267	180
2	127	114	151	101	140	232	135	889	1370	547	215	157
3	130	112	150	100	101	215	133	664	1100	379	198	187
4	128	113	140	100	100	213	166	513	931	400	191	223
5	126	114	135	90	100	315	217	426	822	914	186	187
6	126	111	133	95	99	520	210	645	725	1040	319	155
7	124	111	129	95	94	416	183	796	622	731	296	140
8	121	111	133	95	92	312	169	573	555	495	225	135
9	121	111	150	94	90	268	164	457	521	367	188	132
10	120	109	197	90	120	248	165	405	496	307	171	123
11	119	107	206	90	1000	234	318	438	489	261	166	119
12	115	105	187	85	800	219	1340	437	575	224	163	114
13	111	104	172	90	500	210	1180	395	1150	209	149	112
14	108	104	157	90	350	199	860	553	725	204	143	143
15	107	105	149	90	280	187	613	1370	548	201	146	128
16	104	106	147	90	900	184	463	1120	463	205	144	120
17	118	108	140	90	1800	177	466	798	430	188	138	120
18	135	112	134	91	1140	171	458	1000	392	176	132	119
19	129	112	129	92	943	166	385	2160	349	170	127	116
20	115	108	120	91	868	160	369	1430	332	596	124	111
21	109	107	120	93	723	155	329	978	329	688	121	108
22	107	106	120	93	586	146	318	744	398	505	119	106
23	105	106	117	90	529	141	1350	592	336	326	117	104
24	108	107	116	90	487	138	1220	602	303	256	115	103
25	127	109	110	90	412	135	809	3010	382	226	114	102
26	134	107	115	96	342	134	587	2190	410	203	113	101
27	115	129	118	99	294	138	463	3370	321	475	113	99
28	120	207	110	95	273	135	376	5370	290	751	122	96
29	138	196	107	88	-----	137	607	4380	277	466	119	101
30	125	171	106	79	-----	158	925	2770	269	343	125	108
31	120	----	104	84	-----	167	-----	3080	-----	302	269	----
TOTAL	3718	3539	4256	2858	13260	6483	15123	43175	17820	12670	5135	3849
MEAN	120	118	137	92.2	474	209	504	1393	594	409	166	128
MAX	138	207	206	102	1800	520	1350	5370	1910	1040	319	223
MIN	104	104	104	79	90	134	133	395	269	170	113	96
CFSM	.29	.28	.33	.22	1.13	.50	1.20	3.31	1.41	.97	.39	.30
IN.	.33	.31	.38	.25	1.17	.57	1.34	3.81	1.57	1.12	.45	.34

CAL YR 1980 TOTAL 173743 MEAN 475 MAX 3980 MIN 104 CFSM 1.13 IN 15.35
WTR YR 1981 TOTAL 131886 MEAN 361 MAX 5370 MIN 79 CFSM .86 IN 11.65

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 (3 m) downstream from bridge on County Road 450 West, 0.5 mile (0.8 km) south of New Palestine, 3.1 miles (5.0 km) upstream from Little Sugar Creek, and 37.3 miles (60.0 km) upstream from mouth.

DRAINAGE AREA.--93.9 mi² (243.2 km²).

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 (239.573 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--14 years, 103 ft³/s (2.917 m³/s), 14.90 in/yr (378 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,850 ft³/s (52.4 m³/s) June 23, 1974, gage height, 9.12 ft (2.780 m); maximum gage height, 10.34 ft (3.152 m) Feb. 23, 1979 (ice jam); minimum daily discharge, 3.2 ft³/s (0.091 m³/s) Oct. 7, 1970.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 950 ft³/s (26.9 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 27	1900	*1810	51.3	*9.04	2.755

Minimum daily discharge, 7.2 ft³/s (0.20 m³/s) Oct. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	13	20	12	17	49	22	228	337	27	55	153
2	11	13	19	11	25	45	20	138	226	26	46	99
3	11	13	18	11	21	40	22	103	174	28	40	84
4	11	14	17	10	18	40	36	83	143	34	38	68
5	10	13	17	9.0	15	62	42	76	119	62	36	61
6	10	13	16	11	15	72	46	152	109	56	39	48
7	9.2	13	16	11	15	70	39	192	96	55	38	39
8	9.6	13	16	11	15	57	34	133	83	42	34	35
9	9.9	13	20	11	15	49	30	101	77	34	30	31
10	8.3	13	27	11	61	45	30	94	73	28	28	28
11	8.1	12	27	10	350	42	43	98	67	25	103	24
12	8.9	12	27	9.0	150	39	94	99	142	23	103	21
13	7.2	12	24	10	70	37	88	97	121	21	60	20
14	8.1	13	20	11	50	34	73	145	82	21	44	19
15	7.3	13	19	11	70	32	56	302	76	24	39	19
16	7.5	13	18	11	300	31	46	254	63	28	35	19
17	10	14	17	10	305	29	44	167	51	22	31	19
18	13	15	16	11	240	28	43	334	46	20	27	18
19	12	15	15	13	199	26	40	417	43	22	25	19
20	11	14	14	20	189	25	38	311	40	111	22	17
21	10	14	13	24	159	24	34	187	66	196	21	17
22	10	13	14	21	122	23	37	133	53	117	19	15
23	9.9	13	14	19	103	21	118	105	42	77	18	14
24	10	14	15	17	92	20	146	121	39	57	17	13
25	12	14	13	16	79	20	102	682	47	46	16	12
26	12	13	12	16	68	19	73	533	39	47	15	12
27	12	21	13	19	59	20	60	1250	39	151	17	11
28	15	28	13	20	54	19	57	1200	34	208	16	12
29	15	25	14	18	----	20	210	1040	30	156	17	12
30	14	22	13	15	----	25	233	667	29	97	70	14
31	14	----	13	16	----	23	----	467	----	70	263	----
TOTAL	328.0	441	530	425.0	2876	1086	1956	9909	2586	1931	1362	973
MEAN	10.6	14.7	17.1	13.7	103	35.0	65.2	320	86.2	62.3	43.9	32.4
MAX	15	28	27	24	350	72	233	1250	337	208	263	153
MIN	7.2	12	12	9.0	15	19	20	76	29	20	15	11
CFSM	.11	.16	.18	.15	1.10	.37	.69	3.41	.92	.66	.47	.35
IN.	.13	.17	.21	.17	1.14	.43	.77	3.93	1.02	.76	.54	.39

CAL YR 1980 TOTAL 32749.0 MEAN 89.5 MAX 978 MIN 7.2 CFSM .95 IN 12.97
WTR YR 1981 TOTAL 24403.0 MEAN 66.9 MAX 1250 MIN 7.2 CFSM .71 IN 9.67

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 (9 m) downstream from McGregor Road bridge, 0.5 mile (0.8 km) east of Acton, and 4.1 miles (6.6 km) upstream from mouth.

DRAINAGE AREA.--78.8 mi² (204.1 km²).

WATER-DISCHARGE RECORDS

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 (230.734 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--14 years, 93.3 ft³/s (2.642 m³/s), 16.08 in/yr (408 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,140 ft³/s (202 m³/s) July 20, 1969, gage height, 14.99 ft (4.569 m); minimum daily, 0.60 ft³/s (0.017 m³/s) Oct. 1, 4, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,000 ft³/s (28.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 18	2115	1560	44.2	8.89	2.710
May 25	1115	2170	61.5	10.13	3.088
May 27	1715	*2250	63.7	*10.26	3.127

Minimum daily discharge, 1.4 ft³/s (0.040 m³/s) Sept. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	10	21	6.5	14	34	16	370	195	21	25	44
2	11	9.4	17	5.8	27	29	13	176	144	18	20	38
3	13	12	16	10	14	24	12	115	115	14	18	27
4	12	8.8	13	9.0	13	24	54	80	96	51	16	20
5	11	8.4	17	8.3	12	136	69	72	80	136	15	11
6	10	15	17	8.1	5.9	116	38	365	84	71	18	8.4
7	5.6	14	16	4.5	11	75	29	200	67	49	15	12
8	4.0	11	15	4.3	11	55	24	118	56	34	13	13
9	8.4	10	20	4.2	9.5	45	19	87	50	26	11	11
10	9.4	4.6	36	8.8	65	38	20	92	44	18	6.7	9.2
11	8.4	2.8	28	9.5	407	30	143	163	38	13	20	7.9
12	9.1	2.4	22	9.3	120	25	333	115	99	11	11	3.2
13	9.0	7.0	24	8.4	60	24	172	90	161	10	12	2.6
14	5.1	9.1	20	3.8	41	23	109	262	85	12	11	2.3
15	4.9	9.5	19	3.6	59	22	69	431	63	23	14	12
16	9.3	9.7	21	3.4	348	23	60	222	45	25	11	13
17	19	9.2	17	8.9	347	20	59	132	37	17	10	17
18	26	6.9	12	9.4	194	18	50	697	33	13	13	11
19	12	6.1	10	9.1	166	13	40	718	30	33	8.6	8.9
20	8.9	3.8	6.8	8.0	174	12	42	271	28	62	7.9	7.8
21	5.0	7.0	6.3	4.0	131	15	25	160	63	41	7.4	6.9
22	4.1	7.4	6.5	3.9	103	13	28	110	66	27	7.1	3.3
23	8.1	7.4	8.4	4.0	88	11	386	84	34	19	4.0	1.6
24	9.9	3.9	13	9.5	75	7.5	192	165	23	17	2.1	1.4
25	19	3.3	12	10	55	6.9	108	1800	83	15	2.1	1.5
26	13	2.1	11	12	43	6.5	76	602	49	18	6.5	6.2
27	6.4	27	12	11	39	9.0	60	1610	29	201	7.6	9.5
28	11	53	11	5.6	40	12	43	1270	24	163	8.1	9.6
29	12	34	11	4.0	------	12	480	502	21	80	8.3	11
30	12	25	10	3.5	------	26	312	504	20	48	45	16
31	11	-----	6.6	7.5	------	21	----	374	----	32	92	-----
TOTAL	312.9	339.8	475.6	217.9	2672.4	925.9	3081	11957	1962	1318	466.4	346.3
MEAN	10.1	11.3	15.3	7.03	95.4	29.9	103	386	65.4	42.5	15.0	11.5
MAX	26	53	36	12	407	136	480	1800	195	201	92	44
MIN	4.0	2.1	6.3	3.4	5.9	6.5	12	72	20	10	2.1	1.4
CFSM	.13	.14	.19	.09	1.21	.38	1.31	4.90	.83	.54	.19	.15
IN.	.15	.16	.22	.10	1.26	.44	1.45	5.64	.93	.62	.22	.16

CAL YR 1980 TOTAL 26709.1 MEAN 73.0 MAX 1460 MIN 2.1 CFSM .93 IN 12.61
WTR YR 1981 TOTAL 24075.2 MEAN 66.0 MAX 1800 MIN 1.4 CFSM .84 IN 11.37

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT					
27...	1430	7.0	5.6	21	.32
30...	1045	7.5	13	5	.18
NOV					
05...	0820	---	8.4	12	.27
14...	1000	8.0	9.1	5	.12

03362000 YOUNGS CREEK NEAR EDINBURGH, IN

LOCATION.--Lat 39°25'08", long 86°00'18", in SE¼SW¼ sec.5, T.11 N., R.5 E., Johnson County, Hydrologic Unit 05120204, on left bank on upstream side of county highway bridge, 0.5 mile (0.8 km) southwest of Amity, 2.0 miles (3.2 km) upstream from mouth, and 5 miles (8 km) northwest of Edinburgh.

DRAINAGE AREA.--107 mi^2 (277 km^2).

PERIOD OF RECORD.--October 1942 to current year. Prior to December 1942 monthly discharge only, published in WSP 1305. Prior to October 1977, published as "near Edinburg".

REVISED RECORDS.--WSP 1335: 1944. WSP 1909: 1958. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 670.20 ft (204.277 m) National Geodetic Vertical Datum of 1929. Prior to June 30, 1955, nonrecording gage at same site and datum.

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

AVERAGE DISCHARGE.--39 years, 107 ft^3/s (3.030 m^3/s), 13.58 in/yr (245 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,700 ft^3/s (303 m^3/s) Jan. 27, 1952, gage height, 13.4 ft (4.08 m); minimum daily, 0.5 ft^3/s (0.014 m^3/s) Sept. 29, Oct. 20, 21, 1953.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,300 ft^3/s (36.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 23	1515	1310	37.1	6.79	2.070	May 25	0945	2080	58.9	8.48	2.585
May 19	0245	1420	40.2	7.08	2.158	May 28	0530	*2980	84.4	*9.59	2.923

Minimum daily discharge, 3.6 ft^3/s (0.10 m^3/s) Sept. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	10	20	13	12	36	22	259	349	27	29	13
2	11	9.2	20	13	19	31	19	159	272	23	22	13
3	10	8.4	21	13	16	28	18	117	204	20	19	13
4	9.9	8.2	18	10	13	30	23	95	155	19	17	11
5	9.4	8.4	17	9.4	12	180	32	82	127	90	228	8.4
6	8.2	8.4	17	8.8	12	212	25	180	113	92	779	6.7
7	8.7	9.5	16	8.4	12	122	21	163	96	49	200	5.9
8	8.0	7.9	16	8.0	12	89	19	112	82	33	112	6.6
9	7.8	8.1	20	7.6	13	72	19	92	75	26	75	6.1
10	7.1	8.0	24	7.4	41	62	20	90	135	23	49	5.9
11	7.1	8.4	24	7.2	250	54	74	140	79	21	37	5.4
12	7.4	8.3	21	7.0	150	46	275	110	264	18	29	4.9
13	6.6	8.3	20	7.0	90	42	246	106	801	16	23	4.4
14	7.5	8.5	18	7.0	70	35	143	349	260	18	20	4.4
15	8.0	8.5	18	7.0	50	31	98	587	157	25	26	74
16	8.3	8.4	19	7.0	164	31	78	317	114	63	30	24
17	11	8.8	18	7.0	279	28	72	198	89	37	20	18
18	20	13	17	7.0	168	26	99	668	72	23	15	13
19	17	12	16	7.2	153	24	62	1050	61	20	13	10
20	12	15	14	7.6	166	23	65	435	54	49	11	8.3
21	9.4	10	13	8.2	128	22	49	268	51	45	9.9	7.0
22	8.0	9.5	13	8.8	100	20	50	186	51	31	8.8	6.4
23	7.3	9.3	13	9.4	87	18	1060	135	39	21	7.9	5.4
24	7.6	9.2	14	10	76	17	526	286	33	18	7.3	5.2
25	11	9.3	12	11	63	17	273	1900	32	15	7.3	4.9
26	12	9.0	11	12	52	16	203	1070	30	13	6.4	4.4
27	12	24	12	13	43	19	158	2300	25	172	9.1	3.9
28	13	42	12	13	41	18	121	2420	23	203	14	3.6
29	13	29	12	12	----	17	203	591	22	102	12	4.9
30	13	23	13	11	----	30	202	591	21	60	10	10
31	11	-----	13	11	----	28	----	828	----	39	12	-----
TOTAL	312.3	359.6	512	289.0	2292	1424	4275	15884	3886	1411	1858.7	311.7
MEAN	10.1	12.0	16.5	9.32	81.9	45.9	143	512	130	45.5	60.0	10.4
MAX	20	42	24	13	279	212	1060	2420	801	203	779	74
MIN	6.6	7.9	11	7.0	12	16	18	82	21	13	6.4	3.6
CFSM	.09	.11	.15	.09	.77	.43	1.34	4.79	1.22	.43	.56	.10
IN.	.11	.13	.18	.10	.80	.50	1.49	5.52	1.35	.49	.65	.11

CAL YR 1980 TOTAL 28699.9 MEAN 78.4 MAX 1010 MIN 6.6 CFSM .73 IN 9.98
WTR YR 1981 TOTAL 32815.3 MEAN 89.9 MAX 2420 MIN 3.6 CFSM .84 IN 11.41

WABASH RIVER BASIN

03362500 SUGAR CREEK NEAR EDINBURGH, IN

LOCATION.--Lat 39°21'39", long 85°59'51", in SW¼SE¼ sec.29, T.11 N., R.5 E., Johnson County, Hydrologic Unit 05120204, on left bank 50 ft (15 m) upstream from highway bridge in Camp Atterbury, 1.3 miles (2.1 km) (correction) upstream from confluence with Blue River, 1.5 miles (2.4 km) northwest of Edinburgh, and at mile 1.3 (2.1 km).

DRAINAGE AREA.--474 mi^2 (1,228 km^2).

WATER-DISCHARGE RECORDS

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 (196.971 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1952, nonrecording gage on downstream side of old highway bridge, 100 ft (30 m) downstream at same datum.

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

AVERAGE DISCHARGE.--39 years, 490 ft^3/s (13.88 m^3/s), 14.04 in/yr (357 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,600 ft^3/s (782 m^3/s) May 29, 1956, gage height, 18.38 ft (5.602 m); minimum daily, 9.2 ft^3/s (0.26 m^3/s) Sept. 19, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 4,200 ft^3/s (119 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 28	2200	*8930	253	*13.68	4.170
May 31	1600	5030	142	11.01	3.356

Minimum daily discharge, 53 ft^3/s (1.50 m^3/s) Nov. 14, Sept. 25, 26.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DISCHARGE: July 1968 to September 1977 (partial-record station).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	72	145	87	74	250	138	1490	2450	209	234	363
2	75	68	134	84	91	231	123	1090	1480	207	194	256
3	72	67	126	79	85	214	116	706	1090	196	167	212
4	76	69	119	75	80	203	125	520	861	189	152	177
5	76	67	110	65	76	346	204	421	724	399	258	139
6	72	64	109	76	80	724	223	725	623	473	1150	117
7	72	65	109	76	77	488	186	1120	551	296	397	100
8	68	69	109	76	78	371	164	760	478	245	267	93
9	63	66	115	75	79	312	150	545	437	204	208	86
10	61	63	124	74	101	282	145	490	508	175	165	80
11	62	60	162	72	809	258	220	684	408	152	140	74
12	59	56	156	68	900	239	1030	644	536	134	200	68
13	59	54	144	72	600	225	1170	519	1730	123	204	63
14	59	53	138	72	450	208	738	745	854	124	152	61
15	58	57	129	72	335	191	494	1940	575	133	139	122
16	56	59	124	72	518	184	376	1610	456	218	138	86
17	63	63	122	72	1580	171	340	1030	380	190	121	79
18	77	68	115	72	1170	159	368	1370	336	141	105	80
19	105	67	106	90	913	153	304	3520	311	127	99	71
20	82	64	94	95	859	141	288	2480	294	238	90	66
21	69	62	84	95	784	134	268	1380	283	358	85	64
22	64	58	86	87	588	131	245	915	356	348	78	61
23	57	61	88	81	487	120	1780	678	312	256	74	59
24	54	63	90	77	420	115	1810	669	267	203	70	54
25	62	62	85	78	367	108	1020	3690	251	167	67	53
26	68	58	80	80	317	105	713	4690	350	144	65	53
27	74	74	90	82	280	110	551	5190	270	336	71	54
28	74	129	90	82	262	110	432	7750	242	1060	81	54
29	68	210	95	75	-----	110	734	6750	228	648	80	57
30	75	168	93	68	-----	131	1330	3650	213	405	75	68
31	74	----	92	72	-----	153	-----	4570	-----	290	188	----
TOTAL	2129	2216	3463	2401	12460	6677	15785	62341	17854	8388	5514	2970
MEAN	68.7	73.9	112	77.5	445	215	526	2011	595	271	178	99.0
MAX	105	210	162	95	1580	724	1810	7750	2450	1060	1150	363
MIN	54	53	80	65	74	105	116	421	213	123	65	53
CFSM	.15	.16	.24	.16	.94	.45	1.11	4.24	1.26	.57	.38	.21
IN.	.17	.17	.27	.19	.98	.52	1.24	4.89	1.40	.66	.43	.23

CAL YR 1980 TOTAL 151716 MEAN 415 MAX 3760 MIN 53 CFSM .88 IN 11.91
WTR YR 1981 TOTAL 142198 MEAN 390 MAX 7750 MIN 53 CFSM .82 IN 11.16

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 just downstream from highway bridge, 0.8 mile (1.3 km) downstream from confluence of Big Blue River and Sugar Creek, 1.5 miles (2.4 km) southwest of Edinburgh, and at mile 14.1 (22.7 km).

DRAINAGE AREA.--1,060 mi² (2,745 km²).

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 (194.155 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 7, 1941, nonrecording gage at same site and datum.

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

AVERAGE DISCHARGE.--41 years, 1,149 ft³/s (32.54 m³/s), 14.72 in/yr (374 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,500 ft³/s (1,147 m³/s) Mar. 6, 1963, gage height, 16.97 ft (5.172); minimum daily, 38 ft³/s (1.08 m³/s) Sept. 23, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 20.3 ft (6.19 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 7,000 ft³/s (198 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 29	0200	*14900	422	*14.43	4.398						

Minimum daily discharge, 180 ft³/s (5.10 m³/s) Jan. 5.

NOTE.--No gage-height record Dec. 1 to Jan. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	300	269	335	245	253	640	402	2800	7010	594	684	700
2	297	258	320	240	276	600	372	2530	4450	847	598	580
3	292	254	305	230	255	550	356	1740	3330	692	532	520
4	288	254	290	200	252	500	371	1310	2750	627	500	480
5	283	251	285	180	256	800	471	1060	2340	1130	632	450
6	272	248	285	220	263	1350	545	1350	2020	1900	1710	410
7	266	243	280	225	250	1100	490	2190	1740	1410	974	370
8	265	236	290	220	249	850	444	1660	1490	1010	709	340
9	260	232	300	220	228	760	418	1250	1350	812	576	320
10	255	230	350	220	278	700	408	1100	1560	701	504	305
11	250	220	410	220	944	650	504	1250	1240	631	464	290
12	240	220	390	200	1700	610	1820	1250	1210	568	501	280
13	235	220	370	220	1500	580	2850	1090	3510	527	489	265
14	230	220	350	220	1000	550	1990	1240	2480	509	437	250
15	230	220	335	220	665	520	1420	3220	1670	509	427	360
16	230	220	325	220	930	490	1060	3580	1290	575	416	301
17	240	230	315	220	3210	470	996	2440	1070	540	392	288
18	270	240	300	231	3110	450	1110	2460	957	480	361	286
19	280	240	280	237	2320	430	880	5710	881	454	340	268
20	310	230	260	239	2090	410	805	5530	825	612	321	256
21	270	230	230	248	1850	395	746	3380	793	1190	304	247
22	260	230	240	249	1460	380	681	2330	932	1070	292	240
23	250	220	245	248	1240	365	2980	1720	844	790	272	234
24	250	235	245	247	1100	355	3940	1460	734	636	265	227
25	250	245	230	249	998	345	2460	5840	687	557	255	224
26	260	240	220	255	871	341	1690	8150	917	500	250	220
27	270	276	250	260	771	351	1310	8730	737	738	250	217
28	274	336	230	262	700	349	1050	12300	656	2040	270	213
29	273	421	245	254	-----	349	1260	14000	608	1560	280	217
30	282	353	250	241	-----	385	2630	9650	580	1040	260	232
31	274	----	250	231	-----	421	-----	8370	-----	811	450	----
TOTAL	8206	7521	9010	7171	29019	17046	36459	120690	50661	26060	14715	9590
MEAN	265	251	291	231	1036	550	1215	3893	1689	841	475	320
MAX	310	421	410	262	3210	1350	3940	14000	7010	2040	1710	700
MIN	230	220	220	180	228	341	356	1060	580	454	250	213
CFSM	.25	.24	.28	.22	.98	.52	1.15	3.67	1.59	.79	.45	.30
IN.	.29	.26	.32	.25	1.02	.60	1.28	4.24	1.78	.91	.52	.34

CAL YR 1980 TOTAL 414724 MEAN 1133 MAX 7670 MIN 220 CFSM 1.07 IN 14.55
WTR YR 1981 TOTAL 336148 MEAN 921 MAX 14000 MIN 180 CFSM .87 IN 11.80

03363500 FLATROCK RIVER AT ST. PAUL, IN

LOCATION.--Lat 39°25'03", long 85°38'03", in SE¼NE¼ sec.9, T.11 N., R.8 E., Shelby County, Hydrologic Unit 05120205, on right bank 500 ft (152 m) downstream from highway bridge, 0.8 mile (1.3 km) southwest of St. Paul, and 1.5 miles (2.4 km) downstream from Mill Creek, and at mile 34.4 (55.3 km).

DRAINAGE AREA.--303 mi² (785 km²).

WATER-DISCHARGE RECORDS

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 (233.123 m) 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 (152 m) upstream at same datum.

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

AVERAGE DISCHARGE.--51 years, 318 ft³/s (9.006 m³/s), 14.25 in/yr (362 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,500 ft³/s (524 m³/s) Jan. 5, 1949, gage height, 10.60 ft (3.231 m); maximum recorded gage height, 12.37 ft (3.770 m) May 24, 1968; minimum daily discharge, 0.6 ft³/s (0.017 m³/s) Aug. 7, 1931.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of approximately 20.5 ft (6.25 m), from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,500 ft³/s (70.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 23	1600	*4400	125	*5.72	1.743
May 27	1100	3630	103	5.15	1.570

Minimum daily discharge, 16 ft³/s (0.45 m³/s) Sept. 28, 29.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: January 1976 to September 1979.
WATER TEMPERATURE: January 1976 to September 1979.
SEDIMENT DISCHARGE: August 1969 to September 1977 (partial-record station).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	36	60	50	40	182	101	823	1790	159	105	41
2	32	35	56	40	50	161	91	754	929	432	96	41
3	32	34	56	40	40	143	85	551	688	280	87	47
4	33	33	52	35	39	136	105	430	549	220	82	46
5	33	31	49	30	38	331	129	363	452	1120	93	49
6	32	31	48	33	37	508	124	544	392	991	183	46
7	30	31	48	35	36	396	111	544	364	564	177	37
8	30	30	48	33	35	281	102	456	310	345	135	36
9	33	31	58	33	35	228	99	374	286	251	104	32
10	30	30	79	32	50	200	105	344	290	235	117	29
11	27	29	96	30	900	183	434	391	249	194	138	26
12	26	29	81	28	600	165	1400	370	803	164	87	24
13	26	28	74	29	430	155	1330	343	960	150	74	23
14	24	28	70	30	300	139	828	667	452	148	67	23
15	24	29	63	30	220	129	550	1500	316	137	69	28
16	26	30	63	30	629	127	403	1250	257	137	68	33
17	28	34	58	30	1210	121	340	831	227	128	58	28
18	46	37	54	31	1060	116	383	1420	206	117	52	27
19	44	36	52	31	704	109	373	1890	197	110	46	26
20	38	34	45	31	747	103	323	1430	192	120	43	23
21	34	33	49	33	576	99	288	887	199	213	39	22
22	30	33	53	34	447	95	271	633	201	197	38	20
23	27	35	58	35	407	91	2890	502	187	155	36	19
24	28	34	60	36	390	88	1570	532	176	128	34	18
25	33	34	50	38	335	86	936	2150	168	111	31	18
26	38	34	45	40	267	84	639	2170	178	102	30	18
27	38	55	50	40	221	89	493	3160	181	153	28	18
28	38	85	50	38	200	87	393	2470	157	205	29	16
29	36	89	50	37	-----	83	551	2090	143	202	30	16
30	38	72	50	35	-----	117	753	1620	135	147	32	17
31	37	----	50	33	-----	118	-----	2320	-----	121	45	----
TOTAL	1002	1140	1775	1060	10043	4950	16200	33809	11634	7736	2253	847
MEAN	32.3	38.0	57.3	34.2	359	160	540	1091	388	250	72.7	28.2
MAX	46	89	96	50	1210	508	2890	3160	1790	1120	183	49
MIN	24	28	45	28	35	83	85	343	135	102	28	16
CFSM	.11	.13	.19	.11	1.19	.53	1.78	3.60	1.28	.83	.24	.09
IN.	.12	.14	.22	.13	1.23	.61	1.99	4.15	1.43	.95	.28	.10

CAL YR 1980 TOTAL 122829 MEAN 336 MAX 2990 MIN 24 CFSM 1.11 IN 15.08
WTR YR 1981 TOTAL 92449 MEAN 253 MAX 3160 MIN 16 CFSM .84 IN 11.35

03363500 FLATROCK RIVER AT ST. PAUL, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
JAN								
06...	1335	1.0	33	28	2.5	--	--	--
FEB								
19...	1730	----	689	33	61	--	--	--
MAR								
31...	1245	16.0	118	42	13	--	--	--
APR								
12...	1830	----	1710	1270	5860	--	--	--
23...	0630	----	2870	2010	15600	--	--	--
23...	1100	----	3580	1480	14300	--	--	--
23...	1930	----	3080	728	6050	--	--	--
24...	0630	----	1770	316	1510	--	--	--
MAY								
06...	1325	14.0	581	77	121	--	--	--
06...	1540	----	581	91	143	--	--	--
07...	1630	----	544	76	112	--	--	--
14...	0700	----	363	51	50	--	--	--
14...	1600	----	654	96	170	--	--	--
15...	0600	----	1620	443	1940	--	--	--
15...	1025	----	1520	416	1710	--	--	--
18...	1530	12.5	2090	858	4840	--	--	--
19...	0630	----	1900	194	995	--	--	--
19...	1730	----	1810	217	1060	--	--	--
21...	1545	----	821	70	155	--	--	--
27...	1210	----	3610	485	4730	42	55	66
JUN								
15...	1400	25.0	313	164	139	--	--	--
JUL								
28...	1430	23.3	195	139	73	--	--	--
31...	1500	----	118	77	25	--	--	--
SEP								
16...	1130	18.5	33	50	4.5	--	--	--
30...	1110	16.0	18	25	1.2	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
JAN								
06...	--	--	--	--	---	---	---	--
FEB								
19...	--	--	--	--	---	---	---	--
MAR								
31...	--	--	--	--	---	---	---	--
APR								
12...	--	--	97	99	100	---	---	--
23...	--	--	92	98	100	---	---	--
23...	--	--	93	97	99	100	---	--
23...	--	--	96	97	98	100	---	--
24...	--	--	94	97	98	100	---	--
MAY								
06...	--	--	98	99	100	---	---	--
06...	--	--	88	96	99	100	---	--
07...	--	--	79	88	90	91	93	99
14...	--	--	88	98	100	---	---	--
14...	--	--	80	--	---	---	---	--
15...	--	--	94	--	---	---	---	--
15...	--	--	98	99	99	100	---	--
18...	--	--	96	97	99	100	---	--
19...	--	--	69	82	92	98	100	--
19...	--	--	97	98	99	100	---	--
21...	--	--	91	95	98	100	---	--
27...	81	90	94	96	98	100	---	--
JUN								
15...	--	--	76	97	100	---	---	--
JUL								
28...	--	--	85	--	---	---	---	--
31...	--	--	88	--	---	---	---	--
SEP								
16...	--	--	--	--	---	---	---	--
30...	--	--	--	--	---	---	---	--

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 (bypass), 0.2 mile (0.3 km) northwest of Columbus city limits, and 2.6 miles (4.2 km) upstream from mouth.

DRAINAGE AREA.--534 mi^2 (1,383 km^2).

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 610.14 ft (185.971 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--14 years, 602 ft^3/s (17.05 m^3/s), 15.31 in/yr (389 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,000 ft^3/s (566 m^3/s) May 25, 1968, gage height, 15.87 ft (4.837 m), from inside high-water mark; minimum daily, 22 ft^3/s (0.62 m^3/s) Oct. 5, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 3,500 ft^3/s (99.1 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 24	0900	4860	138	10.40	3.170
May 28	1000	*7470	212	*12.55	3.825

Minimum daily discharge, 63 ft^3/s (1.78 m^3/s) Sept. 28-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	86	142	94	83	363	229	993	3340	378	202	96
2	86	85	130	89	104	333	207	981	1980	382	183	104
3	85	83	122	91	100	308	193	796	1310	477	171	102
4	84	82	118	75	100	292	194	646	1050	382	162	100
5	84	80	115	70	100	351	219	563	887	999	168	99
6	84	79	112	78	100	695	229	617	773	1510	464	97
7	83	95	110	79	105	661	220	790	696	1030	411	97
8	82	82	109	74	100	523	207	679	623	668	352	92
9	80	80	112	74	90	438	198	581	572	497	259	87
10	78	79	119	73	107	391	196	525	719	413	213	83
11	77	79	142	70	680	362	237	522	581	382	263	80
12	75	77	164	64	950	337	1070	547	509	331	237	77
13	74	77	154	65	650	316	1880	507	1710	293	185	74
14	73	76	144	66	520	299	1320	527	1080	277	164	74
15	72	76	137	68	420	279	857	1550	729	269	158	74
16	70	76	131	69	592	268	634	1700	581	253	156	94
17	76	79	127	69	1550	260	567	1210	497	241	148	93
18	84	83	122	70	1600	247	557	1070	446	222	135	85
19	92	84	116	70	1180	238	547	2940	413	212	125	80
20	97	83	102	70	1060	229	495	2440	388	216	117	77
21	90	81	97	75	931	220	452	1550	378	249	111	74
22	84	80	96	77	729	211	417	1030	368	301	106	72
23	81	79	101	79	636	203	1550	798	346	277	102	69
24	80	80	101	80	596	195	4030	673	317	235	98	67
25	81	80	92	82	551	189	1970	2580	300	209	96	67
26	83	79	92	83	485	186	1220	4120	281	193	92	65
27	85	88	96	83	423	190	900	4830	281	191	91	64
28	90	116	91	91	385	191	715	6950	274	372	93	63
29	81	165	93	88	-----	187	649	4750	253	341	90	63
30	85	162	93	79	-----	205	855	3110	238	290	89	63
31	85	----	93	75	-----	244	-----	2860	-----	234	88	----
TOTAL	2546	2631	3573	2370	14927	9411	23014	53435	21920	12324	5329	2432
MEAN	82.1	87.7	115	76.5	533	304	767	1724	731	398	172	81.1
MAX	97	165	164	94	1600	695	4030	6950	3340	1510	464	104
MIN	70	76	91	64	83	186	193	507	238	191	88	63
CFSM	.15	.16	.22	.14	1.00	.57	1.44	3.23	1.37	.75	.32	.15
IN.	.18	.18	.25	.17	1.04	.66	1.60	3.72	1.53	.86	.37	.17

CAL YR 1980 TOTAL 187491 MEAN 512 MAX 4170 MIN 70 CFSM .96 IN 13.06
WTR YR 1981 TOTAL 153912 MEAN 422 MAX 6950 MIN 63 CFSM .79 IN 10.72

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 mile (1.0 km) downstream from confluence of Driftwood River and Flatrock River, 1.3 miles (2.1 km) upstream from Haw Creek, and at mile 238.7 (384.1 km).

DRAINAGE AREA.--1,707 mi² (4,421 km²).

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 (183.831 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 22, 1952, nonrecording gage 600 ft (183 m) upstream at same datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--34 years, 1,849 ft³/s (52.36 m³/s), 14.71 in/yr (374 mm/yr).

EXTREMES FOR PERIOD OF RECORD.---Maximum discharge, 52,300 ft³/s (1,480 m³/s) Mar. 6, 1963, gage height, 16.23 ft (4.947 m); minimum daily, 87 ft³/s (2.46 m³/s) Sept. 29, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 10,000 ft³/s (283 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 29	1100	*19300	547	*9.64	2.938

Minimum daily discharge, 256 ft³/s (7.25 m³/s) Jan. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	363	352	526	352	344	1240	753	3850	12000	921	883	929
2	365	335	475	342	434	1140	668	3870	6590	1250	780	861
3	358	352	445	342	370	1040	622	2900	4580	1180	700	758
4	359	352	436	286	360	979	650	2260	3700	980	642	724
5	351	342	417	262	350	1370	768	1870	3040	1780	691	701
6	346	331	401	314	340	2350	909	2010	2620	3320	1940	621
7	342	348	395	314	330	2310	851	3080	2330	2540	1380	563
8	342	332	398	286	330	1850	777	2650	1990	1730	1090	519
9	335	327	415	286	320	1530	725	2100	1800	1300	861	486
10	328	323	438	286	400	1330	712	1890	3340	1090	726	464
11	314	318	522	280	1590	1230	807	2080	1960	990	715	436
12	307	311	587	256	2600	1130	2790	2060	1620	885	691	414
13	300	307	550	280	1750	1050	5000	1810	4460	807	682	394
14	293	307	506	271	1240	995	3920	2160	3700	755	603	380
15	286	308	481	283	1090	921	2720	4650	2410	747	572	452
16	280	313	463	278	1540	885	2010	5230	1820	769	557	503
17	300	329	450	275	4260	850	2110	4030	1540	789	536	468
18	342	341	434	286	5110	815	3860	4080	1350	703	495	441
19	352	342	410	293	4150	765	2010	7800	1220	659	466	419
20	393	338	367	293	3810	733	1820	8220	1160	715	448	393
21	352	331	328	314	3410	702	1520	5210	1110	1200	425	372
22	335	323	335	321	2770	671	1330	3720	1160	1310	409	355
23	321	321	352	328	2360	641	4720	2810	1180	1080	394	339
24	321	327	362	328	2160	612	7720	2410	1030	887	388	330
25	321	324	321	328	1950	598	4860	8130	960	774	371	320
26	328	314	314	335	1700	608	3420	12300	1090	722	356	311
27	352	371	352	342	1470	593	2620	15600	1050	717	357	303
28	362	449	335	353	1320	599	2090	18200	921	1910	389	293
29	342	620	352	347	-----	592	1940	18800	850	1820	397	299
30	352	594	362	323	-----	762	3470	15400	798	1320	373	314
31	352	-----	362	303	-----	809	-----	11700	-----	1030	395	-----
TOTAL	10394	10582	12891	9487	47858	31700	68172	182880	73379	36680	19712	14162
MEAN	335	353	416	306	1709	1023	2272	5899	2446	1183	636	472
MAX	393	620	587	353	5110	2350	7720	18800	12000	3320	1940	929
MIN	280	307	314	256	320	592	622	1810	798	659	356	293
CFSM	.20	.21	.24	.18	1.00	.60	1.33	3.46	1.43	.69	.37	.28
IN.	.23	.23	.28	.21	1.04	.69	1.49	3.99	1.60	.80	.43	.31

CAL YR 1980 TOTAL 664924 MEAN 1817 MAX 11200 MIN 280 CFSM 1.06 IN 14.49
WTR YR 1981 TOTAL 517897 MEAN 1419 MAX 18800 MIN 256 CFSM .83 IN 11.29

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 (6.10 m) downstream from bridge on County Road 450 North, 1.2 miles (1.9 km) southeast of Clifford, 5.8 miles (9.3 km) northeast of Columbus, and 7.6 miles (12.2 km) upstream from mouth.

DRAINAGE AREA.--47.5 mi² (123.0 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 643.00 ft (195.986 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--14 years, 50.4 ft³/s (1.427 m³/s), 14.41 in/yr (366 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,560 ft³/s (72.5 m³/s) May 24, 1968, gage height, 13.9 (4.24 m), from floodmark; no flow at times during September and October 1967 due to diversion for irrigation.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1200 ft³/s (34.0 m³/s) revised and maximum (*).

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 27	0800	1750	49.6	11.72	3.572	June 30	2200	1550	43.9	11.03	3.362
June 10	0300	*1870	53.0	*12.11	3.691						

Minimum daily discharge, 2.3 ft³/s (0.065 m³/s) Jan. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	3.8	7.7	5.1	8.1	18	18	53	80	177	4.9	5.8
2	3.8	3.5	7.0	4.9	20	16	14	42	68	32	4.9	9.0
3	3.8	3.5	6.0	4.7	13	14	12	37	56	19	4.9	6.8
4	3.8	3.5	5.9	4.3	10	14	20	32	50	15	4.7	6.0
5	3.8	3.3	5.7	4.0	8.0	72	27	33	44	133	59	5.6
6	3.6	3.3	5.6	3.7	7.0	61	19	121	41	48	132	5.1
7	3.6	3.3	5.4	3.3	6.2	38	16	95	36	21	194	4.9
8	3.4	3.5	5.4	3.0	5.8	29	15	65	33	15	154	4.8
9	3.4	3.5	6.7	2.8	5.6	24	14	53	36	13	39	4.6
10	3.2	3.4	8.2	2.6	46	22	14	51	615	11	20	4.4
11	3.2	3.3	8.2	2.5	180	19	15	60	108	10	16	4.1
12	3.0	3.3	7.8	2.3	60	18	66	38	69	8.8	13	4.1
13	3.0	3.3	6.6	2.4	50	17	77	31	56	7.7	11	4.1
14	2.8	3.5	6.4	2.4	45	14	45	112	43	6.9	10	4.1
15	2.8	3.5	6.1	2.5	40	14	29	257	33	6.8	10	4.0
16	2.6	3.5	6.0	2.7	190	13	25	124	29	7.2	9.7	3.5
17	3.2	4.1	6.0	2.8	129	12	50	82	26	7.1	8.5	3.5
18	6.5	6.0	6.0	3.0	87	12	350	358	22	6.7	7.5	3.5
19	5.0	5.0	5.7	3.3	74	11	150	276	21	6.3	7.1	3.5
20	4.2	4.7	5.0	3.7	87	11	94	144	20	7.3	6.8	3.5
21	3.9	5.1	4.6	4.2	56	11	67	96	21	8.9	6.6	3.5
22	3.5	3.9	4.3	4.4	43	9.9	58	71	21	7.4	6.4	3.4
23	3.2	3.9	4.3	4.4	38	9.6	522	55	18	6.8	6.0	3.1
24	3.1	3.9	4.7	4.4	34	9.0	174	68	17	6.6	5.6	3.1
25	3.7	3.9	4.6	4.4	28	9.0	112	349	19	6.5	5.4	3.1
26	4.1	3.9	4.4	4.9	23	9.0	92	326	19	6.2	5.1	3.1
27	3.8	13	4.3	5.1	20	10	78	1130	16	6.0	5.1	2.9
28	3.6	18	4.1	4.8	20	9.9	61	302	14	6.0	5.4	2.9
29	3.9	12	4.1	4.3	------	9.7	73	152	13	5.8	6.0	2.9
30	3.8	8.7	4.6	4.0	------	31	62	130	202	5.6	5.9	2.8
31	3.7	-----	5.0	3.9	------	24	----	103	----	5.2	5.6	-----
TOTAL	112.8	151.1	176.4	114.8	1333.7	591.1	2369	4846	1846	629.8	780.1	125.7
MEAN	3.64	5.04	5.69	3.70	47.6	19.1	79.0	156	61.5	20.3	25.2	4.19
MAX	6.5	18	8.2	5.1	190	72	522	1130	615	177	194	9.0
MIN	2.6	3.3	4.1	2.3	5.6	9.0	12	31	13	5.2	4.7	2.8
CFSM	.08	.11	.12	.08	1.00	.40	1.66	3.28	1.30	.43	.53	.09
IN.	.09	.12	.14	.09	1.04	.46	1.86	3.80	1.45	.49	.61	.10

CAL YR 1980 TOTAL 14916.0 MEAN 40.8 MAX 700 MIN 2.6 CFSM .86 IN 11.68
WTR YR 1981 TOTAL 13076.5 MEAN 35.8 MAX 1130 MIN 2.3 CFSM .75 IN 10.24

03364200 HAW CREEK NEAR CLIFFORD, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 29...	1300	9.0	3.9	18	.19
NOV 03...	1305	11.0	3.5	28	.26

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 highway bridge, 0.2 mile (0.3 km) north of Hartsville, 5.9 miles (9.5 km) upstream from Duck Creek, and at mile 20.0 (32.2 km).

DRAINAGE AREA.--91.4 mi^2 (236.7 km^2).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1335: 1950. WSP 1725: 1949(M). WSP 2109: Drainage area. WRD Ind. 1974: 1973.

GAGE.--Water-stage recorder. Datum of gage is 677.34 ft (206.453 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 24, 1952, nonrecording gage at same site and datum.

REMARKS.--Records good except those below 10 ft^3/s (0.28 m^3/s), which are poor.

AVERAGE DISCHARGE.--33 years, 96.8 ft^3/s (2.741 m^3/s), 14.38 in/yr (365 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,300 ft^3/s (320 m^3/s) Jan. 21, 1959, gage height, 14.29 ft (4.356 m); no flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1913 reached an elevation of 702.4 ft (214.09 m) National Geodetic Vertical Datum of 1929, from floodmarks, upstream from bridge.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,300 ft^3/s (36.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 9	1600	*1730	49.0	*5.84	1.780
July 5	1200	1340	37.9	5.23	1.594

Minimum daily discharge, 0.57 ft^3/s (0.016 m^3/s) Oct. 1.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: December 1970 to September 1975.
WATER TEMPERATURE: December 1970 to September 1975.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.57	3.6	14	4.8	11	44	41	113	143	16	6.4	5.0
2	.80	3.5	11	5.1	20	39	32	77	116	18	5.3	4.5
3	1.6	3.4	9.2	5.1	12	34	28	58	99	16	4.4	7.0
4	2.3	3.2	8.2	3.3	10	34	38	49	87	16	4.7	5.0
5	2.9	3.1	7.4	3.0	8.0	183	41	46	72	730	19	4.4
6	2.5	3.0	7.0	2.7	7.5	204	33	180	64	263	118	3.9
7	2.3	2.8	6.5	2.5	7.0	128	28	152	53	152	134	3.5
8	2.1	2.9	6.8	2.3	6.5	93	27	96	43	92	76	3.1
9	2.0	2.8	10	2.2	6.0	73	26	73	266	62	29	2.8
10	1.9	3.4	13	2.1	40	64	29	64	160	46	18	2.6
11	1.8	3.2	19	2.0	300	56	87	80	80	35	185	2.4
12	1.7	2.4	17	1.9	100	48	340	62	514	28	73	2.2
13	1.7	2.2	14	2.0	70	45	244	53	248	25	29	2.0
14	1.6	2.2	12	2.1	60	39	151	289	135	24	18	2.0
15	1.6	2.3	10	2.2	73	34	102	756	86	25	16	5.0
16	1.5	2.5	11	2.3	236	36	82	306	63	24	13	3.5
17	2.0	3.9	9.6	2.4	383	32	103	188	45	21	12	2.8
18	5.4	5.5	8.8	2.6	213	29	94	585	36	16	8.8	2.4
19	4.5	6.5	7.8	2.8	178	27	68	527	33	14	6.9	2.2
20	3.7	4.0	5.1	3.0	194	25	75	249	32	15	5.6	2.0
21	3.2	3.4	4.5	4.3	138	24	63	161	30	16	4.9	1.8
22	2.9	3.0	4.0	5.1	111	22	63	119	23	13	4.2	1.6
23	2.7	3.0	4.2	5.1	105	20	752	96	27	10	4.0	1.5
24	2.5	3.1	4.5	5.1	94	19	342	95	23	8.7	3.7	1.4
25	4.5	3.2	4.0	5.5	76	18	188	248	22	8.0	3.5	1.3
26	4.0	3.1	3.8	6.8	61	17	125	171	21	7.3	3.3	1.2
27	5.0	8.5	3.7	7.3	51	21	93	923	19	7.1	3.2	1.1
28	4.5	35	3.5	7.3	48	22	70	523	16	38	4.0	1.0
29	4.2	35	3.6	5.1	------	20	77	259	16	24	5.0	1.5
30	4.0	21	3.8	4.3	------	45	86	231	16	13	4.5	2.0
31	3.8	-----	4.5	3.6	------	61	----	211	----	8.5	6.0	----
TOTAL	85.77	184.7	251.5	115.9	2619.0	1556	3528	7040	2588	1791.6	828.4	82.7
MEAN	2.77	6.16	8.11	3.74	93.5	50.2	118	227	86.3	57.8	26.7	2.76
MAX	5.4	35	19	7.3	383	204	752	923	514	730	185	7.0
MIN	.57	2.2	3.5	1.9	6.0	17	26	46	16	7.1	3.2	1.0
CFSM	.03	.07	.09	.04	1.02	.55	1.29	2.48	.94	.63	.29	.03
IN.	.03	.08	.10	.05	1.07	.63	1.44	2.87	1.05	.73	.34	.03

CAL YR 1980 TOTAL 27126.69 MEAN 74.1 MAX 1570 MIN .57 CFSM .81 IN 11.04
WTR YR 1981 TOTAL 20671.57 MEAN 56.6 MAX 923 MIN .57 CFSM .62 IN 8.41

03365000 SAND CREEK NEAR BREWERSVILLE, IN

LOCATION.--Lat 39°05'03", long 85°39'32", in NW¼NE¼ sec.5, T.7 N., R.8 E., Jennings County, Hydrologic Unit 05120206, on left bank at downstream side of county highway bridge, 2.5 miles (4.0 km) west of Brewersville, 5.7 miles (9.2 km) upstream from Wyaloosing Creek, and 16.0 miles (25.7 km) upstream from mouth.

DRAINAGE AREA.--155 mi^2 (401 km^2).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1335: 1949. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 629.13 ft (191.759 m) National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to Oct. 6, 1952, nonrecording gage at site 1.7 miles (2.7 km) upstream at datum approximately 8 ft (2.4 m) higher.

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

AVERAGE DISCHARGE.--33 years, 173 ft^3/s (4.899 m^3/s), 15.16 in/yr (385 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,900 ft^3/s (564 m^3/s) Jan. 21, 1959, gage height, 21.70 ft (6.614 m) inside, 22.20 ft (6.767 m) outside, from rating curve extended above 6,500 ft^3/s (184 m^3/s) on basis of contracted-opening measurement of peak flow; no flow at times during 1948, 1949, 1953-55, 1964, 1965, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,900 ft^3/s (82.1 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 18	0130	7860	222	14.61	4.453	May 30	2200	2960	83.8	9.10	2.774
Apr. 23	1300	2010	82.4	9.02	2.749	June 10	0900	*11300	320	*17.00	5.182

Minimum daily discharge, 5.1 ft^3/s (0.14 m^3/s) Jan. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	11	32	15	33	82	116	157	366	21	18	13
2	6.7	10	29	15	158	71	82	128	255	21	16	13
3	6.6	9.8	25	13	89	63	69	102	180	75	24	13
4	6.8	9.4	22	11	58	61	122	81	159	64	23	14
5	7.0	8.3	19	9.1	43	610	475	74	141	1510	43	17
6	6.8	9.0	18	8.2	31	378	194	421	294	539	448	13
7	6.5	11	18	7.4	27	208	131	284	156	240	129	12
8	6.1	11	18	6.8	18	145	107	166	96	138	750	12
9	6.0	11	23	6.2	16	116	91	126	142	94	160	12
10	5.7	9.7	55	5.8	44	101	85	119	5470	73	84	12
11	5.6	9.6	51	5.5	600	91	94	190	478	59	61	12
12	5.5	10	38	5.1	200	80	144	134	240	50	59	12
13	5.4	10	32	5.4	110	72	276	103	378	43	43	12
14	6.0	8.8	27	5.8	90	65	172	398	194	38	33	18
15	6.7	8.7	24	6.3	79	58	149	804	125	34	27	63
16	7.0	9.8	23	6.8	355	62	98	371	94	35	27	30
17	10	15	25	7.4	757	63	899	221	80	39	25	17
18	14	25	22	8.0	437	55	2150	1050	68	33	20	12
19	26	28	20	8.5	381	51	335	807	59	43	17	11
20	12	23	15	9.1	431	48	470	439	55	57	15	11
21	8.7	18	14	12	241	45	238	254	67	81	14	11
22	7.7	17	13	18	179	43	166	178	69	40	12	11
23	7.7	16	13	24	183	40	1570	138	52	28	12	10
24	8.8	15	15	24	170	38	638	119	41	24	11	10
25	13	14	13	21	129	37	327	231	36	21	10	9.9
26	19	14	13	21	102	35	236	233	32	20	9.6	9.9
27	17	44	13	24	85	37	182	1960	28	19	12	9.9
28	14	130	12	25	82	50	143	961	25	27	13	9.5
29	13	70	12	20	----	45	148	402	23	41	13	9.5
30	13	44	16	15	----	254	155	735	21	27	14	9.1
31	12	-----	17	13	----	210	-----	836	----	21	16	-----
TOTAL	296.6	630.1	687	382.4	5128	3314	10062	12222	9424	3555	2158.6	428.8
MEAN	9.57	21.0	22.2	12.3	183	107	335	394	314	115	69.6	14.3
MAX	26	130	55	25	757	610	2150	1960	5470	1510	750	63
MIN	5.4	8.3	12	5.1	16	35	69	74	21	19	9.6	9.1
CFSM	.06	.14	.14	.08	1.18	.69	2.16	2.54	2.03	.74	.45	.09
IN.	.07	.15	.16	.09	1.23	.80	2.41	2.93	2.26	.85	.52	.10

CAL YR 1980 TOTAL 51006.4 MEAN 139 MAX 2390 MIN 5.4 CFSM .90 IN 12.24
WTR YR 1981 TOTAL 48288.5 MEAN 132 MAX 5470 MIN 5.1 CFSM .85 IN 11.59

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 (518 m) downstream from highway bridge, 1 mile (2 km) north of Seymour, 9.5 miles (15.3 km) downstream from Sand Creek, and at mile 214.6 (345.3 km).

DRAINAGE AREA.--2,341 mi² (6,063 km²).

WATER-DISCHARGE RECORDS

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 (167.844 m) National Geodetic Vertical Datum of 1929. Oct. 1, 1927 to July 2, 1931, nonrecording gage 1,700 ft (518 m) upstream at datum 7.61 ft (2.320 m) higher. July 3, 1931 to July 16, 1934, nonrecording gage at site 100 ft (30 m) downstream at present datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--54 years, 2,442 ft³/s (69.16 m³/s), 14.17 in/yr (360 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 78,500 ft³/s (2,220 m³/s) Jan. 5, 1949, gage height, 19.67 ft (5.995 m); minimum daily, 86 ft³/s (2.44 m³/s) Sept. 28, 30, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 26, 1913, reached a stage of 21.0 ft (6.40 m), from information by Corps of Engineers and Indiana State Highway Commission, discharge, 120,000 ft³/s (3,400 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 12,000 ft³/s (340 m³/s) and maximum (*):.

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 18	2000	15700	445	14.86	4.529	June 11	0100	27700	784	16.76	5.108
May 28	1300	*30200	855	*17.07	5.203						

Minimum daily discharge, 350 ft³/s (9.91 m³/s) Jan. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	495	470	727	489	427	1500	1110	4090	16000	1400	1160	614
2	495	458	677	482	560	1410	968	4450	14000	1380	1050	877
3	486	458	628	473	520	1300	881	3880	8590	1520	972	819
4	478	466	603	452	490	1220	880	3040	5800	1470	918	756
5	474	462	591	385	480	1730	1350	2510	4470	2750	899	731
6	470	447	574	419	470	2890	1250	2600	3860	6260	1770	714
7	466	443	562	460	460	2820	1130	3670	3500	3960	2220	667
8	462	451	558	400	450	2340	1030	3640	2950	2780	2820	630
9	455	439	579	390	440	1930	963	2940	2600	2090	1810	591
10	447	431	599	390	450	1680	915	2470	11700	1740	1260	564
11	443	427	657	380	1300	1530	918	2530	15100	1520	1110	546
12	431	419	715	350	3000	1420	1270	2630	4010	1390	1100	525
13	423	419	715	380	3500	1320	4040	2370	3930	1270	1010	506
14	415	415	682	380	1900	1230	4810	2320	6040	1190	939	488
15	415	412	657	384	1500	1160	3480	5850	4020	1140	879	475
16	408	408	636	380	1870	1100	2560	7920	2990	1120	843	492
17	419	435	615	370	4370	1070	2420	6890	2500	1130	812	602
18	474	455	609	380	6080	1030	9570	5210	2200	1090	776	550
19	474	466	590	387	5560	986	7060	9090	2000	1030	734	514
20	514	474	560	390	4710	948	3640	11300	1860	1030	700	500
21	498	466	513	402	4250	911	2990	10300	1760	1200	668	479
22	462	458	499	409	3410	878	2320	6790	1740	1490	643	465
23	439	447	512	417	2840	850	4410	4440	1750	1410	620	452
24	435	447	517	421	2540	823	9840	3440	1620	1230	602	437
25	451	443	492	421	2270	797	9720	4780	1490	1100	586	427
26	431	439	475	424	2020	777	6270	9450	1420	1020	570	417
27	451	498	489	433	1790	767	4320	17300	1500	966	562	409
28	498	628	489	446	1610	773	3300	29400	1380	1230	568	401
29	482	735	480	455	-----	782	2750	28300	1290	1890	591	391
30	470	775	483	433	-----	994	3170	26700	1230	1670	574	381
31	478	-----	483	407	-----	1310	-----	22600	------	1340	556	-----
TOTAL	14239	14191	17966	12789	59267	40276	99335	252900	133300	51806	30322	16420
MEAN	459	473	580	413	2117	1299	3311	8158	4443	1671	978	547
MAX	514	775	727	489	6080	2890	9840	29400	16000	6260	2820	877
MIN	408	408	475	350	427	767	880	2320	1230	966	556	381
CFSM	.20	.20	.25	.18	.90	.56	1.41	3.49	1.90	.71	.42	.23
IN.	.23	.23	.29	.20	.94	.64	1.58	4.02	2.12	.82	.48	.26

CAL YR 1980 TOTAL 911903 MEAN 2492 MAX 18800 MIN 408 CFSM 1.07 IN 14.49
WTR YR 1981 TOTAL 742811 MEAN 2035 MAX 29400 MIN 350 CFSM .87 IN 11.80

03365500 EAST FORK WHITE RIVER AT SEYMOUR, IN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
WATER TEMPERATURE: October 1954 to September 1979.
SEDIMENT DISCHARGE: July 1966 to September 1981 (discontinued).

REMARKS.--Some regulation of low flow and temperatures by Seymour Water Co. at dam 500 ft (152 m) upstream. Sediment samples collected at highway bridge, 1,700 ft (518 m) upstream.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURE: Maximum, 31.0°C July 13, 14, 1966; minimum, 0.0°C on many days during most winter periods. Maximum of 32.0°C was observed on July 19, 1954.
SEDIMENT CONCENTRATIONS: Maximum daily, 1,560 mg/L Apr. 18, 1981; minimum daily, 2 mg/L Jan. 3 to Feb. 11, 1977.
SEDIMENT DISCHARGE: Maximum daily load, 179,000 tons (162,000 tonnes) May 25, 1968; minimum daily, 0.91 ton (0.83 tonnes) Jan. 19, 1977.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 1,560 mg/L Apr. 18; minimum daily, 9 mg/L Dec. 25.
SEDIMENT DISCHARGE: Maximum daily load, 38,400 tons (34,800 tonnes) Apr. 18; minimum daily, 12 ton (10.9 tonnes) Dec. 25.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT										
03...	1620	490	46	61	--	--	---	---	---	---
NOV										
05...	1815	454	91	112	--	--	---	---	---	---
DEC										
17...	1100	619	14	23	78	--	---	---	---	---
JAN										
29...	1300	454	16	20	73	--	---	---	---	---
FEB										
18...	1030	6160	331	5510	90	96	99	100	---	---
18...	1340	6210	286	4800	88	--	---	---	---	---
APR										
24...	1145	9890	389	10400	90	93	98	99	100	---
24...	1450	10030	372	10100	94	96	98	100	---	---
MAY										
20...	0930	11310	257	7850	85	88	94	99	100	100
20...	1015	11340	206	6310	88	90	95	98	99	100
JUN										
05...	1430	4400	163	1940	73	88	100	---	---	---
AUG										
27...	1520	557	62	93	86	--	---	---	---	---

03365500 EAST FORK WHITE RIVER AT SEYMOUR, IN--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	25	33	55	70	20	39	49	65	21	24	23	93
2	30	40	70	87	16	29	49	64	22	33	15	57
3	42	55	79	98	13	22	49	63	28	39	21	74
4	44	57	85	107	11	18	46	56	28	37	17	56
5	43	55	90	112	10	16	44	46	47	61	84	503
6	44	56	77	93	12	19	42	48	58	74	164	1280
7	46	58	58	69	17	26	43	53	58	72	53	404
8	50	62	41	50	26	39	45	49	54	66	48	303
9	56	69	28	33	38	59	44	46	48	57	27	141
10	58	70	19	22	46	74	37	39	37	45	33	150
11	52	62	20	23	50	89	30	31	55	189	47	194
12	40	47	21	24	57	110	23	22	50	405	37	142
13	35	40	24	27	80	154	17	17	50	472	44	157
14	45	50	33	37	50	92	18	18	52	267	41	136
15	51	57	44	49	25	44	24	25	73	296	49	153
16	55	61	60	66	17	29	29	30	192	1060	34	101
17	61	69	84	99	14	23	30	30	403	4760	44	127
18	64	82	95	117	14	23	32	33	258	4240	57	159
19	51	65	88	111	15	24	33	34	152	2280	42	112
20	41	57	59	76	17	26	34	36	89	1130	47	120
21	37	50	48	60	21	29	33	36	56	643	49	121
22	42	52	53	66	26	35	31	34	28	258	38	90
23	49	58	57	69	27	37	30	34	26	199	23	53
24	49	58	59	71	15	21	29	33	30	206	26	58
25	44	54	56	67	9	12	26	30	26	159	48	103
26	35	41	52	62	15	19	25	29	26	142	49	103
27	29	35	50	67	22	29	24	28	39	188	42	87
28	38	51	66	112	32	42	21	25	36	156	41	86
29	33	43	81	161	40	52	18	22	---	-----	47	99
30	42	53	43	90	44	57	28	33	---	-----	119	327
31	45	58	--	----	47	61	31	34	---	-----	77	272
TOTAL	--	1698	--	2195	--	1349	--	1143	---	17558	---	5861

03365500 EAST FORK WHITE RIVER AT SEYMOUR, IN--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	APRIL MEAN CONCEN-TRATION (MG/L)	APRIL LOADS (T/DAY)	MAY MEAN CONCEN-TRATION (MG/L)	MAY LOADS (T/DAY)	JUNE MEAN CONCEN-TRATION (MG/L)	JUNE LOADS (T/DAY)	JULY MEAN CONCEN-TRATION (MG/L)	JULY LOADS (T/DAY)	AUGUST MEAN CONCEN-TRATION (MG/L)	AUGUST LOADS (T/DAY)	SEPTEMBER MEAN CONCEN-TRATION (MG/L)	SEPTEMBER LOADS (T/DAY)
1	70	210	152	1680	203	8770	199	791	184	576	107	177
2	47	123	115	1380	179	6770	247	920	145	411	214	507
3	41	98	109	1140	184	4270	206	845	116	304	101	223
4	43	102	111	911	178	2790	171	679	113	280	90	184
5	98	366	115	779	188	2270	394	4720	110	267	82	162
6	96	324	134	941	221	2300	759	13400	201	966	75	145
7	93	284	119	1180	192	1810	74	791	327	1930	67	121
8	80	222	90	885	169	1350	177	1330	177	1350	63	107
9	69	179	80	635	152	1070	180	1020	133	650	58	93
10	62	153	83	554	1230	38100	176	827	113	384	55	84
11	59	146	85	581	398	16800	123	505	124	372	55	81
12	127	553	72	511	327	3540	82	308	136	404	56	79
13	350	3780	72	461	457	4970	68	233	105	286	57	78
14	216	2810	78	489	664	10800	65	209	65	165	58	76
15	162	1520	261	4280	593	6440	65	200	65	154	59	76
16	143	988	128	2740	255	2060	64	194	67	152	81	108
17	131	856	90	1670	184	1240	64	195	67	147	64	104
18	1560	38400	114	1710	200	1190	60	177	60	126	57	85
19	149	3250	300	7360	195	1050	55	153	52	103	52	72
20	149	1460	196	5980	138	693	60	167	46	87	47	63
21	115	928	104	2890	157	746	184	596	46	83	41	53
22	73	457	139	2550	127	597	146	587	46	80	34	43
23	282	4610	142	1700	106	501	105	400	46	77	30	37
24	370	9830	129	1200	110	481	68	226	47	76	27	32
25	198	5200	213	3080	100	402	74	220	52	82	28	32
26	146	2470	310	7910	96	368	70	193	58	89	30	34
27	141	1640	196	9110	123	498	65	170	63	96	32	35
28	166	1480	127	10100	119	443	134	510	70	107	32	35
29	160	1190	96	7340	119	414	211	1080	77	123	31	33
30	153	1310	82	5910	113	375	205	924	84	130	31	32
31	---	-----	148	9030	---	------	169	611	91	137	---	----
TOTAL	---	84939	---	96687	---	123108	---	33181	---	10194	---	2991

TOTAL LOAD FOR YEAR: 380904 TONS.

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 mile (0.3 km) west of Smyrna, 3.7 miles (6.0 km) upstream from Big Creek, and 4 miles (6 km) northwest of Madison.

DRAINAGE AREA.--9.31 mi^2 (24.11 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 725.75 ft (221.209 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods and those below 1.0 ft^3/s (0.028 m^3/s), which are poor.

AVERAGE DISCHARGE.--13 years, 12.6 ft^3/s (0.357 m^3/s), 18.38 in/yr (467 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,540 ft^3/s (43.6 m^3/s) Apr. 2, 1970, gage height, 7.89 ft (2.405 m); no flow at times many years.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 500 ft^3/s (14.2 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 27	1800	*651	18.4	*5.84	1.780

Minimum daily discharge, no flow Oct. 12-16, and Sept. 12-16, 20-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.47	1.7	1.8	58	8.6	5.7	7.8	13	.18	.22	.19
2	.01	.40	1.7	1.4	121	6.1	4.1	4.8	9.0	.16	.17	1.1
3	.08	.35	1.6	1.1	27	4.5	3.6	3.7	4.0	52	.17	1.1
4	.10	.40	1.3	.90	12	7.3	40	3.2	3.0	17	.15	.54
5	.09	.35	1.1	.40	8.4	49	40	2.9	2.3	13	5.3	.30
6	.06	.35	1.0	.38	6.5	15	11	4.9	35	7.6	8.2	.17
7	.05	.35	.99	.37	5.5	8.8	6.9	3.9	13	3.2	2.7	.12
8	.04	.35	1.2	.35	4.5	6.3	5.4	2.8	4.9	2.1	2.5	.14
9	.03	.35	12	.34	4.0	5.1	4.5	2.5	3.0	1.5	.92	.08
10	.04	.30	6.0	.33	10	4.5	4.6	3.7	12	1.2	.55	.03
11	.01	.26	3.4	.32	82	4.0	4.9	8.1	3.8	.89	.40	.02
12	.00	.26	2.5	.32	15	3.5	9.1	4.9	2.1	.69	.30	.00
13	.00	.26	2.0	.35	6.4	3.3	11	4.0	1.7	.60	.26	.00
14	.00	.26	1.6	.38	4.7	2.8	6.1	36	1.5	.52	.26	.00
15	.00	.26	1.6	.40	4.4	2.7	4.2	53	1.1	1.2	.30	.00
16	.00	.30	1.6	.40	8.2	3.5	3.6	15	.80	1.2	.40	.00
17	3.5	2.8	1.4	.40	22	3.2	21	8.0	.70	.54	.30	.02
18	19	4.1	1.2	.45	15	3.6	13	96	.52	.39	.19	.05
19	2.0	1.6	1.0	.50	14	5.5	8.5	50	.47	.33	.17	.03
20	.70	.90	.97	1.0	15	4.4	55	18	.49	1.8	.14	.00
21	.54	.62	.86	10	9.1	3.9	11	9.4	.41	1.1	.10	.00
22	.40	.54	1.1	5.0	7.7	3.3	6.8	7.0	.36	.54	.08	.00
23	.35	.47	1.3	3.5	10	2.9	91	5.6	.29	.33	.05	.00
24	.54	1.0	1.3	3.0	8.6	2.5	18	4.6	.26	.30	.05	.00
25	2.8	1.5	.92	2.5	6.1	2.3	9.4	3.9	.26	.24	.03	.00
26	1.1	.80	.90	8.6	4.8	2.1	8.3	7.3	.29	.22	.02	.00
27	.62	16	.85	5.2	4.0	2.1	6.6	205	.25	.22	.02	.00
28	.90	6.2	.80	3.5	6.4	2.0	4.9	31	.20	2.9	.02	.00
29	1.0	3.4	.87	2.5	-----	2.1	5.7	7.6	.17	2.0	.12	.00
30	.62	2.2	.92	1.7	-----	32	15	5.1	.17	.55	.14	.00
31	.47	-----	1.0	2.1	-----	9.9	-----	4.7	------	.30	.10	----
TOTAL	35.06	47.40	56.68	59.49	500.3	216.8	438.9	624.4	115.04	114.80	24.33	3.89
MEAN	1.13	1.58	1.83	1.92	17.9	6.99	14.6	20.1	3.83	3.70	.78	.13
MAX	19	16	12	10	121	49	91	205	35	52	8.2	1.1
MIN	.00	.26	.80	.32	4.0	2.0	3.6	2.5	.17	.16	.02	.00
CFSM	.12	.17	.20	.21	1.92	.75	1.57	2.16	.41	.40	.08	.01
IN.	.14	.19	.23	.24	2.00	.87	1.75	2.49	.46	.46	.10	.02

CAL YR 1980 TOTAL 3800.12 MEAN 10.4 MAX 338 MIN .00 CFSM 1.12 IN 15.18
WTR YR 1981 TOTAL 2237.09 MEAN 6.13 MAX 205 MIN .00 CFSM .66 IN 8.94

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 miles (2.3 km) northwest of Deputy, 1.9 miles (3.1 km) upstream from Coffee Creek, 2.4 miles (3.9 km) downstream from confluence of Graham Creek and Big Creek, and at mile 50.0 (80.4 km).

DRAINAGE AREA.--293 mi² (759 km²).

WATER-DISCHARGE RECORDS

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 541.17 ft (164.949 m) National Geodetic Vertical Datum of 1929. Prior to June 22, 1955, nonrecording gage at same site and datum.

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

AVERAGE DISCHARGE.--33 years (water years 1949 to current year), 344 ft³/s (9.742 m³/s), 15.94 in/yr (405 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 52,200 ft³/s (1,480 m³/s) Jan. 21, 1959, from rating curve extended above 25,000 ft³/s (708 m³/s) on basis of contracted-opening measurement of peak flow, gage height, 33.1 ft (10.09 m), from floodmarks; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 7,500 ft³/s (212 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 10	2100	*8090	229	*19.27	5.873

Minimum daily discharge, 1.5 ft³/s (0.042 m³/s) Oct. 14, 15, Sept. 29, 30.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DISCHARGE: July 1968 to September 1978 (partial-record station).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	23	92	35	78	203	239	504	303	13	29	4.9
2	7.6	22	73	36	524	189	155	363	476	16	23	11
3	7.2	24	63	33	400	150	118	233	307	293	19	19
4	6.4	25	54	30	150	132	163	164	217	1370	15	19
5	5.6	25	50	26	100	789	1550	128	218	2000	24	14
6	4.9	24	47	22	80	924	718	146	741	952	518	11
7	4.6	24	44	17	60	425	371	295	1900	413	365	8.1
8	4.0	23	43	15	50	274	248	349	675	201	829	6.8
9	3.5	23	75	14	45	202	186	193	357	114	284	5.6
10	3.0	23	246	13	60	165	159	132	2940	73	118	4.0
11	2.6	22	220	12	600	142	172	206	1990	54	83	2.6
12	2.2	21	127	11	350	123	185	443	447	42	66	2.2
13	1.8	20	93	11	250	109	270	341	267	34	50	2.2
14	1.5	20	75	12	200	97	272	253	204	29	38	2.2
15	1.5	20	65	12	150	86	179	1570	160	25	32	18
16	2.0	19	62	12	500	89	141	1240	117	38	28	10
17	13	25	56	12	768	90	1160	609	89	32	24	6.0
18	214	50	54	13	855	99	3600	849	72	24	20	4.0
19	118	61	53	14	598	101	1350	2240	61	20	17	3.0
20	63	59	47	15	632	104	1460	1020	56	273	15	2.7
21	47	49	45	24	527	99	933	599	51	851	12	2.5
22	38	43	38	73	338	88	521	358	45	339	9.5	2.4
23	30	38	35	60	401	80	3480	239	40	135	7.6	2.2
24	25	37	37	55	466	72	2230	173	35	70	6.4	2.0
25	27	36	33	50	337	66	809	133	32	48	5.6	1.8
26	25	34	30	54	226	61	547	109	29	37	5.6	1.8
27	29	115	27	62	171	58	462	1440	25	31	5.3	1.6
28	28	329	25	64	151	56	351	1400	21	29	5.3	1.6
29	27	249	28	55	----	54	268	653	17	40	4.9	1.5
30	26	132	30	45	----	194	325	373	15	41	4.9	1.5
31	24	----	33	35	----	460	-----	314	-----	38	4.9	-----
TOTAL	800.4	1615	2000	942	9067	5781	22622	17069	11907	7675	2669.0	175.2
MEAN	25.8	53.8	64.5	30.4	324	186	754	551	397	248	86.1	5.84
MAX	214	329	246	73	855	924	3600	2240	2940	2000	829	19
MIN	1.5	19	25	11	45	54	118	109	15	13	4.9	1.5
CFSM	.09	.18	.22	.10	1.11	.64	2.57	1.88	1.36	.85	.29	.02
IN.	.10	.21	.25	.12	1.15	.73	2.87	2.17	1.51	.97	.34	.02

CAL YR 1980 TOTAL 104077.2 MEAN 284 MAX 7100 MIN 1.5 CFSM .97 IN 13.21
WTR YR 1981 TOTAL 82322.6 MEAN 226 MAX 3600 MIN 1.5 CFSM .77 IN 10.45

03368000 BRUSH CREEK NEAR NEBRASKA, IN

LOCATION.--Lat 39°04'13", long 85°29'10" in NW¼NE¼ sec.11, T.7 N., R.9 E., Jennings County, Hydrologic Unit 05120207, on right bank at downstream side of county road bridge, 1.5 miles (2.4 km) northwest of Nebraska, 2.9 miles (4.7 km) northeast of Butlerville, and 3.6 miles (5.8 km) upstream from Brush Creek Dam.

DRAINAGE AREA.--11.4 mi² (29.5 km²).

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 (218.593 m) National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources).

REMARKS.--Records fair.

AVERAGE DISCHARGE.--26 years, 13.0 ft³/s (0.368 m³/s), 15.49 in/yr (393 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,360 ft³/s (265 m³/s) June 10, 1981, gage height, 12.99 ft (3.959 m), from rating curve extended above 550 ft³/s (15.6 m³/s) on basis of slope-area measurement of peak flow and a contracted-opening measurement at gage height, 10.20 ft (3.109 m); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 950 ft³/s (26.9 ³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 17	2315	2050	58.1	10.20	3.109
June 10	0115	*9360	265	*12.99	3.959

Minimum daily discharge, no flow Oct. 2, 8-16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.60	1.6	.95	24	4.7	6.2	6.6	17	.45	.17	.41
2	.00	.50	1.4	.86	16	4.1	4.7	5.5	9.1	.45	.15	1.6
3	.01	.43	1.1	.79	4.6	3.4	4.1	4.6	7.0	5.1	.15	.70
4	.05	.41	.89	.40	2.4	5.0	88	4.1	6.6	5.7	.14	.43
5	.05	.40	.86	.12	1.5	64	50	4.1	7.1	37	3.5	.31
6	.03	.34	.78	.10	1.3	12	14	23	112	4.1	5.0	.22
7	.02	.31	.74	.09	1.2	7.7	9.0	8.1	18	2.1	2.1	.19
8	.00	.29	.96	.08	1.1	5.5	6.6	5.7	7.4	1.3	15	.18
9	.00	.29	6.6	.08	.99	4.8	5.5	4.8	67	.93	2.5	.14
10	.00	.29	4.5	.07	36	4.4	5.3	7.3	1030	.70	1.3	.11
11	.00	.26	2.6	.07	50	3.9	5.4	9.7	22	.53	.72	.10
12	.00	.25	2.1	.06	8.4	3.4	11	6.1	10	.43	.45	.09
13	.00	.25	1.8	.07	3.6	3.1	8.5	5.0	6.9	.36	.35	.09
14	.00	.25	1.5	.07	3.1	2.7	7.2	39	4.8	.33	.20	.17
15	.00	.25	1.5	.08	3.9	2.7	5.8	64	3.7	.31	.21	.27
16	.00	.25	1.8	.10	150	4.2	4.6	15	3.0	.45	.20	.32
17	.34	1.1	1.6	.12	48	3.3	295	8.5	2.6	.38	.16	.23
18	6.7	2.4	1.4	.15	22	3.1	338	138	2.0	.27	.12	.22
19	.87	1.4	1.2	.28	37	3.0	36	39	1.7	.59	.11	.17
20	.35	.98	.74	.37	24	2.7	69	14	1.6	5.1	.09	.14
21	.32	.76	.42	4.8	11	2.6	19	8.4	6.3	4.5	.07	.08
22	.24	.60	.51	3.6	11	2.3	21	6.2	3.7	1.1	.07	.07
23	.20	.57	.84	1.8	14	2.1	284	5.0	1.5	.59	.07	.06
24	.31	.75	.89	1.5	11	2.0	26	4.5	1.2	.45	.07	.05
25	1.2	.86	.66	1.7	7.3	1.9	13	6.3	.96	.34	.07	.03
26	.90	.69	.48	2.4	5.4	1.9	11	15	.78	.27	.05	.02
27	.76	18	.64	2.0	4.5	2.0	8.8	131	.67	.23	.05	.02
28	1.4	4.9	.47	1.5	4.6	2.1	6.7	23	.60	.37	.08	.02
29	1.3	2.7	.77	1.0	------	2.0	8.1	9.0	.54	.41	.19	.03
30	.93	2.0	.89	.78	------	43	7.5	6.6	.49	.28	.13	.02
31	.72	-----	.90	.58	------	9.8	------	6.1	-------	.22	.16	----
TOTAL	16.73	43.08	43.14	26.57	507.89	219.4	1379.0	633.2	1356.24	75.34	33.63	6.49
MEAN	.54	1.44	1.39	.86	18.1	7.08	46.0	20.4	45.2	2.43	1.08	.22
MAX	6.7	18	6.6	4.8	150	64	338	138	1030	37	15	1.6
MIN	.00	.25	.42	.06	.99	1.9	4.1	4.1	.49	.22	.05	.02
CFSM	.05	.13	.12	.08	1.59	.62	4.04	1.79	3.97	.21	.10	.02
IN.	.05	.14	.14	.09	1.66	.72	4.50	2.07	4.43	.25	.11	.02

CAL YR 1980	TOTAL	4205.36	MEAN 11.5	MAX 422	MIN .00	CFSM 1.01	IN 13.72		
WTR YR 1981	TOTAL	4340.71	MEAN 11.9	MAX 1030	MIN .00	CFSM 1.04	IN 14.16		

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 mile (0.5 km) downstream from Muscatatuck State School dam, 1.1 miles (1.8 km) downstream from Brush Creek, 2 miles (3 km) northwest of Butlerville, and at mile 50.6 (81.4 km).

DRAINAGE AREA.--85.9 mi² (222.5 km²).

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 Septem ber 1979.

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 669.40 ft (204.033 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 19, 1942, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Water supply for the Muscatatuck State School is diverted and the sewage effluent returned above station. Flow regulated by Brush Creek Reservoir.

AVERAGE DISCHARGE.--39 years, 94.1 ft³/s (2.665 m³/s), 14.88 in/yr (378 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,200 ft³/s (742 m³/s) Jan. 21, 1959, gage height, 25.41 ft (7.745 m) from rating curve extended above 10,000 ft³/s (283 m³/s) on basis of slope-area measurement at gage height 25.41 ft (7.745 m); no flow at times during 1944, 1945, 1949, and 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 4,000 ft³/s (113 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 18	0100	5390	153	12.69	3.868
June 10	0530	*12200	346	*19.37	5.904

Minimum daily discharge, 0.75 ft³/s (0.021 m³/s) Oct. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	4.3	12	7.0	28	35	47	97	109	4.7	4.5	2.0
2	1.0	3.7	11	6.7	118	31	37	53	103	4.5	2.9	4.5
3	.89	3.5	8.8	6.3	41	28	32	29	72	30	2.5	4.9
4	.82	3.2	7.9	4.8	30	29	132	25	62	62	2.2	2.9
5	.90	2.8	7.1	3.7	17	381	391	23	64	1260	19	2.7
6	1.1	2.4	6.8	3.2	13	140	119	157	246	167	27	1.5
7	1.2	2.3	6.8	2.9	12	79	58	84	141	76	24	1.4
8	1.2	2.3	7.9	2.6	10	56	48	48	68	47	99	1.4
9	1.5	2.3	21	2.4	9.2	47	41	37	101	34	29	.96
10	35	2.2	42	2.1	22	42	38	36	4870	24	14	.83
11	26	2.3	28	1.9	260	38	39	76	322	18	8.4	.78
12	.93	2.3	21	1.7	59	34	156	50	158	13	5.6	.78
13	.75	2.2	16	1.8	41	31	121	40	108	10	4.3	.77
14	1.1	2.1	13	1.9	31	27	87	205	81	8.2	3.3	12
15	1.3	2.3	12	2.1	27	25	71	434	64	7.5	3.2	50
16	1.4	2.6	13	2.2	250	31	48	151	52	7.3	2.5	9.7
17	4.9	5.2	13	2.4	367	29	655	77	43	6.2	2.1	3.5
18	6.2	9.5	11	2.5	183	27	1690	727	36	6.5	1.8	2.3
19	6.7	9.4	10	2.7	187	24	225	421	30	12	1.6	1.5
20	4.4	5.7	7.5	3.0	245	23	338	177	26	25	1.5	1.2
21	2.9	4.2	5.7	5.0	114	22	131	95	68	40	1.2	.99
22	2.5	3.4	4.7	11	83	20	86	55	61	15	.99	.86
23	4.2	3.4	5.1	14	121	19	1470	42	30	9.4	.94	.82
24	5.4	3.8	7.2	10	119	18	282	34	20	6.6	.94	.85
25	4.8	3.9	6.2	9.9	76	16	125	66	15	5.6	.96	.88
26	5.4	4.0	5.5	12	42	15	81	50	12	4.8	.94	.91
27	7.3	47	5.2	15	35	17	69	975	9.3	4.0	.82	1.5
28	7.1	55	5.3	13	34	20	55	356	7.6	9.8	.83	1.4
29	6.0	26	5.3	9.6	------	20	60	116	6.6	11	1.8	1.5
30	5.3	16	6.0	8.0	------	197	83	139	5.7	6.4	1.6	1.8
31	4.9	-----	6.4	6.5	------	99	----	176	------	4.1	1.5	------
TOTAL	154.29	239.3	338.4	177.9	2574.2	1620	6815	5051	6991.2	1939.6	270.92	117.13
MEAN	4.98	7.98	10.9	5.74	91.9	52.3	227	163	233	62.6	8.74	3.90
MAX	35	55	42	15	367	381	1690	975	4870	1260	99	50
MIN	.75	2.1	4.7	1.7	9.2	15	32	23	5.7	4.0	.82	.77
CFSM	.06	.09	.13	.07	1.07	.61	2.64	1.90	2.71	.73	.10	.05
IN.	.07	.10	.15	.08	1.11	.70	2.95	2.19	3.03	.84	.12	.05

CAL YR 1980 TOTAL 26553.09 MEAN 72.5 MAX 1680 MIN .75 CFSM .84 IN 11.50
WTR YR 1981 TOTAL 26288.94 MEAN 72.0 MAX 4870 MIN .75 CFSM .84 IN 11.38

03369500 VERNON FORK MUSCATATUCK RIVER AT VERNON, IN

LOCATION.--Lat 38°58'34", long 85°37'13", in NW¼SE¼, sec.10, T.6 N., R.8 E., Jennings County, Hydrologic Unit 05120207, at downstream end of left bank bridge pier, 1 mile (2 km) southwest of Vernon, 3.1 miles (5.0 km) downstream from Otter Creek, and at mile 36.4 (58.6 km).

DRAINAGE AREA.--198 mi² (513 km²).

WATER-DISCHARGE RECORDS

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 587.30 ft (179.009 m) 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 at same datum.

REMARKS.--Records good except those for winter periods, 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.--42 years, 221 ft³/s (6.259 m³/s), 15.16 in/yr (385 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 56,800 ft³/s (1,610 m³/s) Jan. 21, 1959, from rating curve extended above 24,000 ft³/s (680 m³/s) on basis of slope-area measurement of peak flow, gage height, 32.83 ft (10.007 m), from high-water mark. No flow at times in 1940, 1943-44.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 6,000 ft³/s (170 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 18	0400	11100	314	16.14	4.919	June 10	1100	*21200	600	*22.72	6.925
Apr. 23	1100	6120	173	11.79	3.594						

Minimum daily discharge, 2.3 ft³/s (0.065 m³/s) Oct. 2, 6, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	11	39	17	39	93	143	185	244	13	10	4.2
2	2.3	10	31	18	328	86	104	144	306	11	8.2	5.3
3	2.5	8.9	28	16	114	75	85	79	176	51	8.2	5.7
4	2.7	8.9	24	14	71	72	336	66	185	70	7.2	6.9
5	2.7	8.0	21	11	48	738	1190	59	255	1420	8.9	6.6
6	2.3	7.2	19	8.0	25	438	389	225	953	344	340	5.1
7	2.3	6.5	18	6.8	22	218	200	261	606	125	120	4.5
8	2.9	6.5	18	6.2	21	149	148	118	247	74	131	4.2
9	3.3	6.1	42	5.7	23	119	128	86	146	55	68	3.9
10	3.6	6.0	107	5.2	34	103	126	76	9010	42	34	3.6
11	16	6.2	77	4.8	585	92	130	174	765	33	26	3.4
12	14	6.2	53	4.4	208	81	145	132	383	26	14	3.2
13	3.7	5.8	43	4.6	107	72	410	95	261	22	9.6	3.1
14	2.5	5.4	36	4.8	94	65	194	181	184	18	7.9	3.6
15	2.7	5.6	33	5.0	71	60	200	1120	119	14	6.9	50
16	3.6	5.6	33	5.4	290	68	127	498	89	19	6.6	29
17	5.3	7.9	34	5.7	1060	73	1010	218	74	16	5.4	9.6
18	18	34	32	6.0	555	67	4330	1260	61	11	4.8	6.6
19	29	31	30	6.3	423	65	745	1180	53	84	4.5	5.1
20	15	25	24	7.1	652	62	1090	516	47	180	3.9	4.7
21	9.6	18	18	15	326	58	482	282	42	114	3.6	4.1
22	6.0	14	14	26	215	54	275	153	122	55	3.4	3.9
23	4.7	9.8	13	31	294	51	3400	111	63	30	3.1	3.8
24	4.8	9.7	15	31	280	48	902	86	43	21	2.9	3.4
25	8.6	10	14	25	222	45	434	101	35	14	2.9	3.3
26	11	9.7	14	26	125	43	278	136	29	11	2.9	3.1
27	13	65	13	31	101	44	221	1930	25	10	2.5	3.4
28	17	191	12	32	91	46	159	886	21	15	2.5	3.6
29	20	83	13	27	----	50	142	364	18	23	3.8	3.5
30	15	51	14	21	----	379	164	190	15	19	4.1	4.9
31	15	-----	16	16	----	313	-----	378	-----	12	3.9	-----
TOTAL	261.6	673.0	898	443.0	6424	3927	17687	11290	14577	2952	860.7	205.3
MEAN	8.44	22.4	29.0	14.3	229	127	590	364	486	95.2	27.8	6.84
MAX	29	191	107	32	1060	738	4330	1930	9010	1420	340	50
MIN	2.3	5.4	12	4.4	21	43	85	59	15	10	2.5	3.1
CFSM	.04	.11	.15	.07	1.16	.64	2.98	1.84	2.46	.48	.14	.04
IN.	.05	.13	.17	.08	1.21	.74	3.32	2.12	2.74	.55	.16	.04

CAL YR 1980 TOTAL 66057.0 MEAN 180 MAX 3680 MIN 2.3 CFSM .91 IN 12.41
WTR YR 1981 TOTAL 60198.6 MEAN 165 MAX 9010 MIN 2.3 CFSM .83 IN 11.31

03369500 VERNON FORK MUSCATATUCK RIVER AT VERNON, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 05...	1350	7.2	9	.17

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 mile (0.6 km) upstream from Mill Creek, 2.9 miles (4.7 km) downstream from Sugar Creek, 3.9 miles (6.3 km) northeast of Mitchell, 7.8 miles (12.6 km) southeast of Bedford, and at mile 153.3 (246.7 km).

DRAINAGE AREA.--3,861 mi² (10,000 km²).

PERIOD OF RECORD.--May 1939 to current year (high-water records only October 1943 to September 1957).

REVISED RECORDS.--WSP 2109: Drainage area. WRD Ind. 1973: 1972.

GAGE.--Water-stage recorder. Datum of gage is 473.59 ft (144.350 m) 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 miles (15.8 km) downstream at datum 4.39 ft (1.338 m) lower (now used as an auxiliary gage).

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

AVERAGE DISCHARGE.--28 years (1939-43, 1957 to current year), 3,869 ft³/s (109.6 m³/s), 13.61 in/yr (346 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 75,700 ft³/s (2,140 m³/s) Mar. 12, 1964; maximum gage height, 35.97 ft (10.964 m) May 11, 1961; minimum daily discharge, 138 ft³/s (3.91 m³/s) Sept. 7, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 47.5 ft (14.48 m), from floodmark determined by Corps of Engineers, discharge, 155,000 ft³/s (4,390 m³/s) at former site.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 13,000 ft³/s (368 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 1	0500	*21900	620	*23.51	7.166
June 13	1000	13400	379	17.69	5.392

Minimum daily discharge, 370 ft³/s (10.5 m³/s Jan. 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	724	620	1360	625	640	2770	2320	5320	21700	1810	1980	889
2	701	620	1240	620	720	2570	2530	5220	20600	1800	1760	864
3	683	620	1100	620	830	2440	2120	5400	18200	1910	1590	1020
4	672	608	992	600	840	2310	1950	5280	15700	1930	1440	1140
5	654	603	921	500	750	2340	2540	4640	12200	2480	1340	1060
6	643	597	877	400	700	3150	3450	4040	8910	3480	1480	999
7	631	591	840	400	680	4780	4340	3780	7530	5780	2110	959
8	625	580	815	390	675	5060	3840	4280	7310	6300	3590	921
9	620	575	815	390	670	4200	2830	4730	7020	4770	3750	877
10	614	570	815	380	700	3430	2340	4420	8470	3600	3700	833
11	597	560	858	370	2000	2970	2190	4060	8460	2900	2820	797
12	580	555	999	370	2500	2650	2190	3870	10400	2470	2190	766
13	575	550	1150	400	1700	2430	2360	3920	13000	2210	1880	742
14	570	545	1140	415	2000	2250	3570	3940	10500	2010	1720	719
15	560	540	1060	420	2500	2110	4970	4970	9210	1850	1570	695
16	560	535	992	415	3000	1990	4940	6250	8600	1730	1430	683
17	580	550	934	400	4000	1890	4740	8000	6070	1650	1320	701
18	580	570	908	430	4500	1830	6480	9320	4400	1600	1240	772
19	597	597	877	450	5970	1790	7770	10100	3710	1600	1180	778
20	683	625	840	450	7070	1740	9950	9900	3310	1640	1100	736
21	785	648	791	480	6820	1690	10600	10700	3010	1540	1040	701
22	772	672	827	500	6370	1650	9410	12100	2780	1830	1020	672
23	719	672	877	530	5560	1590	9540	12300	2620	2370	953	654
24	672	648	809	540	4610	1510	9800	10100	2540	2270	908	631
25	643	625	650	540	4210	1430	10000	7300	2460	1990	877	620
26	625	614	580	630	3920	1360	11400	6180	2260	1740	846	603
27	620	637	540	707	3500	1310	12300	9070	2120	1560	827	586
28	614	719	580	672	3090	1260	11300	11700	2050	1470	858	570
29	625	959	620	650	-----	1240	9350	13700	2010	1460	966	560
30	637	1280	640	610	-----	1380	7150	17500	1900	1870	1100	560
31	631	-----	640	600	-----	1760	------	20900	------	2120	1090	-----
TOTAL	19792	19085	27087	15504	80525	70880	178270	242990	229050	73740	49675	23108
MEAN	638	636	874	500	2876	2286	5942	7838	7635	2379	1602	770
MAX	785	1280	1360	707	7070	5060	12300	20900	21700	6300	3750	1140
MIN	560	535	540	370	640	1240	1950	3780	1900	1460	827	560
CFSM	.17	.17	.23	.13	.75	.59	1.54	2.03	1.98	.62	.42	.20
IN.	.19	.18	.26	.15	.78	.68	1.72	2.34	2.21	.71	.48	.22

CAL YR 1980 TOTAL 1379984 MEAN 3770 MAX 20000 MIN 535 CFSM .98 IN 13.30
WTR YR 1981 TOTAL 1029706 MEAN 2821 MAX 21700 MIN 370 CFSM .73 IN 9.92

03371520 BACK CREEK AT LEESVILLE, IN

LOCATION.--Lat 38°50'48", long 86°18'06", in SW¼SE¼ sec.21, T.5 N., R.2 E., Lawrence County, Hydrologic Unit 05120208, on left bank at downstream side of county road bridge, 0.9 mile (1.4 km) west of Leesville, 2.5 miles (4.0 km) upstream from Jones Defeat Hollow, and 7 miles (11 km) above mouth.

DRAINAGE ARA.--24.1 mi² (62.4 km²).

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

REVISED RECORDS.--WRD Ind. 1972: 1971. GAGE.--Water-stage recorder. Datum of gage is 575.00 ft (175.260 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except during period of no gage-height record, which are poor.

AVERAGE DISCHARGE.--11 years, 34.2 ft³/s (0.969 m³/s), 19.27 in/yr (489 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,300 ft³/s (433 m³/s) July 21, 1973, gage height, 14.0 ft (4.27 m), from floodmarks, from rating extended above 550 ft³/s (15.6 m³/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 and 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1913 reached a stage of 18.1 ft (5.52 m) from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 18	0130	1340	37.9	5.66	1.725	Aug. 29	2130	*1920	54.4	*6.40	1.951
Apr. 23	0430	1300	36.8	5.60	1.707	Aug. 30	1730	1860	52.7	6.33	1.929
May 27	0430	1390	39.4	5.72	1.743						

Minimum daily discharge, no flow Oct. 16.

NOTE.--No gage-height record Dec. 20 to Feb. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.36	.94	4.1	1.7	6.0	6.8	17	24	34	1.4	.68	24
2	.24	.82	3.5	1.2	18	5.9	13	21	28	1.6	.48	18
3	.29	.82	3.2	1.0	8.0	5.4	12	17	22	1.2	.40	15
4	.24	.70	2.9	.65	6.0	6.3	40	14	74	3.3	.48	11
5	.14	.60	2.6	.68	4.0	57	42	13	40	33	6.8	8.3
6	.05	.60	2.6	.69	3.4	32	28	35	108	8.9	32	6.8
7	.02	.51	2.4	.70	3.1	20	21	25	68	5.0	8.3	5.4
8	.01	.51	2.4	.70	3.0	13	16	20	41	3.3	4.3	5.0
9	.01	.51	4.1	.69	2.8	10	13	18	29	2.9	2.4	4.3
10	.01	.43	6.1	.66	60	8.3	13	38	80	2.4	92	3.6
11	.01	.43	5.2	.62	150	6.8	14	53	41	1.6	33	2.9
12	.02	.36	4.5	.60	80	5.9	20	36	29	1.2	7.8	2.4
13	.03	.36	3.8	.65	25	5.4	23	31	20	1.1	4.7	2.1
14	.02	.36	3.2	.69	11	4.7	23	123	14	.93	3.3	2.1
15	.01	.36	3.2	.71	8.0	4.3	20	190	11	.80	3.3	2.1
16	.00	.36	3.2	.72	80	5.0	16	85	8.9	.80	3.3	2.4
17	.04	.82	2.9	.72	60	4.3	327	53	7.8	.74	2.1	2.9
18	.11	2.9	2.6	.70	47	4.3	349	139	5.9	.68	1.4	2.6
19	.29	2.9	2.4	.70	30	4.3	115	114	5.0	.80	1.2	2.1
20	.43	2.2	2.0	1.5	25	4.3	213	66	5.0	5.4	.93	1.6
21	.29	1.7	1.6	3.0	17	3.9	88	44	4.3	3.6	.68	1.4
22	.29	1.6	1.8	3.8	14	3.6	87	32	3.9	1.9	.58	1.2
23	.24	1.6	1.8	3.8	13	3.3	457	24	3.3	1.2	.58	1.2
24	.36	1.6	1.9	3.1	13	2.9	114	30	2.6	.93	.48	1.1
25	.51	1.6	1.8	3.5	11	2.6	68	97	2.4	.80	.48	.93
26	.51	1.6	1.8	3.8	9.4	2.4	48	65	1.9	.68	.40	.80
27	.60	8.5	1.6	3.8	8.3	2.1	35	457	1.6	1.9	6.3	.58
28	1.1	9.7	1.8	3.7	7.3	2.1	27	123	1.4	2.4	44	.58
29	1.1	6.5	1.9	3.3	-----	2.1	31	68	1.2	2.1	213	.68
30	1.2	5.2	1.9	3.0	-----	39	30	56	1.2	1.2	210	.93
31	1.1	-----	1.8	2.5	-----	24	----	49	-----	.93	54	------
TOTAL	9.63	57.09	86.6	53.58	723.3	302.0	2320	2160	695.4	94.69	739.37	134.00
MEAN	.31	1.90	2.79	1.73	25.8	9.74	77.3	69.7	23.2	3.05	23.9	4.47
MAX	1.2	9.7	6.1	3.8	150	57	457	457	108	33	213	24
MIN	.00	.36	1.6	.60	2.8	2.1	12	13	1.2	.68	.40	.58
CFSM	.01	.08	.12	.07	1.07	.40	3.21	2.89	.96	.13	.99	.19
IN.	.01	.09	.13	.08	1.12	.47	3.58	3.33	1.07	.15	1.14	.21

CAL YR 1980 TOTAL 7888.24 MEAN 21.6 MAX 611 MIN .00 CFSM .90 IN 12.18
WTR YR 1981 TOTAL 7375.66 MEAN 20.2 MAX 457 MIN .00 CFSM .84 IN 11.38

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 mile (0.3 km) downstream from Kerr Creek, 4.0 miles (6.4 km) west of Belmont, and 6.1 miles (9.8 km) east of Bloomington.

DRAINAGE AREA.--10.9 mi² (28.2 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 550.00 ft (167.64 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--11 years, 14.0 ft³/s (0.396 m³/s), 17.44 in/yr (443 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,400 ft³/s (153 m³/s) July 13, 1979, gage height, 13.18 ft (4.017 m) from rating curve extended above 1,200 ft³/s (34.0 m³/s) on basis of contracted-opening measurements at gage heights of 11.52 ft (3.511 m) and 13.18 ft (4.017 m); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 350 ft³/s (9.91 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 23	0245	602	17.0	8.77	2.673	May 27	0515	928	26.3	9.81	2.990
May 18	1100	457	12.9	8.13	2.478	Aug. 5	1900	561	15.9	8.60	2.621
May 24	1900	*3010	85.2	*12.28	3.743						

Minimum daily discharge, 0.18 ft³/s (0.005 m³/s Oct. 1, 5, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.18	.69	2.5	1.2	8.2	12	16	11	18	.92	.26	2.2
2	.22	.60	2.1	.90	13	11	14	10	15	.72	.26	2.3
3	.22	.56	1.9	.66	10	9.1	12	8.6	12	.67	.27	1.8
4	.20	.53	1.7	.50	6.0	12	13	7.0	23	.68	.26	1.4
5	.18	.50	1.5	.40	3.0	70	12	6.7	16	3.6	77	1.1
6	.22	.50	1.4	.41	2.1	41	11	11	13	1.8	17	.94
7	.27	.45	1.4	.42	1.9	25	9.5	14	9.1	1.2	4.1	.82
8	.25	.45	1.4	.43	1.8	19	8.6	7.4	5.7	1.0	2.3	.76
9	.27	.40	3.0	.42	1.7	16	7.8	6.7	4.3	.88	1.5	.71
10	.27	.40	3.5	.41	37	14	24	47	6.0	.73	1.2	.57
11	.22	.40	3.2	.40	56	12	49	56	3.8	.63	1.0	.51
12	.22	.40	2.8	.37	49	10	72	29	2.8	.63	.83	.51
13	.22	.38	2.4	.40	23	9.1	51	19	2.6	.63	.68	.45
14	.20	.36	2.0	.42	15	7.8	31	79	2.0	.62	.60	.51
15	.18	.36	1.9	.43	10	7.4	21	77	1.6	.64	.99	.57
16	.20	.40	1.7	.44	54	7.4	17	39	1.4	.62	.97	.85
17	1.9	.64	1.4	.45	52	6.3	29	23	1.2	.57	.76	1.2
18	1.1	.90	1.4	.45	30	6.0	36	142	1.1	.59	.59	1.0
19	.45	.88	1.2	.45	24	5.4	24	80	1.0	.73	.49	.85
20	.34	.78	1.1	1.2	91	4.8	25	36	.99	1.1	.43	.70
21	.32	.72	1.2	1.3	38	4.5	20	21	21	.99	.39	.63
22	.30	.66	1.3	1.3	27	4.0	31	14	5.5	.92	.38	.57
23	.27	.90	1.4	1.1	25	3.6	223	10	2.7	.87	.35	.57
24	.32	1.1	1.3	.90	26	3.3	52	491	1.8	.92	.35	.51
25	.69	1.1	1.2	1.1	22	3.1	30	202	1.5	.92	.35	.51
26	.56	1.0	1.2	1.4	18	2.9	23	50	1.2	.87	.37	.57
27	.56	13	1.1	1.4	16	4.8	17	279	.99	.74	.59	.78
28	.90	6.5	1.1	1.3	14	4.5	13	75	.92	.67	1.5	.85
29	.96	4.0	1.2	1.1	-----	5.4	14	35	.82	.48	1.2	.92
30	.85	3.0	1.3	1.0	-----	26	12	25	.73	.33	1.1	.92
31	.74	-----	1.4	.90	-----	19	-----	20	------	.26	1.0	-----
TOTAL	13.78	42.56	53.2	23.56	674.7	386.4	917.9	1931.4	177.75	26.93	119.07	26.58
MEAN	.44	1.42	1.72	.76	24.1	12.5	30.6	62.3	5.93	.87	3.84	.89
MAX	1.9	13	3.5	1.4	91	70	223	491	23	3.6	77	2.3
MIN	.18	.36	1.1	.37	1.7	2.9	7.8	6.7	.73	.26	.26	.45
CFSM	.04	.13	.16	.07	2.21	1.15	2.81	5.72	.54	.08	.35	.08
IN.	.05	.15	.18	.08	2.30	1.32	3.13	6.59	.61	.09	.41	.09

CAL YR 1980 TOTAL 4848.98 MEAN 13.2 MAX 182 MIN .13 CFSM 1.21 IN 16.55
WTR YR 1981 TOTAL 4393.83 MEAN 12.0 MAX 491 MIN .18 CFSM 1.10 IN 14.99

03372300 STEPHENS CREEK NEAR BLOOMINGTON, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM
OCT								
05...	1220	13.0	.16	10	.00	--	--	---
12...	1815	13.0	.22	6	.00	--	--	---
19...	1830	13.0	.36	33	.03	--	--	---
26...	1815	9.0	.53	5	.01	--	--	---
NOV								
02...	1800	11.0	.69	15	.03	--	--	---
09...	1630	15.0	.44	10	.01	--	--	---
23...	1745	7.0	1.1	13	.04	--	--	---
25...	1450	----	1.1	6	.02	--	--	---
30...	1830	----	2.8	2	.02	--	--	---
JAN								
08...	1100	1.0	.43	4	.00	--	--	---
FEB								
19...	1230	5.5	27	11	.80	--	--	---
APR								
02...	1000	8.5	14	1	.04	--	--	---
23...	1125	----	156	76	32	89	98	100
MAY								
07...	1020	11.0	9.5	17	.44	99	--	---
19...	0815	----	89	8	1.9	--	--	---
19...	1540	----	66	4	.71	--	--	---
JUN								
18...	1050	19.5	1.1	46	.14	97	--	---
JUL								
30...	1000	20.0	.30	40	.03	96	--	---
SEP								
09...	1545	20.0	.63	3	.01	--	--	---

03372400 MONROE LAKE NEAR HARRODSBURG, IN

LOCATION.--Lat 39°00'24", long 86°30'56", in SW¼SW¼ sec.27, T.7 N., R.1 W., Monroe County, Hydrologic Unit 05120208, in discharge tower of reservoir on Salt Creek, 1.3 miles (2.1 km) upstream from Clear Creek, 2.2 miles (3.5 km) southeast of Harrodsburg, and 26.1 miles (42.0 km) upstream from mouth.

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

PERIOD OF RECORD.--April 1966 to current year. Prior to September 1970 published as Monroe "Reservoir".

GAGE.--Reservoir is formed by earth and rock-fill dam. Releases normally controlled by three gates, 3.75 ft (1.143 m) wide and 12.0 ft (3.66 m) high, in semi-elliptical concrete conduit through dam. Minimum design capacity is 22,300 acre-ft (27.5 hm^3), elevation, 515 ft (157.0 m). Seasonal pool capacity is 182,000 acre-ft (224.4 hm^3), elevation 538.0 ft (164.0 m). Capacity at uncontrolled spillway eleva tion, 556 ft (169.5 m) is 446,000 acre-ft (550 hm^3). Reservoir is used for flood control, water supply of Bloomington, and recreation. Reservoir put in operation on Apr. 26, 1966.

COOPERATION.--Water-stage recorder graph and capacity tables furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 348,700 acre-ft (430 hm^3) May 2, 1973, elevation, 550.60 (167.823 m); minimum, 149,500 acre-ft (184 hm^3) Nov. 7, 1966, elevation, 534.77 ft (163.000 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 302,860 acre-ft (373 hm^3) Jun. 11, elevation 547.58 ft (166.902 m); minimum, 164,320 acre-ft (203 hm^3) Jan. 28, elevation 536.28 ft (163.458 m).

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	537.44	176,290	
Oct. 31	536.93	170,970	-5,320
Nov. 30	536.73	168,900	-2,070
Dec. 31	536.63	167,880	-1,020
CAL YR 1980			-120,960
Jan. 31	536.30	164,520	-3,360
Feb. 28	538.14	183,760	+19,240
Mar. 31	538.30	185,490	+1,730
Apr. 30	541.56	222,890	+37,400
May 31	547.37	299,830	+76,940
June 30	543.98	253,290	-46,540
July 31	537.99	182,140	-71,150
Aug. 31	538.14	183,760	+1,620
Sept. 30	537.75	179,580	-4,180
WTR YR 1981			+3,290

03372500 SALT CREEK NEAR HARRODSBURG, IN

LOCATION.--Lat 39°00'16", long 86°30'31", in NE¼NW¼ sec.34, T.7 N., R.1 W., Monroe County, Hydrologic Unit 05120208, on right bank 0.35 mile (0.56 km) downstream from Monroe Lake, 0.9 mile (1.4 km) upstream from Clear Creek, 2.2 miles (3.5 km) southeast of Harrodsburg, and 25.7 miles (41.4 km) upstream from mouth.

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

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.-May 1955 to current year.

REVISED RECORDS.--WSP 1705: 1959. WSP 1725: 1956(M). WSP 2109: Drainage area.

GAGE.--None. Datum of gage was 480.00 ft (146.304 m) National Geodetic Vertical Datum of 1929 (levels by 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 mile (1.1 km) upstream at datum 2.41 ft (0.735 m) higher.

REMARKS.--Flow regulated by Monroe Lake (See sta 03372400). Daily discharge computed from relation between discharge, head, and gage openings for Monroe Lake beginning Oct. 1, 1974.

COOPERATION.--Records of daily discharge furnished by Corps of Engineers beginning Oct. 1, 1976.

AVERAGE DISCHARGE.--26 years, 488 ft^3/s (13.82 m^3/s), 15.34 in/yr (390 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,000 ft^3/s (623 m^3/s) June 25, 1960, gage height, 32.76 ft (9.985 m) site and datum then in use; maximum gage height at present site and datum, 35.35 ft (10.775 m) May 9, 1961; no flow Sept. 29 to Dec. 2, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,990 ft^3/s (56.4 m^3/s) June 23; minimum daily, 48 ft^3/s (1.36 m^3/s) Nov. 22-26, Jan. 2 to Feb. 10.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
WATER TEMPERATURES: August 1966 to September 1976.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURES: Maximum temperature, 29.0°C July 10, 11, 1973, July 30, 1975; minimum, 1.0°C Jan. 4, 5, 8-13, 1968.
EXTREMES OUTSIDE PERIOD OF RECORD.--
WATER TEMPERATURES: Maximum temperature observed, 31.0°C Aug. 6, 1964.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	49	49	49	48	414	201	205	224	662	63	100
2	49	49	49	48	48	366	202	521	224	659	88	100
3	49	49	49	48	48	276	202	204	224	657	100	100
4	49	49	49	48	48	201	305	203	224	654	100	100
5	49	49	49	48	48	321	496	203	224	551	100	100
6	49	49	49	48	48	748	560	202	209	210	100	100
7	49	49	49	48	48	882	560	202	201	785	100	100
8	49	49	49	48	48	881	559	201	201	1670	100	100
9	49	49	49	48	48	692	559	200	201	1870	100	100
10	49	49	49	48	48	558	559	200	202	1910	100	100
11	49	49	49	48	49	557	560	200	202	1900	100	100
12	49	49	49	48	49	348	561	199	202	1890	100	100
13	49	49	49	48	49	97	855	200	202	1880	100	100
14	49	49	49	48	49	97	1250	200	202	1880	88	100
15	49	49	49	48	49	97	1250	203	202	1870	100	94
16	49	49	49	48	49	214	1250	204	505	1860	75	94
17	49	49	49	48	49	244	1250	204	1010	1850	63	100
18	49	49	49	48	49	192	1260	205	1460	1840	63	100
19	49	49	49	48	50	145	507	208	1800	1830	63	88
20	49	49	49	48	50	75	268	208	1780	1820	63	100
21	49	49	49	48	50	52	197	208	1790	1810	63	100
22	49	48	49	48	134	52	198	209	1920	1360	63	100
23	49	48	49	48	250	52	201	209	1990	588	63	100
24	49	48	49	48	363	52	203	210	1510	193	63	100
25	49	48	49	48	484	52	204	214	1720	192	63	100
26	49	48	49	48	511	52	204	216	1850	131	63	100
27	49	49	49	48	462	52	377	218	1930	100	63	75
28	49	49	49	48	461	52	205	222	1090	100	63	63
29	49	49	49	48	---	52	205	223	667	100	63	62
30	49	49	49	48	---	93	205	223	664	94	88	63
31	49	---	49	48	---	201	---	223	---	100	100	---
TOTAL	1519	1465	1519	1489	3687	8167	15413	6747	24830	33016	2521	2839
MEAN	49.0	48.8	49.0	48.0	132	263	514	218	828	1065	81.3	94.6
MAX	49	49	49	49	511	882	1260	521	1990	1910	100	100
MIN	49	48	49	48	48	52	197	199	201	94	63	62
CFSM	.11	.11	.11	.11	.31	.61	1.19	.51	1.92	2.47	.19	.22
IN.	.13	.13	.13	.13	.32	.70	1.33	.58	2.14	2.84	.22	.24

CAL YR 1980 TOTAL 226173 MEAN 618 MAX 2130 MIN 48 CFSM 1.43 IN 19.48
WTR YR 1981 TOTAL 103212 MEAN 283 MAX 1990 MIN 48 CFSM .66 IN 8.89

03373500 EAST FORK WHITE RIVER AT SHOALS, IN

LOCATION.--Lat 38°40'02", long 86°47'31", in NW¼NW¼ 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 (104 m) upstream from Baltimore and Ohio Railroad bridge, 0.9 mile (1.4 km) upstream from Beaver Creek, 6.6 mi (10.6 km) downstream from Indian Creek, and at mile 105.3 (169.4 km).

DRAINAGE AREA.--4,927 mi^2 (12,761 km^2).

PERIOD OF RECORD.--June 1903 to July 1906, October 1908 to September 1916, June 1923 to current year. Monthly discharge only for some periods, published in WSP 1305. Published as East Branch White River at Shoals, 1903-6, 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 (134.798 m) National Geodetic Vertical Datum of 1929. See WSP 1725 for history of changes prior to Oct. 26, 1932.

REMARKS.--Records good. Flow partially regulated by upstream reservoirs.

AVERAGE DISCHARGE.--67 years (1903-5, 1909-16, 1923 to current year), 5,418 ft^3/s (153.4 m^3/s) 14.93 in/yr (379 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 160,000 ft^3/s (4,530 m^3/s) Mar. 28, 1913, gage height, 42.2 ft (12.86 m), from rating curve extended above 100,000 ft^3/s (2,830 m^3/s); minimum daily, 64 ft^3/s (1.81 m^3/s) Oct. 6, 1935, as a result of filling Williams Reservoir.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 20,000 ft^3/s (566 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 2	1200	*24200	685	*16.38	4.993

Minimum daily discharge, 470 ft^3/s (13.3 m^3/s) Jan. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	866	780	1580	837	809	4090	2770	8380	23400	4080	2380	1810
2	847	759	1660	812	900	3710	3300	7410	24100	4040	2190	1360
3	813	754	1510	796	1000	3390	3280	7610	23200	4040	1970	1310
4	795	742	1350	769	1100	3220	2930	7690	20900	4160	1800	1480
5	786	725	1250	670	950	3180	3260	7340	17800	4480	1680	1510
6	774	714	1170	575	900	4400	4170	6670	14200	4960	1890	1380
7	760	718	1110	534	880	5770	5270	6270	12900	5350	2600	1260
8	749	718	1080	520	860	7010	5750	6240	10100	7640	3400	1190
9	747	701	1100	500	840	6670	4980	6710	9070	7960	4380	1110
10	729	681	1120	490	900	5560	4330	6960	12200	6730	4580	1040
11	712	673	1160	480	2770	4630	4200	7980	14900	5790	4830	987
12	684	661	1190	470	3220	4100	3970	7560	12100	5180	3750	934
13	670	654	1300	510	2170	3620	4380	6300	14000	4780	2690	884
14	664	649	1410	524	2610	3070	4930	5990	14500	4470	2270	868
15	661	646	1400	536	3200	2780	6590	9030	11800	4220	2080	851
16	658	643	1340	520	3860	2600	7370	10100	10800	4050	1930	790
17	699	658	1240	500	5340	2510	7580	9650	9320	3930	1760	777
18	740	702	1180	560	5660	2510	10600	11500	7050	3850	1600	806
19	876	716	1120	577	6470	2380	12500	15500	6080	3910	1470	854
20	842	763	1070	574	7830	2290	13700	14700	5790	4170	1380	879
21	814	778	987	614	8240	2170	15000	13200	5430	3980	1290	843
22	897	793	836	645	7760	2050	13300	13700	5200	3890	1230	788
23	906	818	789	670	7230	1960	13800	14500	5050	4030	1200	734
24	866	825	977	689	6460	1860	15900	14000	4950	3550	1110	702
25	824	805	880	689	5830	1820	13600	15600	4520	2810	1050	683
26	780	784	760	808	5480	1740	13100	16100	4060	2390	1000	663
27	784	846	691	920	5090	1680	14100	16600	4300	2130	983	645
28	782	1020	740	865	4550	1610	14400	19400	4310	2080	1000	618
29	766	1260	804	806	------	1570	12900	18400	4260	1850	1260	598
30	773	1350	845	779	------	1770	10800	18300	4150	1800	1740	603
31	799	-----	849	754	------	2310	------	21100	------	2220	2130	-----
TOTAL	24063	23336	34498	19993	102909	98030	252760	350490	320440	128520	64623	28957
MEAN	776	778	1113	645	3675	3162	8425	11310	10680	4146	2085	965
MAX	906	1350	1660	920	8240	7010	15900	21100	24100	7960	4830	1810
MIN	658	643	691	470	809	1570	2770	5990	4060	1800	983	598
CFSM	.16	.16	.23	.13	.75	.64	1.71	2.30	2.17	.84	.42	.20
IN.	.18	.18	.26	.15	.78	.74	1.91	2.65	2.42	.97	.49	.22

CAL YR 1980 TOTAL 1916434 MEAN 5236 MAX 22800 MIN 643 CFSM 1.06 IN 14.47
WTR YR 1981 TOTAL 1448619 MEAN 3969 MAX 24100 MIN 470 CFSM .81 IN 10.94

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 (6 m) downstream from bridge on U.S. Highway 150, 1.7 miles (2.7 km) northwest of West Baden Springs, 3.8 miles (6.1 km) downstream from Lick Creek, and at mile 34.8 (56.0 km).

DRAINAGE AREA.--287 mi² (743 km²).

WATER-DISCHARGE RECORDS

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 (139.574 m) National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources).

REMARKS.--Records good.

AVERAGE DISCHARGE.--16 years, 361 ft³/s (10.22 m³/s), 17.08 in/yr (434 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,540 ft³/s (214 m³/s) July 27, 1979, gage height, 25.71 ft (7.826 m); minimum daily, 7.5 ft³/s (0.21 m³/s) Oct. 8, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1964 reached a stage of 28.1 ft (8.56 m), from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,000 ft³/s (56.6 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 11	1200	*1870	53.0	*18.91	5.764

Minimum daily discharge, 9.0 ft³/s (0.25 m³/s) Jan. 12.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DISCHARGE: October 1977 to September 1980 (partial-record station).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	21	32	14	31	85	180	253	392	70	41	139
2	19	19	26	13	132	83	127	201	480	68	36	197
3	20	18	22	13	111	78	102	158	418	65	33	334
4	19	18	19	11	71	77	182	137	323	63	32	223
5	18	18	17	10	46	252	697	122	280	74	31	146
6	18	19	16	10	38	353	499	114	311	130	122	107
7	18	21	16	10	34	256	301	111	779	88	121	87
8	17	22	17	10	32	180	222	102	452	70	75	74
9	16	23	32	10	30	140	177	95	295	65	55	64
10	15	22	48	9.8	84	120	613	114	1170	66	41	55
11	14	19	43	9.2	426	107	939	256	1850	62	39	48
12	14	17	33	9.0	293	98	585	258	1510	61	44	44
13	15	17	26	9.5	142	89	521	190	1070	55	32	41
14	14	17	22	9.5	99	82	447	208	593	51	28	38
15	17	17	19	9.5	84	77	338	486	405	52	27	188
16	17	17	17	9.3	114	77	256	520	324	59	26	118
17	21	24	17	9.3	373	76	290	370	262	54	28	64
18	23	38	16	10	337	74	325	584	213	50	27	50
19	28	41	15	11	245	71	283	1210	184	49	23	42
20	28	32	14	12	195	70	1490	1120	168	67	21	38
21	17	25	13	15	156	66	1310	799	151	64	20	35
22	15	20	12	24	130	63	772	529	138	57	20	33
23	14	19	12	27	119	60	537	390	120	51	30	30
24	15	17	13	20	116	58	493	323	111	46	24	28
25	20	16	12	16	106	55	376	505	102	44	21	27
26	20	16	12	15	94	54	287	612	94	42	19	25
27	24	44	12	14	86	53	237	990	87	79	20	26
28	26	75	12	14	83	51	198	1050	81	132	86	26
29	25	62	12	14	----	51	179	724	77	82	745	25
30	27	43	13	13	----	222	204	486	73	64	513	25
31	24	----	13	13	----	289	-----	441	-----	49	245	----
TOTAL	597	777	603	394.1	3807	3467	13167	13458	12513	2029	2625	2377
MEAN	19.3	25.9	19.5	12.7	136	112	439	434	417	65.5	84.7	79.2
MAX	28	75	48	27	426	353	1490	1210	1850	132	745	334
MIN	14	16	12	9.0	30	51	102	95	73	42	19	25
CFSM	.07	.09	.07	.04	.47	.39	1.53	1.51	1.45	.23	.30	.28
IN.	.08	.10	.08	.05	.49	.45	1.71	1.74	1.62	.26	.34	.31

CAL YR 1980 TOTAL 88226.0 MEAN 241 MAX 1880 MIN 12 CFSM .84 IN 11.44
WTR YR 1981 TOTAL 55814.1 MEAN 153 MAX 1850 MIN 9.0 CFSM .53 IN 7.23

03373700 LOST RIVER NEAR WEST BADEN SPRINGS, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 21...	1600	13.0	16	8	.35

03373980 WHITE RIVER ABOVE PETERSBURG, IN

LOCATION.--Lat 38°31'42", long 87°15'14", in NE¼SW¼ sec.12, T.1 N., R.8 W., Pike County, Hydrologic Unit 05120202, on left bank 100 ft (30 m) upstream from intake structure of Indianapolis Power and Light Company's generating plant, 1.5 miles (2.4 km) downstream from East Fork White River, 2.2 miles (3.5 km) upstream from State Highway 61, 2.8 miles (4.5 km) northeast of Petersburg, and at mile 48.0 (77.2 km).

DRAINAGE AREA.--11,123 mi² (28,809 km²).

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is 401.52 ft (122.383 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Discharges below 1500 cfs only published. For a complete record of White River in this vicinity use records of White River at Petersburg, Ind. (sta. no. 03374000) 2.3 miles downstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				----								
2				----								
3				----								
4				----								
5				1830								
6				1720								
7				1800								
8				1570								
9				1540								
10				1580								
11				1600								
12				1290								
13				1550								
14				1720								
15				1760								
16				1690								
17				1560								
18				1650								
19				1670								
20				1650								
21				----								
22				----								
23				----								
24				----								
25				----								
26				----								
27				----								
28				----								
29				----								
30				----								
31				----								
TOTAL				----								
MEAN				----								
MAX				----								
MIN				----								
CFSM				----								
IN.				----								

03374000 WHITE RIVER AT PETERSBURG, IN

LOCATION.--Lat 38°30'39", long 87°17'22", in SE¼SW¼ sec.15, T.1 N., R.8 W., Pike County, Hydrologic Unit 05120202, on left bank 300 ft (91 m) downstream from bridge on State Highway 61, 0.4 mile (0.6 km) upstream from Prides Creek, 1.4 miles (2.3 km) north of Petersburg, and at mile 45.7 (73.5 km).

DRAINAGE AREA.--11,125 mi^2 (28,814 km^2).

WATER-DISCHARGE RECORDS

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 (121.920 m) National Geodetic Vertical Datum of 1929. See WSP 1725 for history of changes prior to Apr. 1, 1941.

REMARKS.--Records good. Flow partially regulated by upstream reservoirs.

AVERAGE DISCHARGE.--54 years, 11,668 ft^3/s (330.4 m^3/s), 14.25 in/yr (362 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 183,000 ft^3/s (5,180 m^3/s) Jan. 22, 1937, gage height, 28.3 ft (8.63 m) present datum, 31.58 ft (9.626 m) site and datum then in use; minimum daily, 573 ft^3/s (16.2 m^3/s) Oct. 1, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913, reached a stage of 29.5 ft (8.99 m), present site and datum, from floodmarks by Corps of Engineers. Discharge, 235,000 ft^3/s (6,66 0 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 65,200 ft^3/s (1,850 m^3/s) June 2, gage height, 22.76 ft (6.94 m); minimum daily, 1,240 ft^3/s (35.1 m^3/s) Jan. 12.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
WATER TEMPERATURE: June 1964 to September 1979.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2650	2620	3430	2120	1840	9660	4650	17800	63800	10300	8830	4370
2	2620	2550	3480	2140	2140	8670	4910	16600	65000	8890	8540	4500
3	2530	2440	3380	2110	2110	7750	5080	15800	63100	8630	7700	5700
4	2450	2370	3240	2110	2290	7060	5160	15900	58300	8880	6580	6780
5	2400	2300	3160	1820	2210	7150	5570	15300	49600	8860	5680	7040
6	2380	2230	3020	1700	2200	9000	5700	14500	39800	9330	5460	6110
7	2350	2180	2820	1780	2150	12100	6490	13500	32400	9600	7150	5450
8	2310	2140	2690	1540	2100	12800	7400	13600	25800	9860	8990	5030
9	2260	2140	2700	1500	2000	12500	7730	14400	21000	11400	8710	4700
10	2220	2130	2750	1550	2200	11600	7010	15000	22000	12000	8640	4340
11	2190	2090	2850	1570	5130	10200	7390	19100	29600	11200	8790	4010
12	2140	2050	2980	1240	5520	8860	8170	21700	32100	10100	9650	3700
13	2100	2020	3060	1520	7820	7890	9980	23000	29100	9330	8150	3400
14	2050	2000	3110	1700	7280	7020	12100	24500	25500	8810	6300	3140
15	2020	2000	3160	1740	6450	6220	12300	27100	23800	8530	5440	3000
16	1970	1960	3130	1670	7560	5790	12600	28800	20900	8520	5180	2850
17	2100	1980	3000	1530	9610	5480	13300	30000	18200	8100	5070	2820
18	2450	2070	2900	1620	12600	5280	13500	31600	16300	7900	4840	2880
19	2400	2080	2840	1650	14600	5120	15800	36600	13900	7900	4540	2830
20	2530	2080	2720	1620	15300	4920	21100	40600	12400	7960	4220	3490
21	2690	2080	2610	1640	15900	4700	21700	40900	11700	8050	3890	3570
22	2580	2090	2400	1660	16000	4490	21700	39200	11200	7890	3620	3090
23	2470	2090	2330	1680	14800	4300	20500	38100	11200	8060	3430	2790
24	2460	2100	2250	1730	13800	4110	22600	38300	10700	8530	3280	2600
25	2500	2090	2110	1780	12900	3910	26500	42200	10300	8580	3130	2450
26	2420	2060	2160	1850	12100	3750	26900	43300	9840	7630	2980	2330
27	2390	2420	2210	1900	11300	3610	25200	52400	9090	6340	3010	2270
28	2470	2730	1990	1920	10500	3460	22600	60900	8990	6240	2930	2190
29	2500	2990	2070	1920	------	3350	21200	59900	8970	5990	3410	2090
30	2520	3330	2110	1860	------	3540	19300	59800	9130	8600	3430	2020
31	2590	-----	2100	1790	------	3920	------	61900	------	9130	4040	------
TOTAL	73710	67410	84760	53960	220410	208210	414140	972300	763720	271140	175610	111540
MEAN	2378	2247	2734	1741	7872	6716	13800	31360	25460	8746	5665	3718
MAX	2690	3330	3480	2140	16000	12800	26900	61900	65000	12000	9650	7040
MIN	1970	1960	1990	1240	1840	3350	4650	13500	8970	5990	2930	2020
CFSM	.21	.20	.25	.16	.71	.60	1.24	2.82	2.29	.79	.51	.33
IN.	.25	.23	.28	.18	.74	.70	1.38	3.25	2.55	.91	.59	.37

CAL YR 1980 TOTAL 4253350 MEAN 11620 MAX 43600 MIN 1960 CFSM 1.04 IN 14.22
WTR YR 1981 TOTAL 3416910 MEAN 9361 MAX 65000 MIN 1240 CFSM .84 IN 11.43

03374100 WHITE RIVER AT HAZLETON, IN
(National stream-quality accounting network station)

LOCATION.--Lat 38°29'23", long 87°33'00", in SE¼NW¼ sec.29, T.1 N., R.10 W., Gibson County, Hydrologic Unit 05120202, on downstream side of county road bridge (Old U.S. 41) at Hazleton, and at mile 18.7 (30.1 km).

DRAINAGE AREA.--11,305 mi² (29,280 km²).

PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: October 1973 to September 1981. Records published in water-data report IN-80-1 are unreliable and should not be used.
CHEMICAL ANALYSES: February 1973 to current year.
WATER TEMPERATURE: October 1973 to September 1981. Records published in water-data report IN-80-1 are unreliable and should not be used.
SEDIMENT DISCHARGE: October 1973 to current year.
WATER DISCHARGE: October 1927 to September 1938.

REMARKS.--Water discharge obtained from station White River at Petersburg (See sta 03374000).

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURE: Maximum, 33.5°C Aug. 14, 1976; 0.0°C on several days during winter period 1975-76.
SPECIFIC CONDUCTANCE: Maximum, 882 micromhos July 21, 1977; minimum, 192 micromhos Nov. 6, 1974.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 29.5°C Aug. 25-26; minimum, 2.0°C Dec. 25-26, Jan. 4-5, 8-9, 12-13.
SPECIFIC CONDUCTANCE: Maximum, 698 micromhos Oct. 3; minimum 232 micromhos Apr. 26.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT 29...	1400	2500	654	7.7	12.5	.50	8.2	-----	----	270	64
NOV 12...	1100	2050	654	7.9	13.5	22	8.1	-----	----	280	80
DEC 15...	1600	3170	638	7.8	7.8	.40	8.4	50	70	240	54
JAN 14...	1500	1650	690	7.3	4.9	1.0	8.4	K7	<1	310	59
FEB 19...	1000	14600	420	7.4	3.9	16	11.8	<1	<1	140	29
MAR 16...	1400	5780	513	8.2	9.0	.80	11.7	164	150	250	--
APR 16...	1600	12800	410	7.3	19.5	60	8.4	421	164	170	--
MAY 14...	1030	24100	390	7.3	15.0	120	6.6	416	K50	160	--
JUN 22...	1500	11200	526	7.5	24.6	45	7.0	-----	120	230	--
JUL 17...	0745	8160	430	7.5	28.0	100	----	K8100	6300	200	--
AUG 18...	0800	4880	460	7.8	24.9	73	7.3	374	K36	250	--
SEP 16...	0830	2860	538	7.6	24.0	22	7.1	K50	400	270	--

03374100 WHITE RIVER AT HAZLETON, IN--Continued
(National stream-quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	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, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
OCT 29...	70	24	24	16	.6	3.5	.3	4.1	397	370	.54
NOV 12...	71	25	28	18	.7	3.6	.3	1.3	421	359	.57
DEC 15...	63	21	28	20	.8	3.8	.3	4.3	384	347	.52
JAN 14...	79	27	27	16	.7	3.3	.3	3.3	451	563	.61
FEB 19...	36	12	14	17	.5	4.4	.2	6.1	242	215	.33
MAR 16...	66	21	16	12	.4	2.7	.2	7.2	319	310	.43
APR 16...	48	13	12	13	.4	2.9	.2	5.3	256	226	.35
MAY 14...	44	13	11	13	.4	2.9	.2	7.8	227	213	.31
JUN 22...	64	18	9.5	8	.3	2.9	.2	8.6	304	286	.41
JUL 17...	52	17	13	12	.4	3.2	.2	5.2	262	263	.36
AUG 18...	64	21	16	12	.4	2.8	.2	8.4	303	292	.41
SEP 16...	66	25	19	13	.5	2.9	.2	2.2	337	322	.46

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (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, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT 29...	2680	2.1	1.6	1.6	.320	.320	.39	.41	.88	.17	1.20
NOV 12...	2330	2.0	1.6	1.6	.050	.050	.06	.06	.73	.33	.78
DEC 15...	3290	2.9	2.2	2.3	.170	.190	.21	.24	.47	.42	.64
JAN 14...	2010	2.9	2.2	2.4	.380	.410	.46	.53	.08	.08	.46
FEB 19...	9540	2.9	2.7	2.2	.650	.620	---	.80	1.3	.12	1.90
MAR 16...	4980	3.4	2.8	2.8	.200	.180	---	.23	.55	.45	.75
APR 16...	8850	2.1	1.5	1.5	.070	.060	---	.08	.77	.51	.84
MAY 14...	14800	3.4	3.1	2.7	.110	.080	---	.10	1.4	.64	1.50
JUN 22...	9190	4.0	3.3	3.2	.030	.040	---	.05	.71	.78	.74
JUL 17...	5770	2.6	2.1	2.1	.030	.030	---	.04	.96	.50	.99
AUG 18...	3990	4.3	3.8	4.0	.020	<.010	---	.01	.91	---	.93
SEP 16...	2600	1.6	1.2	1.2	.080	.100	---	.13	.29	.32	.37

03374100 WHITE RIVER AT HAZLETON, IN--Continued
(National stream-quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)
OCT 29...	.71	.49	2.8	12	.210	.64	.100	1	0	1	100
NOV 12...	.40	.38	2.4	11	.220	.67	.080	-	-	-	---
DEC 15...	.03	.61	2.8	13	.310	.95	.230	-	-	-	---
JAN 14...	.00	.49	2.7	12	.180	.55	.140	5	2	3	<50
FEB 19...	1.2	.74	4.6	20	.420	1.3	.110	-	-	-	---
MAR 16...	.12	.63	3.6	16	.180	.55	.080	-	-	-	---
APR 16...	.27	.57	2.3	10	.260	.80	.070	1	1	0	100
MAY 14...	.78	.72	4.6	20	.330	1.0	.060	-	-	-	---
JUN 22...	.00	.82	4.0	18	.330	1.0	.110	-	-	-	---
JUL 17...	.46	.53	3.1	14	.160	.49	.030	2	0	2	100
AUG 18...	.64	.29	4.7	21	.290	.89	.110	-	-	1	---
SEP 16...	.00	.42	1.6	7.0	.160	.49	.060	-	-	-	---

DATE	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)
OCT 29...	30	70	0	0	2	20	10	10	0	0	0
NOV 12...	--	--	-	-	--	--	--	--	-	-	-
DEC 15...	--	--	-	-	--	--	--	--	-	-	-
JAN 14...	--	70	0	0	3	30	10	20	8	5	3
FEB 19...	--	--	-	-	--	--	--	--	-	-	-
MAR 16...	--	--	-	-	--	--	--	--	-	-	-
APR 16...	50	50	1	0	1	30	20	10	4	4	0
MAY 14...	--	--	-	-	--	--	--	--	-	-	-
JUN 22...	--	--	-	-	--	--	--	--	-	-	-
JUL 17...	50	50	1	-	<1	10	0	10	1	0	1
AUG 18...	--	70	-	-	2	--	--	10	-	-	-
SEP 16...	--	--	-	-	--	--	--	--	-	-	-

03374100 WHITE RIVER AT HAZLETON, IN--Continued
(National stream-quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVEI (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)
OCT 29...	5	4	1	1100	1100	20	300	300	0	120	100
NOV 12...	--	-	-	----	----	---	---	---	-	---	---
DEC 15...	--	-	-	----	----	---	---	---	-	---	---
JAN 14...	11	7	4	530	480	50	1	1	0	70	20
FEB 19...	--	-	-	----	----	---	---	---	-	---	---
MAR 16...	--	-	-	----	----	---	---	---	-	---	---
APR 16...	11	7	4	5900	5900	50	13	13	0	320	320
MAY 14...	--	-	-	----	----	---	---	---	-	---	---
JUN 22...	--	-	-	----	----	---	---	---	-	---	---
JUL 17...	11	7	4	3600	----	<10	42	40	2	310	---
AUG 18...	--	-	-	----	----	10	---	---	-	---	---
SEP 16...	--	-	-	----	----	---	---	---	-	---	---

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)
OCT 29...	20	.7	.3	.4	6	5	1	0	0	0	0
NOV 12...	--	---	--	--	--	--	-	-	-	--	--
DEC 15...	--	---	--	--	--	--	-	-	-	--	--
JAN 14...	50	.5	.3	.2	43	43	0	0	0	0	2
FEB 19...	--	---	--	--	--	--	-	-	-	--	--
MAR 16...	--	---	--	--	--	--	-	-	-	--	--
APR 16...	3	.5	.1	.4	11	8	3	0	0	0	0
MAY 14...	--	---	--	--	--	--	-	-	-	--	--
JUN 22...	--	---	--	--	--	--	-	-	-	--	--
JUL 17...	<1	1.1	.2	.9	16	8	8	0	0	0	0
AUG 18...	3	---	--	.3	--	--	-	-	-	<1	<1
SEP 16...	--	---	--	--	--	--	-	-	-	--	--

03374100 WHITE RIVER AT HAZLETON, IN--Continued
(National stream-quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	PCB, TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)
OCT 29...	0	0	30	20	9	---	3.8	---	--	--
NOV 12...	-	--	---	--	--	6.7	---	---	ND	ND
DEC 15...	-	--	---	--	--	4.6	---	---	--	--
JAN 14...	1	1	100	80	20	---	3.0	.3	--	--
FEB 19...	-	--	---	--	--	---	---	---	--	--
MAR 16...	-	--	---	--	--	4.5	---	---	--	--
APR 16...	0	0	90	90	4	---	4.7	3.0	--	--
MAY 14...	-	--	---	--	--	8.9	---	---	--	--
JUN 22...	-	--	---	--	--	6.1	---	---	--	--
JUL 17...	0	0	30	20	6	---	8.6	3.1	--	--
AUG 18...	-	<1	---	--	<4	---	---	---	--	--
SEP 16...	-	--	---	--	--	3.7	---	---	--	--

DATE	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)
OCT 29...	--	--	--	--	--	--	--	--	--	--
NOV 12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC 15...	--	--	--	--	--	--	--	--	--	--
JAN 14...	--	--	--	--	--	--	--	--	--	--
FEB 19...	--	--	--	--	--	--	--	--	--	--
MAR 16...	--	--	--	--	--	--	--	--	--	--
APR 16...	--	--	--	--	--	--	--	--	--	--
MAY 14...	--	--	--	--	--	--	--	--	--	--
JUN 22...	--	--	--	--	--	--	--	--	--	--
JUL 17...	--	--	--	--	--	--	--	--	--	--
AUG 18...	--	--	--	--	--	--	--	--	--	--
SEP 16...	--	--	--	--	--	--	--	--	--	--

03374100 WHITE RIVER AT HAZLETON, IN--Continued
(National stream-quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)
OCT 29...	--	--	--	--	--	--
NOV 12...	ND	ND	ND	ND	ND	ND
DEC 15...	--	--	--	--	--	--
JAN 14...	--	--	--	--	--	--
FEB 19...	--	--	--	--	--	--
MAR 16...	--	--	--	--	--	--
APR 16...	--	--	--	--	--	--
MAY 14...	--	--	--	--	--	--
JUN 22...	--	--	--	--	--	--
JUL 17...	--	--	--	--	--	--
AUG 18...	--	--	--	--	--	--
SEP 16...	--	--	--	--	--	--

DATE	TOX-APHENE, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 29...	--	--	-----	46	310	98
NOV 12...	ND	ND	55000	40	221	--
DEC 15...	--	--	-----	33	282	97
JAN 14...	--	--	-----	32	143	--
FEB 19...	--	--	-----	378	14900	98
MAR 16...	--	--	9000	79	1230	97
APR 16...	--	--	-----	250	8640	95
MAY 14...	--	--	5900	344	22400	92
JUN 22...	--	--	5400	336	10200	94
JUL 17...	--	--	37000	314	6920	98
AUG 18...	--	--	62000	105	1380	97
SEP 16...	--	--	21000	106	819	97

03374100 WHITE RIVER AT HAZLETON, IN--Continued
(National stream-quality accounting network station)

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	623	482	620	659	---	477	---	342		---	513	615
2	646	483	604	659	---	475	---	354		---	475	536
3	698	484	602	661	---	482	---	365		---	472	490
4	665	483	604	668	---	490	---	374		---	549	551
5	598	484	611	669	---	496	---	385		---	554	484
6	616	490	613	671	---	500	---	397		---	570	403
7	598	494	609	675	---	507	---	404		---	590	414
8	600	525	606	676	---	454	---	413		---	625	446
9	621	528	---	675	---	453	---	406		---	596	461
10	657	529	---	676	---	455	---	403		---	611	481
11	658	533	---	680	---	459	---	403		---	480	518
12	578	534	---	682	---	469	---	408		---	581	530
13	568	532	---	682	---	484	---	401		---	558	557
14	595	547	---	678	---	493	---	---		---	433	567
15	598	553	---	683	---	502	---	---		---	451	575
16	578	559	636	---	---	---	---	---		---	433	587
17	547	569	630	---	---	525	350	---		---	454	613
18	530	574	622	---	---	470	386	---		484	471	644
19	539	582	619	---	---	471	382	---		494	515	673
20	537	592	623	---	435	471	349	---		493	584	678
21	533	601	626	---	441	463	305	---		493	604	688
22	528	605	629	---	445	452	305	---		460	546	689
23	526	609	629	---	442	448	303	---		459	524	652
24	491	613	630	---	444	---	342	---		473	496	632
25	499	617	633	---	455	---	349	---		487	485	664
26	499	615	642	---	461	---	305	---		501	530	550
27	491	610	648	---	465	---	312	---		495	570	564
28	479	605	650	---	475	---	349	---		504	577	610
29	477	605	654	---	---	---	327	---		490	543	605
30	476	618	658	---	---	---	334	---		600	537	621
31	474	---	659	---	---	---	---	---		608	593	---

03374100 WHITE RIVER AT HAZLETON, IN--Continued
(National stream-quality accounting network station)

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	486	474	604	658	---	468	---	336		---	439	532
2	624	482	599	656	---	471	---	349		---	458	482
3	649	482	595	656	---	478	---	361		---	462	480
4	601	479	595	662	---	486	---	368		---	465	486
5	579	481	604	667	---	494	---	380		---	510	404
6	559	488	607	669	---	496	---	391		---	494	387
7	585	492	605	669	---	455	---	399		---	555	397
8	561	498	598	673	---	441	---	399		---	573	418
9	565	525	---	671	---	447	---	395		---	527	451
10	601	510	---	671	---	452	---	395		---	455	473
11	620	521	---	675	---	458	---	400		---	444	499
12	550	528	---	679	---	462	---	396		---	477	517
13	552	526	---	670	---	472	---	386		---	404	530
14	568	533	---	677	---	487	---	---		---	379	558
15	575	548	---	677	---	496	---	---		---	402	563
16	560	553	630	---	---	---	---	---		---	401	568
17	499	560	621	---	---	470	312	---		---	416	581
18	512	569	615	---	---	465	357	---		468	453	616
19	530	575	612	---	---	467	335	---		484	475	632
20	529	582	618	---	427	462	273	---		463	522	658
21	528	593	623	---	433	452	265	---		462	544	652
22	518	602	626	---	438	448	260	---		449	517	642
23	491	600	625	---	434	443	264	---		446	494	526
24	488	605	626	---	439	---	308	---		459	459	551
25	492	610	630	---	448	---	258	---		468	469	552
26	491	608	632	---	457	---	232	---		472	480	535
27	479	599	642	---	460	---	245	---		473	530	539
28	475	596	647	---	468	---	321	---		461	533	565
29	474	596	650	---	---	---	323	---		469	525	573
30	472	601	654	---	---	---	331	---		483	517	589
31	471	---	657	---	---	---	---	---		412	533	---

03374100 WHITE RIVER AT HAZLETON, IN--Continued
(National stream-quality accounting network station)

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	581	478	616	659	---	473	---	338		---	472	579
2	633	483	602	658	---	474	---	351		---	468	498
3	670	482	598	658	---	479	---	363		---	466	484
4	622	481	599	665	---	488	---	371		---	488	519
5	586	483	608	668	---	495	---	382		---	527	438
6	584	489	611	670	---	498	---	394		---	535	392
7	589	493	607	673	---	487	---	401		---	569	408
8	572	509	602	675	---	446	---	405		---	600	430
9	575	527	---	673	---	450	---	398		---	559	456
10	640	518	---	674	---	454	---	401		---	566	481
11	636	527	---	677	---	458	---	401		---	459	510
12	564	531	---	680	---	465	---	405		---	508	523
13	561	529	---	676	---	477	---	392		---	484	548
14	583	540	---	677	---	490	---	---		---	396	563
15	588	550	---	680	---	499	---	---		---	434	569
16	567	556	634	---	---	---	---	---		---	410	576
17	522	565	626	---	---	488	332	---		---	432	591
18	520	571	618	---	---	467	379	---		474	464	627
19	535	580	615	---	---	469	370	---		490	493	647
20	531	587	620	---	430	466	303	---		484	560	673
21	531	596	625	---	438	459	282	---		475	569	666
22	524	603	627	---	441	450	281	---		454	527	668
23	505	606	627	---	438	446	279	---		452	506	557
24	489	610	628	---	441	---	335	---		468	466	587
25	495	613	631	---	452	---	302	---		479	476	621
26	496	612	638	---	459	---	268	---		487	498	541
27	485	604	645	---	462	---	278	---		485	545	550
28	477	602	649	---	471	---	331	---		487	540	581
29	476	602	652	---	---	---	325	---		482	532	587
30	474	609	656	---	---	---	333	---		542	526	612
31	472	---	658	---	---	---	---	---		501	554	---
MEAN	551	551	625	671	448	472	314	385		483	504	549
MAX	670	613	658	680	471	499	379	405		542	600	673
MIN	472	478	598	658	430	446	268	338		452	396	392

WTR YR 1981 MEAN 521 MAX 680 MIN 268

03374100 WHITE RIVER AT HAZLETON, IN--Continued
(National stream-quality accounting network station)

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.5	14.5	8.0	5.0	---	8.5	----	20.5		----	26.5	28.5
2	23.5	14.5	8.5	4.5	---	8.5	----	20.0		----	27.0	27.5
3	22.0	14.5	7.5	4.5	---	8.5	----	20.0		----	27.0	27.0
4	19.0	15.0	7.0	4.0	---	8.5	----	19.5		----	27.5	26.5
5	18.0	15.0	8.0	3.0	---	8.0	----	19.5		----	28.5	26.0
6	17.5	14.5	9.5	3.0	---	7.5	----	19.5		----	28.5	26.0
7	18.0	15.5	10.5	3.5	---	7.0	----	18.5		----	28.0	26.5
8	19.0	16.5	11.0	3.0	---	6.5	----	18.5		----	27.5	26.0
9	20.5	16.5	----	3.0	---	7.0	----	18.5		----	26.5	26.0
10	22.0	16.0	----	3.0	---	7.0	----	18.0		----	27.0	25.5
11	19.5	14.5	----	3.5	---	7.0	----	17.5		----	27.0	25.0
12	18.0	13.5	----	2.5	---	8.0	----	16.5		----	26.5	26.0
13	18.0	13.0	----	3.5	---	9.0	----	16.0		----	26.0	27.0
14	18.5	13.0	----	5.0	---	9.5	----	----		----	26.5	27.0
15	19.0	13.0	----	5.0	---	9.0	----	----		----	26.5	26.5
16	20.0	14.0	8.0	---	---	9.5	----	----		----	26.5	25.0
17	20.0	11.0	7.5	---	---	9.5	19.5	----		29.0	26.0	23.5
18	20.0	10.0	7.5	---	---	9.5	20.0	----		28.5	26.0	21.5
19	19.5	10.0	7.5	---	---	9.0	20.0	----		28.5	27.0	21.0
20	17.5	9.5	5.0	---	5.0	9.0	18.5	----		29.0	27.0	21.5
21	18.0	9.5	3.5	---	6.0	9.0	17.5	----		28.0	27.0	21.5
22	18.5	9.0	3.0	---	6.5	9.0	17.0	----		28.0	27.5	21.0
23	18.5	9.5	4.5	---	6.0	9.5	17.0	----		27.5	28.0	22.0
24	18.5	9.5	4.5	---	7.0	---	17.0	----		27.0	29.0	23.5
25	16.5	8.5	3.0	---	7.5	---	16.0	----		27.5	29.5	23.5
26	14.5	8.5	3.0	---	8.0	---	16.5	----		27.5	29.5	23.0
27	13.5	8.0	4.0	---	8.5	---	17.5	----		28.0	28.5	21.5
28	13.5	7.5	3.5	---	9.0	---	18.5	----		27.5	27.5	22.0
29	13.5	7.0	5.0	---	---	---	19.5	----		27.0	28.0	20.0
30	14.0	7.5	4.5	---	---	---	20.5	----		26.0	28.5	19.5
31	14.0	----	5.0	---	---	---	----	----		26.0	29.0	----

03374100 WHITE RIVER AT HAZLETON, IN--Continued
(National stream-quality accounting network station)

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	14.0	7.0	4.5	---	8.0	----	19.5		----	25.5	27.5
2	22.0	13.5	7.5	4.0	---	8.0	----	19.5		----	26.0	27.0
3	19.0	14.0	6.5	4.0	---	8.0	----	19.5		----	26.5	26.0
4	17.5	14.0	6.5	2.0	---	8.0	----	19.0		----	26.5	26.0
5	16.5	14.5	7.0	2.0	---	7.0	----	19.0		----	27.5	25.0
6	15.0	14.0	8.0	2.5	---	7.0	----	18.5		----	27.5	25.0
7	16.0	14.5	9.5	3.0	---	6.5	----	17.5		----	27.5	25.0
8	17.0	15.5	10.0	2.0	---	6.0	----	17.5		----	26.5	25.5
9	18.5	16.0	---	2.0	---	6.0	----	18.0		----	26.0	25.0
10	17.5	15.0	---	2.5	---	6.5	----	17.5		----	26.0	24.0
11	18.0	14.0	---	2.5	---	6.5	----	16.0		----	26.0	24.0
12	17.0	13.0	---	2.0	---	6.5	----	16.0		----	25.5	24.5
13	16.0	12.5	---	2.0	---	7.5	----	15.5		----	25.0	25.0
14	17.0	13.0	---	5.0	---	8.0	----	----		----	25.5	26.0
15	17.0	12.0	---	4.5	---	8.5	----	----		----	26.0	25.0
16	18.5	11.0	7.5	---	---	8.5	----	----		----	25.5	23.5
17	19.0	10.0	6.5	---	---	8.5	18.5	----		28.0	25.0	22.0
18	19.0	9.5	6.5	---	---	8.5	19.5	----		28.0	25.0	20.5
19	17.0	9.0	5.0	---	---	8.5	18.5	----		28.0	25.5	19.5
20	16.0	9.0	3.5	---	4.0	8.0	17.5	----		28.0	25.5	20.0
21	17.0	8.5	2.5	---	5.0	8.5	16.5	----		27.5	25.5	21.0
22	17.0	8.5	2.5	---	6.0	8.5	16.5	----		27.0	26.0	19.5
23	17.5	8.5	3.0	---	6.0	8.0	16.5	----		27.0	26.5	19.5
24	16.5	9.0	3.0	---	6.0	---	16.0	----		26.5	27.0	21.5
25	14.5	8.0	2.0	---	7.0	---	15.5	----		26.5	28.0	22.5
26	12.5	8.0	2.0	---	7.5	---	16.0	----		27.0	28.0	21.0
27	13.0	7.0	3.0	---	7.5	---	16.5	----		27.5	27.5	19.5
28	13.0	6.5	2.5	---	8.5	---	17.5	----		27.0	26.5	20.0
29	13.0	6.0	3.5	---	---	---	18.5	----		26.0	26.0	18.0
30	13.0	6.0	4.0	---	---	---	19.5	----		25.0	26.5	18.5
31	12.5	----	4.5	---	---	---	----	----		25.0	27.5	----

03374100 WHITE RIVER AT HAZLETON, IN--Continued
(National stream-quality accounting network station)

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	14.5	7.5	4.5	---	8.5	----	20.0		----	26.0	28.0
2	23.0	14.0	8.0	4.0	---	8.0	----	20.0		----	26.5	27.0
3	20.5	14.5	7.0	4.5	---	8.0	----	19.5		----	26.5	26.5
4	18.0	14.5	7.0	3.0	---	8.0	----	19.5		----	27.0	26.0
5	17.0	14.5	7.5	2.5	---	8.0	----	19.0		----	28.0	25.5
6	16.5	14.5	9.0	2.5	---	7.0	----	18.5		----	28.0	25.5
7	17.0	15.0	10.0	3.0	---	7.0	----	18.0		----	28.0	26.0
8	18.0	16.0	10.5	2.5	---	6.5	----	18.0		----	26.5	25.5
9	19.5	16.0	----	2.5	---	6.5	----	18.0		----	26.5	25.0
10	20.5	15.5	----	3.0	---	7.0	----	18.0		----	26.5	24.5
11	19.0	14.0	----	3.0	---	7.0	----	16.5		----	26.5	24.5
12	17.5	13.5	----	2.0	---	7.0	----	16.0		----	26.0	25.0
13	17.0	13.0	----	2.5	---	8.0	----	15.5		----	25.5	25.0
14	17.5	13.0	----	5.0	---	9.0	----	----		----	26.0	26.5
15	18.0	12.5	----	4.5	---	9.0	----	----		----	26.0	26.0
16	19.5	11.5	7.5	---	---	9.0	----	----		----	26.0	24.0
17	19.5	10.5	7.0	---	---	9.0	19.0	----		28.5	25.5	22.5
18	19.5	9.5	7.0	---	---	9.0	20.0	----		28.0	25.5	21.0
19	18.0	9.5	6.5	---	---	8.5	19.5	----		28.0	26.0	20.5
20	16.5	9.0	4.0	---	4.5	8.5	18.0	----		28.5	26.0	20.5
21	17.5	9.0	3.0	---	5.5	8.5	17.0	----		28.0	26.5	21.0
22	18.0	8.5	3.0	---	6.0	8.5	17.0	----		27.5	26.5	20.0
23	18.0	9.0	3.5	---	6.0	8.5	16.5	----		27.0	27.5	20.5
24	17.5	9.0	4.0	---	6.5	---	16.5	----		27.0	28.0	22.5
25	15.5	8.5	2.5	---	7.0	---	16.0	----		27.0	28.5	23.0
26	13.5	8.5	2.5	---	7.5	---	16.5	----		27.0	29.0	22.0
27	13.0	7.5	3.5	---	8.0	---	17.0	----		27.5	28.0	20.5
28	13.0	7.0	3.0	---	9.0	---	18.0	----		27.5	27.0	21.5
29	13.0	6.5	4.0	---	---	---	19.0	----		26.5	27.0	19.0
30	13.0	7.0	4.0	---	---	---	20.0	----		25.5	27.5	19.0
31	13.0	----	4.5	---	---	---	----	----		25.5	28.0	----
MEAN	17.5	11.5	5.5	3.5	6.5	8.0	18.0	18.0		27.5	27.0	23.5
MAX	23.0	16.0	10.5	5.0	9.0	9.0	20.0	20.0		28.5	29.0	28.0
MIN	13.0	6.5	2.5	2.0	4.5	6.5	16.0	15.5		25.5	25.5	19.0

WTR YR 1981 MEAN 16.0 MAX 29.5 MIN 2.0

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 mile (0.5 km) downstream from Fudge Creek, 0.7 mile (1.1 km) northeast of Valeene, 6.0 miles (9.7 km) southwest of Hardinsburg, and at mile 158.0 (254.2 km).

DRAINAGE AREA.--12.8 mi^2 (33.2 km^2).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 606.89 ft (184.980 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--13 years, 25.2 ft^3/s (0.714 m^3/s), 26.7 in/yr (678 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,270 ft^3/s (263 m^3/s) July 26, 1979, gage height, 11.35 ft (3.459 m) no flow for several days in 1971, 1972, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 800 ft^3/s (22.7 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Sept. 14	2330	*1340	37.9	*7.19	2.192

Minimum daily discharge, 0.10 ft^3/s (0.003 m^3/s) Oct. 2.

NOTE.--No gage-height record Nov. 25 to Feb. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	.43	1.4	.96	14	5.8	17	7.0	15	.88	.88	8.3
2	.10	.43	1.3	.76	5.0	5.3	12	5.8	15	.80	.80	56
3	.13	.43	1.2	.60	3.2	4.0	9.4	5.0	8.6	.80	.73	35
4	.13	.49	1.1	.35	2.7	5.0	71	4.3	6.7	.80	.67	14
5	.14	.54	1.2	.20	2.3	36	94	4.0	5.3	1.9	.73	8.0
6	.14	.60	1.1	.27	2.0	25	31	4.0	6.1	1.9	8.3	4.5
7	.13	.60	1.1	.26	1.8	16	23	3.8	8.3	1.3	8.0	3.2
8	.14	.60	1.2	.24	1.6	11	16	3.4	5.3	.97	8.6	2.5
9	.15	.67	2.4	.22	1.4	8.3	11	3.4	4.0	.88	3.0	2.1
10	.14	.67	2.9	.20	4.0	6.1	70	9.8	51	.97	1.8	1.8
11	.12	.60	2.2	.17	20	5.0	35	25	23	.80	1.5	1.8
12	.12	.54	1.9	.15	10	4.3	40	17	30	.80	1.3	2.2
13	.14	.54	1.8	.18	5.0	3.8	25	12	35	.73	1.1	2.9
14	.14	.54	1.6	.21	4.0	3.4	18	95	15	.73	1.0	131
15	.14	.60	1.5	.19	6.4	3.2	15	77	9.0	1.2	.95	212
16	.14	.60	1.5	.17	8.6	3.6	14	35	6.1	1.3	.95	26
17	.26	1.4	1.3	.16	25	3.4	14	22	4.8	.97	.95	16
18	.40	2.2	1.3	.16	18	3.6	13	277	3.6	.80	.85	11
19	.24	1.9	.90	.17	14	3.4	22	189	3.2	1.3	.75	7.6
20	.22	1.7	.55	.40	11	3.2	263	69	3.0	1.8	.68	5.5
21	.22	1.5	.50	1.6	7.3	2.9	50	32	2.5	1.8	.60	3.2
22	.19	1.4	.50	1.4	6.1	2.5	30	21	2.2	1.3	.57	2.5
23	.19	1.5	.52	1.3	5.3	2.4	32	16	1.8	.88	.55	1.9
24	.24	1.6	.52	1.1	4.8	2.2	26	12	1.6	.80	.52	1.7
25	.54	1.4	.52	1.0	4.0	2.1	19	11	1.5	.73	.48	1.4
26	.49	1.3	.50	1.2	3.4	1.9	15	8.6	1.3	.60	.45	1.2
27	.49	17	.60	1.3	3.0	1.8	12	9.8	1.2	4.8	.52	1.1
28	.67	8.0	.68	1.1	3.6	1.7	9.8	8.6	1.1	5.0	.60	.98
29	.54	2.0	.74	.90	-----	1.9	8.6	6.1	.97	2.7	81	1.0
30	.49	1.6	.82	.68	-----	68	8.3	5.3	.88	1.8	9.4	1.0
31	.43	-----	.90	1.4	-----	26	------	5.3	------	1.2	5.3	------
TOTAL	7.73	53.38	36.25	19.00	197.5	272.8	1024.1	1004.2	273.05	43.24	143.53	567.38
MEAN	.25	1.78	1.17	.61	7.05	8.80	34.1	32.4	9.10	1.39	4.63	18.9
MAX	.67	17	2.9	1.6	25	68	263	277	51	5.0	81	212
MIN	.10	.43	.50	.15	1.4	1.7	8.3	3.4	.88	.60	.45	.98
CFSM	.02	.14	.09	.05	.55	.69	2.66	2.53	.71	.11	.36	1.48
IN.	.02	.16	.11	.06	.57	.79	2.98	2.92	.79	.13	.42	1.65

CAL YR 1980 TOTAL 5909.67 MEAN 16.1 MAX 362 MIN .10 CFSM 1.26 IN 17.17
WTR YR 1981 TOTAL 3642.16 MEAN 9.98 MAX 277 MIN .10 CFSM .78 IN 10.58

03374498 PATOKA LAKE NEAR CUZCO, IN

LOCATION.--Lat 38°25'58", long 86°42'30", in SW¼NE¼ sec.14, T.1 S., R.3 W., Dubois County, Hydrologic Unit 05120109, in discharge tower of reservoir on Patoka River, 2.9 miles south of Cuzco and 5.0 miles upstream from Dillon Creek, and at river mile 118.2.

DRAINAGE AREA.--168 mi^2 (435 km^2).

PERIOD OF RECORD.--February 1978 to current year.

GAGE.--Water-stage recorder. Datum of gage is 500.00 ft (152.400 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earth and rock fill dam. Releases normally controlled by two gates, 8.0 ft (2.44 m) wide and 12.0 ft (3.66 m) high, in an oblong concrete conduit through dam. Minimum pool capacity is 12,211 acre-ft (15.1 hm^3), elevation 506 ft (154.2 m). Seasonal pool capacity is 178,730 acre-ft (220.4 hm^3), elevation, 536 ft (163.4 m). Capacity at uncontrolled spillway elevation, 548 ft (167.0 m) is 298,380 acre-ft (367.9 hm^3). Reservoir is used for flood control, water supply, water quality, and recreation. Reservoir put in operation on Feb. 13, 1978.

COOPERATION.--Water-stage recorder graph and capacity tables furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 275,300 acre-ft (339 hm^3) Aug. 3, 4, 1979, elevation, 545.97 ft (166.412 m); minimum, 26,330 acre-ft (32.5 hm^3) June 12, 1978, elevation, 511.57 ft (155.926 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 192,000 acre-ft (237 hm^3) Oct. 1, elevation, 537.49 ft (163.827 m); minimum, 151,700 acre-ft (187 hm^3) Mar. 29, elevation, 532.82 ft (162.404 m).

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	537.49	192,000	
Oct. 31	535.64	175,400	-16,600
Nov. 30	534.10	162,200	-13,200
Dec. 31	533.80	159,700	-2,500
CAL YR 1980			-84,500
Jan. 31	533.43	156,600	-3,100
Feb. 28	533.75	159,200	+2,600
Mar. 31	533.10	153,900	-5,300
Apr. 30	534.34	164,200	+10,300
May 31	536.10	179,500	+15,300
June 30	536.23	180,700	+1,200
July 31	535.97	178,300	-2,400
Aug. 31	536.35	181,800	+3,500
Sept. 30	536.39	182,100	+300
WTR YR 1981			-9,900

03374500 PATOKA RIVER NEAR CUZCO, IN

LOCATION.--Lat 38°26'29", long 86°43'31", in SW¼SE¼ sec.10, T.1 S., R.3 W., Dubois County, Hydrologic Unit 05120209, on right bank 200 ft (61 m) upstream from county road bridge, 2.1 miles (3.4 km) downstream from Patoka Lake, 2.2 miles (3.6 km) southwest of Cuzco, 2.8 miles (4.5 km) upstream from Dillon Creek, and at mile 116.1 (186.8 km).

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

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

GAGE.--Water-stage recorder. Datum of gage is 477.00 ft (145.390 m) 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, 200 ft (61 m) downstream at same datum. Prior to October, 1979, published as "near Ellsworth".

REMARKS.--Records good. Flow regulated by Patoka Lake (See sta 03374498).

AVERAGE DISCHARGE.--20 years, 220 ft^3/s (6.230 m^3/s), 17.47 in/yr (444 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,700 ft^3/s (416 m^3/s) Mar. 10, 1964, gage height, 20.02 ft (6.102 m); no flow Oct. 30, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 19.1 ft (5.82 m) according to information by local resident, discharge, 12,300 ft^3/s (348 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 367 ft^3/s (10.4 m^3/s) Mar. 16; maximum gage height, 4.82 ft (1.469 m) Mar. 15-18; minimum daily, 1.6 ft^3/s (0.045 m^3/s) Sept. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	318	45	48	66	280	44	83	36	12	32	4.3
2	129	318	45	48	64	278	43	83	34	56	32	11
3	136	320	45	48	62	220	43	83	33	58	33	4.0
4	75	321	45	48	62	155	56	82	32	58	33	1.6
5	163	323	45	48	62	181	52	82	32	59	33	28
6	177	323	45	48	62	159	47	83	34	58	33	56
7	220	325	45	48	62	154	58	82	33	58	34	56
8	243	325	45	48	62	153	83	82	32	58	33	56
9	264	325	48	48	62	218	83	83	32	58	33	56
10	265	323	47	48	69	324	83	86	55	58	32	80
11	274	321	47	48	69	366	83	85	35	58	32	101
12	278	264	47	48	63	366	83	83	33	58	32	101
13	288	174	47	48	62	365	83	83	32	58	32	101
14	300	313	47	48	61	366	83	88	30	58	32	93
15	277	310	47	48	61	366	83	86	43	58	33	78
16	177	310	47	48	68	367	83	83	59	58	32	101
17	160	311	47	48	67	366	83	83	59	52	32	101
18	142	310	47	48	64	256	83	148	59	45	48	103
19	313	308	47	48	64	93	93	59	58	38	61	103
20	316	308	47	48	63	45	152	41	58	30	59	103
21	316	306	47	49	62	45	86	34	58	32	61	101
22	320	306	47	48	62	45	85	32	58	32	59	101
23	320	308	47	48	62	45	86	32	58	32	59	101
24	323	213	48	48	84	44	85	30	58	32	59	101
25	326	45	48	48	134	43	85	33	58	32	59	101
26	326	45	48	48	220	42	83	39	58	32	59	101
27	270	49	48	48	278	42	83	43	58	38	59	101
28	208	45	48	48	279	42	83	36	56	34	67	101
29	265	45	48	48	----	43	83	33	56	33	68	101
30	320	45	48	54	----	52	83	33	28	32	59	101
31	320	----	48	62	----	45	----	34	----	32	41	------
TOTAL	7578	7557	1450	1509	2456	5566	2343	2047	1365	1407	1371	2347.9
MEAN	244	252	46.8	48.7	87.7	180	78.1	66.0	45.5	45.4	44.2	78.3
MAX	326	325	48	62	279	367	152	148	59	59	68	103
MIN	67	45	45	48	61	42	43	30	28	12	32	1.6
CFSM	1.43	1.47	.27	.29	.51	1.05	.46	.39	.27	.27	.26	.46
IN.	1.65	1.64	.32	.33	.53	1.21	.51	.45	.30	.31	.30	.51

CAL YR 1980 TOTAL 101037.4 MEAN 276 MAX 1260 MIN 4.2 CFSM 1.61 IN 21.98
WTR YR 1981 TOTAL 36996.9 MEAN 101 MAX 367 MIN 1.6 CFSM .59 IN 8.05

03375500 PATOKA RIVER AT JASPER, IN

LOCATION.--Lat 38°24'49", long 86°52'36", in NW¼SE¼ sec.20, T.1 S., R.4 W., Dubois County, Hydrologic Unit 05120209, on left bank 0.3 mile (0.5 km) upstream from unnamed outlet of Jasper Lake, 1.0 mile (1.6 km) downstream from Coon Seitz bridge, 1.2 miles (1.9 km) downstream from Beaver Creek, 3.3 miles (5.3 km) northeast of Jasper, and at mile 91.5 (147.2 km).

DRAINAGE AREA.--262 mi^2 (679 km^2).

PERIOD OF RECORD.--November 1947 to current year.

REVISED RECORDS.--WSP 1909: 1958. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 446.00 ft (135.941 m) National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Nonrecording gage at bridge 5.6 miles (9.0 km) downstream, used for high-water periods when flow exceeds about 2,500 ft^3/s (70.8 m^3/s), at datum 0.34 ft (0.104 m) lower. Prior to Sept. 18, 1956, nonrecording gage at bridge 5.6 miles (9.0 km) downstream at datum 0.34 ft (0.104 m) lower.

REMARKS.--Records good. Flow regulated by Beaver Creek Reservoir beginning Oct. 11, 1955, and by Patoka Lake beginning Feb. 13, 1978 (See sta 03374498).

AVERAGE DISCHARGE.--33 years (water years 1949 to current year), 360 ft^3/s (10.20 m^3/s), 18.66 in/yr (474 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,100 ft^3/s (399 m^3/s) Mar. 11, 1964, gage height, 15.17 ft (4.624 m) at downstream gage; maximum gage height at upstream gage, 21.20 ft (6.462 m) 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 (4.85 m) at downstream site, from floodmark furnished by local residents, discharge 16,000 ft^3/s (453 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,000 ft^3/s (28.3 m^3/s) May 19, gage height, 12.62 ft (3.847 m); minimum daily, 29 ft^3/s (0.82 m^3/s) July 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	304	60	56	84	367	133	141	178	53	35	87
2	62	303	59	56	134	363	101	130	146	29	35	123
3	120	303	57	54	105	356	86	122	119	45	34	146
4	169	308	57	48	92	311	151	117	91	61	34	76
5	88	310	56	45	83	407	418	115	74	73	35	41
6	189	310	56	48	78	457	305	119	77	73	48	35
7	213	313	56	47	74	346	180	121	91	63	62	60
8	233	315	57	45	72	295	153	115	98	61	55	62
9	253	317	70	44	70	272	164	113	68	60	42	60
10	264	319	78	44	111	322	150	136	180	61	40	59
11	267	317	69	43	273	405	141	242	482	60	41	69
12	271	316	63	40	232	432	136	219	197	60	39	96
13	268	277	61	43	151	431	135	173	105	58	38	98
14	275	195	59	48	111	428	131	216	83	58	37	98
15	285	300	58	47	101	427	124	358	64	60	39	93
16	267	309	58	45	131	433	119	279	61	62	40	70
17	208	316	57	44	284	432	123	199	74	62	38	94
18	193	327	56	44	264	432	141	387	72	58	37	98
19	151	313	55	45	215	335	148	941	70	51	42	98
20	279	309	54	46	185	168	678	773	71	49	61	98
21	302	306	53	47	157	79	716	334	70	40	63	98
22	291	304	52	52	139	69	335	178	68	37	64	98
23	291	304	58	56	135	67	252	122	66	36	64	98
24	299	306	56	59	136	66	242	96	64	36	64	98
25	311	248	49	60	147	63	204	181	63	36	64	98
26	309	91	51	60	210	61	176	269	62	35	64	98
27	308	83	52	59	308	60	157	758	62	37	65	100
28	273	105	54	57	355	58	144	584	61	97	103	101
29	218	78	55	56	----	60	138	305	61	83	314	100
30	250	64	56	55	----	136	144	189	61	44	179	100
31	300	----	57	57	----	205	----	209	----	37	84	----
TOTAL	7270	7970	1789	1550	4437	8343	6225	8241	3039	1675	1960	2650
MEAN	235	266	57.7	50.0	158	269	208	266	101	54.0	63.2	88.3
MAX	311	327	78	60	355	457	716	941	482	97	314	146
MIN	62	64	49	40	70	58	86	96	61	29	34	35
CFSM	.90	1.02	.22	.19	.60	1.03	.79	1.02	.39	.21	.24	.34
IN.	1.03	1.13	.25	.22	.63	1.18	.88	1.17	.43	.24	.28	.38

CAL YR 1980	TOTAL 133390	MEAN 364	MAX 1280	MIN 24	CFSM 1.39	IN 18.94		
WTR YR 1981	TOTAL 55149	MEAN 151	MAX 941	MIN 29	CFSM .58	IN 7.83		

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 mile (1.1 km) upstream from Grassy Fork, 3.3 miles (5.3 km) north of St. Anthony, and at mile 4.1 (6.6 km).

DRAINAGE AREA.--21.8 mi^2 (56.5 km^2).

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

REVISED RECORDS.--WDR IN-75-1: 1971-74.

GAGE.--Water-stage recorder. Datum of gage is 459.22 ft (139.969 m) National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources).

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

AVERAGE DISCHARGE.--11 years, 33.3 ft^3/s (0.943 m^3/s), 20.74 in/yr (527 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,500 ft^3/s (326 m^3/s) July 26, 1979, gage height, 15.30 ft (4.663 m) from contracted-opening and flow-over-the road measurements at gage height of 15.30 ft (4.663 m); no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 950 ft^3/s (26.9 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Aug. 29	0400	*1180	33.4	*10.81	3.295

Minimum daily discharge, 0.09 ft^3/s (0.003 m^3/s) Aug. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	1.3	3.3	2.3	40	21	12	9.1	19	.70	.36	125
2	.43	1.2	2.7	1.9	15	15	9.7	8.0	15	.65	.25	271
3	.44	1.1	1.8	1.7	10	12	9.1	7.0	13	.72	.23	54
4	.54	1.2	1.8	1.4	7.5	23	63	6.8	12	.96	.23	18
5	.52	1.2	1.8	1.2	6.5	78	52	6.3	11	9.1	3.4	10
6	.56	1.1	1.7	1.3	5.5	34	26	8.4	16	1.4	17	6.7
7	.60	1.1	1.5	1.5	5.0	22	18	8.2	13	.87	24	4.9
8	.63	1.3	1.9	1.6	4.8	16	15	6.7	10	.58	4.4	3.9
9	.63	1.5	58	1.6	4.5	13	12	7.0	9.4	.53	1.7	2.7
10	.60	1.4	36	1.5	56	12	11	28	20	2.0	1.3	2.1
11	.53	1.2	20	1.3	51	10	10	23	11	.58	1.3	1.7
12	.49	1.1	14	1.1	21	9.1	9.5	15	9.4	.48	.86	1.6
13	.53	1.0	10	1.0	11	8.2	8.6	13	5.7	.63	.74	1.5
14	.56	1.0	8.0	1.1	9.3	7.0	7.6	33	3.6	1.7	.63	1.3
15	.63	1.2	6.3	1.2	11	7.0	6.7	26	2.4	.53	.86	1.2
16	.60	1.2	5.4	1.2	67	9.3	6.3	18	2.1	.58	.86	1.1
17	1.4	4.0	4.9	1.2	54	7.8	6.7	15	1.8	.53	.63	1.1
18	4.4	11	4.5	1.3	36	7.2	5.9	319	1.6	.42	.53	1.1
19	1.0	6.8	4.1	1.3	30	6.5	28	167	1.7	1.9	.48	.92
20	.75	3.5	3.7	1.4	46	6.5	75	73	1.9	2.0	.36	.86
21	.79	2.5	3.2	4.5	24	5.9	24	35	1.6	.80	.25	.86
22	.72	2.1	3.4	3.5	20	5.4	17	24	1.5	.53	.18	.86
23	.69	1.9	3.6	5.0	19	5.0	23	18	1.2	.48	.16	.74
24	1.0	2.2	3.4	7.0	17	4.7	16	16	1.1	.42	.14	.74
25	5.5	2.0	3.3	7.4	13	4.5	13	20	.98	.42	.11	.74
26	3.0	1.8	3.0	8.6	10	4.4	11	24	.90	.39	.09	.74
27	2.9	64	2.8	7.0	8.6	4.2	9.7	31	.84	34	.18	1.2
28	5.3	12	2.6	5.9	17	3.9	8.6	24	.77	4.5	123	.80
29	2.6	6.8	2.7	5.4	-----	5.6	9.1	18	.72	2.2	424	.80
30	1.8	4.1	3.2	5.4	-----	46	11	15	.69	.74	18	.74
31	1.5	-----	2.8	4.5	-----	17	-----	21	------	.48	8.4	------
TOTAL	42.14	143.8	225.4	92.3	619.7	431.2	534.5	1043.5	189.90	71.82	634.63	518.90
MEAN	1.36	4.79	7.27	2.98	22.1	13.9	17.8	33.7	6.33	2.32	20.5	17.3
MAX	5.5	64	58	8.6	67	78	75	319	20	34	424	271
MIN	.43	1.0	1.5	1.0	4.5	3.9	5.9	6.3	.69	.39	.09	.74
CFSM	.06	.22	.33	.14	1.01	.64	.82	1.55	.29	.11	.94	.79
IN.	.07	.25	.38	.16	1.06	.74	.91	1.78	.32	.12	1.08	.89

CAL YR 1980 TOTAL 9988.76 MEAN 27.3 MAX 754 MIN .11 CFSM 1.25 IN 17.04
WTR YR 1981 TOTAL 4547.79 MEAN 12.5 MAX 424 MIN .09 CFSM .57 IN 7.76

03376260 FLAT CREEK NEAR OTWELL, IN

LOCATION.--Lat 38°26'12", long 87°07'52", in SE¼SE¼ sec.12, T.1 S., R.7 W., Pike County, Hydrologic Unit 05120209, on right bank at upstream side of bridge on State Highway 56, 2.2 miles (3.5 km) west of intersection of State Highways 56 and 257, 2.5 miles (4.0 km) southeast of Otwell, 6.2 miles (10.0 km) east of intersection of State Highways 56 and 61, and at mile 10.9 (17.5 km).

DRAINAGE AREA.--21.3 mi² (55.2 km²).

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

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 448.00 ft (136.550 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--17 years, 22.8 ft³/s (0.646 m³/s), 14.54 in/yr (369 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,680 ft³/s (47.6 m³/s) May 12, 1978, gage height, 12.34 ft (3.761 m); no flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1964 reached a stage of 12.58 ft (3.834 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 800 ft³/s (22.7 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 24	2400	*912	25.8	*11.81	3.600

Minimum daily discharge, 0.56 ft³/s (0.016 m³/s) Oct. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	2.0	3.4	2.0	11	7.2	5.5	8.6	28	65	1.2	27
2	1.1	2.0	2.7	1.8	8.4	6.3	5.4	6.7	22	6.8	1.2	22
3	.97	2.0	2.4	1.7	6.0	5.4	4.2	5.6	19	74	1.2	9.2
4	.82	1.8	2.1	1.5	4.0	14	35	4.9	19	14	1.3	5.5
5	.70	1.7	2.3	1.4	2.5	56	17	4.7	18	29	1.3	4.0
6	.67	1.7	2.2	1.4	2.3	18	7.2	5.2	16	9.0	32	3.2
7	.85	1.7	2.2	1.4	2.1	9.7	5.0	5.0	15	5.7	3.0	2.9
8	1.5	1.7	2.4	1.3	2.0	7.0	4.1	4.4	11	11	2.2	2.9
9	1.4	1.7	9.0	1.3	1.9	6.1	4.3	4.9	8.9	5.7	1.7	2.6
10	.99	1.7	6.3	1.3	30	6.1	4.0	115	16	2.9	2.0	2.0
11	.60	1.7	3.6	1.3	26	7.0	3.4	68	8.7	2.6	1.6	1.7
12	.56	1.8	3.0	1.4	32	5.1	3.2	28	8.1	2.3	1.3	1.5
13	.75	1.8	2.6	1.7	7.0	4.1	3.6	18	6.9	2.2	1.2	1.5
14	.92	1.9	2.2	2.0	6.0	3.8	3.6	146	5.3	2.1	1.1	1.5
15	.93	2.4	2.2	2.3	10	3.8	3.6	62	4.7	2.5	1.7	1.7
16	.90	2.2	2.2	2.5	19	4.9	4.0	27	4.1	3.1	2.2	1.6
17	2.7	2.5	2.0	2.7	20	4.5	9.9	18	4.0	2.8	1.7	1.1
18	3.2	6.0	1.9	3.0	15	4.5	6.7	147	3.1	2.3	1.3	.84
19	2.2	2.9	1.8	3.2	12	4.4	35	339	3.1	5.9	1.2	.77
20	2.2	2.1	1.8	4.5	11	4.0	124	131	8.7	14	1.2	.77
21	2.1	1.9	1.8	4.0	7.4	3.8	34	56	4.6	28	1.4	.84
22	2.1	1.8	1.8	3.3	7.6	3.6	22	28	4.7	3.2	1.4	.95
23	2.1	1.8	1.8	2.5	7.8	3.5	19	21	3.7	2.0	1.4	1.0
24	2.4	2.1	1.8	2.3	7.8	3.2	14	195	2.9	1.8	1.5	1.2
25	3.1	2.0	1.8	2.1	7.7	2.9	10	391	2.6	1.7	1.4	1.0
26	2.7	1.7	1.7	1.9	7.6	2.9	8.1	354	2.3	10	1.5	.99
27	2.4	52	1.7	1.8	6.9	3.0	6.8	687	2.0	3.2	10	1.2
28	2.8	12	1.7	1.7	6.3	2.9	6.0	123	1.9	14	69	1.3
29	2.6	6.2	1.8	1.6	-----	4.0	6.3	62	2.0	3.4	71	1.2
30	2.3	4.2	1.8	1.5	-----	21	13	37	150	1.8	11	1.2
31	2.3	-----	1.9	1.8	-----	8.0	-----	51	-----	1.3	6.3	------
TOTAL	52.16	129.0	77.9	64.2	287.3	240.7	427.9	3154.0	406.3	333.3	237.5	105.16
MEAN	1.68	4.30	2.51	2.07	10.3	7.76	14.3	102	13.5	10.8	7.66	3.51
MAX	3.2	52	9.0	4.5	32	56	124	687	150	74	71	27
MIN	.56	1.7	1.7	1.3	1.9	2.9	3.2	4.4	1.9	1.3	1.1	.77
CFSM	.08	.20	.12	.10	.48	.36	.67	4.79	.63	.51	.36	.17
IN.	.09	.23	.14	.11	.50	.42	.75	5.51	.71	.58	.41	.18

CAL YR 1980 TOTAL 7Q06.05 MEAN 19.1 MAX 367 MIN .56 CFSM .90 IN 12.24
WTR YR 1981 TOTAL 5515.42 MEAN 15.1 MAX 687 MIN .56 CFSM .71 IN 9.63

03376279 LITTLE FLAT CREEK NEAR OTWELL, IN
(Baseline water-quality station for the coal-mining region of Southwestern Indiana)

LOCATION.--Lat 38°25'20", long 87°04'06", in SE¼SW¼ sec.15, T.15 N., R.6 W., Dubois County, Hydrologic Unit 05120209, on right bank 10 ft (3 m) upstream from bridge on County Road 300 North, 2.0 miles (3.22 km) upstream from confluence with Flat Creek, 2.5 miles (4.02 km) southeast of Otwell, and 3.6 miles (5.79 km) northwest of Ireland.

DRAINAGE AREA.--6.56 mi^2 (16.99 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1980 to September 1981.

GAGE.--Water-stage recorder.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 348 ft^3/s (9.9 m^3/s) May 24, 1981, gage height, 19.50 ft (5.94 m) minimum daily, 0.10 ft^3/s (.003 m^3/s) Oct. 10, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 348 ft^3/s (9.9 m^3/s) May 24, gage height, 19.50 ft (5.94 m); minimum daily, 0.10 ft^3/s (.003 m^3/s) Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.18	.18	.78	.49	12	2.5	2.8	2.2	3.7	4.9	.35	30
2	.22	.16	.57	.40	5.5	1.9	2.2	1.8	2.6	.98	.32	10
3	.24	.14	.45	.35	1.6	1.3	2.2	1.5	1.7	63	.29	1.8
4	.26	.20	.53	.27	.84	7.7	71	1.3	2.0	12	.26	.91
5	.27	.20	.61	.20	.64	23	11	1.3	1.1	26	.24	.57
6	.27	.20	.57	.19	.54	6.2	7.1	1.5	4.5	3.8	9.3	.45
7	.28	.20	.45	.18	.48	4.0	5.6	1.1	1.7	2.3	.35	.35
8	.29	.24	.78	.18	.43	2.9	4.7	.57	.78	1.6	.29	.32
9	.23	.22	4.2	.17	.40	2.6	3.8	.72	.53	1.1	.22	.26
10	.10	.22	1.9	.17	.37	2.3	3.3	36	12	.78	7.9	.24
11	.11	.26	1.3	.18	.40	1.9	3.1	9.3	1.4	.67	.49	.26
12	.14	.32	1.1	.18	.44	1.6	3.3	4.1	.84	.61	.24	.29
13	.18	.35	.84	.19	.50	1.5	2.8	2.8	.57	.49	.20	.24
14	.20	.35	.72	.19	.66	1.1	2.7	51	.38	.41	.20	.22
15	.20	.35	.84	.20	2.4	1.2	1.9	12	.29	.38	.61	.24
16	.20	.32	.67	.21	31	1.6	2.0	5.7	.26	.38	.38	.24
17	3.4	2.7	.53	.22	12	1.2	4.8	4.0	.24	.49	.20	.29
18	.57	1.1	.53	.23	8.2	1.4	2.3	51	.24	.41	.18	.26
19	.16	.38	.41	.25	8.2	1.1	51	67	.67	1.4	.18	.20
20	.13	.29	.29	.27	7.5	.91	49	13	.53	32	.18	.20
21	.16	.29	.25	.30	3.7	.78	7.5	6.2	.29	4.5	.16	.24
22	.22	.24	.26	.36	4.1	.78	5.9	4.4	.24	.53	.18	.18
23	.26	.29	.29	.43	5.1	.61	6.1	3.1	.16	.41	.18	.18
24	1.6	.29	.32	.55	4.4	.57	3.9	50	.16	.41	.18	.24
25	1.2	.22	.35	.77	2.5	.53	3.1	76	.16	.38	.18	.24
26	.29	.24	.26	1.3	2.0	.57	2.7	146	.16	3.4	.22	.20
27	.35	22	.37	.84	1.7	.53	2.2	143	.16	.41	14	.38
28	.84	2.5	.38	.58	2.6	.41	1.9	14	.14	13	23	.16
29	.26	1.5	.41	.57	------	2.0	2.6	6.8	.14	1.8	10	.14
30	.20	.98	.46	.38	------	11	5.5	8.8	23	.53	.84	.18
31	.20	-----	.53	.38	------	3.9	-----	11	-----	.41	.38	-----
TOTAL	13.21	36.93	21.95	11.18	120.20	89.59	278.0	737.19	60.64	179.48	71.70	49.48
MEAN	.43	1.23	.71	.36	4.29	2.89	9.27	23.8	2.02	5.79	2.31	1.65
MAX	3.4	22	4.2	1.3	31	23	71	146	23	63	23	30
MIN	.10	.14	.25	.17	.37	.41	1.9	.57	.14	.38	.16	.14

WTR YR 1981 TOTAL 1669.55 MEAN 4.57 MAX 146 MIN .10

03376279 LITTLE FLAT CREEK NEAR OTWELL, IN--Continued
(Baseline water-quality station for the coal-mining region of Southwestern Indiana)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL ANALYSIS: October 1, 1980 to September 30, 1981.
SPECIFIC CONDUCTANCE: October 1, 1980 to September 30, 1981.
WATER TEMPERATURE: October 1, 1980 to September 30, 1981.
SEDIMENT DISCHARGE: October 1, 1980 to September 30, 1981.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 678 micromhos July 19, 1981; minimum, 282 micromhos Aug. 27, 1981.
WATER TEMPERATURE: Maximum 26.5°C July 14, 1981; minimum, freezing point on many days during 1980-81 winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	OXYGEN, DIS-SOLVED (MG/L)	TEMPER-ATURE (DEG C)	ALKA-LINITY LAB (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)	ACIDITY (MG/L AS H)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)
OCT 09...	1700	.17	600	7.6	5.6	20.8	230	----	--	10	880
NOV 05...	1700	.19	609	7.4	----	11.2	240	10	.2	40	760
DEC 11...	1000	1.3	620	7.3	10.0	4.4	180	----	--	30	660
JAN 20...	1700	----	622	8.0	----	.0	220	----	--	30	410
FEB 18...	1500	7.9	555	7.5	----	4.5	98	----	--	40	1600
MAR 18...	1630	1.4	685	8.3	----	10.4	190	----	--	30	330
MAY 07...	0930	.61	650	7.9	----	9.5	230	----	--	20	740
JUN 04...	0930	4.4	590	7.2	----	21.2	180	----	--	40	2400
JUL 09...	1500	1.1	535	7.7	----	30.7	240	----	--	<10	600
AUG 06...	0830	2.9	233	6.8	----	22.8	57	10	.2	30	7900

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)
OCT 09...	890	440	61	353	.16	.48	63	--	---	------	----
NOV 05...	800	320	51	367	.19	.50	16	--	---	------	----
DEC 11...	690	160	62	358	1.3	.49	124	93	---	------	----
JAN 20...	440	140	53	342	----	.47	---	--	---	------	----
FEB 18...	1600	170	65	292	6.2	.40	116	--	210	110	1100
MAR 18...	360	230	69	354	1.4	.48	63	91	---	------	----
MAY 07...	760	210	54	357	.59	.49	60	95	---	------	----
JUN 04...	2400	340	46	341	4.1	.46	197	96	---	------	----
JUL 09...	600	120	37	343	1.0	.47	77	97	210	.00	0
AUG 06...	7900	410	27	157	1.2	.21	---	--	---	------	----

03376279 LITTLE FLAT CREEK NEAR OTWELL, IN--Continued
(Baseline water-quality station for the coal-mining region of Southwestern Indiana)

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CALCIUM DIS-SOLVED (MG/L AS CA)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	POTAS-SIUM 40 DIS-SOLVED (PCI/L AS K40)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT 09...	--	--	--	--	--	--	--	---	--	--	--
NOV 05...	--	--	--	--	--	--	--	---	--	--	--
DEC 11...	--	--	--	--	--	--	--	---	--	--	--
JAN 20...	--	--	--	--	--	--	--	---	--	--	--
FEB 18...	0	0	56	14	5	.2	7.7	5.7	17	6	20
MAR 18...	--	--	--	--	--	--	--	---	--	--	--
MAY 07...	--	--	--	--	--	--	--	---	--	--	--
JUN 04...	--	--	--	--	--	--	--	---	--	--	--
JUL 09...	40	1	54	2	8	.3	4.6	3.4	18	2	30
AUG 06...	--	--	--	--	--	--	--	---	--	--	--

03376279 LITTLE FLAT CREEK NEAR OTWELL, IN--Continued
(Baseline water-quality station for the coal-mining region of Southwestern Indiana)

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										---	461	345
2										---	469	358
3										---	474	392
4										---	482	410
5										---	493	432
6										---	391	440
7										---	393	421
8										---	489	402
9										542	514	399
10										541	400	405
11										540	333	404
12										541	400	407
13										540	444	403
14										549	462	395
15										562	489	409
16										565	519	409
17										593	470	418
18										661	462	422
19										678	464	433
20										646	465	440
21										486	465	440
22										534	456	449
23										557	445	460
24										545	430	448
25										536	419	459
26										644	410	480
27										661	283	453
28										527	306	419
29										431	307	391
30										430	350	470
31										450	381	---
MEAN										555	430	420
MAX										678	519	480
MIN										430	283	345

WTR YR 1981 MEAN 461 **MAX** 678 **MIN** 283

03376279 LITTLE FLAT CREEK NEAR OTWELL, IN--Continued
(Baseline water-quality station for the coal-mining region of Southwestern Indiana)

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										---	22.5	22.0
2										---	23.5	21.0
3										---	22.5	21.0
4										---	24.0	21.0
5										---	24.5	21.0
6										---	23.5	20.0
7										---	22.5	20.5
8										---	22.0	20.0
9										26.5	22.5	18.5
10										25.0	22.0	19.0
11										24.5	22.0	20.0
12										25.5	21.0	20.5
13										26.0	22.0	21.5
14										26.5	21.5	21.0
15										24.0	21.5	19.5
16										24.0	22.0	17.0
17										24.5	21.0	15.0
18										25.0	20.5	14.5
19										24.5	21.5	15.0
20										24.5	21.0	16.5
21										22.5	21.0	17.0
22										22.5	21.0	16.0
23										21.0	22.0	14.5
24										23.0	22.5	14.5
25										23.5	23.5	17.5
26										23.5	23.5	19.5
27										24.5	20.5	19.0
28										22.0	21.0	16.0
29										20.0	21.0	14.0
30										20.5	23.0	17.0
31										21.0	23.5	---
MEAN										23.5	22.0	18.5
MAX										26.5	24.5	22.0
MIN										20.0	20.5	14.0

WTR YR 1981 MEAN 21.0 MAX 26.5 MIN 14.0

03376350 SOUTH FORK PATOKA RIVER NEAR SPURGEON, IN

LOCATION.--Lat 38°17'50", long 87°15'39", in SE¼NE¼ sec.35, T.2 S., R.8 W., Pike County, Hydrologic Unit 05120209, on right bank at downstream side of bridge on State Highway 61, 0.5 mile (0.8 km) north of Enos Corner, 3.1 miles (5.0 km) north of Spurgeon, and at mile 8.0 (12.9 km).

DRAINAGE AREA.--42.8 mi² (110.9 km²).

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

REVISED RECORDS.--WSP 2109: Drainage area. WDR IN-75-1: 1965-74(P).

GAGE.--Water-stage recorder. Datum of gage is 420.88 ft (128.284 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods which are fair. Regulation by coal-washing operation and strip-mining above gage.

AVERAGE DISCHARGE.--17 years, 49.7 ft³/s (1.408 m³/s), 15.77 in/yr (401 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,900 ft³/s (167 m³/s) June 9, 1979, gage height, 15.07 ft (4.593 m) from rating curve extended above 3,300 ft³/s (93.5 m³/s) on basis of contracted-opening and flow over-the-road measurements at gage height of 15.07 ft (4.593 m); no flow Jan. 20-31, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1964 reached a stage of 13.09 ft (3.99 m), from floodmarks, discharge, 4,000 ft³/s (113 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,000 ft³/s (28.32 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 26	2000	*1430	40.5	*10.17	3.100

Minimum daily discharge, 4.2 ft³/s (0.119 m³/s) Jan. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	6.8	10	6.4	35	31	15	16	72	10	6.4	26
2	6.4	7.6	8.5	6.0	27	21	12	12	56	9.5	6.8	62
3	6.8	7.2	7.6	5.8	25	16	12	9.5	43	10	7.2	23
4	8.1	7.2	7.6	5.0	15	50	129	9.0	42	12	9.0	11
5	8.1	6.4	7.6	4.7	8.2	117	83	9.5	35	19	11	8.5
6	7.6	5.6	6.4	4.6	7.6	47	37	10	53	12	111	7.6
7	7.2	6.0	6.4	4.6	7.0	28	26	11	42	12	146	6.4
8	7.6	8.5	10	4.5	6.6	21	28	12	29	10	37	6.0
9	7.2	9.0	30	4.4	6.4	18	27	12	23	9.5	16	5.3
10	7.6	7.6	14	4.2	101	18	22	120	26	9.5	13	4.6
11	7.6	5.6	11	4.3	83	16	17	94	26	9.0	10	4.6
12	8.5	6.0	9.0	4.4	109	14	15	39	23	7.6	8.1	4.6
13	9.5	6.0	7.6	5.2	27	12	13	28	19	7.2	7.6	4.3
14	8.1	5.6	6.8	6.0	26	10	13	225	17	16	7.2	6.8
15	8.1	6.8	6.8	7.2	26	10	12	108	15	41	12	8.5
16	8.1	9.0	6.8	8.0	56	16	10	50	16	11	9.0	6.8
17	33	32	7.6	8.2	58	12	12	30	18	7.2	6.4	6.4
18	20	26	8.1	8.4	44	11	12	231	14	7.6	5.6	5.3
19	10	10	7.6	9.6	35	12	60	330	17	8.1	5.6	4.9
20	8.1	7.6	7.0	13	34	12	187	140	22	6.8	6.0	4.9
21	6.8	6.4	6.6	17	22	10	60	62	18	8.5	6.4	5.6
22	5.6	6.0	6.0	10	23	10	42	39	16	6.4	6.8	4.6
23	5.3	8.1	5.6	8.6	23	10	66	28	12	6.0	6.0	4.6
24	17	9.0	6.0	7.6	21	9.0	35	165	12	6.4	5.3	4.6
25	17	6.8	5.8	6.8	16	8.5	23	221	11	6.0	5.6	4.6
26	9.5	6.4	5.6	6.2	13	8.1	18	455	9.5	6.0	6.0	4.6
27	12	83	5.4	5.8	12	7.6	16	502	12	6.8	12	6.3
28	13	25	5.6	5.4	27	8.1	15	149	13	8.1	104	5.2
29	9.0	17	5.6	5.2	-----	12	17	90	10	8.1	117	4.7
30	6.4	13	5.8	7.6	-----	59	23	90	10	6.4	20	4.7
31	5.6	-----	6.0	10	-----	23	----	156	-----	7.2	10	-----
TOTAL	301.2	367.2	250.4	214.7	893.8	657.3	1057	3453.0	731.5	310.9	740.0	267.0
MEAN	9.72	12.2	8.08	6.93	31.9	21.2	35.2	111	24.4	10.0	23.9	8.90
MAX	33	83	30	17	109	117	187	502	72	41	146	62
MIN	5.3	5.6	5.4	4.2	6.4	7.6	10	9.0	9.5	6.0	5.3	4.3
CFSM	.23	.29	.19	.16	.75	.50	.82	2.59	.57	.23	.56	.21
IN.	.26	.32	.22	.19	.78	.57	.92	3.00	.64	.27	.64	.23

CAL YR 1980 TOTAL 13024.2 MEAN 35.6 MAX 421 MIN 5.3 CFSM .83 IN 11.32
WTR YR 1981 TOTAL 9244.0 MEAN 25.3 MAX 502 MIN 4.2 CFSM .59 IN 8.03

03376500 PATOKA RIVER NEAR PRINCETON, IN

LOCATION.--Lat 38°23'30", long 87°32'55", in Location 107, T.1 S., R.10 W., Gibson County, Hydrologic Unit 05120209, on left bank 75 ft (23 m) upstream from dam of Princeton Water and Lighting Co., 0.1 mile (0.2 km) downstream from bridge on State Highway 65, 0.6 mile (1.0 km) downstream from Indian Creek, 2 miles (3 km) northeast of Princeton, and at mile 21.5 (34.6 km).

DRAINAGE AREA.--822 mi^2 (2,129 km^2).

WATER-DISCHARGE RECORDS

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 concrete control. Datum of gage is 394.14 ft (120.134 m) National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). See WSP 1725 for history of changes prior to Jan. 21, 1941.

REMARKS.--Records good. Flow regulated by Patoka Lake (See sta 03374498).

AVERAGE DISCHARGE.--47 years, 1,009 ft^3/s (28.57 m^3/s), 16.67 in/yr (423 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,700 ft^3/s (530 m^3/s) Jan. 26, 1937, gage height, 26.80 ft (8.169 m), site and datum then in use; no flow Aug. 29 to Sept. 12, 1936.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,330 ft^3/s (123 m^3/s) May 29, gage height, 15.31 ft (4.666 m); minimum daily, 57 ft^3/s (1.61 m^3/s) Aug. 22.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DISCHARGE: November 1963 to April 1975, October 1977 to Septmeber 1978 (partial-record station).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	134	338	408	115	127	455	458	367	4120	118	201	1090
2	118	324	291	115	257	557	468	350	3910	346	137	1100
3	118	348	214	110	233	621	410	312	3660	440	96	1130
4	91	365	184	96	220	638	356	257	3410	463	76	1150
5	91	365	157	88	210	802	692	228	3120	717	76	1170
6	134	363	140	90	200	941	850	214	2830	800	717	1160
7	150	362	130	84	190	995	895	205	2510	844	594	1040
8	150	360	130	80	185	1020	905	201	2150	856	627	694
9	188	363	188	76	180	1010	829	214	1720	772	565	362
10	210	363	265	78	375	943	639	650	1220	499	551	228
11	273	362	282	74	903	793	497	1140	784	286	380	188
12	273	365	291	70	1030	635	417	1110	598	201	201	150
13	295	367	253	78	1110	569	377	1100	588	154	137	127
14	316	367	219	86	985	562	350	1530	562	130	104	121
15	316	368	192	84	708	560	329	1490	423	574	96	147
16	316	346	176	78	624	557	291	1460	291	400	110	165
17	385	307	165	77	755	557	261	1450	219	197	89	161
18	615	399	143	77	858	556	261	1840	184	157	86	154
19	481	485	137	79	941	553	331	2150	172	165	84	137
20	377	485	121	81	1000	539	1000	2210	205	261	73	130
21	329	465	107	91	1010	511	1070	2190	192	446	61	134
22	273	423	91	112	1000	431	1100	2210	188	205	57	134
23	273	405	104	121	939	329	1130	2210	176	184	61	130
24	360	400	104	127	835	233	1140	2400	157	134	78	134
25	410	397	89	137	669	188	1130	2850	147	96	84	130
26	425	389	100	143	547	168	1020	2820	137	89	89	130
27	432	548	105	147	458	161	791	4020	115	115	154	130
28	454	662	102	147	413	154	548	4280	110	205	307	130
29	447	621	107	143	-----	150	400	4320	107	168	808	130
30	419	534	110	137	-----	205	370	4280	104	172	844	134
31	382	-----	112	112	-----	363	-----	4230	-----	228	939	-----
TOTAL	9235	12246	5217	3133	16962	16756	19315	54288	34109	10422	8482	11920
MEAN	298	408	168	101	606	541	644	1751	1137	336	274	397
MAX	615	662	408	147	1110	1020	1140	4320	4120	856	939	1170
MIN	91	307	89	70	127	150	261	201	104	89	57	121
CFSM	.34	.46	.19	.12	.69	.61	.73	1.99	1.29	.38	.31	.45
IN.	.39	.52	.22	.13	.72	.71	.81	2.29	1.44	.44	.36	.50

CAL YR 1980 TOTAL 364044 MEAN 995 MAX 3200 MIN 85 CFSM 1.13 IN 15.35
WTR YR 1981 TOTAL 202085 MEAN 554 MAX 4320 MIN 57 CFSM .63 IN 8.52

03377500 WABASH RIVER AT MOUNT CARMEL, IL

LOCATION.--Lat 38°24'07", long 87°45'10", in SE¼NW¼ sec.28, T.1 S., R.12 W., Wabash County, Illinois, Hydrologic Unit 05120113, on right bank on downstream side of Southern Railway bridge at Mount Carmel, 0.2 mile (0.3 km) downstream from Patoka River, and at mile 94.4 (151.9 km).

DRAINAGE AREA.--28,635 mi² (74,165 km²).

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 Corps of Engineers and since June 1884, are contained in reports of National Weather Service.

REVISED RECORDS.--WRD Ind. 1973: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 369.46 ft (112.611 m) National Geodetic Vertical Datum of 1929. Oct. 1, 1949, to Feb. 8, 1977, datum 2.00 ft (0.610 m) higher. See WSP 1725 for history of changes prior to Sept. 30, 1949.

REMARKS.--Records good. Flow partially regulated by upstream reservoirs.

AVERAGE DISCHARGE.--54 years, 27,150 ft³/s (768.9 m³/s), 12.87 in/yr (327 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 305,000 ft³/s (8,640 m³/s) May 25, 1943, maximum gage height, 30.62 ft (9.333 m) Feb. 5, 6, 1969, present datum; minimum daily discharge, 1,650 ft³/s (46.7 m³/s) Sept. 27, 28, 1941. 1874-78, 1884 to current year: Maximum discharge, 428,000 ft³/s (12,100 m³/s), from rating curve extended above 310,000 ft³/s (8,780 m³/s) Mar. 30, 1913, gage height, 33.0 ft (10.06 m), present site and datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 122,000 ft³/s (3,460 m³/s) May 29, gage height, 25.76 ft (7.852 m); minimum daily, 4,200 ft³/s (119 m³/s) Jan. 12-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7180	7510	7460	5650	5770	29300	8870	35900	104000	31100	34600	26200
2	6910	7190	7520	5850	6270	27700	9310	38900	97300	29200	31300	31400
3	6650	7060	7460	5880	6820	25700	9470	39500	91500	27900	27400	36300
4	6430	6940	7450	5600	7060	23900	9720	39000	86400	28500	23500	40100
5	6220	6820	7310	5550	6860	23300	9730	37500	81000	29300	20200	42800
6	6090	6740	7120	5340	6160	25200	10500	35000	75200	30300	20000	44000
7	6020	7010	6920	4890	5690	27500	11100	33400	67700	33100	23300	43600
8	6010	6680	6800	4650	5690	28400	12000	33000	58200	34200	30700	40300
9	5950	6300	6830	4460	6270	27300	12400	33100	50100	34400	32100	33600
10	5930	5980	6980	4340	7080	25600	12200	34200	44100	34600	30400	26000
11	5940	5830	7170	4300	10600	23100	12000	40500	49700	34000	28000	21300
12	5900	5990	7470	4200	12100	20500	12700	47800	56700	32000	26000	18200
13	5790	6730	8300	4200	12900	18300	16800	52500	58900	29200	25300	15900
14	5700	7010	9520	4200	13700	16900	21500	56400	57400	27000	22900	14300
15	5700	6770	9840	4200	12500	15700	24600	59400	52800	25800	19500	13300
16	5650	6190	9410	4200	12300	14600	27500	61300	47300	26500	17300	13400
17	5980	5900	8860	4200	16900	13800	30800	63700	44600	26200	18800	13800
18	6870	5930	8580	4300	24400	13000	34100	69200	43900	27600	20100	13200
19	6970	6490	8120	4340	32900	12500	36000	77800	43200	27200	19300	13200
20	6710	6770	7570	4360	38800	12000	41700	86000	42100	25400	17500	13200
21	6590	6710	7060	4440	40400	11400	44300	94500	41300	24500	15400	13500
22	6670	6230	6710	4560	41100	10900	43200	101000	40800	26800	13200	13100
23	6840	5930	6270	4590	40700	10400	41400	106000	39700	27800	11600	12200
24	7280	5760	5640	4620	39200	9970	41500	109000	38000	27000	10500	11600
25	7290	5950	5110	4730	37300	9560	45100	113000	36900	25400	10000	10800
26	7000	6150	5270	4850	34900	9230	46200	113000	36500	22800	9960	10100
27	6870	6630	5500	4890	32800	8720	44700	117000	35800	21200	9960	9230
28	6900	7370	5370	5030	30900	8510	41600	121000	34600	21700	11000	8610
29	7080	7420	5020	5150	------	8400	37900	122000	34200	28200	12900	8460
30	7490	7290	4990	5230	------	8450	35200	119000	32900	32800	20200	10200
31	7700	------	5310	5440	------	8550	------	113000	-------	35500	25000	------
TOTAL	202310	197280	218940	148240	548070	528390	784100	2202600	1622800	887200	637920	621900
MEAN	6526	6576	7063	4782	19570	17040	26140	71050	54090	28620	20580	20730
MAX	7700	7510	9840	5880	41100	29300	46200	122000	104000	35500	34600	44000
MIN	5650	5760	4990	4200	5690	8400	8870	33000	32900	21200	9960	8460
CFSM	.23	.23	.25	.17	.68	.60	.91	2.48	1.89	1.00	.72	.72
IN.	.26	.26	.28	.19	.71	.69	1.02	2.86	2.11	1.15	.83	.81

CAL YR 1980	TOTAL	9465060	MEAN	25860	MAX	87400	MIN	4990	CFSM .90	IN 12.30
WTR YR 1981	TOTAL	8599750	MEAN	23560	MAX	122000	MIN	4200	CFSM .82	IN 11.17

03378000 BONPAS CREEK AT BROWNS, IL

LOCATION.--Lat 38°23'11", long 87°58'32", in NW¼SE¼ sec.33, T.1 S., R.14 W., Wabash County, Illinois, Hydrologic Unit 05120113, near center of span on downstream side of bridge on State Highway 15, 0.5 mi (0.8 km) north of Browns, and 0.7 mi (1.1 km) upstream from Southern Railway bridge, and at mile 14.6 (23.5 km).

DRAINAGE AREA.--228 mi^2 (591 km^2).

PERIOD OF RECORD.--October 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 372.92 ft (113.666 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 11, 1968, water-stage recorder and concrete dam at site 0.4 mi (0.6 km) downstream at datum 2.0 ft (0.61 m) higher. Dec. 11, 1968, to Aug. 13, 1969, nonrecording gage at site 0.5 mi (0.8 km) downstream at datum 1.0 ft (0.30 m) lower. Auxiliary nonrecording gage near mouth on Wabash River at Grayville read twice daily.

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--41 years, 219 ft^3/s (6.202 m^3/s), 13.04 in/yr (331 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,500 ft^3/s (212 m^3/s) May 9, 1961, gage height, 24.04 ft (7.327 m), site and datum then in use; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,640 ft^3/s (74.8 m^3/s) May 27, gage height, 17.57 ft (5.355 m); no flow Oct. 13-16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.62	1.3	21	.74	1.8	15	15	50	832	3.0	3.0	295
2	.73	.91	12	.73	5.5	14	9.8	24	298	3.0	2.2	316
3	.58	.59	5.6	.67	10	12	7.3	13	153	10	1.8	77
4	.36	.51	3.4	.52	7.0	13	6.6	8.2	202	35	1.6	22
5	.20	.47	3.3	.38	5.0	353	6.7	7.5	118	162	212	7.7
6	.16	.49	2.4	.32	3.5	484	6.4	12	557	159	1380	3.5
7	.13	.39	1.9	.26	2.5	164	6.3	18	876	40	1240	1.3
8	.11	.33	1.9	.21	2.0	52	5.8	21	934	9.0	601	.76
9	.10	.26	4.8	.18	5.0	32	4.7	18	567	6.0	288	.44
10	.10	.21	14	.16	150	25	4.6	537	118	4.0	16	.34
11	.06	.14	17	.14	500	21	4.8	1060	60	3.0	29	.26
12	.03	.10	12	.13	400	17	4.4	964	40	2.7	14	.21
13	.00	.08	7.4	.12	300	15	4.0	730	30	2.5	5.2	.16
14	.00	.06	5.2	.12	200	13	4.4	822	22	2.3	3.1	.21
15	.00	.07	3.5	.12	130	12	5.5	996	18	251	3.7	.18
16	.00	.08	2.7	.08	100	12	5.2	924	15	532	44	.16
17	31	1.1	4.0	.11	350	13	5.0	665	13	131	20	.13
18	128	.76	4.3	.11	316	13	4.4	1130	11	63	5.8	.13
19	65	1.2	3.2	.10	174	11	40	1860	15	34	3.0	.13
20	20	2.3	1.8	.19	115	10	477	1740	20	312	1.9	.11
21	6.7	1.6	1.1	.38	72	9.3	152	1560	15	300	1.4	.08
22	3.1	1.1	.76	.66	44	8.4	52	1260	10	96	1.0	.07
23	1.8	1.1	.61	1.2	48	7.7	302	639	8.0	10	.76	.06
24	1.7	1.0	.56	1.3	65	7.0	236	486	6.0	4.0	.53	.06
25	1.6	1.2	.51	1.2	52	6.4	80	1590	5.0	3.0	.40	.06
26	1.3	1.4	.47	1.3	32	5.9	40	1540	4.5	2.5	.37	.06
27	1.4	14	.38	1.6	22	5.7	26	2440	4.0	4.0	238	.07
28	2.0	48	.37	1.8	17	5.3	18	2100	3.5	172	291	.06
29	6.8	48	.52	1.5	------	5.8	15	1870	3.2	60	98	.06
30	2.9	34	.63	1.1	------	16	21	1600	3.0	15	15	.06
31	1.7	------	.72	.79	------	22	------	1280	------	4.0	430	------
TOTAL	278.18	162.75	138.03	18.22	3129.3	1400.5	1569.9	27964.7	4961.2	2435.0	4951.76	726.36
MEAN	8.97	5.43	4.45	.59	112	45.2	52.3	902	165	78.5	160	24.2
MAX	128	48	21	1.8	500	484	477	2440	934	532	1380	316
MIN	.00	.06	.37	.08	1.8	5.3	4.0	7.5	3.0	2.3	.37	.06

CAL YR 1980 TOTAL 54754.90 MEAN 150 MAX 1620 MIN .00
WTR YR 1981 TOTAL 47735.90 MEAN 131 MAX 2440 MIN .00

03378500 WABASH RIVER AT NEW HARMONY, IN
(National stream-quality accounting network station)

LOCATION.--Lat 38°07'55", long 87°56'25", in SE¼SE¼ sec.35, T.4 S., R.14 W., Posey County, Hydrologic Unit 05120113, at bridge on U.S. Highway 460 at New Harmony, at Indiana-Illinois State Line, and at mile 51.5 (82.9 km).

DRAINAGE AREA.--29,234 mi² (75,716 km²). Flood of March 1913 reached a stage of 27.7 ft (8.44 m). Flood of Jan. 31, 1937, reached a stage of 24.4 ft (7.44 m).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL ANALYSES: October 1974 to current year.
WATER TEMPERATURE: October 1974 to September 1980.
SEDIMENT DISCHARGE: October 1974 to current year.
WATER DISCHARGE: October 1938 to September 1947.

REMARKS.--Water discharge obtained from station Wabash River at Mount Carmel, Ill. (See sta 03377500). Code 80010-U.S. Geological Survey; code 17002-Illinois Environmental Protection Agency.

EXTREMES FOR PERIOD OF RECORD.--
WATER DISCHARGE: Maximum, 339,000 ft³/s (9,600 m³/s) May 26, 1943, gage height, 23.84 ft (7.266 m); minimum daily discharge, 1,800 ft³/s (51.0 m³/s) Sept. 29, 30, 1941.
SPECIFIC CONDUCTANCE: Maximum conductance, 805 micromhos Feb. 15, 1977; minimum, 200 micromhos Mar. 3, 1979.
WATER TEMPERATURE: Maximum, 32.0°C June 28, 1978, July 14-18, 1980; minimum, freezing point on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 30...	1000	7460	625	7.4	11.5	.50	8.1	----	----	270	70	70
NOV 13...	1200	7290	620	7.8	12.0	23	8.7	----	----	260	59	64
DEC 16...	1230	9890	620	7.8	10.0	.40	6.6	K22	42	300	84	79
FEB 19...	1330	33600	450	7.6	4.5	10	11.4	----	----	180	50	44
MAR 17...	1300	13800	596	8.3	10.0	.80	12.6	243	K110	280	--	75
APR 15...	1100	24500	525	7.5	20.5	130	7.5	257	143	230	--	59
MAY 13...	1100	52400	480	7.4	17.5	100	6.6	458	K114	210	--	55
JUN 23...	1030	39900	420	7.4	24.3	120	5.8	----	360	200	--	55
JUL 16...	1300	26600	480	7.8	28.2	89	--	3000	5500	230	--	60
AUG 17...	1200	18900	455	7.6	24.8	33	7.0	4800	K127	240	--	62
SEP 15...	1330	13200	576	8.0	23.2	35	7.8	K220	K47	300	--	77

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT 30...	23	22	15	.6	3.3	---	73	36	.3	1.2	374	355
NOV 13...	24	29	19	.8	3.3	200	73	36	.3	.1	490	354
DEC 16...	26	32	18	.8	3.3	220	89	39	.3	2.5	424	411
FEB 19...	17	23	21	.7	4.7	130	69	33	.2	5.4	---	274
MAR 17...	23	17	11	.4	2.6	190	67	32	.2	6.5	365	353
APR 15...	20	20	16	.6	3.2	150	79	28	.3	1.9	333	308
MAY 13...	18	14	12	.4	3.5	140	64	23	.2	7.1	303	277
JUN 23...	15	7.8	8	.2	3.5	140	38	17	.2	7.5	273	239
JUL 16...	20	14	11	.4	3.6	150	50	22	.2	6.2	313	282
AUG 17...	21	20	15	.6	3.3	170	44	26	.2	3.9	345	291
SEP 15...	25	15	10	.4	2.6	210	59	26	.2	6.6	389	352

03378500 WABASH RIVER AT NEW HARMONY, IN--Continued
(National stream-quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (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, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT												
30...	.51	7530	1.5	1.3	1.3	.080	.080	.10	.10	.88	.11	.96
NOV												
13...	.67	9650	1.5	.99	.99	.030	.020	.04	.03	.93	.44	.96
DEC												
16...	.58	11300	2.1	1.7	1.7	.030	.030	.04	.04	.73	.38	.76
FEB												
19...	.37	24900	3.4	1.2	1.4	.360	.390	---	.50	2.1	1.6	2.50
MAR												
17...	.50	13600	4.0	3.6	3.6	.100	.030	---	.04	.42	.39	.52
APR												
15...	.45	22000	2.2	1.4	1.4	.110	.130	---	.17	1.1	.68	1.20
MAY												
13...	.41	42900	2.7	4.6	1.7	.100	.080	---	.10	1.7	.87	1.80
JUN												
23...	.37	29400	3.2	2.3	2.4	.020	.020	---	.03	.71	.78	.73
JUL												
16...	.43	22500	4.1	3.4	3.5	.040	.030	---	.04	.84	.60	.88
AUG												
17...	.47	17600	2.2	1.9	1.9	.010	<.010	---	.01	.87	----	.88
SEP												
15...	.53	13900	3.7	3.1	3.2	.020	.010	---	.01	.55	.45	.57

DATE	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)
OCT											
30...	.77	.19	2.3	10	.160	.49	.050	1	0	1	100
NOV											
13...	.50	.46	2.0	8.6	.170	.52	.070	-	-	-	---
DEC											
16...	.35	.41	2.5	11	.220	.67	.100	-	-	-	---
FEB											
19...	1.7	.78	3.7	16	.620	1.9	.110	-	-	-	---
MAR											
17...	.10	.42	4.1	18	.180	.55	.060	-	-	-	---
APR											
15...	.39	.81	2.6	12	.390	1.2	.060	1	0	1	200
MAY											
13...	.85	.95	6.4	28	.420	1.3	.060	-	-	-	---
JUN											
23...	.00	.80	3.0	13	.540	1.7	.110	-	-	-	---
JUL											
16...	.25	.63	4.3	19	.230	.71	.110	3	1	2	100
AUG											
17...	.59	.29	2.8	12	.210	.64	.080	-	-	-	---
SEP											
15...	.11	.46	3.7	16	.190	.58	.110	-	-	-	---

03378500 WABASH RIVER AT NEW HARMONY, IN--Continued
(National stream-quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	NICKEL, DIS-SOLVED (UG/L AS NI)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)
OCT 30...	40	60	0	0	0	20	10	10	0	0	0
NOV 13...	---	--	-	-	-	--	--	--	-	-	-
DEC 16...	---	--	-	-	-	--	--	--	-	-	-
FEB 19...	---	--	-	-	-	--	--	--	-	-	-
MAR 17...	---	--	-	-	-	--	--	--	-	-	-
APR 15...	100	60	1	0	2	30	20	10	4	4	0
MAY 13...	---	--	-	-	-	--	--	--	-	-	-
JUN 23...	---	--	-	-	-	--	--	--	-	-	-
JUL 16...	50	50	1	-	8	10	0	10	2	0	2
AUG 17...	---	--	-	-	-	--	--	--	-	-	-
SEP 15...	---	--	-	-	-	--	--	--	-	-	-

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)
OCT 30...	25	13	12	1000	980	20	6	6	0	160	160
NOV 13...	--	--	--	----	----	---	--	--	-	---	---
DEC 16...	--	--	--	----	----	---	--	--	-	---	---
FEB 19...	--	--	--	----	----	---	--	--	-	---	---
MAR 17...	--	--	--	----	----	---	--	--	-	---	---
APR 15...	14	10	4	6100	6100	10	13	13	0	420	420
MAY 13...	--	--	--	----	----	---	--	--	-	---	---
JUN 23...	--	--	--	----	----	---	--	--	-	---	---
JUL 16...	17	11	6	3100	----	<10	28	25	3	340	---
AUG 17...	--	--	--	----	----	---	--	--	-	---	---
SEP 15...	--	--	--	----	----	---	--	--	-	---	---

03378500 WABASH RIVER AT NEW HARMONY, IN--Continued
(National stream-quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)
OCT 30...	5	.2	.1	.1	6	6	0	0	0	0	0
NOV 13...	--	---	---	--	--	--	-	-	-	-	-
DEC 16...	--	---	---	--	--	--	-	-	-	-	-
FEB 19...	--	---	---	--	--	--	-	-	-	-	-
MAR 17...	--	---	---	--	--	--	-	-	-	-	-
APR 15...	1	1.5	1.0	.5	12	10	0	0	0	0	0
MAY 13...	--	---	---	--	--	--	-	-	-	-	-
JUN 23...	--	---	---	--	--	--	-	-	-	-	-
JUL 16...	<1	.4	.0	.4	16	8	0	0	0	0	0
AUG 17...	--	---	---	--	--	--	-	-	-	-	-
SEP 15...	--	---	---	--	--	--	-	-	-	-	-

DATE	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	PHYTOPLANKTON, TOTAL (CELLS PER ML)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 30...	0	20	20	0	----	4.7	2.2	-----	61	1230	--
NOV 13...	-	--	--	-	7.0	---	----	59000	44	866	--
DEC 16...	-	--	--	-	9.6	---	----	-----	---	-----	--
FEB 19...	-	--	--	-	----	---	----	-----	601	54500	81
MAR 17...	-	--	--	-	5.5	---	----	44000	85	3170	97
APR 15...	0	40	40	4	----	5.3	>4.0	-----	428	28300	90
MAY 13...	-	--	--	-	28	---	----	6900	455	64400	92
JUN 23...	-	--	--	-	10	---	----	5400	321	34600	94
JUL 16...	0	40	40	5	----	3.6	----	22000	317	22800	96
AUG 17...	-	--	--	-	3.8	---	----	10000	216	11000	99
SEP 15...	-	--	--	-	4.0	---	----	13000	101	3600	98

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 mile (1.0 km) northwest of Blairsville, and 1.6 miles (2.6 km) southeast of Wadesville.

DRAINAGE AREA.--104 mi² (269 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 370.00 ft (112.776 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--16 years, 111 ft³/s (3.143 m³/s), 14.49 in/yr (368 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,610 ft³/s (216 m³/s) Apr. 24, 1975, gage height, 19.72 ft (6.011 m); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,400 ft³/s (68.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 27	1300	*4470	126	*18.88	5.755

Minimum daily discharge, 0.21 ft³/s (0.006 m³/s) Jan. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.60	1.1	2.1	1.7	12	32	5.0	2.1	118	8.2	3.0	75
2	.50	.94	1.7	1.7	30	17	3.3	1.7	86	4.4	2.6	110
3	.41	.82	1.1	1.5	11	10	2.9	1.5	59	563	2.3	31
4	.45	.70	.89	.70	2.5	24	20	1.2	47	201	2.3	12
5	.50	.65	.82	.31	.45	95	39	1.2	38	219	27	6.2
6	.45	.60	.76	.37	.44	51	9.5	1.5	68	57	1310	3.9
7	.37	.55	.76	.39	.40	29	4.7	1.7	102	29	531	2.8
8	.32	.55	.89	.37	.38	19	3.6	1.5	40	22	311	2.4
9	.32	.65	10	.34	.36	15	3.2	1.5	31	13	36	1.8
10	.32	.55	11	.30	216	13	10	112	25	9.9	16	1.5
11	.32	.50	3.6	.25	242	10	14	147	19	7.7	15	1.2
12	.32	.45	2.2	.21	45	8.4	4.5	42	17	6.6	5.4	1.0
13	.27	.41	1.7	.26	15	7.7	4.1	27	15	5.7	3.6	.82
14	.23	.41	1.2	.29	11	6.1	3.1	692	13	5.0	2.7	.89
15	.23	.45	1.1	.29	16	5.7	2.1	214	11	33	5.6	.94
16	.23	.50	1.1	.26	61	9.5	1.5	75	9.8	1250	9.5	.89
17	140	3.5	1.1	.24	81	8.4	1.7	47	8.9	50	3.0	.94
18	131	19	1.0	.24	34	6.4	1.8	1090	7.9	17	1.8	1.2
19	11	7.3	1.3	.45	32	4.8	1.5	1340	7.8	95	1.4	.89
20	3.4	2.5	.89	.76	27	4.0	32	363	10	71	1.2	.65
21	1.8	1.5	.72	2.2	18	3.7	9.3	114	9.8	173	.94	.55
22	1.2	1.1	.70	2.8	15	3.9	4.5	68	9.2	20	.82	.45
23	1.0	1.3	.72	2.9	15	3.6	43	49	6.7	9.5	.76	.41
24	4.0	1.7	.76	2.4	12	3.2	17	308	5.5	7.2	.70	.37
25	12	1.4	.74	1.9	8.2	2.9	5.9	1100	5.2	5.3	.65	.32
26	5.1	1.4	.72	2.4	6.8	2.8	4.0	1710	4.8	4.3	.60	.32
27	2.5	96	.74	2.4	5.6	2.8	3.2	4120	4.4	26	54	.45
28	7.5	39	.84	1.9	10	2.5	2.7	2780	4.2	46	195	.32
29	5.0	7.0	1.3	1.5	------	3.1	2.5	997	4.1	11	558	.23
30	2.1	3.5	1.5	1.2	------	28	2.3	203	6.3	5.1	28	.23
31	1.4	------	1.6	1.0	------	12	-----	456	-----	3.6	7.0	------
TOTAL	334.84	196.03	55.55	33.53	928.13	444.5	261.9	16067.9	793.6	2978.5	3136.87	259.67
MEAN	10.8	6.53	1.79	1.08	33.1	14.3	8.73	518	26.5	96.1	101	8.66
MAX	140	96	11	2.9	242	95	43	4120	118	1250	1310	110
MIN	.23	.41	.70	.21	.36	2.5	1.5	1.2	4.1	3.6	.60	.23
CFSM	.10	.06	.02	.01	.32	.14	.08	4.98	.26	.92	.97	.08
IN.	.12	.07	.02	.01	.33	.16	.09	5.75	.28	1.07	1.12	.09

CAL YR 1980 TOTAL 25119.08 MEAN 68.6 MAX 2940 MIN .12 CFSM .66 IN 8.98
WTR YR 1981 TOTAL 25491.02 MEAN 69.8 MAX 4120 MIN .21 CFSM .67 IN 9.12

04093000 DEEP RIVER AT LAKE GEORGE OUTLET AT HOBART , IN

LOCATION.--Lat 41°32'10", long 87°15'25", in NW¼NW¼ sec.32, T.36 N., R.7 W., Lake County, Hydrologic Unit 04040001, on left bank at upstream side of bridge on Center Street in Hobart, 300 ft (91 m) upstream from Duck Creek, and 400 ft (122 m) downstream from Lake George Dam.

DRAINAGE AREA.--124 mi² (321 km²).

PERIOD OF RECORD.--April 1947 to current year.

REVISED RECORDS.--WSP 1337: 1953. WSP 1507: 1956. WRD Ind. 1972: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 588.17 ft (179.274 m) 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 (122 m) upstream at datum 11.80 ft (3.597 m) higher.

REMARKS.--Records fair. Flow occasionally regulated by Lake George Dam.

AVERAGE DISCHARGE.--34 years, 105 ft³/s (2.974 m³/s), 11.50 in/yr (292 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,000 ft³/s (113 m³/s) June 14, 1981, maximum gage height, 19.48 ft (5.938 m), 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 discharge above base of 700 ft³/s (19.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 14	1700	1410	39.9	11.37	3.466	June 14	0730	*4000	113	*16.70[a]	5.090
May 11	2200	737	20.9	8.72	2.658	July 27	0500	1170	33.1	10.50	3.200
May 15	2400	737	20.9	8.72	2.658	Sep. 18	1900	1280	36.2	10.90	3.322

Minimum daily discharge 12.0 ft³/s (0.34 m³/s) Sep. 15 (regulated).

[a]Bridge construction.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	22	45	43	51	187	40	345	241	71	282	128
2	28	20	64	41	42	171	34	248	163	67	211	107
3	27	26	75	37	37	158	35	196	136	61	178	78
4	26	22	60	34	33	142	45	158	115	60	152	62
5	25	18	46	31	30	144	34	132	104	62	125	68
6	23	24	42	29	29	137	34	116	101	57	63	62
7	20	18	48	27	29	122	33	105	96	52	62	59
8	20	22	228	25	32	110	32	96	75	48	62	58
9	19	25	510	26	29	99	82	89	231	43	58	57
10	20	16	495	27	27	87	169	148	345	41	55	50
11	18	18	352	25	27	79	402	587	230	39	54	33
12	15	18	258	23	26	76	583	674	120	54	48	16
13	16	18	205	23	26	71	725	491	1250	67	43	23
14	20	20	174	25	26	70	1220	410	3370	52	42	33
15	24	23	149	26	30	62	1240	666	2130	45	46	12
16	28	22	131	26	139	56	860	689	1340	46	46	21
17	43	19	118	24	390	51	601	509	962	44	40	213
18	45	18	102	23	437	50	442	368	752	39	36	1140
19	39	18	86	24	360	50	342	284	595	39	33	1150
20	29	18	64	27	274	47	278	233	483	47	31	814
21	25	15	59	30	214	47	227	180	390	52	29	521
22	22	15	55	32	191	47	198	154	326	48	29	355
23	19	16	49	34	278	45	266	141	260	41	24	268
24	23	18	46	40	326	42	347	80	215	38	20	205
25	22	20	43	55	279	41	300	91	207	38	27	161
26	18	17	42	110	216	40	223	100	148	489	85	147
27	18	20	41	80	180	36	177	99	113	1100	246	290
28	25	25	40	63	182	39	178	97	102	938	299	330
29	28	29	44	53	----	37	472	97	89	834	242	275
30	35	30	45	48	----	41	513	230	77	591	187	312
31	28	----	44	44	----	42	-----	322	-----	397	149	----
TOTAL	778	610	3760	1155	3940	2426	10132	8135	14766	5600	3004	7048
MEAN	25.1	20.3	121	37.3	141	78.3	338	262	492	181	96.9	235
MAX	45	30	510	110	437	187	1240	689	3370	1100	299	1150
MIN	15	15	40	23	26	36	32	80	75	38	20	12
CFSM	.20	.16	.98	.30	1.14	.63	2.73	2.11	3.97	1.46	.78	1.90
IN.	.23	.18	1.13	.35	1.18	.73	3.04	2.44	4.43	1.68	.90	2.11

CAL YR 1980 TOTAL 38850.9 MEAN 106 MAX 1010 MIN 6.0 CFSM .86 IN 11.66
WTR YR 1981 TOTAL 61354.0 MEAN 168 MAX 3370 MIN 12 CFSM 1.36 IN 18.41

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 mile (0.6 km) east of Gary, and 0.4 mile (0.6 km) downstream from confluence of Deep River and Little Calumet River.

DRAINAGE AREA.--160 mi^2 (414 km^2). 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 (October 1950 to September 1955, October 1973 to September 1976, and October 1978 to September 1981, high-water records only).

REVISED RECORDS.--WSP 1034: 1944. WSP 1337: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 577.04 ft (175.882 m) National Geodetic Vertical Datum of 1929. Prior to July 28, 1955, nonrecording gage at same site and datum.

REMARKS.--Records fair above 100 ft^3/s (2.83 m^3/s) and poor below. 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.--27 years (1943-50, 1955-73, 1977, 1978), 137 ft^3/s (3.880 m^3/s), 11.63 in/yr (295 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,430 ft^3/s (97.1 m^3/s) Oct. 11, 1954; maximum gage height, 16.44 ft (5.011 m) Mar. 16, 1944, from graph based on gage readings; minimum daily discharge, 2.6 ft^3/s (0.074 m^3/s) Oct. 14, 1946.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,260 ft^3/s (92.3 m^3/s) June 15, gage height, 16.18 ft (4.932 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			60	50	62	223	60	517	302	112	497	180
2			96	48	56	208	54	355	227	100	350	150
3			115	45	50	174	52	271	179	94	250	120
4			85	42	46	157	61	217	140	93	200	90
5			79	39	42	174	60	185	113	100	170	94
6			73	38	40	160	53	160	105	88	118	87
7			73	38	39	137	50	137	96	73	82	80
8			244	38	38	115	53	115	100	59	87	75
9			480	39	38	102	123	112	225	63	78	67
10			535	39	37	97	189	299	381	59	73	53
11			418	37	36	92	432	655	314	56	67	41
12			291	35	36	89	617	852	221	83	55	31
13			225	35	35	85	808	724	955	100	52	35
14			172	38	38	83	1340	613	2650	82	51	44
15			141	41	42	81	1700	766	3200	70	65	30
16			130	40	124	79	1530	890	1800	65	65	90
17			100	39	425	75	1150	785	1300	58	56	408
18			85	35	556	71	847	599	980	60	49	1240
19			73	35	456	68	647	454	780	60	46	1580
20			64	37	357	67	532	338	610	73	43	1390
21			57	40	275	65	408	258	480	80	40	953
22			53	41	241	67	337	210	395	76	38	609
23			50	43	306	63	388	183	325	65	35	440
24			48	46	374	61	479	142	290	62	38	325
25			47	53	348	58	439	85	270	58	45	252
26			47	78	275	59	337	106	230	348	94	252
27			46	122	231	57	269	115	205	1170	329	484
28			46	90	224	56	271	105	174	1330	408	511
29			50	76	----	55	484	102	143	1230	365	451
30			52	65	----	60	633	241	122	988	290	479
31			51	63	----	61	-----	358	-----	698	225	-----
TOTAL			4086	1505	4827	2999	14403	10949	17312	7653	4361	10641
MEAN			132	48.5	172	96.7	480	353	577	247	141	355
MAX			535	122	556	223	1700	890	3200	1330	497	1580
MIN			46	35	35	55	50	85	96	56	35	30
CFSM			.83	.30	1.08	.60	3.00	2.21	3.61	1.54	.88	2.22
IN.			.95	.35	1.12	.70	3.35	2.55	4.03	1.78	1.01	2.47

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 (61 m) upstream from bridge on U.S. Highway 20, 0.8 mile (1.3 km) northwest of Porter, and 4.5 miles (7.2 km) upstream from Salt Creek.

DRAINAGE AREA.--66.2 mi² (171.5 km²).

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

REVISED RECORDS.--WSP 1084: 1945. WSP 1337: 1946-47. WRD Ind. 1972: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 603.48 ft (183.941 m) National Geodetic Vertical Datum of 1929. Prior to June 26, 1952, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--36 years, 72.8 ft³/s (2.062 m³/s), 14.93 in/yr (379 mm/yr).

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,110 ft³/s (88.1 m³/s) Oct. 10, 1954, gage height, 11.66 ft (3.554 m); minimum daily, 17 ft³/s (0.48 m³/s) Aug. 24, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 700 ft³/s (19.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 14	unknown	1300	37	unknown		July 20	1900	1320	37.4	8.63	2.630
June 14	0800	*2410	68.3	*10.09	3.075	July 26	2300	1200	34.0	8.45	2.576

Minimum daily discharge, 30 ft³/s (0.85 m³/s) Oct. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	42	64	44	54	82	54	100	79	47	95	54
2	45	41	87	42	50	72	49	80	64	46	73	49
3	43	41	86	41	62	64	47	70	57	44	67	48
4	41	42	65	40	58	63	50	63	51	74	63	56
5	38	41	60	39	47	69	45	58	49	126	56	48
6	37	41	60	40	47	64	43	56	63	74	54	45
7	36	41	62	42	46	61	46	52	48	52	52	44
8	34	41	172	44	44	58	44	50	45	49	50	52
9	33	40	314	43	41	56	86	48	85	45	51	45
10	32	39	213	41	42	54	125	118	90	42	48	41
11	31	37	124	40	41	53	350	496	67	40	46	39
12	30	38	88	39	40	52	450	432	55	42	43	38
13	31	38	79	41	40	53	700	219	412	44	42	38
14	34	41	68	41	40	53	1000	172	2010	41	42	38
15	34	43	60	41	43	52	320	318	784	40	48	37
16	38	41	56	40	95	52	130	231	382	42	45	39
17	50	39	52	40	260	51	150	131	255	39	42	114
18	54	39	50	41	408	51	240	99	162	37	39	274
19	45	38	46	41	441	54	115	82	117	62	38	241
20	44	38	43	41	302	53	90	71	97	813	37	113
21	37	38	40	40	196	50	77	64	114	751	37	71
22	35	38	39	40	147	50	90	59	99	320	36	57
23	35	39	38	40	167	49	300	56	82	148	36	48
24	35	45	39	41	182	48	170	54	73	93	36	44
25	41	46	40	43	152	48	100	89	72	71	40	43
26	40	43	40	59	104	48	80	77	62	552	41	52
27	39	43	41	83	87	48	70	63	55	751	54	242
28	45	51	42	71	90	47	88	56	51	450	121	299
29	46	56	45	61	----	46	180	54	49	549	129	154
30	43	55	44	54	----	53	125	146	47	257	70	306
31	43	----	44	49	----	51	----	132	----	138	58	----
TOTAL	1207	1255	2301	1402	3326	1705	5414	3796	5676	5879	1689	2769
MEAN	38.9	41.8	74.2	45.2	119	55.0	180	122	189	190	54.5	92.3
MAX	54	56	314	83	441	82	1000	496	2010	813	129	306
MIN	30	37	38	39	40	46	43	48	45	37	36	37
CFSM	.59	.63	1.12	.68	1.80	.83	2.72	1.84	2.86	2.87	.82	1.39
IN.	.68	.71	1.29	.79	1.87	.96	3.04	2.13	3.19	3.30	.95	1.56

CAL YR 1980 TOTAL 24541 MEAN 67.1 MAX 528 MIN 25 CFSM 1.01 IN 13.79
WTR YR 1981 TOTAL 36419 MEAN 99.8 MAX 2010 MIN 30 CFSM 1.51 IN 20.46

04094500 SALT CREEK NEAR McCOOL, IN

LOCATION.--Lat 41°35'48", long 87°08'40", in SE¼SE¼ sec.6, T.36 N., R.6 W., Porter County, Hydrologic Unit 04040001, on left bank on downstream side of highway bridge, 50 ft (15 m) downstream from New York Central Railroad bridge, 1.2 miles (1.9 km) north of McCool, 1.5 miles (2.4 km) upstream from Little Calumet River, and at mile 1.6 (2.6 km).

DRAINAGE AREA.--74.6 mi² (193.2 km²).

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

REVISED RECORDS.--WSP 1337: 1946-48(M), 1950(M). WSP 1911: 1958. WRD Ind. 1972: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 594.10 ft (181.082 m) 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. July 25, 1955, to Apr. 28, 1977, water-stage recorder at same site and datum. No gage Apr. 29, 1977, to July 28, 1977. Nonrecording gage at same site and datum July 29, 1977, to Oct. 10, 1978.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--36 years, 72.7 ft³/s (2.059 m³/s), 13.23 in/yr (336 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,180 ft³/s (90.1 m³/s) Oct. 11, 1954, gage height, 14.12 (4.304 m); minimum daily, 14 ft³/s (0.40 m³/s) Sept. 8, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 600 ft³/s (17.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 14	unknown	1700	48	unknown		July 27	0400	1120	31.7	8.25	2.515
June 14	unknown	*2950	83.5	*12.15	3.703						

Minimum daily discharge, 34 ft³/s (0.963 m³/s) Oct. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	42	63	41	45	112	58	105	72	52	81	60
2	44	41	112	40	44	88	56	85	63	51	73	56
3	41	41	93	38	41	74	56	74	61	50	72	54
4	42	41	61	37	38	73	60	64	58	59	70	63
5	38	41	58	36	36	82	60	62	58	65	67	57
6	35	41	65	37	37	70	58	59	66	53	65	52
7	34	41	67	39	37	66	56	55	56	50	59	50
8	35	41	368	38	37	65	56	53	54	48	56	58
9	35	41	504	38	36	63	142	53	115	47	58	52
10	36	41	322	38	36	63	194	187	92	46	55	48
11	37	40	175	37	35	63	493	504	76	45	53	45
12	37	40	90	36	35	63	660	490	66	46	50	44
13	38	40	70	38	35	63	850	219	600	49	47	43
14	41	42	57	38	36	62	1340	212	2250	46	56	43
15	41	44	51	38	38	61	560	443	986	45	62	42
16	42	42	48	37	100	60	140	377	587	47	56	45
17	46	42	46	37	300	60	160	182	389	45	46	156
18	55	42	45	37	511	60	250	122	109	43	43	201
19	43	42	42	38	469	60	120	96	88	41	40	206
20	41	41	37	38	312	61	94	82	75	56	40	145
21	41	41	36	37	203	62	87	75	68	67	39	90
22	41	41	35	37	175	60	96	70	67	58	39	71
23	40	42	35	37	255	59	320	66	63	53	39	57
24	41	45	36	38	242	58	180	64	61	50	39	52
25	44	46	37	40	174	58	110	94	93	49	42	49
26	42	44	37	50	117	58	84	87	73	435	46	57
27	42	44	38	85	100	58	81	73	64	917	65	252
28	45	48	39	75	130	58	95	65	59	651	96	215
29	44	51	40	55	----	58	190	61	56	538	106	147
30	41	51	41	45	----	60	135	142	54	300	82	222
31	41	----	41	43	----	59	----	96	----	117	67	----
TOTAL	1263	1279	2789	1298	3654	2017	6841	4417	6579	4219	1809	2732
MEAN	40.7	42.6	90.0	41.9	131	65.1	228	142	219	136	58.4	91.1
MAX	55	51	504	85	511	112	1340	504	2250	917	106	252
MIN	34	40	35	36	35	58	56	53	54	41	39	42
CFSM	.55	.57	1.21	.56	1.76	.87	3.06	1.90	2.94	1.82	.78	1.22
IN.	.63	.64	1.39	.65	1.82	1.01	3.41	2.20	3.28	2.10	.90	1.36

CAL YR 1980 TOTAL 25550 MEAN 69.8 MAX 698 MIN 27 CFSM .94 IN 12.74
WTR YR 1981 TOTAL 38897 MEAN 107 MAX 2250 MIN 34 CFSM 1.43 IN 19.40

04095050 DUNES CREEK AT PORTER, IN

LOCATION.--Lat 41°39'12", long 87°03'46", in NE¼SW¼ sec.13, T.37 N., R.6 W., Porter County, Hydrologic Unit 04040001, on right bank 20 ft (6 m) upstream of culvert on State Highway 49, 200 ft (61 m) south of entrance to Indiana Dunes State Park, 800 ft (244 m) north of North Road, 0.7 mile (1.1 km) north of U.S. Highway 12, and 1.0 mile north (1.6 km) of Porter.

DRAINAGE AREA.--3.40 mi^2 (8.81 km^2).

PERIOD OF RECORD.--October 1978 to current year.

GAGE.--Water-stage recorder. Datum of gage is 585.00 ft (178.308 m) National Geodetic Vertical Datum of 1929.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 100 ft^3/s (2.83 m^3/s), June 13, 1981, gage height, 6.06 ft (1.847 m); maximum gage height, 6.63 ft (2.021 m) Mar. 4, 1979, (backwater from ice); no flow at times during 1979, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 100 ft^3/s (2.83 m^3/s), June 13, gage height, 6.06 ft (1.847 m); minimum daily, 0.03 ft^3/s (0.001 m^3/s) Aug. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.15	1.8	5.8	.78	1.2	3.6	2.0	3.8	2.7	.47	1.6	3.7
2	.45	1.7	10	.75	1.2	3.2	1.7	2.7	1.6	.37	1.7	2.6
3	1.7	1.5	8.2	.73	1.0	2.7	1.4	2.0	.98	.26	2.0	2.5
4	5.0	1.7	5.8	.71	.94	3.0	1.5	1.5	.80	1.7	2.2	5.2
5	3.4	1.5	5.0	.68	.90	3.2	1.2	1.2	.51	1.5	1.9	3.4
6	2.2	1.4	4.2	.67	.94	2.8	1.1	1.1	.43	.69	1.4	1.5
7	1.6	1.4	3.9	.65	.90	2.2	.92	.92	.34	.51	1.1	1.3
8	1.2	1.2	22	.64	.84	2.0	.98	.80	.47	.51	.91	1.7
9	.98	1.1	19	.63	.79	1.9	7.8	.69	3.6	.43	.72	1.2
10	.74	1.1	12	.61	.74	1.8	6.4	21	4.5	.31	.60	.80
11	.62	.98	6.6	.61	.70	2.0	7.0	31	2.7	.18	.46	.60
12	.54	.92	4.7	.62	.74	2.1	7.8	14	1.6	.55	.34	.45
13	.52	.86	4.3	.62	.84	2.1	14	6.6	55	.47	.28	.35
14	.53	.98	3.2	.63	1.1	1.9	33	14	48	.31	.43	.28
15	.54	1.1	2.8	.63	1.5	1.7	15	13	18	.28	.68	.21
16	.55	.98	2.6	.64	10	1.6	7.0	7.0	12	.31	.44	1.0
17	1.8	.92	2.1	.64	25	1.6	4.3	3.9	6.0	.20	.29	4.5
18	2.7	.98	2.0	.65	17	1.4	2.8	3.0	3.8	.14	.18	6.0
19	2.7	.92	1.7	.65	13	1.5	2.4	2.3	3.1	.64	.13	2.9
20	2.1	.92	.92	.66	8.8	1.7	2.6	1.8	3.1	35	.09	1.7
21	1.7	.92	.75	.68	7.2	2.0	2.1	1.5	2.1	23	.07	1.2
22	1.2	.86	.69	.70	6.6	1.7	3.1	1.2	2.0	8.3	.05	.90
23	.98	.98	.68	.71	9.4	1.5	9.8	1.1	1.4	3.4	.04	.74
24	1.1	1.2	.69	.74	10	1.4	5.8	.92	1.8	1.9	.03	.64
25	1.5	1.2	.70	.77	7.0	1.3	3.8	.86	1.3	2.7	.62	.59
26	1.5	1.1	.72	1.0	4.7	1.2	2.6	.74	1.1	3.2	1.0	1.2
27	1.7	1.1	.74	3.0	4.0	1.3	2.0	.69	.86	8.5	2.8	5.2
28	2.7	3.6	.76	2.0	4.3	1.3	7.4	.59	.64	28	3.9	2.9
29	2.4	4.8	.78	1.5	------	1.3	11	1.2	.51	10	3.9	3.5
30	2.3	5.7	.79	1.2	------	2.0	6.6	6.0	.47	4.7	4.3	4.6
31	2.1	-----	.80	1.1	------	2.2	------	4.5	------	2.6	4.8	-----
TOTAL	49.20	45.42	134.92	26.60	141.33	61.2	175.10	151.61	181.41	141.13	38.96	63.36
MEAN	1.59	1.51	4.35	.86	5.05	1.97	5.84	4.89	6.05	4.55	1.26	2.11
MAX	5.0	5.7	22	3.0	25	3.6	33	31	55	35	4.8	6.0
MIN	.15	.86	.68	.61	.70	1.2	.92	.59	.34	.14	.03	.21
CFSM	.47	.44	1.28	.25	1.49	.58	1.72	1.44	1.78	1.34	.37	.62
IN.	.54	.50	1.48	.29	1.55	.67	1.92	1.66	1.98	1.54	.43	.69

CAL YR 1980 TOTAL 1154.40 MEAN 3.15 MAX 38 MIN .00 CFSM .93 IN 12.63
WTR YR 1981 TOTAL 1210.24 MEAN 3.32 MAX 55 MIN .03 CFSM .98 IN 13.24

04095300 TRAIL CREEK AT MICHIGAN CITY, IN

LOCATION.--Lat 41°43'00", long 86°51'35", in SW¼NE¼ sec.27, T.38 N., R.4 W., LaPorte County, Hydrologic Unit 04040001, on left downstream wingwall of bridge on Springland Avenue in Michigan City, 1.0 mile (1.6 km) upstream from Otter Creek, and 4.2 miles (6.8 km) upstream from mouth.

DRAINAGE AREA.--54.1 mi² (140.1 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 584.02 ft (178.009 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for discharges below 100 cfs, which are fair.

AVERAGE DISCHARGE.--12 years, 69.6 ft³/s (1.971 m³/s), 17.47 in/yr (444 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,880 ft³/s (53.2 m³/s) Mar. 4, 1979, gage height, 11.40 ft (3.475 m); minimum daily, 20 ft³/s (0.57 m³/s) Aug. 1, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 500 ft³/s (14.16 m³/s) (revised) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 14	1600	850	24.1	9.00	2.743	June 14	0100	*1600	45.3	*11.05	3.368
May 11	0700	685	19.4	7.89	2.405	July 20	1000	532	15.1	6.73	2.051
May 30	1600	574	16.2	7.05	2.149	Aug. 28	1200	572	16.2	7.03	2.143

Minimum daily discharge, 31 ft³/s (0.88 m³/s) Jan. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	43	72	42	68	74	56	104	143	50	61	68
2	41	43	100	41	56	69	50	82	90	49	57	61
3	62	43	85	40	45	63	49	70	73	47	65	159
4	105	42	66	39	36	69	53	61	63	69	59	109
5	77	41	64	38	35	73	47	60	58	72	53	68
6	57	42	64	39	34	64	45	56	54	53	52	63
7	47	41	68	40	34	61	47	52	49	47	50	61
8	43	40	279	40	33	60	45	51	52	45	67	72
9	40	41	255	39	33	59	112	49	134	44	60	56
10	38	39	136	38	33	58	75	258	125	43	50	53
11	37	39	92	38	33	59	82	565	75	43	49	48
12	36	39	76	37	32	60	105	215	64	49	47	48
13	36	39	72	36	32	56	171	127	582	47	47	47
14	38	43	63	38	32	53	713	204	953	45	47	47
15	38	41	58	37	36	54	287	274	328	43	53	46
16	43	40	54	36	165	52	148	148	218	44	48	63
17	56	40	51	34	377	51	146	96	138	42	47	242
18	52	39	48	33	392	50	246	79	96	41	46	284
19	44	39	46	34	274	53	117	68	79	60	45	103
20	42	39	43	35	169	53	100	61	75	353	45	70
21	41	39	40	34	121	56	79	58	90	196	45	59
22	37	39	38	33	110	54	96	53	87	98	45	53
23	36	43	38	32	132	51	318	51	72	66	45	50
24	39	49	39	31	143	50	163	63	72	56	45	49
25	47	45	40	35	103	50	104	176	70	52	54	49
26	44	42	41	50	83	51	84	101	61	219	51	64
27	44	47	41	109	80	51	76	70	57	107	70	209
28	50	57	42	100	83	49	114	61	53	348	385	86
29	45	63	42	78	----	49	193	75	52	177	176	114
30	45	62	42	68	----	57	128	489	51	91	119	158
31	44	----	42	67	----	53	----	239	----	70	77	----
TOTAL	1440	1299	2237	1391	2804	1762	4049	4116	4114	2766	2160	2659
MEAN	46.5	43.3	72.2	44.9	100	56.8	135	133	137	89.2	69.7	88.6
MAX	105	63	279	109	392	74	713	565	953	353	385	284
MIN	36	39	38	31	32	49	45	49	49	41	45	46
CFSM	.86	.80	1.34	.83	1.85	1.05	2.50	2.46	2.53	1.65	1.29	1.64
IN.	.99	.89	1.54	.96	1.93	1.21	2.78	2.83	2.83	1.90	1.49	1.83

CAL YR 1980 TOTAL 23488 MEAN 64.2 MAX 412 MIN 28 CFSM 1.19 IN 16.15
WTR YR 1981 TOTAL 30797 MEAN 84.4 MAX 953 MIN 31 CFSM 1.56 IN 21.18

04095300 TRAIL CREEK AT MICHIGAN CITY, IN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL ANALYSIS: October 1977 to September 1981.
WATER TEMPERATURE: October 1977 to September 1981.
SEDIMENT DISCHARGE: October 1977 to September 1981 (partial-record station).

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,000 micromhos/cm, May 22-24, 1981, minimum, 185 micromhos/cm, Apr. 18, 1981.
WATER TEMPERATURE: Maximum, 21.0°C, Aug. 4, 6, 7, 13, 28-31, 1981, minimum, 0°C, Feb. 5-9, 11-13, 1981.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,000 micromhos/cm, May 22-24, 1981 minimum, 185 micromhos/cm, Apr. 18, 1981.
WATER TEMPERATURE: Maximum, 21°C, Aug. 4, 6, 7, 13, 28-31, 1981 minimum, 0°C Feb 5-9, 11-13, 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV 24...	1615	49	573	---	6.2	1.2	----	K169	380	270	58	66
JAN 27...	1030	114	600	7.2	1.5	3.0	7.4	560	K53	240	87	62
MAR 27...	1100	50	520	8.0	7.0	1.8	14.2	370	K20	270	55	70
MAY 28...	0915	68	550	7.6	14.6	8.4	----	K720	760	250	61	66
JUL 27...	1600	97	510	7.5	17.8	36	----	K1810	8200	240	--	65
SEP 30...	1600	76	460	7.6	14.0	64	----	K13800	K23800	220	--	58

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
NOV 24...	25	17	12	.5	2.3	210	63	23	.1	12	368	336
JAN 27...	20	29	21	.8	3.3	150	73	57	.2	10	377	349
MAR 27...	22	14	10	.4	1.8	210	69	24	.2	10	340	339
MAY 28...	21	15	11	.4	2.2	190	64	24	.1	10	379	318
JUL 27...	18	11	9	.3	2.6	170	60	16	.2	10	348	288
SEP 30...	18	11	10	.3	3.4	140	54	19	.2	8.1	289	258

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (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, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)
NOV 24...	.50	48.7	.75	.36	.38	.090	.090	.11	.12	.33	.28	.42
JAN 27...	.51	116	1.8	.98	.95	.240	.220	.29	.28	.67	.59	.91
MAR 27...	.46	46.5	.62	.29	.29	.130	.100	---	.13	.22	.23	.35
MAY 28...	.52	69.8	1.2	.47	.44	.200	.200	---	.26	.57	.52	.77
JUL 27...	.47	91.1	1.1	.53	.55	.080	.100	---	.13	.69	.45	.77
SEP 30...	.39	59.3	1.1	.47	.44	.110	.080	---	.10	.89	.53	1.00

04095300 TRAIL CREEK AT MICHIGAN CITY, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)
NOV 24...	.05	.37	.78	3.5	.120	.37	.020	-	-	-	---
JAN 27...	.10	.81	1.9	8.4	.210	.64	.140	1	0	1	100
MAR 27...	.02	.33	.64	2.8	.060	.18	.020	-	-	-	---
MAY 28...	.05	.72	1.2	5.5	.050	.15	.030	-	-	-	---
JUL 27...	.22	.55	1.3	5.8	.130	.40	.020	2	1	1	100
SEP 30...	.39	.61	1.5	6.5	.150	.46	.060	4	0	4	100

DATE	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	NICKEL, DISSOLVED (UG/L AS NI)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)
NOV 24...	--	--	--	--	--	--	--	--	--	--	--
JAN 27...	50	50	2	0	3	30	20	10	3	3	0
MAR 27...	--	--	--	--	--	--	--	--	--	--	--
MAY 28...	--	--	--	--	--	--	--	--	--	--	--
JUL 27...	50	50	1	0	2	<10	--	20	2	1	1
SEP 30...	0	100	2	1	5	10	0	10	4	1	3

DATE	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)
NOV 24...	--	-	-	----	----	---	-	-	-	---	---
JAN 27...	13	7	6	1900	1800	110	7	5	2	190	70
MAR 27...	--	-	-	----	----	---	-	-	-	---	---
MAY 28...	--	-	-	----	----	---	-	-	-	---	---
JUL 27...	5	4	1	2600	2600	30	6	0	6	170	120
SEP 30...	6	5	1	4600	4500	90	4	3	1	150	100

04095300 TRAIL CREEK AT MICHIGAN CITY, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)
NOV 24...	--	--	--	--	--	--	--	--	--	--	--
JAN 27...	120	.5	.4	.1	19	16	0	0	0	0	0
MAR 27...	--	--	--	--	--	--	--	--	--	--	--
MAY 28...	--	--	--	--	--	--	--	--	--	--	--
JUL 27...	50	.1	.0	.1	29	27	0	0	0	<1	--
SEP 30...	50	.2	.0	.2	6	1	<1	--	<1	<1	--

DATE	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	PHYTOPLANKTON, TOTAL (CELLS PER ML)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 24...	--	--	--	--	3.4	--	--	--	7	.93	--
JAN 27...	0	30	20	10	--	5.5	.9	--	33	10	--
MAR 27...	--	--	--	--	3.6	--	--	880	--	--	--
MAY 28...	--	--	--	--	5.8	--	--	300	51	9.4	88
JUL 27...	0	30	--	<4	--	7.4	2.4	2000	89	23	89
SEP 30...	<1	30	20	10	--	4.9	.2	360	137	28	88

04095300 TRAIL CREEK AT MICHIGAN CITY, IN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	629	669	576	457	---	576	---	506		---	609	721
2	627	675	582	466	---	571	---	571		---	614	745
3	627	672	583	475	---	568	---	596		---	675	737
4	629	668	580	481	---	568	---	609		---	613	703
5	628	616	582	487	600	573	---	616		---	619	727
6	626	602	581	495	599	570	---	609		---	624	728
7	623	596	577	500	594	567	---	602		---	629	784
8	617	599	581	507	585	563	---	604		---	634	714
9	614	599	462	515	583	561	---	605		---	621	783
10	614	594	469	522	590	561	689	610		---	629	953
11	612	594	227	528	594	559	733	539		---	635	966
12	612	592	275	537	594	565	752	602		---	668	974
13	615	590	306	543	596	563	619	652		---	641	981
14	610	588	320	549	596	553	376	681		---	647	981
15	608	588	330	557	595	554	462	599		---	636	971
16	606	586	336	565	593	552	499	657		---	640	967
17	614	586	342	571	426	548	524	803		---	644	854
18	616	583	348	578	---	540	214	896		---	651	642
19	613	585	357	584	---	536	241	952		---	652	736
20	617	583	365	592	---	543	281	969		---	652	891
21	625	581	371	605	---	545	334	988		---	650	934
22	642	582	379	641	---	542	359	1000		---	652	933
23	649	580	386	651	---	538	320	1000		---	666	944
24	647	578	396	659	---	536	390	1000		---	660	977
25	644	571	404	661	572	530	540	637		---	671	983
26	640	572	411	678	572	535	650	529		---	674	977
27	642	579	418	---	574	---	747	-----		---	648	685
28	647	583	425	---	578	---	793	-----		---	618	478
29	647	583	434	---	---	---	505	-----		---	571	504
30	646	577	439	---	---	---	433	-----		565	691	464
31	656	---	448	---	---	---	---	-----		591	716	---
MEAN	627	598	429	554	579	555	498	709		578	644	815
MAX	656	675	583	678	600	576	793	1000		591	716	983
MIN	606	571	227	457	426	530	214	506		565	571	464

WTR YR 1981 MEAN 604 MAX 1000 MIN 214

04095300 TRAIL CREEK AT MICHIGAN CITY, IN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	626	656	574	454	---	572	---	436		---	594	689
2	624	669	577	463	---	566	---	514		---	606	679
3	624	669	567	472	---	564	---	578		---	544	418
4	626	619	568	479	---	564	---	601		---	599	579
5	626	602	580	485	599	568	---	605		---	614	688
6	623	596	576	493	593	568	---	597		---	619	685
7	618	594	576	499	584	563	---	596		---	622	651
8	613	594	446	505	580	562	---	597		---	516	667
9	612	594	427	514	579	557	---	599		---	532	716
10	611	593	206	521	581	559	565	425		---	623	781
11	610	591	219	527	590	557	639	432		---	625	832
12	610	590	235	535	592	556	613	549		---	624	926
13	610	587	283	541	593	556	397	602		---	627	977
14	607	586	314	548	594	550	304	519		---	625	967
15	606	586	327	554	589	550	389	529		---	612	964
16	602	584	332	562	435	545	468	607		---	634	771
17	605	583	338	569	409	541	225	667		---	638	498
18	613	582	345	574	---	537	185	816		---	641	500
19	611	582	355	581	---	532	220	903		---	642	651
20	610	581	363	588	---	532	247	958		---	643	742
21	617	580	370	594	---	541	287	968		---	642	884
22	625	579	378	613	---	538	336	992		---	645	895
23	642	579	384	647	---	534	230	996		---	649	889
24	641	571	394	654	---	532	331	856		---	645	950
25	640	568	403	656	563	527	426	488		---	573	976
26	634	570	410	623	566	529	584	496		---	621	724
27	634	571	416	---	570	---	691	---		---	566	424
28	642	579	423	---	574	---	481	---		---	349	447
29	639	576	430	---	---	---	415	---		---	431	456
30	638	574	438	---	---	---	425	---		540	561	450
31	645	---	446	---	---	---	---	---		568	673	---
MEAN	622	593	410	548	564	550	403	651		554	598	716
MAX	645	669	580	656	599	572	691	996		568	673	977
MIN	602	568	206	454	409	527	185	425		540	349	418

WTR YR 1981 MEAN 570 MAX 996 MIN 185

04095300 TRAIL CREEK AT MICHIGAN CITY, IN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	627	663	575	455	---	575	---	464		---	600	707
2	626	673	579	464	---	570	---	543		---	609	713
3	626	671	575	474	---	566	---	587		---	588	595
4	628	645	575	480	---	566	---	604		---	608	651
5	627	607	581	486	599	571	---	610		---	616	703
6	624	600	578	494	595	569	---	601		---	621	712
7	621	595	576	500	588	564	---	599		---	625	711
8	615	597	550	506	582	563	---	600		---	574	694
9	613	597	440	514	580	559	---	603		---	592	747
10	612	593	303	521	585	560	628	547		---	626	862
11	611	592	222	528	593	558	682	478		---	629	941
12	610	591	256	536	593	561	675	577		---	641	954
13	612	589	295	542	594	560	551	633		---	635	979
14	608	587	318	549	595	552	331	616		---	638	977
15	607	587	329	556	593	552	440	564		---	621	968
16	604	585	334	563	570	549	485	632		---	637	923
17	610	585	340	570	416	545	449	735		---	640	568
18	614	583	346	576	---	539	197	858		---	645	559
19	612	583	356	582	---	533	232	927		---	646	694
20	613	582	364	590	---	539	260	962		---	647	810
21	621	580	370	597	---	543	311	976		---	648	905
22	636	581	379	629	---	540	352	996		---	649	921
23	647	580	385	649	---	536	262	998		---	655	916
24	644	575	395	657	---	534	366	989		---	657	963
25	642	569	404	659	568	529	461	506		---	618	980
26	636	571	411	662	569	532	629	510		---	637	939
27	638	576	417	---	570	---	715	---		---	606	462
28	645	581	425	---	577	---	701	---		---	428	464
29	644	579	432	---	---	---	439	---		---	540	484
30	642	576	439	---	---	---	429	---		555	630	460
31	650	---	447	---	---	---	---	---		580	692	---
MEAN	625	596	419	552	575	553	457	681		568	619	765
MAX	650	673	581	662	599	575	715	998		580	692	980
MIN	604	569	222	455	416	529	197	464		555	428	460

WTR YR 1981 MEAN 588 MAX 998 MIN 197

04095300 TRAIL CREEK AT MICHIGAN CITY, IN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.5	8.0	5.5	3.0	---	5.0	----	12.5		----	20.0	20.5
2	15.5	8.0	6.0	2.5	---	4.5	----	13.0		----	20.5	20.5
3	14.5	8.5	5.5	1.5	---	4.5	----	15.0		----	20.5	19.5
4	13.0	9.0	4.5	1.0	---	4.0	----	16.0		----	21.0	19.5
5	11.5	9.0	5.5	1.0	.0	4.0	----	16.0		----	20.5	19.0
6	11.5	8.5	7.0	1.0	.0	3.5	----	13.5		----	21.0	19.0
7	12.0	9.0	8.5	.5	.5	3.5	----	13.5		----	21.0	18.5
8	13.0	9.0	9.0	.5	.5	5.0	----	13.5		----	20.0	18.5
9	13.0	9.5	7.5	.5	.5	5.5	13.0	15.0		----	19.5	18.0
10	12.5	9.5	5.5	.5	1.0	6.0	12.5	14.5		----	19.5	19.0
11	12.5	8.5	4.0	.5	1.0	6.0	14.5	9.5		----	19.5	19.5
12	11.5	7.5	5.0	.5	.5	7.0	13.5	11.5		----	20.5	20.0
13	10.5	7.5	5.0	.5	.0	6.5	15.0	12.0		----	21.0	20.0
14	10.5	8.0	4.0	.5	.5	6.0	15.0	11.5		----	20.5	19.5
15	11.0	8.0	3.5	1.5	2.5	8.0	13.0	13.0		----	20.0	18.5
16	12.5	7.5	3.5	1.0	2.0	7.0	12.5	15.0		----	19.5	17.0
17	13.5	7.0	3.0	.5	1.5	6.0	16.5	14.5		----	18.0	15.0
18	13.5	6.5	3.5	1.5	4.5	5.5	15.0	13.0		----	18.0	14.0
19	12.5	6.0	3.0	2.0	6.0	4.0	13.5	14.0		----	18.5	15.0
20	11.0	5.5	1.5	2.5	5.5	5.0	12.0	14.5		----	18.5	15.5
21	11.0	6.0	1.5	2.5	5.0	7.0	11.5	16.0		----	18.5	15.5
22	11.0	5.5	1.5	2.5	5.5	7.5	11.5	16.0		----	19.0	15.0
23	10.5	6.0	3.0	2.5	5.5	8.5	12.5	17.0		----	19.5	14.0
24	10.5	6.0	2.5	2.5	5.5	8.5	11.0	18.5		----	19.5	14.0
25	10.5	6.0	1.5	3.0	5.0	9.0	11.0	18.5		----	20.0	15.0
26	9.0	5.5	1.0	3.0	4.5	9.0	13.0	18.5		----	20.0	17.0
27	8.0	5.0	1.0	---	5.0	---	16.0	----		----	20.0	16.5
28	8.0	5.0	2.0	---	5.5	---	16.0	----		----	21.0	16.0
29	7.5	5.0	2.5	---	---	---	13.5	----		----	21.0	14.5
30	7.0	5.0	2.5	---	---	---	13.5	----		20.0	21.0	14.0
31	7.5	---	3.0	---	---	---	----	----		19.5	21.0	----
MEAN	11.5	7.0	4.0	1.5	3.0	6.0	13.5	14.5		20.0	20.0	17.5
MAX	15.5	9.5	9.0	3.0	6.0	9.0	16.5	18.5		20.0	21.0	20.5
MIN	7.0	5.0	1.0	.5	.0	3.5	11.0	9.5		19.5	18.0	14.0

WTR YR 1981 MEAN 10.0 MAX 21.0 MIN .0

04095300 TRAIL CREEK AT MICHIGAN CITY, IN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.5	7.5	5.0	2.5	---	4.0	----	11.5		----	18.0	20.0
2	14.5	7.0	5.5	1.5	---	3.0	----	10.0		----	19.0	19.0
3	13.0	7.5	4.5	1.0	---	3.0	----	11.5		----	19.0	18.5
4	11.5	8.5	4.0	1.0	---	4.0	----	14.0		----	19.0	19.0
5	11.0	8.5	4.5	.5	.0	3.5	----	13.0		----	20.0	18.5
6	11.0	7.5	5.5	.5	.0	2.5	----	11.0		----	19.5	18.0
7	11.5	8.0	7.0	.5	.0	2.5	----	10.5		----	19.5	18.0
8	12.0	9.0	8.0	.5	.0	3.5	----	11.0		----	18.5	17.5
9	12.5	9.0	5.5	.5	.0	3.5	10.0	13.0		----	18.0	16.5
10	12.0	8.5	4.0	.5	.5	5.0	11.5	9.5		----	19.0	17.0
11	11.5	7.5	3.5	.5	.0	4.5	12.0	8.5		----	18.0	18.5
12	10.5	7.0	3.5	.5	.0	4.0	11.0	7.5		----	18.5	18.5
13	9.5	7.0	4.0	.5	.0	5.0	11.0	11.0		----	19.5	18.5
14	10.0	8.0	3.5	.5	.5	3.5	13.0	9.5		----	19.0	18.5
15	10.5	7.5	3.0	.5	.5	5.0	10.0	9.0		----	19.0	17.0
16	11.0	7.0	3.0	.5	.5	5.5	10.5	11.5		----	18.0	14.5
17	12.5	6.5	2.5	.5	.5	4.5	12.0	13.0		----	16.0	13.5
18	12.5	6.5	3.0	.5	1.0	3.5	13.0	12.0		----	16.0	13.0
19	11.5	5.5	1.5	1.0	4.0	3.5	11.5	11.5		----	16.0	13.0
20	11.0	5.5	1.0	1.5	4.0	3.5	10.0	11.5		----	16.5	10.5
21	11.0	5.5	1.0	2.5	3.5	4.0	9.5	13.0		----	17.0	14.5
22	10.0	5.0	1.0	2.0	5.0	5.0	11.0	14.5		----	17.5	10.0
23	10.0	5.5	1.5	1.5	4.5	5.5	11.5	15.5		----	17.5	12.0
24	10.5	6.0	1.5	1.5	3.5	6.0	9.0	16.0		----	18.0	13.0
25	9.5	5.5	1.0	2.0	4.0	6.5	9.5	16.5		----	19.0	10.5
26	8.5	5.0	1.0	1.5	3.5	8.0	10.5	17.0		----	18.5	15.0
27	8.0	4.5	1.0	---	3.5	---	12.0	----		----	19.0	16.0
28	7.5	4.5	1.0	---	4.5	---	13.5	----		----	19.0	10.5
29	7.0	4.5	1.5	---	---	---	11.0	----		----	19.0	13.0
30	6.5	4.5	2.0	---	---	---	12.5	----		17.0	19.5	13.5
31	7.0	---	2.5	---	---	---	----	----		17.5	20.0	----
MEAN	10.5	6.5	3.0	1.0	2.0	4.5	11.0	12.0		17.5	18.5	15.5
MAX	14.5	9.0	8.0	2.5	5.0	8.0	13.5	17.0		17.5	20.0	20.0
MIN	6.5	4.5	1.0	.5	.0	2.5	9.0	7.5		17.0	16.0	10.0

WTR YR 1981 MEAN 8.5 MAX 20.0 MIN .0

04095300 TRAIL CREEK AT MICHIGAN CITY, IN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	8.0	5.0	3.0	---	4.5	----	12.0		----	19.0	20.5
2	15.0	7.5	5.5	2.0	---	4.0	----	11.5		----	19.5	19.5
3	14.0	8.0	4.5	1.5	---	3.5	----	13.0		----	20.0	19.0
4	12.0	9.0	4.0	1.0	---	4.0	----	15.0		----	20.0	19.0
5	11.5	9.0	5.0	1.0	.0	3.5	----	15.0		----	20.0	18.5
6	11.5	8.0	6.0	.5	.0	3.0	----	12.5		----	20.0	18.5
7	11.5	8.5	8.0	.5	.0	3.0	----	12.0		----	20.5	18.5
8	12.5	9.0	9.0	.5	.5	4.0	----	12.5		----	19.5	18.0
9	12.5	9.5	6.5	.5	.5	4.5	12.0	14.0		----	19.0	17.5
10	12.0	9.0	5.0	.5	.5	5.5	12.0	12.0		----	19.0	18.0
11	12.0	8.0	3.5	.5	.5	5.0	13.5	8.5		----	19.0	19.0
12	11.0	7.5	4.0	.5	.5	5.5	12.0	9.5		----	19.5	19.0
13	10.0	7.5	4.5	.5	.0	6.0	12.5	11.5		----	20.0	19.5
14	10.0	8.0	3.5	.5	.5	5.0	14.0	10.5		----	19.5	19.5
15	11.0	7.5	3.5	1.0	1.5	6.5	11.5	11.0		----	19.5	17.5
16	11.5	7.0	3.5	.5	1.5	6.0	11.5	13.5		----	19.0	15.5
17	13.0	6.5	3.0	.5	.5	5.0	14.0	13.5		----	17.0	14.0
18	13.0	6.5	3.5	1.0	2.5	4.5	14.0	12.5		----	17.0	13.5
19	11.5	6.0	2.0	1.5	5.0	3.5	12.0	12.5		----	17.0	14.0
20	11.0	5.5	1.5	2.0	4.5	4.5	11.0	13.0		----	17.5	15.0
21	11.0	5.5	1.0	2.5	4.5	5.5	10.5	14.5		----	18.0	15.0
22	10.5	5.5	1.5	2.0	5.0	6.5	11.0	15.5		----	18.0	14.5
23	10.5	5.5	2.0	2.0	5.0	7.0	12.0	16.0		----	18.5	13.5
24	10.5	6.0	2.0	2.0	4.5	7.5	10.5	17.5		----	18.5	13.5
25	10.0	6.0	1.0	2.5	4.5	8.0	10.5	17.5		----	19.5	14.0
26	8.5	5.0	1.0	2.0	4.0	8.0	11.5	17.5		----	19.5	15.5
27	8.0	5.0	1.0	---	4.0	---	14.0	----		----	19.5	16.5
28	7.5	4.5	1.5	---	5.0	---	15.0	----		----	20.0	15.0
29	7.0	4.5	2.0	---	---	---	12.5	----		----	20.5	13.5
30	7.0	5.0	2.5	---	---	---	13.0	----		18.5	20.5	13.5
31	7.0	---	2.5	---	---	---	----	----		18.5	20.5	----
MEAN	11.0	7.0	3.5	1.5	2.5	5.0	12.5	13.0		18.5	19.0	16.5
MAX	15.0	9.5	9.0	3.0	5.0	8.0	15.0	17.5		18.5	20.5	20.5
MIN	7.0	4.5	1.0	.5	.0	3.0	10.5	8.5		18.5	17.0	13.5

WTR YR 1981 MEAN 9.5 MAX 20.5 MIN .0

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 miles (2.1 km) upstream from Indiana-Michigan State line, and 9.8 miles (15.8 km) north of Courthouse in LaPorte.

DRAINAGE AREA.--17.2 mi² (44.5 km²).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WRD IN-80-1: 1970, 1972, 1973; 1970-1976, 1978 (P).

GAGE.--Water-stage recorder. Datum of gage is 625.00 ft (190.500 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--12 years, 25.0 ft³/s (0.708 m³/s), 19.74 in/yr (501 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 650 ft³/s (18.4 m³/s) Mar. 4, 1979, gage height, 7.02 ft (2.140 m); minimum daily, 6.7 ft³/s (0.19 m³/s) Sept. 13, 1973.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 100 ft³/s (2.83 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 8	2200	128	3.62	4.52	1.378	May 15	0200	104	2.94	4.05	1.234
Feb. 18	0200	134	3.79	4.61	1.405	May 30	0600	*410	11.6	*6.40	1.951
Apr. 14	0600	377	10.7	6.31	1.923	June 13	1900	326	9.23	6.13	1.868
May 11	0200	212	6.00	5.49	1.673						

Minimum daily discharge, 12 ft³/s (0.34 m³/s) July 18, Aug. 20-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	18	28	20	23	25	17	39	39	17	17	23
2	17	17	40	19	22	23	16	31	29	16	16	20
3	42	17	32	18	20	22	16	28	24	16	17	20
4	83	18	24	18	19	23	19	25	21	16	16	20
5	42	17	24	17	18	25	16	23	19	16	15	18
6	30	16	25	18	19	21	16	22	18	15	15	17
7	26	16	25	18	19	21	15	20	16	14	14	16
8	24	16	87	19	19	21	15	20	15	14	19	20
9	22	16	89	19	19	22	32	19	47	13	19	17
10	22	15	46	18	19	21	24	73	59	13	16	15
11	21	15	34	18	19	20	24	148	28	13	15	14
12	21	15	30	17	18	20	30	59	22	14	14	14
13	20	15	29	18	18	19	51	37	160	15	14	14
14	20	16	25	18	18	18	266	57	165	14	14	14
15	20	16	24	18	19	19	93	84	72	13	16	13
16	22	16	22	18	47	18	54	45	60	13	18	16
17	27	16	20	18	112	17	43	33	40	13	14	31
18	29	15	20	18	116	17	57	28	29	12	13	30
19	24	15	21	18	90	18	42	25	24	14	13	22
20	22	15	20	18	58	18	37	22	22	24	12	18
21	22	15	19	18	42	20	33	21	23	21	12	17
22	20	15	19	18	38	19	33	19	26	17	12	16
23	20	16	18	18	41	18	79	19	21	15	12	15
24	20	18	18	18	41	17	50	23	21	14	12	15
25	23	17	18	20	31	16	35	48	27	14	13	16
26	22	16	18	34	27	17	32	28	20	21	17	20
27	21	17	19	35	26	17	29	22	18	19	29	55
28	23	22	19	31	27	16	41	20	18	54	63	33
29	24	24	19	26	----	17	78	27	17	38	59	34
30	19	24	20	23	----	19	47	263	17	22	41	45
31	19	----	20	22	----	18	----	74	----	19	29	----
TOTAL	783	504	872	626	985	602	1340	1402	1117	549	606	638
MEAN	25.3	16.8	28.1	20.2	35.2	19.4	44.7	45.2	37.2	17.7	19.5	21.3
MAX	83	24	89	35	116	25	266	263	165	54	63	55
MIN	16	15	18	17	18	16	15	19	15	12	12	13
CFSM	1.47	.98	1.63	1.17	2.05	1.13	2.60	2.63	2.16	1.03	1.13	1.24
IN.	1.69	1.09	1.89	1.35	2.13	1.30	2.90	3.03	2.42	1.19	1.31	1.38

CAL YR 1980 TOTAL 8368 MEAN 22.9 MAX 145 MIN 11 CFSM 1.33 IN 18.10
WTR YR 1981 TOTAL 10024 MEAN 27.5 MAX 266 MIN 12 CFSM 1.60 IN 21.68

04096100 GALENA RIVER NEAR LAPORTE, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 30...	1100	4.0	19	46	2.4

04097970 LIME LAKE OUTLET AT PANAMA, IN

LOCATION.--Lat 41°42'46", long 85°07'10", in NW¼NW¼ sec.35, T.38 N., R.12 E., Steuben County, Hydrologic Unit 04050001, on right bank 10 ft (3 m) downstream from dam for Lime Lake, 30 ft (9 m) upstream from bridge on Orland Road, and 0.7 mile (1.1 km) northwest of Panama.

DRAINAGE AREA.--17.5 mi^2 (45.3 km^2), of which 3.68 mi^2 (9.53 km^2) does not contribute directly to surface runoff.

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

GAGE.--Water-stage recorder. Datum of gage is 950.00 ft (289.560 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Occasional regulation by control structure for Lime Lake.

AVERAGE DISCHARGE.--12 years, 7.06 ft^3/s (0.200 m^3/s), 5.48 in/yr (139 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38 ft^3/s (1.08 m^3/s) June 14, 1981, gage height, 4.62 ft (1.408 m); no flow at times during 1971 and 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 38 ft^3/s (1.08 m^3/s) June 14, gage height, 4.62 ft (1.408 m); minimum daily, 0.03 ft^3/s (0.001 m^3/s) Oct. 11-15.

NOTE.--No gage-height record Dec. 14 to Apr. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.3	1.2	3.2	8.2	9.1	9.1	8.9	23	13	13	29	6.5
2	8.1	1.3	4.1	8.2	8.9	9.0	8.7	23	7.7	9.9	27	17
3	7.8	1.8	4.2	7.9	8.5	9.0	8.7	24	.70	11	26	25
4	7.5	1.8	4.1	7.6	7.5	9.1	9.0	25	.80	12	25	25
5	7.1	1.9	4.0	7.2	6.8	8.8	21	25	1.3	13	23	24
6	6.9	2.0	4.0	7.5	6.2	8.6	22	25	1.8	14	11	22
7	6.5	2.0	4.5	7.7	6.0	8.4	21	25	1.9	14	6.5	21
8	2.3	2.3	8.4	7.7	5.8	8.1	19	25	2.2	14	6.8	20
9	.05	2.1	9.3	7.6	6.2	7.8	17	25	3.8	13	7.1	19
10	.04	1.9	8.9	7.3	8.0	7.6	17	26	4.8	12	7.1	18
11	.03	1.9	8.6	7.1	9.9	7.4	16	27	4.9	12	7.0	17
12	.03	2.0	8.5	6.9	11	7.2	16	26	5.2	11	6.6	16
13	.03	2.0	7.9	6.8	10	7.1	16	26	12	12	6.2	15
14	.03	2.2	7.8	6.7	9.5	7.0	21	26	31	9.8	5.9	15
15	.03	2.3	7.6	6.6	10	7.1	21	27	37	7.8	6.9	14
16	.05	2.3	7.3	6.6	11	7.2	20	27	36	6.4	6.4	13
17	.22	2.2	7.1	6.6	13	7.4	20	26	35	5.5	5.8	13
18	.27	2.1	6.8	6.5	14	7.8	19	25	33	4.9	5.3	12
19	.28	2.1	6.6	6.4	15	8.3	19	24	32	5.5	4.9	12
20	.32	2.3	6.5	6.4	15	8.8	18	23	31	8.9	4.5	11
21	.29	2.0	6.6	6.4	14	9.0	18	22	32	8.8	4.3	11
22	.34	2.2	6.4	6.4	13	9.2	17	21	34	7.8	3.9	10
23	.44	2.0	6.2	6.4	12	9.3	19	20	33	7.1	3.7	10
24	.56	2.0	6.1	6.4	11	9.1	18	19	33	6.3	3.4	10
25	.64	2.0	6.0	6.6	10	8.8	18	19	32	5.9	2.9	9.9
26	.56	2.0	6.0	6.7	9.8	8.7	18	17	30	16	2.6	9.9
27	.69	2.7	6.2	7.0	9.6	8.6	17	17	29	16	4.4	10
28	.94	3.2	6.6	7.2	9.4	8.4	19	17	27	27	4.6	10
29	1.1	3.1	7.4	7.6	-----	8.6	22	16	26	34	5.9	10
30	1.2	3.3	8.0	8.2	-----	8.8	22	17	25	33	6.4	11
31	1.2	----	8.2	8.9	-----	9.2	-----	15	------	31	6.7	-----
TOTAL	63.84	64.2	203.1	221.3	280.2	258.5	526.3	703	596.10	402.6	276.8	437.3
MEAN	2.06	2.14	6.55	7.14	10.0	8.34	17.5	22.7	19.9	13.0	8.93	14.6
MAX	8.3	3.3	9.3	8.9	15	9.3	22	27	37	34	29	25
MIN	.03	1.2	3.2	6.4	5.8	7.0	8.7	15	.70	4.9	2.6	6.5
CFSM	.12	.12	.37	.41	.57	.48	1.00	1.30	1.14	.74	.51	.83
IN.	.14	.14	.43	.47	.60	.55	1.12	1.49	1.27	.86	.59	.93

CAL YR 1980 TOTAL 2930.94 MEAN 8.01 MAX 27 MIN .03 CFSM .46 IN 6.23
WTR YR 1981 TOTAL 4033.24 MEAN 11.0 MAX 37 MIN .03 CFSM .63 IN 8.57

04099000 ST. JOSEPH RIVER AT MOTTVILLE, MI

LOCATION.--41°48'03", long 85°45'22", in SW¼ sec.6, T.8 S., R.12 W., Michigan Meridian, St. Joseph County, Hydrologic Unit 04050001, on right bank 500 ft (152 m) upstream from bridge on U.S. Highway 12 at Mottville, 0.4 mi (0.6 km) downstream from Michigan Power Co. hydroelectric plant, 4 mi (6 km) upstream from Pigeon River, and at mile 96 (154 km).

DRAINAGE AREA.--1,866 mi² (4,833 km²).

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 (230.22 m) Michigan Power Co. datum. Prior to Oct. 1, 1951, at site 0.4 mi (0.6 km) upstream at datum 4.2 ft (1.28 m) higher.

REMARKS.--Records good. Flow regulated by powerplants above station. Several observations of water temperature were made during the year. National Weather Service gage-height telemark at station.

AVERAGE DISCHARGE.--58 years, 1,561 ft³/s (44.21 m³/s), 11.36 in/yr (289 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,700 ft³/s (303 m³/s) Apr. 27, 1950, gage height, 10.76 ft (3.280 m), present datum; minimum daily, 39 ft³/s (1.10 m³/s) Oct. 19, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,920 ft³/s (139 m³/s) Feb. 24, gage height, 6.56 ft (1.999 m); minimum, 200 ft³/s (5.66 m³/s) Jan. 27, gage height, 1.50 ft (0.457 m); minimum daily, 1,020 ft³/s (28.9 m³/s) July 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1780	1470	1670	1550	1310	4040	1900	3640	3280	2720	4210	2510
2	1680	1570	1420	1670	1520	3630	1580	3950	3740	2550	4370	2670
3	1640	1720	1760	1660	1420	3640	1800	3730	3530	2180	4230	2620
4	1660	1480	1550	1710	1190	3490	1630	3470	3290	2090	3980	2580
5	1640	1350	1890	1630	1260	3290	1650	3300	3120	2120	3830	2450
6	1620	1480	1830	1370	1300	3170	1810	3150	2780	2220	3510	2370
7	1550	1460	1960	1290	1360	3020	1540	2890	2680	1870	3460	2350
8	1520	1330	1870	1370	1450	2790	1630	2630	2470	1610	3310	2380
9	1510	1470	2000	1490	1490	2740	1670	2320	2590	1750	2920	2400
10	1560	1630	2310	1530	1370	2660	1740	2640	2640	1710	2890	2220
11	1570	1490	2370	1900	1340	2570	1670	2820	2700	1450	2680	2210
12	1550	1130	2510	1820	1590	2400	1770	2920	2400	1510	2560	1970
13	1410	1370	2530	1710	1520	2280	2080	3030	2920	1560	2270	1970
14	1270	1510	2490	1410	1450	2340	2220	3220	3530	1550	1990	1980
15	1350	1470	2380	1220	1420	2320	2300	3150	3620	1250	2070	2140
16	1490	1160	2170	1170	1660	2220	2440	3140	4320	1230	2020	2060
17	1840	1340	2220	1270	1700	2240	2410	3110	4510	1100	1810	1860
18	1750	1520	1920	1470	1990	2000	2530	3020	4380	1020	1900	1850
19	1520	1150	2020	1600	2580	1950	2520	2940	4360	1170	1810	1760
20	1370	1260	1820	1370	3450	1820	2500	2920	4180	1110	1800	1970
21	1480	1460	1840	1350	4330	1930	2320	2800	4080	1300	1730	1940
22	1550	1410	1730	1500	4380	1900	2350	2670	3940	1500	1610	1840
23	1550	1240	1680	1650	4580	1940	2480	2520	3840	1640	1580	1960
24	1740	1210	1630	1540	4810	1910	2530	2380	3450	1730	1330	1840
25	1550	1300	1420	1270	4760	1730	2630	2520	3760	1720	1350	1920
26	1530	1640	1730	1520	4490	1730	2760	2420	3530	1790	1260	1910
27	1640	1470	1720	1350	4400	1780	2800	2420	3260	1840	1330	2120
28	1540	1180	1530	1470	4250	1740	2760	2390	3000	2280	1470	2210
29	1570	1330	1420	1620	-----	1620	3460	2200	2820	2650	1430	1970
30	1510	1400	1630	1370	-----	1730	3410	2880	2410	3400	1610	2560
31	1570	-----	1590	1230	-----	1970	-----	3020	------	4070	2490	-----
TOTAL	48510	42000	58610	46080	68370	74590	66890	90210	101130	57690	74810	64590
MEAN	1565	1400	1891	1486	2442	2406	2230	2910	3371	1861	2413	2153
MAX	1840	1720	2530	1900	4810	4040	3460	3950	4510	4070	4370	2670
MIN	1270	1130	1420	1170	1190	1620	1540	2200	2400	1020	1260	1760
CFSM	.84	.75	1.01	.80	1.31	1.29	1.20	1.56	1.81	1.00	1.29	1.15
IN.	.97	.84	1.17	.92	1.36	1.49	1.33	1.80	2.02	1.15	1.49	1.29

CAL YR 1980 TOTAL 770010 MEAN 2104 MAX 5650 MIN 1130 CFSM 1.13 IN 15.35
WTR YR 1981 TOTAL 793480 MEAN 2174 MAX 4810 MIN 1020 CFSM 1.17 IN 15.82

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 (2 m) upstream from bridge on U.S. Highway 20, 1.3 miles (2.1 km) downstream from outlet of Hogback Lake, 1.3 miles (2.1 km) southeast of Flint, and 5.8 miles (9.3 km) west of Angola.

DRAINAGE AREA.--106 mi^2 (275 km^2), of which 22.5 mi^2 (58.3 km^2) does not contribute directly to surface runoff.

WATER-DISCHARGE RECORDS

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 (286.512 m) National Geodetic Vertical Datum of 1929. Prior to October 1947, nonrecording gage at site 0.3 mile (0.5 km) downstream at different datum. October 1947 to Aug. 3, 1953, nonrecording gage at site 1.2 miles (1.9 km) upstream at same datum. Aug. 4, 1953, to Apr. 3, 1974, recording gage at site 1.3 miles (2.1 km) upstream at same datum. Apr. 18, 1974, to Sept. 2, 1974, nonrecording gage at same site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--36 years, 76.4 ft^3/s (2.164 m^3/s), 9.79 in/yr (249 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 744 ft^3/s (21.1 m^3/s) Apr. 8, 1950, gage height, 14.95 ft (4.557 m); minimum daily, 3.4 ft^3/s (0.096 m^3/s) Oct. 25-27, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 425 ft^3/s (12.0 m^3/s) June 17, gage height, 10.92 ft (3.328 m); maximum gage height, 11.11 ft (3.38 m) Feb. 25; minimum daily discharge, 26 ft^3/s (0.74 m^3/s) Oct. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	31	30	40	36	331	61	322	78	214	258	107
2	39	32	31	39	36	300	61	346	78	192	240	108
3	37	32	33	39	36	271	61	351	77	173	222	110
4	36	32	36	38	35	245	62	339	77	160	206	130
5	34	32	38	38	35	221	61	312	80	149	193	174
6	33	32	39	37	35	200	61	278	99	137	180	209
7	32	32	40	37	35	182	60	243	117	126	166	224
8	31	32	44	37	35	166	60	216	122	118	156	225
9	30	31	53	37	34	153	60	190	139	112	146	215
10	29	30	67	37	35	141	61	177	183	106	134	195
11	28	30	84	37	35	128	62	169	220	100	124	177
12	28	30	95	36	35	118	64	163	229	96	117	160
13	27	29	99	36	35	109	65	157	245	93	112	146
14	27	29	94	36	36	102	79	154	317	89	108	129
15	27	30	88	36	37	96	119	158	380	87	106	115
16	26	29	80	35	38	90	165	169	409	84	102	106
17	27	29	73	35	42	85	191	175	423	82	99	98
18	27	29	66	35	62	81	201	172	423	80	96	91
19	27	29	60	35	129	77	199	162	410	80	93	86
20	27	28	55	35	239	74	189	151	392	102	91	80
21	27	28	52	35	310	72	176	138	378	163	89	75
22	27	28	48	35	355	70	163	124	375	230	87	70
23	27	29	46	35	385	67	158	113	376	262	85	68
24	27	28	45	35	402	65	156	105	368	268	83	66
25	27	28	43	34	402	64	157	98	372	255	81	65
26	27	28	43	34	393	63	156	92	367	248	79	64
27	28	29	41	34	378	63	149	89	340	240	83	67
28	29	29	40	35	356	62	149	86	304	245	86	69
29	29	29	39	35	----	62	193	82	265	255	89	72
30	30	30	40	35	----	62	261	82	237	262	94	83
31	30	----	40	35	----	62	----	80	----	265	102	----
TOTAL	921	894	1682	1117	4021	3882	3660	5493	7880	5073	3907	3584
MEAN	29.7	29.8	54.3	36.0	144	125	122	177	263	164	126	119
MAX	41	32	99	40	402	331	261	351	423	268	258	225
MIN	26	28	30	34	34	62	60	80	77	80	79	64
CFSM	.28	.28	.51	.34	1.36	1.18	1.15	1.67	2.48	1.55	1.19	1.12
IN.	.32	.31	.59	.39	1.41	1.36	1.28	1.93	2.77	1.78	1.37	1.26

CAL YR 1980 TOTAL 31960 MEAN 87.3 MAX 369 MIN 26 CFSM .82 IN 11.22
WTR YR 1981 TOTAL 42114 MEAN 115 MAX 423 MIN 26 CFSM 1.09 IN 14.78

04099510 PIGEON CREEK NEAR ANGOLA, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT						
28...	1330	9.0	29	10	.78	--
NOV						
04...	1300	8.0	32	12	1.0	--
11...	1330	8.0	30	14	1.1	--
18...	1330	8.0	29	12	.94	--
25...	1330	8.0	28	19	1.4	--
JUL						
20...	1910	---	112	86	26	84
21...	0815	---	153	43	18	87
22...	1710	---	243	46	30	92

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 (6 m) downstream from bridge on County Road 750 North, 1,200 ft (366 m) downstream from Page ditch, 0.7 mile (1.1 km) south of Indiana-Michigan State line, and 1.2 miles (1.9 km) northwest of Scott.

DRAINAGE AREA.--361 mi^2 (935 km^2), of which 53.9 mi^2 (139.6 km^2) 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 (248.412 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--13 years, 345 ft^3/s (9.770 m^3/s), 12.98 in/yr (330 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,980 ft^3/s (56.1 m^3/s) June 15, 1981, gage height, 7.27 ft (2.216 m); minimum daily, 42 ft^3/s (1.19 m^3/s) Oct. 21, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1980 ft^3/s (56.1 m^3/s) June 15, gage height, 7.27 ft (2.216 m); minimum daily, 167 ft^3/s (4.73 m^3/s) Nov. 12, 21, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	229	182	187	237	211	1050	317	789	510	913	1100	818
2	225	179	216	233	222	1010	304	812	463	834	992	933
3	223	177	245	230	260	956	297	831	446	764	929	744
4	218	177	231	228	240	910	307	830	447	709	905	699
5	212	177	219	226	231	858	348	820	439	650	851	849
6	205	177	220	224	224	795	328	801	519	598	761	776
7	201	177	230	232	221	736	311	760	742	548	692	695
8	197	176	308	231	230	680	302	708	737	504	634	691
9	192	177	477	228	239	633	314	655	741	468	590	688
10	187	172	555	225	230	593	330	660	901	438	553	657
11	184	168	468	225	241	559	332	722	1020	407	513	615
12	181	167	421	221	232	533	343	750	1010	388	479	571
13	179	169	405	219	231	505	355	677	1090	379	443	534
14	177	175	399	221	228	478	435	631	1450	357	426	502
15	176	181	387	225	288	456	563	670	1920	333	440	471
16	177	177	374	227	351	436	614	760	1870	320	443	443
17	185	172	357	226	452	416	568	764	1610	309	410	416
18	205	172	340	230	592	398	573	691	1470	292	376	412
19	189	172	328	232	727	382	602	639	1370	289	351	392
20	184	170	311	237	854	358	612	599	1290	354	334	369
21	178	167	296	237	910	357	604	561	1280	427	318	349
22	175	169	287	236	948	350	584	529	1520	443	303	339
23	169	169	280	229	1010	339	614	503	1600	453	294	328
24	169	171	275	227	1090	330	649	492	1470	483	284	316
25	177	169	262	221	1130	322	622	506	1370	510	273	308
26	185	167	254	222	1130	320	568	518	1320	804	271	307
27	181	170	249	225	1110	340	539	483	1260	1360	310	429
28	184	186	244	220	1080	333	536	476	1160	1620	359	515
29	190	192	240	215	-----	318	604	464	1070	1580	360	452
30	188	187	247	211	-----	324	726	583	990	1490	379	526
31	185	----	241	213	-----	330	-----	581	-----	1250	627	-----
TOTAL	5907	5241	9553	7013	14912	16405	14201	20265	33085	20274	16000	16144
MEAN	191	175	308	226	533	529	473	654	1103	654	516	538
MAX	229	192	555	237	1130	1050	726	831	1920	1620	1100	933
MIN	169	167	187	211	211	318	297	464	439	289	271	307
CFSM	.53	.49	.85	.63	1.48	1.47	1.31	1.81	3.06	1.81	1.43	1.49
IN.	.61	.54	.98	.72	1.54	1.69	1.46	2.09	3.41	2.09	1.65	1.66

CAL YR 1980 TOTAL 123371 MEAN 337 MAX 966 MIN 163 CFSM .93 IN 12.71
WTR YR 1981 TOTAL 179000 MEAN 490 MAX 1920 MIN 167 CFSM 1.36 IN 18.45

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 (4.6 m) downstream from bridge on County Road 16, 0.1 mile (0.2 km) east of Middlebury, and 1.7 mi (2.7 km) downstream from Rowe Eden ditch.

DRAINAGE AREA.--97.6 mi² (252.8 km²), of which 5.89 mi² (15.26 km²) does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 810.00 ft (246.888 m) National Geodetic Vertical Datum of 1929.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 946 ft³/s (26.8 m³/s), July 26, 1981, gage height 9.58 ft (2.920 m); minimum daily discharge 34 ft³/s (.962 m³/s Aug. 7, Nov. 26, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 500 ft³/s (14.2 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 14	0500	875	24.8	9.29	2.832
July 26	1645	*946	26.8	*9.58	2.920

Minimum daily discharge, 34 ft³/s (.963 m³/s) Nov. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	44	43	62	48	133	63	174	98	127	230	161
2	51	43	78	60	53	124	62	175	92	120	200	140
3	53	42	68	60	52	116	61	144	90	117	185	133
4	51	42	60	57	50	112	65	127	88	111	172	182
5	50	42	55	56	48	110	64	118	98	107	157	164
6	49	42	53	58	45	104	62	112	234	101	147	142
7	49	41	57	57	43	99	61	105	153	97	139	129
8	47	40	227	55	43	96	60	100	127	94	132	128
9	46	39	242	55	41	94	66	96	347	91	127	117
10	46	38	165	54	44	92	65	148	410	86	122	110
11	45	37	132	54	50	90	70	244	269	79	117	104
12	45	37	116	54	100	87	74	169	201	81	111	99
13	45	38	107	54	63	85	80	139	411	81	107	95
14	45	40	97	53	54	82	295	151	793	77	104	93
15	43	38	90	53	55	81	231	313	556	75	112	89
16	44	37	85	52	84	79	162	261	404	73	105	87
17	50	37	80	52	283	77	141	189	312	70	99	88
18	51	37	78	51	446	75	125	159	255	68	95	86
19	48	36	74	51	430	74	114	140	220	71	91	84
20	46	36	67	50	341	73	109	128	203	88	87	81
21	44	36	64	50	272	72	100	119	240	86	84	80
22	43	35	63	50	231	70	98	111	271	79	79	79
23	43	36	62	49	212	68	156	106	229	73	79	77
24	46	36	64	49	198	67	134	106	193	69	78	76
25	48	36	65	49	172	66	114	106	199	66	77	75
26	45	34	60	53	153	67	104	99	176	675	76	79
27	44	37	57	58	140	67	97	98	155	508	81	249
28	47	42	54	60	140	65	169	96	143	612	79	179
29	47	41	59	55	----	64	352	92	134	496	83	140
30	46	39	62	51	----	67	213	135	127	351	80	191
31	45	----	63	46	----	65	----	114	----	274	191	----
TOTAL	1452	1158	2647	1668	3891	2621	3567	4374	7228	5103	3626	3537
MEAN	46.8	38.6	85.4	53.8	139	84.5	119	141	241	165	117	118
MAX	53	44	242	62	446	133	352	313	793	675	230	249
MIN	43	34	43	46	41	64	60	92	88	66	76	75
CFSM	.48	.40	.88	.55	1.42	.87	1.22	1.45	2.47	1.69	1.20	1.21
IN.	.55	.44	1.01	.64	1.48	1.00	1.36	1.67	2.75	1.94	1.38	1.35

CAL YR 1980 TOTAL 31344 MEAN 85.6 MAX 679 MIN 34 CFSM .88 IN 11.95
WTR YR 1981 TOTAL 40872 MEAN 112 MAX 793 MIN 34 CFSM 1.15 IN 15.58

04099808 LITTLE ELKHART RIVER AT MIDDLEBURY, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT					
31...	1315	8.0	46	25	3.1
NOV					
06...	1315	8.0	42	18	2.0
14...	1515	9.0	50	16	2.2
21...	1530	6.0	47	12	1.5
26...	1020	3.0	34	12	1.1

04099850 PINE CREEK NEAR ELKHART, IN

LOCATION.--Lat 41°40'53", long 85°52'57", in NE¼NW¼, sec.7, T.37 N., R.6 E., Elkhart County, Hydrologic Unit 04050001, on right bank, 50 ft (15.2 m) upstream from bridge on County Road 14, 0.3 mile (.48 km) east of the intersection of County Roads 17 and 14, and 3.1 miles (5.0 km) east of Elkhart.

DRAINAGE AREA.--31.0 mi^2 (80.3 km^2).

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water stage recorder. Datum of gage 755.00 ft (230.12 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 178 ft^3/s (5.04 m^3/s) July 26, 1981, gage height 9.74 ft (2.969 m); minimum daily, 3.8 ft^3/s (.108 m^3/s) July 26, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 178 ft^3/s (5.04 m^3/s) July 26, gage height 9.74 ft (2.969 m); minimum daily, 5.5 ft^3/s (.156 m^3/s) Feb. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.3	8.6	8.5	9.4	9.5	22	11	25	24	48	48	37
2	8.2	8.3	14	9.0	12	21	11	24	22	32	41	34
3	8.5	8.2	13	8.8	11	19	11	20	21	30	37	33
4	8.3	7.7	11	8.4	9.2	19	12	17	19	27	34	39
5	8.2	7.6	10	8.3	6.9	19	11	15	18	26	31	35
6	8.0	7.6	10	9.0	6.0	17	11	15	17	24	30	29
7	7.8	7.6	11	8.4	5.5	16	11	13	16	23	28	26
8	7.7	7.5	27	7.5	5.6	16	11	13	17	22	27	26
9	7.3	7.4	38	7.0	5.8	16	11	12	40	21	26	26
10	7.2	7.2	27	7.2	6.0	16	11	24	51	20	25	23
11	7.2	7.2	21	7.4	16	15	12	47	38	18	24	21
12	7.2	7.2	18	7.5	28	15	12	36	29	18	23	20
13	7.2	7.3	17	7.6	21	15	12	28	58	18	23	19
14	7.2	7.5	15	7.6	12	14	25	28	137	17	22	18
15	7.2	7.4	15	7.7	7.7	14	31	41	123	16	24	18
16	7.3	7.2	14	7.8	11	13	21	38	80	16	23	18
17	8.0	7.2	12	8.0	33	13	18	29	53	15	22	18
18	8.6	7.1	12	9.2	62	13	15	25	43	14	22	17
19	8.0	6.9	11	7.5	78	13	14	22	38	15	21	16
20	8.0	6.9	10	7.8	68	13	14	20	35	20	20	15
21	7.7	6.9	9.6	8.1	51	12	12	19	32	18	20	15
22	7.5	6.7	9.5	8.3	43	12	13	17	40	17	18	14
23	7.2	6.9	9.5	8.1	41	12	25	16	39	15	18	13
24	7.5	7.0	9.8	8.0	37	12	21	20	32	14	18	13
25	9.2	6.9	9.0	8.1	32	11	17	23	36	14	17	13
26	8.8	6.8	8.8	9.5	28	12	15	19	30	119	19	14
27	8.6	7.5	8.5	10	25	12	13	18	27	156	25	43
28	9.2	8.0	8.4	10	24	11	16	18	26	138	22	40
29	9.3	7.8	9.7	8.7	-----	11	40	17	24	131	21	28
30	9.1	7.5	9.7	7.7	-----	11	32	39	26	91	21	31
31	8.9	-----	9.6	7.4	-----	11	----	30	----	61	41	----
TOTAL	248.4	221.6	416.6	255.0	695.2	446	489	728	1191	1214	791	712
MEAN	8.01	7.39	13.4	8.23	24.8	14.4	16.3	23.5	39.7	39.2	25.5	23.7
MAX	9.3	8.6	38	10	78	22	40	47	137	156	48	43
MIN	7.2	6.7	8.4	7.0	5.5	11	11	12	16	14	17	13
CFSM	.26	.24	.43	.27	.80	.47	.53	.76	1.28	1.27	.82	.77
IN.	.30	.27	.50	.31	.83	.54	.59	.87	1.43	1.46	.95	.85

CAL YR 1980 TOTAL 4764.0 MEAN 13.0 MAX 49 MIN 3.8 CFSM .42 IN 5.72
WTR YR 1981 TOTAL 7407.8 MEAN 20.3 MAX 156 MIN 5.5 CFSM .66 IN 8.89

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100222 NORTH BRANCH ELKHART RIVER AT COSPERVILLE, IN

LOCATION.--Lat 41°28'54", long 85°28'32", in NE1/4NW1/4 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, 1,300 ft (396 m) downstream from Boyd ditch, 1.7 miles (2.7 km) upstream from Hustin ditch, and 3.1 miles (5.0 km) downstream from Waldron Lake.

DRAINAGE AREA.--142 mi^2 (368 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1971 to current year. October 1950 to September 1971 at site 3.1 miles (5.0 km) upstream, published as North Branch Elkhart River near Cosperville. Records may not be equivalent.

GAGE.--Water-stage recorder. Datum of gage is 880.12 ft (268.261 m) National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources).

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated at times by dam at Waldron Lake.

AVERAGE DISCHARGE.--10 years, 131 ft^3/s (3.710 m^3/s), 12.53 in/yr (318 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 682 ft^3/s (19.3 m^3/s) Apr. 7, 1978, gage height, 7.41 ft (2.258 m); minimum daily, 2.4 ft^3/s (0.068 m^3/s) Nov. 21, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 568 ft^3/s (16.1 m^3/s) Jun. 16, gage height, 7.42 ft (2.262 m); minimum daily, 35 ft^3/s (0.99 m^3/s) Aug. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	146	66	60	97	73	400	111	373	232	345	242	69
2	148	64	68	96	70	394	107	383	225	327	236	72
3	153	62	76	94	79	388	99	386	217	311	234	90
4	157	59	78	90	78	377	98	383	211	296	227	163
5	159	58	80	90	74	365	96	379	219	280	219	183
6	158	57	80	89	77	346	91	372	262	265	209	184
7	156	56	83	88	75	327	85	357	285	250	198	178
8	153	55	115	88	73	312	80	340	297	237	188	171
9	157	54	139	88	71	298	80	324	331	223	179	162
10	156	52	149	86	68	284	83	329	368	209	169	152
11	152	52	153	86	78	269	89	343	383	195	159	142
12	148	51	154	86	87	254	94	337	386	183	148	133
13	140	50	154	85	98	242	98	328	431	172	138	125
14	133	52	153	83	98	228	177	331	507	161	129	118
15	124	54	153	82	102	215	241	363	551	148	124	111
16	116	54	150	81	109	205	252	376	566	137	120	103
17	115	54	146	81	149	193	251	375	565	128	114	97
18	112	54	142	80	219	184	262	367	553	120	106	91
19	108	52	139	80	282	174	257	353	537	117	98	82
20	101	52	136	78	320	167	250	336	519	146	92	77
21	95	50	128	78	344	161	240	320	497	181	86	73
22	89	50	116	79	360	153	232	305	491	187	81	70
23	83	50	104	78	375	146	231	290	481	184	76	65
24	78	50	95	76	389	139	227	276	465	179	71	62
25	75	50	100	74	398	132	222	264	453	172	68	61
26	73	49	97	73	399	126	214	251	436	197	65	61
27	71	52	93	71	400	124	207	249	415	212	69	86
28	72	55	90	71	400	120	231	246	395	230	56	100
29	71	56	98	72	----	117	314	239	377	243	35	99
30	70	58	99	73	----	116	352	242	360	246	48	107
31	67	----	98	75	----	115	----	239	-----	246	61	----
TOTAL	3636	1628	3526	2548	5345	7071	5371	10056	12015	6527	4045	3287
MEAN	117	54.3	114	82.2	191	228	179	324	401	211	130	110
MAX	159	66	154	97	400	400	352	386	566	345	242	184
MIN	67	49	60	71	68	115	80	239	211	117	35	61
CFSM	.82	.38	.80	.58	1.35	1.61	1.26	2.28	2.82	1.49	.92	.78
IN.	.95	.43	.92	.67	1.40	1.85	1.41	2.63	3.15	1.71	1.06	.86

CAL YR 1980 TOTAL 49324 MEAN 135 MAX 344 MIN 38 CFSM .95 IN 12.92
WTR YR 1981 TOTAL 65055 MEAN 178 MAX 566 MIN 35 CFSM 1.25 IN 17.04

04100222 NORTH BRANCH ELKHART RIVER AT COSPERVILLE, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 07...	1105	7.5	56	12	1.8	--
JUN 02...	1030	----	225	79	48	83
JUL 07...	1305	----	249	14	9.4	--
AUG 18...	1230	22.0	106	66	19	90

04100252 FORKER CREEK NEAR BURR OAK, IN

LOCATION.--Lat 41°19'58", long 85°25'25", in SE¼NE¼ sec.12, T.33 N., R.9 E., Noble County, Hydrologic Unit 04050001, on right bank 300 ft (91 m) downstream from bridge on State Highway 9, 400 ft (122 m) downstream from Miller Lake Outlet, 0.8 mile (1.3 km) northeast of Burr Oak, and 4.5 miles (7.2 km) south of Albion.

DRAINAGE AREA.--19.2 mi² (49.7 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 889.00 ft (270.967 m) National Geodetic Vertical Datum of 1929 (Indiana State Highway Commission bench mark).

REMARKS.--Records good. Occasional regulation at Miller Lake Outlet.

AVERAGE DISCHARGE.--12 years, 16.6 ft³/s (0.470 m³/s), 11.74 in/yr (298 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 328 ft³/s (9.29 m³/s) Apr. 15, 1981, gage height, 6.60 ft (2.012 m); minimum daily, 0.13 ft³/s (0.004 m³/s) Sept. 10, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 328 ft³/s (9.29 m³/s) Apr. 15, gage height, 6.60 ft (2.012 m); minimum daily, 1.5 ft³/s (0.042 m³/s) Oct. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	7.5	4.8	6.6	9.6	43	5.9	70	26	35	9.0	2.8
2	3.8	7.7	7.3	6.4	11	37	6.1	57	25	29	8.6	3.1
3	3.0	7.2	14	6.2	11	30	6.9	46	24	24	8.3	5.5
4	2.3	7.2	17	6.0	9.9	26	7.9	36	23	23	7.8	17
5	1.8	6.5	17	5.6	8.9	24	7.5	30	23	31	7.2	52
6	1.6	5.5	15	5.6	8.2	22	7.0	26	35	34	6.7	70
7	1.5	5.5	15	5.9	7.3	20	6.5	21	56	26	5.9	61
8	1.8	5.4	23	5.6	6.5	18	6.0	18	64	20	5.1	50
9	2.8	4.5	44	5.0	5.8	16	6.6	17	79	16	4.2	39
10	2.3	3.5	65	5.0	7.3	15	6.5	22	92	13	3.8	29
11	2.1	3.0	63	5.0	13	14	7.0	30	92	9.7	3.4	21
12	1.8	2.8	52	5.0	15	14	8.2	32	80	6.9	2.9	16
13	1.7	2.7	42	5.4	16	13	9.5	30	107	6.0	2.6	14
14	1.7	4.2	33	5.4	16	12	192	35	238	4.8	2.6	12
15	1.6	4.3	27	5.4	15	11	315	73	273	3.8	2.5	11
16	2.0	3.9	23	5.3	17	11	250	102	215	3.4	8.5	9.6
17	3.4	3.6	20	5.3	49	9.8	167	92	154	2.9	9.1	8.8
18	4.4	3.5	17	5.4	110	8.3	120	73	114	2.3	4.6	8.5
19	4.2	3.3	15	5.4	180	7.1	92	56	89	2.3	8.3	7.5
20	4.4	3.0	12	5.5	195	6.7	73	44	73	5.0	6.4	6.9
21	4.3	2.4	10	5.4	168	6.6	57	35	61	6.1	5.3	6.6
22	4.0	2.0	7.5	5.5	135	6.3	47	29	103	5.5	4.2	6.3
23	3.9	1.8	6.6	5.5	113	5.7	41	26	145	4.5	2.6	5.7
24	3.9	1.9	6.8	5.4	97	5.5	35	24	128	3.7	2.2	5.4
25	4.3	1.9	6.3	5.4	85	5.1	30	22	104	3.1	2.0	5.0
26	4.1	1.8	5.8	5.6	71	5.2	26	21	85	6.0	1.9	5.3
27	4.1	2.6	5.3	5.9	60	5.7	23	22	69	6.9	2.2	7.0
28	5.4	2.8	4.9	6.6	52	5.7	31	21	57	8.7	2.3	7.0
29	5.0	3.0	6.0	7.2	------	6.0	65	21	47	9.2	2.5	7.6
30	5.4	3.4	6.3	7.3	------	6.3	79	25	40	9.6	2.4	8.8
31	6.7	-----	6.5	7.3	------	6.4	------	26	----	9.6	2.4	-----
TOTAL	103.8	118.4	598.1	178.1	1492.5	422.4	1734.6	1182	2721	371.0	147.5	509.4
MEAN	3.35	3.95	19.3	5.75	53.3	13.6	57.8	38.1	90.7	12.0	4.76	17.0
MAX	6.7	7.7	65	7.3	195	43	315	102	273	35	9.1	70
MIN	1.5	1.8	4.8	5.0	5.8	5.1	5.9	17	23	2.3	1.9	2.8
CFSM	.17	.21	1.01	.30	2.78	.71	3.01	1.98	4.72	.63	.25	.89
IN.	.20	.23	1.16	.35	2.89	.82	3.36	2.29	5.27	.72	.29	.99

CAL YR 1980 TOTAL 5794.1 MEAN 15.8 MAX 117 MIN 1.5 CFSM .82 IN 11.23
WTR YR 1981 TOTAL 9578.8 MEAN 26.2 MAX 315 MIN 1.5 CFSM 1.37 IN 18.56

04100295 RIMMELL BRANCH NEAR ALBION, IN

LOCATION.--Lat 41°23'07", long 85°22'14", in NE¼SE¼, sec.21, T.34 N., R.10 E., Noble County, Hydrologic Unit 04050001, on right bank 900 ft (274.3 m) downstream from culvert on County Road 300 E, .75 mile (1.21 km) south of State Highway 8, 3.0 miles (4.83 km) east of intersection of State Road 9 and State Road 8 in Albion.

DRAINAGE AREA.--10.7 sq mi (27.7 km²).

PERIOD OF RECORD.--November 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage 935.00 ft (284.99 m) National Geodetic Vertical Datum of 1929.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 397 ft³/s (11.2 m³/s) April 14, 1981, gage height 12.82 ft (3.908 m), minimum daily, 0.14 ft³/s (.004 m³/s) many days during 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 397 ft³/s (11.2 m³/s) April 14, 1981, gage height 12.82 ft (3.908 m), minimum daily, 0.32 ft³/s (.009 m³/s) Aug. 22-25, 1981.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	1.9	3.6	1.4	3.6	18	3.4	29	5.3	5.1	2.5	1.8
2	2.2	1.7	19	1.6	4.1	15	3.3	20	4.7	4.7	2.4	2.8
3	1.9	1.6	11	1.9	4.7	13	3.3	15	5.4	4.4	2.3	11
4	1.6	1.5	5.8	1.6	3.8	11	4.1	12	7.1	3.9	2.3	59
5	1.4	1.4	4.4	1.5	3.0	11	3.9	9.6	88	3.6	2.2	21
6	1.2	1.5	4.2	1.4	2.5	9.6	3.5	8.3	98	3.3	2.1	9.2
7	1.3	1.6	4.9	1.5	2.0	8.2	3.3	7.1	48	3.1	2.1	5.9
8	1.5	1.6	40	1.6	1.8	7.8	3.2	6.1	44	2.8	2.0	5.2
9	1.4	1.6	42	1.8	1.7	7.4	3.1	5.7	63	2.6	1.9	3.8
10	1.3	1.4	23	1.7	6.8	7.7	3.2	14	59	2.4	1.8	3.3
11	1.3	1.5	14	1.6	59	7.4	3.6	20	28	2.3	1.7	2.9
12	1.2	1.4	10	1.5	41	6.9	4.0	13	20	2.3	1.5	2.5
13	1.2	1.3	8.8	1.5	22	6.6	6.0	9.7	132	2.3	1.4	2.3
14	1.2	1.4	6.3	1.5	16	6.0	289	24	158	2.3	1.4	2.2
15	1.2	1.5	5.0	1.4	13	6.1	111	87	70	2.2	1.5	2.1
16	1.3	1.4	4.2	1.4	64	5.7	71	40	46	2.1	1.4	2.0
17	2.4	1.3	3.7	1.5	160	5.2	58	23	32	2.1	1.0	1.8
18	3.5	1.3	3.0	1.7	148	4.7	46	16	23	2.1	.54	1.9
19	2.6	1.2	2.4	2.0	136	4.3	32	11	15	2.2	.46	1.7
20	2.2	1.2	2.1	1.9	94	4.2	26	8.6	12	3.7	.39	1.5
21	1.9	1.2	1.9	1.8	59	4.0	19	7.1	11	2.8	.35	1.4
22	1.7	1.1	1.8	1.6	48	3.9	16	6.3	86	2.4	.32	1.4
23	1.6	1.1	1.8	1.5	45	3.9	19	5.8	34	2.3	.32	.98
24	1.5	1.1	1.9	2.1	44	3.8	15	5.7	18	2.2	.32	.75
25	1.9	1.1	1.7	2.3	33	3.7	12	5.4	22	2.1	.32	.61
26	1.8	1.1	1.5	4.0	26	3.7	11	5.0	14	9.9	.39	.76
27	1.5	1.3	1.4	5.7	20	3.7	9.7	6.0	10	4.7	.64	3.2
28	2.1	1.3	1.4	6.1	20	3.7	50	6.1	7.6	7.7	.84	1.9
29	3.1	1.3	1.6	5.0	------	3.6	83	5.1	6.6	5.3	.89	1.6
30	2.6	1.4	1.5	4.4	------	3.8	38	8.5	5.6	3.5	.89	14
31	2.1	----	1.4	4.0	------	3.6	-----	6.8	------	2.9	2.8	------
TOTAL	56.3	41.3	235.3	70.5	1082.0	207.2	953.6	446.9	1173.3	105.3	40.97	170.50
MEAN	1.82	1.38	7.59	2.27	38.6	6.68	31.8	14.4	39.1	3.40	1.32	5.68
MAX	3.5	1.9	42	6.1	160	18	289	87	158	9.9	2.8	59
MIN	1.2	1.1	1.4	1.4	1.7	3.6	3.1	5.0	4.7	2.1	.32	.61
CFSM	.17	.13	.71	.21	3.61	.62	2.97	1.35	3.65	.32	.12	.53
IN.	.20	.14	.82	.25	3.76	.72	3.32	1.55	4.08	.37	.14	.59

WTR YR 1981 TOTAL 4583.17 MEAN 12.6 MAX 289 MIN .32 CFSM 1.18 IN 15.93

04100465 TURKEY CREEK AT SYRACUSE, IN

LOCATION.--Lat 41°25'35", long 85°45'16", in NE¼SE¼ sec.6, T.34 N., R.7 E., Kosciusko County, Hydrologic Unit 04050001, on right bank 75 ft (23 m) upstream from Main Street bridge in Syracuse and 1,500 ft (457 m) downstream from dam at outlet of Syracuse Lake.

DRAINAGE AREA.--43.8 mi² (113.4 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 848.00 ft (258.470 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow occasionally regulated by dam on Syracuse Lake.

AVERAGE DISCHARGE.--12 years, 35.6 ft³/s (1.008 m³/s), 11.04 in/yr (280 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 170 ft³/s (4.81 m³/s) June 14, 1981, gage height, 5.37 ft (1.637 m); minimum daily, 0.82 ft³/s (0.023 m³/s) Oct. 8, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 170 ft³/s (4.81 m³/s) June 14, gage height, 5.37 ft (1.637 m); minimum daily, 3.4 ft³/s (0.096 m³/s) Oct 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	3.7	35	36	47	96	5.8	130	143	93	61	5.2
2	4.9	4.6	36	36	48	94	5.7	126	140	92	60	5.0
3	4.7	6.8	36	37	48	93	6.1	123	138	76	61	6.7
4	4.1	7.2	36	37	47	93	9.8	121	137	25	60	6.8
5	4.0	5.0	35	35	46	93	16	120	138	24	60	6.1
6	4.8	4.4	33	33	45	91	13	117	139	23	46	5.8
7	4.8	4.3	34	35	44	90	5.4	115	135	22	6.4	6.3
8	4.6	3.8	42	34	46	88	5.8	113	133	21	5.4	6.5
9	4.6	3.7	47	33	47	89	6.1	111	135	19	5.1	6.4
10	4.6	3.9	45	33	49	88	6.8	123	134	18	5.5	6.0
11	4.2	3.8	43	31	50	88	7.1	133	129	17	5.1	5.7
12	4.0	4.7	41	32	50	88	8.1	129	125	17	4.7	5.0
13	4.4	5.6	39	32	49	88	9.9	125	144	16	4.7	5.3
14	4.6	8.1	37	32	48	87	94	130	169	16	4.7	5.9
15	4.8	6.0	35	33	49	87	140	145	167	15	4.5	5.7
16	4.8	5.4	34	33	54	86	107	147	156	14	4.5	5.3
17	6.1	5.1	33	37	68	86	103	143	143	13	4.7	5.2
18	4.1	4.6	32	36	79	84	100	140	131	12	4.4	5.1
19	3.9	4.0	32	36	89	84	100	136	121	14	4.3	4.4
20	4.2	4.0	31	37	86	83	99	134	115	21	4.1	4.1
21	4.1	3.9	30	39	80	82	98	132	110	31	3.9	4.4
22	4.0	3.7	29	41	77	82	97	131	118	65	3.5	4.8
23	3.8	3.7	28	44	77	82	97	131	115	64	3.5	5.1
24	4.4	4.2	29	49	77	81	94	134	110	63	4.5	5.1
25	3.7	4.1	29	51	75	80	93	135	107	61	4.7	5.5
26	3.4	4.1	29	52	73	61	94	138	104	66	6.1	7.2
27	3.8	5.3	28	52	72	5.9	93	150	101	64	4.8	6.9
28	4.7	5.9	32	50	77	5.1	106	147	98	66	5.0	5.1
29	4.4	12	39	48	----	5.3	133	143	95	64	4.4	5.8
30	4.2	35	38	46	----	5.8	140	148	94	63	4.3	9.7
31	4.1	-----	37	45	----	5.8	------	145	----	62	5.0	-----
TOTAL	135.8	180.6	1084	1205	1697	2271.9	1893.6	4095	3824	1237	465.8	172.1
MEAN	4.38	6.02	35.0	38.9	60.6	73.3	63.1	132	127	39.9	15.0	5.74
MAX	6.1	35	47	52	89	96	140	150	169	93	61	9.7
MIN	3.4	3.7	28	31	44	5.1	5.4	111	94	12	3.5	4.1
CFSM	.10	.14	.80	.89	1.38	1.67	1.44	3.01	2.90	.91	.34	.13
IN.	.12	.15	.92	1.02	1.44	1.93	1.61	3.48	3.25	1.05	.40	.15

CAL YR 1980 TOTAL 14896.4 MEAN 40.7 MAX 140 MIN 3.0 CFSM .93 IN 12.65
WTR YR 1981 TOTAL 18261.8 MEAN 50.0 MAX 169 MIN 3.4 CFSM 1.14 IN 15.51

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 (6 m) downstream from River Avenue bridge at Goshen, 0.4 mile (0.6 km) upstream from Rock Run, and at mile 16.1 (25.9 km).

DRAINAGE AREA.--594 mi^2 (1,538 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--
WATER DISCHARGE: 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 (234.522 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 20, 1931, nonrecording gage at same site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--50 years, 507 ft^3/s (14.36 m^3/s), 11.59 in/yr (294 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,440 ft^3/s (154 m^3/s) Apr. 4, 1950, gage height, 10.15 ft (3.094 m); maximum gage height, 10.33 ft (3.149 m) July 10, 1951 and Mar. 5, 1979; minimum daily discharge, 7.0 ft^3/s (0.20 m^3/s) Aug. 11, 1964, result of extreme regulation.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,800 ft^3/s (51.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 20	0100	2420	68.5	6.50	1.981	May 16	1000	2300	65.1	6.28	1.914
Apr. 15	1400	1890	53.5	5.58	1.701	June 14	2200	*3480	98.6	*8.26	2.518
Apr. 30	0100	2010	56.9	5.78	1.762	July 2	0400	1910	54.1	5.61	1.710
May 11	2400	2000	56.6	5.77	1.759	July 26	2400	2790	79.0	7.14	2.176

Minimum daily discharge, 190 ft^3/s (5.38 m^3/s) Nov. 22, 23.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DISCHARGE: October 1963 to September 1977 (partial-record station).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	376	260	247	343	333	1340	378	1600	942	1480	769	397
2	353	244	307	332	364	1260	374	1470	864	1700	709	372
3	357	248	390	320	312	1170	365	1400	825	1260	684	391
4	349	241	374	292	299	1100	377	1320	790	1090	660	526
5	345	243	347	280	292	1050	379	1260	788	959	621	612
6	349	227	350	293	289	999	366	1210	938	869	595	609
7	333	234	348	312	282	935	357	1150	950	796	562	620
8	329	221	628	299	280	883	347	1080	922	737	515	656
9	317	215	1070	287	278	837	377	1030	1110	686	488	649
10	325	210	1010	280	293	799	376	1140	1380	639	459	630
11	298	215	762	305	317	765	418	1740	1360	595	437	605
12	302	196	644	301	348	730	441	1870	1220	570	409	573
13	304	197	606	300	371	698	468	1540	1560	556	394	538
14	293	215	598	298	381	666	970	1350	2940	520	378	504
15	292	217	568	288	388	639	1780	1750	3120	492	379	470
16	288	215	552	283	423	617	1580	2240	2560	481	369	441
17	302	222	527	280	811	593	1390	1930	2270	455	352	422
18	309	207	475	301	1790	574	1430	1610	2060	430	331	405
19	295	204	395	286	2330	558	1560	1430	1920	428	317	382
20	301	197	332	281	2290	544	1500	1340	1850	581	304	359
21	278	202	317	283	1970	526	1440	1270	1760	644	294	342
22	275	190	310	286	1790	510	1380	1200	1740	591	278	326
23	258	190	304	288	1740	495	1420	1120	1720	578	269	314
24	267	193	338	286	1720	483	1480	1060	1620	558	266	309
25	277	192	318	298	1640	469	1250	1030	1610	541	254	294
26	267	195	309	326	1550	464	1090	987	1500	2130	259	300
27	268	194	301	359	1440	461	1000	963	1400	2360	285	846
28	264	216	299	377	1380	419	1060	1010	1320	1810	289	709
29	271	221	331	377	-----	401	1740	977	1230	1710	280	472
30	261	220	351	329	-----	399	1900	981	1220	1150	256	531
31	271	----	357	297	-----	394	-----	1030	-----	873	456	-----
TOTAL	9374	6441	14065	9467	25701	21778	28993	41088	45489	28269	12918	14604
MEAN	302	215	454	305	918	703	966	1325	1516	912	417	487
MAX	376	260	1070	377	2330	1340	1900	2240	3120	2360	769	846
MIN	258	190	247	280	278	394	347	963	788	428	254	294
CFSM	.51	.36	.76	.51	1.55	1.18	1.63	2.23	2.55	1.54	.70	.82
IN.	.59	.40	.88	.59	1.61	1.36	1.82	2.57	2.85	1.77	.81	.91

CAL YR 1980 TOTAL 194732 MEAN 532 MAX 2210 MIN 190 CFSM .90 IN 12.20
WTR YR 1981 TOTAL 258187 MEAN 707 MAX 3120 MIN 190 CFSM 1.19 IN 16.17

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., Elkhrt County, Hydrologic Unit 04050001, on left bank 200 ft (61 m) downstream from mouth of Elkhart River, 200 ft (61 m) upstream from Main Street bridge in Elkhart, 2,000 ft (610 m) downstream from Christiana Creek, 0.5 mile (0.8 km) downstream from Elkhart Hydroelectric Plant, and at mile 76.5 (123.1 km).

DRAINAGE AREA.--3,370 mi² (8,728 km²).

PERIOD OF RECORD.--August 1947 to current year. Gage heights at site 0.8 mile (1.3 km) 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 (213.360 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. The flow is regulated by Elkhart Hydroelectric Plant.

AVERAGE DISCHARGE.--34 years, 3,122 ft³/s (88.42 m³/s), 12.58 in/yr (320 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,400 ft³/s (521 m³/s) Apr. 5, 1950, gage height, 27.82 ft (8.480 m); minimum daily, 336 ft³/s (9.52 m³/s) Aug. 5, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 11,600 ft³/s (328 m³/s) June 14, gage height, 24.40 ft (7.437 m); minimum daily, 1,960 ft³/s (55.5 m³/s) Feb. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2860	2510	2620	2870	2490	7380	3110	6970	5900	6200	7110	4440
2	2710	2270	2600	2890	2560	6830	2890	7100	6240	6300	7180	4540
3	2640	2620	2980	2730	2230	6580	3190	6920	6020	5280	6980	4570
4	2670	2340	2850	2360	1960	6410	3030	6790	5640	4920	6610	4700
5	2620	2310	3030	2280	2430	6120	2980	6320	5390	4700	6320	4590
6	2590	2150	2970	2370	2670	5890	2810	5760	5360	4700	5940	4450
7	2550	2490	3220	2310	2740	5660	2760	5630	5150	4220	5760	4460
8	2450	2150	3720	2290	2770	5310	2740	5310	5060	3750	5520	4490
9	2410	2290	4440	2380	2820	5080	2990	4990	5780	3650	5120	4680
10	2960	2550	4700	2110	2700	4960	2950	5410	6330	3650	4860	4250
11	2500	2170	4380	2450	2720	4810	3040	6460	6180	3260	4660	3680
12	2480	2190	4500	2810	2790	4520	3110	6570	5770	3190	4420	3900
13	2390	2100	4340	2510	2860	4340	3590	6360	6960	3270	4070	4000
14	2300	2270	4290	2710	2870	4290	4470	6310	9870	3140	3670	3550
15	2230	2470	4160	2210	2870	4200	5390	6660	10600	2800	3680	3420
16	2210	2050	3910	2290	2980	4120	5450	7220	9990	2990	3640	4050
17	2490	2120	3680	2190	4100	3880	5310	6900	10000	2550	3370	3250
18	2350	2310	3590	2390	5480	3720	5290	6430	9360	2300	3370	2910
19	2580	2140	3570	2530	6810	3550	5490	6050	8910	2480	3100	3140
20	2200	2060	3190	2660	7580	3550	5400	5830	8550	2700	3090	3370
21	2350	2200	2710	2400	8120	3500	5160	5600	8270	2730	3030	3490
22	2570	2340	2950	2490	8010	3420	5110	5310	8210	3010	2730	3150
23	2260	2090	3120	2720	8230	3210	5520	5090	8070	3050	2890	3090
24	2480	2110	3220	2730	8390	3470	5540	4860	7770	3180	2440	3080
25	2560	2100	2590	2360	8010	3250	5380	5000	7900	3240	2480	2590
26	2310	2410	2340	2630	8070	3120	5290	4790	7580	6330	2410	3040
27	2540	2430	3030	2710	7810	3190	5200	4630	6980	7970	2570	4730
28	2520	2100	2690	2460	7630	3100	5240	4690	6580	6260	2730	4580
29	2450	2260	2620	2940	------	3000	6780	4550	6170	6280	2680	3810
30	2330	2330	3100	2580	------	3000	7130	5880	5790	6920	2850	3660
31	2360	-----	2900	2140	------	3270	------	5950	------	6940	4310	------
TOTAL	76920	67930	104010	77500	130700	136730	132340	182340	216380	131960	129590	115660
MEAN	2481	2264	3355	2500	4668	4411	4411	5882	7213	4257	4180	3855
MAX	2960	2620	4700	2940	8390	7380	7130	7220	10600	7970	7180	4730
MIN	2200	2050	2340	2110	1960	3000	2740	4550	5060	2300	2410	2590
CFSM	.74	.67	1.00	.74	1.39	1.31	1.31	1.75	2.14	1.26	1.24	1.14
IN.	.85	.75	1.15	.86	1.44	1.51	1.46	2.01	2.39	1.46	1.43	1.28

CAL YR 1980 TOTAL 1339300 MEAN 3659 MAX 8280 MIN 1930 CFSM 1.09 IN 14.78
WTR YR 1981 TOTAL 1502060 MEAN 4115 MAX 10600 MIN 1960 CFSM 1.22 IN 16.58

04101500 ST. JOSEPH RIVER AT NILES, MI
(National stream-quality accounting network station)

LOCATION.--Lat 41°49'45", long 86°15'35", in SW¼ sec.26, T.7 S., R.17 W., Berrien County, Hydrologic Unit 04050001, on right bank 100 ft (30 m) upstream from Main Street bridge at Niles, 0.6 mi (1.0 km) downstream from dam at French Paper Co., 1 mi (2 km) upstream from Dowagiac River, and at mile 44 (71 km).

DRAINAGE AREA.--3,666 mi^2 (9,495 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1930 to current year. Monthly discharge only for some periods, publisned 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 (192.944 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1966, at datum 2.00 ft (0.610 m) 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 (15 m) upstream from present site (gage heights referred to NGVD). Since Apr. 13, 1970, auxiliary water-stage recorder at sewage-treatment plant, 1.1 mi (1.8 km) 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 (13 km) downstream from base gage at different datum.

REMARKS.--Water-discharge records good. Flow regulated by powerplants above station.

AVERAGE DISCHARGE.--51 years, 3,208 ft^3/s (90.85 m^3/s), 11.88 in/yr (302 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,200 ft^3/s (572 m^3/s) Apr. 5, 1950, gage height, 15.10 ft (4.602 m), present datum; minimum daily, 420 ft^3/s (11.9 m^3/s) Aug. 30, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,900 ft^3/s (365 m^3/s) June 15, gage height, 11.78 (3.591 m); minimum daily, 2,040 ft^3/s (57.77 m^3/s) Nov. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3190	2720	2540	3150	2730	7570	3620	7290	6050	5850	8020	4780
2	2960	2340	3130	2820	2710	7140	3420	7180	6280	6690	7500	4460
3	2970	2960	2910	3100	2240	6700	2790	7280	6390	6020	7520	5100
4	2810	2620	3300	2470	2240	6660	3380	6810	6080	5280	6820	4710
5	2920	2650	2800	2380	2200	6280	2850	6610	5580	5180	6390	4920
6	2810	2080	3390	2600	2690	6080	3800	6100	5500	4990	6370	4350
7	2740	2720	3310	2440	2680	5870	2300	5680	5420	4560	5820	4830
8	2750	2430	4120	2420	2590	5610	3150	5560	5410	4000	5920	4650
9	2640	2370	4810	2520	2660	5210	2870	5230	6310	3800	5440	4470
10	2860	2570	5150	2250	3000	5130	3170	5620	7040	3700	5010	4570
11	2980	2480	4700	2690	2620	5050	3230	7520	6690	3500	5020	3850
12	2570	2640	4680	2980	2560	4780	3170	7630	6220	3300	4590	4160
13	2800	2040	4590	2680	3030	4520	3650	6930	7380	3400	4460	3940
14	2370	2460	4300	2840	2920	4480	4730	6630	11600	3300	4050	3980
15	2600	2620	4360	2330	2950	4410	5690	7150	12700	3000	3990	3550
16	2350	2390	4110	2480	3070	4400	6040	7760	11300	2700	3900	3840
17	3140	2180	3790	2240	4070	3940	5260	7440	10800	2490	3790	4200
18	2170	2330	3990	2380	6360	4310	5400	6980	10200	2350	3600	3120
19	2730	2440	3480	2560	8140	3880	5550	6290	9430	2910	3800	3210
20	2710	2230	3430	2730	8530	3790	5540	6090	9110	3350	3360	3310
21	2380	2220	3040	2610	8680	3420	5420	5810	8700	3290	3460	3750
22	2620	2500	2900	2490	8670	3660	5100	5680	8600	3610	2840	3500
23	3030	2450	3330	2790	8500	3770	6040	5390	8470	3280	2990	3250
24	2150	2090	3330	2890	8650	3660	5940	5140	8130	3540	3290	2990
25	2970	2400	2920	2740	8540	3440	5770	5150	8290	3570	2460	3470
26	2520	2160	2390	2560	8300	3160	5410	5170	8250	7660	2530	3040
27	2720	2890	2980	2920	8100	3450	5410	4940	7380	10900	3370	5050
28	2810	2520	2770	2680	7770	3260	5510	4750	7000	10900	2990	5350
29	2770	2220	3000	3070	------	3200	6760	5040	6330	10700	3000	4680
30	2510	2530	3000	2710	------	3150	7580	7240	6430	8870	3140	4000
31	2510	-----	2900	2440	------	3440	------	6570	------	7970	3960	------
TOTAL	84060	73250	109450	81960	137200	143420	138550	194660	233070	154660	139400	123080
MEAN	2712	2442	3531	2644	4900	4626	4618	6279	7769	4989	4497	4103
MAX	3190	2960	5150	3150	8680	7570	7580	7760	12700	10900	8020	5350
MIN	2150	2040	2390	2240	2200	3150	2300	4750	5410	2350	2460	2990
CFSM	.74	.67	.96	.72	1.34	1.26	1.26	1.71	2.12	1.36	1.23	1.12
IN.	.85	.74	1.11	.83	1.39	1.46	1.41	1.98	2.37	1.57	1.41	1.25

CAL YR 1980 TOTAL 1436550 MEAN 3925 MAX 8900 MIN 2040 CFSM 1.07 IN 14.58
WTR YR 1981 TOTAL 1612760 MEAN 4419 MAX 12700 MIN 2040 CFSM 1.21 IN 16.37

04177720 FISH CREEK AT HAMILTON, IN

LOCATION.--Lat 41°31'55", long 84°54'12", in SE¼SW¼ sec.34, T.36 N., R.14 E., Steuben County, Hydrologic Unit 04100003, on left bank 6 ft (2 m) upstream from bridge on County Road 775 South, 0.5 mile (0.8 km) downstream from Hamilton Lake outlet, and 0.5 mile (0.8 km) southeast of Hamilton.

DRAINAGE AREA.--37.5 mi² (97.1 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 876.00 ft (267.005 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--12 years, 30.7 ft³/s (0.869 m³/s), 11.12 in/yr (282 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 497 ft³/s (14.1 m³/s) Mar. 23, 1978, gage height, 10.79 ft (3.289 m); minimum daily, 0.52 ft³/s (0.015 m³/s) Aug. 31, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 140 ft³/s (3.96 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 20	0500	299	8.47	8.63	2.630	June 14	1100	338	9.57	9.11	2.777
Apr. 14	1700	*339	9.60	*9.12	2.780	June 22	1200	171	4.84	6.81	2.076
Apr. 29	1200	157	4.45	6.59	2.009	June 25	1200	150	4.25	6.48	1.975
June 10	0900	237	6.71	7.80	2.377	Sep. 4	1800	241	6.82	7.86	2.396

Minimum daily discharge, 1.9 ft³/s (0.054 m³/s) Oct. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	13	14	13	13	69	20	113	28	35	28	39
2	6.8	11	33	13	19	61	16	88	25	30	23	36
3	6.1	9.8	29	12	17	52	15	66	30	28	33	61
4	4.4	9.5	24	11	14	47	20	59	38	27	40	218
5	3.2	7.8	22	9.8	12	43	20	52	54	25	34	216
6	2.9	6.7	21	9.4	11	39	16	44	102	22	28	156
7	2.7	6.9	24	10	10	36	14	35	74	19	23	110
8	2.7	6.7	60	11	9.6	34	13	30	65	17	19	92
9	2.3	7.2	93	12	9.3	32	16	27	171	14	17	63
10	2.3	6.7	80	11	19	31	16	39	227	11	14	47
11	2.3	4.2	58	11	32	30	21	50	186	8.8	13	40
12	2.1	3.5	46	10	30	28	17	43	131	7.7	11	34
13	1.9	3.8	40	9.8	27	26	19	36	185	7.4	9.8	30
14	2.0	7.0	33	9.6	25	24	266	52	332	6.3	9.0	26
15	2.0	7.6	28	9.4	24	24	305	90	283	4.7	13	22
16	2.3	6.8	25	9.3	29	23	234	84	211	4.4	11	19
17	4.1	6.5	21	9.0	86	22	177	66	146	4.2	8.2	17
18	8.1	6.6	20	9.0	180	20	151	53	103	3.9	6.8	15
19	6.4	5.7	18	9.1	274	19	114	44	82	5.1	5.6	12
20	5.8	5.2	15	9.2	296	19	91	36	78	65	4.9	6.3
21	5.2	5.7	12	9.2	269	17	68	30	110	111	4.5	5.5
22	4.1	4.3	11	9.1	227	17	58	22	155	89	4.1	5.4
23	3.7	4.6	11	9.1	202	16	67	20	138	66	3.6	3.9
24	5.1	6.2	13	9.1	180	16	60	19	104	52	3.2	4.1
25	12	6.0	13	9.3	149	15	49	19	136	42	3.1	5.3
26	9.7	4.8	12	10	118	16	42	22	119	52	3.8	8.1
27	7.7	8.3	11	11	93	19	37	33	87	47	20	20
28	12	12	10	11	80	18	57	32	66	48	20	16
29	8.1	13	9.2	11	------	18	153	28	48	49	37	14
30	20	12	11	10	------	20	142	38	41	42	43	71
31	17	-----	12	9.2	------	19	----	34	----	34	38	------
TOTAL	181.1	219.1	829.2	315.6	2454.9	870	2294	1404	3555	977.5	531.6	1412.6
MEAN	5.84	7.30	26.7	10.2	87.7	28.1	76.5	45.3	119	31.5	17.1	47.1
MAX	20	13	93	13	296	69	305	113	332	111	43	218
MIN	1.9	3.5	9.2	9.0	9.3	15	13	19	25	3.9	3.1	3.9
CFSM	.16	.20	.71	.27	2.34	.75	2.04	1.21	3.17	.84	.46	1.26
IN.	.18	.22	.82	.31	2.44	.86	2.28	1.39	3.53	.97	.53	1.40

CAL YR 1980 TOTAL 12329.4 MEAN 33.7 MAX 227 MIN 1.9 CFSM .90 IN 12.23
WTR YR 1981 TOTAL 15044.6 MEAN 41.2 MAX 332 MIN 1.9 CFSM 1.10 IN 14.92

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 miles (5.6 km) northeast of Newville, 6.5 miles (10.5 km) northwest of Hicksville, Ohio, and at mile 42.3 (68.1 km).

DRAINAGE AREA.--610 mi^2 (1,580 km^2).

PERIOD OF RECORD.--October 1946 to current year. Monthly discharge only for some periods, published in WSP 1307.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 795.40 ft (242.438 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 22, 1947, nonrecording gage at same site and datum.

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

AVERAGE DISCHARGE.--35 years, 512 ft^3/s (14.5 m^3/s), 11.40 in/yr 290 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,710 ft^3/s (275 m^3/s) Apr. 6, 1950, gage height, 17.05 ft (5.197 m); minimum daily, 14 ft^3/s (0.40 m^3/s) Sept. 10, 16, 1964.

EXTREMES FOR CURENT YEAR.--Maximum discharge, 5,560 ft^3/s (157 m^3/s) Feb. 22, gage height, 14.97 ft (4.563 m); minimum daily, 81 ft^3/s (2.29 m^3/s) Oct. 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	129	208	145	158	138	2060	258	2160	482	542	1710	248
2	124	194	195	157	154	1760	246	2230	424	432	1620	280
3	116	185	314	151	200	1470	230	2110	370	393	1300	400
4	112	173	396	146	192	1210	239	1790	429	380	867	1590
5	104	159	377	139	180	994	243	1350	625	373	713	1710
6	96	152	334	132	162	847	243	968	1450	338	592	1610
7	92	148	315	140	144	740	236	729	1060	298	469	1410
8	101	143	430	149	134	650	217	578	637	263	385	1050
9	105	138	1040	157	122	580	205	486	1780	237	333	726
10	86	134	1300	156	109	534	204	456	2420	212	299	552
11	91	128	1340	150	218	493	230	639	2330	192	297	433
12	101	125	1310	147	274	467	250	833	2050	175	274	357
13	97	118	1220	142	370	437	266	851	2110	162	258	307
14	94	117	931	141	380	382	1120	876	3090	152	238	271
15	89	117	667	139	380	356	2210	1490	3370	142	218	246
16	81	118	517	138	446	346	2760	1690	3470	134	203	247
17	81	121	394	137	1540	330	2850	1600	3630	124	191	264
18	89	120	355	136	2300	306	2600	1400	3360	117	179	259
19	98	116	295	134	3500	286	2200	1090	2800	112	168	254
20	110	112	267	139	4600	270	1790	758	2280	118	159	238
21	118	108	240	151	5030	252	1420	573	2050	433	153	216
22	115	104	220	142	5500	239	1070	470	2160	1170	146	196
23	111	103	200	132	5240	232	855	393	1990	1720	139	181
24	117	101	185	134	4520	233	877	343	1710	1580	133	198
25	129	98	175	140	3770	231	1080	311	1940	839	128	209
26	126	98	170	149	3220	219	1110	279	1880	567	126	197
27	152	101	161	161	2780	212	947	291	1320	814	127	229
28	178	108	154	181	2390	239	931	334	938	1110	141	243
29	184	116	151	198	-----	258	1580	334	731	1290	161	292
30	203	130	147	178	-----	257	1900	341	605	1520	199	560
31	217	----	152	157	-----	259	-----	439	-----	1680	220	-----
TOTAL	3646	3893	14097	4611	47993	17149	30367	28192	53491	17619	12146	14973
MEAN	118	130	455	149	1714	553	1012	909	1783	568	392	499
MAX	217	208	1340	198	5500	2060	2850	2230	3630	1720	1710	1710
MIN	81	98	145	132	109	212	204	279	370	112	126	181
CFSM	.19	.21	.75	.24	2.81	.91	1.66	1.49	2.92	.93	.64	.82
IN.	.22	.24	.86	.28	2.93	1.05	1.85	1.72	3.26	1.07	.74	.91

CAL YR 1980 TOTAL 213765 MEAN 584 MAX 3800 MIN 81 CFSM .96 IN 13.04
WTR YR 1981 TOTAL 248177 MEAN 680 MAX 5500 MIN 81 CFSM 1.12 IN 15.13

04179000 ST. JOSEPH RIVER AT CEDARVILLE, IN

LOCATION.--Lat 41°11'46", long 85°01'27", in J. Hackley Reserve, T.32 N., R.13 E., Allen County, Hydrologic Unit 04100003, on left bank 700 ft (213 m) upstream from highway bridge, 0.4 mile (0.6 km) south of Cedarville, 0.5 mile (0.8 km) upstream from Cedar Creek, 0.6 mile (1.0 km) downstream from Cedarville Dam, and at mile 13.9 (22.4 km).

DRAINAGE AREA.--763 mi^2 (1,976 km^2).

PERIOD OF RECORD.--January 1931 to May 1932, October 1955 to current year.

REVISED RECORDS.--WSP 1912: 1956. WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 757.94 ft (231.020 m) National Geodetic Vertical Datum of 1929. Jan. 1, 1931, to May 31, 1932, nonrecording gage on downstream side of highway bridge 700 ft (213 m) downstream from present site at datum approximately 20 ft (6 m) lower.

REMARKS.--Records fair. Flow regulated by Cedarville Reservoir and some flow diverted into storage of Hurshtown Reservoir. Stage-discharge relation affected at times by backwater from Cedar Creek.

AVERAGE DISCHARGE.--26 years (1955 to current year), 620 ft^3/s (17.56 m^3/s), 11.03 in/yr (280 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft^3/s (286 m^3/s) May 1, 1956, gage height, 18.07 ft (5.508 m), from floodmarks; maximum gage height, 18.62 ft (5.675 m) Mar. 24, 1978; minimum daily discharge, 1.6 ft^3/s (0.045 m^3/s) May 22, 27, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,400 ft^3/s (210 m^3/s) June 14, gage height, 16.13 ft (4.916 m) minimum daily, 93 ft^3/s (2.63 m^3/s) Oct. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	165	250	204	192	238	2770	317	2130	540	1070	1830	507
2	176	219	247	190	286	2220	312	2260	520	1010	1750	507
3	168	198	397	181	241	1600	283	2400	505	765	1210	762
4	154	192	421	173	219	1310	298	2140	580	576	1120	1940
5	135	196	445	166	203	1370	335	1800	900	558	693	2090
6	118	187	415	159	191	828	299	1050	1990	528	576	2130
7	119	185	565	164	179	582	274	1050	3110	430	570	1830
8	122	181	920	173	168	588	278	639	2500	408	460	1580
9	131	162	1700	181	154	594	333	630	2650	360	406	1080
10	132	157	1200	180	148	600	249	580	3200	331	359	684
11	132	155	840	174	300	606	289	768	2710	242	334	747
12	122	154	645	169	600	439	350	900	2490	271	329	472
13	103	151	500	168	520	472	368	956	3640	282	326	462
14	110	169	385	166	460	480	1650	1080	5000	196	299	393
15	124	155	315	160	600	433	1950	2060	5210	257	298	361
16	145	129	275	154	900	433	2600	2160	4650	224	287	281
17	105	144	250	144	1400	423	2990	1950	4260	195	233	344
18	93	150	426	141	2150	417	3050	1630	4230	198	247	322
19	103	156	310	161	3200	322	2740	1340	3990	198	241	269
20	112	153	233	209	3900	329	2140	960	3200	240	229	307
21	129	189	224	137	4500	341	1680	729	2620	225	217	289
22	154	164	244	125	5000	348	1250	630	4370	765	152	249
23	154	141	284	136	5250	263	1060	537	3550	1140	184	208
24	117	127	328	150	5360	300	968	480	2430	1840	195	246
25	120	128	213	164	5490	304	960	440	2630	1180	182	265
26	152	130	194	181	4580	295	1120	410	2410	681	146	257
27	180	142	180	207	3890	289	1010	440	2050	708	129	257
28	188	145	172	265	3500	272	1180	470	1290	852	188	289
29	202	153	171	232	-----	284	1920	450	1020	1140	193	291
30	215	158	173	202	-----	325	2170	545	852	1280	273	478
31	255	----	188	180	-----	329	-----	610	-----	1590	353	-----
TOTAL	4435	4920	13064	5384	53627	20166	34423	34224	79097	19740	14009	19897
MEAN	143	164	421	174	1915	651	1147	1104	2637	637	452	663
MAX	255	250	1700	265	5490	2770	3050	2400	5210	1840	1830	2130
MIN	93	127	171	125	148	263	249	410	505	195	129	208
CFSM	.19	.22	.55	.23	2.51	.85	1.50	1.45	3.46	.84	.59	.87
IN.	.22	.24	.64	.26	2.61	.98	1.68	1.67	3.86	.96	.68	.97

CAL YR 1980 TOTAL 245110 MEAN 670 MAX 4480 MIN 93 CFSM .88 IN 11.95
WTR YR 1981 TOTAL 302986 MEAN 830 MAX 5490 MIN 93 CFSM 1.09 IN 14.77

STREAMS TRIBUTARY TO LAKE ERIE

04180000 CEDAR CREEK NEAR CEDARVILLE, IN

LOCATION.--Lat 41°13'08", long 85°04'35", in NW¼NW¼ sec.19, T.32 N., R.13 E., Alen County, Hydrologic Unit 04100003, on left bank at downstream side of bridge on State Highway 427, 3 miles (5 km) northwest of Cedarville, 5.8 miles (9.3 km) upstream from mouth, and 10 miles (16 km) south of Auburn.

DRAINAGE AREA.--270 mi² (699 km²).

WATER-DISCHARGE RECORDS

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 (237.771 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 4, 1947, nonrecording gage at same site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--35 years, 236 ft³/s (6.684 m³/s), 11.87 in/yr (301 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,870 ft³/s (138 m³/s) Apr. 5, 1950, gage height, 11.67 ft (3.557 m); minimum daily, 13 ft³/s (0.37 m³/s) Oct. 3, 1949.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,000 ft³/s (56.6 m³/s) and maximum (*).

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 19	1800	2600	73.6	8.03	2.448	June 14	1800	*4350	123	*11.14	3.395
Apr. 15	1500	2920	82.7	8.67	2.643	June 23	0200	2150	60.9	7.05	2.149

Minimum daily discharge, 39 ft³/s (1.10 m³/s) Aug. 24.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DISCHARGE: February 1979 to September 1980 (partial-record station).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	91	72	63	110	457	110	724	160	1030	98	161
2	72	83	210	60	160	398	103	552	141	554	88	158
3	69	75	314	56	170	342	101	415	136	410	89	447
4	66	74	202	54	150	310	116	327	195	340	108	1440
5	63	71	152	52	119	299	129	281	200	294	92	1410
6	60	67	131	50	100	277	116	264	1050	257	84	743
7	59	65	146	49	82	244	105	226	1320	226	80	474
8	58	63	295	48	68	223	103	201	828	205	76	355
9	56	61	902	48	62	206	108	185	971	190	76	274
10	54	57	654	48	56	203	105	209	1430	173	71	218
11	51	55	435	48	130	195	127	396	1290	159	67	182
12	49	53	322	48	200	185	138	342	802	152	64	156
13	48	51	272	49	260	179	159	266	1450	147	61	133
14	48	55	223	49	210	164	1070	378	3980	140	58	120
15	49	59	184	49	170	153	2730	1280	3710	131	57	112
16	51	54	160	50	290	148	2090	1240	2360	129	56	99
17	56	50	137	50	1690	141	1260	656	1420	120	52	93
18	88	50	134	50	2390	136	888	448	939	116	51	91
19	81	50	117	54	2470	133	687	344	684	112	49	83
20	73	48	102	58	2350	133	557	278	548	142	47	78
21	69	53	88	60	1970	127	451	234	572	159	45	72
22	64	47	77	60	1530	122	382	204	1570	147	43	74
23	60	45	71	58	1290	118	384	182	1770	136	40	67
24	59	46	67	60	1190	116	355	169	881	125	39	63
25	76	47	62	66	940	114	298	158	766	118	41	61
26	79	45	58	80	701	112	262	150	698	173	40	60
27	77	48	56	110	554	114	239	154	480	197	46	104
28	83	53	54	99	491	110	296	158	387	180	49	112
29	112	61	52	84	-----	108	1350	147	336	192	71	87
30	113	60	52	75	-----	112	1170	172	312	136	99	186
31	101	----	56	69	-----	114	-----	192	-----	113	109	----
TOTAL	2117	1737	5857	1854	19903	5793	15989	10932	31386	6703	2046	7713
MEAN	68.3	57.9	189	59.8	711	187	533	353	1046	216	66.0	257
MAX	113	91	902	110	2470	457	2730	1280	3980	1030	109	1440
MIN	48	45	52	48	56	108	101	147	136	112	39	60
CFSM	.25	.21	.70	.22	2.63	.69	1.97	1.31	3.87	.80	.24	.95
IN.	.29	.24	.81	.26	2.74	.80	2.20	1.51	4.32	.92	.28	1.06

CAL YR 1980 TOTAL 80130 MEAN 219 MAX 2330 MIN 35 CFSM .81 IN 11.04
WTR YR 1981 TOTAL 112030 MEAN 307 MAX 3980 MIN 39 CFSM 1.14 IN 15.44

04180000 CEDAR CREEK NEAR CEDARVILLE, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 20...	1715	51	37	5.1

04181500 ST. MARYS RIVER AT DECATUR, IN

LOCATION.--Lat 40°50'55", long 84°56'16", in SW¼SW¼ sec.27, T.28 N., R.14 E., Adams County, Hydrologic Unit 04100004, on right bank 10 ft (3 m) downstream from bridge on U.S. Highway 27, 0.5 mile (0.8 km) upstream from Holthouse ditch, 1.3 miles (2.1 km) north of Decatur, and at mile 29.1 (46.8 km).

DRAINAGE AREA.--621 mi^2 (1,608 km^2).

PERIOD OF RECORD.--October 1946 to current year. Monthly discharge only for some periods, published in WSP 1307. Gage-height records collected at site 0.5 mile (0.8 km) 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 (231.782 m) National Geodetic Vertical Datum of 1929. Prior to July 27, 1948, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Grand Lake. Slight diversion from or into Wabash River basin and into Miami and Erie Canal.

AVERAGE DISCHARGE.--35 years, 490 ft^3/s (13.88 m^3/s), 10.72 in/yr (272 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,300 ft^3/s (320 m^3/s) Feb. 10, 11, 1959; maximum gage height, 24.22 ft (7.382 m) Feb. 10, 1959 (ice jam); minimum daily discharge, 5.4 ft^3/s (0.15 m^3/s) Oct. 18, 1960.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,900 ft^3/s (82.1 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 15	1700	2920	82.7	15.80	4.816	June 26	0400	4310	122	18.69	5.697
June 15	2000	*7000	198	*21.48	6.547						

Minimum daily discharge, 10 ft^3/s (0.28 m^3/s) Oct. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	34	31	22	140	392	66	858	713	315	82	49
2	20	30	39	20	180	305	64	1430	619	259	73	79
3	17	28	42	18	140	245	68	1350	535	211	65	175
4	15	28	38	17	120	207	90	1230	398	175	57	1210
5	13	27	34	16	100	205	125	1170	273	162	53	629
6	12	24	32	17	88	196	112	1660	208	139	60	257
7	10	23	41	18	74	167	95	1580	188	144	65	158
8	12	23	46	17	60	156	99	1090	283	127	58	137
9	12	23	66	17	52	157	134	934	1290	103	50	105
10	12	21	85	17	48	154	160	947	1910	88	46	72
11	13	20	75	18	350	142	165	1050	1410	73	44	51
12	13	20	61	18	390	127	651	910	1320	63	40	40
13	12	21	63	18	320	119	1140	688	2400	58	40	34
14	13	22	61	17	360	111	2120	1300	5750	55	38	33
15	13	21	54	18	440	99	1860	2820	6830	50	36	28
16	11	22	47	18	1350	93	1260	2660	6660	47	33	28
17	12	25	38	17	1960	88	1050	2170	5870	45	32	29
18	12	25	37	18	1650	82	846	2070	4670	41	30	28
19	13	24	29	20	1560	74	610	1870	3400	43	29	35
20	17	25	27	23	1710	70	500	1380	2000	129	28	47
21	18	26	26	24	1420	65	423	893	921	358	26	42
22	17	28	24	25	1240	61	332	559	633	318	25	32
23	19	29	25	26	1380	56	269	355	385	325	25	28
24	26	29	24	27	1320	51	222	254	285	264	25	27
25	26	28	22	31	1020	48	183	289	3350	184	27	27
26	26	29	21	43	772	49	161	311	4190	131	27	25
27	24	30	20	110	593	68	147	269	3100	105	31	25
28	27	31	21	130	478	69	135	568	1450	106	28	22
29	24	30	23	110	-----	65	244	634	723	120	35	24
30	32	31	24	80	-----	71	520	595	476	107	43	27
31	36	----	25	86	-----	74	-----	779	-----	92	36	----
TOTAL	546	777	1201	1056	19315	3866	13851	34673	62240	4437	1287	3503
MEAN	17.6	25.9	38.7	34.1	690	125	462	1118	2075	143	41.5	117
MAX	36	34	85	130	1960	392	2120	2820	6830	358	82	1210
MIN	10	20	20	16	48	48	64	254	188	41	25	22
CFSM	.03	.04	.06	.06	1.11	.20	.74	1.80	3.34	.23	.07	.19
IN.	.03	.05	.07	.06	1.16	.23	.83	2.08	3.73	.27	.08	.21

CAL YR 1980 TOTAL 169189 MEAN 462 MAX 8630 MIN 10 CFSM .74 IN 10.13
WTR YR 1981 TOTAL 146752 MEAN 402 MAX 6830 MIN 10 CFSM .65 IN 8.79

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 (40 m) downstream from Anthony Boulevard Extension, 0.8 mile (1.3 km) downstream from Houk ditch, 5 miles (8 km) south of Fort Wayne, and 10.8 miles (17.4 km) upstream from mouth.

DRAINAGE AREA.--762 mi^2 (1,974 km^2).

WATER-DISCHARGE RECORDS

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.

GAGE.--Water-stage recorder. Datum of gage is 748.97 ft (228.286 m) National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to Apr. 13, 1939, nonrecording gage on highway bridge at same datum.

REMARKS.--Records good except those for winter periods, which are fair. 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 in to the Maumee River.

AVERAGE DISCHARGE.--51 years, 571 ft^3/s (16.17 m^3/s), 10.18 in/yr 259 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft^3/s (385 m^3/s) Feb. 11, 1959; maximum gage height, 19.42 ft (5.919 m) Feb. 11, 1959 (ice jam); minimum daily discharge, 3.4 ft^3/s (0.010 m^3/s) Oct. 19, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 4,000 ft^3/s (113 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 15	1500	4000	113	10.28	3.133	June 26	2400	4680	132	11.35	3.459
June 16	0900	*7460	211	*14.75	4.496						

Minimum daily discharge, 14 ft^3/s (0.40 m^3/s) Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	49	35	42	170	518	81	889	800	689	97	64
2	29	48	38	40	230	409	74	1580	671	375	86	84
3	28	42	42	37	180	328	74	1620	592	291	78	119
4	26	38	42	35	150	273	97	1420	473	228	73	961
5	22	36	38	33	120	259	147	1310	351	195	66	1080
6	19	35	34	35	100	255	151	1970	270	171	66	580
7	18	32	35	37	85	220	121	2100	212	157	71	300
8	16	31	69	36	79	187	110	1410	269	157	71	150
9	14	30	125	36	74	178	131	1080	1810	132	64	130
10	15	26	153	36	70	179	187	1060	2400	106	58	100
11	17	26	125	37	200	173	245	1170	1690	91	54	70
12	20	25	97	37	500	157	569	1130	1280	78	52	54
13	21	23	81	37	440	142	1460	850	3110	71	48	44
14	21	24	77	37	410	129	3020	1630	6960	66	49	41
15	22	25	73	38	560	119	2820	3870	7240	63	48	38
16	22	26	64	37	1700	110	1740	3740	7430	60	46	38
17	24	24	57	37	2700	102	1300	2960	7110	56	43	39
18	24	24	55	37	2400	97	1070	2530	6400	53	41	38
19	24	27	54	38	2200	89	792	2330	5130	51	39	44
20	22	27	47	43	2000	82	599	1770	3320	68	37	54
21	21	27	44	46	2090	77	503	1140	1400	300	35	52
22	26	28	42	48	1660	72	418	729	956	361	33	41
23	29	29	43	50	1720	68	357	467	588	364	32	35
24	29	31	41	54	1770	64	297	334	364	330	32	35
25	35	32	39	60	1380	60	239	315	2410	254	34	35
26	44	32	37	88	1020	58	201	363	4440	179	36	33
27	35	34	35	130	781	64	184	333	4430	128	40	32
28	44	35	36	180	624	77	179	444	2560	117	38	29
29	47	37	38	140	-----	77	428	712	997	123	45	31
30	42	34	40	120	-----	78	564	645	687	128	56	34
31	41	----	42	120	-----	82	-----	728	-----	112	56	----
TOTAL	828	937	1778	1781	25413	4783	18158	42629	76350	5554	1624	4385
MEAN	26.7	31.2	57.4	57.5	908	154	605	1375	2545	179	52.4	146
MAX	47	49	153	180	2700	518	3020	3870	7430	689	97	1080
MIN	14	23	34	33	70	58	74	315	212	51	32	29
CFSM	.04	.04	.08	.08	1.19	.20	.79	1.80	3.34	.24	.07	.19
IN.	.04	.05	.09	.09	1.24	.23	.89	2.08	3.73	.27	.08	.21

CAL YR 1980 TOTAL 220568 MEAN 603 MAX 8900 MIN 14 CFSM .79 IN 10.77
WTR YR 1981 TOTAL 184220 MEAN 505 MAX 7430 MIN 14 CFSM .66 IN 8.99

STREAMS TRIBUTARY TO LAKE ERIE

04182590 HARBER DITCH AT FORT WAYNE, IN

LOCATION.--Lat 41°00'27", long 85°10'58", in NE¼SW¼ sec.33, T.30 N., R.12 E., Allen County, Hydrologic Unit 04100004, on left bank 50 ft (15 m) upstream from bridge on Baer Road, at Fort Wayne, 3.2 miles (5.1 km) upstream from mouth. The stream name changes to Fairfield ditch 0.7 mile (1.1 km) downstream at bridge on Lower Huntington Road.

DRAINAGE AREA.--21.9 mi^2 (56.7 km^2).

PERIOD OF RECORD.--May 1964 to current year. Discharge measurements available October 1960 to May 1964 and gage heights January 1961 to May 1964 at site 0.7 mile (1.1 km) downstream.

GAGE.--Water-stage recorder. Datum of gage is 757.00 ft (230.734 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--17 years, 17.9 ft^3/s (0.507 m^3/s), 11.10 in/yr (282 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,120 ft^3/s (31.7 m^3/s) June 13, 1981, gage height, 11.81 ft (3.600 m); minimum daily, 0.06 ft^3/s (0.002 m^3/s) Oct. 27, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 250 ft^3/s (7.08 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 16	1745	504	14.3	8.60[a]	2.621	June 9	0100	374	10.6	7.52	2.292
Feb. 19	1745	313	8.86	6.91	2.106	June 13	1700	*1120	31.7	*11.81	3.600
Apr. 14	0515	513	14.5	8.46	2.579	June 30	1700	512	14.5	8.45	2.576
May 14	1700	424	12.0	7.87	2.399						

Minimum daily discharge, 0.25 ft^3/s (0.007 m^3/s) Oct. 13.

[a]Backwater from ice.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.52	1.2	2.3	1.5	23	14	2.8	37	5.8	36	1.8	14
2	2.0	.92	3.0	1.2	11	9.6	2.8	33	4.9	10	1.7	7.3
3	1.2	1.0	2.3	.90	4.9	6.5	6.2	24	4.3	6.1	1.2	9.6
4	.93	1.8	1.6	.72	3.3	5.9	7.7	16	3.9	5.0	.98	3.4
5	.80	1.5	1.6	.62	2.7	7.0	5.4	20	4.2	3.9	1.2	2.7
6	.68	1.3	1.5	.75	2.4	6.5	4.0	65	3.8	3.8	3.5	1.9
7	.52	1.1	3.7	.92	2.2	4.6	3.4	37	3.3	3.1	1.6	1.8
8	.52	1.1	29	.88	2.0	4.1	3.7	21	43	3.0	1.3	4.0
9	.43	1.0	54	.82	1.7	3.9	9.2	16	140	2.7	1.0	1.8
10	.43	.91	42	.74	4.9	4.0	16	25	37	2.7	1.0	1.5
11	.42	.90	20	.68	12	4.0	27	34	16	2.6	1.1	1.4
12	.29	.62	11	.70	5.8	3.8	62	22	8.9	2.3	.90	1.5
13	.25	.69	9.0	.71	4.4	3.8	88	15	544	2.3	.80	1.4
14	.62	1.4	6.0	.70	3.7	3.0	278	203	499	2.1	.74	1.4
15	.65	1.1	5.2	.69	9.4	3.0	78	222	98	2.0	2.1	1.6
16	.56	.81	4.5	.70	230	3.2	45	83	49	1.9	.96	2.2
17	5.1	.76	3.3	.68	150	2.7	33	43	25	1.9	.93	2.1
18	1.3	.80	3.4	.68	107	3.2	23	28	12	1.8	.74	1.9
19	.90	.65	2.6	.98	187	3.5	15	17	7.8	3.9	.74	1.4
20	.68	.62	1.7	1.3	140	3.3	13	11	5.9	37	.75	1.1
21	.54	.60	1.4	1.6	86	3.0	9.3	8.9	5.7	18	.82	1.3
22	.48	.61	1.2	1.2	64	2.6	11	7.8	27	5.6	.73	1.4
23	.44	.75	1.1	1.1	63	2.5	11	7.0	8.9	3.2	.61	1.5
24	3.1	.95	1.6	1.1	59	2.5	8.8	8.3	5.9	2.4	.64	1.3
25	1.8	.82	1.2	1.6	41	2.5	6.0	8.7	9.3	2.1	.50	1.2
26	1.2	.83	1.0	8.4	31	2.7	7.5	6.0	4.7	5.5	.55	1.6
27	1.8	1.3	.80	19	23	3.5	6.0	11	3.8	3.1	.59	3.5
28	4.5	2.5	.72	13	20	2.8	16	8.0	3.6	6.6	.69	1.3
29	2.8	2.0	1.4	8.7	------	3.2	54	6.4	3.4	4.1	4.2	4.7
30	1.8	1.9	1.8	5.4	------	4.4	32	16	93	2.6	2.3	3.0
31	1.4	-----	1.6	3.7	------	3.2	-----	7.0	------	2.0	1.5	----
TOTAL	38.66	32.44	221.52	81.67	1294.4	132.5	884.8	1067.1	1681.1	189.3	38.17	84.8
MEAN	1.25	1.08	7.15	2.63	46.2	4.27	29.5	34.4	56.0	6.11	1.23	2.83
MAX	5.1	2.5	54	19	230	14	278	222	544	37	4.2	14
MIN	.25	.60	.72	.62	1.7	2.5	2.8	6.0	3.3	1.8	.50	1.1
CFSM	.06	.05	.33	.12	2.11	.20	1.35	1.57	2.56	.28	.06	.13
IN.	.07	.06	.38	.14	2.20	.23	1.50	1.81	2.86	.32	.06	.14

CAL YR 1980 TOTAL 5201.57 MEAN 14.2 MAX 695 MIN .23 CFSM .65 IN 8.84
WTR YR 1981 TOTAL 5746.46 MEAN 15.7 MAX 544 MIN .25 CFSM .72 IN 9.76

04183000 MAUMEE RIVER AT NEW HAVEN, IN

LOCATION.--Lat 41°05'06", long 85°01'20", in SE¼NE¼ sec.2, T.30 N., R.13 E., Allen County, Hydrologic Unit 04100005, on left bank 600 ft (183 m) upstream from bridge on Landin Road, 1,400 ft (427 m) upstream from the Wabash Railroad bridge, 1.1 miles (1.8 km) northwest of New Haven, 2.8 miles (4.5 km) upstream from Sixmile Creek and at mile 129.0 (207.6 km).

DRAINAGE AREA.--1,967 mi² (5,095 km²).

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 (220.831 m) 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 (152 m) downstream at same datum.

REMARKS.--Records good. Flow regulated by hydro-powerplant on the St. Joseph River 10.3 miles (16.6 km) upstream from station. Flow slightly regulated by upstream reservoirs.

AVERAGE DISCHARGE.--25 years (1956 to current year), 1,604 ft³/s (45.4 m³/s), 11.07 in/yr (281 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,400 ft³/s (634 m³/s) Mar. 24, 1978, gage height, 23.58 ft (7.187 m); minimum daily, 48 ft³/s (1.36 m³/s) Oct. 6, 13, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 9,500 ft³/s (269 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 20	0700	9910	281	15.83	4.825
June 14	1300	*17000	481	*20.71	6.312

Minimum daily discharge, 175 ft³/s (4.96 m³/s) Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	241	412	365	330	450	4070	566	4510	1570	3390	2060	753
2	371	386	391	330	650	3420	550	4730	1530	2790	2070	1180
3	316	362	655	320	780	2880	587	4690	1370	1690	1950	1520
4	253	324	715	300	720	2400	613	4220	1180	1430	1610	3000
5	256	332	703	290	640	2070	659	3840	1330	1200	1070	5080
6	269	310	674	270	540	1840	642	3990	1990	1080	1150	3800
7	277	300	686	280	500	1730	593	3660	3620	912	871	2830
8	386	300	1050	290	450	1410	528	2860	3160	868	754	2360
9	175	290	2240	310	410	1210	683	2220	5430	558	655	1690
10	222	266	2700	290	370	1060	760	2340	6240	354	526	1180
11	215	258	2370	280	600	1070	906	2650	6430	555	577	940
12	214	255	1930	270	1000	1080	1130	2710	5280	476	486	839
13	202	254	1780	270	1300	920	2910	2890	7860	522	483	618
14	191	267	1700	270	1100	929	7160	3770	16600	445	401	513
15	212	290	1290	260	900	857	8010	7820	16400	369	481	531
16	213	256	998	260	1900	781	7460	7970	15400	456	476	474
17	298	242	858	260	5710	761	6270	6490	13700	379	368	499
18	244	246	671	260	6940	732	5560	5160	12100	350	366	448
19	215	254	679	260	8110	681	4820	4430	10500	373	357	457
20	214	250	377	270	9650	631	3980	3550	8340	1610	366	394
21	219	292	360	310	8740	613	3240	2660	5570	831	360	441
22	755	309	350	250	8700	617	2580	1910	6640	1140	254	421
23	280	228	340	260	8890	556	1780	1520	6980	1780	283	319
24	283	260	340	270	9030	494	1800	1170	5020	2350	247	355
25	311	235	400	290	8270	544	1710	1100	4790	2170	293	339
26	262	225	350	380	6950	524	1780	1020	7200	1390	220	404
27	295	238	320	500	5730	527	1770	1040	7240	1120	189	504
28	409	359	310	600	4830	511	1920	892	5350	1360	313	418
29	352	294	310	700	------	509	4240	1430	2980	1760	362	498
30	374	311	310	560	------	579	4640	1320	2590	1720	538	665
31	380	----	320	470	------	596	-----	1440	------	1920	455	-----
TOTAL	8904	8605	26542	10260	103860	36602	79847	100002	194390	37348	20591	33470
MEAN	287	287	856	331	3709	1181	2662	3226	6480	1205	664	1116
MAX	755	412	2700	700	9650	4070	8010	7970	16600	3390	2070	5080
MIN	175	225	310	250	370	494	528	892	1180	350	189	319
CFSM	.15	.15	.44	.17	1.89	.60	1.35	1.64	3.29	.61	.34	.57
IN.	.17	.16	.50	.19	1.96	.69	1.51	1.89	3.68	.71	.39	.63

CAL YR 1980 TOTAL 609865 MEAN 1666 MAX 10600 MIN 175 CFSM .85 IN 11.53
WTR YR 1981 TOTAL 660421 MEAN 1809 MAX 16600 MIN 175 CFSM .92 IN 12.49

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 miles (4.3 km) upstream from Little Kankakee River, 4 miles (6 km) northwest of North Liberty, and at mile 126.9 (204.2 km).

DRAINAGE AREA.--174 mi^2 (451 km^2), of which 58.2 mi^2 (150.7 km^2) does not contribute directly to surface runoff.

WATER-DISCHARGE RECORDS

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 (207.276 m) 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.--Records good.

AVERAGE DISCHARGE.--30 years, 148 ft^3/s (4.191 m^3/s), 11.55 in/yr (293 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 780 ft^3/s (22.1 m^3/s) June 14, 1981 gage height 8.02 ft (2.444 m); maximum gage height, 9.04 ft (2.755 m) June 27, 1968; minimum daily discharge, 46 ft^3/s (1.30 m^3/s) Sept. 9, 10, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 780 ft^3/s (22.1 m^3/s) June 14, gage height, 8.02 ft (2.444 m); minimum daily, 100 ft^3/s (2.83 m^3/s) Nov. 22 and Feb. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	119	123	123	120	125	240	117	250	286	190	260	163
2	119	121	177	118	120	224	110	227	245	184	235	154
3	136	120	200	117	118	209	107	211	226	181	220	150
4	209	118	177	115	115	202	125	199	206	180	211	149
5	207	116	161	116	112	198	120	190	199	176	195	144
6	188	113	156	114	110	188	112	181	193	165	188	141
7	172	114	155	108	106	181	110	166	184	152	183	139
8	159	111	229	109	104	175	107	164	180	153	180	143
9	147	110	360	110	102	171	127	166	235	152	174	138
10	140	106	291	109	105	168	125	271	294	147	168	134
11	134	105	234	109	101	167	145	631	258	143	165	130
12	129	105	205	107	100	165	160	500	227	148	160	127
13	124	105	192	109	102	160	187	410	416	149	157	125
14	123	106	177	107	105	157	388	330	769	143	154	124
15	122	104	168	107	115	155	330	516	630	134	157	122
16	123	103	159	106	130	150	295	466	500	132	154	124
17	131	102	152	106	270	150	262	381	440	128	148	126
18	144	101	148	105	485	146	272	316	390	124	143	127
19	139	101	142	106	595	146	248	278	350	134	141	126
20	132	101	138	105	551	144	229	250	310	166	138	123
21	129	101	134	103	475	140	207	230	297	157	134	120
22	125	100	132	104	409	138	206	216	287	143	132	118
23	122	101	131	104	372	135	301	210	265	142	129	118
24	123	101	130	103	349	134	308	207	249	133	127	118
25	131	101	125	104	306	132	261	207	254	125	125	118
26	128	101	125	115	274	132	235	200	235	549	130	123
27	124	107	123	127	253	129	220	194	218	588	155	306
28	128	108	121	130	253	127	218	188	209	500	163	271
29	128	108	126	128	----	127	297	184	201	370	180	226
30	128	107	121	123	----	130	278	367	195	330	189	258
31	128	----	122	119	----	124	----	373	----	300	172	----
TOTAL	4291	3220	5134	3463	6362	4944	6207	8679	8948	6418	5167	4485
MEAN	138	107	166	112	227	159	207	280	298	207	167	150
MAX	209	123	360	130	595	240	388	631	769	588	260	306
MIN	119	100	121	103	100	124	107	164	180	124	125	118
CFSM	.79	.62	.95	.64	1.31	.91	1.19	1.61	1.71	1.19	.96	.86
IN.	.92	.69	1.10	.74	1.36	1.06	1.33	1.86	1.91	1.37	1.10	.96

CAL YR 1980 TOTAL 54395 MEAN 149 MAX 360 MIN 67 CFSM .86 IN 11.63
WTR YR 1981 TOTAL 67318 MEAN 184 MAX 769 MIN 100 CFSM 1.06 IN 14.39

05515000 KANKAKEE RIVER NEAR NORTH LIBERTY, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
OCT										
07...	1650	19.0	173	30	14	--	--	--	---	---
14...	1700	12.0	132	32	11	--	--	--	---	---
20...	1700	12.0	133	20	7.2	--	--	--	---	---
27...	1640	9.0	125	20	6.7	--	--	--	---	---
NOV										
03...	1700	----	122	29	9.6	--	--	--	---	---
05...	1510	8.0	114	29	8.9	--	--	--	---	---
10...	1710	8.0	102	33	9.1	--	--	--	---	---
19...	1700	7.0	97	33	8.6	--	--	--	---	---
24...	1705	7.0	97	25	6.5	--	--	--	---	---
MAR										
04...	1055	5.0	202	48	26	75	--	--	---	---
APR										
14...	1615	13.0	473	104	133	79	88	94	97	100
14...	2015	----	478	81	105	82	92	97	99	100
15...	0750	9.0	348	53	50	84	94	98	100	---
MAY										
14...	1025	10.0	348	63	59	90	--	--	---	---
JUN										
10...	1415	16.0	290	119	93	84	--	--	---	---
JUL										
21...	1140	17.5	144	74	29	--	--	--	---	---
29...	1115	----	385	119	124	89	--	--	---	---

05515400 KINGSBURY CREEK NEAR LAPORTE, IN

LOCATION.--Lat 41°32'49", long 86°43'48", in SW¼SE¼ sec.23, T.36 N., R.3 W., LaPorte County, Hydrologic Unit 07120001, on left bank at upstream side of bridge on County Road 400 South, 0.5 mile (0.8 km) east of State Highway 39, 1.5 miles (2.4 km) west of U.S. Highway 35, and 3 miles (5 km) south of LaPorte city limits.

DRAINAGE AREA.--7.08 mi² (18.34 km²), of which 4.07 mi² (10.54 km²) does not contribute directly to surface runoff.

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

GAGE.--Water-stage recorder. Datum of gage is 753.00 ft (229.514 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--11 years, 3.95 ft³/s (0.112 m³/s), 7.58 in/yr (193 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 73 ft³/s (2.07 m³/s) July 26, 1981, gage height, 6.83 ft (2.082 m); minimum daily, 0.83 ft³/s (0.024 m³/s) Dec. 3, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 15 ft³/s (0.425 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 18	1900	19	0.54	4.68	1.426	July 28	0200	21	0.59	4.85	1.478
June 13	1300	55	1.56	6.18	1.884	Aug. 28	0300	35	0.99	5.47	1.667
June 16	0200	16	0.45	4.52	1.378	Sept. 27	0100	49	1.39	6.01	1.832
July 26	0200	*73	2.07	*6.83	2.082	Sept. 30	0400	27	0.76	5.11	1.558

Minimum daily discharge, 1.3 ft³/s (0.037 m³/s) Nov. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	1.9	2.1	1.6	1.9	3.9	1.8	6.1	4.8	4.4	4.4	4.8
2	2.3	1.8	3.1	1.6	1.9	3.9	1.7	5.6	4.5	4.4	4.3	4.5
3	3.1	1.8	2.3	1.6	1.6	3.6	2.0	5.2	4.5	4.3	4.3	4.3
4	3.0	1.8	2.0	1.6	1.6	3.7	2.4	4.8	4.3	4.4	4.2	4.3
5	2.5	1.8	2.0	1.5	1.6	3.6	2.1	4.7	4.3	4.4	3.9	4.0
6	2.3	1.8	2.1	1.6	1.6	3.5	1.9	4.5	4.3	4.2	3.9	3.9
7	2.2	1.8	2.3	1.5	1.6	3.4	1.9	4.3	4.0	4.0	3.9	3.9
8	2.2	1.7	5.6	1.5	1.6	3.2	1.9	4.2	4.2	3.9	3.9	4.3
9	2.1	1.7	3.7	1.5	1.5	3.2	1.9	4.1	5.3	3.8	3.9	3.9
10	2.0	1.6	2.8	1.5	1.9	3.1	3.4	5.3	5.1	3.6	3.7	3.8
11	2.0	1.5	2.5	1.5	1.8	2.9	6.6	7.4	4.3	3.5	3.7	3.7
12	2.0	1.5	2.4	1.5	1.7	2.8	8.6	6.0	4.0	3.7	3.6	3.6
13	2.0	1.5	2.2	1.6	1.5	2.7	6.0	5.1	23	3.9	3.4	3.6
14	2.1	1.7	2.1	1.5	1.5	2.5	13	9.0	18	3.6	3.4	3.6
15	2.0	1.5	2.0	1.5	1.5	2.3	12	8.2	8.8	3.6	3.8	3.5
16	2.1	1.5	1.9	1.5	2.2	2.3	11	6.2	10	3.7	3.6	4.6
17	2.6	1.5	1.8	1.5	5.4	2.2	9.5	5.6	6.3	3.5	3.4	6.7
18	2.4	1.5	1.8	1.5	12	2.2	8.4	5.5	5.5	3.4	3.4	5.0
19	2.2	1.5	1.7	1.5	9.6	2.2	7.5	5.3	5.1	3.5	3.2	4.3
20	2.1	1.5	1.6	1.5	6.6	2.2	7.0	5.0	5.1	4.9	3.1	3.9
21	2.0	1.5	1.6	1.5	5.3	2.0	6.6	4.9	6.6	4.9	3.0	3.6
22	2.0	1.4	1.6	1.5	5.1	2.0	6.4	4.8	6.0	3.8	3.0	3.5
23	2.0	1.5	1.6	1.5	5.1	2.0	7.2	4.6	5.3	3.7	3.0	3.4
24	2.2	1.5	1.7	1.5	5.0	1.9	6.7	5.3	5.3	3.5	2.9	3.4
25	2.3	1.4	1.6	1.6	4.3	1.9	6.4	5.8	5.4	6.0	5.5	3.4
26	2.0	1.3	1.6	2.0	3.9	2.0	6.1	5.0	4.9	35	6.8	6.2
27	2.0	1.6	1.6	1.9	4.0	1.9	5.9	4.9	4.6	10	8.8	22
28	2.3	1.8	1.6	1.8	4.5	1.9	6.5	4.6	4.5	13	17	7.5
29	2.1	1.7	1.7	1.6	----	1.9	7.0	4.6	4.4	6.6	6.8	8.6
30	2.0	1.7	1.6	1.7	----	1.8	6.5	7.6	4.3	5.4	5.5	15
31	2.0	----	1.8	1.7	----	1.8	-----	5.3	-----	4.8	5.0	-----
TOTAL	68.3	48.3	66.0	48.9	97.8	80.5	175.9	169.5	186.7	175.4	142.3	160.8
MEAN	2.20	1.61	2.13	1.58	3.49	2.60	5.86	5.47	6.22	5.66	4.59	5.36
MAX	3.1	1.9	5.6	2.0	12	3.9	13	9.0	23	35	17	22
MIN	2.0	1.3	1.6	1.5	1.5	1.8	1.7	4.1	4.0	3.4	2.9	3.4
CFSM	.31	.23	.30	.22	.49	.37	.83	.77	.88	.80	.65	.76
IN.	.36	.25	.35	.26	.51	.42	.92	.89	.98	.92	.75	.84

CAL YR 1980 TOTAL 1018.2 MEAN 2.78 MAX 19 MIN 1.3 CFSM .39 IN 5.35
WTR YR 1981 TOTAL 1420.4 MEAN 3.89 MAX 35 MIN 1.3 CFSM .55 IN 7.46

05515500 KANKAKEE RIVER AT DAVIS, IN

LOCATION.--Lat 41°24'00", long 86°42'04", in SE¼NE¼ sec.13, T.34 N., R.3 W., Starke County, Hydrologic Unit 07120001, on left bank at downstream side of bridge on U.S. Highway 30 at Davis, 0.5 mile (0.8 km) downstream from Mill Creek, 4 miles (6 km) east of Hanna, and at mile 110.9 (178.4 km).

DRAINAGE AREA.--537 mi² (1,391 km²), of which 137 mi² (355 km²) 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 (202.594 m) National Geodetic Vertical Datum of 1929. July 13, 1905, to July 21, 1906, nonrecording gage at site 50 ft (15 m) downstream at different datum. July 28, 1925, to May 18, 1929, nonrecording gage on bridge 0.5 mile (0.8 km) downstream at different datum. Apr. 19, 1931, to Nov. 3, 1953, nonrecording gage at present site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--57 years, 1924 to current year, 496 ft³/s (14.05 m³/s), 12.54 in/yr (319 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,700 ft³/s (48.1 m³/s) Dec. 15, 1927, gage height, 9.50 ft (2.896 m), site and datum then in use, from rating curve extended above 520 ft³/s (14.7 m³/s); maximum gage height at present site and datum, 12.52 ft (3.816 m) July 29, 1981; minimum daily discharge, 154 ft³/s (4.36 m³/s) Aug. 30 to Sept. 3, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,580 ft³/s (44.7 m³/s) July 29, gage height, 12.52 ft (3.816 m); minimum daily, 332 ft³/s (9.40 m³/s) Aug. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	417	391	376	418	452	814	476	858	762	643	1420	733
2	414	385	441	411	450	778	465	800	702	622	1290	712
3	429	379	543	407	450	742	458	745	662	601	1160	700
4	523	379	540	391	445	715	466	698	628	582	1070	677
5	557	372	508	395	440	703	483	665	606	574	989	648
6	535	367	482	400	430	674	469	641	603	554	910	609
7	508	371	477	400	425	651	459	610	584	531	838	580
8	489	365	667	404	420	633	449	585	568	512	770	577
9	468	361	972	410	414	617	463	571	620	499	718	565
10	449	354	977	415	417	607	490	690	695	483	675	543
11	438	348	891	426	415	595	702	1150	703	466	646	520
12	427	347	804	427	410	587	814	1310	657	462	615	502
13	420	346	737	428	410	585	841	1280	809	466	590	489
14	417	353	680	428	430	576	1050	1250	1400	456	566	479
15	417	353	633	429	448	574	1220	1370	1490	445	577	468
16	415	351	593	426	506	569	1160	1400	1540	447	571	465
17	424	346	554	423	841	557	1050	1330	1490	433	544	484
18	452	344	534	414	1050	538	960	1210	1410	417	518	490
19	455	343	508	415	1160	527	903	1110	1240	421	500	475
20	438	341	475	414	1180	520	860	1030	1130	477	484	463
21	427	337	465	412	1140	515	800	955	1070	598	475	455
22	410	336	452	417	1090	506	750	886	1060	562	470	451
23	402	332	445	418	1040	500	867	827	1020	500	455	438
24	398	336	442	418	1020	497	958	783	955	476	448	431
25	402	335	430	417	994	491	893	765	923	452	454	436
26	405	335	427	436	927	490	810	738	877	1010	518	440
27	398	341	426	469	872	487	760	708	805	1400	750	661
28	407	357	418	487	841	480	738	680	745	1520	917	839
29	412	364	421	486	-----	475	877	657	698	1570	900	778
30	402	364	426	469	-----	482	919	700	665	1550	846	867
31	397	-----	420	454	-----	487	-----	802	-----	1500	772	-----
TOTAL	13552	10633	17164	13164	19117	17972	22610	27804	27117	21229	22456	16975
MEAN	437	354	554	425	683	580	754	897	904	685	724	566
MAX	557	391	977	487	1180	814	1220	1400	1540	1570	1420	867
MIN	397	332	376	391	410	475	449	571	568	417	448	431
CFSM	.81	.66	1.03	.79	1.27	1.08	1.40	1.67	1.68	1.28	1.35	1.05
IN.	.94	.74	1.19	.91	1.32	1.24	1.57	1.93	1.88	1.47	1.56	1.18

CAL YR 1980	TOTAL 185491	MEAN 507	MAX 1130	MIN 233	CFSM .94	IN 12.85		
WTR YR 1981	TOTAL 229793	MEAN 630	MAX 1570	MIN 332	CFSM 1.17	IN 15.92		

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 (15 m) upstream from LaPorte Street footbridge in Plymouth, 1.1 miles (1.8 km) downstream from Elmer Seltenright (formerly Baker) ditch, 8.1 miles (13.0 km) upstream from Wolf Creek, and at mile 40.3 (64.8 km).

DRAINAGE AREA.--294 mi^2 (761 km^2), of which 22 mi^2 (57 km^2) does not contribute directly to surface runoff.

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

REVISED RECORDS.--WSP 1338: 1950-51. WSP 2115: Drainage area. WRD Ind. 1973: 1972(M).

GAGE.--Water-stage recorder. Datum of gage is 764.78 ft (233.105 m) 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.--Records good.

AVERAGE DISCHARGE.--33 years, 254 ft^3/s (7.193 m^3/s), 11.73 in/yr (298 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,390 ft^3/s (153 m^3/s) Oct. 12, 13, 1954, gage height, 17.13 ft (5.221 m); minimum daily, 13 ft^3/s (0.37 m^3/s) Dec. 3, 7, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,250 ft^3/s (63.7 m^3/s) June 16, gage height, 12.75 ft (3.886 m); minimum daily, 74 ft^3/s (2.10 m^3/s) Nov. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	118	129	116	130	552	115	1030	391	178	1310	238
2	104	109	267	106	140	461	110	713	298	169	736	287
3	108	103	407	99	110	383	111	494	266	160	425	315
4	106	102	286	95	110	347	125	384	250	154	363	749
5	100	99	228	92	112	348	124	322	230	149	284	920
6	97	95	206	89	115	321	115	288	262	142	253	528
7	94	93	211	87	122	280	107	252	214	133	232	317
8	90	92	641	86	116	254	105	229	188	128	210	284
9	87	89	1100	86	107	241	117	206	276	122	188	246
10	83	92	1370	87	108	234	148	466	346	118	169	210
11	82	85	1260	89	108	228	438	1360	299	112	158	192
12	79	78	839	90	108	218	428	1860	229	108	149	168
13	79	77	499	89	198	212	475	2020	659	108	133	152
14	80	87	395	88	165	195	1030	1840	1620	106	130	147
15	95	89	326	88	154	186	1550	1750	2120	100	129	140
16	126	86	284	89	352	182	1740	1860	2230	99	115	124
17	148	83	244	90	989	170	1490	1840	1650	96	113	118
18	141	80	208	92	1480	163	1130	1520	1550	93	109	115
19	127	78	180	96	1870	156	868	1080	1040	91	105	112
20	116	76	152	99	2070	153	569	633	564	236	100	107
21	107	76	145	100	2080	147	426	435	395	369	96	103
22	100	76	137	100	1860	141	355	363	490	229	92	98
23	104	75	132	97	1520	134	557	316	520	155	88	95
24	126	77	128	99	1260	133	762	296	362	131	86	93
25	130	77	126	101	1120	129	518	411	334	119	93	97
26	125	74	125	125	895	132	376	369	319	597	108	115
27	116	75	124	198	641	135	322	601	250	1060	503	349
28	119	87	123	235	572	119	403	652	220	1470	574	686
29	130	95	135	218	-----	124	902	449	201	1670	724	426
30	133	96	140	170	-----	130	1170	506	186	1760	439	716
31	126	----	137	144	-----	124	-----	608	-----	1650	291	----
TOTAL	3355	2619	10684	3440	18612	6732	16686	25153	17959	11812	8505	8247
MEAN	108	87.3	345	111	665	217	556	811	599	381	274	275
MAX	148	118	1370	235	2080	552	1740	2020	2230	1760	1310	920
MIN	79	74	123	86	107	119	105	206	186	91	86	93
CFSM	.37	.30	1.17	.38	2.26	.74	1.89	2.76	2.04	1.30	.93	.94
IN.	.42	.33	1.35	.44	2.35	.85	2.11	3.18	2.27	1.49	1.08	1.04

CAL YR 1980 TOTAL 90076 MEAN 246 MAX 1420 MIN 35 CFSM .84 IN 11.40
WTR YR 1981 TOTAL 133804 MEAN 367 MAX 2230 MIN 74 CFSM 1.25 IN 16.93

05516500 YELLOW RIVER AT PLYMOUTH, IN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
WATER TEMPERATURE: June 1979 to current year.
SEDIMENT DISCHARGE: June 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURE: Maximum, 27°C. July 10, 1981; minimum, freezing point many days each year.
SEDIMENT CONCENTRATION: Maximum daily, 501 mg/L June 8, 1980; minimum daily, 2 mg/L Jan. 13, 1981.
SEDIMENT DISCHARGE: Maximum daily load, 1,230 tons (1,120 Mg) June 14, 1981; minimum daily load, 0.40 tons (0.36 Mg) Sept. 22-24, 1979.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 27°C July 10; minimum, freezing point many days.
SEDIMENT CONCENTRATIONS: Maximum daily, 441 mg/L May 27; minimum daily, 2 mg/L Jan. 13.
SEDIMENT DISCHARGE: Maximum daily load, 1,230 tons (1,120 Mg) June 14; minimum daily load, 0.48 tons (0.44 Mg) Jan. 13.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
JAN								
27...	1240	3.5	204	19	10	--	--	--
APR								
14...	1335	----	1080	519	1510	--	--	--
MAY								
12...	1340	10.5	1900	130	667	--	--	--
13...	1400	----	2040	104	573	--	--	--
JUN								
09...	1210	16.0	286	110	85	--	--	--
12...	1800	----	221	109	65	--	--	--
16...	1710	----	2240	59	357	68	76	76
JUL								
20...	1435	21.0	282	188	143	--	--	--
SEP								
01...	0940	20.5	235	48	30	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
JAN							
27...	--	--	96	--	--	---	---
APR							
14...	--	--	96	98	99	100	---
MAY							
12...	--	--	82	84	90	99	100
13...	--	--	92	--	--	---	---
JUN							
09...	--	--	85	--	--	---	---
12...	--	--	91	96	99	100	---
16...	76	77	78	79	88	99	100
JUL							
20...	--	--	98	--	--	---	---
SEP							
01...	--	--	98	--	--	---	---

05516500 YELLOW RIVER AT PLYMOUTH, IN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	9.0	10.0	2.0	2.0	7.0	12.0	14.0	15.0	22.0	24.0	23.0
2	20.0	10.0	9.0	2.0	.0	5.0	15.0	15.0	20.0	20.0	23.0	22.0
3	----	10.0	4.0	.0	.0	7.0	15.0	15.0	22.0	22.0	23.0	21.0
4	14.0	12.0	5.0	1.0	.0	6.0	16.0	9.0	20.0	21.0	24.0	22.0
5	15.0	10.0	7.0	.0	1.0	8.0	10.0	12.0	20.0	20.0	25.0	22.0
6	15.0	13.0	12.0	5.0	3.0	5.0	12.0	10.0	20.0	24.0	24.0	23.0
7	14.0	14.0	15.0	1.0	4.0	5.0	15.0	10.0	18.0	25.0	24.0	20.0
8	17.0	11.0	14.0	2.0	3.0	6.0	15.0	18.0	20.0	25.0	24.0	20.0
9	16.0	15.0	11.0	.0	3.0	7.0	17.0	18.0	18.0	25.0	24.0	19.0
10	16.0	10.0	9.0	.0	2.0	8.0	15.0	15.0	20.0	27.0	23.0	20.0
11	15.0	10.0	5.0	4.0	---	6.0	14.0	14.0	20.0	25.0	22.0	22.0
12	12.0	8.0	11.0	.0	---	9.0	15.0	14.0	18.0	24.0	23.0	23.0
13	12.0	13.0	8.0	4.0	3.0	9.0	15.0	14.0	21.0	24.0	24.0	23.0
14	15.0	11.0	5.0	2.0	4.0	8.0	15.0	11.0	----	24.0	22.0	21.0
15	15.0	12.0	6.0	3.0	8.0	12.0	16.0	12.0	25.0	20.0	22.0	20.0
16	----	9.0	9.0	3.0	5.0	----	15.0	17.0	24.0	22.0	21.0	18.0
17	18.0	9.0	8.0	3.0	4.0	----	16.0	16.0	23.0	24.0	20.0	15.0
18	----	8.0	7.0	5.0	6.0	----	16.0	13.0	21.0	24.0	18.0	15.0
19	15.0	10.0	.0	6.0	8.0	----	14.0	15.0	22.0	23.0	20.0	17.0
20	15.0	8.0	.0	5.0	8.0	----	11.0	18.0	21.0	24.0	21.0	18.0
21	----	8.0	1.0	4.0	6.0	----	10.0	18.0	21.0	23.0	21.0	18.0
22	15.0	9.0	2.0	4.0	5.0	----	13.0	18.0	23.0	20.0	22.0	16.0
23	----	9.0	4.0	6.0	6.0	----	15.0	20.0	24.0	21.0	21.0	16.0
24	11.0	7.0	5.0	5.0	8.0	----	12.0	20.0	24.0	23.0	24.0	15.0
25	9.0	9.0	.0	6.0	9.0	----	13.0	20.0	24.0	22.0	24.0	17.0
26	----	8.0	.0	5.0	5.0	10.0	13.0	20.0	22.0	22.0	21.0	19.0
27	8.0	4.0	5.0	6.0	4.0	13.0	20.0	20.0	20.0	22.0	22.0	18.0
28	9.0	5.0	5.0	4.0	9.0	15.0	17.0	18.0	24.0	22.0	23.0	18.0
29	9.0	5.0	7.0	1.0	---	14.0	15.0	20.0	23.0	22.0	23.0	18.0
30	8.0	8.0	5.0	2.0	---	14.0	15.0	19.0	22.0	22.0	23.0	20.0
31	10.0	----	7.0	3.0	---	17.0	----	20.0	----	24.0	23.0	----

05516500 YELLOW RIVER AT PLYMOUTH, IN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.0	7.0	4.0	2.0	1.0	5.0	12.0	8.0	15.0	21.0	21.0	20.0
2	15.0	8.0	4.0	.0	.0	5.0	11.0	9.0	18.0	19.0	21.0	20.0
3	16.0	8.0	.0	.0	.0	5.0	8.0	10.0	18.0	19.0	22.0	19.0
4	10.0	9.0	1.0	1.0	.0	5.0	15.0	7.0	15.0	20.0	21.0	19.0
5	11.0	8.0	4.0	.0	.0	5.0	10.0	10.0	19.0	20.0	22.0	20.0
6	10.0	7.0	8.0	.0	.0	3.0	8.0	9.0	20.0	18.0	22.0	19.0
7	13.0	8.0	10.0	.0	1.0	4.0	10.0	9.0	16.0	18.0	20.0	19.0
8	13.0	8.0	10.0	.0	.0	5.0	14.0	8.0	20.0	22.0	19.0	18.0
9	12.0	11.0	7.0	.0	.0	5.0	12.0	14.0	16.0	22.0	19.0	16.0
10	12.0	8.0	5.0	.0	.0	6.0	14.0	15.0	16.0	20.0	19.0	16.0
11	12.0	5.0	3.0	.0	---	5.0	14.0	10.0	18.0	23.0	18.0	18.0
12	10.0	5.0	4.0	.0	.0	6.0	15.0	10.0	18.0	20.0	19.0	18.0
13	9.0	6.0	4.0	.0	.0	6.0	14.0	10.0	20.0	22.0	19.0	19.0
14	11.0	7.0	3.0	.0	.0	6.0	10.0	10.0	21.0	20.0	21.0	20.0
15	12.0	5.0	3.0	.0	5.0	8.0	10.0	10.0	22.0	20.0	20.0	17.0
16	14.0	5.0	5.0	.0	5.0	6.0	12.0	10.0	23.0	19.0	18.0	15.0
17	17.0	5.0	4.0	.0	3.0	6.0	12.0	15.0	20.0	18.0	16.0	13.0
18	14.0	5.0	3.0	2.0	5.0	5.0	14.0	13.0	20.0	20.0	15.0	12.0
19	12.0	3.0	.0	.0	5.0	4.0	11.0	13.0	20.0	22.0	15.0	12.0
20	11.0	4.0	.0	2.0	5.0	5.0	8.0	15.0	19.0	21.0	15.0	12.0
21	12.0	3.0	.0	.0	5.0	5.0	8.0	15.0	20.0	22.0	16.0	14.0
22	10.0	4.0	.0	2.0	5.0	6.0	11.0	15.0	20.0	20.0	18.0	14.0
23	11.0	4.0	.0	1.0	6.0	7.0	11.0	16.0	18.0	18.0	17.0	10.0
24	9.0	5.0	1.0	3.0	6.0	8.0	9.0	15.0	18.0	18.0	18.0	12.0
25	8.0	4.0	.0	3.0	5.0	7.0	8.0	15.0	19.0	19.0	19.0	12.0
26	8.0	3.0	.0	3.0	5.0	9.0	9.0	18.0	19.0	20.0	20.0	15.0
27	5.0	3.0	.0	4.0	3.0	8.0	10.0	17.0	17.0	20.0	20.0	15.0
28	6.0	3.0	2.0	3.0	7.0	9.0	15.0	18.0	18.0	20.0	21.0	16.0
29	5.0	2.0	1.0	.0	---	12.0	12.0	19.0	18.0	20.0	20.0	15.0
30	5.0	3.0	1.0	.0	---	12.0	12.0	15.0	20.0	17.0	21.0	14.0
31	7.0	----	1.0	.0	---	10.0	----	14.0	----	20.0	21.0	----

05516500 YELLOW RIVER AT PLYMOUTH, IN--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	32	8.4	---	7.2	28	9.8	9	2.8	11	3.9	11	16
2	20	5.6	---	6.2	34	25	10	2.9	8	3.0	7	8.7
3	24	7.0	---	5.4	31	34	9	2.4	6	1.8	8	8.3
4	23	6.6	---	6.4	10	7.7	8	2.1	---	1.6	6	5.6
5	26	7.0	---	5.8	8	4.9	9	2.2	---	1.5	6	5.6
6	26	6.8	21	5.4	13	7.2	6	1.4	---	1.8	6	5.2
7	36	9.1	15	3.8	22	13	6	1.4	7	2.3	5	3.8
8	34	8.3	18	4.5	204	360	6	1.4	10	3.1	4	2.7
9	29	6.8	19	4.6	138	410	5	1.2	15	4.3	6	3.9
10	24	5.4	18	4.5	70	259	4	.94	18	5.2	5	3.2
11	---	4.6	11	2.5	36	122	4	.96	15	4.4	6	3.7
12	---	4.2	10	2.1	24	54	4	.97	20	5.8	5	2.9
13	---	3.9	13	2.7	19	26	2	.48	8	4.3	8	4.6
14	21	4.5	14	3.3	12	13	3	.71	8	3.6	7	3.7
15	---	5.2	29	7.0	9	7.9	4	.95	14	5.8	---	3.5
16	19	6.5	23	5.3	8	6.1	5	1.2	58	76	---	3.3
17	20	8.0	20	4.5	9	5.9	6	1.5	84	224	---	3.4
18	18	6.9	18	3.9	9	5.1	7	1.7	59	236	8	3.5
19	13	4.5	20	4.2	8	3.9	9	2.3	48	242	8	3.4
20	11	3.4	21	4.3	11	4.5	10	2.7	33	184	---	3.3
21	10	2.9	20	4.1	10	3.9	8	2.2	20	112	---	3.2
22	9	2.4	20	4.1	10	3.7	5	1.4	15	75	---	3.3
23	10	2.8	22	4.5	10	3.6	7	1.8	15	62	10	3.6
24	---	7.0	28	5.8	11	3.8	6	1.6	14	48	10	3.6
25	---	8.2	27	5.6	10	3.4	6	1.6	14	42	10	3.5
26	20	6.8	24	4.8	10	3.4	7	2.4	13	31	21	7.5
27	19	6.0	27	5.5	12	4.0	10	5.3	9	16	18	6.6
28	18	5.8	31	7.3	11	3.7	9	5.7	10	15	22	7.1
29	31	11	23	5.9	16	5.8	8	4.7	---	------	26	8.7
30	24	8.6	22	5.7	10	3.8	8	3.7	---	------	27	9.5
31	26	8.8	---	-----	9	3.3	9	3.5	---	------	28	9.4
TOTAL	---	193.0	---	146.9	---	1421.4	---	66.11	---	1415.4	---	164.3

05516500 YELLOW RIVER AT PLYMOUTH, IN--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	APRIL MEAN CONCEN-TRATION (MG/L)	APRIL LOADS (T/DAY)	MAY MEAN CONCEN-TRATION (MG/L)	MAY LOADS (T/DAY)	JUNE MEAN CONCEN-TRATION (MG/L)	JUNE LOADS (T/DAY)	JULY MEAN CONCEN-TRATION (MG/L)	JULY LOADS (T/DAY)	AUGUST MEAN CONCEN-TRATION (MG/L)	AUGUST LOADS (T/DAY)	SEPTEMBER MEAN CONCEN-TRATION (MG/L)	SEPTEMBER LOADS (T/DAY)
1	22	6.8	50	139	67	71	---	10	28	99	50	32
2	23	6.8	37	71	---	40	---	8.6	42	83	76	59
3	26	7.8	31	41	---	25	---	7.8	42	48	72	61
4	34	11	32	33	---	19	---	8.0	40	39	236	477
5	32	11	33	29	---	16	21	8.4	34	26	88	219
6	19	5.9	29	23	---	26	23	8.8	39	27	56	80
7	19	5.5	23	16	---	14	22	7.9	41	26	46	39
8	22	6.2	19	12	---	10	22	7.6	34	19	45	35
9	20	6.3	17	9.5	---	84	18	5.9	34	17	37	25
10	55	25	109	202	68	64	18	5.7	33	15	32	18
11	118	140	221	812	50	40	19	5.7	43	18	26	13
12	37	43	115	578	34	21	20	5.8	40	16	26	12
13	29	37	70	876	321	571	20	5.8	---	14	24	9.8
14	279	824	74	368	281	1230	20	5.7	33	12	24	9.5
15	182	762	85	402	168	962	18	4.9	32	11	23	8.7
16	100	470	52	261	92	554	18	4.8	32	9.9	22	7.4
17	60	241	38	189	44	196	18	4.7	38	12	---	7.0
18	54	165	27	111	38	159	18	4.5	---	11	---	6.7
19	65	152	27	79	38	107	18	4.4	33	9.4	21	6.4
20	37	57	31	53	40	61	151	96	---	8.8	25	7.2
21	28	32	24	28	46	49	153	152	32	8.3	18	5.0
22	22	21	23	23	137	181	53	33	28	7.0	16	4.2
23	74	127	26	22	94	132	22	9.2	29	6.9	---	3.9
24	72	148	26	21	54	53	18	6.4	31	7.2	---	3.6
25	29	41	208	239	60	54	20	6.4	29	7.3	---	6.0
26	20	20	77	77	48	41	428	690	28	8.2	44	14
27	18	16	441	718	32	22	211	739	292	397	292	335
28	139	218	135	238	25	15	89	583	136	211	142	263
29	418	1020	66	80	24	13	67	302	98	192	60	72
30	118	373	151	230	22	11	42	200	63	75	205	413
31	---	------	157	265	---	----	28	125	64	50	---	------
TOTAL	---	4999.3	---	6245.5	---	4841	---	3067.0	---	1491.0	---	2252.4

TOTAL LOAD FOR YEAR: 26303.31 TONS.

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 (12 m) upstream from bridge on U.S. Highway 35 in Knox, 1.4 miles (2.3 km) downstream from Eagle Creek, and 11.6 miles (18.7 km) upstream from mouth.

DRAINAGE AREA.--435 mi^2 (1,127 km^2), of which 51 mi^2 (132 km^2) does not contribute directly to surface runoff.

PERIOD OF RECORD.--August 1905 to July 1906, August 1943 to current year.

REVISED RECORDS.--WSP 1278: 1952. WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 679.93 ft (207.243 m) 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.--Records good.

AVERAGE DISCHARGE.--38 years (water years 1944 to current year), 389 ft^3/s (11.02 m^3/s), 12.14 in/yr (308 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,660 ft^3/s (160 m^3/s) Oct. 15, 16, 1954, gage height, 13.75 ft (4.191 m); minimum daily, 50 ft^3/s (1.42 m^3/s) Jan. 21-31, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,220 ft^3/s (91.2 m^3/s) June 15, gage height, 10.53 ft (3.210 m); minimum daily, 145 ft^3/s (4.11 m^3/s) Oct. 13, 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	176	203	185	225	252	757	228	1210	781	417	1830	460
2	173	197	239	212	271	716	218	1230	602	400	1630	400
3	172	195	382	200	218	635	214	904	514	379	1030	480
4	183	189	460	190	214	565	214	667	473	364	635	501
5	182	183	386	178	212	541	217	551	451	355	534	718
6	178	178	329	170	218	528	217	487	487	339	448	766
7	170	169	310	165	234	483	215	440	465	321	412	659
8	164	166	435	162	215	439	211	404	413	305	381	486
9	160	166	775	160	207	410	211	380	555	295	350	445
10	155	161	981	160	208	386	213	458	638	284	328	402
11	151	160	1250	164	208	372	251	1150	614	280	305	349
12	147	157	1330	168	208	363	464	1680	518	271	290	313
13	145	154	1030	170	262	352	522	1960	828	264	274	282
14	146	161	679	172	312	342	1120	2220	2150	258	264	261
15	145	168	551	170	297	320	1730	2480	3150	251	280	251
16	145	167	472	168	316	311	1860	2410	3120	249	273	244
17	156	161	420	172	735	305	1930	2240	2960	239	266	243
18	193	158	376	176	1100	290	1800	2150	2660	229	250	230
19	216	154	349	179	1460	282	1520	1920	2190	235	239	221
20	209	153	305	184	1740	274	1280	1580	1700	354	240	213
21	195	151	271	187	1940	268	920	1030	1060	525	234	205
22	184	149	260	186	2070	258	690	722	976	555	225	200
23	174	152	252	181	2010	246	730	627	1180	403	217	194
24	166	152	247	178	1780	241	930	569	940	328	212	192
25	177	152	242	179	1580	237	950	589	743	292	208	190
26	185	151	237	185	1300	235	700	665	692	381	205	197
27	191	154	235	218	1140	233	640	664	607	764	250	258
28	192	159	233	284	866	233	620	801	525	1170	360	465
29	198	169	232	316	-----	233	1030	816	476	1560	520	680
30	202	175	238	310	-----	233	1150	719	441	1740	650	611
31	210	----	238	273	-----	233	-----	774	-----	1840	550	-----
TOTAL	5440	4964	13929	6042	21573	11321	22995	34497	32909	15647	13890	11116
MEAN	175	165	449	195	770	365	767	1113	1097	505	448	371
MAX	216	203	1330	316	2070	757	1930	2480	3150	1840	1830	766
MIN	145	149	185	160	207	233	211	380	413	229	205	190
CFSM	.40	.38	1.03	.45	1.77	.84	1.76	2.56	2.52	1.16	1.03	.85
IN.	.47	.42	1.19	.52	1.84	.97	1.97	2.95	2.81	1.34	1.19	.95

CAL YR 1980 TOTAL 133380 MEAN 364 MAX 1550 MIN 103 CFSM .84 IN 11.41
WTR YR 1981 TOTAL 194323 MEAN 532 MAX 3150 MIN 145 CFSM 1.22 IN 16.62

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 county highway bridge at Dunns Bridge, 1.8 miles (2.9 km) north of Tefft, 3.6 miles (5.8 km) upstream from Davis ditch, and at mile 90.8 (146.1 km).

DRAINAGE AREA.--1,352 mi² (3,502 km²), of which 192 mi² (497 km²) 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 (198.013 m) 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.--Records good.

AVERAGE DISCHARGE.--33 years, 1,300 ft³/s (36.82 m³/s), 13.06 in/yr (332 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,300 ft³/s (150 m³/s) Oct. 22, 1954, gage height, 13.20 ft (4.023 m); minimum daily, 280 ft³/s (7.93 m³/s) Jan. 25-29, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,890 ft³/s (138 m³/s) June 18, gage height, 12.59 ft (3.837 m); minimum daily, 708 ft³/s (20.0 m³/s) Nov. 13, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	859	832	803	1160	1080	2820	1110	2650	2420	2510	3360	2040
2	837	814	910	1110	1030	2610	1070	2730	2350	2310	3370	1910
3	817	798	1100	1080	1000	2440	1050	2720	2190	2130	3410	1830
4	814	817	1220	1010	1010	2290	1050	2560	2030	1980	3340	1800
5	894	812	1250	960	1050	2180	1070	2330	1900	1880	3170	1840
6	922	798	1240	900	1080	2070	1050	2130	1850	1790	2980	1950
7	903	784	1230	850	1100	1980	1020	1950	1810	1690	2750	1970
8	872	772	1450	800	1090	1890	1000	1820	1720	1610	2500	1830
9	846	761	2060	780	1080	1800	1020	1720	1800	1510	2280	1660
10	814	753	2390	760	1050	1740	1050	1910	2050	1450	2060	1560
11	798	728	2500	750	1000	1680	1190	2610	2130	1390	1900	1440
12	778	714	2550	750	1000	1620	1510	3060	2090	1330	1750	1350
13	761	708	2530	750	1050	1580	1890	3300	2380	1320	1640	1280
14	750	725	2350	760	1200	1520	2820	3570	3410	1290	1530	1230
15	753	744	2120	770	1300	1480	3270	3990	3870	1250	1520	1180
16	742	747	1930	780	1450	1450	3530	4320	4280	1240	1520	1150
17	742	750	1760	800	1800	1440	3670	4480	4660	1200	1460	1140
18	775	761	1650	810	2200	1390	3740	4570	4870	1150	1370	1100
19	832	756	1580	830	2540	1350	3700	4550	4860	1120	1300	1060
20	846	744	1450	820	2810	1320	3590	4430	4790	1340	1240	1030
21	829	736	1380	810	3000	1280	3400	4250	4660	1730	1190	1010
22	817	728	1300	800	3150	1260	3130	3930	4510	1860	1150	1000
23	798	728	1250	790	3270	1230	2940	3530	4280	1730	1110	986
24	792	728	1200	820	3380	1220	2820	3250	4090	1520	1080	961
25	800	717	1160	860	3400	1190	2780	2990	3890	1380	1070	953
26	803	708	1130	920	3340	1170	2720	2770	3650	1610	1160	953
27	806	733	1110	1000	3220	1170	2570	2630	3470	2290	1410	1090
28	829	761	1100	1040	3050	1150	2410	2480	3250	2740	1860	1440
29	837	781	1130	1090	-----	1130	2410	2440	3000	3070	2160	1670
30	829	792	1170	1110	-----	1140	2540	2470	2740	3220	2230	1820
31	832	-----	1180	1100	-----	1140	-----	2430	-----	3320	2180	-----
TOTAL	25327	22730	47183	27570	52730	49730	67120	94570	95000	55960	61050	42233
MEAN	817	758	1522	889	1883	1604	2237	3051	3167	1805	1969	1408
MAX	922	832	2550	1160	3400	2820	3740	4570	4870	3320	3410	2040
MIN	742	708	803	750	1000	1130	1000	1720	1720	1120	1070	953
CFSM	.60	.56	1.13	.66	1.39	1.19	1.66	2.26	2.34	1.34	1.46	1.04
IN.	.70	.63	1.30	.76	1.45	1.37	1.85	2.60	2.61	1.54	1.68	1.16

CAL YR 1980 TOTAL 467858 MEAN 1278 MAX 3160 MIN 446 CFSM .95 IN 12.87
WTR YR 1981 TOTAL 641203 MEAN 1757 MAX 4870 MIN 708 CFSM 1.30 IN 17.64

05517530 KANKAKEE RIVER NEAR KOUTS, IN

LOCATION.--Lat 41°15'14", long 87°02'02", in SW¼NE¼ sec.6, T.32 N., R.5 W., Jasper County, Hydrologic Unit 07120001, on left bank, 20 ft (6 m) downstream from bridge on State Highway 49, 4.5 miles (7.2 km) south of Kouts, 0.7 mile (1.1 km) upstream from Cook ditch, and at mile 86.7 (139.5 km).

DRAINAGE AREA.--1,376 mi² (3,564 km²), of which 194 mi² (502 km²) does not contribute directly to surface runoff.

WATER-DISCHARGE RECORDS

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 (196.596 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--7 years, 1,407 ft³/s (39.85 m³/s), 13.89 in/yr (353 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,630 ft³/s (131 m³/s) June 18, 1981, gage height, 13.59 ft (4.142 m); minimum daily, 335 ft³/s (9.49 m³/s) Sept. 12, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,630 ft³/s (131 m³/s) June 18, gage height, 13.59 ft (4.142 m); minimum daily, 717 ft³/s (20.3 m³/s) Nov. 13.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DISCHARGE: July 1979 to September 1980 (partial-record station).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	884	831	868	1140	1050	2820	1100	2670	2470	2620	3420	2040
2	834	859	927	1090	1000	2620	1070	2730	2400	2360	3420	1900
3	812	848	1040	1050	950	2450	1050	2720	2240	2150	3450	1780
4	823	862	1180	962	980	2280	1040	2600	2080	1980	3410	1760
5	896	834	1250	900	1000	2170	1060	2380	1930	1880	3260	1780
6	913	840	1250	860	1040	2040	1060	2180	1880	1810	3070	1860
7	890	793	1250	830	1050	1950	1080	2010	1800	1680	2840	1910
8	865	787	1400	780	1060	1850	1040	1870	1710	1590	2580	1810
9	840	774	1940	760	1040	1790	1020	1780	1810	1500	2340	1610
10	856	771	2290	740	1010	1740	1020	1970	2080	1430	2120	1540
11	848	741	2440	740	980	1680	1220	2720	2110	1370	1920	1410
12	828	723	2510	730	956	1620	1770	3170	2080	1300	1740	1330
13	801	717	2520	740	991	1580	2400	3370	2500	1330	1620	1290
14	760	736	2410	740	1190	1520	2900	3660	3300	1300	1570	1230
15	755	755	2160	750	1250	1460	3300	4050	4000	1270	1520	1160
16	755	795	1950	760	1370	1400	3550	4200	4320	1250	1530	1120
17	768	779	1760	780	1890	1410	3820	4260	4500	1210	1490	1110
18	801	768	1630	800	2210	1380	3840	4340	4610	1120	1380	1060
19	840	771	1550	810	2520	1320	3800	4340	4590	1080	1360	1010
20	828	765	1380	800	2730	1290	3700	4290	4590	1270	1270	982
21	840	755	1330	790	2920	1250	3530	4210	4510	1680	1180	991
22	848	768	1230	780	3090	1260	3290	4040	4420	1830	1160	1000
23	842	793	1200	780	3250	1250	3090	3740	4240	1710	1130	971
24	815	763	1160	790	3390	1240	2930	3440	4130	1510	1090	956
25	801	736	1140	850	3410	1210	2830	3160	3990	1360	1110	950
26	801	728	1120	916	3350	1180	2770	2910	3820	1630	1220	948
27	798	757	1120	974	3250	1150	2650	2730	3640	2470	1450	1060
28	817	784	1090	1050	3060	1120	2520	2540	3430	2930	1810	1390
29	840	812	1120	1110	-----	1100	2540	2480	3170	3280	2090	1600
30	828	859	1150	1120	-----	1120	2620	2560	2820	3370	2180	1780
31	826	-----	1150	1090	-----	1120	-----	2500	-----	3410	2150	-----
TOTAL	25653	23504	46515	27012	51987	49370	69610	95620	95170	56680	61880	41338
MEAN	828	783	1500	871	1857	1593	2320	3085	3172	1828	1996	1378
MAX	913	862	2520	1140	3410	2820	3840	4340	4610	3410	3450	2040
MIN	755	717	868	730	950	1100	1020	1780	1710	1080	1090	948
CFSM	.60	.57	1.09	.63	1.35	1.16	1.69	2.24	2.31	1.33	1.45	1.00
IN.	.69	.64	1.26	.73	1.41	1.33	1.88	2.59	2.57	1.53	1.67	1.12

CAL YR 1980 TOTAL 476974 MEAN 1303 MAX 3420 MIN 414 CFSM .95 IN 12.89
WTR YR 1981 TOTAL 644339 MEAN 1765 MAX 4610 MIN 717 CFSM 1.28 IN 17.42

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 (4.6 m) upstream from bridge on County Road 50 West, 1.6 miles (2.6 km) upstream from mouth, and 3 miles (5 km) northwest of Kouts.

DRAINAGE AREA.--30.3 mi² (78.5 km²).

WATER-DISCHARGE RECORDS

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 (198.730 m) National Geodetic Vertical Datum of 1929 (State Highway Commission bench mark). Prior to Oct. 19, 1978, water stage recorder at site 1.4 miles (2.3 km) downstream at same datum.

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

AVERAGE DISCHARGE.--13 years, 32.1 ft³/s (0.909 m³/s), 14.39 in/yr (366 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 777 ft³/s (22.0 m³/s) Mar. 5, 1976, from flood mark at site then in use; maximum gage height at present site, 17.64 ft (5.377 m); June 13, 1981; minimum daily discharge, 8.9 ft³/s (0.25 m³/s) Sept. 11, 12, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 150 ft³/s (4.25 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 12	1700	155	4.39	10.86	3.310	June 13	1300	*761	21.6	*17.64	5.377
Apr. 14	1300	370	10.5	13.40	4.084	July 26	1400	600	17.0	15.99	4.874
May 11	0400	182	5.15	11.10	3.383	Aug. 28	0800	188	5.32	11.20	3.414
May 14	2100	296	8.38	12.53	3.819	Sep. 27	0800	228	6.46	11.69	3.563
June 9	0400	152	4.30	10.82	3.298						

Minimum daily discharge, 10.0 ft³/s (0.28 m³/s) Nov. 10, 11.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DISCHARGE: March 1979 to September 1980 (partial record station).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	11	13	14	16	30	13	43	32	29	59	40
2	12	11	15	14	15	27	12	39	29	28	49	35
3	12	11	15	13	14	25	13	36	25	28	43	32
4	12	11	14	13	13	25	16	33	24	28	39	30
5	12	11	14	13	13	26	14	32	27	27	35	28
6	12	11	14	12	14	24	13	31	57	26	32	27
7	11	11	14	12	14	23	13	30	27	25	30	26
8	11	11	62	12	14	22	13	29	63	25	29	26
9	11	11	63	12	14	22	14	28	119	24	27	25
10	11	10	37	12	15	21	22	70	62	23	26	24
11	11	10	29	12	15	20	41	146	40	23	25	23
12	11	11	25	13	14	19	127	71	39	26	24	22
13	11	11	23	13	14	18	90	54	639	27	23	22
14	11	11	21	13	14	17	292	152	521	23	23	21
15	11	11	20	13	21	16	150	190	274	23	24	21
16	11	11	19	13	42	15	84	74	165	23	23	22
17	12	11	18	13	80	15	68	53	104	22	21	48
18	12	11	17	13	70	15	57	44	87	21	21	87
19	12	11	16	14	54	15	50	39	71	22	20	54
20	12	11	16	13	42	15	48	34	60	31	19	37
21	11	11	15	13	35	14	44	31	52	25	19	31
22	11	11	15	13	42	14	47	29	50	23	19	27
23	11	11	15	13	53	14	111	27	43	22	18	26
24	11	11	15	13	48	13	65	26	42	21	18	25
25	12	11	15	13	36	13	50	31	42	21	29	24
26	11	11	15	17	31	14	45	50	38	465	62	31
27	11	11	15	16	30	13	40	57	35	368	72	153
28	12	12	15	15	33	13	47	36	33	390	137	60
29	12	12	15	13	----	13	96	30	31	190	64	78
30	12	12	15	12	----	13	52	63	30	96	53	74
31	12	----	15	14	----	13	----	41	----	72	45	----
TOTAL	356	331	630	409	816	557	1747	1649	2861	2197	1128	1179
MEAN	11.5	11.0	20.3	13.2	29.1	18.0	58.2	53.2	95.4	70.9	36.4	39.3
MAX	12	12	63	17	80	30	292	190	639	465	137	153
MIN	11	10	13	12	13	13	12	26	24	21	18	21
CFSM	.36	.35	.64	.42	.92	.57	1.84	1.68	3.01	2.24	1.15	1.24
IN.	.42	.39	.74	.48	.96	.65	2.05	1.94	3.36	2.58	1.32	1.38

CAL YR 1980	TOTAL	7387	MEAN 20.2	MAX 197	MIN 10	CFSM .64	IN 8.67	
WTR YR 1981	TOTAL	13860	MEAN 38.0	MAX 639	MIN 10	CFSM 1.20	IN 16.26	

05518000 KANKAKEE RIVER AT SHELBY, IN

LOCATION.--Lat 41°10'58", long 87°20'33", in SW¼NE¼ sec.33, T.32 N., R.8 W., Lake County, Hydrologic Unit 07120001, on right bank 25 ft (7.6 m) upstream from Monon Railroad bridge, 1 mile (2 km) south of Shelby, 7.7 miles (12.4 km) upstream from Beaver Lake ditch, and at mile 67.9 (109.2 km).

DRAINAGE AREA.--1,779 mi² (4,608 km²), of which 201 mi² (521 km²) does not contribute directly to surface runoff.

WATER-DISCHARGE RECORDS

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 (191.454 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 19, 1934, nonrecording gage at highway bridge about 400 ft (122 m) upstream. Dec. 19, 1934, to Oct. 4, 1965, water-stage recorder on left bank 50 ft (15 m) downstream, and Oct. 5, 1965, to Sept. 21, 1966, nonrecording gage on right bank 200 ft (61 m) upstream. All at same datum.

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

AVERAGE DISCHARGE.--59 years, 1,596 ft³/s (45.20 m³/s), 12.18 in/yr (309 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,200 ft³/s (204 m³/s) Dec. 21, 1927, gage height, 11.40 ft (3.475 m), site then in use, from rating curve extended above 3,000 ft³/s (85.0 m³/s) by gage-height relation study with site below railroad bridge; maximum gage height, 12.51 ft (3.813 m) June 22, 1981; minimum daily, 260 ft³/s (7.36 m³/s) Jan. 13-15, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 6,200 ft³/s (176 m³/s) June 21, maximum gage height, 12.51 ft (3.813 m) June 22; minimum daily discharge, 880 ft³/s (24.9 m³/s) Nov. 13, 26.

NOTE.--No gage-height record Feb. 5 to Apr. 15.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DISCHARGE: October 1963 to September 1979 (partial-record station).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1190	1000	1020	1430	1300	3750	1410	3590	3460	4000	4320	2660
2	1140	1010	1050	1400	1280	3600	1370	3520	3320	3650	4220	2510
3	1100	1030	1190	1340	1270	3450	1350	3470	3110	3350	4130	2360
4	1080	1020	1320	1280	1280	3300	1340	3400	2870	3050	4110	2260
5	1100	1020	1450	1170	1300	3200	1350	3270	2640	2850	4030	2210
6	1140	1000	1450	1100	1340	3050	1340	3100	2490	2650	3910	2200
7	1140	986	1470	1050	1370	2900	1320	2880	2380	2450	3700	2250
8	1110	952	1720	1000	1380	2800	1290	2660	2260	2250	3430	2270
9	1050	952	2270	960	1350	2650	1250	2490	2630	2050	3140	2140
10	1030	934	2570	940	1300	2500	1350	2520	3020	1900	2830	2000
11	1060	904	2730	940	1260	2400	1500	3130	3050	1800	2520	1860
12	1050	894	2810	930	1250	2350	1950	3830	3020	1750	2250	1720
13	1000	880	2870	920	1290	2250	2650	4110	3420	1700	2030	1650
14	976	897	2860	920	1350	2150	3700	4410	5300	1670	1950	1580
15	958	907	2760	940	1470	2100	4500	4790	5600	1660	1920	1510
16	958	934	2560	960	1750	2000	4690	5080	5900	1620	1870	1430
17	958	955	2380	1000	2200	1950	4740	5200	5700	1550	1830	1450
18	972	914	2220	1020	2800	1900	4750	5240	5600	1460	1710	1540
19	1000	927	2070	1040	3200	1850	4760	5240	5700	1410	1630	1510
20	1010	934	1890	1030	3500	1750	4760	5230	6100	1550	1550	1410
21	1010	931	1700	1010	3700	1710	4650	5190	6200	1960	1440	1340
22	1020	900	1600	1000	3850	1680	4520	5130	6000	2160	1360	1320
23	1020	955	1570	1000	4000	1640	4460	5020	5800	2150	1320	1260
24	1010	955	1510	1010	4050	1600	4360	4830	5600	1980	1260	1230
25	1000	900	1490	1090	4100	1550	4200	4590	5400	1770	1270	1200
26	983	880	1480	1170	4050	1500	4010	4280	5200	2140	1520	1210
27	983	890	1480	1330	4000	1470	3810	4020	5000	3110	2110	1470
28	1000	931	1430	1340	3850	1460	3650	3720	4800	3860	2390	1780
29	1030	966	1460	1380	-----	1450	3630	3430	4550	4390	2690	1970
30	1040	1020	1450	1390	-----	1470	3650	3460	4300	4510	2750	2220
31	1000	-----	1450	1360	-----	1480	-----	3580	------	4420	2740	-----
TOTAL	32118	28378	57280	34450	64840	68910	92310	124410	130420	76820	77930	53520
MEAN	1036	946	1848	1111	2316	2223	3077	4013	4347	2478	2514	1784
MAX	1190	1030	2870	1430	4100	3750	4760	5240	6200	4510	4320	2660
MIN	958	880	1020	920	1250	1450	1250	2490	2260	1410	1260	1200
CFSM	.58	.53	1.04	.63	1.30	1.25	1.73	2.26	2.44	1.39	1.41	1.00
IN.	.67	.59	1.20	.72	1.36	1.44	1.93	2.60	2.73	1.61	1.63	1.12

CAL YR 1980 TOTAL 607940 MEAN 1661 MAX 4020 MIN 605 CFSM .93 IN 12.71
WTR YR 1981 TOTAL 841386 MEAN 2305 MAX 6200 MIN 880 CFSM 1.30 IN 17.59

05519000 SINGLETON DITCH AT SCHNEIDER, IN

LOCATION.--Lat 41°12'44", long 87°26'44", in SW¼NW¼ sec.22, T.32 N., R.9 W., Lake County, Hydrologic Unit 07120001, on left bank 15 ft (5 m) upstream from bridge on Ackerman Avenue, 0.5 mile (0.8 km) upstream from Bruce ditch, 1.5 miles (2.4 km) downstream from Cedar Creek, 1.6 miles (2.6 km) north of Schneider, and at mile 10.1 (16. km).

DRAINAGE AREA.--123 mi² (319 km²).

WATER-DISCHARGE RECORDS

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 (190.095 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1949, nonrecording gage at same site at datum 2.00 ft (0.610 m) higher. Oct. 1, 1949, to Aug. 13, 1951, nonrecording gage at same site and datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--33 years, 106 ft³/s (3.002 m³/s), 11.70 in/yr (297 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,550 ft³/s (101 m³/s) Mar. 5 , 1976; maximum gage height, 12.37 ft (3.770 m) June 25, 1975; minimum daily discharge, 3.6 ft³/s (0.102 m³/s) Sept. 7, 8, 10, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 730 ft³/s (20.7 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 14	0600	1930	54.7	11.52	3.511	June 13	2100	*2000	56.6	*11.78	3.590
May 14	2400	1070	30.3	7.67	2.338	July 26	1800	1220	34.6	8.40	2.560
May 30	0900	824	23.3	6.45	1.966	July 28	1500	1940	54.9	11.55	3.520
June 9	0500	1010	28.6	7.42	2.262						

Minimum daily discharge, 30 ft³/s (0.85 m³/s) Nov. 26.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DISCHARGE: April 1979 to September 1980 (partial-record stations).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	40	34	50	52	152	52	269	263	129	345	110
2	48	39	38	48	63	141	48	230	234	117	262	98
3	47	39	40	46	54	127	48	205	178	105	253	93
4	46	38	39	44	52	122	60	186	151	104	226	87
5	44	37	38	42	52	144	60	160	142	109	190	82
6	44	37	38	41	55	137	52	148	136	98	213	77
7	42	37	40	40	58	121	48	139	125	89	140	74
8	42	35	171	40	56	112	48	132	164	84	122	74
9	40	35	293	40	56	108	55	126	736	83	110	69
10	40	34	206	40	59	105	59	169	356	80	101	65
11	39	33	152	39	58	92	91	445	223	73	95	61
12	38	33	126	38	55	83	171	382	182	71	84	58
13	37	33	124	38	53	78	558	295	1040	75	76	55
14	38	36	118	39	52	73	1710	549	1750	70	75	54
15	38	34	109	40	71	71	1450	911	1590	68	81	52
16	63	33	101	41	202	67	1100	592	1410	74	74	51
17	83	33	95	42	457	66	864	407	1060	68	69	81
18	78	32	90	42	288	63	664	306	786	65	65	329
19	79	32	85	42	254	63	520	245	592	72	63	332
20	76	32	79	43	215	63	440	208	453	253	59	238
21	68	32	74	45	183	68	355	175	359	219	58	178
22	62	31	70	49	179	67	324	155	332	145	55	136
23	52	32	67	46	257	64	630	147	265	115	54	94
24	44	32	63	42	254	62	462	141	239	96	52	86
25	44	31	61	44	210	58	348	150	218	84	55	81
26	43	30	59	61	168	53	288	134	195	837	121	87
27	42	32	57	68	139	53	250	170	176	901	193	230
28	43	33	54	64	150	50	262	147	162	1660	212	169
29	42	34	53	56	----	51	454	126	151	1310	192	151
30	41	33	52	52	----	55	329	630	134	751	152	199
31	41	----	51	51	----	52	-----	382	-----	507	129	----
TOTAL	1535	1022	2677	1413	3802	2621	11800	8461	13802	8512	3976	3551
MEAN	49.5	34.1	86.4	45.6	136	84.5	393	273	460	275	128	118
MAX	83	40	293	68	457	152	1710	911	1750	1660	345	332
MIN	37	30	34	38	52	50	48	126	125	65	52	51
CFSM	.40	.28	.70	.37	1.11	.69	3.20	2.22	3.74	2.24	1.04	.96
IN.	.46	.31	.81	.43	1.15	.79	3.57	2.56	4.17	2.57	1.20	1.07

CAL YR 1980 TOTAL 31358 MEAN 85.7 MAX 467 MIN 20 CFSM .70 IN 9.48
WTR YR 1981 TOTAL 63172 MEAN 173 MAX 1750 MIN 30 CFSM 1.41 IN 19.11

05519000 SINGLETON DITCH AT SCHNEIDER, IN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
JUN							
16...	1230	1410	945	3600	65	86	96
17...	1755	986	229	610	55	64	70
18...	1400	773	256	534	--	--	--
24...	1000	239	265	171	--	--	--
AUG							
13...	1220	75	202	41	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM
JUN						
16...	99	99	99	99	100	---
17...	77	77	81	85	97	100
18...	--	--	95	--	---	---
24...	--	--	97	--	---	---
AUG						
13...	--	--	95	--	---	---

05520500 KANKAKEE RIVER AT MOMENCE, IL

LOCATION.--Lat 41°09'36", long 87°40'07", in SW¼NE¼ sec.24, T.31 N., R.13 E., Kankakee County, Illinois, Hydrologic Unit 07120001, on right bank at Hill Street in Momemce, 0.2 mi (0.3 km) downstream from bridge on State Highways 1 and 17, and 1.2 mi (1.9 km) upstream from Tower Creek, and at mile 47.9 (77.1 km).

DRAINAGE AREA.--2,294 mi² (5,941 km²).

PERIOD OF RECORD.--February to December 1905, February to July 1906, December 1914 to current year.

REVISED RECORDS.--WSP 1238: 1916, 1930. WSP 1308: 1915(M), 1917(M), 1919(M), 1922(M), 1926(M), 1934-35(M), 1938(M). WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 609.18 ft (185.678 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 1, 1938, nonrecording gage at site 0.2 mi (0.3 km) upstream at datum 1.00 ft (0.305 m) higher. Aug. 1, 1938, to Aug. 8, 1969, water-stage recorder at present site at datum 1.00 ft (0.305 m) higher.

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

AVERAGE DISCHARGE.--66 years (water years 1916-81), 1,942 ft³/s (55.00 m³/s), 11.50 in/yr (292 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft³/s (453 m³/s) Mar. 6, 1979, gage height, 10.51 ft (3.203 m), ice jam; minimum observed, 306 ft³/s (8.67 m³/s) Sept. 1, 6, 17, 1919.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,760 ft³/s (276 m³/s) June 16, gage height, 5.91 ft (1.801 m); maximum gage height, 6.80 ft (2.073 m) Dec. 28, ice jam; minimum discharge, 884 ft³/s (25.0 m³/s) Nov. 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1500	1070	1050	1760	1610	4200	1660	4800	4680	5230	4970	3220
2	1440	1060	1110	1700	1610	4090	1640	4550	4400	4930	4760	3160
3	1380	1080	1200	1500	1620	3920	1590	4380	4150	4610	4800	3050
4	1330	1070	1460	1400	1620	3770	1570	4210	3870	4350	4600	2890
5	1290	1070	1640	1300	1650	3660	1540	4080	3620	4140	4490	2720
6	1280	1060	1840	1250	1700	3510	1490	3940	3390	3800	4540	2610
7	1280	1070	1960	1200	1700	3340	1410	3780	3180	3510	4310	2550
8	1280	1030	2680	1150	1680	3160	1340	3590	3070	3260	4120	2550
9	1260	1010	3410	1100	1650	2990	1330	3390	4220	2990	3900	2560
10	1240	1010	3500	1100	1620	2840	1340	3390	3640	2750	3660	2490
11	1210	991	3590	1080	1600	2720	1450	4180	3470	2540	3440	2350
12	1210	951	3660	1080	1620	2610	1720	4520	3460	2370	3090	2200
13	1200	942	3730	1100	1680	2520	3210	4800	5250	2250	2790	2070
14	1180	960	3730	1150	1800	2420	8300	6070	9190	2150	2550	2000
15	1160	973	3710	1190	1990	2330	7550	8050	9150	2050	2500	1900
16	1150	963	3500	1200	2200	2250	7000	7690	9630	1990	2440	1810
17	1140	987	3200	1230	2400	2150	6750	6950	9060	1910	2280	1910
18	1140	994	2900	1270	2750	2050	6410	6680	8380	1820	2180	2640
19	1140	958	2600	1270	3200	2050	6040	6400	7610	1810	2070	2840
20	1140	950	2400	1250	3650	1990	5790	5960	7080	2700	1950	2520
21	1120	955	2200	1250	4000	1930	5480	6020	6830	2220	1860	2220
22	1100	943	2000	1240	4350	1850	5350	5850	6900	2250	1740	1930
23	1110	932	1900	1240	4350	1800	6070	5720	6800	2370	1640	1850
24	1100	968	1800	1250	4180	1780	5790	5610	6750	2400	1580	1730
25	1090	958	1700	1260	4180	1750	5340	5420	6690	2300	1530	1630
26	1070	906	1700	1390	4180	1750	5060	5440	6560	2900	1820	1700
27	1080	900	1700	1500	4160	1750	4790	5140	6360	3340	2340	2250
28	1100	913	1800	1600	4200	1700	4670	4710	6090	4760	2800	2250
29	1100	952	1800	1680	-----	1690	5340	4490	5810	5500	2990	2300
30	1110	991	1800	1670	-----	1690	5030	6670	5530	5380	3100	2570
31	1100	-----	1790	1640	-----	1690	------	5410	------	5210	3180	-----
TOTAL	37030	29617	73060	41000	72950	77950	122050	161890	174820	99790	94020	70470
MEAN	1195	987	2357	1323	2605	2515	4068	5222	5827	3219	3033	2349
MAX	1500	1080	3730	1760	4350	4200	8300	8050	9630	5500	4970	3220
MIN	1070	900	1050	1080	1600	1690	1330	3390	3070	1810	1530	1630
CFSM	.52	.43	1.03	.58	1.14	1.10	1.77	2.28	2.54	1.40	1.32	1.02
IN.	.60	.48	1.18	.66	1.18	1.26	1.98	2.63	2.83	1.62	1.52	1.14

CAL YR 1980	TOTAL	709777	MEAN	1939	MAX	4710	MIN	577	CFSM	.85	IN	11.51
WTR YR 1981	TOTAL	1054647	MEAN	2889	MAX	9630	MIN	900	CFSM	1.26	IN	17.10

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 (30 m) downstream from bridge on county road, 0.5 mile (0.8 km) north of Rosebud, 0.5 mile (0.8 km) downstream from confluence of Swain and Dexter ditches, 1.5 miles (2.4 km) upstream from Davidson ditch, 2 miles (3 km) east of Parr, and at mile 93.5 (150.4 km) .

DRAINAGE AREA.--35.6 mi^2 (92.2 km^2).

WATER-DISCHARGE RECORDS

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 (201.616 m) 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.--Records good except those for winter periods and period of no gage-height record, which are fair.

AVERAGE DISCHARGE.--33 years, 26.6 ft^3/s (0.753 m^3/s), 10.1 in/yr (256 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 435 ft^3/s (12.3 m^3/s) May 17, 1974; maximum gage height, 8.86 ft (2.700 m) Feb. 10, 1959; minimum daily discharge, 0.5 ft^3/s (0.014 m^3/s) Oct. 11, 12, 19, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 150 ft^3/s (4.25 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 14	1300	339	9.60	6.49	1.978	June 9	1000	186	5.27	4.80	1.463
May 11	0800	185	5.24	4.79	1.460	June 14	0900	*380	10.8	*6.84	2.085
May 15	0400	355	10.1	6.63	2.021	June 22	1000	242	6.85	5.61	1.710
June 6	0300	214	6.06	5.16	1.573	July 20	1700	154	4.36	3.90	1.189

Minimum daily discharge, 7.0 ft^3/s (0.198 m^3/s) Sep. 25.

NOTE.--No gage-height record Nov. 9 to Dec. 12.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DISCHARGE: October 1977 to September 1980 (partial-record station).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	18	22	20	25	41	17	66	37	36	35	20
2	21	17	38	19	23	36	16	54	35	34	30	17
3	20	17	30	19	22	32	16	46	32	31	28	16
4	19	16	26	16	20	36	17	41	30	34	26	15
5	18	15	23	15	18	40	15	40	73	48	23	13
6	17	15	25	15	19	35	14	40	192	102	24	12
7	17	15	32	15	19	30	14	36	111	123	22	12
8	17	14	66	14	19	29	14	33	79	80	21	13
9	16	15	130	13	18	28	15	34	173	38	19	14
10	16	13	88	12	21	28	16	88	129	29	18	12
11	16	12	64	12	22	27	17	175	83	28	17	11
12	15	12	49	12	21	25	20	122	63	28	15	11
13	17	11	45	13	20	24	43	90	152	27	14	11
14	18	13	39	13	20	22	322	254	369	23	14	12
15	17	12	36	13	28	22	270	338	284	20	16	10
16	16	11	32	14	60	21	173	251	231	19	14	9.0
17	18	11	30	14	101	21	122	168	153	18	13	11
18	18	10	29	15	80	20	89	122	107	18	12	12
19	17	9.8	26	17	67	19	73	93	80	25	12	12
20	16	9.6	23	20	56	19	70	74	64	128	11	11
21	15	9.5	21	18	48	19	58	63	58	129	11	10
22	15	10	20	17	57	18	57	56	211	86	10	9.0
23	15	9.8	19	16	81	18	76	51	133	63	10	9.0
24	16	9.4	20	17	75	17	61	50	90	47	10	8.0
25	16	9.0	21	20	58	17	50	54	97	39	12	7.0
26	15	8.7	20	39	50	18	45	48	72	39	28	11
27	16	9.3	19	35	46	19	41	43	58	48	25	115
28	24	16	18	29	46	18	60	38	49	97	27	87
29	24	14	19	23	----	19	105	38	43	73	23	56
30	21	12	20	20	----	20	72	49	40	56	21	48
31	20	-----	21	18	----	16	----	41	----	43	21	-----
TOTAL	546	374.1	1071	553	1140	754	1978	2696	3328	1609	582	614.0
MEAN	17.6	12.5	34.5	17.8	40.7	24.3	65.9	87.0	111	51.9	18.8	20.5
MAX	24	18	130	39	101	41	322	338	369	129	35	115
MIN	15	8.7	18	12	18	16	14	33	30	18	10	7.0
CFSM	.49	.35	.97	.50	1.14	.68	1.85	2.44	3.12	1.46	.53	.58
IN.	.57	.39	1.12	.58	1.19	.79	2.07	2.82	3.48	1.68	.61	.64

CAL YR 1980 TOTAL 10274.7 MEAN 28.1 MAX 239 MIN 4.2 CFSM .79 IN 10.74
WTR YR 1981 TOTAL 15245.1 MEAN 41.8 MAX 369 MIN 7.0 CFSM 1.17 IN 15.93

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 miles (1.9 km) upstream from Ryan ditch, 2 miles (3 km) east of North Marion, 3.5 miles (5.6 km) northeast of Rensselaer, and at mile 87.7 (141.1 km).

DRAINAGE AREA.--144 mi^2 (373 km^2).

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

REVISED RECORDS.--WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 646.68 ft (197.108 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 6, 1955, nonrecording gage at same site and datum.

REMARKS.--Records fair. Water from Oliver ditch, an upstream tributary, can be diverted to Ryan ditch and thus enter the Iroquois River below station.

AVERAGE DISCHARGE.--32 years (water years 1950 to current year), 130 ft^3/s (3.682 m^3/s), 12.26 in/yr (311 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,040 ft^3/s (57.8 m^3/s) June 10, 1958, gage height, 15.09 ft (4.599 m); minimum daily, 1.6 ft^3/s (0.045 m^3/s) Sept. 15, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 1,300 ft^3/s (36.8 m^3/s) May 16, maximum gage height, 13.51 ft (4.118 m) June 16, minimum daily discharge, 33 ft^3/s (0.93 m^3/s) Nov. 23, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	85	78	97	100	180	64	392	222	196	222	118
2	92	78	123	91	116	160	61	326	194	179	168	94
3	88	74	140	83	94	145	58	239	177	170	135	88
4	79	72	131	76	82	140	70	184	153	158	118	128
5	70	63	125	70	68	160	65	154	162	169	108	104
6	67	59	112	66	62	140	60	156	435	160	96	81
7	66	57	112	62	58	125	54	149	479	133	82	70
8	65	54	189	59	58	115	51	127	410	121	75	69
9	62	51	437	57	58	110	57	112	569	103	68	67
10	59	50	498	55	59	113	57	183	669	90	63	63
11	58	38	428	54	60	109	74	526	605	79	62	56
12	56	42	339	53	61	102	97	660	482	74	57	52
13	53	41	281	55	60	95	137	641	465	76	52	49
14	65	47	234	58	58	88	695	742	874	66	51	47
15	81	48	195	60	68	82	1070	1070	1090	55	56	48
16	70	44	169	60	400	80	1190	1290	1160	56	54	44
17	71	42	146	58	530	77	1120	1250	1130	52	50	43
18	90	41	134	57	450	74	1020	1090	1030	51	47	50
19	80	37	101	60	350	72	898	933	905	60	45	51
20	71	35	94	65	305	73	763	778	773	441	38	48
21	65	35	90	68	260	72	616	599	629	628	41	44
22	59	34	84	69	230	69	476	471	608	644	41	43
23	55	33	82	71	260	65	410	363	728	546	39	41
24	53	38	82	75	410	64	386	298	685	456	35	39
25	62	36	82	80	300	63	320	276	609	320	38	38
26	64	33	85	160	240	68	253	255	533	279	77	39
27	57	34	88	165	210	74	210	228	426	298	132	334
28	92	48	92	145	195	68	201	202	333	392	103	462
29	118	50	96	122	----	72	377	180	264	438	99	336
30	107	50	100	105	----	74	428	209	229	374	84	228
31	94	----	99	91	----	70	-----	248	-----	284	83	----
TOTAL	2255	1449	5046	2447	5202	2999	11338	14331	17028	7148	2419	2974
MEAN	72.7	48.3	163	78.9	186	96.7	378	462	568	231	78.0	99.1
MAX	118	85	498	165	530	180	1190	1290	1160	644	222	462
MIN	53	33	78	53	58	63	51	112	153	51	35	38
CFSM	.51	.34	1.13	.55	1.29	.67	2.63	3.21	3.94	1.60	.54	.69
IN.	.58	.37	1.30	.63	1.34	.77	2.93	3.70	4.40	1.85	.62	.77

CAL YR 1980 TOTAL 55862.6 MEAN 153 MAX 992 MIN 6.3 CFSM 1.06 IN 14.43
WTR YR 1981 TOTAL 74636.0 MEAN 204 MAX 1290 MIN 33 CFSM 1.42 IN 19.28

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 (6 m) downstream from bridge on State Highway 114, 0.8 mile (1.3 km) east of Rensselaer, 1.5 miles (2.4 km) downstream from Ryan ditch, 5.5 miles (8.8 km) upstream from Slough Creek, and at mile 84.9 (136.6 km).

DRAINAGE AREA.--203 mi^2 (526 km^2).

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

REVISED RECORDS.--WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 642.29 ft (195.770 m) 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.--Records good except those for August and September, which are fair.

AVERAGE DISCHARGE.--33 years, 166 ft^3/s (4.701 m^3/s), 11.10 in/yr (282 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,550 ft^3/s (72.2 m^3/s) June 10, 1958, gage height, 16.54 ft (5.041 m); minimum daily, 2.2 ft^3/s (0.062 m^3/s) Sept. 9, 15, 16, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,650 ft^3/s (46.7 m^3/s) May 16, gage height, 13.50 ft (4.115 m); minimum daily, 4.2 ft^3/s (1.19 m^3/s) Aug. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	101	99	112	131	269	74	503	223	199	185	140
2	93	92	145	101	126	242	69	420	197	182	142	113
3	91	84	155	88	109	207	67	316	182	171	130	123
4	89	82	148	81	90	196	84	249	160	160	118	189
5	71	74	142	76	77	229	83	217	181	169	109	137
6	75	72	133	73	72	224	73	234	491	159	108	106
7	75	70	137	70	70	187	63	218	490	138	99	91
8	73	64	242	68	70	163	67	191	424	126	90	91
9	71	62	545	66	71	153	76	173	742	111	82	87
10	67	63	557	65	72	149	77	324	777	101	75	80
11	67	53	429	65	73	145	102	798	652	91	76	70
12	64	57	320	64	74	131	148	899	499	86	69	64
13	66	56	292	67	73	128	185	853	620	89	62	61
14	73	61	260	71	71	115	932	1090	1250	81	64	58
15	88	64	231	73	88	110	1430	1520	1530	68	77	61
16	78	59	203	75	372	104	1580	1640	1570	70	74	50
17	84	58	179	71	627	100	1580	1590	1520	65	63	48
18	105	57	165	69	636	93	1440	1350	1330	62	57	64
19	96	54	129	72	542	93	1160	1040	1070	80	53	70
20	90	50	123	79	443	94	930	843	872	519	48	61
21	84	51	113	83	361	91	748	631	684	707	45	54
22	77	49	105	83	315	89	569	462	698	644	50	50
23	76	48	101	88	376	83	497	342	860	470	46	47
24	73	57	98	92	453	82	464	284	770	320	42	45
25	86	56	97	101	422	78	376	263	694	247	48	44
26	86	50	96	152	355	78	293	244	577	193	117	52
27	80	53	100	195	309	83	245	223	441	217	160	476
28	120	64	107	198	289	83	244	204	340	358	126	621
29	137	71	110	149	----	78	499	191	270	413	120	424
30	121	67	113	121	----	83	541	225	231	358	105	289
31	110	----	115	107	----	78	-----	253	-----	262	107	----
TOTAL	2648	1899	5789	2875	6767	4038	14696	17790	20345	6916	2747	3866
MEAN	85.4	63.3	187	92.7	242	130	490	574	678	223	88.6	129
MAX	137	101	557	198	636	269	1580	1640	1570	707	185	621
MIN	64	48	96	64	70	78	63	173	160	62	42	44
CFSM	.42	.31	.92	.46	1.19	.64	2.41	2.83	3.34	1.10	.44	.64
IN.	.49	.35	1.06	.53	1.24	.74	2.69	3.26	3.73	1.27	.50	.71

CAL YR 1980 TOTAL 65458.3 MEAN 179 MAX 1350 MIN 7.8 CFSM .88 IN 12.00
WTR YR 1981 TOTAL 90376.0 MEAN 248 MAX 1640 MIN 42 CFSM 1.22 IN 16.56

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 miles (3.7 km) upstream from mouth, 3 miles (5 km) southeast of South Marion, and 5 miles (8 km) southeast of Rensselaer.

DRAINAGE AREA.--21.8 mi² (56.5 km²).

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 (198.516 m) 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 (0.610 m) higher.

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

AVERAGE DISCHARGE.--32 years (water years 1949 to current year), 16.9 ft³/s (0.478 m³/s), 10.53 in/yr (267 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,080 ft³/s (30.6 m³/s) Mar. 4, 1979, maximum gage height, 14.02 ft (4.273 m) June 13, 1958, at present datum; no flow at times during 1952, 1955, and 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 340 ft³/s (9.63 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 14	0900	416	11.8	6.88	2.097	May 14	1900	*584	16.5	*8.32	2.536
May 11	0200	346	9.80	6.24	1.902						

Minimum daily discharge, 1.4 ft³/s (0.040 m³/s) Oct. 9, 10, 12, 13.

NOTE.--NO gage-height record Feb. 13 to Apr. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.8	6.0	3.4	7.4	17	3.4	60	9.1	9.9	10	4.6
2	1.8	2.5	9.5	3.0	9.1	13	3.3	36	8.6	8.7	7.5	5.8
3	1.8	2.5	7.4	2.5	3.7	12	3.5	26	8.3	7.9	6.1	4.9
4	1.7	2.5	5.0	2.2	2.3	13	4.4	18	7.2	9.2	5.1	5.1
5	1.6	2.3	4.7	1.9	2.1	16	4.9	18	7.9	16	4.5	4.1
6	1.6	2.3	5.4	1.8	2.0	12	4.2	46	12	12	4.7	3.4
7	1.6	2.3	15	1.7	2.0	10	3.9	30	10	9.0	4.0	3.2
8	1.5	2.3	50	1.7	2.0	9.2	3.7	21	8.2	7.1	3.5	3.0
9	1.4	2.3	54	1.7	2.0	8.4	3.7	17	14	5.8	3.4	2.6
10	1.4	2.2	31	1.6	2.1	8.2	3.9	142	13	5.0	3.2	2.4
11	1.5	2.1	20	1.6	2.1	7.9	9.9	248	10	4.5	3.0	2.3
12	1.4	2.1	17	1.6	2.1	7.5	56	117	8.7	4.1	2.9	2.2
13	1.4	2.1	16	1.7	2.0	7.0	52	78	75	3.9	2.7	2.1
14	1.8	2.2	13	1.7	2.0	6.6	237	384	104	3.5	2.7	2.1
15	1.6	2.2	11	1.8	2.7	6.2	100	473	44	3.4	3.6	2.0
16	1.6	2.1	9.1	1.9	74	5.9	59	177	31	3.4	3.2	2.0
17	2.3	2.1	7.0	1.8	160	5.7	46	88	21	3.3	2.6	2.1
18	2.6	1.9	5.2	1.8	76	5.6	31	70	16	2.9	2.5	2.3
19	2.2	1.9	4.1	1.8	41	5.4	26	52	12	7.1	2.4	2.1
20	2.1	1.9	3.4	2.1	29	5.2	33	39	9.9	88	2.4	2.0
21	1.9	1.8	3.1	2.1	24	4.9	23	29	9.3	36	2.3	2.0
22	1.9	1.8	2.9	2.2	20	4.6	21	22	154	16	2.3	1.9
23	1.9	1.9	2.7	2.3	42	4.4	33	18	55	9.5	2.3	2.0
24	2.1	1.9	2.6	2.6	35	4.2	23	16	27	6.9	2.2	2.0
25	2.2	1.8	2.5	5.4	27	4.0	15	13	130	5.4	2.1	2.0
26	2.1	1.8	2.5	15	22	3.9	14	11	49	29	5.9	5.9
27	2.2	2.1	2.6	11	19	3.8	11	10	28	45	4.0	23
28	4.2	2.5	2.7	6.8	20	3.7	26	9.1	19	124	13	6.7
29	3.9	2.5	3.0	5.2	-----	3.6	92	8.8	15	62	7.4	6.9
30	3.2	3.0	3.4	4.5	-----	3.8	49	13	12	34	5.3	10
31	3.0	----	3.7	3.4	-----	3.7	-----	11	-----	17	4.9	-----
TOTAL	63.3	65.7	325.5	99.8	634.6	226.4	995.8	2300.9	928.2	599.5	131.7	122.7
MEAN	2.04	2.19	10.5	3.22	22.7	7.30	33.2	74.2	30.9	19.3	4.25	4.09
MAX	4.2	3.0	54	15	160	17	237	473	154	124	13	23
MIN	1.4	1.8	2.5	1.6	2.0	3.6	3.3	8.8	7.2	2.9	2.1	1.9
CFSM	.09	.10	.48	.15	1.04	.34	1.52	3.40	1.42	.89	.20	.19
IN.	.11	.11	.56	.17	1.08	.39	1.70	3.93	1.58	1.02	.22	.21

CAL YR 1980 TOTAL 6027.37 MEAN 16.5 MAX 383 MIN .68 CFSM .76 IN 10.28
WTR YR 1981 TOTAL 6494.10 MEAN 17.8 MAX 473 MIN 1.4 CFSM .82 IN 11.08

05523500 SLOUGH CREEK NEAR COLLEGEVILLE, IN

LOCATION.--Lat 40°53'30", long 87°09'17", in SE¼NE¼ sec.12, T.28 N., R.7 W., Jasper County, Hydrologic Unit 07120002, on right bank at downstream side of bridge on State Highway 53, 1.5 miles (2.4 km) south of Collegeville, 2.2 miles (3.5 km) downstream from Bice ditch, 2.9 miles (4.7 km) upstream from Carpenter Creek, and 3.2 miles (5.1 km) upstream from mouth.

DRAINAGE AREA.--83.7 mi^2 (216.8 km^2).

PERIOD OF RECORD.--July 1948 to December 1951, October 1952 to current year. Prior to October 1965, published as Big Slough Creek near Collegeville.

REVISED RECORDS.--WSP 1558: 1955(M), 1956(M), 1957. WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 634.75 ft (193.472 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 5, 1955, nonrecording gage and Aug. 5, 1955, to Oct. 8, 1958, water-stage recorder at same site at datum 3.00 ft (0.914 m) higher.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--32 years (water years 1949-51, 1953 to current year), 69.5 ft^3/s (1.968 m^3/s), 11.28 in/yr (287 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,390 ft^3/s (67.7 m^3/s) Dec. 22, 1967, gage height, 16.88 ft (5.145 m); maximum gage height, 17.19 ft (5.240 m) Mar. 4, 1979; minimum daily discharge, 0.7 ft^3/s (0.020 m^3/s) Dec. 20-26, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 750 ft^3/s (21.2 m^3/s) May 15; maximum gage height, 15.56 ft (4.743 m) May 15; minimum daily, 7.8 ft^3/s (0.221 m^3/s) Oct. 10, 11, and Sept. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.7	20	19	18	30	86	19	217	48	39	47	16
2	9.4	18	31	15	40	74	17	145	44	33	39	16
3	9.3	17	35	13	20	60	18	99	41	30	33	16
4	9.0	16	26	12	12	70	27	75	39	29	29	23
5	8.8	15	23	11	11	94	28	65	41	41	27	18
6	8.4	14	24	10	11	74	23	139	54	37	26	15
7	8.3	14	44	9.5	10	56	21	115	52	28	24	13
8	8.1	13	132	9.3	10	49	21	85	43	24	21	13
9	8.0	13	244	9.0	10	48	22	70	57	21	20	12
10	7.8	12	170	8.9	11	47	21	249	56	19	18	12
11	7.8	12	110	8.7	11	44	32	620	46	17	18	12
12	7.9	12	83	8.6	11	40	123	460	42	17	16	11
13	7.9	11	77	9.0	10	37	172	320	65	17	15	9.9
14	8.8	12	63	9.2	10	32	503	540	225	16	15	9.6
15	10	12	55	9.6	35	31	390	750	150	15	21	9.3
16	10	11	47	10	281	30	245	580	110	15	17	15
17	11	11	39	9.8	413	27	165	415	82	15	15	11
18	14	10	29	9.6	251	26	120	305	64	14	15	11
19	16	9.9	22	9.6	182	25	94	230	53	16	14	10
20	15	9.6	18	11	145	25	125	175	48	206	13	9.5
21	15	9.3	16	12	113	25	86	135	45	218	12	9.1
22	14	9.6	14	12	113	23	77	110	280	141	12	8.6
23	13	9.6	13	13	168	22	110	92	140	76	11	8.1
24	16	9.3	13	14	183	21	88	76	95	36	11	7.9
25	14	8.8	13	25	144	20	74	65	260	26	11	7.8
26	14	8.6	13	83	119	20	61	57	227	82	19	7.9
27	14	9.3	14	56	105	23	52	50	140	138	16	60
28	21	12	14	40	102	20	53	46	77	258	26	47
29	28	12	16	31	----	21	243	44	54	203	22	23
30	25	12	18	25	----	22	185	65	45	119	16	27
31	22	-----	19	18	----	21	----	57	----	70	20	-----
TOTAL	391.2	363.0	1454	539.8	2561	1213	3215	6451	2723	2016	619	468.7
MEAN	12.6	12.1	46.9	17.4	91.5	39.1	107	208	90.8	65.0	20.0	15.6
MAX	28	20	244	83	413	94	503	750	280	258	47	60
MIN	7.8	8.6	13	8.6	10	20	17	44	39	14	11	7.8
CFSM	.15	.15	.56	.21	1.09	.47	1.28	2.49	1.09	.78	.24	.19
IN.	.17	.16	.65	.24	1.14	.54	1.43	2.87	1.21	.90	.28	.21

CAL YR 1980 TOTAL 23015.7 MEAN 62.9 MAX 593 MIN 5.5 CFSM .75 IN 10.23
WTR YR 1981 TOTAL 22014.7 MEAN 60.3 MAX 750 MIN 7.8 CFSM .72 IN 9.78

05524000 CARPENTER CREEK AT EGYPT, IN

LOCATION.--Lat 40°51'58", long 87°12'20", in SE¼SW¼ sec.15, T.28 N., R.7 W., Jasper County, Hydrologic Unit 07120002, on left bank at downstream side of bridge on State Highway 16, 0.5 mile (0.8 km) north of Egypt, 4 miles (6 km) southwest of Collegeville, and at mile 4.0 (6.4 km).

DRAINAGE AREA.--44.8 mi² (116.0 km²).

PERIOD OF RECORD.--July 1948 to December 1951, October 1952 to current year.

REVISED RECORDS.--WSP 1175: 1949(M). WSP 1558: 1955-57. WSP 1728: 1951(M). WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 641.79 ft (195.618 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 6, 1955, nonrecording gage at same site and datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--32 years, (water years 1949-51, 1953 to current year), 37.9 ft³/s (1.073 m³/s), 11.49 in/yr (292 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,720 ft³/s (105 m³/s) June 10, 1958, gage height, 11.66 ft (3.554 m); no flow at times during 1953, 1955, 1956, 1959, 1963-66, 1970.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 600 ft³/s (17.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 11	0800	623	17.6	9.55	2.911	June 25	1600	668	18.9	9.67	2.947
May 15	0600	*753	21.3	*9.84	2.999						

Minimum daily discharge, 0.78 ft³/s (0.022 m³/s) Oct. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.9	3.0	8.6	14	36	8.1	116	18	24	13	31
2	1.0	1.7	5.1	7.0	21	31	7.6	74	14	21	11	14
3	1.0	1.6	4.7	5.7	13	26	7.6	54	12	18	9.0	9.2
4	1.0	1.6	3.5	4.5	9.3	27	8.6	41	11	23	7.9	8.3
5	.95	1.5	3.2	4.6	8.0	33	11	39	10	66	7.2	6.5
6	.91	1.4	3.0	4.7	7.3	29	9.0	86	15	43	6.7	5.3
7	.91	1.4	7.9	4.9	6.8	23	7.7	67	13	35	6.2	4.5
8	.91	1.5	43	4.4	6.4	20	7.1	49	11	27	5.7	4.2
9	.91	1.6	65	4.0	6.2	19	7.8	41	27	23	5.3	3.6
10	.91	1.5	38	3.7	5.8	19	7.6	199	30	20	4.9	3.1
11	.87	1.4	25	3.4	5.9	17	13	542	20	18	4.7	2.9
12	.87	1.3	20	3.3	6.1	16	133	333	16	17	4.4	2.3
13	.78	1.2	17	3.4	6.4	15	174	221	49	16	4.2	2.1
14	.82	1.3	14	3.5	6.6	13	372	468	77	15	6.4	2.0
15	.91	1.4	11	3.9	6.8	13	262	702	38	14	8.8	2.3
16	.95	1.4	9.8	4.2	211	13	147	395	29	13	7.3	1.9
17	1.3	1.3	8.6	4.4	316	12	101	252	21	13	5.5	2.0
18	2.3	1.3	8.0	4.3	119	11	67	179	16	12	4.0	2.9
19	1.7	1.2	7.3	4.2	80	11	52	132	13	12	2.9	2.3
20	1.3	1.2	6.9	4.4	68	10	61	90	12	152	2.6	2.1
21	1.2	1.2	6.6	4.6	50	10	50	67	11	91	2.4	2.1
22	1.1	1.2	6.3	4.8	50	9.5	45	54	329	42	2.4	1.9
23	1.0	1.3	6.1	5.1	87	9.2	64	45	182	25	2.2	1.7
24	1.1	1.3	5.9	5.4	88	9.0	53	38	73	16	2.2	1.6
25	1.2	1.2	6.0	6.0	69	8.8	36	32	463	12	2.1	1.6
26	1.4	1.2	6.2	22	53	8.8	31	28	224	26	5.4	2.0
27	1.3	1.5	6.7	25	45	8.6	27	24	86	45	4.9	18
28	2.7	1.7	7.3	14	43	8.6	45	22	52	139	5.7	5.4
29	2.4	1.9	8.2	10	------	8.6	351	20	40	64	5.5	4.6
30	2.0	1.9	9.3	8.4	------	9.3	171	25	30	38	6.0	16
31	1.9	----	9.2	7.0	------	9.2	------	23	----	20	17	-----
TOTAL	38.70	43.1	381.8	203.4	1408.6	493.6	2337.1	4458	1942	1100	183.5	167.4
MEAN	1.25	1.44	12.3	6.56	50.3	15.9	77.9	144	64.7	35.5	5.92	5.58
MAX	2.7	1.9	65	25	316	36	372	702	463	152	17	31
MIN	.78	1.2	3.0	3.3	5.8	8.6	7.1	20	10	12	2.1	1.6
CFSM	.03	.03	.28	.15	1.12	.36	1.74	3.21	1.44	.79	.13	.13
IN.	.03	.04	.32	.17	1.17	.41	1.94	3.70	1.61	.91	.15	.14

CAL YR 1980 TOTAL 13637.27 MEAN 37.3 MAX 1100 MIN .65 CFSM .83 IN 11.32
WTR YR 1981 TOTAL 12757.20 MEAN 35.0 MAX 702 MIN .78 CFSM .78 IN 10.59

05524500 IROQUOIS RIVER NEAR FORESMAN, IN

LOCATION.--Lat 40°52'14", long 87°18'24", in NE¼SE¼ sec.15, T.28 N., R.8 W., Newton County, Hydrologic Unit 07120002, on right bank at downstream side of bridge on State Highway 55, 0.2 mile (0.3 km) north of intersection of State Highways 16 and 55, 0.5 mile (0.8 km) downstream from Mosquito Creek, 0.6 mile (1.0 km) west of Foresman, 3 miles (4 km) east of Brook, and at mile 72.7 (117.0 km).

DRAINAGE AREA.--449 mi^2 (1,163 km^2).

WATER-DISCHARGE RECORDS

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 (190.195 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 7, 1955, nonrecording gage 2.5 miles (4.0 km) upstream at datum 3.54 ft (1.079 m) higher.

REMARKS.--Records good.

AVERAGE DISCHARGE.--32 years (water years 1950 to current year), 374 ft^3/s (10.59 m^3/s), 11.31 in/yr (287 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,930 ft^3/s (168 m^3/s) June 14, 1958, gage height, 24.42 ft (7.443 m); minimum daily, 6.3 ft^3/s (0.18 m^3/s) Sept. 10, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,410 ft^3/s (96.6 m^3/s) May 16, gage height, 19.51 ft (5.947 m); minimum daily, 72 ft^3/s (2.04 m^3/s) Aug. 24, 25.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DISCHARGE: July 1968 to September 1978 (partial-record station).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	148	162	143	237	275	587	156	1080	383	381	531	263
2	145	150	218	224	283	518	146	1020	345	322	329	227
3	144	138	274	205	239	446	139	859	322	291	261	188
4	137	136	261	179	200	409	171	657	291	291	227	250
5	125	126	249	168	189	473	195	509	264	496	205	230
6	115	118	236	162	172	476	169	577	568	451	205	181
7	113	118	240	159	165	409	147	611	669	329	193	150
8	109	113	368	156	160	347	140	520	612	262	169	142
9	104	107	805	152	162	322	151	438	713	225	153	132
10	102	104	908	150	169	311	152	614	866	193	138	122
11	100	97	876	148	170	299	194	1360	883	169	127	111
12	98	91	758	147	170	277	472	1700	808	153	125	101
13	95	92	620	150	172	262	795	1790	755	151	110	95
14	103	97	513	158	174	239	1330	2120	1220	141	107	92
15	122	103	438	167	182	224	1980	3080	1460	129	128	91
16	117	99	385	169	603	215	2240	3390	1590	125	131	86
17	119	95	338	169	1130	201	2250	3310	1630	117	112	84
18	140	95	312	163	1330	193	2130	3040	1610	110	102	97
19	145	94	273	166	1330	187	1940	2690	1550	138	94	99
20	133	90	223	174	1190	187	1740	2320	1450	990	84	92
21	127	88	198	184	1000	181	1570	1940	1310	1390	79	85
22	120	87	192	189	815	174	1370	1610	1360	1360	81	83
23	110	87	195	196	829	166	1170	1360	1460	1210	81	76
24	110	90	198	206	933	159	1020	1080	1430	942	72	73
25	116	95	202	226	943	155	856	801	1420	617	72	73
26	124	88	206	315	861	153	668	584	1420	466	161	79
27	122	87	214	409	740	160	525	470	1300	584	276	525
28	151	102	219	420	658	166	458	409	1070	1020	258	774
29	205	117	224	353	-----	163	864	367	772	1180	244	740
30	195	119	231	288	-----	169	1070	380	509	1080	210	606
31	175	----	233	252	-----	168	-----	411	-----	841	200	----
TOTAL	3969	3185	10750	6441	15244	8396	26208	41097	30040	16154	5265	5947
MEAN	128	106	347	208	544	271	874	1326	1001	521	170	198
MAX	205	162	908	420	1330	587	2250	3390	1630	1390	531	774
MIN	95	87	143	147	160	153	139	367	264	110	72	73
CFSM	.29	.24	.77	.46	1.21	.60	1.95	2.95	2.23	1.16	.38	.44
IN.	.33	.26	.89	.53	1.26	.70	2.17	3.40	2.49	1.34	.44	.49

CAL YR 1980 TOTAL 144199 MEAN 394 MAX 2680 MIN 29 CFSM .88 IN 11.95
WTR YR 1981 TOTAL 172696 MEAN 473 MAX 3390 MIN 72 CFSM 1.05 IN 14.31

05525000 IROQUOIS RIVER AT IROQUOIS, IL

LOCATION.--Lat 40°49'25", long 87°34'55", in SE¼ sec.15, T.27 N., R.11 W., Iroquois County, Illinois, Hydrologic Unit 07120002, on left bank at upstream side of bridge on U.S. Highway 52 in Iroquois, 500 ft (152 m) upstream from Penn Central bridge, 4.5 mi (7.2 km) downstream from Indiana-Illinois State line, and at mile 50.4 (81.1 km).

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

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

GAGE.--Water-stage recorder. Datum of gage is 614.34 ft (187.251 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 5, 1945, nonrecording gage at same site and datum.

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

AVERAGE DISCHARGE.--37 years, 537 ft^3/s (15.21 m^3/s), 10.63 in/yr (270 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,400 ft^3/s (295 m^3/s) June 13, 1958, gage height, 26.31 ft (8.019 m); minimum, 5.2 ft^3/s (0.15 m^3/s) Sept. 13, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,780 ft^3/s (135 m^3/s) May 18, gage height, 20.45 ft (6.233 m); minimum daily, 78 ft^3/s (2.21 m^3/s) Sept. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	159	187	130	240	260	3720	130	1260	475	635	972	554
2	152	175	170	230	250	3350	135	1300	469	504	609	465
3	150	164	223	220	240	3220	150	1270	432	441	416	365
4	148	154	257	190	225	3200	140	1170	394	427	340	313
5	140	152	248	160	210	3180	135	996	356	911	297	330
6	130	146	234	150	205	3170	130	778	352	833	312	278
7	121	137	224	140	195	420	150	656	527	641	293	225
8	120	134	274	135	190	3160	137	720	680	494	256	194
9	117	130	644	135	190	3160	136	742	667	404	222	174
10	113	123	871	135	474	1830	141	659	795	339	198	156
11	110	120	909	130	463	2570	158	570	892	296	177	140
12	107	113	848	130	430	3580	302	940	904	261	162	127
13	106	106	712	130	399	4640	782	1890	844	239	153	116
14	103	106	572	130	373	5240	1390	2330	1020	228	140	109
15	110	109	475	130	380	5240	2300	2570	1400	211	186	104
16	128	115	413	130	422	5360	2630	3330	1710	197	212	100
17	128	113	356	130	834	5380	2780	4320	1910	185	173	96
18	129	108	317	130	1850	5060	2760	4730	1940	172	147	95
19	147	106	280	140	2400	4790	2630	4760	1900	232	131	103
20	152	104	250	145	2930	5060	2470	4580	1800	1190	119	103
21	140	99	230	150	4020	4930	2260	4200	1650	1960	108	98
22	133	97	270	160	5030	4600	2020	3760	1970	2010	100	90
23	126	95	250	170	5580	4160	1770	3210	2060	1780	98	86
24	118	95	230	180	6010	3740	1530	2630	1920	1440	97	82
25	116	96	200	200	5900	3310	1310	2060	2070	1020	108	78
26	121	100	180	220	5590	2850	1100	1510	2060	688	213	82
27	130	100	210	250	4900	2390	900	1030	1830	778	382	235
28	136	98	220	300	4230	1960	718	733	1570	1600	563	692
29	165	100	240	350	-----	1590	602	581	1210	1950	508	850
30	204	120	250	330	-----	1360	1040	499	867	1760	438	1020
31	203	----	250	290	-----	125	-----	466	-----	1400	528	----
TOTAL	4162	3602	10937	5660	54180	106345	32836	60250	36674	25226	8658	7460
MEAN	134	120	353	183	1935	3430	1095	1944	1222	814	279	249
MAX	204	187	909	350	6010	5380	2780	4760	2070	2010	972	1020
MIN	103	95	130	130	190	125	130	466	352	172	97	78
CFSM	.20	.18	.52	.27	2.82	5.00	1.60	2.83	1.78	1.19	.41	.36
IN.	.23	.20	.59	.31	2.94	5.77	1.78	3.27	1.99	1.37	.47	.40

CAL YR 1980 TOTAL 189402 MEAN 517 MAX 4460 MIN 28 CFSM .75 IN 10.27
WTR YR 1981 TOTAL 355990 MEAN 975 MAX 6010 MIN 78 CFSM 1.42 IN 19.30

05525500 SUGAR CREEK AT MILFORD, IL

LOCATION.--Lat 40°37'50", long 87°43'25", in NW¼NE¼ sec.16, T.25 N., R.12 W., Iroquois County, Illinois, Hydrologic Unit 07120002, on right bank at downstream side of highway bridge, 200 feet (61 m) downstream from Mud Creek, 1 mi (2 km) west of Milford, and at mile 23.9 (38.5 km).

DRAINAGE AREA.--446 mi^2 (1,155 km^2).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 622.00 ft (189.586 m) National Geodetic Vertical Datum of 1929. Prior to July 23, 1970, nonrecording gage at same site and datum.

REMARKS.--Water discharge records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--33 years, 352 ft^3/s (9.969 m^3/s), 10.72 in/yr (273 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,900 ft^3/s (649 m^3/s) Feb. 21, 1951, gage height, 20.90 ft (6.370 m); from rating curve extended above 8,200 ft^3/s (232 m^3/s); maximum gage height, 23.74 ft (7.236 m) Feb. 10, 1959, ice jam; minimum discharge, 2.0 ft^3/s (0.057 m^3/s) Sept. 1, 2, 7, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,500 ft^3/s (71 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 11	2100	3740	106	18.08	5.511
May 15	1830	3720	105	18.05	5.502
Sept. 1	0315	*6460	183	*20.74	6.322

Minimum daily discharge, 3.6 ft^3/s (0.10 m^3/s) Jan. 9-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	9.7	24	6.2	18	164	33	1620	237	241	336	5440
2	10	10	27	5.6	16	133	31	1450	226	209	228	3120
3	8.7	9.6	29	5.0	14	109	33	1070	212	176	181	2220
4	8.4	7.0	27	4.5	12	103	66	731	192	188	153	1780
5	8.6	6.7	26	4.0	11	110	81	574	193	909	246	1250
6	8.6	7.2	24	3.9	10	114	68	1090	209	1110	1400	804
7	8.1	7.4	29	3.8	9.3	101	56	1200	179	630	1830	585
8	9.6	12	42	3.7	8.5	88	53	913	163	358	1360	475
9	7.5	9.6	124	3.6	8.0	79	54	669	158	245	633	375
10	7.6	8.4	174	3.6	7.7	75	67	1080	147	382	329	298
11	6.7	8.4	110	3.6	7.4	72	159	2990	132	410	271	241
12	5.7	8.2	66	3.6	7.1	67	552	3350	125	225	178	199
13	6.7	14	45	3.7	6.8	64	940	2600	142	171	137	174
14	6.5	19	35	3.7	7.0	60	1210	2360	191	150	114	160
15	7.6	20	25	3.7	7.2	52	1470	3400	149	134	376	191
16	9.2	18	20	3.8	200	52	1200	3120	148	125	981	167
17	13	18	14	3.9	1500	47	839	2370	143	120	714	137
18	16	18	10	4.0	1470	45	578	1910	129	105	295	128
19	16	15	7.4	4.2	1000	44	427	1730	119	110	169	118
20	12	18	5.0	4.5	657	43	395	1500	112	574	124	110
21	9.5	16	5.4	5.0	457	42	373	1130	115	896	98	97
22	10	16	6.2	5.6	362	40	370	874	1250	485	82	86
23	11	17	6.2	6.4	523	37	758	722	1670	238	78	76
24	10	19	5.6	7.5	729	35	789	622	996	162	78	75
25	10	19	4.5	15	569	33	561	555	1530	127	75	75
26	11	19	4.1	44	358	32	486	504	1400	479	466	75
27	12	21	4.5	70	345	31	698	439	864	1460	912	98
28	14	24	4.8	83	205	30	539	382	560	1780	994	125
29	14	26	5.4	40	------	30	1280	340	385	1750	997	424
30	12	23	5.8	33	------	32	1550	308	281	1200	724	1260
31	11	-----	6.2	25	------	34	-----	266	-----	599	2940	-----
TOTAL	310.6	444.2	922.1	417.1	8525.0	1998	15716	41869	12357	15748	17499	20363
MEAN	10.0	14.8	29.7	13.5	304	64.5	524	1351	412	508	564	679
MAX	16	26	174	83	1500	164	1550	3400	1670	1780	2940	5440
MIN	5.7	6.7	4.1	3.6	6.8	30	31	266	112	105	75	75
CFSM	.02	.03	.07	.03	.68	.15	1.18	3.03	.92	1.14	1.27	1.52
IN.	.03	.04	.08	.03	.71	.17	1.31	3.49	1.03	1.31	1.46	1.70

CAL YR 1980 TOTAL 126940.5 MEAN 347 MAX 13800 MIN 4.1 CFSM .78 IN 10.59
WTR YR 1981 TOTAL 136169.0 MEAN 373 MAX 5440 MIN 3.6 CFSM .84 IN 11.36

05536190 HART DITCH AT MUNSTER, IN

LOCATION.--Lat 41°33'40", long 87°28'50", in SE¼NW¼ sec.20, T.36 N., R.9 W., Lake County, Hydrologic Unit 07120003, on left bank at city limits of Munster, 0.2 mile (0.3 km) downstream from Ridge Road, and 0.4 mile (0.6 km) upstream from mouth.

DRAINAGE AREA.--70.7 mi² (183.1 km²).

PERIOD OF RECORD.--September 1942 to current year.

REVISED RECORDS.--WRD Ind. 1972: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 591.27 ft (180.219 m) 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 (366 m) upstream from base gage, at same datum.

REMARKS.--Records fair. High flow occasionally in backwater from Little Calumet River.

AVERAGE DISCHARGE.--39 years, 60.0 ft³/s (1.699 m³/s), 11.52 in/yr (293 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,670 ft³/s (75.6 m³/s) Apr. 28, 1959; maximum gage height, 8.04 ft (2.450 m) June 14, 1981; minimum daily discharge, 1.6 ft³/s (0.045 m³/s) Dec. 24-26, 31, 1963, Jan. 1, 2, Sept. 4-9, 14-17, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 800 ft³/s (22.7 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 14	----	[a]1300	36.8	----	-----	May 15	0100	873	24.7	3.80	1.158
Apr. 14	0100	backwater		6.64	2.024	June 14	0800	a*1850	52.4	*8.04	2.451
May 11	0600	840	23.8	3.70	1.128	July 28	0900	1070	30.3	4.37	1.332

Minimum daily discharge, 9.2 ft³/s (0.260 m³/s) Jan. 16.

[a]Daily discharge.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	12	29	18	29	92	16	129	121	24	56	44
2	21	12	60	17	20	66	15	97	78	23	48	33
3	20	16	46	16	18	49	18	78	58	20	90	27
4	18	18	29	15	16	52	18	66	44	21	74	29
5	17	16	25	13	13	54	18	58	38	20	52	23
6	17	14	23	12	12	46	16	51	34	19	39	19
7	17	11	44	11	13	35	15	46	29	17	31	29
8	16	11	409	10	12	33	19	41	78	16	27	24
9	15	12	406	9.9	11	30	100	39	275	14	39	19
10	14	12	208	9.6	11	29	210	263	164	15	42	17
11	11	11	121	9.4	11	30	240	721	83	14	25	15
12	11	11	85	9.5	11	29	311	370	56	39	20	15
13	12	11	70	9.4	11	27	454	187	1850	19	18	14
14	26	20	58	9.4	13	24	1300	454	1730	16	27	12
15	14	11	49	9.4	20	23	1000	827	940	23	27	14
16	20	11	42	9.2	190	20	450	433	560	19	23	64
17	41	11	35	9.8	333	20	220	202	280	16	18	313
18	20	9.5	29	10	232	19	170	121	200	14	16	433
19	19	9.5	24	11	164	19	130	88	160	18	14	218
20	16	9.5	21	12	113	19	115	68	128	41	11	124
21	17	11	19	12	85	17	97	56	90	26	11	83
22	14	9.5	18	12	121	17	135	49	83	18	11	62
23	12	12	17	14	232	16	257	51	58	15	11	46
24	18	17	16	16	193	16	175	51	74	12	9.5	37
25	14	11	15	20	121	16	115	42	85	11	74	30
26	11	9.5	14	49	81	16	90	38	54	468	85	113
27	15	16	14	47	83	16	76	35	41	308	113	164
28	21	24	15	31	97	15	210	33	33	823	81	83
29	15	20	16	26	----	18	319	70	29	350	85	137
30	14	21	18	23	----	20	181	420	25	200	62	115
31	14	-----	18	19	----	15	----	249	----	105	70	----
TOTAL	530	399.5	1993	499.6	2266	898	6490	5433	7478	2744	1309.5	2356
MEAN	17.1	13.3	64.3	16.1	80.9	29.0	216	175	249	88.5	42.2	78.5
MAX	41	24	409	49	333	92	1300	827	1850	823	113	433
MIN	11	9.5	14	9.2	11	15	15	33	25	11	9.5	12
CFSM	.24	.19	.91	.23	1.14	.41	3.06	2.48	3.52	1.25	.60	1.11
IN.	.28	.21	1.05	.26	1.19	.47	3.41	2.86	3.93	1.44	.69	1.24

CAL YR 1980 TOTAL 22773.6 MEAN 62.2 MAX 1270 MIN 5.4 CFSM .88 IN 11.98
WTR YR 1981 TOTAL 32396.6 MEAN 88.8 MAX 1850 MIN 9.2 CFSM 1.26 IN 17.05

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 (61 m) upstream from Hohman Street bridge at north city limits of Munster, 0.4 mile (0.6 km) upstream from Indiana-Illinois State line, and 4.6 miles (7.4 km) upstream from mouth of Thorn Creek.

DRAINAGE AREA.--90.0 mi^2 (233 km^2). During times of floods on Deep River flow may enter basin from eastern portion of Little Calumet River basin; or during times of floods on Hart ditch, flow may leave the basin and enter eastern portion of the Little Calumet River basin.

PERIOD OF RECORD.--June 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 580.72 ft (177.003 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Flow from eastern portion of Little Calumet River basin is diverted to Lake Michigan by Burns ditch.

AVERAGE DISCHARGE.--23 years, 72.7 ft^3/s (2.059 m^3/s), 10.97 in/yr (279 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,510 ft^3/s (42.8 m^3/s) Apr. 28, 1959, gage height, 13.67 ft (4.167 m); maximum gage height, 16.40 ft (4.999 m) June 14, 1981; minimum daily discharge, 1.9 ft^3/s (0.054 m^3/s) Aug. 20, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 794 ft^3/s (22.5 m^3/s) Apr. 15, gage height, 13.34 ft (4.066 m); maximum gage height, 16.40 ft (4.999 m) June 14, 1981; minimum daily, 15 ft^3/s (0.425 m^3/s) Nov. 10-13, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	21	42	35	46	142	27	177	164	109	204	85
2	26	20	91	34	42	120	24	146	127	101	189	72
3	31	21	83	31	33	98	29	119	102	93	210	59
4	25	26	61	29	28	96	34	97	82	88	157	58
5	24	23	54	26	26	98	26	82	65	82	128	50
6	21	21	51	23	24	85	27	69	55	74	103	43
7	21	18	61	21	25	69	25	57	45	64	88	46
8	19	17	291	19	25	63	25	47	65	53	75	58
9	20	17	335	18	23	56	125	41	215	47	79	42
10	19	15	259	17	21	53	177	171	175	43	102	36
11	18	15	210	16	20	53	249	420	131	36	60	32
12	18	15	171	16	20	50	287	334	101	64	49	30
13	20	15	148	16	20	48	363	262	170	50	40	27
14	38	28	127	16	22	44	682	333	450	41	49	24
15	19	21	111	16	30	40	749	473	550	40	53	23
16	29	18	97	17	90	38	543	388	590	41	43	51
17	61	16	78	18	285	36	402	301	526	32	36	229
18	31	17	66	19	247	35	311	250	418	27	32	347
19	26	16	53	20	212	34	255	204	357	29	27	280
20	21	16	43	23	172	33	215	172	310	51	24	231
21	21	15	37	23	139	32	181	141	269	40	23	189
22	18	16	33	21	144	31	177	113	242	28	23	156
23	17	19	31	24	211	30	234	98	216	23	21	131
24	23	26	30	26	219	29	216	98	196	19	20	108
25	22	22	29	31	189	28	172	83	214	17	80	91
26	16	20	28	66	155	28	138	73	175	235	114	117
27	20	24	28	71	147	26	116	65	156	249	141	190
28	34	41	29	51	151	25	104	58	140	515	123	150
29	26	38	31	44	----	27	260	67	127	510	118	182
30	24	38	33	40	----	32	219	232	116	333	102	175
31	24	----	35	36	----	30	----	215	----	250	105	----
TOTAL	760	635	2776	863	2766	1609	6392	5386	6549	3384	2618	3312
MEAN	24.5	21.2	89.5	27.8	98.8	51.9	213	174	218	109	84.5	110
MAX	61	41	335	71	285	142	749	473	590	515	210	347
MIN	16	15	28	16	20	25	24	41	45	17	20	23
CFSM	.27	.24	.99	.31	1.10	.58	2.37	1.93	2.42	1.21	.94	1.22
IN.	.31	.26	1.15	.36	1.14	.67	2.64	2.23	2.71	1.40	1.08	1.37

CAL YR 1980 TOTAL 29936.0 MEAN 81.8 MAX 719 MIN 8.7 CFSM .91 IN 12.37
WTR YR 1981 TOTAL 37050.0 MEAN 102 MAX 749 MIN 15 CFSM 1.13 IN 15.31

05536275 THORN CREEK AT THORNTON, IL

LOCATION.--Lat 41°34'05", long 87°36'30", near center of N½ sec.34, T.36 N., R.14 E., Cook County, Illinois, Hydrologic Unit 07120003, on right bank at downstream side of bridge on Margaret Street in Thornton, 1.0 mi (1.6 km) downstream from North Creek, and at mile 4.2 (6.8 km).

DRAINAGE AREA.--104 mi² (269 km²).

PERIOD OF RECORD.--May 1948 to current year. Prior to October 1974, records published with those for streams in the St. Lawrence River basin (WSP 1307, 1727, 1911, 2111, WDR IL 1971-74).

GAGE.--Water-stage recorder. Datum of gage is 586.43 ft (178.744 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 18, 1948, nonrecording gage at same site and datum.

REMARKS.--Records good. Some diurnal fluctuation caused by pumping operations above station. Figures of discharge include about 16 ft³/s (0.45 m³/s) pumped from ground-water sources for municipal supply and an undetermined amount of ground-water pumpage for industrial use.

AVERAGE DISCHARGE.--33 years, 98.7 ft³/s (2.795 m³/s), 12.89 in/yr (327 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,700 ft³/s (133 m³/s) July 13, 1957, gage height, 16.00 ft (4.877 m); maximum gage height, 17.06 ft (5.200 m) June 14, 1981; minimum daily discharge, 4.4 ft³/s (0.12 m³/s) Sept. 11, 1949.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 5, 1947, reached a stage of 14.34 ft (4.371 m), from floodmark, discharge, 4,200 ft³/s (119 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 900 ft³/s (25 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 14	1930	1680	47.6	12.50	3.810	June 14	0400	*4140	117	*17.06	5.200
May 15	0545	932	26.4	9.05	2.758	July 28	2030	1120	31.7	10.18	3.103

Minimum daily discharge, 24 ft³/s (0.68 m³/s) Oct. 22, 23, Nov. 3-5, 17-19, Mar. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	25	41	30	36	97	33	116	60	37	69	57
2	31	26	121	29	32	71	33	82	45	35	61	43
3	31	24	69	28	31	56	41	65	40	33	127	37
4	27	24	44	27	30	58	54	55	35	37	64	36
5	27	24	37	27	29	59	39	53	33	38	49	34
6	26	25	36	27	28	50	37	46	32	31	43	31
7	26	25	45	27	27	41	38	40	33	28	40	33
8	26	25	572	27	28	37	39	37	59	29	40	51
9	27	25	487	26	27	35	146	37	462	27	42	35
10	28	25	231	26	27	33	214	250	223	28	55	33
11	28	25	145	25	27	36	304	683	102	28	37	31
12	27	25	95	25	26	35	403	411	66	30	33	30
13	27	25	81	26	26	34	587	202	1540	31	31	29
14	45	34	67	26	27	32	1340	422	3630	28	47	30
15	30	27	57	26	36	30	1150	842	1660	41	61	30
16	42	25	54	26	277	28	487	403	824	42	52	30
17	94	24	47	26	472	27	252	190	402	32	39	48
18	44	24	43	25	331	27	153	110	208	31	36	131
19	31	24	38	26	190	28	126	80	131	29	37	84
20	27	25	36	27	125	27	114	66	92	96	34	47
21	25	25	33	26	87	27	83	55	74	51	32	36
22	24	26	33	26	149	27	138	49	74	34	29	34
23	24	27	33	27	224	26	246	47	58	28	31	33
24	30	28	33	28	192	25	141	46	70	25	30	32
25	34	27	31	30	131	25	87	43	114	27	202	32
26	27	25	30	35	84	24	67	40	58	332	267	65
27	26	25	29	35	103	25	52	37	46	168	253	136
28	36	47	29	33	125	26	246	34	44	798	119	60
29	28	43	31	30	----	37	462	40	38	812	78	113
30	26	40	32	29	----	42	219	277	39	253	58	91
31	25	----	31	28	----	35	----	128	-----	109	72	----
TOTAL	983	819	2691	859	2927	1160	7331	4986	10292	3348	2168	1512
MEAN	31.7	27.3	86.8	27.7	105	37.4	244	161	343	108	69.9	50.4
MAX	94	47	572	35	472	97	1340	842	3630	812	267	136
MIN	24	24	29	25	26	24	33	34	32	25	29	29
CFSM	.31	.26	.84	.27	1.01	.36	2.35	1.55	3.30	1.04	.67	.49
IN.	.35	.29	.96	.31	1.05	.41	2.62	1.78	3.68	1.20	.78	.54

CAL YR 1980	TOTAL	33938	MEAN	92.7	MAX 1350	MIN 24	CFSM .89	IN 12.14	
WTR YR 1981	TOTAL	39076	MEAN	107	MAX 3630	MIN 24	CFSM 1.03	IN 13.98	

05536290 LITTLE CALUMET RIVER AT SOUTH HOLLAND, IL

LOCATION (revised).--Lat 41°36'25", long 87°35'52", in NE¼SE¼ sec.15, T.36 N., R.14 E., Cook County, Illinois, Hydrologic Unit 07120003, near center span at downstream side of bridge on Cottage Grove Avenue in South Holland, 2.0 mi (3.2 km) downstream from Thorn Creek, and at mile 23.0 (37.0 km).

DRAINAGE AREA.--208 mi^2 (539 km^2), revised.

PERIOD OF RECORD.--October 1947 to current year. Prior to October 1974, records published with those for streams in the St. Lawrence River basin (WSP 1307, 1727, 1911, 2111, WDR IL 1971-74).

REVISED RECORDS.--WSP 1507: 1950, 1953.

GAGE.--Nonrecording gage and crest-stage gage. Datum of gage is 575.00 ft (175.260 m) National Geodetic Vertical Datum of 1929 (Illinois Department of Transportation bench mark). Prior to Oct. 27, 1947, nonrecording gage and Oct. 27, 1947, to Mar. 31, 1981, water-stage recorder at site 1.4 mi (2.3 km) upstream at same datum. Nov. 17, 1947, to Nov. 19, 1970, auxiliary water-stage recorder at Dixmoor, 4.7 mi (7.6 km) downstream; prior to Nov. 17, 1947, nonrecording gage at same site read twice daily.

REMARKS.--Records good except those for winter periods and those for period of no gage-height record, Jan. 17 to Feb. 19, which are poor. Flow from upper Little Calumet River is diverted to Lake Michigan by Burns ditch. Calumet Sag Channel, 6.6 mi (10.6 km) below station, diverts the entire flow to the Mississippi River basin.

AVERAGE DISCHARGE.--34 years, 180 ft^3/s (5.098 m^3/s), 11.75 in/yr (298 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,440 ft^3/s (126 m^3/s) July 14, 1957, gage height, 20.11 ft (6.120 m), site then in use; maximum gage height, 20.20 ft (6.157 m) June 14, 1981; minimum daily, 7.9 ft^3/s (0.22 m^3/s) Oct. 6, 1950.

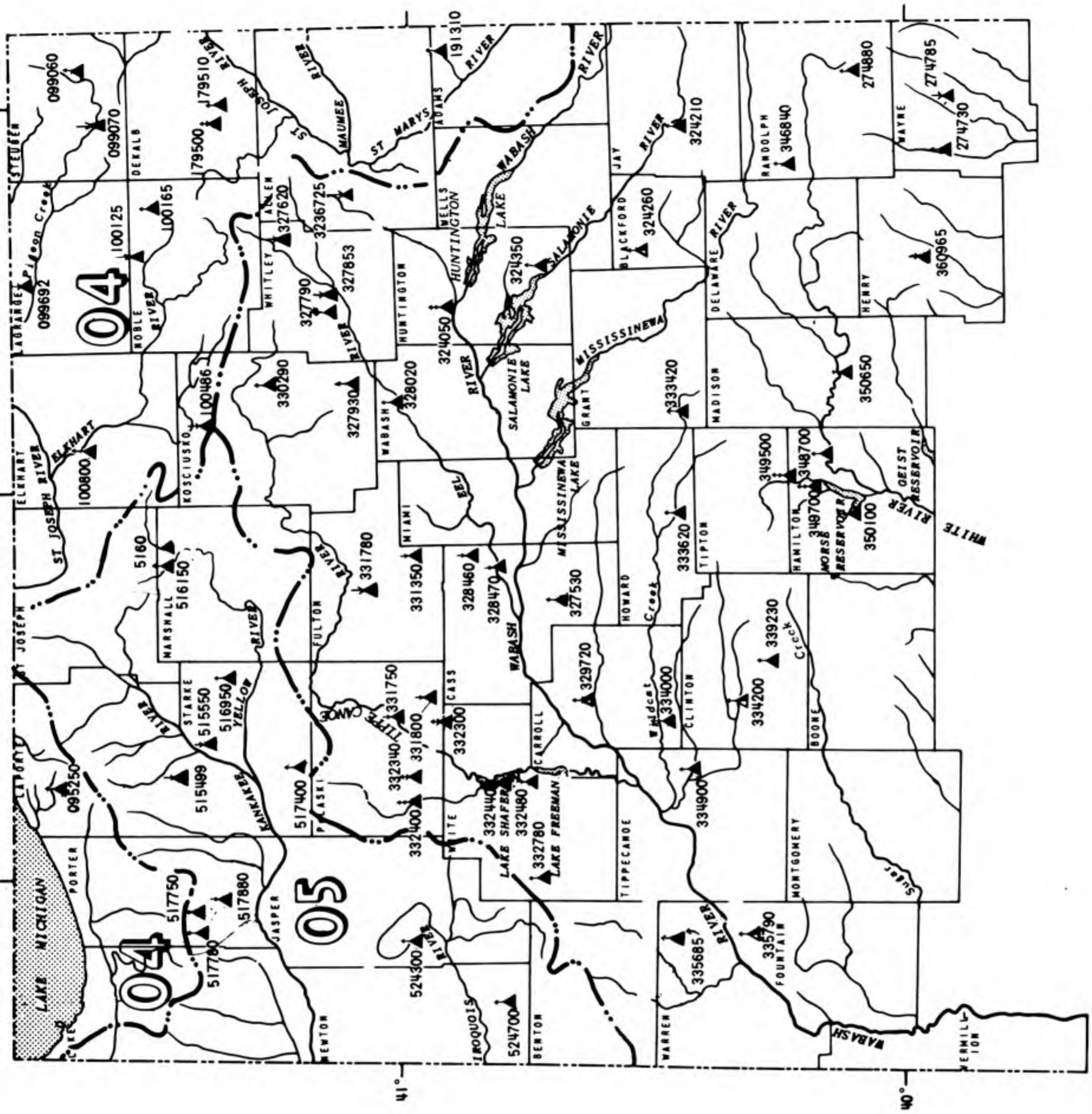
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 6, 1947, reached a stage of 19.24 ft (5.864 m), from floodmarks, discharge, 4,760 ft^3/s (135 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,070 ft^3/s (115 m^3/s) June 14, gage height, 20.20 ft (6.157 m); minimum daily, 32 ft^3/s (0.91 m^3/s) Jan. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	66	111	87	72	282	44	373	248	157	327	172
2	77	66	261	80	66	226	42	295	180	146	253	130
3	83	62	208	70	58	184	56	224	129	135	492	119
4	70	68	141	60	50	169	66	195	102	126	270	108
5	68	63	118	52	47	180	73	158	112	113	197	88
6	63	62	109	46	46	156	60	129	102	103	157	78
7	60	60	134	42	46	127	53	112	96	100	128	77
8	59	55	877	38	45	109	50	99	210	88	110	157
9	57	56	1020	36	44	99	200	94	954	77	95	88
10	63	52	616	36	45	90	370	392	591	73	188	77
11	62	51	420	36	43	90	540	1300	314	69	92	69
12	58	50	314	35	40	86	730	842	216	111	76	64
13	60	51	268	35	40	79	1000	475	2120	88	64	64
14	125	79	233	36	42	73	2060	791	3930	74	61	62
15	83	72	203	35	50	67	2360	1490	3570	86	139	63
16	115	56	184	33	130	60	1380	974	2220	108	98	83
17	246	51	165	32	350	56	775	606	1270	74	73	388
18	159	52	151	32	740	53	524	408	1030	64	65	763
19	98	54	134	34	500	54	463	309	826	65	62	545
20	80	56	140	36	325	53	404	255	570	326	55	377
21	72	64	121	38	249	50	318	233	412	118	55	270
22	66	66	111	40	280	48	323	192	373	77	54	211
23	61	66	106	43	485	47	621	167	304	55	50	169
24	69	62	102	46	478	46	431	145	330	42	52	146
25	102	59	95	54	366	43	314	133	394	34	204	128
26	71	56	91	80	276	42	251	120	263	614	579	206
27	66	54	88	84	268	39	215	110	213	617	550	439
28	109	110	86	78	318	38	384	107	194	1940	373	255
29	88	100	98	73	----	42	918	107	172	1770	260	370
30	75	96	96	66	----	67	586	612	163	877	198	318
31	71	----	88	70	----	50	-----	413	-----	479	221	----
TOTAL	2625	1915	6889	1563	5499	2805	15611	11860	21608	8806	5598	6084
MEAN	84.7	63.8	222	50.4	196	90.5	520	383	720	284	181	203
MAX	246	110	1020	87	740	282	2360	1490	3930	1940	579	763
MIN	57	50	86	32	40	38	42	94	96	34	50	62
CFSM	.41	.31	1.07	.24	.94	.44	2.50	1.84	3.46	1.37	.87	.98
IN.	.47	.34	1.23	.28	.98	.50	2.79	2.12	3.86	1.57	1.00	1.09

CAL YR 1980 TOTAL 73417 MEAN 201 MAX 2070 MIN 37 CFSM .97 IN 13.13
WTR YR 1981 TOTAL 90863 MEAN 249 MAX 3930 MIN 32 CFSM 1.20 IN 16.25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WABASH RIVER
SALAMONIE
SALAMONIE LAKE
HUNTINGTON LAKE
MISSISSINEWA
MISSISSINEWA LAKE
EEL RIVER
TIPPECANOE RIVER
YELLOW RIVER
KANKAKEE RIVER
IROQUOIS RIVER
WHITE RIVER
GEIST RESERVOIR
MORSE RESERVOIR
LAKE SHAFER
LAKE FREEMAN
Wildcat Creek
Sugar Creek
Pigeon Creek
STEUBEN
DEKALB
LAGRANGE
NOBLE
ALLEN
WHITLEY
ADAMS
WELLS
HUNTINGTON
JAY
BLACKFORD
RANDOLPH
DELAWARE
WAYNE
HENRY
MADISON
GRANT
WABASH
KOSCIUSKO
ELKHART
MIAMI
HOWARD
TIPTON
HAMILTON
MARSHALL
FULTON
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CLINTON
BOONE
STARKE
PULASKI
WHITE
TIPPECANOE
MONTGOMERY
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JASPER
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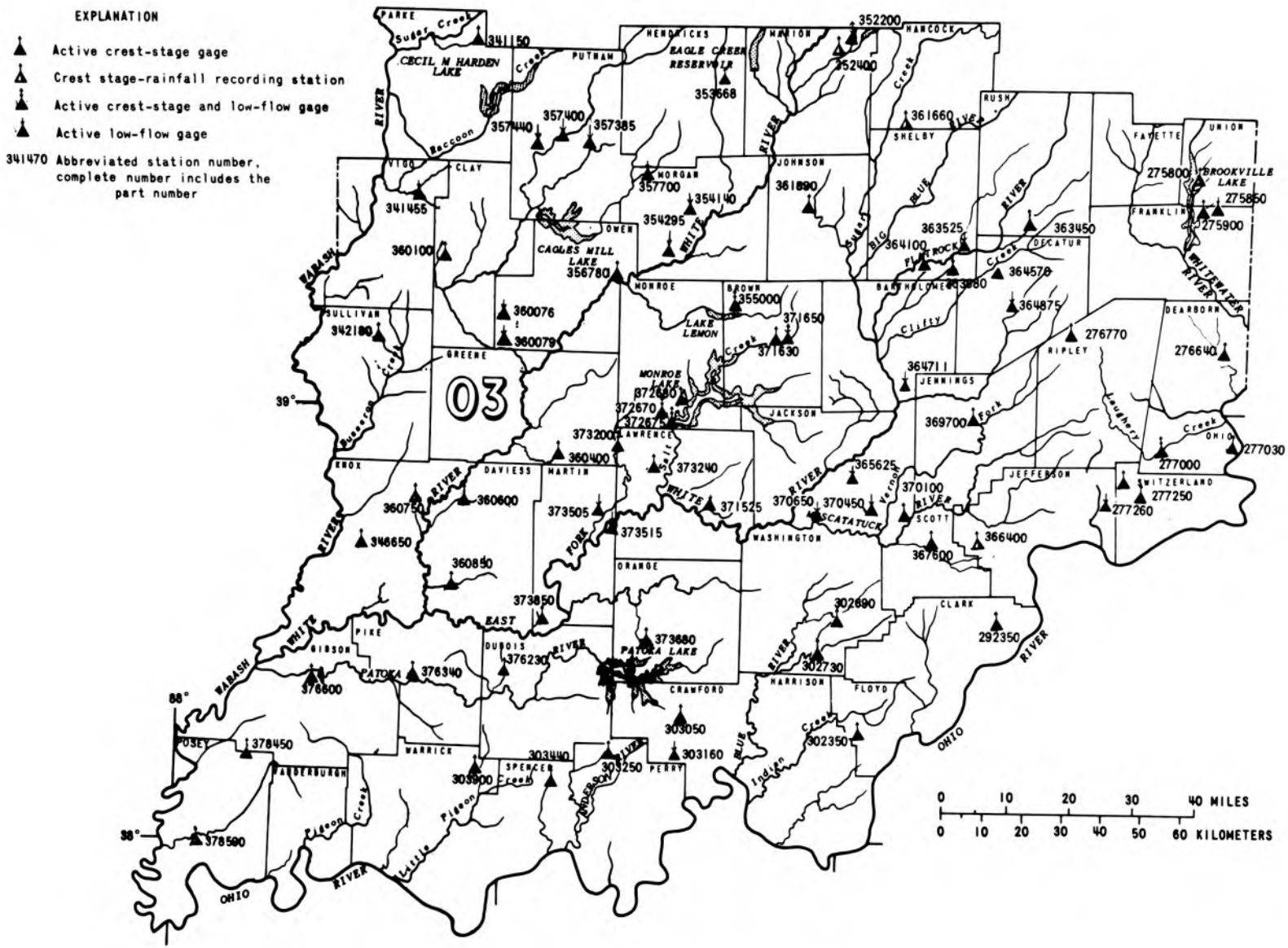

Figure 5.--Location of partial-record stations in Indiana.

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.

Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during Water Year 1981

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Measurements: Date	Measurements: Discharge (ft^3/s)
		OHIO RIVER BASIN				
		Great Miami River basin				
03274785	Martindale Creek near Greensfork, Ind.	Lat 39°52'38", long 85°06'28", on line between secs 31 and 32, T.17 N., R.13 E., Wayne County, at bridge on Jacksonburg Road, 1.8 miles south of State Road 38, and 4.2 miles west of Greensfork.	48.7	1980-	08-26-81	9.1
03275850	Hannah Creek near Roseburg, Ind.	Lat 39°34'58", long 84°56'48", in SW¼SW¼ sec.25, T.11 N., R.2 W., Union County, at bridge on State Highway 101, 0.5 mile south of Roseburg.	22.3	1976-	08-26-81	.57
		Indian Creek basin				
03277260	Indian Creek near Mount Sterling, Ind.	Lat 38°47'52", long 85°05'38", in SE¼NW¼ sec.34, T.3 N., R.3 W., Jefferson County, at bridge on Bennington Pike, 1.3 miles west of Mount Sterling.	40.5	1980-	08-27-81	.18
		Wabash River basin				
03323725	Aboite Creek near Fort Wayne, Ind.	Lat 41°03'15", long 85°17'48", between sec. 9 and sec.16, T.30 N., R.11 E., Allen County, at bridge on Covington Road, 3.1 miles west of Fort Wayne.	4.43	1979-80	08-20-81	.40
03327620	Blue River near Churubusco, Ind.	Lat 41°13'49", long 85°23'27", in E½ sec.17, T.32 N., R.10 E., at bridge on Anderson Road, 4 miles west of Churubusco and 0.75 mile east of County Road 450 East.	35.8	1979-	08-20-81	4.1
03327853	Spring Creek near Columbia City, Ind.	Lat 41°09'55", long 85°34'05", in SE¼SE¼ sec.1, T.31 N., R.8 E., at bridge on County Road 400 West, 1 mile south and 4.1 miles west of intersection of U.S. Highway 30 and State Highway 109 in Columbia City.	8.12	1979-	08-20-81	.48
03328460	East Branch Twelvemile Creek near Twelve Mile, Ind.	Lat 40°50'16", long 86°12'22", on line between secs.28 and 29, T.28 N., R.3 E., Cass County, at bridge on County Road 900 East, 2 miles southeast of Twelve Mile.	22.7	1976-	08-20-81	3.9
03328470	Twelvemile Creek near Hoover, Ind.	Lat 40°48'03", long 86°13'22", in NE¼SW¼ of Little Charlie's Reserve, T.27 N., R.3 E., Cass County, at bridge on County Road 300 North, 1.2 miles west of Hoover.	53.0	1976-	08-24-81	8.40
03331750	Quigley Marsh ditch at Winamac, Ind.	Lat 48°03'10", long 86°36'12", on the line between secs.11 and 12, T.30 N., R.2 E., Pulaski County, at the north edge of Winamac at the Indiana Head Motel on U.S. 35 bridge 0.3 mile north of State Highway 14 east of Winamac.	14.8	1977-	08-20-81	12
03331780	Mill Creek near Fulton, Ind.	Lat 40°57'28", long 86°20'06", in S½NW¼SW¼ sec.17, T.29 N., R.2 E., at bridge on Fulton County Road, 1 mile north of State Road 114, and 5miles west of Fulton and 0.75 mile north of Marshtown.	24.8	1980-	08-20-81	4.9
03331800	Mill Creek near Winamac, Ind.	Lat 42°01'00", long 86°34'07", in SW¼NE¼SE¼ sec.30, T.30 N., R.1 W., Pulaski County, at bridge on County Road 175 East, about 3 miles southeast of Winamac.	79.0	1977-	08-20-81	34

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		OHIO RIVER BASIN--Continued				
		Wabash River basin--Continued				
03332480	Honey Creek near Reynolds, Ind.	Lat 40°46'53", long 86°48'52", on line between secs.19 and 24, T.27 N., and on line between R.3 W., and 4 W., White County, at bridge on County Road 300 East, about 3 miles northwest of Monticello.	38.4	1977-81	08-21-81	2.31
03332440	Hoagland ditch near Monon, Ind.	Lat 40°48'52", long 86°48'51", in NE¼NE¼SE¼ sec.1, on line with sec.6, T.27 N., R.4 W., at bridge on White County Road, 3.75 miles south of State Road 16, 1 mile west of confluence at Lake Shaefer, and 7 miles southeast of Monon.	78.8	1980-81	08-21-81	4.03
03341455	Sulphur Creek near Burnett, Ind.	Lat 39°31'26", long 87°17'25", in SE¼SW¼ sec. 34, T.13 N., R.8 W., Vigo County, at triple barrel culvert on County Road 15 North, 1.5 miles south of Burnett.	20.4	1976-	08-20-81	4.4
03352200	Mud Creek at Indianapolis, Ind.	Lat 39°53'30", long 86°00'57", in SE¼NE¼ sec. 25, T.17 N., R.4 E., Marion County, on left bank at downstream side of Lantern Road bridge at Indianapolis, 0.2 mile northeast of intersection of 75th Street and Sargent Road, 1.5 miles upstream from mouth, and 2.0 miles southeast of Castleton.	42.4	1958-76a 1977-	05-29-81	408
03357385	Miller Creek near Fillmore, Ind.	Lat 39°42'52", long 86°45'03", in NE¼NE¼ sec. 33, T.15 N., R.3 W., 1.2 miles north of Conrail tracks just north of Fillmore, and 0.4 mile upstream from confluence with Clear Creek.	10.9	1979-	08-20-81	1.3
03357400	Big Walnut Creek above Greencastle, Ind.	Lat 39°40'47", long 86°48'39", in SW¼ sec.1, T.14 N., R.4 W., at Pinhook bridge, 0.50 mile upstream from Monon Railroad bridge, and 2.50 miles northeast of Greencastle.	198	1979-	08-20-81	42
03357440	Little Walnut Creek near Greencastle, Ind.	Lat 39°36'58", long 86°57'29", in NW¼SW¼ sec. 27, T.14 N., R.5 W., at New York Central Railroad bridge, 100 feet upstream from confluence with Big Walnut Creek and 4 miles west of Greencastle.	64.2	1979-	08-20-81	15
03357700	Mud Creek near Little Point, Ind.	Lat 39°34'34", long 86°37'54", on line between secs.9 and 10, T.13 N., R.2 W., Morgan County, at bridge on County Road 1100 West, 0.8 mile north of Little Point and 1.7 miles south of the Hendricks-Morgan County line.	34.8	1976-80	08-21-81	6.2
03360076	Birch Creek near Old Hill, Ind.	Lat 39°19'36", long 87°10'30", in NW¼SE¼NE¼ sec.10, T.10 N., R.7 W., in Clay County, at county road bridge and 0.7 mile from the mouth. The bridge may be reached from Highway 59 by turning west on the third county road, north of Clay City, and proceeding 4 miles west to bridge.	71.3	1979-	08-21-81	8.4
03360079	Connelly ditch near Jasonville, Ind.	Lat 39°12'45", long 87°07'40", in NE¼NE¼NE¼ sec.24, T.9 N., R.7 W., on Clay county road, 1.75 miles above mouth and 7.5 miles northwest of Jasonville.	31.2	1979-	08-20-81	4.6
03360965	Duck Creek at Greensboro, Ind.	Lat 39°52'46", long 85°28'03", in SW¼NE¼ sec. 35, T.17 N., R.9 E., Henry County, at bridge on County Road 350 South at west edge of Greensboro.	24.9	1976-	08-27-81	7.3
03363525	Conn's Creek near Waldron, Ind.	Lat 39°25'11", long 85°40'42", in SE¼NW¼ sec. 7, T.11 N., R.8 E., Shelby County, at bridge on County Road 700 S, 25 miles above mouth, and 2.3 miles south of Waldron.	80.0	1980	08-21-81	7.3
03363680	Lewis Creek near Shelbyville, Ind.	Lat 39°26'17", long 85°46'17", in SE¼SE¼ sec. 28, T.12N., R.7 E., Shelby County, at bridge on state Highway 9, 5 miles south of Shelbyville.	20.2	1981-	09-15-81	1.06
03364711	Little Sand Creek tributary near Elizabethtown Ind.	Lat 39°07'44", long 85°51'21", in NE¼NE¼ sec. 21, T.8 N., R.6 E., Bartholomew County, at bridge on county road, 1.1 miles west of U.S. Highway 31, and 2.5 miles west of Elizabethtown.	43.1	1980-	08-21-81	1.1
03364875	Sand Creek tributary at Greensburg, Ind.	Lat 39°19'43", long 85°29'10", in NW¼SE¼ sec. 11, T.10 N., R.9 E., Decatur County, at culvert 150 feet east of the Greensburg sewage treatment plant.	4.45	1980-	08-27-81	.15
03365625	Oathout ditch (White Creek) near Brownstown, Ind.	Lat 38°56'18", long 86°03'30", on line between sec.22, and 23, T.6 N., R.4 E., Jackson County, at bridge on county road, 1,000 feet upstream from Spray Creek, 2.3 miles south of surprise, and 4.2 miles north of Brownstown.	106	1980-	08-21-81	4.4

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		OHIO RIVER BASIN--Continued				
		Wabash River basin--Continued				
03370450	Grassy Fork at Tampico, Ind.	Lat 38°47'48", long 85°57'12", in SE¼SW¼ sec. 10, T.4 N., R.5 E., Jackson County, at bridge on State Highway 39, 0.25 mile south of Tampico.	31.6	1976-	08-21-81	6.3
03370650	Pond Creek near Vallonia, Ind.	Lat 38°46'51", long 86°01'56", in SW¼SW¼ of sec.13, T.4 N., R.4 E., Jackson County, at bridge on county road, 1.5 miles above mouth, 3.8 miles east of State Road 135, and 5.7 miles southeast of Vallonia.	25.2	1980-	08-21-81	1.2
03373200	Indian Creek near Springville, Ind.	Lat 38°57'01", long 86°40'30", in SE¼SW¼ sec. 18, T.6 N., R.2 W., Lawrence County, on left bank at downstream side of bridge on State Highway 54, 0.2 mile downstream from Popcorn Creek, and 4 miles northwest of Springville.	60.7	1961-73a 1974-	07-29-81 08-21-81	2.8 3.4
03373505	Beaver Creek at Huron, Ind.	Lat 38°43'07", long 86°41'07", in SE¼SW¼ sec. 1, T.3 N., R.3 W., at county road bridge, 0.3 mile southwest from U.S. 50 at Martin-Lawrence county line, and 8 miles west of Huron and 7.5 miles northeast of Shoals.	40.0	1979-	08-21-81	.24
03373515	Bogg Creek near Loogootee, Ind.	Lat 38°43'51", long 86°51'29", in SW¼NW¼NE¼ sec.4, T.3 N., R.4 W., 5 miles northeast of Loogootee.	45.9	1979-	08-21-81	1.5
		STREAMS TRIBUTARY TO LAKE MICHIGAN				
		St. Joseph River basin				
04099070	Pigeon Creek near Hamilton, Ind.	Lat 41°36'16", long 84°56'32", in NW¼SW¼SE¼ sec.5, T.36 N., R.14 E., 3.3 miles southeast of Angola, then south 1.5 miles to a "y" road, turn northeast 0.3 mile to bridge.	43.3	1980-	08-20-81	15
04099692	Rowe ditch near Howe, Ind.	Lat 41°42'32", long 85°26'18", in NW¼SE¼ sec. 5, T.38 N., R.9 E., LaGrange County, at bridge on County Road 450 N, 900 feet above mouth, 0.9 miles south of intersection with State Road 120, and 2.0 miles west of Howe.	7.52	1979-	08-21-81	7.8
04100125	North Branch River near Wolcottville, Ind.	Lat 41°31'31", long 85°27'37", in SW¼SW¼ sec. 35 T.35 N., R.9 E., at bridge on county line road,5.1 miles west of Wolcottville.	64.4	1980-	08-21-81	38
04100486	Turkey Creek near Milford, Ind.	Lat 41°24'57", long 85°51'52", in center of W½W½W½ sec.8, T.34 N., R.6 E., at bridge on Kosciusko County Road 1250 North, 0.75 mile west of State Highway 15 in Milford.	75.9	1979	08-21-81	11.3
		Maumee River basin				
04179500	Cedar Creek at Auburn, Ind.	Lat 41°21'57", long 85°03'08", in NE¼NW¼ sec. 32, T.34 N., R.13 E., DeKalb County, on right bank 15 ft downstream from Ninth Street bridge in Auburn, and 2 miles upstream from John Diehl ditch	87.3	1943-73a 1974-	08-20-81	14
		UPPER MISSISSIPPI RIVER BASIN				
		Illinois River basin				
05515499	Whitham ditch near Hanna, Ind.	Lat 41°25'08", long 86°42'27, on line and centered between sec.1 and sec.12, T.34 N., R.3 W., at bridge on LaPorte County Road 1300 South, 1.25 miles north of U.S. Highway 30 and 1.5 miles east of State Road 39, and 4 miles east of Hanna.	42.6	1979-	08-21-81	45
05515550	Robbins ditch near Brems, Ind.	Lat 41°22'25", long 86°39'33", in NE¼NE¼ sec. 29, on line with sec.28, T.34 N., R.2 W., at bridge on LaPorte County Road 200 East, 2 miles west of U.S. Highway 35, and 4 miles west of Hamlet.	66.8	1980-	08-21-81	62
05516000	Yellow River near Bremen, Ind.	Lat 41°25'11", long 86°10'14", in NW¼NW¼ sec. 10, T.34 N., R.3 E., Marshall County, on left bank at downstream side of bridge on East 4th Road, 0.5 mile downstream from Bunch ditch, 2 miles southwest of Bremen, and 4 miles upstream from Dausman ditch.	135	1955-73a 1974	08-21-81	31

Station number	Station name	Location	Drainage area (mi²)	Period of record	Measurements Date	Measurements Discharge (ft³/s)
		UPPER MISSISSIPPI RIVER BASIN--Continued				
		Illinois River basin--Continued				
05517750	Crooked Creek near Kouts, Ind.	Lat 41°17'20", long 87°00'05", on line between secs. 21 and 28, T.33 N., R.5 W., Porter County, at bridge on County Road 1000 South, 0.55 mile east of intersection with County Road 275 East, 2.3 miles southeast of Kouts.	69.9	1975-	08-21-81	56
05517880	Wolf Creek near Kouts, Ind.	Lat 41°21'44", long 87°04'59", in SW¼SW¼ sec. 26, T.34 N., R.6 W., Porter County, at corrugated metal pipe culvert on County Road 100 West, 1.1 miles north of intersection with County Road 600 South, 4.2 miles northwest of Kouts.	13.8	1975-	08-21-81	6.6

Crest-stage and high-flow, low-flow partial-record stations

The following table contains annual maximum discharges for crest-stage stations. Some of these are former continuous record-gaging stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Date	Gage height (ft)	Discharge (ft^3/s)
		OHIO RIVER BASIN					
		Great Miami River basin					
03274730	Whitewater River tributary near Hagerstown, IN	Lat 39°54'38", long 85°08'57", in NE¼SE¼NE¼ sec.23, T.17 N., R.12 E., Wayne County, at culvert on State Highway 38, 0.7 mile east of Hagerstown.	0.12	1973-	06-05-81	-----	e4
03274880	Greens Fork tributary near Lynn, IN	Lat 40°01'14", long 84°56'24", in SW¼SW¼SW¼ sec.11, T.18 N., R.14 E., Randolph County, at culvert on U.S. Highway 27, 1.9 miles south of intersection of U.S. Highways 27 and 36 in Lynn.	.78	1973-	06-05-81	5.43	40
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.	.26	1972-	08-05-81	6.82	83
03275900	Templeton Creek near Fairfield, IN	Lat 39°31'20", long 84°56'51", in SW¼NW¼NW¼ sec.24, T.10 N., R.2 W., Franklin County, at culvert on State Highway 101, 0.25 mile south of Franklin-Union County	5.39	1973-	04-23-81	9.77	240
		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-	06-10-81	11.00	50
		Laughery Creek basin					
03276770	Laughery Creek tributary near Napoleon, IN	Lat 39°13'18", long 85°20'07", in SE¼SE¼SE¼ sec.18, T.9 N., R.11 E., Ripley County, at culvert on U.S. Highway 421, 1.1 miles north of Napoleon.	.11	1973-	07-03-81	6.36	25
03276950	Uhlman Creek tributary near Avonburg, IN	Lat 38°53'33", long 85°11'04", in NW¼NW¼SW¼ sec.10, T.4 N., R.12 E., Switzerland County, at culvert on State Highway 129, 1.5 miles north of State Highway 250 at Pleasant.	.16	1973-	04-18-81	7.77	62
03277000	Laughery Creek near Farmers Retreat, IN	Lat 38°57'08", long 85°04'15", in NW¼SE¼ sec.2, T.4 N., R.3 W., Ohio County, on right bank, 2.4 miles southeast of Farmers Retreat, and 3.8 miles downstream from Bear Creek.	248	1941[a,b] 1942-73[b] 1974-[a]	06-10-81	14.98	20,000
		Buck Run basin					
03277030	Buck Run near Rising Sun, IN (discontinued)	Lat 38°59'36", long 84°51'16", in SW¼NW¼SW¼ sec.23, T.4 N., R.1 W., Ohio County, at culvert on State Highway 56, 3.3 miles north of State highway 262 in Rising Sun.	.03	1973-	06-10-81	12.30	(f)
		Indian Creek basin					
03277250	Indian Creek tributary near Bennington, IN	Lat 38°52'25", long 85°07'24", in NE¼NW¼NE¼ sec.5, T.4 N., R.3 W., Switzerland County, at culvert on State Highway 250, 3.7 miles east of State Highway 129 at Pleasant.	0.16	1973-	04-18-81	6.27	52

Crest-stage and high-flow, low-flow partial-record stations--Continued

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Date	Gage height (ft)	Discharge (ft^3/s)
		OHIO RIVER BASIN--Continued					
		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-	06-10-81	5.49	8
		Indian Creek basin					
03302350	Georgetown Creek tributary near Georgetown, IN	Lat 38°17'30", long 85°56'26", in SW¼NW¼SW¼ sec.35, T.25 N., R.5 E., Floyd County, at culvert on State Highway 64, 1.8 miles east of Georgetown.	.56	1973-	05-19-81	5.89	50
		Blue River basin					
03302690	Middle Fork Blue River tributary near Farabee, IN	Lat 38°32'44", long 86°02'14", in NE¼SW¼SE¼ sec.2, T.1 N., R.4 E., Washington County, at culvert on State Highway 60, 3.3 miles west of State Highway 56.	.07	1972-	06-10-81	5.14	6
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-	04-18-81	12.74	1,070
		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-	09-14-81	11.94	1,220
		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-	07-29-81	6.83	55
		Crooked Creek basin					
03303440	East Fork Crooked Creek tributary near Fulda, IN	Lat 38°05'18", long 86°49'12", in NW¼NW¼NE¼ sec.14, T.5 S., R.4 W., Spencer County, at culvert on State Highway 545, 1.6 miles south of Fulda.	.26	1973-	08-06-81	7.92	80
		Little Pigeon Creek basin					
03303900	Little Red Creek tributary near Heilman, IN	Lat 38°11'35", long 87°05'22", in NE¼SE¼SE¼ sec.5, T.4 S., R.6 W., Warrick County, at culvert on State Highway 161, 2.4 miles north of Heilman.	.25[e]	1973-	08-28-81	7.39	60
		Wabash River basin					
03324210	Blaine Run at Blaine, IN	Lat 40°24'15", long 85°03'19", in NW¼SW¼NW¼ sec.35, T.23 N., R.13 E., Jay County, at culvert on State Highway 67, 0.1 mile northeast of Blaine.	.45	1972-	06-25-81	7.80	78
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.	.86	1972-	07-04-81	7.81	140

Crest-stage and high-flow, low-flow partial-record stations--Continued

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Date	Gage height (ft)	Discharge (ft^3/s)
		OHIO RIVER BASIN--Continued					
		Wabash River basin--Continued					
03324350	Brook Creek tributary near Warren, IN	Lat 40°44'35", long 85°26'42", in SW¼SE¼SW¼ sec.31, T.27 N., R.10 E., Huntington at culvert on State Highway 5, 1.6 miles northwest of Interstate Highway 69.	.52	1972-	05-15-81	5.20	9
03327530	Minnow Creek tributary near Logansport, IN	Lat 40°43'46", long 86°17'48", in NW¼NW¼SW¼ sec.3, T.26 N., R.2 E., Cass County, at culvert on U.S. Highway 35, 4.0 miles southeast of State Highway 29 in Logansport.	.50	1972-	07-20-81	7.04	105
03327790	Eel River tributary near Columbia City, IN	Lat 41°07'01", long 85°31'21", in Beaver Reserve, Columbia Township, Whitley County, at culvert on State Highway 205, 3.8 miles southwest of U.S. Highway 30 in Columbia City.	.17	1972-	04-14-81	7.63	48
03327930	Koontz ditch near Sidney, IN	Lat 41°07'28", long 85°44'38", in NW¼NW¼SW¼ sec.22, T.31 N., R.7 E., Kosciusko County, at culvert on State Highway 13, 3.5 miles north of State Highway 14.	2.5[e]	1972-	06-13-80	-----	[e]375
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	1972-	04-14-81	6.92	195
03329720	Robinson Branch near Delphi, IN	Lat 40°37'10", long 86°37'01", in NE¼NW¼NW¼ sec.14, T.25 N., R.2 W., Carroll County, at culvert on State Highway 25, 2.0 miles northeast of State Highway 218, 3.9 miles northeast of State Highway 39 in Delphi.	5.62	1972-	05-15-81	7.33	350
03330290	Shanton ditch near Pierceton, IN	Lat 41°12'45", long 85°41'10, in NW¼NE¼SW¼ sec.22, T.32 N., R.7 E., Kosciusko County, at culvert on State Highway 13, 0.6 mile north of U.S. Highway 30.	.70	1972-	06-13-81	6.52	35
03332300	Little Indian Creek near Royal Center, IN	Lat 40°52'53", long 86°35'26", in NE¼NW¼ sec.13, T.28 N., R.2 W., White County, on right bank at downstream side of county road bridge, 2.9 miles upstream from mouth, 3.2 miles downstream from Fredericks ditch, and 4.8 miles northwest of Royal Center Post Office.	35	1959-73[b] 1974-[c]	05-10-81	7.30	377
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-	06-13-81	5.87	18
03332400	Big Monon Creek near Francesville, IN	Lat 40°59'03", long 86°51'43", in NW¼NE¼ sec.10, T.29 N., R.4 W., Pulaski County, on right bank at downstream side of county road bridge, 1.1 miles east of Francesville, 1.6 miles downstream from right bank tributary, and 10.2 miles upstream from mouth.	152	1959-73[b] 1974-[c]	06-22-81	16.39	2,120
03332780	Big Creek near Wolcott, IN	Lat 40°41'26", long 87°02'37", in SE¼NE¼NE¼ sec.24, T.26 N., R.6 W., White County, at culvert on U.S. Highway 231, 4.4 miles south of Wolcott.	1.35	1972-	06-05-81	9.06	120
03333420	Grassy Fork tributary at Point Isabel, IN	Lat 40°25'28", long 85°49'28", in NE¼SE¼SE¼ sec.22, T.23 N., R.6 E., Grant County, at culvert on State Highway 13, 1,100 ft north of State Highway 26 in Point Isabel.	.67	1973-	06-06-81	5.67	32
03333620	Scott Youngman ditch near Kokomo, IN	Lat 40°25'10", long 86°04'39", in NW¼NW¼NE¼ sec.28, T.23 N., R.4 E., Howard County, at culvert on State Highway 26, 2.4 miles west of State Highway 19.	.86	1973-	09-14-81	6.86	32

Crest-stage and high-flow, low-flow partial-record stations--Continued

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Date	Gage height (ft)	Discharge (ft^3/s)
		OHIO RIVER BASIN--Continued					
		Wabash River basin--Continued					
03334000	Wildcat Creek at Owasco, IN	Lat 40°27'50", long 86°38'15", in SE¼SE¼ sec.4, T.23 N., R.2 W., Carroll County, on left bank 500 ft downstream from bridge on State Highway 39, 0.5 mile northwest of Owasco, and 15 miles upstream from South Fork Wildcat Creek.	396	1944-73[b] 1944-[a]	05-15-81	6.10	2,160
03334200	Prairie Creek tributary near Frankfort, IN	Lat 40°15'14", long 86°30'36", in NW¼SE¼NE¼ sec.22, T.21 N., R.1 W., Clinton County, at culvert on State Highways 38 and 39, 1.8 miles south of State Highway 28 in Frankfort.	2.61	1972-	09-14-81	10.94	160
03334900	South Fork Wildcat Creek tributary near Monitor, IN	Lat 40°25'13", long 86°46'22", in NE¼SE¼SE¼ sec.20, T.23 N., R.3 W., Tippecanoe County at culvert on State Highway 26, 0.4 mile northwest of Monitor Springs.	.10	1972-	08-31-81	7.35	84
03335685	Big Pine Creek tributary near Pine Village, IN	Lat 40°25'24", long 87°15'32", in SE¼NW¼SW¼ sec.19, T.23 N., T.7 W., Warren County, at culvert on State Highway 55, 1.9 miles south of State Highway 26 in Pine Village.	.21	1972-	08-31-81	5.30	45
03335790	Big Shawnee Creek tributary near Attica, IN	Lat 40°16'48, long 87°10'29", in NE¼NW¼SE¼ sec.11, T.21 N., R.7 W., Fountain County, at culvert on State Highway 28, 1.4 miles west of State Highway 341 and 4.3 miles east of Attica.	1.22	1973-	08-31-81	5.97	94
03339230	Woods ditch near Frankfort, IN	Lat 40°13'13", long 86°27'34", in NE¼NE¼SW¼ sec.31, T.21 N., R.1 E., Clinton County, at culvert on State Highway 38, 2.2 miles southeast of State Highway 39.	1.12	1972-	09-14-81	9.03	125
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-	05-18-81	7.34	51
03342180	Kettle Creek tributary near Shelburn, IN	Lat 39°10'36", long 87°22'27", in SW¼SE¼SE¼ sec.26, T.9 N., R.9 W., Sullivan County, at culvert on State Highway 28, 1.0 mile east of U.S. Highways 41 and 150.	.48	1972-	05-27-81	7.85	145
03346650	River Deshee tributary near Frichton, IN	Lat 38°40'33", long 87°25'47", in SW¼ survey 29, Vincennes tract, Palmyra Township, Knox County, at culvert on new U.S. Highways 50 and 150, 0.5 mile southwest of Frichton.	.82	1973-	05-27-81	9.78	205
03346840	White River tributary at Parker City, IN	Lat 40°11'35", long 85°11'34", in SE¼SW¼SE¼ sec.9, T.20 N., R.12 E., Randolph County, at culvert on State Highway 32, 3.3 miles west of intersection of State Highways 1 and 32 in Farmland.	.20	1972-	05-27-81	-----	e12
03348700	White River tributary near Strawtown, IN	Lat 40°06'47", long 85°57'10", in NW¼SE¼NW¼ sec.10, T.19 N., R.5 E., Hamilton County, at culvert on State Highway 37, 0.9 mile south of intersection of State Highway 37 and Strawtown Avenue in Strawtown.	.42	1973-	08-30-81	7.37	46
03349500	Cicero Creek near Arcadia, IN	Lat 40°10'34", long 85°59'43", in NW¼NW¼ sec.20, T.20 N., R.5 E., Hamilton County, on left bank at downstream side of bridge, 1.5 miles east of Arcadia, 12.5 miles upstream from Morse Dam, and at mile 17.2.	131	1955-76[b] 1977-[a]	05-15-81	7.20	1,000

Crest-stage and high-flow, low-flow partial-record stations--Continued

Station number	Station name	Location	Drainage area (mi)	Period of record	Date	Gage height (ft)	Discharge (ft /s)
		OHIO RIVER BASIN--Continued					
		Wabash River basin--Continued					
03349700	Little Cicero Creek near Arcadia, IN	Lat 40°10'32", long 86°02'45", in NE¼NW¼ sec.23, T.20 N., R.4 E., Hamilton County, on left bank on downstream side of county road bridge, 0.5 mile downstream from Taylor Creek, 1.3 miles west of Arcadia, 3.9 miles upstream from mouth, and 9.3 miles northwest of Noblesville.	40.4	1956-76[b] 1977-[a]	09-14-81	6.32	456
03350100	Hinkle Creek near Cicero, IN	Lat 40°06'05", long 86°05'10", in NW¼NW¼ sec.16, T.19 N., R.4 E., Hamilton County, on left bank on downstream side of bridge on county road, 3.7 miles above mouth, 4.0 miles upstream from Morse Reservoir Dam, 4.2 miles southwest of Cicero, and 5.7 miles northwest of Noblesville.	18.5	1956-76[b]	09-01-81	3.98	685
03350650	Stony Creek tributary near Lapel, IN	Lat 40°05'18", long 85°49'22", in NE¼NW¼NW¼ sec.23, T.19 N., R.6 E., Madison County, at culvert on State Highway 32, 2.0 miles northeast of State Highways 13 and 32 in Lapel.	.46	1973-	06-14-81	5.45	52
03352200	Mud Creek at Indianapolis, IN	Lat 39°53'30", long 86°00'57", in SE¼NE¼ sec.25, T.17 N., R.4 E., Marion County, on left bank at downstream side of Lantern Road bridge at Indianapolis, 0.2 mile northeast of intersection of 75th Street and Sargent Road 1.5 miles upstream from mouth, and 2.0 miles southeast of Castleton.	42.4	1958-76[b] 1977-[a]	05-28-81	6.87	787
03352400	Blue Creek near Castleton, IN (discontinued)	Lat 39°53'23", long 86°02'46", in NW¼NE¼SE¼ sec.26, T.17 N., R.4 E., Marion County, at culvert on State Highway 100, 0.1 mile south of 75th Street, 1.2 miles south of Castleton.	.77	1972-	05-24-81	6.21	42
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	1972-	05-18-81	-----	[e]16
03355000	Bear Creek near Trevlac, IN	Lat 39°16'40", long 86°20'45", in NE¼NE¼ sec.30, T.10 N., R.2 E., Brown County, on left bank 15 ft west of Bear Creek Road, 100 ft upstream from Slippery Elm Shoot Road ford, 1.1 miles northwest of Trevlac, and 1.3 miles upstream from mouth.	6.94	1952-73[b] 1974-[a]	05-24-81	5.39	667
03356780	Limestone Creek tributary near Gosport, IN	Lat 39°21'12", long 86°40'58", in NE¼NW¼NW¼ sec.31, T.11 N., R.2 W., Owen County, at culvert on State Highway 67, 0.9 mile west of Gosport.	.72	1972-	05-27-81	5.67	60
03360100	Clear Branch at Cory, IN	Lat 39°23'20", long 87°11'58", in SE¼SW¼SW¼ sec.16, T.11 N., R.7 at W., Clay County, culvert on State Highway 46, 4.9 miles west of State Highway 59.	.27	1973-	02-18-81	6.47	36
03360400	Doans Creek tributary near Doans, IN	Lat 38°55'12", long 86°50'54", in SW¼SW¼SW¼ sec.27, T.6 N., R.4 W., Greene County, at culvert on State Highway 58 at Doans.	.20	1973-	05-22-81	9.56	175
03360600	Smothers Creek near Plainville, IN	Lat 38°48'43", long 87°07'48", in SE¼NW¼ sec.1, T.4 N., R.7 W., Daviess County, at county road bridge, 1.3 miles northeast of State Highway 57 in Plainville.	33[e]	1974-	05-27-81	16.00	1,350

Crest-stage and high-flow, low-flow partial-record stations--Continued

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Date	Gage height (ft)	Discharge (ft^3/s)
		OHIO RIVER BASIN--Continued					
		Wabash River basin--Continued					
03360750	Miller ditch tributary near Bicknell, IN (discontinued)	Lat 38°47'08", long 87°18'36", in SE¼NW¼NW¼ sec.16, T.4 N., R.8 W., Knox County, at culvert on State Highway 159, 0.4 mile north of State Highway 67 in Bicknell.	.50	1973-	--------	(c)	----
03360850	Veales Creek tributary at Washington, IN	Lat 38°37'16", long 87°11'00", in SW¼SW¼NW¼ sec.10, T.2 N., R.7 W., Daviess County, at culvert on State Highway 57, 2.3 miles south of U.S. Highway 50 in Washington.	.27	1973-	05-27-81	-----	e250
03361660	Little Sugar Creek tributary at Carrollton, IN	Lat 39°42'22", long 85°49'40", in SW¼SW¼NE¼ sec.35, T.15 N., R.6 E., Hancock County, culvert on U.S. Highway 52, 3.4 miles southeast of New Palestine.	0.70	1973-	05-27-81	6.16	71
03361890	Gilmore Creek near Bargersville, IN	Lat 39°30'44", long 86°08'26", in NE¼NE¼SE¼ sec.1, T.12 N., R.3 E., Johnson County, at culvert on State Highway 144, 1.0 mile southeast of State Highway 135 east of Bargersville.	.71	1973-	05-27-81	7.49	95
03363450	Little Flatrock Creek 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-	04-23-81	13.81	2,260
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-	06-10-81	7.44	108
03364570	Fall Fork Clifty Creek tributary near Horace, IN	Lat 39°16'01", long 85°34'30", in SW¼SW¼NW¼ sec.31, T.10 N., R.9 E., Decatur County, at culvert on State Highway 3, 2.8 miles south of State Highway 46, 0.4 mile north of Horace.	.83	1973-	06-10-81	10.00	250
03366400	Lewis Creek tributary near Kent, IN	Lat 38°44'13", long 85°34'39", in NW¼NE¼NE¼ sec.2, T.3 N., R.8 E., Jefferson County, on State Highway 256, 2.8 miles west of Kent.	.16	1973-	08-05-81	-----	e25
03367600	Flat Creek tributary at New Frankfort, IN	Lat 38°44'18", long 85°42'50", in NE¼SE¼SW¼ sec.35, T.4 N., R.7 E., Scott County, at culvert on State Highway 256, 0.2 mile northwest of State Highway 203.	.34	1973-	06-10-81	-----	e<15
03369700	Sixmile Creek tributary near North Vernon, IN	Lat 39°01'55", long 85°38'24", in NW¼SW¼SE¼ sec.21, T.7 N., R.8 E., Jennings County, at culvert on State Highway 3, 1.2 miles north of State Highway 7 in North Vernon.	.39	1973-	04-18-81	6.21	19
03370100	Blau ditch tributary near Crothersville, IN	Lat 38°48'17", long 85°50'25", in SW¼SW¼NE¼ sec.10, T.4 N., R.6 E., Jackson County, at culvert on U.S. Highway 31, 1.4 miles north of Crothersville.	1.31	1973-	06-10-81 05-17-80	5.92 6.70	13 26
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-	05-25-81	7.19	36
03371650	North Fork Salt Creek at Nashville, IN	Lat 39°12'06", long 86°14'51", in NW¼SW¼ sec.19, T.9 N., R.3 E., Brown County, on right bank 90 ft downstream from bridge on State Highway 46, 800 ft downstream from Greasy Creek, and and 0.4 mile south of center of Nashville.	76.1	1962-76[b] 1974-[a]	05-24-81	15.43	6,620
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	1974-76[b] 1977-[a]	05-23-81	6.31	2,450

Crest-stage and high-flow, low-flow partial-record stations--Continued

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Date	Gage height (ft)	Discharge (ft^3/s)
		OHIO RIVER BASIN--Continued					
		Wabash River basin--Continued					
03372675	Jackson Creek at Clear Creek, IN	Lat 39°06'01", long 86°32'18", in SE¼NE¼ sec.29, T.8 N., R.1 W., Monroe County, at bridge on Rogers Street, 400 ft north of State Highway 37 and 0.5 mile south of Clear Creek Road in Clear Creek.	10.8	1975-	05-23-81	9.93	220
03372680	Clear Creek tributary near Bloomington, IN	Lat 39°04'24", long 86°32'39", in SW¼SW¼NE¼ sec.5, T.7 N., R.1 W., Monroe County, at culvert on Old State Highway 37, 6.5 miles south of Bloomington.	.38	1972-	05-24-81	9.93	220
03373200	Indian Creek near Springville, IN	Lat 38°57'01", long 86°40'30", in SE¼SW¼ sec.18, T.6 N., R.2 W., Lawrence County, on left bank at downstream side of bridge on State Highway 54, 0.2 mile downstream from Popcorn Creek, and 4 miles northwest of Springville.	60.7	1961-73[b] 1974-[c]	05-24-81	12.84	6,340
03373240	Spring Creek tributary near Springville, IN	Lat 38°54'41", long 86°39'09", in SE¼SW¼NE¼ sec.32, T.6 N., R.2 W., Lawrence County, at culvert on State Highway 58, 2.7 miles southwest of Springville.	.54	1972-	05-24-81	7.75	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-	06-10-81	6.95	115
03373850	Slate Creek tributary near Haysville, IN	Lat 38°33'30", long 86°54'10", in NE¼SW¼SW¼ sec.31, T.2 N., R.4 W., Martin County, at culvert on U.S. Highway 231, 5.5 miles north of intersection of U.S. Highway 231 and State Highway 56, in Haysville, 8.0 miles south of intersection of U.S. Highways 231, 150, and 50 in Loogootee.	.14	1973-	07-27-81	6.02	48
03376230	Shiloh Drain near Jasper, IN	Lat 38°24'26", long 86°58'47", in NW¼NW¼NW¼ sec.28, T.15 N., R.5 W., Dubois County, at culvert on State Highway 56, at Ireland 2.8 miles northwest of Jasper.	.57	1973-	05-24-81	8.36	160
03376340	Patoka River tributary near Glezen, IN	Lat 38°23'41", long 87°19'05", in NE¼SE¼SE¼ sec.29, T.1 S., R.8 W., Pike County, at culvert on State Highway 57, 7.9 miles south of intersection of State Highways 61, 56, and 57 in Petersburg.	.84	1973-	05-26-81	6.67	83
03376600	Patoka River tributary near Patoka, IN	Lat 38°23'08", long 87°35'21", in SE¼SW¼NW¼ sec.36, T.15 N., R.11 W., Gibson County, at culvert on old U.S. Highway 41, 1.2 miles south of Patoka River at Patoka.	.40	1973-	05-26-81	9.95	165
03378450	Black River near Poseyville, IN	Lat 38°12'00", long 87°46'51", on line between SW¼SW¼ sec.5, and SE¼SE¼ sec.6, T.4 S., R.12 W., Posey County, at bridge on State Highway 165, 500 ft south of Gibson-Posey County line, and 2.0 miles north of State Highway 68 in Poseyville.	22.9	1974-	05-27-81	20.08	(f)
03378590	Olive Creek tributary near Solitude, IN	Lat 38°00'14", long 87°53'57, in NW¼SE¼NW¼ sec.17, T.6 S., R.13 W., Posey County, at culvert on State Highway 69, 0.65 mile south of Solitude.	0.32	1973-	05-26-81	-----	e90

Crest-stage and high-flow, low-flow partial-record stations--Continued

Station number	Station name	Location	Drainage area (mi)	Period of record	Date	Gage height (ft)	Discharge (ft /s)
		STREAMS TRIBUTARY TO LAKE MICHIGAN					
		Trail Creek basin					
04095250	East Branch Trail Creek tributary near Springville, IN	Lat 41°41'22", long 86°46'42", in NE¼SE¼NE¼ sec.5, T.37 N., R.3 W., LaPorte County, at culvert on U.S. Highway 20, 1.4 miles east of U.S. Highway 35.	.17	1972-	04-14-81	6.62	32
		St. Joseph River basin					
04099060	Pigeon Creek tributary near Ellis, IN	Lat 41°37'43", long 84°54'56", in NW¼NW¼NW¼ sec.34, T.37 N., R.14 E., Steuben County, at culvert on State Highway 1, 0.25 mile south of U.S. Highway 20.	1.22	1972-	06-14-81	7.89	90
04100165	Wible Lake inlet near Kendallville, IN	Lat 41°29'15", long 85°16'13", in NW¼NW¼SW¼ sec.16, T.35 N., R.11 E., Noble County, at culvert on State Highway 3, 1.9 miles north of U.S. Highway 6 in Kendallville.	2.47	1972-	06-14-81	5.37	36
04100800	Yellow Creek at Dunlap, IN	Lat41°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[e]	1974-	07-26-81	11.25	400
		STREAMS TRIBUTARY TO LAKE ERIE					
		Maumee River basin					
04179500	Cedar Creek at Auburn, IN	Lat 41°21'57", long 85°03'08", in NE¼NW¼ sec.32, T.34 N., R.13 E., DeKalb County, on right bank 15 ft downstream from Ninth Street bridge in Auburn, and 2 miles upstream from John Diehl ditch.	87.3	1943-73[b] 1974-[a]	06-14-81	9.09	1,150
04179510	Cecil Metcalf ditch near Auburn, IN	Lat 41°21'55", long 85°01'07", in SW¼NE¼NW¼ sec.34, T.34 N., R.13 E., DeKalb County, culvert on State Highway 8, 2.0 miles east of State Highway 427 in Auburn.	.78	1972-	04-14-81	7.70	110
04191310	Flatrock Creek tributary near Monroeville, IN (discontinued)	Lat 40°53'42", long 84°51'42", in NW¼SW¼SW¼ sec.8, T.28 N., R.15 E., Adams County, at culvert on State Highway 101, 1.8 miles south of Adams-Allen County Line.	.83	1972-1981	--------	(f)	-----
		UPPER MISSISSIPPI RIVER BASIN					
		Illinois River basin					
05516000	Yellow River near Bremen, IN	Lat 41°25'11", long 86°10'14", in NW¼NW¼ sec.10, T.34 N., R.3 E., Marshall County, on left bank at downstream side of bridge on East 4th Road, 0.5 mile downstream from Bunch ditch, 2 miles southwest of Bremen, and 4 miles upstream from Dausman ditch.	135	1955-73[b] 1974-[a]	06-16-81	12.88	1,130
05516150	Walt Kimble ditch near LaPaz, IN	Lat 41°26'59", long 86°14'16", in SW¼SE¼SE¼ sec.25, T.35 N., R.2 E., Marshall County, at culvert on U.S. Highway 6, 3.8 miles east of U.S. Highway 31.	1.50	1972-	07-26-81	6.11	20
05516950	Eagle Creek near Grovertown, IN	Lat 41°18'44", long 86°31'27", in SE¼NE¼ 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[c]	1973-	06-15-81	10.36	250

Crest-stage and high-flow, low-flow partial-record stations--Continued

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Date	Gage height (ft)	Discharge (ft^3/s)
		UPPER MISSISSIPPI RIVER BASIN--Continued					
		Illinois River basin--Continued					
05517400	West Arm Payne ditch near North Judson, IN	Lat 41°12'55", long 86°52'13", in SW¼SW¼SE¼ sec.16, T.32 N., R.4 W., Starke County, at bridge on State Highway 10, 1.3 miles east of U.S. Highway 421.	2.58	1973-	06-13-81	8.33	230
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	1972-	06-13-81	8.22	67
05524300	Yeoman ditch tributary near Rensselaer, IN (discontinued)	Lat 40°56'27", long 87°14'10", in SW¼SW¼SW¼ sec.21, T.29 N., R.7 W., Jasper County, at culvert on State Highway 114, 4.5 miles west of U.S. Highway 231 in Rensselaer.	.57	1972-	06-13-81	8.25	[e]200
05524700	Talley ditch near Kentland, IN (discontinued)	Lat 40°46'02", long 87°24'31", in SW¼SW¼SE¼ sec.23, T.27 N., R.9 W., Newton County, at culvert on U.S. Highway 24, 1.6 miles east of U.S. Highways 41 and 52.	4.16	1972-	--------	(c)	-----

[a]Nonrecording.
[b]Recording.
[c]No peak recorded.
[d]Revised.
[e]About.
[f]Insufficient data for peaks.

Discharge measurements made at crest-stage and high-flow, low-flow partial-record stations

Station No.	Station name	Location	Drainage area (mi^2)	Date	Discharge (ft^3/s)
03329720	Robinson Branch near Delphi, IN	Lat 40°37'10", long 86°37'01", in NE¼NW¼NW¼sec.14, T.25 N., R.2 W., Carroll County, at culvert on State Highway 25, 2.0 miles northeast of State Highway 218, 3.9 miles northeast of State Highway 39 in Delphi.	5.62	06-02-80 06-03-80	172 48.6
03334200	Prairie Creek tributary near Frankfort, IN	Lat 40°15'14", long 86°30'36", in NW¼SE¼NE¼ sec.22, T.21 N., R.1 W., Clinton County, at culvert on State Highways 38 and 39, 1.8 miles south of State Highway 28 in Frankfort.	2.61	06-02-80	245
03349500	Cicero Creek near Arcadia, IN	Lat 40°10'34", long 85°59'43", in NW¼NW¼ sec.20, T.10 N., R.5 E., Hamilton County, on left bank at downstream side of bridge, 1.5 miles east of Arcadia, 12.5 miles upstream from Morse Dam, and at mile 17.2.	131	08-07-80	1,060
03349700	Little Cicero Creek near Arcadia, IN	Lat 40°10'32", long 86°02'45", in NE¼NW¼ sec.23, T.20 N., R.4 E., Hamilton County, on left bank on downstream side of county road bridge, 0.5 mile downstream from Taylor Creek, 1.3 miles west of Arcadia, 3.9 miles upstream from mouth, and 9.3 miles northwest of Noblesville.	40.4	08-07-80	536
03360600	Smothers Creek near Plainville, IN	Lat 38°48'43", long 87°07'48", in SE¼NW¼ sec.1, T.4 N., R.7 W., Daviess County, at county road bridge, 1.3 miles northeast of State Highway 57 in Plainville.	33	06-17-81	15.3
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 Bbridge on Rhorer Road 0.95 mile east of State Highway 37 on the south side of Bloomington.	4.66	06-30-81	.10
03372675	Jackson Creek at Clear Creek, IN	Lat 39°06'01", long 86°32'18", in SE¼NE¼ sec.29, T.8 N., R.1 W., Monroe County, at bridge on Rogers Street, 400 ft north of State Highway 37 and 0.5 mile south of Clear Creek Road in Clear Creek.	10.8	06-30-81	.75

Glacial Outwash Aquifer Study in Johnson-Morgan Counties

An investigation of the stream-flow characteristics for the areas of glacial-outwash aquifer of Johnson and Morgan counties was made during the period September 30, 1979-October 1, 1980. A period of low base-flow was determined to have existed prior to the study time.

The measurements on each stream are listed in order preceeding downstream, and each tributary is inserted in the order in which it enters the main stream.

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously	Date	Discharge (ft^3/s)
Pleasant Run	White River	Lat 39°43'36", long 86°10'27", in NW¼SW¼ sec.23, T.15 N., R.3 E., Marion County, 30 ft upstream from mouth.	21.1		09-30-80	2.99
Eagle Creek	do.	Lat 39°43'05", long 86°11'49", in NW¼NW¼ sec.27, T.15 N., R.3 E., Marion County, 300 ft upstream from mouth.	210		09-30-80	31.1
Lick Creek	do.	Lat 39°30'01", long 86°12'03", in SE¼SE¼ sec.28, T.15 N., R.3 E., Marion County, 250 ft upstream from mouth.	26.2		09-30-80	11.1
Dollar Hide Creek	do.	Lat 39°40'25", long 86°14'22", in NE¼NE¼ sec.7, T.14 N., R.3 E., Marion County, at mouth.	4.08		10-01-80	0
Little Buck Creek	do.	Lat 39°40'02", long 86°14'12", in NE¼SE¼ sec.7, T.14 N., R.3 E., Marion County, 1,000 ft upstream of mouth.	16.8		10-01-80	1.61
White River	Wabash River	Lat 39°39'47", long 86°14'12", in SE¼SE¼ sec.7, T.14 N., R.3 E., Marion County, 400 ft upstream of bridge on Southport Road.	1,945	1973	10-01-80	345
Pleasant Run Creek	White River	Lat 39°37'20", long 86°13'38", in SE¼SW¼ sec.29, T.14 N., R.3 E., Johnson County, 0.25 mi upstream of mouth.			09-30-80	2.47
Honey Creek	do.	Lat 39°36'41", long 86°13'55", in NW¼SW¼ sec.32, T.14 N., R.3 E., Johnson County, 100 ft downstream from State Highway 37 bridge.	18.5	1972	09-30-80	.55
Goose Creek	do.	Lat 39°35'34", long 86°15'36", in SW¼SE¼ sec.1, T.13 N., R.2 E., Morgan County, 150 ft upstream from mouth.	12.1		09-30-80	.07
White River	Wabash River	Lat 39°34'03", long 86°15'22", in NW¼SE¼ sec.13, T.13 N., R.2 E., Morgan County, 400 ft above bridge on new State Highway 144.			09-30-80	544
Bluff Creek	White River	Lat 39°33'38", long 86°15'57", in SW¼SW¼ sec.13, T.13 N., R.2 E., Morgan County, 170 ft upstream from mouth.			09-30-80	.23
Sinking Creek	do.	Lat 39°33'40", long 86°17'11", in SW¼SW¼ sec.14, T.13 N., R.2 E., Morgan County, 100 ft upstream from mouth.	6.23		09-30-80	0
Unnamed tributary	do.	Lat 39°30'54", long 86°19'39", in NE°NE¼ sec.5, T.12 N., R.2 E., Morgan County, 100 ft upstream from mouth.			10-01-80	0
Stotts Creek (03353665)	do.	Lat 39°30'02", long 86°19'57", in NW¼NE¼ sec.8, T.12 N., R.8 E., Morgan County, at bridge on State Highway 37, 250 ft upstream from mouth.	60.1	1954, 1968-69	10-01-80	2.04
White River	Wabash River	Lat 39°29'57", long 86°21'23", in NE¼NW¼ sec.7, T.12 N., R.2 E., Morgan County, 800 ft downstream of Henderson bridge.		1974	10-01-80	581
Clear Creek	White River	Lat 39°29'32", long 86°23'11", in NW¼SE¼ sec.11, T.12 N., R.1 E., Morgan County, 1,000 ft upstream from mouth.	22.9		10-01-80	8.82
White Lick	do.	Lat 39°29'42", long 86°23'14", in NE¼NW¼ sec.2, T.12 N., R.1 E., Morgan County, 800 ft downstream of bridge on 600 North Road.	288	1974	10-01-80	43.6
Unnamed tributary	do.	Lat 39°30'10", long 86°24'33", in SE¼SW¼ sec.3, T.12 N., R.1 E., Morgan County, 200 ft upstream from mouth.	22.9		10-01-80	8.82

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously	Date	Discharge (ft^3/s)
Sycamore Creek	do.	Lat 39°29'15", long 86°25'52", in SE¼SW¼ sec.9, T.12 N., R.1 E., Morgan County, 1,000 ft downstream from bridge on State Highway 67.	18.7		10-01-80	1.51
Highland Creek	do.	Lat 39°29'03", long 86°26'20", in NE¼NE¼ sec.17, T.12 N., R.1 E., Morgan County, 300 ft upstream of bridge on State Highway 67 and 600 ft upstream from mouth.	7.89		10-01-80	.38
White River (03354125)	Wabash River	Lat 39°26'00", long 86°27'08", in NE¼SW¼ sec.32, T.12 N., R.1 E., Morgan County, 1,000 ft downstream of bridge on State Highway 30 in Martinsville, In.	2,486	1925-31 1946-48, 65, 67, 70	09-30-80	638
Lambs Creek Creek	White River	Lat 39°24'50", long 86°28'01", in SE¼SW¼ sec.1, T.1 N., R.1 W., Morgan County, 150 ft upstream of bridge on State Highway 67.	32.6		09-30-80	2.67
Indian Creek	do.	Lat 39°22'16", long 86°28'43", in SE¼NW¼ sec.18, T.11 N., R.1 E., Morgan County, 100 ft downstream of bridge on State Highway 37.	92.4	1954	09-30-80	5.50
Little Indian Creek	do.	Lat 39°22'26", long 86°29'51", in NE¼NW¼ sec.23, T.11 N., R.1 W., Morgan County, 1,000 ft upstream of mouth.	17.1		09-30-80	1.19
Burkhart Creek	do.	Lat 39¼23'11", long 86°32'11", in SW¼SW¼ sec.16, T.11 N., R.1 W., Morgan County, 100 ft upstream from mouth.	13.4		10-01-80	0
White River	Wabash River	Lat 39°22'24", long 86°33'35", in NE¼SE¼ sec.19, T.11 N., R.1 W., Morgan County, 500 downstream from Paragon bridge.		1965	09-30-80	699
Bryant Creek	White River	Lat 39°22'21', long 86°33'46", in SE¼SE¼ sec.19, T.11 N., R.1 W., Morgan County, 100 ft upstream from mouth.	11.4		09-30-80	.09
Fall Creek	do.	Lat 39°22'10", long 86°34'55", in SW¼SE¼ sec.24, T.11 N., R.2 W., Morgan County, 100 ft upstream from mouth.	12.2		09-30-80	0
Pocket Hollow Creek	do	Lat 39°21'20", long 86°36'32", in SW¼SW¼ sec.26, T.11 N., R.2 W., Morgan County, 100 ft upstream from mouth.			09-30-80	.10
Butter Creek	do.	Lat 39°22'21", long 86°36'43", in SW¼SW¼ sec.23, T.11 N., R.2 W., Morgan County, 100 ft upstream from mouth.	11.7		09-30-80	.08
Indian Creek	do.	Lat 39°21'10", long 86°39'26", in NW¼NE¼ sec.32, T.11 N., R.2 W., Owen County, 750 ft upstream from mouth.	12.0		09-30-80	.26
Beanblossom Creek	do.	Lat 39°19'43", long 86°39'32", in SE¼SW¼ sec.5, T.10 N., R.2 W., Monroe County, 0.75 mi upstream from mouth.	191		09-30-80	43.2
White River	Wabash River	Lat 39°19'58", long 86°40'39", in SE¼NW¼ sec.6, T.10 N., R.2 W., Monroe County, at bridge on county road 1.0 mi south of Gosport.	2,917		09-30-80	912

An investigation of stream-flow characteristics near major photo lineaments and fracture traces in Southeast Indiana, was made on October 3, 4, 1978. Areas of study included Clifty Creek, Sand Creek, and Muscatatuck River. A period of low base flow was determined to have existed prior to the study time.

The measurements on each stream are listed in order preceeding downstream, and each tributary is inserted in the order in which it enters the main stream

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously	Date	Discharge (ft^3/s)
Middle Branch Clifty Creek (headwater of Clifty Creek)	East Fork White River	Lat 39°25'19", long 85°28'30", in NW¼NW¼ sec.12, T.11 N., R.9 E., Decatur County, 200 ft above North Branch Clifty Creek, 0.25 mi northeast of Sandusky.	25.6		10-03-78	.83
North Branch Clifty Creek	Clifty Creek	Lat 39°25'54", long 85°28'10", in center of sec.1, T.11 N., R.9 E., Decatur County, 200 ft upstream of bridge on 650 North Road, 0.75 mi north of Sandusky.			10-03-78	.81
Clifty Creek	East Fork White River	Lat 39°25'24", long 85°28'33", in NW¼NW¼ sec.12, T.11 N., R.9 E., Decatur County, 50 ft below confluence of North Branch Clifty Creek and Middle Branch Clifty Creek, 100 ft upstream of R.R. bridge in Sandusky, In.			10-03-78	1.92
Do.	do.	Lat 39°25'38", long 85°29'17", in SW¼SW¼ sec.2, T.11 N., R.9 E., Decatur County, 450 ft downstream of right bank tributary 0.75 mi west of Sandusky.			10-03-78	1.44
Sand Creek	do.	Lat 39°06'12", long 85°36'15", in SE¼SW¼ sec.26, T.8 N., R.8 E., Jennings County, 150 ft upstream of county road bridge, 1 mi north of Brewersville, In.			10-04-78	11.1
Graham Creek (headwaters of Muscatatuck River)	East Fork	Lat 38°55'41", long 85°33'15", in SW¼SW¼ sec.29, T.6 N., R.9 E., Jennings County, 2,000 ft downstream of R.R. bridge, 0.25 mi north of Walnut Ridge, In.			10-04-78	1.48
Do.	do.	Lat 38°55'46", long 85°33'28", on between secs.29 and 30, T.6 N., R.9 E., Jennings County, 1,700 ft upstream of bridge on State Highway 7, 0.5 mi northwest of Walnut Ridge.			10-04-78	1.24
Graham Creek (headwaters of Muscatatuck River)	East Fork	Lat 38°55'46", long 85°33'44", on line between sec.30 and 31, T.6 N., R.9 E., Jennings County, 1,300 ft downstream of bridge on State Highway 7, 2.5 mi south east of Walnut Ridge.			10-04-78	1.66
Do.	do.	Lat 38°55'26", long 85°33'44", in NW¼NE¼ sec.31, T.11 N., R.9 E., Jennings County, 2,400 ft downstream of bridge on State Highway 7, 3.5 mi east of Lovett, In.			10-04-78	1.29
Vernon Fork Muscatatuck River	Muscatatuck River	Lat 39°07'36", long 85°28'24", in SE¼NW¼ sec.24, T.8 N., R.9 E., Jennings County, 1,000 ft upstream of Sugar Creek, 1.2 mi downstream of Wolf Creek, and 5 mi southeast of Neff Corner, In.	42.7		10-04-78	1.71
Sugar Creek	Vernon Fork Muscatatuck River	Lat 39°09'43", long 85°25'20", in SW¼SW¼ sec.4, T.8 N., R.10 E., Ripley County, at county road bridge 0.75 mi southeast of Union Flatrock Church			10-04-78	.06
Do.	do.	Lat 39°08'50", long 85°25'20", in SW¼SW¼ sec.4, T.8 N., R.10 E., Ripley County, at county road bridge, 0.25 mi east of Ripley-Jennings County line, and 3.5 mi Southeast of St. Dennis Church.			10-04-78	11.1
Sugar Creek	Vernon Fork Muscatatuck River	Lat 39°07'28", long 85°28'25", in SE¼NW¼ sec.24, T.8 N., R.9 E., Jennings County, 100 ft upstream of mouth, 0.5 mi north of Zenas, In.	7.62		10-04-78	.27
Vernon Fork Muscatatuck	Muscatatuck River	Lat 39°07'18", long 85°28'19", in NE¼SW¼ sec.24, T.8 N., R.9 E., Jennings County, 1,100 ft downstream of Sugar Creek, 1,500 ft upstream of Leatherwood Creek, in Zenas, In.	50.5		10-04-78	2.22

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously	Date	Discharge (ft^3/s)
Leatherwood Creek	Vernon Fork Muscatatuck	Lat 39°07'35", long 85°26'29", on line between secs.19 and 20, T.8 N., R.10 E., Jennings County, 50 ft downstream of road on Jennings County, 50 ft downstream of road on Jennings-Ripley County Line, 2 mi northwest of Hopewell Church.			10-04-78	.26
Do.	do.	Lat 39°07'03", long 85°28'20", in SE¼SW¼ sec.24, T.8 N., R.9 E., Jennings County, 300 ft upstream of mouth in Zenas, In.	8.66		10-04-78	.50
Vernon Fork Muscatatuck	Muscatatuck River	Lat 39°06'51", long 85°28'29", in NW¼NW¼ sec.25, T.8 N., R.9 E., Jennings County, at Fishing Ramp 0.25 mi downstream of county road in Zenas, In.	59.4		10-04-78	3.28
Do.	do.	Lat 39°02'37", long 85°33'29", in NE¼NE¼ sec.19, T.7 N., R.9 E., Jennings County, 100 ft upstream of Long Branch, 150 ft downstream of Pleasant Run, and 1.5 mi southeast of St. Anns Church.	93.2		10-04-78	4.18
Long Branch	Vernon Fork Muscatatuck River	Lat 39°04'26", long 85°32'24", on line between secs.5 and 8, T.7 N., R.9 E., Jennings County, at county road bridge 3.5 mi east of Brewersville, In.			10-04-78	.01
Do.	do.	Lat 39°02'39", long 55°33'32", in SE¼SE¼ sec.18, T.7 N., R.9 E., Jennings County, 50 ft upstream of mouth and 1 mi southeast of St. Anns School.	4.70		10-04-78	.09
Vernon Fork Muscatatuck River	Muscatatuck River	Lat 39°02'28", long 85°33'49", in NW¼NE¼ sec.19, T.7 N., R.9 E., Jennings County, 2,000 ft downstream of Long Branch and 2 mi east of North Vernon Airport.	98.0		10-04-78	4.13
Otter Creek	Vernon Fork Muscatatuck River	Lat 38°59'46", long 85°32'19", in SW¼NW¼ sec.4, T.6 N., R.9 E., Jennings County, at end of farm lane, 500 ft downstream of left bank tributary, and 2.5 mi southwest of Butterville, In.			10-03-78	8.11
Do.	do.	Lat 38°59'48", long 85°33'04", in SE¼NW¼ sec.5, T.6 N., R.9 E., Jennings County, 850 ft above Huckleberry Branch and 2.5 mi northeast of Grayfork, In.			10-03-78	7.23
Vernon Fork Muscatatuck River	Muscatatuck River	Lat 38°54'19", long 85°44'06", in SE¼NW¼ sec.3, T.5 N., R.7 E., Jennings County, 2,400 ft downstream of county road bridge at Western Church and 1 mi upstream of Tea Creek.	236		10-03-78	13.7
Tea Creek	Vernon Fork Muscatatuck River	Lat 38°53'10", long 85°43'54", in SW¼SE¼ sec.10, T.5 N., R.7 E., Jennings County, at county road bridge, 0.8 mi above mouth, and 5 mi northwest of Commiskey, In.			10-03-78	.24
Tea Creek	Vernon Fork Muscatatuck River	Lat 38°53'51", long 85°44'39", in SE¼SE¼ sec.4, T.5 N., R.7 E., Jennings County, 40 ft upstream from mouth and 1.5 mi southwest of Weston Church.	11.6		10-03-78	.30
Vernon Fork Muscatatuck	Muscatatuck River	Lat 38°54'14", long 85°45'43", in NE¼SE¼ sec.5, T.5 N., R.7 E., Jennings County, 700 ft upstream of Six Mile Creek and 1.4 mi upstream of Staples Ford.	249		10-03-78	15.1
Six Mile Creek	Vernon Fork Muscatatuck River	Lat 38°54'39", long 85°45'45", in NE¼NE¼ sec.5, T.5 N., R.7 E., Jennings County, at downstream side of county road bridge 0.75 mi upstream of mouth, and 4 mi east of Kriete Corner, In.			10-03-78	.70
Do.	do.	Lat 38°54'07", long 85°45'52", in NW¼SW¼ sec.5, T.5 N., R.7 E., Jennings County, 250 ft upstream of mouth, and 1.0 mi northeast of Staples Ford.	31.0		10-03-78	.74

Measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table

Discharge measurements made at miscellaneous sites during water years 1981

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		OHIO RIVER BASIN				
Deer Creek	Wabash River	Lat 40°36'13", long 86°00'52", in SE¼NE¼ sec.24, T.25 N., R.4 E., Miami County, 150 ft downstream from bridge on County Road 300 East, 15 ft downstream from Copper Creek, 116 miles (2.6 km) north of State Highway 18 and 4.5 miles west of Amboy.		1980	07-11-81 08-20-81	1.88 2.69
Dear Creek	Wabash River	Lat 40°36'33", long 86°08'47", in SE¼SE¼ sec.14, T.25 N., R.3 E., Miami County, at bridge on County Road 100 West 1.7 miles north of State Highway 18, 1 mile west U.S. Highway 31 and 3.0 miles northeast of Galveston.		1980	07-11-81 08-20-81	6.22 10.4
South Fork Deer Creek	Deer Creek	Lat 40°33'56", long 86°07'39", in SE¼SE¼ sec.36, T.25 N., R.3 E., Miami County, 120 ft downstream from State Highway 31 bridge, 0.2 mile north of Miami-Howard County line, 4.2 miles north of the intersection of State Highway 31 and Howard County Road 200 North (E. Morgan St) in Kokomo.		1980	07-11-81 08-20-81	2.71 3.99
South Fork Deer Creek	Deer Creek	Lat 40°35'45", long 86°13'15",SW¼ NW¼ sec.20, T.25 N., R.3 E., Cass County, 70 ft downstream from culvert on County Road 1150 South, 1.2 miles west of State Highway 35, and 2 miles northwest of Galveston.		1980	07-11-81 08-20-81	5.76 8.00
Deer Creek	Wabash River	Lat 40°36'03", long 86°15'38", on line between SE¼NE¼ sec.23 and SW¼NW¼ sec.24, T.25 N., R.2 E., Cass County, 0.6 mile north of intersection between County Road 1185 South and County Road 600 East, 1.6 miles north of State Highway 18, and 4.1 miles northwest of Galveston.		1980	07-11-81 08-20-81	16.5 20.5
Deer Creek	Wabash River	Lat 40°36'21", long 86°21'55", in SE¼SW¼ sec.13, T.25 N., R.1 E., Cass County 120 ft downstream from bridge on County Road 50 East, 0.6 mile north of County Road 1150 South, 0.5 mile east of Cass-Carroll County line, and 2.9 miles northwest of Young America.		1980	07-11-81 08-20-81	18.1 22.6
Harness ditch	Deer Creek	Lat 40°35'50", long 86°24'38", in NW¼SW¼ sec.22, T.25 N., R.1 E., Carroll County, at bridge on County Road 600 East, 0.3 mile upstream from mouth, 0.5 mile north of County Road 300 North, 1.0 mile west of State Highways 29 and 218, and 1.6 miles southwest of Deer Creek.		1980	07-11-81 08-21-81	2.45 2.30
McKay Dredge ditch	Little Deer Creek	Lat 40°32'12", long 86°16'50", in NE¼SE¼ sec.10, T.24 N., R.2 E., Howard County, 70 ft downstream from bridge on County Road 800 West, 0.3 mile north of County 400 North, and 5.5 mile southwest of Galveston.		1980	07-12-81 08-20-81	1.91 2.02
Mathias-Young ditch	Little Deer Creek	Lat 40°32'49", long 86°21'23", in SW¼SW¼ sec.6, T.24 N., R.2 E., Howard County, at bridge on County Road 500 North, 0.5 mile west of County Road 1150 West, 1.5 mile south of State Highway 18, and 1.6 mile southwest of Young America.		1980	07-12-81 08-20-81	1.98 1.77

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		OHIO RIVER BASIN--Continued				
Little Deer Creek	Deer Creek	Lat 40°33'23", long 86°23'30", in SE¼NE¼ sec.3, T.24 N., R.1 E., Carroll County, 15 ft downstream from bridge on State Highways 18 and 29, 0.7 mile north of junction between State Highways 18 and 29, and 3.9 miles south of Deer Creek.		1980	07-12-81 08-21-81	5.76 5.37
Little Deer Creek	Deer Creek	Lat 40°35'25", long 86°28'00", in SW¼SW¼ sec.19, T.25 N., R.1 E., Carroll County, 40 ft downstream from bridge on County Road 300 North, 0.1 mile east of County Road 300 East, 0.1 mile upstream from mouth, 3.9 miles west of State Highways 29 and 218, and 4.0 miles southeast of Camden.		1980	07-11-81 08-21-81	8.24 8.96
Deer Creek	Wabash River	Lat 40°35'33", long 86°29'13", in SW¼SW¼ sec.24, T.25 N., R.1 W., Carroll County, 100 ft downstream from bridge on County Road 200 East, 0.2 mile north of County Road 300 North, 0.8 mile south of State Highway 218, 2.8 miles southeast of Camden.		1980	07-11-81 08-21-81	33.7 40.0
Tippecanoe River	Wabash River	Lat 41°17'21", long 85°51'25", in NE¼NW¼ sec.29, T.33 N., R.6 E., Kosciusko County, at upstream side of bridge on State Highway 15, 3.6 mi (km) north of Warsaw.	126	1943-49	04-15-81 04-16-81	269 337
Eagle Creek	Walnut Creek	Lat 41°13'31", long 85°50'48", in NE¼SE¼ sec.17, T.32 N., R.6 E., Kosciusko County, at upstream side of bridge on Packerton Road in Warsaw.	32.1	1943-47	04-15-81	336
Middle Fork ditch	Wildcat Creek	Lat 40°26'00", long 85°53'27", in NE¼NW¼ sec.19, T.23 N., R.6 E., Howard County, 75 ft downstream from bridge on County Road 1250 East, 0.8 mile north of State Highway 26, and 5.3 miles southeast of Greentown.		1980	07-11-81 08-20-81	4.35 2.76
Grassy Fork ditch	Wildcat Creek	Lat 40°26'21", long 85°49'28", in SE¼SE¼ sec.15, T.23 N., R.6 E., Grant County, 40 ft downstream from bridge on State Highway 13, 2.8 miles south of U.S. Highway 35 (State Highway 22), 1.1 miles north of State Highway 26 and Point Isabel.		1980	07-11-81 08-20-81	1.57 1.38
Grassy Fork	Wildcat Creek	Lat 40°26'02", long 85°53'26", in NW¼NE¼ sec.19, T.23 N., R.6 E., Howard County, at bridge on County Road 1250 East, 0.9 mile north of State Highway 26, 3.1 miles south of U.S. Highway 35 (State Highway 22), 5.3 miles southeast of Greentown.		1980	07-11-81 08-20-81	3.31 2.63
Mud Creek	Wildcat Creek	Lat 40°22'18", long 86°06'21" in SW¼NW¼ sec.8, T.22 N, R.4 E., Tipton County, 1.0 mile downstream from County Road 50 East, 1.0 mile upstream from County Road 200 East, and 1.1 mile southwest of Sharpsville.		1980	07-13-81 08-20-81	.70 1.43
Mud Creek	Wildcat Creek	Lat 40°23'46", long 85°58'33", in NW¼SW¼ sec.33, T.23 N., R.5 E., Tipton County, 50 ft downstream from bridge on County Road 200 East, 0.7 mile south of Tipton-Howard County line, 1.0 mile west of State Highway 213, 2.5 miles northwest of Windfall.		1980	07-11-81 08-20-81	2.63 3.40
Turkey Creek	Mud Creek	Lat 40°19'04", long 86°01'57", in NE¼NE¼ sec.35, T.22 N., R.4 E., Tipton County, at bridge on State Highway 19, 2.4 miles north of State Highway 28, 0.1 mile south of County Road 100 N., 2.5 miles northeast of Tipton.		1980	07-11-81 08-20-81	1.27 1.93

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		OHIO RIVER BASIN--Continued				
Turkey Creek	Mud Creek	Lat 40°23'31", long 85°57'08", in SW¼SW¼ sec.34, T.23 N., R.5 E., Tipton County, 50 ft downstream from bridge on County Road 600 North, 0.2 mile east of State Highway 213, 0.8 mile west of County Road 400 East and 2.0 miles northeast of Windfall.		1980	07-11-81 08-20-81	6.00 5.28
Irwin Creek	Mud Creek	Lat 40°24'23", long 85°56'26", in SE¼SE¼ of sec.27, T.23 N., R.5 E., on Howard-Tipton County Line Road 500 south, 3.5 miles south of Jerome.		1980	07-11-81 08-21-81	2.20 1.05
Mud Creek	Wildcat Creek	Lat 40°26'08", long 85°54'36", in NE¼NW¼ sec.24, T.23 N., R.5 E., Howard County, 75 ft upstream from bridge on County Road 300 South, 0.4 mile east of County Road 1100 East, 0.1 mile upstream from Wildcat Creek, and 4.1 miles southeast of Greentown.		1980	07-11-81 08-21-81	14.6 12.5
Wildcat Creek	Wabash River	Lat 40°29'08", long 86°03'05", in SE¼NE¼ sec.34 T.24 N., R.4 E., Howard County, 150 ft downstream from bridge on County Road 400 East, 0.1 mile north of County Road 50 North, 0.6 mile north of U.S. Highway 35 (State Highway 22), 0.1 mile downstream from spillway for Kokomo Waterworks Reservoir No. 2, 3.0 miles east of U.S. Highway 31 bypass in Kokomo.		1980	10-09-80 07-11-81 08-20-81	20.2 38.0 37.2
Wildcat Creek	Wabash River	Lat 40°29'10", long 86°06'28", in SE¼NE¼ sec. 31, T.24 N., R.4 E., Howard County at bridge on U.S. Highway 31 bypass, 0.6 mile north of U.S. Highway 35 (State Highway 22), in Kokomo.		1980	10-09-80 07-11-81 08-21-81	8.60 24.8 26.0
Kokomo Creek	Wildcat Creek	Lat 40°26'07", long 85°59'40", in SE¼SE¼ sec.18, T.23 N., R.5 E., Howard County, at bridge on County Road 300 South, 50 ft west of County Road 700 East, 1.0 mile north of State Highway 26, 2.0 mile west of State Road 213, 3.2 miles southwest of Greentown.		1980	07-11-81 08-20-81	.89 .34
Kokomo Creek	Wildcat Creek	Lat 40°28'14", long 86°09'04", in SW¼NE¼ sec.2, T.23 N., R.3 E., Howard County, 0.1 mile upstream from mouth, 0.1 mile north of County Road 50 South, 1.0 mile southwest of intersection of U.S. Highway 31 and Markland Street in Kokomo.		1980	10-09-80 07-13-81 08-21-81	3.89 7.37 5.43
Little Wildcat Creek	Wildcat Creek	Lat 40°26'14", long 86°09'54", in NW¼SW¼ sec.14, T.23 N., R.3 E., Howard County, 75 ft upstream from bridge on County Road 200 West, 2.0 miles west of U.S. Highway 31, 1.3 miles north of State Highway 26, and 0.2 mile south of County Road 250 South and Alto.		1980	07-13-81 08-21-81	.98 1.20
West Fork	Little Wildcat Creek	Lat 40°25'58", long 86°09'55", in SE¼SE¼ sec.15, T.23 N., R.3 E., Howard County, 20 ft downstream from bridge at intersection between County Roads 200 West and 300 South and 0.5 mile south of Alto, 2.0 mile west of U.S. Highway 31.		1980	07-13-81 08-21-81	.63 1.00
Little Wildcat Creek	Wildcat Creek	Lat 40°27'47", long 86°14'53", in SW¼SE¼ sec.1, T.23 N., R.2 E., Howard County, at bridge on County Road 85 South, 0.3 mile west of County Road 600 West, 0.6 mile upstream from mouth, and 1.8 miles south of State Road 22.		1980	07-12-81 08-21-81	2.61 3.42

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		OHIO RIVER BASIN--Continued				
Wildcat Creek	Wabash River	Lat 40°28'18", long 86°16'17", in NW¼NE¼ sec.2, T.23 N., R.2 E., Howard County, 100 ft upstream from bridge on County Road 750 West, 1.2 miles south of State Highway 22, and 1.8 miles north of New London.		1980	07-12-81 08-21-81	48.8 54.9
West Honey Creek	Honey Creek	Lat. 40°26'54", long 86°16'26", in SE¼SW¼ sec.11, T.23 N., R.2 E., Howard County, at bridge on County Road 180 South, 0.1 mile west of County Road 750 West, and 0.4 mile north of New London.		1980	07-12-81 08-21-81	1.78 1.35
Honey Creek	Wildcat Creek	Lat 40°27'39", long 86°17'03", in SE¼SE¼ sec.3, T.23 N., R.2 E., Howard County, 50 ft downstream from bridge on County Road 100 South, 0.7 mile west of County Road 750 West, 2.0 miles south of State Highway 22, 1.3 miles northwest of New London.		1980	07-12-81 08-21-81	3.22 2.49
Petes Run	Wildcat Creek	Lat 40°28'54", long 86°21'39", in NE¼SE¼ sec.36, T.24 N., R.1 E., Howard County, 0.5 mile upstream from mouth, 0.5 mile south of State Highway 22, 0.7 mile west of County Road 1150 West, and 1.8 miles east of Burlington.		1980	07-12-81 08-21-81	.68 .45
Wildcat Creek	Wabash River	Lat 40°29'13", long 86°23'42", in NE¼NE¼ sec.34, T.24 N., R.1 E., Carroll County, 60 ft upstream from bridge on State Highway 29, 0.5 mile north of State Highway 22 in Burlington.		1980	07-12-81 08-21-81	74.3 71.4
Wildcat Creek	Wabash River	Lat 40°29'01", long 86°30'43", in SW¼NE¼ sec.34, T.24 N., R.1 W., Carroll County, 20 ft downstream from bridge on County Road 75 East, 0.5 mile south of County Road 400 South, 1.0 mile east of State Highway 75, 0.8 mile northeast of Cutler.		1980	07-12-81	70.1
Middle Fork Wildcat Creek	South Fork Wildcat Creek	Lat 40°25'00", long 86°24'42", in NE¼NE¼ sec.28, T.23 N., R.1 E., Clinton County, 100 ft downstream from bridge on County Road 500 East, 1.0 mile south of Clinton-Carroll County line, and 1.0 mile west of State Highway 29, and 4.5 miles south of Burlington.		1980	07-12-81 08-21-81	.88 .11
Middle Fork Wildcat Creek	South Fork Wildcat Creek	Lat 40°26'35", long 86°30'21", in NE¼NE¼ sec.15, T.23 N., R.1 W., Carroll County, at bridge on County Road 100 East, 0.2 mile south of County Road 700 South, 1.0 mile east of State Highway 75, 1.9 mile northeast of Sedalia.		1980	07-12-81 08-21-81	2.26 .71
		STREAMS TRIBUTARY TO LAKE MICHIGAN				
Dunes Creek	Lake Michigan	Lat 41°38'23", long 87°06'02", in SW¼ sec.22, T.37 N., R.6 W., Porter County, upstream of foot bridge at west end of Dunes National Lakeshore.			08-25-81	.18
Dunes Creek tributary	Dunes Creek	Lat 41°38'15", long 87°05'29", in SE¼SE¼ sec.22, T.37 N., R.6 W., Porter County, at ditch along North-South fence line of Dunes National Lakeshore, 0.25 mi north of Bailey Cemetery			08-25-81	.01
Dunes Creek tributary	Dunes Creek	Lat 41°38'09", long 87°05'28", in NE¼NE¼ sec.27, T.37 N., R.6 W., Porter County, at culvert under Chicago South Shore R.R., at south boundary of Dunes National Lakeshore, 0.25 mi southwest of 100 West Road.			08-25-81	.10

Discharge measurements made at miscellaneous sites during water year 1981--Continued

Stream	Tributary to	Location	Drainage (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued				
Dunes Creek tributary	Dunes Creek	Lat 41°38'14", long 87°05'11", in SE¼SE¼ sec.22, T.37 N., R.6 W., Porter County, at culvert under Calumet Trail Bike Route, 75 ft east of 100 West Road.			08-25-81	.01
Dunes Creek tributary	Dunes Creek	Lat 41°38'26", long 87°04'31", in SW¼SE¼ sec.23, T.37 N., R.6 W., Porter County, at culvert under power lines 200 ft east of 50 West Road.			08-25-81	.00
Dunes Creek	Lake Michigan	Lat 41°39'08", long 87°04'04", in SE¼SE¼ sec.14, T.37 N., R.6 W., Porter County, 50 ft upstream from bridge on Dunes Acres Road.			08-25-81	.37

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 Ford Whitewater River at Richmond	Wayne	121	1949-78
03277000	Laughery Creek near Farmers Retreat	Ohio	248	1941-73[a]
03304000	Little Pigeon Creek near Tennyson	Warrick	187	1944-47
03323000	Wabash River at Bluffton	Wells	532	1931-71[b]
03326000	Mississinewa River near Eaton	Delaware	310	1952-71[b]
03329500	Wabash River at Delphi	Carroll	4,072	1940-71
03331000	Tippecanoe River near Warsaw	Kosciusko	126	1943-49
03332000	Tippecanoe River at Pulaski	Pulaski	1,089	1928-31
03332300	Little Indian Creek near Royal Center	White	35.0	1959-73a
03332400	Big Monon Creek near Francesville	Pulaski	152	1959-73[a]
03333500	Wildcat Creek at Greentown	Howard	168	1945-61
03334000	Wildcat Creek at Owasco	Carroll	396	1944-73[a]
03339120	Coal Creek at Coal Creek	Fountain	214	1965-72
03339150	Little Vermilion River near Newport	Vermillion	237	1965-72
03340000	Sugar Creek near Byron	Parke	670	1941-71[b]
03341000	Big Raccoon Creek at Mansfield	Parke	248	1939-58[c]
03341200	Little Raccoon Creek near Catlin	Parke	134	1957-71[c,d]
03341420	Brouilletts Creek near Universal	Vermillion	321	1966-71[b]
03341470	North Coal Creek near Terre Haute	Vigo	1.91	1974-76
03342350	Buttermilk Creek near Paxton	Sullivan	16.5	1966-73
03342360	Buttermilk Creek near Sullivan	Sullivan	17.6	1975-78
03342800	South Fork Smalls Creek at Bruceville	Knox	4.94	1972-75[b,d]
03348100	Killbuck Creek near Anderson	Madison	97.8	1964-68
03348500	White River near Noblesville	Hamilton	828	1915-26, 1929-74[b]
03349500	Cicero Creek near Arcadia	Hamilton	131	1955-76[a]
03349700	Little Cicero Creek near Arcadia	Hamilton	40.4	1956-76[a]
03350000	Cicero Creek near Cicero	Hamilton	196	1946-54
03350100	Hinkle Creek near Cicero	Hamilton	18.5	1956-76[a]
03350500	Cicero Creek at Noblesville	Hamilton	216	1950-80[c]
03352000	Lawrence Creek at Fort Benjamin Harrison	Marion	2.74	1952-56, 1958-69
03352200	Mud Creek at Indianapolis	Mation	42.4	1958-76[a]
03355000	Bear Creek near Trevlac	Brown	6.94	1952-73[a]
03356000	Beanblossom Creek at Dolan	Monroe	100	1946-78
03356500	Beanblossom Creek near Bloomington	Monroe	112	1931-33
03357000	White River at Spencer	Owen	2,988	1925-71[c]
03359500	Deer Creek near Putnamville	Putnam	59.0	1955-65, 1968-72
03366000	Graham Creek near Vernon	Jennings	77.2	1955-73
03367000	Muscatatuck River near Austin	Jackson	359	1932-43 1944-71[e]
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	1961-71[f]
03371650	North Fork Salt Creek at Nashville	Brown	76.1	1962-76[a]
03372000	North Fork Salt Creek near Belmont	Brown	120	1946-71
03372700	Clear Creek near Harrodsburg	Monroe	55.2	1960-71
03373000	Salt Creek near Peerless	Lawrence	573	1939-50, 1957-71[c]
03373200	Indiana Creek near Springville	Lawrence	60.7	1961-73[a]
03374100	White River at Hazleton	Gibson	11,305	1928-38
03376000	Patoka River near Jasper	Dubois	348	1944-47[d]
03376300	Patoka River at Winslow	Pike	603	1964-74
03378500	Wabash River at New Harmony	Posey	29,234	1939-47[b]
	STREAMS TRIBUTARY TO LAKE MICHIGAN			
04093200	Little Calumet River at Gary	Lake	5.82	1958-67, 1969-71
04098000	Fawn River at Orland	Steuben	86.4	1943-47
04099500	Pigeon Creek and Hogback Lake near Angola	Steuben	103	1946-74
04100000	Christiana Creek at Elkhart	Elkhart	127	1947-52
04100220	North Branch Elkhart River near Cosperville	Noble	134	1951-71
	STREAMS TRIBUTARY TO LAKE ERIE			
04178500	St. Joseph River at Hursh	Allen	734	1950-54
04179500	Cedar Creek near Auburn	DeKalb	87.3	1943-73[a]

Station no.	Station name	County	Drainage area (mi^2)	Period of Record
04180500	St. Joseph River near Ft. Wayne	Allen	1,057	1905-06, 1941-55
04182700	St. Marys River at Ft. Wayne	Allen	810	1905-06
05516000	Yellow River near Bremen	Marshall	135	1955-73[a]
05518500	Singleton ditch near Hebron	Lake	34.2	1949-51
05519500	West Creek near Schneider	Lake	54.7	1948-52, 1954-72
05520000	Singleton ditch at Illinoi, Il	Kankakee, Il	220	1945-77
05521500	Oliver ditch near Aix	Jasper	79.6	1948-51

[a]Continued as a crest-stage and low-flow partial-record station.
[b]Some quality of water data available.
[c]Continued as a stage only station.
[d]Some record fragmentary.
High-water records only.
Stage only station 1972-75.

ANALYSIS OF SAMPLES COLLECTED AT MISCELLANEOUS STATIONS

381346087184400 SMITH FK NR SPURGEON, IN

LOCATION.--Lat 38°13'46", long 87°18'44", NE¼NW¼ sec.28, T.3 S., R.8 W., Warrick County, Hydrologic Unit 05140202, on downstream side of bridge unnamed county road, 0.8 miles (1.3 km) west-southwest of Saint Matthews Church, 2.3 miles (3.7 km) north-northwest of Lynnville, and 3.4 miles (5.5 km) southwest of Spurgeon.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ALKA-LINITY LAB (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)	ACIDITY (MG/L AS H)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
MAR 18...	1300	.31	1110	8.3	8.3	120	---	--	<10	130	140
AUG 06...	1330	3.1	315	6.9	26.3	39	5.0	.1	10	1500	1500

DATE	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	HARD-NESS (MG/L AS CACO3)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)
MAR 18...	600	310	656	.55	.89	69	98	370	890	80
AUG 06...	60	86	213	1.8	.29	--	--	---	---	--

DATE	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CALCIUM DIS-SOLVED (MG/L AS CA)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	POTAS-SIUM 40 DIS-SOLVED (PCI/L AS K40)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
MAR 18...	0	67	9	2	.2	4.1	3.1	50	9	20
AUG 06...	-	--	-	-	--	---	---	--	-	--

ANALYSIS OF SAMPLES COLLECTED AT MISCELLANEOUS STATIONS

381354087183500 TRIB TO SMITH FK NR MACKEY, IN

LOCATION.--Lat 38°13'54", long 87°18'35", in SE¼SW¼ sec.21, T.3 S., R.8 W., Warrick County, Hydrologic Unit 05140202, on downstream side of culvert on North 1400 Road, 0.6 miles (1.0 km) west of Saint Matthews Church, 2.4 miles (3.9 km) north-northwest of Lynnville, and 3.2 miles (5.1 km) southwest of Spurgeon.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ALKA-LINITY LAB (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)	ACIDITY (MG/L AS H)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
MAR 18...	1400	.06	2400	6.9	11.2	290	238	4.8	160	140	300

DATE	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	HARD-NESS (MG/L AS CACO3)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)
MAR 18...	3500	730	1600	.27	2.2	191	66	1100	200	130

DATE	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CALCIUM DIS-SOLVED (MG/L AS CA)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	POTAS-SIUM 40 DIS-SOLVED (PCI/L AS K40)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
MAR 18...	0	190	12	2	.2	6.0	4.5	140	26	20

ANALYSIS OF SAMPLES COLLECTED AT MISCELLANEOUS STATIONS

381355087195400 TRIB TO SMITH FK NR BUCKSKIN, IN

LOCATION.--Lat 38°13'55", long 87°19'54", SW¼SW¼ sec.20, T.3 S., R.8 W., Gibson County, Hydrologic Unit 05140202, on upstream side of bridge on North 1400 Road, 1.7 miles (2.7 km) west of Saint Matthews Church, 2.9 miles (4.7 km) northwest of Lynnville, and 4.2 miles (6.8 km) southwest of Spurgeon.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ALKA-LINITY LAB (MG/L AS CACO3)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
MAR 18...	1200	.06	515	7.7	4.9	22	120	260	380	450

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	HARD-NESS (MG/L AS CACO3)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)
MAR 18...	170	290	.05	.39	31	96	150	200	30	0

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	POTAS-SIUM 40 DIS-SOLVED (PCI/L AS K40)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
MAR 18...	26	16	2	.1	1.7	1.3	20	8	30

ANALYSIS OF SAMPLES COLLECTED AT MISCELLANEOUS STATIONS

381412087200700 - SMITH FK NR LYNNVILLE, IN

LOCATION.--Lat 38°14'12", long 87°20'07", NW¼SW¼ sec.20, T.3 S., R.8 W., Gibson County, Hydrologic Unit 05140202, on upstream side of bridge on unnamed county road, 2.0 miles (3.2 km) west-northwest of Saint Matthews Church, 3.3 miles (5.3 km) northwest of Lynnville, and 4.4 miles (7.1 km) southwest of Spurgeon.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ALKA-LINITY LAB (MG/L AS CACO3)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
MAR										
18...	1100	.56	805	7.9	3.9	93	<10	160	170	200
MAY										
07...	1400	.18	735	9.3	20.0	76	10	70	80	10
JUN										
04...	1330	1.4	750	8.1	25.3	99	10	230	240	20
JUL										
09...	1200	.10	1370	7.5	30.1	170	<10	60	70	30

DATE	SULFATE DIS-SOLVED (MG/L AS SO4	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SEDI MENT, SUS-PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)
MAR										
18...	200	457	.69	.62	53	96	250	160	100	40
MAY										
07...	250	501	.24	.68	55	99	---	---	---	--
JUN										
04...	230	492	1.8	.67	44	98	---	---	---	--
JUL										
09...	560	1110	.31	1.5	78	98	630	460	0	90

DATE	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CALCIUM DIS-SOLVED (MG/L AS CA)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	POTAS-SIUM 40 DIS-SOLVED (PCI/L AS K40)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
MAR										
18...	0	45	9	2	.2	4.0	3.0	33	6	20
MAY										
07...	-	---	-	-	--	---	---	--	--	--
JUN										
04...	-	---	-	-	--	---	---	--	--	--
JUL										
09...	1	110	0	3	.3	5.1	3.8	86	14	20

ANALYSIS OF SAMPLES COLLECTED AT MISCELLANEOUS STATIONS

392710087152900 HONEY CR NR SEELYVILLE, IN

LOCATION.--Lat 39°27'10", long 87°15'29", in NW¼SW¼, sec.25, T.12 N., R.8 W., Vigo County, Hydrologic Unit 05120111, on upstream side of bridge on 82 South Road, 2.9 miles (4.7 km) south of Seelyville, 4.6 miles (7.4 km) northeast of Riley, and 6.2 miles (10.0 km) east of Terre Haute.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ALKA-LINITY LAB (MG/L AS CACO3)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
MAR 17...	1300	.91	1900	7.8	8.9	170	20	540	560	1000

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	HARD-NESS (MG/L AS CACO3)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)
MAR 17...	820	1310	3.2	1.8	174	97	570	200	230	0

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	POTAS-SIUM 40 DIS-SOLVED (PCI/L AS K40)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
MAR 17...	130	13	2	.2	7.8	5.8	59	43	20

ANALYSIS OF SAMPLES COLLECTED AT MISCELLANEOUS STATIONS

392658087155200 HONEY CR NR EAST GLENN, IN

LOCATION.--Lat 39°26'58", long 87°15'52", in SW¼SE¼ sec.26, T.12 N., R.8 W., Vigo County, Hydrologic Unit 05120111, on upstream side of bridge on State Road 42, 3.1 miles (5.0 km) south of Seelyville, 4.4 miles (7.1 km) northeast of Riley, 5.8 miles (9.3 km) east of Terre Haute.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	ALKA-LINITY LAB (MG/L AS CACO3)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	SULFATE DIS-SOLVED (MG/L AS SO4)
MAR 17...	1400	.76	1910	6.9	130	1700	2000	3700	1300	630

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)
MAR 17...	1330	2.7	1.8	182	98	570	440	700	350	0

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	POTAS-SIUM 40 DIS-SOLVED (PCI/L AS K40)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
MAR 17...	130	20	6	.2	7.7	5.7	59	46	50

ANALYSIS OF SAMPLES COLLECTED AT MISCELLANEOUS STATIONS

392509087170900 HONEY CR NR TERRE HAUTE, IN

LOCATION.--Lat 39°25'09", long 87°17'09", in SW¼SE¼, sec.3, T.11 N., R.8 W., Vigo County, Hydrologic Unit 05120111, on upstream side of bridge on 78 East Road, 2.1 miles (3.4 km) northeast of Riley, 2.7 miles (4.3 km) southeast of junction of State Road 46 and Interstate 70, 14 miles (22.5 km) southeast of Terre Haute.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ALKA-LINITY LAB (MG/L AS CACO3)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
MAR 17...	1600	3.3	2520	7.2	9.2	150	860	2300	3200	1400

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)
MAR 17...	1100	1920	16.9	2.6	202	99	1100	950	200	320

DATE	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CALCIUM DIS-SOLVED (MG/L AS CA)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	POTAS-SIUM 40 DIS-SOLVED (PCI/L AS K40)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
MAR 17...	2	260	18	3	.2	7.4	5.5	110	56	80

ANALYSIS OF SAMPLES COLLECTED AT MISCELLANEOUS STATIONS

392454087163600 STONE QUARRY BR NR RILEY, IN

LOCATION.--Lat 39°24'54", long 87°16'36", in SW¼NW¼ sec.11, T.11 N., R.8 W., Vigo County, Hydrologic Unit 05120111, on upstream side of bridge on 64 South Road, 2.1 miles (3.4 km) northeast of Riley, 3.3 miles (5.3 km) southeast of the junction of State Road 46 and Interstate 70, and 7.3 miles (11.8 km) southeast of Terre Haute.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ALKA-LINITY LAB (MG/L AS CACO3)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
MAR 17...	1630	1.1	3130	7.3	8.6	60	60	200	260	2500

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)
MAR 17...	1300	2440	7.4	3.3	242	99	1200	1200	100	430

DATE	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CALCIUM DIS-SOLVED (MG/L AS CA)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	POTAS-SIUM 40 DIS-SOLVED (PCI/L AS K40)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
MAR 17...	1	270	8	2	.3	9.8	7.3	130	220	100

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 non-recording 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 lake is that surface area and capacity at the established level. Depth contour maps are only those surveyed by the Water Resources Division of the Geological Survey. The inclusive years that records of stage have been collected at a lake are shown in the last column. If records are still being collected on a current basis, there is no closing date shown.

Lakes in the Ohio River basin for which records are available

	Lake	County	Drainage (mi²)	Surface Area (acres)	Established Levelxx	Capacity (acre feet)	Contour Map available	Records available
		LAUGHERY CREEK BASIN						
03276800	Versailles Lake near Versailles	Ripley	168.0	232	--------	------	-	1957-
		BAYOU DRAIN BASIN						
03322300	Hovey Lake near Mount Vernon	Posey	6.36	253	--------	------	-	1950-69
		WABASH RIVER BASIN						
03327550	Everett Lake at Levert	Allen	1.07	43	835.13	650	+	1946-66
03327600	Blue Lake near Churubusco	Whitley	3.58	239	850.28	5,010	+	1946-69, 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	------	-	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	Muskelonge Lake near Warsaw	Kosciusko	11.8	32	842.67	300	+	1943-53, 1959-71
03331100	Carr Lake near Claypool	Kosciusko	2.27	79	848.88	1,340	+	1947-53
03331120	Sherburn Lake near Pierceton[3]	Kosciusko	5.51	15	881.00	230	+	1954-
03331140	Winona Lake at Warsaw	Kosciusko	32.1	562	811.06	16,680	+	1943-

Lakes in the Ohio River basin for which records are available--Continued

	Lake	County	Drainage (square mile)	Surface Area (acres)	Established Levelxx	Capacity (acre feet)	Contour Map available	Records available
		WABASH RIVER BASIN--Continued						
03331160	Center Lake at Warsaw	Kosciusko	.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	0.85	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	Wyona 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	--------	3,490	+	1954-71, 1976-
04097550	Lake George at Jamestown	Steuben	[8]14.7	488	985.28	------	-	1946-
04097596	Marsh Lake near Fremont	Steuben	14.9	-----	--------	------	-	1967-69
04097600	Little Otter Lake near Fremont	Steuben	15.7	34	965.18	740	+	1946-53
04097640	Big Otter Lake near Fremont	Steuben	21.3	69	965.18	1,780	+	1946-53
04097650	Snow Lake at Lake James	Steuben	[8]40.2	310	964.96	7,998	+	1943-49
04097660	Lake James at Lake James	Steuben	[8]47.8	1,034	964.96	33,585	+	1943-49
04097680	Jimmerson Lake at Nevada Mills[5]	Steuben	[8]51.6	434	964.66	4,394	+	1946-
04097780	Loon Lake near Angola	Steuben	2.13	138	1,011.98	630	+	1954-66
04097850	Crooked Lake at Crooked Lake	Steuben	10.4	828	988.17	10,555	+	1946-
04097950	Lake Gage at Panama	Steuben	[8]17.3	332	954.25	10,140	+	1946-
04097960	Lime Lake at Panama	Steuben	[8]17.5	57	954.25	427	+	1946-
04098100	Wall Lake near Orland	Lagrange	1.61	141	942.25	1,640	+	1953-54
04098110	Mud Lake near Orland	Steuben	1.85	25	939.01	------	-	1956-67
04098300	Cedar Lake near Ontario	Lagrange	1.60	120	871.90	1,020	+	1948-51
04098110	Mud Lake near Orland	Steuben	1.85	25	939.01	------	-	1956-67
04098300	Cedar Lake near Ontario	Lagrange	1.60	120	871.90	1,020	+	1948-51
04099050	Pigeon Lake near Angola	Steuben	[8]35.2	61	988.24	930	+	1954-63
04099100	Fox Lake near Angola	Steuben	[8]1.25	142	1,018.83	3,150	+	1946-53
04099190	Pleasant Lake at Pleasant Lake	Steuben	[8]1.12	53	963.52	1,190	+	1946-66
04099200	Long Lake at Moonlight	Steuben	[8]67.9	92	--------	1,540	+	1946-
04099250	Bower Lake near Pleasant Lake	Steuben	[8]84.6	25	948.50	280	+	1946-71, 1976-
04099260	Golden Lake near Pleasant Lake	Steuben	[8]88.8	119	948.50	1,810	+	1946-71, 1976-
04099400	Silver Lake near Angola	Steuben	[8]3.79	238	959.40	2,540	+	1945-53
04099430	Bass Lake near Angola	Steuben	[8].39	61	979.68	450	+	1954-66
04099440	Howard Lake near Angola	Steuben	[8]3.90	27	977.34	130	+	1954-63
04099500	Hogback Lake near Angola	Steuben	[8]103	146	948.50	1,450	+	1946-
04099520	Otter Lake near Flint	Steuben	[8]6.91	118	934.15	1,960	+	1954-66
04099540	Story Lake near Hudson	DeKalb	3.16	77	942.20	1,020	+	1946, 1954-66
04099560	Big Turkey Lake at Stroh	Lagrange	35.8	450	926.61	7,300	+	1945-66
04099575	McClish Lake near Helmer	Lagrange	1.28	35	951.09	1,210	+	1951-74, 1976-
04099580	Lake of the Woods near Helmer	Lagrange	5.25	136	951.09	5,470	+	1951-74, 1976-
04099600	Big Long Lake near Stroh	Lagrange	4.77	388	956.2	------	-	1954-
04099620	Pretty Lake near Stroh	Lagrange	2.89	184	965.50	4,720	+	1949-53, 1963-65
04099640	Little Turkey Lake at Elmira	Lagrange	56.5	135	925.72	1,550	+	1945-66
04099660	Royer Lake near Plato	Lagrange	4.69	69	936.50	1,630	+	1952-
04099670	Fish Lake near Plato	Lagrange	[8]10.6	100	936.50	4,050	+	1945-
04099700	North Twin Lake near Howe	Lagrange	1.54	135	843.56	2,120	+	1953-
04099710	South Twin Lake near Howe	Lagrange	2.22	116	843.56	3,600	+	1953-70
04099740	Shipshewana Lake near Shipshewana	Lagrange	[8]6.74	202	852.04	1,350	+	1951-
04099760	Fish Lake near Scott	Lagrange	[8]6.21	139	814.42	2,560	+	1954-73, 1976-

Lakes in the St. Lawrence River basin for which records are available--Continued

	Lake	County	Drainage (square mile)	Surface Area (acres)	Established Levelxx	Capacity (acre feet)	Contour Map available	Records available
	STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued							
04099780	Stone Lake near Scott	Lagrange	1.51	152	818.76	2,060	+	1954-73, 1976-
04099800	Emma Lake near Emma	Lagrange	13.6	42	880.87	700	+	1954-66
04099810	Cass Lake near Shipshewana	Lagrange	.68	89	--------	873	+	1970-
04099820	Hunter Lake near Middlebury	Elkhart	.51	99	856.90	1,120	+	1946-53
04099840	Wolk Lake near Goshen	Elkhart	[8]1.29	100	813.00	------	-	1947-57
04099860	Heaton Lake near Elkhart	Elkhart	9.33	87	767.30	640	+	1946-53, 1969-74, 1976-
04099880	Simonton Lake near Elkhart	Elkhart	7.44	282	772.19	1,560	+	1946-
04099950	Indiana Lake near Bristol	Elkhart	.62	122	759.73	3,400	+	1946-53
04100010	Cree Lake near Kendallville	Noble	4.85	58	945.23	910	+	1949-66
04100020	Blackman Lake near Wolcottville	Lagrange	.98	67	974.20	1,210	+	1953-59
04100030	Adams Lake near Wolcottville	Lagrange	5.62	308	953.59	7,690	+	1946-
04100040	Atwood Lake near Wolcottville	Lagrange	1.23	170	899.99	1,560	+	1948-53
04100050	Witmer Laker near Wolcottville	Lagrange	36.1	204	897.36	7,040	+	1945-
04100060	Westler Lake near Wolcottville	Lagrange	37.8	88	897.36	1,770	+	1945-
04100070	Dallas Lake near Wolcottville	Lagrange	39.8	283	897.36	9,970	+	1945-
04100080	Martin Lake near Valentine	Lagrange	4.93	.26	899.45	890	+	1945-
04100090	Olin Lake neaqr Valentine	Lagrange	5.81	103	899.45	9,180	+	1945-
04100100	Oliver Lake near Valentine	Lagrange	11.1	362	899.45	------	-	1945-
04100110	Hackenburg Lake near Wolcottville	Lagrange	55.4	42	897.36	510	+	1945-
04100120	Messick Lake near Wolcottville	Lagrange	56.4	68	897.36	1,450	+	1945-
04100130	Jones Lake near Cosperville[6]	Noble	70.3	114	885.55	960	+	1948-
04100140	Bixler Lake at Kendallville	Noble	5.28	120	963.65	2,090	+	1945-
04100150	Round Lake at Kendallville	Noble	3.47	99	954.50	2,140	+	1954-
04100160	Little Long Lake at Kendallville	Noble	4.55	71	954.50	1,750	+	1954-
04100170	Latta Lake near Rome City	Noble	2.52	42	918.71	900	+	1954-66
04100180	Sylvan Lake at Rome City	Noble	33.8	669	916.20	5,986	+	1943-
04100190	Sacarider Lake near Kendallville	Noble	1.43	33	--------	740	+	1954-63
04100200	Tamarack Lake near Cosperville	Noble	15.9	50	885.55	880	+	1948-
04100210	Steinbarger Lake near Cosperville	Noble	24.3	73	885.55	1,590	+	1948-
04100220	Waldron Lake near Cosperville	Noble	134	216	885.55	3,120	+	1948-
04100230	Long Lake near Burr Oak	Noble	12.0	40	895.82	630	+	1954-71
04100240	Sand Lake near Burr Oak	Noble	14.9	47	893.56	1,270	+	1946-51
04100250	Rivir Lake near Burr Oak	Noble	18.6	24	--------	380	+	1954-65
04100258	High Lake near Wolflake	Noble	4.43	123	896.35	1,240	+	1961-
04100260	Bear Lake near Wolflake	Noble	6.98	136	894.60	3,030	+	1943-
04100280	Muncie Lake near Burr Oak	Noble	42.8	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	[8]4.19	48	--------	670	+	1956-71, 1977-
04100380	Harper Lake near Washington Center	Noble	2.76	11	878.25	160	+	1946-
04100390	Knapp Lake near Washington Center	Noble	6.02	88	878.25	3,040	+	1946-
04100400	Moss Lake near Washington Center	Noble	6.12	9	878.25	80	+	1946-
04100410	Hindman Lake near Washington Center	Noble	8.66	13	878.25	140	+	1946-
04100420	Gordy Lake near Cromwell	Noble	9.40	31	876.68	680	+	1953-66
04100425	Rider Lake near Cromwell	Noble	10.9	5	876.68	30	+	1953-66
04100430	Duely Lake near Cromwell[7]	Noble	11.2	21	876.68	180	+	1953-66
04100440	Village Lake near Cromwell	Noble	12.0	12	876.68	160	+	1953-66
04100446	Flatbelly Lake near Syracuse	Kosciusko	4.66	326	--------	------	-	1964-69
04100448	Papakeechie Lake near Syracuse	Kosciusko	5.52	300	--------	------	-	1964-69
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	[8]8.05	551	867.70	9,000	+	1945-
04100480	Wabee Lake near Milford	Kosciusko	[8]14.6	187	829.79	4,750	+	1946-53
	STREAMS TRIBUTARY TO LAKE ERIE							
04177200	Clear Lake at Clear Lake	Steuben	6.86	800	1,037.38	24,990	+	1943-
04177210	Round Lake at Clear Lake	Steuben	7.25	30	1,037.38	340	+	1943-
04177300	Long Lake near Ray	Steuben	2.80	154	--------	1,840	+	1961-63
04177680	Ball Lake near Hamilton	Steuben	11.6	87	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 avaliable

	ILLINOIS RIVER BASIN							
05514740	Saugany Lake near Rolling Prairie	LaPorte	[8]2.34	74	781.21	2,190	+	1946-50
05514741	Hudson Lake at Hudson Lake	LaPorte	7.92	432	763.09	5,060	+	1946-

Lakes in the Upper Mississippi River basin for which records are available--Continued

	Lake	County	Drainage (square mile)	Surface Area (acres)	Established Levelxx	Capacity (acre feet)	Contour Map available	Records available
		ILLINOIS RIVER BASIN--Continued						
05514750	North Chain Lake at Lydick	St. Joseph	[8]3.89	88	721.17	1,400	+	1946-53
05514760	South Chain Lake at Westfield	St. Joseph	[8]6.32	90	717.04	270	-	1946-53
05514770	Wharton Lake near South Bend	St. Joseph	[8]1.85	-----	--------	------	-	1960-
05514900	Silver Lake near Rolling Prairie	LaPorte	1.72	54	795.20	------	-	1946-66
05515200	Upper Fish Lake near Stillwell	LaPorte	[8]9.65	139	688.22	1,040	+	1946-53
05515210	Lower Fish Lake near Stillwell	LaPorte	[8]10.4	134	688.22	870	+	1946-53
05515220	Pine Lake at LaPorte	LaPorte	[8]10.7	564	796.20	------	-	1946-75, 1980-
05515230	Stone Lake at LaPorte	LaPorte	[8]10.7	140	796.20	------	-	1946-75, 1980-
05515240	Clear Lake at LaPorte	LaPorte	.65	106	798.20	760	+	1942-49, 1952-75, 1980-
05515600	Koontz Lake at Koontz Lake	Starke	[8]6.25	346	714.56	3,170	+	1943-
05515800	Riddles Lake near Lakeville	St. Joseph	[8]11.7	77	817.50	640	+	1946-73, 1976-
05516200	Lake of the Woods near Bremen	Marshall	[8]9.45	416	803.85	6,810	+	1945-
05516600	Pretty Lake near Plymouth	Marshall	.85	97	787.36	2,140	+	1954-66
05516700	Myers Lake near Twin Lakes	Marshall	1.41	96	768.69	2,000	+	1945-53
05516800	Mill Pond and Kreighbaum Lake near Twin Lakes	Marshall	[8]5.34	168	767.75	1,020	+	1945-53
05516900	Eagle Lake near Ober	Starke	[8]25.5	24	713.25	160	+	1946-53
05517100	Skitz Lake near Knox	Starke	------	1,000	--------	------	-	1949-53
05517200	Bass Lake at Bass Lake	Starke	5.18	1,400	713.65	------	-	1943-
05517600	Wauhob Lake near Valparaiso	Porter	.40	21	--------	------	-	1946-
05517650	Long Lake near Valparaiso	Porter	1.31	65	797.66	520	+	1947-52
05517670	Spectacle Lake near Valparaiso	Porter	.53	62	812.82	540	+	1946-53
05517700	Flint Lake near Valparaiso	Porter	2.62	86	797.66	------	-	1946-
05517800	Lake Eliza near Beatrice	Porter	1.70	45	--------	------	-	1954-74, 1976-
05518700	Cedar Lake at Cedar Lake	Lake	8.14	781	--------	6,750	+	1943-
05518800	Dalecarlia Lake near Creston	Lake	20.1	193	--------	------	-	1947-52
05521300	Ringneck Lake near Medaryville	Jasper	1.94	1,400	--------	------	-	1949-55
05525700	J.C. Murphy Lake near Morocco	Newton	13.0	1,515	--------	------	-	1952-61

[+]Depth contour maps available for sale by Indiana Department of Natural Resources, State Office Building, Indianapolis, Indiana.
xxElevation, in feet, above mean sea level.
[1]Formerly published as Rider Lake at Wilmot.
[2]Formerly published as Chapman Lake near Warsaw.
[3]Formerly published as Johnson Lake near Pierceton.
[4]Formerly published as Hawks Lake near Culver.
[5]Formerly published as Jimerson Lake at Nevada Mills.
[6]Formerly published as Sanford Lake near Cosperville.
[7]Formerly published as Duley Lake near Cromwell, and Druely Lake near Cromwell, and Druley Lake near Cromwell.
[8]Contains drainage area (5 percent or greater) that does not contribute directly to surface-water runoff.
[9]Same as Wolf Lake at Chicago, Illinois WRD District.

The lakes in Indiana which are not included in the cooperative stabilization program but which have been mapped for recreational purposes are shown in the following table. Surface area and capacities are related to reference mean sea level elevation at time of mapping. Additional data is shown on map which are available for sale by the Indiana Department of Natural Resources, State Office Building, Indianapolis, Indiana.

Lake	County	Surface Area (acres)	Capacity (acre-feet)	Lake	County	Surface Area (acres)	Capacity (acre-feet)
OHIO RIVER BASIN							
Barr Lake	Fulton	22	470	Lake 16	Fulton	27	220
Bischoff Reservoir	Ripley	200	1,920	Larwill Lake	Whitley	9	170
Black Lake	Whitley	24	400	Lenape Lake	Greene	36	330
Bowen Lake	Scott	7	60	Lincoln Park Lake	Spencer	58	520
Brown Lake	Whitley	23	580	Little Pike Lake	Kosciusko	25	140
Caldwell Lake	Kosciusko	45	800	McColley Lake	Wabash	28	410
Crane Lake	Noble	28	360	Round Lake	Wabash	48	540
Crosley Lake	Jennings	14	130	Scales Lake	Warrick	66	520
Ferdinand Lake	Dubois	42	440	Schlamm Lake	Clark	19	170
Franke Lake	Clark	9	70	Sellers Lake	Kosciusko	32	340
Hartz Lake	Starke	28	370	Shakamak Lake	Sullivan	56	610
Kunkel Lake	Wells	25	150	Twin Lakes	Wabash	18	190
Lake Freeman	Carroll	1,547	26,000	Whitewater Lake	Union	199	3,650
Lake Shafer	White	1,291	13,120	Yellowwood Lake	Brown	133	1,890
STREAMS TRIBUTARY TO LAKE MICHIGAN							
Appleman Lake	Lagrange	52	590	Mateer Lake	Lagrange	18	150
Bartley Lake	Noble	34	430	Miller Lake	Noble	11	160
Barton Lake	Steuben	94	1,340	Millers Lake	Noble	28	410
Bell Lake	Steuben	38	510	Mud Lake	Noble	8	70
Boner Lake	Kosciusko	40	370	Norman Lake	Noble	14	280
Bowen Lake	Noble	30	1,080	Pigeon Lake	Lagrange	61	1,160
Bristol Lake	Noble	27	740	Port Mitchell Lake	Noble	15	180
Buck Lake	Lagrange	18	150	Rainbow Lake	Lagrange	16	250
Center Lake	Steuben	46	390	Schockopee Lake	Noble	21	280
Cline Lake	Lagrange	20	350	Shock Lake	Kosciusko	37	1,210
Deer Lake	Noble	36	420	Smith Hole	Lagrange	2	10
Dock Lake	Noble	16	230	Still Lake	Lagrange	30	620
Eve Lake	Lagrange	31	670	Sweet Lake	Noble	16	210
Fish Lake	Steuben	59	750	Tamarack Lake	Noble	84	1,340
Hog Lake	LaPorte	59	690	Walters Lake	Steuben	53	550
Hog Lake	Steuben	48	570	Weir Lake	Lagrange	6	70
Lime Lake	Steuben	30	330	Wible Lake	Noble	49	650
Little Turkey Lake	Steuben	58	780	Williams Lake	Noble	46	1,070
Marl Lake	Noble	30	510	Wyland Lake	Kosciusko	6	100
STREAMS TRIBUTARY TO LAKE ERIE							
Dunton Lake	DeKalb	21	340	Mirror Lake	Steuben	9	120
Handy Lake	Steuben	16	290	Terry Lake	DeKalb	17	160
Lake Anne	Steuben	17	280				
UPPER MISSISSIPPI RIVER BASIN							
Cook Lake	Marshall	93	1,650	Gilbert Lake	Marshall	37	490
Dixon Lake	Marshall	33	480	Holem Lake	Marshall	40	390
Flat Lake	Marshall	26	210	Lawrence Lake	Marshall	69	1,580

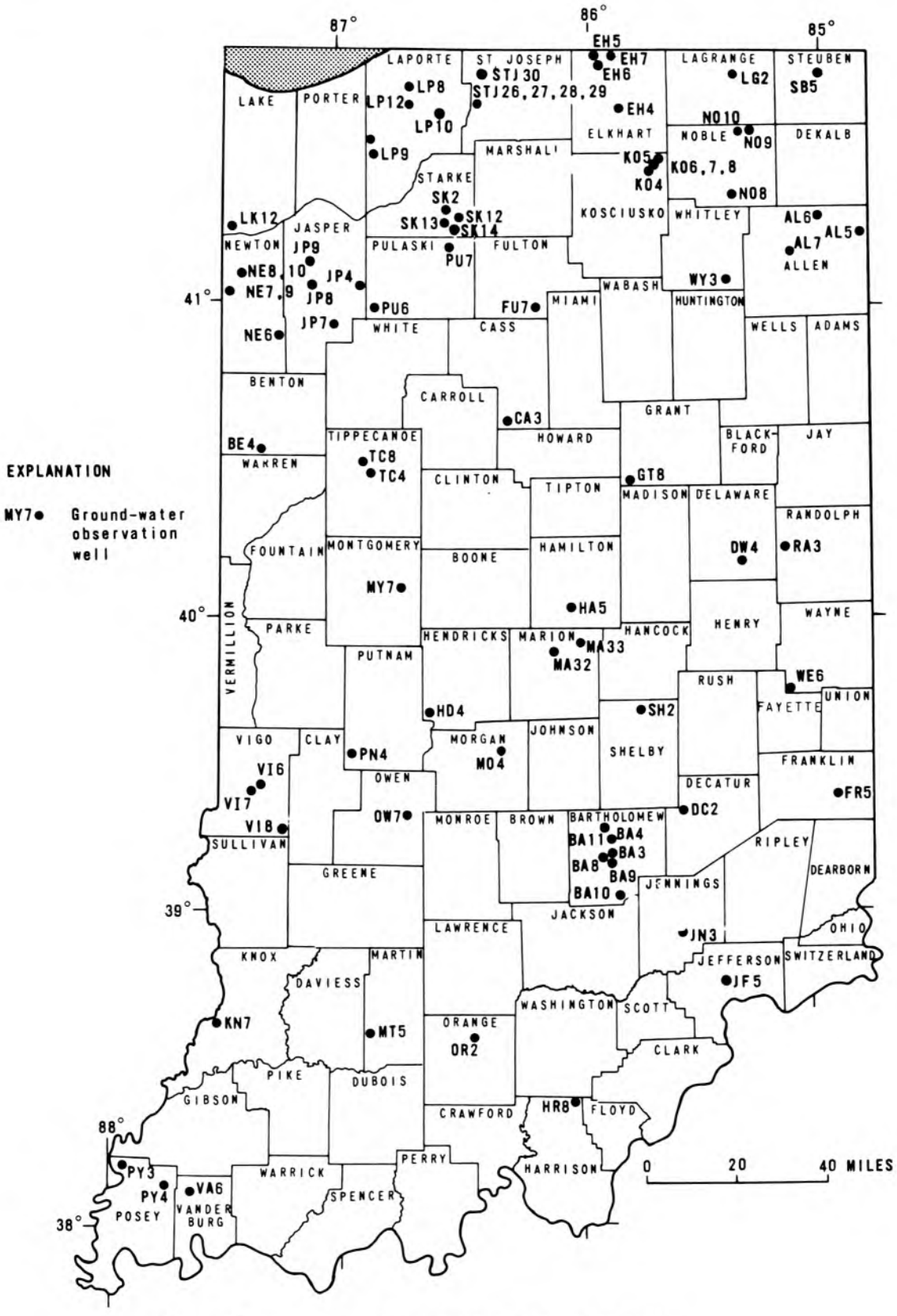

Figure 6.-- Location of ground-water observation wells.

ALLEN COUNTY

410426084495201. Local number, AL 5.

LOCATION.--Lat 41°04'26", long 84°49'52", in NW¼NE¼SE¼ sec.9, T.30 N., R.15 E., Allen County, Hydrologic Unit 04100005, 1.3 mi (2.1 km) west of Edgerton.
Owner: Noel Gerig.

AQUIFER.--Limestone of Salina Formation of Silurian Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 4 in (102 mm), depth 97 ft (30 m), cased to 40 ft (12.2 m), open end.
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 760 ft (232 m). Measuring point: Top of floor of shelter 0.17 ft (0.05 m) above land-surface datum.

REMARKS.--Water level affected by nearby quarry operations.

PERIOD OF RECORD.--July 1962 to December 1971. January 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.04 ft (3.06 m) below land-surface datum, July 8, 9, 1962; lowest, 38.41 ft (11.71 m) below land-surface datum, May 4, 1967.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	31.72	31.70	32.05	32.03	31.75	31.09	31.18	31.03	-----	30.20	30.15	30.08
10	31.37	31.75	31.95	32.00	31.18	31.53	31.32	30.75	30.27	30.40	30.15	29.93
15	31.46	32.17	31.70	31.70	31.82	30.96	-----	30.70	30.45	30.15	29.95	29.95
20	31.39	31.90	32.43	31.57	31.32	31.09	31.25	-----	30.40	29.98	30.22	29.80
25	31.43	32.22	32.02	31.27	31.50	31.50	31.03	30.65	30.47	30.15	30.25	30.10
EOM	31.72	31.72	31.50	31.60	31.30	31.15	31.00	30.63	30.50	30.35	30.02	29.85
LOW	32.00	32.44	32.54	32.27	32.43	31.80	31.70	31.30	30.83	30.65	30.41	30.35
HIGH	31.18	31.38	31.50	31.25	31.04	30.85	30.70	30.45	30.15	29.98	29.87	29.75

WTR YR 1981 HIGH 29.75 SEP 19 LOW 32.54 DEC 21

ALLEN COUNTY

410932084561101. Local number, AL 6.

LOCATION.--Lat 41°09'32", long 84°56'11", in SW¼SW¼NE¼ sec.10, T.31 N., R.14 E., Allen County, Hydrologic Unit 04100005, at the intersection of Ehle and Thimler Roads, 10 mi (16.1 km) northeast of New Haven.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 84 ft (26 m), cased to 81.5 ft (24.8 m), screened to 83.5 ft (25.5 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 760 ft (232 m). Measuring point: Top of floor of shelter 2.50 ft (0.76 m) 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, 8.63 ft (2.63 m) below land-surface datum, June 15, 1981; lowest, 14.77 ft (4.50 m) below land-surface datum, Oct. 29, 1978.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.00	12.28	12.51	12.13	11.78	9.75	11.21	9.92	10.57	10.18	11.55	12.17
10	12.02	12.37	12.10	12.22	11.61	10.26	11.24	9.52	10.22	10.67	11.71	12.16
15	12.13	12.42	11.82	12.21	11.60	10.44	9.30	8.73	8.63	11.03	11.85	12.34
20	12.15	12.45	11.95	12.28	9.77	10.67	9.41	9.16	9.25	11.21	12.11	12.40
25	12.15	12.56	12.00	12.28	9.38	10.99	9.82	9.80	9.15	11.34	12.41	12.55
EOM	12.21	12.46	11.94	12.08	9.44	11.10	9.73	10.24	9.78	11.39	12.53	12.46
LOW	12.40	12.65	12.69	12.45	12.04	11.20	11.42	10.44	10.88	11.59	12.69	12.70
HIGH	11.87	12.21	11.82	11.99	9.35	9.55	9.13	8.71	8.63	9.88	11.43	12.08

WTR YR 1981 HIGH 8.63 JUN 15 LOW 12.70 SEP 24

ALLEN COUNTY

410817085084101. Local number, AL 7.

LOCATION.--Lat 41°08'17", long 85°08'41", in NW¼NW¼NE¼ sec.14, T.31 N., R.12 E., Allen County, Hydrologic Unit 04100004, along the east fence line of parking lot of the Ft. Wayne Community Schools, 300 ft (91.4 km) south of Cook Road, 0.4 miles (0.64 km) west of State Road 327.
Owner: City of Fort Wayne, Indiana.

AQUIFER.--Sand of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 5 in (127 mm), depth 148 ft (45.1 m), cased to 144 ft (43.9 m), screened to 148 ft (45.1 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 829 ft (253 m). Measuring point: Top of floor of shelter 4.0 ft (1.22 m) above land-surface datum.

PERIOD OF RECORD.--December 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 38.57 ft (11.76 m) below land-surface datum, June 22, 1981; lowest, 40.02 ft (12.20 m) below land-surface datum, Aug. 26, 1981.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5			39.60		39.45	39.02	39.05	38.87	38.98	38.82	39.39	39.08
10			-----		39.15	39.22	39.21	38.80	38.81	39.59	39.15	39.02
15			-----		39.64	38.92	39.24	38.69	38.73	39.55	39.24	39.21
20			-----		39.04	38.91	39.02	38.84	38.74	39.34	39.34	39.09
25			-----		38.92	39.24	38.77	38.91	38.71	39.31	39.89	39.24
EOM			-----		39.06	39.00	38.78	38.82	39.00	39.28	39.25	39.05
LOW			39.72		39.82	39.40	39.34	39.03	39.10	39.99	40.02	39.35
HIGH			39.56		38.84	38.88	38.68	38.69	38.57	38.82	39.04	39.00

WTR YR 1981 HIGH 38.57 JUN 22 LOW 40.02 AUG 26

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 (152 mm), depth 123 ft (37.5 m), cased to 116 ft (35 m), screened to 121 ft (37 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 639.8 ft (195.0 m). Measuring point: Top of floor of shelter 2.50 ft (0.76 m) above land-surface datum.

REMARKS.--Water level affected by pumpage for water and sewage utilities.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.75 ft (5.11 m) below land-surface datum, Feb. 24, 25, 1975; lowest, 28.74 ft (8.76 m) below land-surface datum, Oct. 9, 1971.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.13	20.14	20.93	23.67	24.50	24.10	24.52	19.73	19.11	18.97	19.84	20.04
10	20.34	20.01	22.37	23.75	23.69	24.29	23.66	19.50	18.97	19.24	19.38	20.10
15	20.15	20.15	22.44	24.19	23.74	24.29	22.27	19.49	18.70	19.26	19.75	20.16
20	20.01	20.21	23.07	23.71	23.99	23.94	20.90	19.19	19.05	19.33	19.98	19.97
25	20.18	20.23	23.69	23.99	23.74	24.59	19.68	18.96	19.28	19.65	19.99	20.22
EOM	20.15	19.89	23.69	23.91	24.08	24.47	19.65	18.50	19.31	19.81	19.78	20.03
LOW	21.06	20.74	23.91	25.01	25.05	25.09	25.14	20.11	19.94	20.57	20.62	21.02
HIGH	20.01	19.89	19.89	23.67	23.68	23.81	19.58	18.29	18.56	18.92	19.38	19.78

WTR YR 1981 HIGH 18.29 MAY 28 LOW 25.14 APR 7

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 (152 mm), depth 93 ft (28 m), cased to 85 ft (26 m), screened to 90 ft (27 m).
Instrumentation: Water-stage recorder.

DATUM.--Land-surface datum is 654.04 ft (199.351 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter 2.60 ft (0.79 m) above land-surface datum.

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

REVISED RECORDS.--WRD IN-80-1: 1979.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.25 ft (4.34 m) below land-surface datum, Mar. 23, 1979; lowest, 21.15 ft (6.47 m) below land-surface datum, Feb. 11, 12, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.32	18.11	18.72	19.20	19.65	19.46	19.71	18.87	17.27	16.69	17.32	17.97
10	17.46	18.23	18.80	19.28	19.20	19.49	19.76	18.74	16.76	16.79	17.42	18.08
15	17.59	18.33	18.88	19.33	19.72	19.49	19.79	18.68	16.51	16.85	17.51	18.18
20	17.73	18.42	18.97	19.40	19.53	19.54	19.46	18.56	16.49	16.95	17.62	18.34
25	17.86	18.54	19.04	19.48	19.50	19.60	19.25	18.33	16.53	17.07	17.72	18.44
EOM	18.00	18.63	19.12	19.58	19.47	19.67	19.04	17.77	16.61	17.21	17.84	18.54
LOW	18.02	18.65	19.13	19.58	19.73	19.67	19.80	19.03	17.74	17.23	17.86	18.55
HIGH	17.19	18.03	18.65	19.00	19.20	19.46	19.04	17.77	16.48	16.62	17.23	17.87

WTR YR 1981 HIGH 16.48 JUN 21, 22 LOW 19.80 APR 14, 15

BARTHOLOMEW COUNTY

390950085553501. Local number, BA 8.

LOCATION.--Lat 39°09'50", long 85°55'35", in NE¼NW¼SW¼ sec.1, T.8 N., R.5 E., Bartholomew County, Hydrologic Unit 05120206, on property of Meadows Metal Products Co. about 4 mi (6.4 km) 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 (152 mm), depth 49 ft (15 m), casing length unknown.
Instrumentation: Water-stage recorder.

DATUM.--Land-surface datum is 615.48 ft (187.598 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter 3.00 ft (0.91 m) above land-surface datum.

PERIOD OF RECORD.--February 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.06 ft (2.46 m) below land -surface datum, June 3, 1968; lowest, 23.17 ft (7.06 m) below land-surface datum, Nov. 30, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.46	19.49	20.24	20.55	20.66	20.03	19.75	18.83	15.88	15.56	17.21	18.37
10	18.64	19.62	20.33	20.58	20.63	19.93	19.74	18.66	15.23	15.84	17.41	18.58
15	18.83	19.75	20.40	20.59	20.55	19.83	19.74	18.56	14.82	16.10	17.57	18.76
20	19.00	19.89	20.47	20.60	20.35	19.77	19.59	18.29	14.81	16.35	17.74	18.95
25	19.16	20.02	20.50	20.61	20.23	19.78	19.34	17.88	15.01	16.64	17.94	19.15
EOM	19.35	20.12	20.51	20.63	20.14	19.76	19.06	16.95	15.29	16.98	18.15	19.32
LOW	19.37	20.13	20.53	20.66	20.67	20.14	19.78	19.04	16.88	17.03	18.18	19.34
HIGH	18.30	19.38	20.14	20.53	20.14	19.74	19.06	16.95	14.80	15.34	17.04	18.19

WTR YR 1981 HIGH 14.80 JUN 16-19 LOW 20.67 FEB 4, 5, 9, 10

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 (4.8 km) south of Columbus.
Owner: City of Columbus.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in (152 mm), depth 115 ft (35 m), cased to 106 ft (32 m), screened to 111 ft (34 m).
Instrumentation: Water-stage recorder.

DATUM.--Land-surface datum is 621.58 ft (189.458 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter 1.65 ft (0.50 m) 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.--WRD IN-80-1: 1979.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.75 ft (3.89 m) below land-surface datum, Apr. 27-30, 1973; lowest, 38.75 ft (11.81 m) below land-surface datum, Sept. 15, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	-----	29.53	29.13	-----	-----	-----	24.80	27.87	26.61	26.53	28.12	29.59
10	-----	29.51	28.46	-----	-----	-----	25.64	27.85	26.24	27.22	28.14	29.75
15	-----	29.45	27.97	-----	-----	-----	26.76	27.94	25.86	27.80	28.43	29.96
20	-----	29.59	27.68	-----	-----	-----	27.24	27.95	25.78	27.80	28.75	30.16
25	-----	29.73	27.30	-----	-----	25.10	27.44	27.72	26.01	27.72	29.23	30.12
EOM	-----	29.71	26.55	25.97	-----	24.86	27.76	27.24	26.54	26.94	29.46	30.33
LOW	30.34	31.13	30.89	27.44	-----	25.82	29.19	29.50	28.51	29.50	31.02	31.83
HIGH	28.58	29.37	26.55	25.89	-----	24.86	24.73	27.24	25.70	26.50	27.94	29.48

WTR YR 1981 HIGH 24.73 APR 8 LOW 31.83 SEP 28

BARTHOLOMEW COUNTY

390317085523701. Local number, BA 10.

LOCATION.--Lat 39°03'17", long 85°52'37", in NE¼NE¼NE¼ sec.16, T.7 N., R.6 E., Bartholomew County, Hydrologic Unit 05120207, 0.8 mi (1.3 km) east of U.S. Highway 31A and 1.0 mi (1.6 km) southeast of Jonesville.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in (152 mm), depth 85 ft (25.9 m), cased to 80 ft (24.4 m), screened to 85 ft (25.9 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 580 ft (177 m). Measuring point: Top of floor of shelter 3.5 ft (1.1 m) above land-surface datum.

PERIOD OF RECORD.--October 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.67 ft (0.20 m) below land-surface datum, Apr. 14, 1979; lowest, 11.47 ft (3.50 m) below land-surface datum, Feb. 2, 1981.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.71	10.33	10.52	10.90	11.24	9.72	10.22	7.48	5.23	7.91	9.13	9.99
10	9.81	10.49	10.62	11.04	11.25	9.53	10.21	7.61	3.93	7.99	9.09	10.10
15	9.99	10.54	10.55	11.12	10.93	9.59	9.86	7.32	5.89	8.32	9.24	10.23
20	10.02	10.54	10.70	11.14	10.03	9.79	7.73	4.95	6.77	8.58	9.46	10.37
25	10.11	10.69	10.76	11.22	9.82	10.07	6.05	5.91	7.32	8.81	9.64	10.45
EOM	10.24	10.47	10.81	11.26	9.70	10.14	7.03	2.85	7.77	8.94	9.84	10.60
LOW	10.33	10.79	10.98	11.42	11.47	10.28	10.36	7.92	7.92	9.04	9.94	10.71
HIGH	9.53	10.26	10.48	10.84	9.70	9.52	6.05	2.50	3.42	7.81	9.01	9.87

WTR YR 1981 HIGH 2.50 MAY 29 LOW 11.47 FEB 2

BARTHOLOMEW COUNTY

391752085571001. Local number, BA 11.

LOCATION.--Lat 39°17'52", long 85°57'10", in NE¼SW¼NE¼ sec.22, T.10 N., R.5 E., Bartholomew County, Hydrologic Unit 05120205, at end of pavement on Mill Street, 100 ft (30 m) west of Fifth Street, in Taylorsville.
Owner: City of Taylorsville.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 2 in (51 mm), depth 18 ft (5.5 m), cased to 15.5 ft (4.7 m), screened to 18 ft (5.5 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 655 ft (200 m). Measuring point: Lip of coupling at ground level.

PERIOD OF RECORD.--October 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.88 ft (0.27 m) below land-surface datum, Mar. 8, 1979; lowest, 9.69 ft (2.95 m) below land-surface datum, Apr. 24 to May 14, 1981.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.40	7.04	7.74	8.35	8.91	9.34	9.53	9.69	6.40	6.79	7.74	8.62
10	6.52	7.14	7.85	8.47	9.07	9.38	9.53	9.69	6.24	6.94	7.83	8.77
15	6.63	7.22	7.90	8.52	9.15	9.44	9.55	9.64	6.16	7.15	7.96	8.91
20	6.72	7.32	7.97	8.55	9.20	9.47	9.61	----	6.30	7.25	8.10	9.00
25	6.82	7.42	8.08	8.60	9.24	9.51	9.69	----	6.46	7.39	8.30	9.15
EOM	6.95	7.61	8.23	8.76	9.29	9.51	9.69	----	6.64	7.60	8.47	9.32
LOW	6.97	7.64	8.23	8.77	9.29	9.53	9.69	9.69	6.67	7.61	8.47	9.32
HIGH	6.34	6.97	7.64	8.24	8.80	9.30	9.53	9.64	6.16	6.67	7.64	8.50

WTR YR 1981 HIGH 6.16 JUN 12 TO 16 LOW 9.69 APR 24 TO MAY 14

BARTHOLOMEW COUNTY

391811085570901. Local number, BA 12.

LOCATION.--Lat 39°18'11", long 85°57'09", in NE¼NE¼NE¼ sec. 22, T.10 N., R.5 E., Bartholomew County, Hydrologic Unit 05120205, at the East Bartholomew Water Corporation well field, 0.5 mile (0.8 km) north of Taylorsville, Indiana.
Owner: U.S. Geological Survey.

AQUIFER.--Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water table well, diameter 6 in (152 mm), depth 101 ft (30.8 m), cased to 97 ft (29.6 m), screened to 101 ft (30.8 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 655 ft (200 m). Measuring point: Top of floor of shelter 3.64 ft (1.109 m) above land-surface datum.

REMARKS.--Water level affected by pumpage from production wells at East Bartholomew Water Corporation.

PERIOD OF RECORD.--October 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.95 ft (2.738 m) below land surface datum, May 2, 1980; lowest, 15.11 ft (4.61 m) below land-surface datum, Apr. 13, 1981.

HIGEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.76	12.60	13.34	-----	-----	14.42	-----	13.68	11.12	10.96	11.84	-----
10	11.96	12.73	13.49	-----	-----	14.49	14.72	13.56	10.89	11.17	12.02	-----
15	12.15	12.91	13.57	14.28	-----	-----	-----	13.47	10.55	11.26	12.14	-----
20	12.24	13.03	13.69	-----	14.42	14.63	-----	13.38	-----	11.33	12.29	13.21
25	12.41	13.17	-----	-----	14.43	14.65	14.14	12.89	-----	11.52	12.37	13.36
EOM	12.50	13.28	-----	-----	14.44	14.59	13.81	11.51	10.92	11.69	12.61	13.40
LOW	12.79	13.52	-----	-----	14.74	14.97	15.11	14.16	11.77	12.06	12.95	13.80
HIGH	11.70	12.49	13.27	-----	-----	14.42	13.81	11.51	10.50	10.90	11.68	12.73

WTR YR 1981 HIGH 10.50 JUN 16 LOW 15.11 APR 13

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 (5.8 km) southeast of Boswell.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 310 ft (94 m), cased to 300 ft (91 m), screened to 305 ft (93 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land surface is 710 ft (216 m). Measuring point: Top of floor of shelter 2.15 ft (0.66 m) above land-surface datum.

PERIOD OF RECORD.--November 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.52 ft (3.51 m) below land-surface datum May 13, 1980; lowest, 16.11 (4.91 m) below land-surface datum, Feb. 13, 1981.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.25	14.79	15.22	15.62	15.87	15.67	15.76	15.34	13.95	13.77	13.90	13.73
10	14.28	14.83	15.23	15.67	15.62	15.89	15.83	14.99	13.80	13.92	13.94	13.53
15	14.43	15.02	15.23	15.57	15.99	15.69	15.97	14.81	13.83	13.89	13.86	13.43
20	14.47	15.11	15.57	15.65	15.81	15.70	15.77	14.72	13.80	13.82	13.99	13.34
25	14.59	15.23	15.52	15.55	15.77	15.89	15.60	14.38	13.77	14.01	14.01	13.39
EOM	14.77	15.02	15.38	15.80	15.79	15.72	15.41	14.17	13.85	14.03	13.65	13.19
LOW	14.82	15.31	15.65	15.98	16.11	15.96	16.02	15.51	14.19	14.06	14.09	13.75
HIGH	14.05	14.67	15.02	15.41	15.60	15.66	15.39	14.13	13.67	13.77	13.65	13.19

WTR YR 1981 HIGH 13.19 SEP 30 LOW 16.11 FEB 13

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 (4.0 km) east of Young America.
Owner: U.S. Geological Survey.

AQUIFER.--Dolomitic Limestone of Devonian-Silurian Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 130 ft (40 m), cased to 78 ft (24 m), open end.
Instrumentation: Water-stage recorder.

DATUM.--Datum is 781.74 ft (238.274 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter 2.65 ft (0.81 m) above land-surface datum.

PERIOD OF RECORD.--August 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.85 ft (1.17 m) below land-surface datum, Feb. 2, 1968; lowest, 7.95 ft (2.42 m) below land-surface datum, Feb. 11, 15, 16, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.25	6.27	6.36	6.55	6.42	6.06	6.27	5.97	5.70	5.85	6.05	6.14
10	6.16	6.38	6.37	6.64	6.38	6.15	6.21	5.15	5.70	6.12	6.09	6.06
15	6.24	6.33	6.31	6.52	6.37	6.06	6.22	4.91	5.69	6.13	6.00	6.10
20	6.22	6.34	6.60	6.46	6.27	6.09	6.14	5.59	5.71	6.10	6.08	6.10
25	6.18	6.45	6.52	6.37	6.32	6.24	5.98	5.63	5.76	6.19	6.14	6.14
EOM	6.24	6.28	6.34	6.35	6.17	6.12	5.90	5.53	5.81	6.12	6.05	6.09
LOW	6.37	6.52	6.75	6.79	6.77	6.30	6.54	6.12	5.96	6.42	6.20	6.27
HIGH	6.14	6.19	6.27	6.33	6.17	6.06	5.89	4.91	5.46	5.81	6.00	6.04

WTR YR 1981 HIGH 4.91 MAY 15 LOW 6.79 JAN 29

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 (12.1 km) west of Greensburg. Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Devonian Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 49 ft (15 m), cased to 12.5 ft (3.8 m), open end.
Instrumentation: Water-stage recorder.

DATUM.--Land-surface datum is 840.8 ft (256.28 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter 3.02 ft (0.92 m) above land-surface datum.

PERIOD OF RECORD.--September 1966 to October 1971. September 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.16 ft (0.05 m) below land-surface datum, Dec. 10, 1966; lowest, 9.25 ft (2.82 m) below land-surface datum, Feb. 9-11, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.83	8.01	7.86	8.03	7.90	5.04	6.63	4.85	2.95	2.29	5.55	7.00
10	7.88	8.04	7.89	8.09	7.23	5.20	6.75	4.65	1.75	4.01	4.02	7.14
15	7.94	8.06	7.84	8.10	6.68	5.69	6.57	.99	3.69	4.76	5.09	7.27
20	7.95	8.06	7.89	8.13	4.44	6.14	6.56	1.08	4.38	5.36	5.83	7.40
25	7.96	8.10	7.93	8.13	4.98	6.51	3.60	1.22	4.91	5.90	6.42	7.53
EOM	7.99	7.82	7.96	8.14	5.33	6.49	4.26	1.18	5.41	6.40	6.86	7.66
LOW	7.99	8.10	7.99	8.17	8.15	6.74	6.82	5.06	5.50	6.47	6.89	7.66
HIGH	7.74	7.82	7.82	7.99	4.44	4.93	3.32	.32	1.62	2.29	3.26	6.89

WTR YR 1981 HIGH .32 MAY 27 LOW 8.17 JAN 30

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 about 8.0 mi (13 km) south of Muncie. Owner: U.S. Geological Survey.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 91 ft (28 m), cased to 89 ft (27 m), screened to 91 ft (28 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 1,005 ft (306 m). Measuring point: Top of floor of shelter 2.88 ft (0.88 m) 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, 44.49 ft (13.56 m) below land-surface datum, Aug. 1, 1979; lowest, 49.50 ft (15.09 m) below land-surface datum, Oct. 13, 14, 1966.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
			48.62	48.72	48.77	48.28	48.68	48.13	45.99	48.17	48.01	48.29
5	-----		48.59	48.75	48.28	48.38	48.67	47.94	46.72	48.26	48.19	48.35
10	-----		48.57	48.76	48.05	48.48	48.24	47.63	47.32	48.34	48.29	48.46
15	-----		48.65	48.77	47.68	48.56	48.21	47.44	47.69	47.72	48.39	48.52
20	-----		48.68	48.77	47.96	48.63	48.20	47.25	47.92	47.93	48.47	48.57
25	48.52		48.69	48.78	48.09	48.67	48.15	46.26	48.09	47.97	48.47	48.60
EOM	-----											
			48.70	48.80	48.80	48.68	48.71	48.15	48.10	48.40	48.52	48.60
LOW	48.57		48.56	48.70	47.68	48.13	48.15	45.69	45.64	47.66	48.00	48.29
HIGH	48.52											

WTR YR 1981 HIGH 45.64 JUN 6 LOW 48.80 JAN 30, 31 FEB 9, 10

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 (152 mm), depth 62 ft (19 m), cased to 58 ft (18 m), screened to 60 ft (18 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 818 ft (249 m). Measuring point: Top of floor of shelter 2.60 ft (0.79 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.65 ft (3.55 m) below land-surface datum, Aug. 4, 1981; lowest, 16.18 ft (4.93 m) below land-surface datum, Dec. 1-5, 1971.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.52	14.75	14.97	14.53	14.80	13.76	14.14	13.56	12.75	11.95	11.66	12.50
10	14.55	14.79	14.88	14.57	14.82	13.83	14.20	13.45	12.77	12.28	11.77	12.48
15	14.59	14.84	14.68	14.62	14.85	13.86	14.16	13.28	12.37	12.42	12.16	12.54
20	14.62	14.89	14.56	14.68	13.88	13.94	13.99	12.93	12.09	12.67	12.24	12.61
25	14.67	14.93	14.50	14.73	13.81	14.02	13.83	12.72	12.01	12.70	12.49	12.72
EOM	14.71	14.96	14.48	14.75	13.76	14.07	13.69	12.69	12.02	11.77	12.48	12.40
LOW	14.72	14.97	14.98	14.77	14.86	14.09	14.22	13.69	12.79	12.73	12.54	12.75
HIGH	14.49	14.72	14.48	14.49	13.76	13.76	13.69	12.68	12.01	11.77	11.65	12.40

WTR YR 1981 HIGH 11.65 AUG 4 LOW 14.98 DEC 2-8

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, about 3.5 mi (5.6 km) east of Elkhart.
Owner: State of Indiana.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 1.5 in (38 mm), depth 13 ft (4 m), cased to 11 ft (3.4 m), screened to 13 ft (4 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 770 ft (235 m). Measuring point: Top of floor of shelter 2.10 ft (0.64 m) above land-surface datum.

PERIOD OF RECORD.--May 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.37 ft (0.42 m) below land-surface datum, Jun. 16, 1981; lowest, 5.57 ft (1.70 m) below land-surface datum, Jan. 28, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.85	4.13	4.17	3.96	4.07	3.14	3.56	3.18	2.16	---	----	3.22
10	3.97	4.19	3.72	4.01	3.94	3.23	3.57	2.92	1.98	---	----	3.32
15	4.01	4.24	3.67	4.00	4.02	3.37	3.24	2.84	1.38	---	3.14	3.45
20	3.97	4.32	3.79	4.01	2.96	3.43	3.27	3.09	1.72	---	3.24	3.51
25	3.96	4.38	3.87	4.07	2.90	3.53	3.09	3.17	2.20	---	3.37	3.64
EOM	4.07	4.32	3.90.	4.04	2.98	3.54	3.03	1.87	2.58	---	3.21	3.21
LOW	4.10	4.41	4.31	4.07	4.12	3.55	3.65	3.28	2.58	---	3.37	3.64
HIGH	3.76	4.08	3.64	3.90	2.86	3.02	3.03	1.87	1.37	---	2.69	3.21

WTR YR 1981 HIGH 1.37 JUN 16 LOW 4.41 NOV 26, 27

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, 4.0 mi (6.4 km) east of Elkhart.
Owner: State of Indiana.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 1.5 in (38 mm), depth 22 ft (6.7 m), cased to 20 ft (6.1 m), screened to 22 ft (6.7 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 770 ft (235 m). Measuring point: Top of floor of shelter 2.50 ft (0.76 m) above land-surface datum.

PERIOD OF RECORD.--May 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.10 ft (1.55 m) below land-surface datum, Jun. 16-19, 1981; lowest, 10.43 ft (3.18 m) below land-surface datum, Nov. 10 to Dec. 3, 1978.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.49	9.10	9.40	8.87	9.19	7.56	8.23	7.47	5.93	6.15	6.20	7.28
10	8.63	9.21	9.14	8.94	9.23	7.71	8.25	7.40	5.93	6.42	6.51	7.40
15	8.75	9.30	8.82	8.99	9.25	7.81	8.06	7.19	5.14	6.69	6.73	7.61
20	8.83	9.33	8.74	9.03	8.23	7.90	7.86	7.18	5.13	6.94	6.94	7.78
25	8.93	9.35	8.73	9.10	7.70	8.08	7.68	7.10	5.40	7.14	7.15	7.96
EOM	9.01	9.38	8.77	9.16	7.56	8.15	7.52	6.09	5.83	6.02	7.21	7.81
LOW	9.02	9.38	9.40	9.16	9.26	8.16	8.30	7.51	6.12	7.14	7.21	7.99
HIGH	8.37	9.03	8.73	8.77	7.56	7.56	7.52	6.09	5.10	5.94	6.02	7.21

WTR YR 1981 HIGH 5.10 JUN 16-19 LOW 9.40 DEC 4-7

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 (61 m) east of County Road 21.
Owner: U.S. Geological Survey.

AQUIFER.--Fine to medium sand of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in (152 mm), depth 61 ft (18.6 m), cased to 56 ft (17.1 m), screened to 61 ft (18.6 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 781 ft (238 m). Measuring point: Top of floor of shelter 3.70 ft (1.13 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.26 ft (1.91 m) below land-surface datum, Jun. 18, 1981; lowest, 9.29 ft (2.83 m) below land-surface datum, Sept. 29, 1981.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
									----	7.02	7.61	9.00
5									7.18	7.49	8.13	9.02
10									6.29	8.22	8.53	9.12
15									6.30	8.72	8.59	9.19
20									6.59	9.07	9.11	9.26
25									6.79	7.44	9.05	9.18
EOM												
									7.19	9.15	9.16	9.29
LOW									6.26	6.84	7.42	8.99
HIGH												

WTR YR 1981 HIGH 6.26 JUN 18 LOW 9.29 SEP 29

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., F ranklin County, Hydrologic Unit 05080003, adjacent to property of Franklin County Conservation Club about 1.0 mi (1.6 km) south of Brookville.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in (152 mm), depth 61 ft (19 m), cased to 57 ft (17 m), screened to 59 ft (18 m).
Instrumentation: Water-stage recorder.

DATUM.--Land-surface datum is 621.79 ft (189.52 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter 2.71 ft (0.83 m) 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 (3.64 m) below land-surface datum, May 24, 1968; lowest, 27.32 ft (8.33 m) below land-surface datum, Feb. 1, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	26.24	26.05	26.26	26.71	26.64	25.31	25.90	25.00	23.75	24.64	25.89	-----
10	26.24	26.10	26.36	26.77	26.60	25.44	26.06	24.79	24.05	25.12	-----	-----
15	26.25	26.13	26.42	26.82	25.97	25.65	25.45	24.40	24.50	25.66	-----	-----
20	26.21	26.13	26.48	26.84	25.23	25.82	25.49	23.41	25.05	25.85	-----	-----
25	26.17	26.13	26.58	26.85	24.87	26.00	24.50	24.02	25.44	25.66	-----	26.70
EOM	26.07	26.03	26.66	26.83	25.10	25.98	24.87	23.19	25.73	25.79	-----	26.76
LOW	26.26	26.17	26.67	26.86	26.83	26.20	26.14	25.04	25.78	25.94	25.96	26.77
HIGH	26.07	26.02	26.03	26.67	24.87	25.22	24.25	23.19	23.21	24.64	25.71	26.69

WTR YR 1981 HIGH 23.19 MAY 31 LOW 26.86 JAN 22-25

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 (4.0 km) northwest of Fulton.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 102 ft (31 m), cased to 96 ft (29 m), screened to 102 ft (31 m).
Instrumentation: Water-stage recorder.

DATUM.--Datum is 776.45 ft (236.662 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter 2.50 ft (0.76 m) above land-surface datum.

PERIOD OF RECORD.--August 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.35 ft (1.94 m) below land-surface datum, Apr. 23-27, 1973; lowest, 12.60 ft (3.84 m) below land-surface datum, Feb. 7, 8, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.40	11.59	11.72	11.20	11.29	10.40	10.90	9.52	8.91	9.09	9.98	10.67
10	11.44	11.63	11.29	11.27	11.18	10.54	10.95	9.19	8.91	9.39	10.15	10.67
15	11.50	11.69	10.91	11.28	11.31	10.50	10.17	7.89	8.69	9.61	10.25	10.80
20	11.55	11.73	11.07	11.39	10.79	10.62	9.67	7.92	8.73	9.62	10.47	10.86
25	11.58	11.79	11.03	11.40	10.57	10.84	9.59	8.28	8.77	9.77	10.64	11.01
EOM	11.60	11.73	11.00	11.37	10.46	10.86	9.50	----	8.88	9.83	10.70	10.93
LOW	11.67	11.84	11.84	11.49	11.38	10.89	11.04	9.64	9.03	9.87	10.71	11.05
HIGH	11.28	11.53	10.90	11.04	10.46	10.40	9.50	7.81	8.67	8.93	9.87	10.61

WTR YR 1981 HIGH 7.81 MAY 17, 18 LOW 11.84 NOV 26, DEC 3

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 about 1.0 mi (1.6 km) northwest of Rigdon.
Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 35 ft (11 m), cased to 20 ft (6 m), open end.
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 880 ft (268 m). Measuring point: Top of floor of shelter 3.10 ft (0.94 m) 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, 1.30 ft (0.40 m) below land-surface datum, Feb. 24, 1975; lowest, 10.66 ft (3.25 m) below land-surface datum, Oct. 29, 1966.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.29	6.61	6.81	6.72	6.44	4.22	5.05	3.18	3.16	3.99	3.84	3.45
10	6.21	6.71	6.74	6.84	6.12	4.54	5.02	2.76	3.17	4.29	3.65	3.97
15	6.35	6.78	6.43	6.74	6.08	4.53	3.30	1.75	2.82	4.46	3.88	3.95
20	6.43	6.80	6.84	6.78	4.64	4.79	3.49	2.11	3.41	4.48	4.39	3.88
25	6.42	6.93	6.68	6.54	4.17	5.07	3.80	2.40	3.68	4.82	4.77	4.39
EOM	6.54	6.79	6.45	6.35	4.05	5.05	3.52	2.54	3.90	3.32	4.43	4.54
LOW	6.68	7.00	7.08	6.97	6.56	5.18	5.26	3.48	4.00	5.05	5.16	4.88
HIGH	5.98	6.45	6.43	6.35	4.05	4.16	3.04	1.75	2.80	3.12	3.27	3.39

WTR YR 1981 HIGH 1.75 MAY 15 LOW 7.08 DEC 3

HAMILTON COUNTY

400000086023001. Local number, HA 5.

LOCATION.--Lat 40°00'00", long 86°02'30", in SW¼SW¼SE¼ sec.14, T.18 N., R.4 E., Hamilton County, Hydrologic Unit 05120201, on Gray Road, 1.2 mi (1.9 km) west of State Highway 234, and 3.5 mi (5.6 km) southwest of Noblesville.
Owner: Earlham College.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in (152 mm), depth 100 ft (30 m), cased to 80 ft (24 m), screened to 85 ft (26 m), open end.
Instrumentation: Water-stage recorder.

DATUM.--Land-surface datum is 755.47 ft (230.267 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter 2.76 ft (0.84 m) 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, 8.02 ft (2.44 m) below land-surface datum, Mar. 21, 22, 1978; lowest, 11.66 ft (3.55 m) below land-surface datum, Sept. 19, 1966.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.84	10.56	10.69	10.83	-----	10.43	10.72	10.35	9.31	10.25	10.25	9.91
10	10.79	10.60	10.65	10.87	-----	10.46	10.76	10.27	9.56	10.30	10.33	10.03
15	10.76	10.63	10.69	10.90	-----	10.54	10.59	10.12	9.71	10.41	10.42	10.17
20	10.76	10.67	10.74	10.93	-----	10.62	10.61	9.90	9.88	10.24	10.49	10.24
25	-----	10.70	10.77	10.93	-----	10.69	10.49	9.75	10.01	10.28	10.58	10.33
EOM	10.52	10.63	10.79	10.95	10.42	10.73	10.37	8.97	10.16	10.16	9.99	10.34
LOW	10.88	10.70	10.80	10.95	10.95	10.73	10.77	10.36	10.18	10.45	10.63	10.38
HIGH	10.51	10.53	10.63	10.80	10.42	10.42	10.37	8.95	9.05	10.13	9.99	9.90

WTR YR 1981 HIGH 8.95 MAY 30 LOW 10.95 JAN 30, 31 FEB 1

HARRISON COUNTY

382323086044501. Local number, HR 8.

LOCATION.--Lat 38°23'23", long 86°04'45", in NW¼NW¼NE¼ sec.33, T.1 S., R.4 E., Harrison County, Hydrologic Unit 05140104, on Harrison County road right of way, 2.0 mi (3.2 km) southeast of Palmyra.
Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Mississippian Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 93 ft (28 m), cased to 54 ft (16 m), open end.
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 827 ft (252 m). Measuring point: Top of floor of shelter 3.08 ft (0.94 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.98 ft (0.30 m below land-surface datum, Apr. 2, 1979; lowest, 19.71 ft (6.01 m) below land-surface datum, Nov. 5, 1966.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.22	17.64	18.52	19.16	19.22	16.84	15.72	14.70	10.46	12.75	14.70	16.34
10	16.47	17.87	18.57	19.30	19.19	15.98	15.31	14.92	10.51	12.91	14.77	16.56
15	16.73	18.04	18.55	19.36	18.88	15.93	15.36	14.87	10.44	13.36	15.07	16.23
20	16.94	18.21	18.75	19.43	18.20	16.07	15.20	12.24	10.97	13.78	15.46	15.59
25	17.16	18.40	18.89	19.47	17.86	16.35	14.74	11.18	11.59	14.23	15.87	15.67
EOM	17.42	18.39	19.00	19.62	17.79	16.58	14.72	10.32	12.25	14.41	16.31	15.87
LOW	17.46	18.44	19.06	19.66	19.63	17.78	16.69	15.04	12.33	14.46	16.36	16.84
HIGH	15.99	17.46	18.42	19.06	17.79	15.92	14.72	10.31	10.30	12.33	14.45	15.57

WTR YR 1981 HIGH 10.30 JUN 2 LOW 19.66 JAN 31

HENDRICKS COUNTY

394025086400801. Local number, HD 4.

LOCATION.--Lat 39°40'25", long 86°40'08", in NW¼NW¼NW¼ sec.8, T.14 N., R.2 W., Hendricks County, Hydrologic Unit 05120203, at the intersection of State Highway 75 and County Road 600 South on county right of way 1.0 mi (1.6 km) south of Coatesville.
Owner: U.S. Geological Survey.

AQUIFER.--Sandstone of Mississippian Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 85 ft (26 m), cased to 70 ft (21 m), open end.
Instrumentation: Water-stage recorder.

DATUM.--Altituue of land-surface datum is 860 ft (262 m). Measuring point: Top of floor of shelter 1.92 ft (0.59 m) 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 (5.68 m) below land-surface datum, Jan. 30, 1976; lowest, 28.0 ft (8.53 m) below land-surface datum, January 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.67	22.94	23.17	23.45	23.70	21.79	22.45	20.86	20.42	22.58	22.24	22.10
10	22.79	23.34	23.08	23.51	23.53	21.61	22.59	20.33	20.89	22.78	22.35	21.90
15	23.00	23.27	22.92	23.67	23.70	21.54	22.55	19.98	21.41	22.98	22.50	22.14
20	23.00	23.30	23.07	23.66	22.96	21.78	22.79	19.94	21.97	22.93	22.62	22.22
25	23.45	23.29	23.09	23.70	22.22	22.14	22.08	20.21	22.18	23.19	23.08	22.52
EOM	22.98	23.33	23.11	23.80	22.05	22.29	21.41	20.01	22.59	22.51	22.99	22.70
LOW	23.75	23.74	23.41	24.02	23.99	22.45	23.43	21.39	22.80	23.38	23.42	23.01
HIGH	22.48	22.81	22.90	23.16	22.05	21.49	21.41	19.90	20.09	22.51	22.13	21.84

WTR YR 1981 HIGH 19.90 MAY 28, 29 LOW 24.02 JAN 30

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 (1.4 km) east of Newland.
Owner: William Gehring, Inc.

AQUIFER.--Limestone of Devonian Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 16 in (406 mm), depth 300 ft (91 m).
Instrumentation: Water-stage recorder.

DATUM.--Datum is 676.93 ft (206.328 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter 0.00 ft (0.00 m) above land-surface datum.

REMARKS.--Water level affected by pumpage.

PERIOD OF RECORD.--July 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.95 ft (0.29 m) below land-surface datum, Apr. 9, 1962; lowest, 40.17 ft (12.24 m) below land-surface datum, July 25, 1980.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.28	4.37	3.92	3.43	3.41	2.98	4.59	2.53	2.35	3.77		----
10	6.02	4.39	3.84	3.55	3.14	3.15	6.14	2.37	2.31	12.14		----
15	5.47	4.25	3.51	3.33	3.42	2.87	4.24	2.14	2.08	15.75		----
20	5.02	4.07	3.81	3.32	3.22	3.01	3.21	2.08	2.00	14.12		7.97
25	4.72	4.22	3.52	3.23	3.28	3.26	2.82	2.07	2.10	-----		8.40
EOM	4.51	3.87	3.24	3.40	3.11	3.71	2.56	2.28	2.63	-----		7.46
LOW	7.83	4.63	4.29	3.78	3.76	3.90	10.50	2.76	2.88	21.50		8.58
HIGH	4.51	3.76	3.24	3.18	2.98	2.87	2.56	2.02	1.88	2.75		7.46

WTR YR 1981 HIGH 1.88 JUN 22 LOW 21.50 JUL 18

JASPER COUNTY

410809087580801. Local number, JP 7.

LOCATION.--Lat 41°08'10", long 86°58'08", in SE¼SE¼NE¼ sec.15, T.31 N., R.5 W., Jasper County, Hydrologic Unit 07120002, in northwest corner of intersection of County Roads 850N and 400E, 4.0 mi (6.4 km) south of Tefft.
Owner: U.S. Geological Survey.

AQUIFER.--Dolomite of Middle Devonian Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 130 ft (39.6 m), cased to 94 ft (28.7 m), open end.
Instrumentation: Water-stage recorder.

DATUM.--Datum is 699.38 ft (213.171 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter 2.75 ft (0.84 m) 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, 6.42 ft (1.96 m) below land-surface datum, May 13, 1978; lowest, 9.25 ft (2.82 m) below land-surface datum, Oct. 11, 1967.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	----	----	7.63	7.50	7.51	7.13	7.42	6.91	6.81		----	7.41
10	----	7.79	7.58	7.71	7.13	7.45	7.44	6.70	6.72		----	----
15	----	7.81	7.30	7.41	7.61	7.03	7.54	6.66	6.73		7.15	7.45
20	----	7.66	7.89	7.39	7.30	7.24	7.13	6.84	6.63		7.40	7.33
25	----	7.95	7.56	7.15	7.41	7.52	6.93	6.74	6.92		7.41	7.51
EOM	----	7.47	7.17	7.44	7.25	7.20	6.86	6.88	----		7.22	7.28
LOW	7.57	8.09	8.06	7.94	8.05	7.72	7.84	7.19	7.10		7.54	7.86
HIGH	7.43	7.28	7.17	7.14	6.97	7.01	6.69	6.60	6.59		7.15	7.19

WTR YR 1981 HIGH 6.59 JUN 19 LOW 8.09 NOV 11

JASPER COUNTY

410535087035801. Local number, JP 8.

LOCATION.--Lat 41°05'35", long 87°03'58", in NE¼NE¼SE¼ sec.35, T.31 N., R.6 W., Jasper County, Hydrologic Unit 07120002, 1.7 miles (2.7 km) north of Gifford.
Owner: William Gehring, Inc.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 12 in (305 mm), depth 310 ft (94.5 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 686 ft (209 m). Measuring point: Lower lip of 2 in (51.8 mm) tapedown pipe, 2.10 ft (0.64 m) above land-surface datum.

REMARKS.--Water level may be affected by pumpage.

PERIOD OF RECORD.--May 1978 to current year. Record prior to Oct. 1, 1978 available in District files.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.06 ft (2.76 m) below land-surface datum, Jun. 16, 1981; lowest, 25.11 ft (7.65 m) below land-surface datum, July 26, 1980.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5		-----	11.02	10.64	10.86	10.38	10.76	9.93	9.80	9.60	-----	11.43
10		11.19	10.72	10.62	10.72	10.56	10.88	9.79	9.60	-----	-----	11.34
15		11.18	10.51	-----	10.97	10.36	10.23	9.23	9.11	-----	12.77	11.36
20		11.14	10.72	10.72	10.68	10.50	10.08	9.28	9.16	-----	12.07	11.29
25		11.21	10.58	10.65	10.60	10.72	10.00	9.39	9.12	-----	11.78	11.51
EOM		11.03	10.37	10.77	10.54	10.60	9.89	9.62	9.35	-----	11.47	11.02
LOW		11.28	11.12	10.95	11.07	10.75	10.95	10.00	9.86	12.99	18.57	11.90
HIGH		10.97	10.37	10.46	10.46	10.36	9.89	9.23	9.06	9.39	11.47	11.02

WTR YR 1981 HIGH 9.06 JUN 16 LOW 18.57 AUG 12

JASPER COUNTY

410713087063201. Local number, JP 9.

LOCATION.--Lat 41°07'13", long 87°06'32", in NE¼SW¼SE¼ sec.21, T.31 N., R.6 W., Jasper County, Hydrologic Unit 07120002, 4.4 miles (7.1 km) northwest of Gifford.
Owner: William Gehring, Inc.

AQUIFER.--Silurian Limestone.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 18 in (457 mm), depth 260 ft (79 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 685 ft (209 m). Measuring point: Lower lip of 2 in (50.8 mm) tapedown pipe, 2.10 ft (0.64 m) above land-surface datum.

REMARKS.--Water level may be affected by pumpage.

PERIOD OF RECORD.--July 1978 to current year. Record prior to Oct. 1, 1978 available in District files.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.29 ft (1.31 m) below land-surface datum, June 22, 1981; lowest, 30.23 ft (9.21 m) below land-surface datum, July 21, 22, 24, 25, 1979.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.66	6.43	6.40	6.02	6.24	5.70	6.17	5.11	4.93	6.31	9.27	7.25
10	6.52	6.43	6.06	6.04	6.02	5.92	6.39	4.91	4.81	7.92	8.09	6.91
15	6.55	6.51	5.82	5.95	6.40	5.74	6.04	4.61	4.51	10.04	7.67	6.86
20	6.48	6.51	6.07	6.04	6.05	5.84	5.59	4.64	4.41	10.99	7.70	6.72
25	6.45	6.55	5.96	5.97	5.93	6.10	5.26	4.67	4.37	9.14	10.32	6.81
EOM	6.49	6.38	5.76	6.19	5.86	5.99	5.08	4.81	6.18	7.47	7.80	6.43
LOW	6.73	6.66	6.59	6.35	6.54	6.16	6.47	5.26	6.76	14.15	11.30	7.79
HIGH	6.42	6.26	5.76	5.77	5.79	5.70	5.08	4.61	4.29	5.87	7.67	6.43

WTR YR 1981 HIGH 4.29 JUN 22 LOW 14.15 JUL 19

JASPER COUNTY

410322087163101. Local number, JP 11.

LOCATION.--Lat 41°03'22", long 87°16'31", in NW¼NW¼NW¼ sec.18, T.30 N., R.7 W., Jasper County, Hydrologic Unit 07120002, on Prudential Life Insurance Company of America property, 3 mi (4.8 km) north of State Road 14, and southwest of Fair Oaks.
Owner: Prudential Insurance Company of America.

AQUIFER.--Limestone of Devonian Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 16 in (406 mm), depth 630 ft (192 m), cased to 63 ft (19.2 m), open end.
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 680 ft (207 m). Measuring point: Top of floor of shelter 3.50 ft (1.07 m) above land-surface datum.

REMARKS.--Water level may be affected by pumpage.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, .17 ft (0.05 m) below land-surface datum, June 21, 22, 1981; lowest, 40.62 ft (12.38 m) below land-surface datum, July 18, 1981.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5						----	----	.99	.72	2.12	11.33	6.50
10						----	1.63	.77	.56	9.98	9.47	5.53
15						----	1.52	.47	.31	31.01	21.60	5.51
20						----	1.25	.49	.28	22.19	9.99	----
25						----	1.10	.52	.21	10.57	17.12	----
EOM						----	.98	.63	.69	5.86	8.53	----
LOW						1.54	1.71	1.12	1.72	40.62	33.37	8.50
HIGH						1.39	.98	.43	.17	.62	5.32	5.26

WTR YR 1981 HIGH .17 JUN 21, 22 LOW 40.62 JUL 18

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 (152 m) north of Airfield Road, 1,000 ft (305 m) southwest of the watertower and 2.2 mi (3.5 km) 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 (127 mm) depth 200 ft (61.0 m) cased to 33 ft (10.1 m), open hole.
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 855 ft (261 m). Measuring point: Top of floor of shelter 3.00 ft (0.914 m) 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, 3.48 ft (1.06 m) below land surface datum Apr. 14, 1980; lowest 7.10 ft (2.16 m) below land surface datum, Oct. 22, 23, 1980.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.85	6.66	6.13	5.42	5.51	4.59	4.93	4.64	4.60	5.49	5.84	6.33
10	6.73	6.82	5.97	5.55	5.12	4.80	4.93	4.61	4.53	5.43	5.88	6.38
15	6.93	6.76	5.45	5.50	5.34	4.65	5.11	4.62	4.70	5.37	5.74	6.46
20	6.87	6.73	5.73	5.61	5.01	4.77	4.78	4.68	4.86	5.44	5.94	6.59
25	6.67	6.79	5.56	5.56	5.10	5.00	4.69	4.63	5.17	5.70	6.05	6.69
EOM	6.75	6.35	5.17	5.67	4.87	4.93	4.58	4.64	5.48	5.84	6.14	6.77
LOW	7.10	7.04	6.58	5.98	5.85	5.14	5.28	4.93	5.66	5.99	6.39	6.97
HIGH	6.53	6.29	5.17	5.14	4.84	4.59	4.51	4.56	4.49	5.36	5.73	6.15

WTR YR 1981 HIGH 4.49 JUN 8, 9 LOW 7.10 OCT 22, 23

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 (61 m) west of State Highway 3, 1.6 mi (2.6 km) south of Crosley Fish and Game Office and 3.0 mi (4.8 km) south of Vernon.
Owner: U.S. Geological Survey.

AQUIFER.--Limestones and dolomites of Devonian Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 180 ft (54.9 m), cased to 45 ft (13.7 m) open hole.
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 718 ft (219 m). Measuring point: Top of floor of shelter 3.5 ft (1.07 m) above land-surface datum.

PERIOD OF RECORD.--October 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 36.64 ft (11.17 m) below land-surface datum, Jan. 21, 1979; lowest, 40.52 ft (12.35 m) below land-surface datum, Sept. 18, 1981.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	40.01	39.68	39.43	39.59	39.43	38.98	39.11	39.14	38.81	39.64	39.98	40.37
10	39.89	39.76	39.34	39.78	39.16	39.19	39.13	38.95	38.81	39.66	39.83	40.35
15	40.07	39.80	39.16	39.62	39.50	39.08	39.28	38.93	39.33	39.82	39.83	40.30
20	39.90	39.62	39.71	39.64	38.93	39.23	38.65	38.82	39.58	39.81	40.05	40.32
25	39.79	39.64	39.59	39.38	39.21	39.49	38.57	39.01	39.82	40.00	40.23	40.08
EOM	39.71	39.37	39.26	39.61	39.14	39.16	38.86	38.83	39.98	39.92	40.23	39.97
LOW	40.20	40.03	39.77	39.97	39.86	39.59	39.37	39.24	40.05	40.11	40.37	40.52
HIGH	39.62	39.15	39.16	39.33	38.86	38.98	38.37	38.75	38.68	39.62	39.66	39.97

WTR YR 1981 HIGH 38.37 APR 24 LOW 40.52 SEP 18

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 (15.8 km) south of Vincennes.
Owner: Michael J. Kelley.

AQUIFER.--Sand and Gravel Quaternary Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 43 ft (13 m), cased to 16 ft (4.9 m), slotted to 19 ft (5.8 m), open end.
Instrumentation: Water-stage recorder. Prior to April 1968, handtaped monthly.

DATUM.--Altitude of land-surface datum is 405 ft (123 m). Measuring point: Top of floor of shelter 2.42 ft (0.74 m) 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, 3.27 ft (1.00 m) below land-surface datum, Jan. 30, 1969; lowest, 11.35 ft (3.46 m) below land-surface datum, Feb. 1-13, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.81	10.89	10.86	10.94	11.01	10.23	10.57	10.00	5.96	8.05	9.48	10.10
10	10.84	10.91	10.86	10.96	10.90	10.25	10.61	9.24	6.89	8.69	9.61	9.94
15	10.88	10.93	10.85	10.97	10.72	10.33	10.64	8.39	7.88	8.49	9.78	10.16
20	10.87	10.93	10.88	10.98	10.48	10.41	10.32	7.53	8.42	8.68	9.96	10.29
25	10.90	10.95	10.89	10.99	10.25	10.46	9.99	5.83	8.79	9.01	10.09	10.38
EOM	10.89	10.84	10.89	11.01	10.20	10.52	10.02	4.81	9.06	9.26	10.20	10.44
LOW	10.90	10.95	10.90	11.02	11.02	10.53	10.66	10.08	9.06	9.33	10.20	10.45
HIGH	10.78	10.84	10.84	10.90	10.20	10.21	9.95	3.91	5.05	8.03	9.27	9.94

WTR YR 1981 HIGH 3.91 MAY 27 LOW 11.02 JAN 30, 31, FEB 5, 8-10.

KOSCIUSKO COUNTY

411839085451601. Local number, KO 4.

LOCATION.--Lat 41°18'39", long 85°45'16", in NE¼SW¼SE¼ sec.18, T.33 N., R.7 E., Kosciusko County, Hydrologic Unit 05120106, on the county right of way of Armstrong Road, 2.0 mi (3.2 km) east of Oswego.
Owner: State of Indiana.

AQUIFER.--Sand of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 1.5 in (38 mm), depth 22 ft (6.7 m), cased to 20 ft (6.1 m), screened to 22 ft (6.7 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 852 ft (260 m). Measuring point: Top of floor of shelter 3.00 ft (0.91 m) above land-surface datum.

PERIOD OF RECORD.--May 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.57 ft (2.92 m) below land-surface datum, June 24, 25, 1981; lowest, 12.96 ft (3.95 m) below land-surface datum, Dec. 19-24, 1979.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.48	11.69	11.79	11.58	11.68	11.09	11.33	10.11	10.32	10.03	11.12	11.48
10	11.57	11.72	11.65	11.60	11.71	11.17	11.30	10.19	10.48	10.35	11.21	11.59
15	11.61	11.74	11.62	11.64	11.67	11.23	10.35	10.10	9.96	10.71	11.30	11.63
20	11.62	11.79	11.60	11.67	11.15	11.26	9.98	9.95	9.71	10.85	11.41	11.73
25	11.66	11.82	11.60	11.69	11.11	11.31	10.01	9.99	9.57	10.94	11.49	11.81
EOM	11.67	11.79	11.58	11.71	11.10	11.33	10.09	10.17	9.75	11.01	11.56	11.84
LOW	11.68	11.83	11.80	11.71	11.72	11.37	11.38	10.23	10.66	11.04	11.57	11.89
HIGH	11.46	11.68	11.58	11.56	11.08	11.09	9.96	9.95	9.57	9.80	11.04	11.48

WTR YR 1981 HIGH 9.57 JUN 24, 25 LOW 11.89 SEP 28, 29

KOSCIUSKO COUNTY

412500085384501. Local number, KO 5.

LOCATION.--Lat 41°25'00", long 85°38'45", in SE¼SW¼NW¼ sec.11, T.34 N., R.7 E., Kosciusko County, Hydrologic Unit 04050001, in the southeast corner of Wawasee Airport, 3.5 mi (5.6 km) east of Syracuse.
Owner: State of Indiana.

AQUIFER.--Sand of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 1.5 in (38 mm), depth 13 ft (4 m), cased to 11 ft (3.4 m), screened to 13 ft (4 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 870 ft (265 m). Measuring point: Top of floor of shelter 2.70 ft (0.82 m) above land-surface datum.

PERIOD OF RECORD.--May 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.06 ft (0.63 m) below land-surface datum, Apr. 6, 7, 1978; lowest, 6.27 ft (1.91 m) below land-surface datum, Nov. 20-23, 1979.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	----	5.42	5.58	----	----	4.03	4.50	3.35	3.10	3.09	3.77	4.48
10	5.20	5.49	5.22	5.47	----	4.17	4.54	2.99	3.11	3.30	3.91	4.57
15	5.23	5.56	5.18	5.49	----	4.26	3.39	2.68	2.29	3.49	4.03	4.66
20	5.27	5.59	5.22	5.55	----	----	3.49	2.85	2.60	3.52	4.25	4.76
25	5.38	5.60	5.28	5.60	3.99	----	3.56	3.00	2.81	3.70	4.39	4.92
EOM	5.39	5.62	5.41	5.51	3.99	----	3.18	2.97	2.99	3.62	4.52	4.92
LOW	5.40	5.62	5.62	5.60	3.99	4.31	4.60	3.47	3.19	3.71	4.52	4.95
HIGH	5.15	5.40	5.18	5.42	3.99	3.99	3.18	2.68	2.18	3.02	3.69	4.48

WTR YR 1981 HIGH 2.18 JUN 13, 14 LOW 5.62 NOV 26-30, DEC 1, 2

KOSCIUSKO COUNTY

412554085450001. Local number, KO 6.

LOCATION.--Lat 41°25'54", long 85°45'00", in NW¼SW¼NW¼ sec.5, T.34 N., R.7 E., Kosciusko County, Hydrologic Unit 04050001, west end of North Shore Drive and Lakeview Park in Syracuse, Indiana.
Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 2 in (51 mm), depth 23 ft (7 m), cased to 20 ft (6.1 m), screened to 23 ft (7 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 870 ft (265 m). Measuring point: Top of floor of shelter 3.00 ft (0.91 m) above land-surface datum.

PERIOD OF RECORD.--November 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.04 ft (2.45 m) below land-surface datum, June 24-26, 1981; lowest, 10.64 ft (3.24 m) below land-surface datum, Feb. 9, 1979.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	----	9.50	9.73	9.78	9.89	9.48	9.64	8.99	8.51	8.16		----
10	9.28	9.54	9.58	9.77	9.90	9.51	9.69	8.89	8.45	8.24		----
15	9.33	9.57	9.58	9.81	9.90	9.55	9.43	8.66	8.19	8.33		8.82
20	9.38	9.58	9.64	9.86	9.57	9.58	9.23	8.57	8.12	8.37		8.87
25	9.40	9.71	9.69	9.91	9.51	9.67	9.17	8.53	8.04	8.41		8.96
EOM	9.47	9.72	9.71	9.91	9.48	9.66	9.05	8.49	8.13	----		8.91
LOW	9.51	9.76	9.74	9.92	9.91	9.72	9.74	9.05	8.54	8.42		8.96
HIGH	9.21	9.48	9.56	9.71	9.48	9.48	9.05	8.49	8.04	8.13		8.75

WTR YR 1981 HIGH 8.04 JUN 24-26 LOW 9.92 JAN 24, 25, 29-31

KOSCIUSKO COUNTY

412510085442801. Local number, KO 7.

LOCATION.--Lat 41°25'10", long 85°44'28", in SE¼NE¼NW¼ sec.8, T.34 N., R.7 E., Kosciusko County, Hydrologic Unit 04050001, 20 ft (6.1 m) north of the intersection of Chicago Avenue and County Road 530 East in Syracuse.
Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 2 in (51 mm), depth 23.8 ft (7.2 m), cased to 20.8 ft (6.3 m), screened to 23.8 ft (7.2 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 870 ft (265 m). Measuring point: Top of floor of shelter 2.90 ft (0.88 m) above land-surface datum.

PERIOD OF RECORD.--November 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.89 ft (0.88 m) below land-surface datum, June 17, 1981; lowest, 5.43 ft (1.66 m) below land-surface datum, Nov. 11-13, 1978.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.68	4.70	4.56	----	4.50	4.03	4.81		----	3.93		----
10	4.79	4.80	4.06	4.69	4.50	4.18	4.81		----	4.19		----
15	4.84	4.81	4.14	4.71	4.49	4.35	----		----	4.40		4.94
20	4.77	4.92	4.34	4.75	3.75	4.45	----		3.07	4.36		4.99
25	4.77	4.90	4.46	4.66	3.77	4.66	----		3.38	4.54		5.05
EOM	4.69	4.75	4.53	4.46	3.87	4.70	----		3.70	----		4.64
LOW	4.88	4.93	4.74	4.78	4.65	4.78	4.81		3.72	4.56		5.07
HIGH	4.63	4.69	4.06	4.46	3.75	3.89	4.62		2.89	3.72		4.64

WTR YR 1981 HIGH 2.89 JUN 17 LOW 5.07 SEP 26

KOSCIUSKO COUNTY

412404085442501. Local number, KO 8.

LOCATION.--Lat 41°24'04", long 85°44'25", in SE¼SE¼NW¼ sec.17, T.34 N., R.7 E., Kosciusko County, Hydrologic Unit 04050001, 0.5 mi (0.8 km) south of County Road 1200 North on west side of State Highway 13.
Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 2 in (51 mm), depth 27.8 ft (8.2 m), cased to 24 ft (7.3 m), screened to 27 ft (8.2 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 863 ft (263 m). Measuring point: Top of floor of shelter 2.80 ft (0.85 m) above land-surface datum.

PERIOD OF RECORD.--November 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.25 ft (0.99 m) below land-surface datum, Apr. 4, 1980; lowest, 5.80 ft (1.77 m) below land-surface datum, Jul. 24, 1979.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.19	5.12	4.86	4.90	4.76	4.29	4.86	4.18		----	4.91	5.21
10	5.23	5.19	4.37	4.92	4.79	4.45	4.79	----		----	5.05	5.23
15	5.27	5.14	4.56	4.96	4.81	4.67	4.09	----		----	5.20	5.32
20	5.20	5.16	4.69	4.99	3.99	4.75	4.11	----		----	5.29	5.38
25	5.17	5.14	4.83	4.94	4.10	4.89	4.19	----		----	5.44	5.47
EOM	5.10	5.03	4.87	4.73	4.16	4.92	4.13	----		4.73	5.33	5.26
LOW	5.28	5.20	5.02	5.00	4.92	4.93	4.95	4.21		4.80	5.47	5.48
HIGH	5.10	5.03	4.37	4.69	3.99	4.17	4.09	4.13		4.64	4.81	5.20

WTR YR 1981 HIGH 3.31 JUN 24 LOW 5.48 SEP 24-26

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 SR 120 and County Road 475 E.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 5 in (127 mm), depth 86 ft (26.2 m), cased to 80 ft (24.4 m), screened to 86 ft (26.2 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 910 ft (277 m). Measuring point: Top of floor of shelter 3.0 ft (0.91 m) above land-surface datum.

PERIOD OF RECORD.--May 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.93 ft (3.64 m) below land surface datum Aug. 8, 1981; lowest 15.45 ft (4.71 m) below land surface datum, Feb. 12-16, 1981

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.98	15.20	15.38	15.24	15.40	14.57	14.71	14.64	14.10	12.86	11.99	12.51
10	15.02	15.23	15.39	15.25	15.41	14.58	14.81	14.59	13.96	13.11	12.02	12.50
15	15.06	15.26	15.39	15.25	15.45	14.56	14.83	14.57	13.39	13.38	12.25	12.52
20	15.10	15.29	15.35	15.28	14.66	14.59	14.81	14.45	12.96	13.46	12.30	12.52
25	15.13	15.32	15.28	15.31	14.60	14.64	14.73	14.30	12.77	13.50	12.56	12.63
EOM	15.17	15.35	15.23	15.36	14.58	14.66	14.68	14.18	12.70	12.23	12.51	12.56
LOW	15.18	15.36	15.41	15.38	15.45	14.67	14.83	14.68	14.18	13.58	12.59	12.65
HIGH	14.95	15.18	15.23	15.22	14.58	14.56	14.67	14.18	12.70	12.23	11.93	12.50

WTR YR 1981 HIGH 11.93 AUG 8 LOW 15.45 FEB 12-16

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 (3.2 km) southwest of Schneider.
Owner: U.S. Geological Survey.

AQUIFER.--Dolomite of Silurian Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 82 ft (25 m), cased to 52 ft (16 m), open end.
Instrumentation: Water-stage recorder.

DATUM.--Datum is 630.59 ft (192.20 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter 1.55 ft (0.47 m) 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 (0.05 m) below land-surface datum, Jan. 12, 1973; lowest, 14.35 ft (4.37 m) below land-surface datum, Sept. 9, 1974.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.92	4.87	4.28	3.65	3.53	2.99	3.31	2.15	2.18	1.83	4.83	5.13
10	5.69	4.82	3.88	3.64	3.40	3.11	3.27	2.22	2.21	2.21	5.22	4.89
15	5.51	4.78	3.68	3.56	3.57	3.11	2.48	1.78	1.48	2.74	5.89	4.77
20	5.31	4.69	3.82	3.55	3.30	3.17	2.17	1.73	1.33	5.21	5.61	4.50
25	5.12	4.64	3.71	3.52	3.09	3.26	2.10	1.85	1.32	6.14	5.75	4.36
EOM	4.97	4.40	3.61	3.50	2.98	3.26	2.01	2.03	1.62	4.98	5.34	3.85
LOW	6.31	5.33	4.69	3.92	3.85	3.59	3.75	2.60	2.53	6.67	6.25	5.59
HIGH	4.97	4.40	3.61	3.50	2.98	2.97	2.01	1.70	1.29	1.65	4.62	3.85

WTR YR 1981 HIGH 1.29 JUN 21, 22 LOW 6.67 JUL 26

LA PORTE COUNTY

413700086445401. Local number, LP 8.

LOCATION.--Lat 41°37'00", long 86°44'54", in NE¼SE¼NW¼ sec.34, T.37 N., R.3 W., La Porte County, Hydrologic Unit 07120001, at the west end of Soldiers Memorial Park in La Porte.
Owner: State of Indiana.

AQUIFER.--Sand and Gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 1.5 in (38 mm), depth 22 ft (6.7 m), cased to 20 ft (6.1 m), screened to 22 ft (6.7 m).
Instrumentation: Water-stage recorder.

DATUM.--Datum is 802.79 ft (244.690 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter 2.60 ft (0.79 m) above land-surface datum.

PERIOD OF RECORD.--May 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.15 ft (1.26 m) below land-surface datum May 27, 29, 1976; lowest, 7.04 ft (2.15 m) below land-surface datum, Mar. 8-11, 1978.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.09	6.43	6.57	----	----	----	6.30	5.74		----	4.95	4.93
10	6.13	6.53	----	----	----	----	6.23	5.74		----	4.99	4.86
15	6.16	6.56	----	----	----	----	5.88	----		----	4.99	4.96
20	6.16	6.61	----	----	----	----	5.86	----		----	5.09	4.52
25	6.16	6.66	----	----	----	----	5.73	----		5.28	5.16	4.53
EOM	6.23	6.59	----	6.19	----	6.26	5.73	----		4.91	4.88	4.61
LOW	6.31	6.67	6.61	6.47	6.19	6.29	6.36	5.78		5.32	5.17	5.00
HIGH	6.08	6.31	6.53	6.19	6.08	6.20	5.73	5.72		4.88	4.88	4.51

WTR YR 1981 HIGH 4.51 SEP 24 LOW 6.67 NOV 26

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 (4.8 km) southeast of Wanatah.

AQUIFER.--Sand of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 32 ft (9.8 m), cased to 27 ft (8.2 m), screened to 32 ft (9.8 m).
Instrumentation: Water-stage recorder.

DATUM.--Datum is 706.81 ft (215.44 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter 1.60 ft (0.49 m) above land-surface datum.

PERIOD OF RECORD.--June 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.21 ft (0.67 m) below land-surface datum, June 16, 1981; lowest, 8.01 ft (2.44 m) below land-surface datum, Dec. 6, 7, 1980.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.47	7.79	8.00	----	7.58	6.75	7.02		----	4.08	4.11	5.05
10	7.53	7.83	7.42	----	7.60	6.78	6.91		----	4.44	4.54	5.27
15	7.59	7.87	7.18	----	7.66	6.76	5.75		2.37	4.70	4.78	5.51
20	7.64	7.91	----	----	6.50	6.84	5.46		3.08	4.60	5.18	5.66
25	7.69	7.95	----	----	6.76	6.91	5.11		3.05	5.13	5.14	5.86
EOM	7.74	7.98	----	7.54	6.76	6.96	----		3.77	3.63	4.77	5.72
LOW	7.76	7.98	8.01	7.56	7.66	6.98	7.08		4.72	5.16	5.46	5.92
HIGH	7.41	7.76	7.13	7.54	5.89	6.75	5.11		2.21	2.98	3.75	4.79

WTR YR 1981 HIGH 2.21 JUN 16 LOW 8.01 DEC 6, 7

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 (61 m) north of the Mixsawbah Fish Hatchery Manager's residence and 2.6 mi (4.2 km) southeast of Stillwell.
Owner: State of Indiana.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in (152 mm) depth 104 ft (32 m) cased to 102 ft (31 m) screened to 104 ft (32 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 695 ft (212 m). Measuring point: Top of floor of shelter 3.60 ft (1.10 m) above land-surface datum.

PERIOD OF RECORD.--August 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.10 ft (1.25 m) below land surface datum, May 11, 1981; lowest 9.16 ft (2.79 m) below land surface datum, Aug 13, 1980.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.02	8.30	8.12	7.91	8.16	6.94	7.96	6.51	7.36	7.41	7.29	7.70
10	8.03	8.36	7.43	8.06	8.13	7.33	7.45	4.29	7.53	7.70	7.55	7.84
15	8.18	8.39	7.37	8.11	8.15	7.40	4.87	4.21	4.91	7.86	7.69	8.00
20	8.19	8.42	7.65	8.20	6.09	7.58	5.82	5.70	6.14	8.00	7.90	8.06
25	8.22	8.47	7.73	8.23	6.29	7.73	5.60	6.58	6.60	8.08	8.06	8.18
EOM	8.27	8.43	7.79	8.18	6.36	7.83	5.48	7.09	7.12	6.81	7.64	7.75
LOW	8.29	8.49	8.44	8.27	8.22	7.88	8.04	7.16	7.69	8.12	8.08	8.20
HIGH	7.98	8.26	7.32	7.87	5.95	6.69	4.82	4.10	4.89	6.55	6.95	7.63

WTR YR 1981 HIGH 4.10 MAY 11 LOW 8.49 NOV 26

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 (152 mm), depth 100 ft (30.5 m), cased to 95 ft (29.0 m), screened to 100 ft (30.5 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 760 ft (232 m). Measuring point: Top of recorder shelf 4.1 ft (1.25 m) above land-surface.

REMARKS.--Water level may be affected by pumpage.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.57 ft (1.09 m) below land-surface datum, June 16, 1981; lowest, 6.44 ft (1.96 m) below land surface datum, Sept. 26, 1981.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5									---	---	4.63	5.85
10									4.84	---	4.88	5.97
15									3.78	---	5.11	6.15
20									3.93	---	5.31	6.23
25									---	5.41	5.50	6.40
EOM									---	4.37	5.69	5.49
LOW									4.94	5.44	5.72	6.44
HIGH									3.57	4.27	4.41	5.49

WTR YR 1981 HIGH 3.57 JUN 16 LOW 6.44 SEP 26

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 (2.6 km) 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 (152 mm) depth 77 ft (23.5 m) cased to 71 ft (21.6 m) screened to 77 ft (23.5 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 805 ft (245 m). Measuring point: Top of recorder shelf 3.70 ft (1.13 m) above land-surface.

REMARKS.--Water level may be affected by pumpage.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.78 ft (5.72 m) below land-surface datum, Aug. 7, 8, 10-12, 1981, lowest, 19.25 ft (5.87 m) below land surface datum, Sept. 28, 1981.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5										---	18.83	19.07
10										---	18.78	19.06
15										---	18.82	19.12
20										---	18.93	19.12
25										19.12	19.00	19.19
EOM										18.93	19.02	19.12
LOW										19.15	19.04	19.25
HIGH										18.93	18.78	19.01

WTR YR 1981 HIGH 18.78 AUG 7, 8, 10-12 LOW 19.25 SEP 28

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 (254 mm), depth 308 ft (94 m), cased to 60 ft (18 m), open end.
Instrumentation: Water-stage recorder.

DATUM.--Land-surface datum is 719.78 ft (219.89 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter 3.15 ft (0.86 m) above land-surface datum.

REMARKS.--Water level affected by earthquakes.

PERIOD OF RECORD.--May 1958 to August 1971. January 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.85 ft (1.78 m) below land-surface datum, June 17, 1958; lowest, 15.15 ft (4.62 m) below land-surface datum, Oct. 5, 1965.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.39	10.27	9.98	10.04	10.00	9.60	10.01	9.55	10.14	10.96	11.05	
10	10.33	10.36	10.04	10.09	9.84	9.65	9.98	9.35	10.25	11.08	11.12	
15	10.41	10.31	9.93	10.10	9.76	9.80	9.62	9.07	10.49	11.10	11.10	
20	10.28	10.27	10.04	10.04	9.51	9.98	9.77	9.67	10.22	11.02	-----	
25	10.25	10.32	10.03	10.04	9.60	10.07	9.77	10.32	10.88	11.07	-----	
EOM	10.27	10.18	9.97	10.01	9.56	10.05	10.51	9.96	11.07	10.58	-----	
LOW	11.50	10.57	10.34	10.16	10.11	10.14	10.82	10.74	11.91	12.28	11.28	
HIGH	10.24	10.16	9.92	9.98	9.47	9.60	9.61	9.01	9.32	10.45	10.81	

WTR YR 1981 HIGH 9.01 MAY 16 LOW 12.28 JUL 9

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 (45.7 m) south of the intersection of Johnson Road and East 71st Street, 0.3 mi (0.5 km) west of Shadeland Avenue, and 1.5 mi (2.4 km) south of Castleton, Indiana.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in (152 mm), depth 94 ft (28.7 m), cased to 89 ft (27.1 m), screened to 94 ft (28.7 m).
Instrumentation: Water-stage recorder.

DATUM.--Land-surface datum is 812.20 ft (247.559 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter 3.90 ft (1.19 m) above land-surface datum.

PERIOD OF RECORD.--May 12, 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 71.75 ft (21.87 m) below land-surface datum, Apr. 15, 1980; lowest, 74.15 ft (22.60 m) below land-surface datum, Feb. 13, 1981.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	73.02	73.03	73.37	73.63	73.67	72.99	73.14	73.27	72.71	72.82	72.98	73.21
10	72.92	72.95	73.16	73.40	73.04	73.63	73.54	73.00	72.47	73.06	72.97	73.19
15	73.16	73.29	73.06	73.01	73.76	73.05	73.68	72.96	72.90	72.99	73.07	73.16
20	73.09	73.34	73.64	73.20	72.96	73.03	73.32	73.19	72.85	72.92	73.17	73.20
25	73.09	73.25	73.35	73.00	73.02	73.62	72.96	73.00	72.94	73.16	73.28	73.50
EOM	73.27	72.88	72.92	73.67	73.27	73.09	73.15	72.75	73.03	73.19	73.13	73.28
LOW	73.45	73.67	73.95	73.88	74.15	73.74	73.91	73.39	73.12	73.22	73.31	73.62
HIGH	72.78	72.66	72.92	72.92	72.70	72.96	72.88	72.75	72.47	72.81	72.87	73.04

WTR YR 1981 HIGH 72.47 JUN 9, 10 LOW 74.15 FEB 13

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 (0.4 km) southwest of Whitefield.
Owner: Joseph Arvin.

AQUIFER.--Sandstone of Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 143 ft (44 m), cased to 53 ft (16 m), open end.
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 565 ft (172 m). Measuring point: Top of floor of shelter 1.0 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--May 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 23.91 ft (7.29 m) below land-surface datum, Apr. 14, 1980; lowest, 34.10 ft (10.39 m) below land-surface datum, Jan. 1, 5, 22, 23, 1960, and Dec. 18, 19, 1964.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	26.61	27.01	27.57	28.13	28.48	27.93	28.28	28.12	27.70	27.19	27.32	27.53
10	26.33	27.02	27.61	28.31	27.72	28.67	28.44	27.75	27.34	27.41	27.42	27.50
15	26.65	27.24	27.31	27.93	28.74	28.08	28.89	27.80	27.61	27.19	27.23	27.43
20	26.68	27.47	28.33	28.02	28.17	28.18	28.24	28.05	27.45	27.06	27.38	27.52
25	26.79	27.64	28.09	27.73	28.46	28.59	28.20	27.88	27.53	27.38	27.48	27.75
EOM	27.05	27.26	27.54	28.13	28.33	28.21	28.06	27.76	27.51	27.52	27.30	27.66
LOW	27.27	27.84	28.47	28.71	29.27	28.90	29.09	28.37	27.88	27.59	27.58	28.05
HIGH	26.15	26.53	27.19	27.67	27.72	27.92	27.90	27.71	27.29	27.06	27.04	27.23

WTR YR 1981 HIGH 26.15 OCT 1 LOW 29.27 FEB 12, 13

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, about 4.5 mi (7.2 km) east of Crawfordsville.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 111 ft (34.0 m), cased to 107 ft (32.6 m), screened to 109 ft (33.2 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 801 ft (244 m). Measuring point: Top of floor of shelter 2.38 ft (0.73 m) above land-surface datum.

PERIOD OF RECORD.--July 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 26.10 ft (7.96 m) below land-surface datum, Apr. 13, 1974; lowest, 32.06 ft (9.77 m) below land-surface datum, June 4, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.88	31.12	31.32	31.51	31.65	31.33	31.58	31.51	30.33	30.70	30.55	29.97
10	30.92	31.23	31.28	31.53	31.40	31.52	31.63	31.28	30.33	30.93	30.43	29.69
15	31.07	31.35	31.22	31.47	31.68	31.35	31.76	31.03	30.48	30.96	30.23	29.60
20	31.03	31.42	31.50	31.53	31.54	31.38	31.63	30.72	30.52	30.98	30.28	29.55
25	31.05	31.41	31.48	31.42	31.51	31.57	31.58	30.43	30.53	31.06	30.40	29.79
EOM	31.14	31.22	31.31	31.60	31.48	31.53	31.52	-----	30.67	30.79	30.13	29.74
LOW	31.21	31.48	31.56	31.77	31.81	31.63	31.81	31.60	30.70	31.15	30.81	30.13
HIGH	30.75	31.04	31.21	31.32	31.38	31.33	31.40	30.22	30.28	30.68	30.13	29.55

WTR YR 1981 HIGH 29.55 SEP 19, 20 LOW 31.81 FEB 13, 14 APR 15

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 (0.7 km), north of County Road 950 North, and 1.1 mi (1.8 km) north of Waverly.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in (152 mm), depth 60 ft (18.3 m), cased to 56 ft (17.1 m), screened to 60 ft (18.3 m).
Instrumentation: Water-stage recorder.

DATUM.--'ltitude of land-surface datum is 645 ft (197 m) from topographic map. Measuring point: Top of floor of shelter 2.90 ft (0.88 m) above land-surface datum.

PERIOD OF RECORD.--May 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.23 ft (2.81 m) below land surface datum, June 2, 3, 1981; lowest, 15.60 ft (4.75 m) below land-surface datum, Feb. 9, 10, 1981.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.45	14.25	14.78	15.16	15.55	14.50	14.49	13.29	9.30	10.92	11.68	12.41
10	13.59	14.36	14.84	15.23	15.49	14.37	14.53	13.01	9.46	11.21	11.71	12.56
15	13.75	14.47	14.88	15.30	15.27	14.26	14.28	12.80	9.61	11.49	11.79	12.71
20	13.87	14.57	14.95	15.37	14.85	14.25	14.19	11.85	9.91	11.68	11.92	12.74
25	14.00	14.67	15.02	15.43	14.70	14.34	13.91	11.25	10.26	11.80	12.11	12.88
EOM	14.13	14.73	15.09	15.50	14.62	14.43	13.53	9.41	10.62	11.53	12.23	13.00
LOW	14.15	14.74	15.10	15.50	15.60	14.62	14.55	13.53	10.68	11.86	12.35	13.02
HIGH	13.32	14.15	14.74	15.10	14.62	14.25	13.53	9.41	9.23	10.69	11.55	12.23

WTR YR 1981 HIGH 9.23 JUN 2, 3 LOW 15.60 FEB 9, 10

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 (1.6 km) south of Foresman.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 80 ft (24 m), cased to 76 ft (23 m), screened to 78 ft (24 m).
Instrumentation: Water-stage recorder.

DATUM.--Datum is 654.10 ft (199.370 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter 2.15 ft (0.66 m) above land-surface datum.

PERIOD OF RECORD.--May 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.42 ft (2.57 m) below land-surface datum, Apr. 24, 1973; lowest, 15.67 ft (4.78 m) below land-surface datum, Oct. 14, 1967.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.21	14.37	14.26	13.23	13.18	11.94	12.88	11.03	11.12	11.11	11.31	12.72
10	14.24	14.38	13.86	13.33	13.06	12.04	12.84	10.80	11.23	11.43	11.67	12.80
15	14.40	14.39	13.42	13.29	13.29	11.97	11.29	8.89	11.07	11.88	11.93	13.05
20	14.51	14.37	13.43	13.33	12.72	12.19	10.76	8.93	10.85	11.43	12.35	13.31
25	14.46	14.45	13.24	13.23	12.33	12.45	10.82	9.73	10.64	11.28	12.85	13.43
EOM	14.40	14.28	13.12	13.18	12.09	12.68	10.91	10.65	10.89	10.92	12.63	13.11
LOW	14.64	14.47	14.41	13.44	13.36	12.75	12.96	11.18	11.38	12.17	12.91	13.46
HIGH	14.09	14.24	13.12	13.11	12.09	11.93	10.62	8.71	10.64	10.89	10.98	12.62

WTR YR 1981 HIGH 8.71 MAY 18 LOW 14.64 OCT 21

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 (3.2 km) southwest of Enos.
Owner: State of Indiana.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 150 ft (46 m), cased to 136 ft (41.5 m), open end.
Instrumentation: Water-stage recorder.

DATUM.--Datum is 680.83 ft (207.517 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter 2.03 ft (0.62 m) above land-surface datum.

PERIOD OF RECORD.--February 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 34.65 ft (10.56 m) below land-surface datum, Apr 14, 1980; lowest, 70.13 ft (21.38 m) below land-surface datum, Aug. 11, 12, 1980.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	51.05	46.37	43.35	41.56	40.34	39.38	38.75	38.06	37.33	36.84	48.55	50.34
10	50.05	45.89	42.97	41.40	39.94	39.41	38.73	37.76	37.23	37.29	48.33	49.08
15	49.31	45.30	42.54	41.04	40.04	39.06	38.72	37.64	37.19	41.23	49.90	48.09
20	48.55	44.72	42.57	40.84	39.77	39.02	38.47	37.69	37.12	46.54	51.04	47.12
25	47.80	44.39	42.11	40.52	39.68	39.01	38.29	37.60	37.00	49.24	51.42	46.43
EOM	46.99	43.65	41.62	40.47	39.57	38.73	38.14	37.53	37.00	49.43	51.43	45.58
LOW	51.80	46.99	43.76	41.79	40.55	39.64	38.94	38.25	37.58	49.70	52.05	51.42
HIGH	46.99	43.65	41.62	40.47	39.49	38.66	38.12	37.46	36.95	36.84	48.27	45.58

WTR YR 1981 HIGH 36.84 JUL 4, 5 LOW 52.05 AUG 28

NEWTON COUNTY

410428087231501. Local number, NE 8.

LOCATION.--Lat 41°04'28", long 87°25'44", in NW¼SW¼SW¼ sec.2, T.30 N., R.9 W., Newton County, Hydrologic Unit 07120001, in the Beaver Lake Prairie Chicken Refuge, 3.0 mi (4.8 km) north of Enos.
Owner: State of Indiana.

AQUIFER. imestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 150 ft (45.7 m) cased to 97 ft (29.6 m), open end.
Instrumentation: Water-stage recorder.

DATUM.--Datum is 663.34 ft (202.186 m) National Geodetic Vertical Datum. Measuring point: Top of floor of shelter 2.83 ft (0.86 m) above land-surface datum.

PERIOD OF RECORD.--February 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.04 ft (1.23 m) below land-surface datum, May 31, 1976; lowest, 47.90 ft (14.60 m) below land-surface datum, Aug. 13, 1981.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.33	12.59	10.61	8.96	7.72	6.68	6.04	5.31	4.90	4.00	24.04	-----
10	15.38	12.28	10.29	8.82	7.32	6.70	5.93	5.04	4.60	6.28	32.95	-----
15	14.72	11.88	9.90	8.49	7.38	6.38	5.88	4.87	4.33	26.95	-----	20.68
20	14.10	11.95	9.96	8.27	7.12	6.35	5.65	5.02	4.27	22.91	-----	18.96
25	13.58	11.50	9.50	7.94	7.03	6.34	5.51	4.86	4.14	25.99	-----	17.89
EOM	13.00	10.84	9.04	7.87	6.88	6.05	5.36	5.60	4.14	17.80	-----	16.51
LOW	17.13	15.12	10.97	9.19	7.93	6.97	6.22	7.42	5.59	33.43	47.90	20.85
HIGH	13.00	10.84	9.04	7.87	6.82	5.98	5.36	4.83	4.12	4.00	17.54	16.51

WTR YR 1981 HIGH 4.00 JUL 5 LOW 47.90 AUG 13r

NEWTON COUNTY

405959087282902. Local number, NE 9.

LOCATION.--Lat 40°59'59", long 87°28'29", in SE¼SW¼SE¼ sec.32, T.30 N., R.9 W., Newton County, Hydrologic Unit 07120002, in the Willow Slough Game Preserve, 2.0 mi (3.2 km) southwest of Enos.
Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 2 in (50.8 mm), depth 45 ft (13.7 m), cased to 42 ft (12.8 m), screened to 45 ft (13.7).

DATUM.--Altitude of land-surface datum is 681 ft (208 m) from topographic map. Measuring point: 3.10 ft (.94 m) 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 (0.33 m) below land-surface datum, May 3, 1978; lowest, 13.33 ft (4.06 m) below land-surface datum, Nov. 24 to Dec. 1, 1979.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5						11.61	12.01	10.15	8.87	8.92	9.88	10.17
10						11.61	12.01	9.37	8.97	9.33	10.02	10.48
15						11.65	10.92	8.30	----	9.80	10.18	10.74
20						11.72	10.40	8.32	----	9.42	10.42	10.97
25						11.89	10.25	8.61	8.47	9.58	10.64	11.17
EOM						11.92	10.12	8.82	8.81	-----	10.03	11.02
LOW						11.95	12.06	10.19	9.23	10.02	10.78	11.21
HIGH						11.60	10.12	8.26	8.47	8.91	9.84	10.03

WTR YR 1981 HIGH 8.26 MAY 18, 19 LOW 12.06 APR 9, 10

NEWTON COUNTY

410428087231502. Local number, NE 10.

LOCATION.--Lat 41°04'28", long 87°25'44", in NW¼SW¼SW¼, sec.2, T.30 N., R.9 W., Newton County, Hydrologic Unit 07120001, in the Beaver Lake Prairie Chicken Refuge, 3.0 mi (4.8 km) north of Enos.
Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 2 in. (51 mm), depth 45 ft (14 m), cased to 41 ft (12 m), screened to 44 ft (13 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 663 ft (202m) from topographic map. Measuring point: Top of floor of shelter 2.65 ft (0.81 m) 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, 0.69 ft (0.21 m) below land-surface datum May 3, 4, 1979; lowest, 5.25 ft (1.60 m) below land-surface datum, Apr. 9, 1981.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
							----	----		----	3.53	3.14
5							5.20	----		----	3.81	3.56
10							----	----		3.66	3.97	3.87
15							----	----		----	4.17	4.01
20							----	2.99		----	4.19	4.21
25							----	----		----	2.64	3.74
EOM												
LOW							5.25	3.06		3.67	4.39	4.25
HIGH							5.20	2.82		3.66	2.61	2.68

WTR YR 1981 HIGH 2.61 AUG 30 LOW 5.25 APR 9

NOBLE COUNTY

411922085221801. Local number, NO 8.

LOCATION.--Lat 41°19'22", long 85°22'18", in SE¼SW¼SE¼ sec.9, T.33 N., R.10 E., Noble County, Hydrologic Unit 04050001, near the east edge of Chain O' Lakes State Park, about 5.0 mi (8.0 km) south of Albion.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in (152 mm), depth 149 ft (45.4 m), cased to 146 ft (44.5 m), screened to 148 ft (45.1 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 928 ft (283 m). Measuring point: Top of floor of shelter 2.65 ft (0.81 m) 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, 29.07 ft (8.86 m) below land-surface datum, May 13, 1978; lowest, 32.49 ft (9.90 m) below land-surface datum, Jan. 18, 1967.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	-----	30.70	30.84	30.82	30.91	30.50	30.63	30.13	29.72	29.43	29.57	29.87
10	30.50	30.93	30.82	31.02	30.50	30.70	30.56	29.87	29.69	29.57	29.70	29.73
15	30.67	30.84	30.66	30.80	30.94	30.32	30.80	29.91	29.70	29.46	29.55	29.86
20	30.64	30.72	31.20	30.82	30.68	30.49	30.50	29.99	29.58	29.31	29.75	29.79
25	30.53	30.99	30.86	30.57	30.90	30.71	30.31	29.85	29.65	29.57	29.76	29.87
EOM	30.65	30.66	30.50	30.82	30.60	30.44	30.15	29.96	29.62	29.70	29.68	29.71
LOW	30.96	31.05	31.21	31.29	31.46	30.95	30.97	30.31	29.94	29.74	29.82	30.14
HIGH	30.48	30.38	30.50	30.51	30.41	30.21	29.97	29.73	29.47	29.31	29.37	29.65

WTR YR 1981 HIGH 29.31 JUL 20 LOW 31.46 FEB 12

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 about 2.0 mi (3.2 km) west of Wolcottville.
Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in (152 mm), depth 44 ft (13.4 m), cased to 39 ft (11.9 m), screened to 42 ft (12.8 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 930 ft (283 m). Measuring point: Top of floor of shelter 2.60 ft (0.79 m) above land-surface datum.

PERIOD OF RECORD.--June 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.85 ft (2.70 m) below land-surface datum, June 15, 1981; lowest, 17.55 ft (5.35 m) below land-surface datum, Dec. 27, 28, 1978.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.59	15.10	15.03	14.54	14.80	11.53	13.25	9.95	11.08	11.12	11.79	11.41
10	14.60	15.32	13.59	14.81	14.63	11.82	13.33	10.37	9.95	11.71	12.28	11.78
15	14.80	15.32	13.49	14.81	14.49	11.97	11.32	9.49	8.85	12.13	12.48	12.38
20	14.88	15.33	14.11	14.88	11.59	12.53	10.91	9.98	9.86	12.13	12.97	12.75
25	14.86	15.54	14.13	14.86	11.28	12.79	11.06	10.67	9.86	12.30	13.30	13.06
EOM	14.97	15.48	14.24	14.69	11.13	13.01	9.32	10.86	10.61	11.44	13.33	12.45
LOW	15.12	15.55	15.52	15.01	14.96	13.05	13.44	10.89	11.27	12.43	13.44	13.38
HIGH	14.18	14.94	13.39	14.33	11.11	11.28	9.32	9.35	8.85	10.76	11.52	11.40

WTR YR 1981 HIGH 8.85 JUN 15 LOW 15.55 NOV 25

NOBLE COUNTY

412948085223401. Local number, NO 10.

LOCATION.--Lat 41°29'48", long 85°22'34", in SW¼SW¼SE¼ sec.9, T.35 N., R.10 E., Noble County, Hydrologic Unit 04050001, on the east side of West Lakes Marina in Rome City, Indiana.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 2 in (51 mm), depth 24 ft (7.32 m) cased to 21 ft (6.4 m) screened to 24 ft (7.32 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 920 ft (280 m). Measuring point: Top of floor of shelter 3.0 ft (0.91 m) above land-surface datum.

PERIOD OF RECORD.--Nov. 2, 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.60 ft (1.40 m) below land-surface datum, June 16, 1981; lowest, 12.74 ft (3.88 m) below land-surface datum, Dec. 29, 1978, Feb 17, 1980.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.68	12.16	12.35	-----	12.47	10.70	11.85	5.63	5.61	5.90	6.14	5.98
10	9.78	12.26	12.09	-----	12.48	11.06	11.61	5.77	5.00	6.04	----	6.30
15	10.69	12.37	11.96	-----	12.36	11.38	10.70	5.71	4.63	6.18	----	6.53
20	11.30	12.38	12.00	-----	11.36	11.59	8.50	5.79	5.10	5.93	6.42	6.79
25	11.70	12.36	12.12	12.54	10.58	11.79	6.99	5.94	5.47	6.03	6.50	7.07
EOM	11.97	12.36	-----	12.52	10.45	11.88	5.67	5.92	5.76	5.92	6.40	7.00
LOW	12.01	12.42	12.39	12.54	12.53	11.94	11.99	6.01	5.96	6.33	6.55	7.13
HIGH	7.89	12.01	11.96	12.49	10.45	10.45	5.67	5.53	4.60	5.79	5.98	5.96

WTR YR 1981 HIGH 4.60 JUN 16 LOW 12.54 JAN 24-26

ORANGE COUNTY

383702086215601. Local number, OR 2.

LOCATION.--Lat 38°37'02", long 86°21'56", in NE¼SE¼SE¼ sec.11, T.2 N., R.1 E., Orange County, Hydrologic Unit 05120208, on property of Paul Middletown Farm, 6.6 miles (10.6 km) southeast of Orleans.
Owner: Paul Middletown.

AQUIFER.--Limestone of Mississippian Age.
Instrumentation: Water-stage recorder.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 108 ft (32.9 m), cased to 56 ft (17.1 m), open end.

DATUM.--Altitude of land-surface datum is 712 ft (217 m). Measuring point: Top of floor of shelter 3.30 ft (1.01 m) above land-surface datum.

PERIOD OF RECORD.--October 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.39 ft (2.25 m) below land-surface datum, Nov. 28, 1979; lowest, 44.44 ft below land-surface datum, Jan. 29, 1981.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	41.48	42.71	43.12	43.84	43.67	-----	-----	-----	25.18	-----	39.87	32.55
10	41.70	42.88	42.59	43.98	38.15	-----	-----	-----	-----	31.48	40.29	34.89
15	41.91	43.14	43.13	43.94	34.84	-----	-----	-----	-----	33.80	40.51	38.36
20	41.94	42.73	43.47	44.08	38.31	-----	-----	20.94	-----	36.73	41.10	40.26
25	41.16	43.11	43.51	44.07	39.30	-----	-----	24.69	-----	38.69	41.36	41.02
EOM	42.39	42.69	43.63	44.18	40.01	-----	-----	23.54	-----	39.85	32.02	41.49
LOW	42.62	44.29	44.07	44.44	44.16	41.34	35.43	25.46	25.60	40.26	42.00	42.02
HIGH	40.53	40.39	41.27	43.65	34.53	39.11	31.42	20.91	24.26	29.91	32.02	31.26

WTR YR 1981 HIGH 20.91 MAY 19 LOW 44.44 JAN 29

OWEN COUNTY

391731086421401. Local number, OW 7.

LOCATION.--Lat 39°17'31", long 86°42'14", in NE¼SE¼NE¼ sec.23, T.10 N., R.3 W., Owen County, Hydrologic Unit 05120202, at the east edge of McCormicks Creek State Park 3.0 mi (4.8 km) east of Spencer.
Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Mississippian Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 150 ft (46 m), cased to 15 ft (4.6 m), open end.
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 805 ft (245 m). Measuring point: Top of floor of shelter 2.38 ft (0.73 m) above land-surface datum.

REMARKS.--Water level affected by White River.

PERIOD OF RECORD.--July 1967 to current year (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 98.77 ft (30.11 m) below land-surface datum, May 24, 1968; lowest, 121.25 ft (36.96 m) below land-surface datum, June 6, 1973.

REVISED RECORDS.--WRD IN 79-1: 1978.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	115.94	115.91	115.89	115.92	------	111.82	115.74	115.58	115.46	115.88	114.84	116.05
10	115.93	115.93	115.89	115.94	------	115.48	110.54	113.09	115.25	115.92	115.84	116.07
15	115.95	115.92	115.90	115.94	------	115.59	115.11	113.22	115.69	115.94	115.84	116.08
20	115.91	115.91	115.91	115.94	------	115.67	115.48	113.17	115.76	115.96	------	116.07
25	------	115.92	115.91	115.94	115.47	115.73	115.21	107.56	115.82	115.98	------	116.07
EOM	115.88	115.89	115.91	115.94	115.54	115.70	115.51	114.36	115.85	116.00	116.07	116.08
LOW	115.97	115.93	115.92	115.97	115.93	115.75	115.77	115.62	115.87	116.02	116.09	116.14
HIGH	115.86	115.89	115.89	115.91	115.45	111.82	107.95	107.56	114.93	115.87	114.84	115.94

WTR YR 1981 HIGH 107.56 MAY 25 LOW 116.14 SEP 29

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 (152 mm), depth 58 ft (17.7 m), cased to 54 ft (16.5 m), screened to 56 ft (17.1 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 380 ft (116 m). Measuring point: Top of floor of shelter 3.00 ft (0.91 m) 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, 5.78 ft (1.76 m) below land-surface datum, Apr. 25, 1975; lowest, 21.25 ft (6.48 m) below land-surface datum, Feb. 15-20, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.59	18.54	19.21	19.74	-----	19.77	19.86	19.15	12.43	14.21	15.42	16.57
10	17.77	18.67	19.30	19.83	-----	19.64	19.90	19.01	12.70	14.47	15.52	16.46
15	17.96	18.80	19.37	19.92	-----	19.58	19.93	18.36	13.24	14.67	15.65	16.65
20	18.12	18.92	19.46	-----	-----	19.61	19.78	16.70	13.48	14.84	15.89	16.89
25	18.26	19.03	19.54	-----	20.07	19.70	19.50	15.21	13.78	15.11	16.17	17.16
EOM	18.42	19.12	19.63	-----	19.94	19.78	19.27	12.69	14.05	15.31	16.52	17.37
LOW	18.44	19.13	19.65	19.93	20.08	19.93	19.94	19.27	14.08	15.34	16.54	17.40
HIGH	17.42	18.44	19.13	19.65	19.94	19.57	19.27	12.69	12.39	14.06	15.32	16.46

WTR YR 1981 HIGH 12.39 JUN 8 LOW 20.08 FEB 25

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 (1 km) north of Wadesville.
Owner: U.S. Geological Survey.

AQUIFER.--Sandstone of Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 280 ft (85.3 m), cased to 200 ft (61 m), open hole.
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 458 ft (140 m) from topographic map. Measuring point: Top of floor of shelter 2.00 ft (0.61 m) above land-surface datum.

PERIOD OF RECORD.--November 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 112.99 ft (34.44 m) below 1 and-surface datum, Apr. 2, 1979; lowest, 128.56 ft (39.18 m) below land-surface datum, May 5, 1981.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	122.79	122.57	122.17	123.49	123.60	123.78	123.09	124.64	123.16		------	124.30
10	122.56	123.27	122.19	123.11	123.06	123.95	123.52	123.84	123.97		------	124.54
15	123.00	122.33	122.22	123.20	123.54	123.83	123.54	123.83	------		------	------
20	122.60	122.31	122.34	122.81	122.83	123.84	123.77	123.90	------		------	------
25	122.43	122.36	122.64	122.96	123.33	123.52	123.53	123.71	------		------	------
EOM	122.29	122.30	122.79	123.20	124.06	123.47	123.75	124.11	------		124.59	------
LOW	126.87	124.76	126.93	126.94	126.79	126.94	127.82	128.56	128.31		126.32	127.54
HIGH	122.29	121.76	122.12	122.60	122.83	123.35	123.01	123.29	122.90		124.37	124.00

WTR YR 1981 HIGH 121.76 NOV 28 LOW 128.56 MAY 5

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 (203 mm), depth 663 ft (202 m), cased to 11 ft (3.4 m), open end.
Instrumentation: Water-stage recorder.

DATUM.--Datum is 678.60 ft (206.837 m) National Geodetic Vertical Datum of 1929 . Measuring point: Top of floor of shelter 3.00 ft (0.91 m) above land-surface datum.

REMARKS.--Water level affected by pumpage and earthquakes.

PERIOD OF RECORD.--July 1956 to February 1971. January 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.03 ft (1.23 m) below land -surface datum, June 15, 1958; lowest, 18.81 ft (5.73 m) below land-surface datum, Feb. 25, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.74	13.15	13.42	12.20	12.69	10.73	12.48	9.81	10.09	9.98	-----	12.84
10	12.71	13.52	12.22	12.69	12.39	11.11	12.38	9.37	9.53	10.79	-----	12.86
15	13.01	13.58	11.10	12.55	12.85	11.19	9.63	7.34	8.20	11.16	-----	13.26
20	13.04	13.58	11.78	12.95	11.72	11.70	8.83	7.97	8.81	11.11	-----	13.51
25	12.98	14.02	11.61	12.71	11.46	12.09	9.26	-----	9.22	10.91	-----	13.89
EOM	13.08	13.77	11.53	12.58	10.83	12.20	9.60	-----	9.65	10.56	12.55	12.80
LOW	14.38	14.09	14.24	14.10	13.87	12.66	12.91	10.23	10.82	11.69	12.80	14.32
HIGH	12.14	12.90	11.10	11.78	10.83	10.72	8.66	7.28	8.20	9.79	10.50	12.51

WTR YR 1981 HIGH 7.28 MAY 16 LOW 14.38 OCT 24

PULASKI COUNTY

410739086365201. Local number, PU 7.

LOCATION.--41°07'39", long 86°36'52", in NE¼NE¼NW¼ sec.23, T.31 N., R.2 W., Pula ski County, Hydrologic Unit 05120106, in the Winamac State Fish and Game Area, 0.8 mi (1.3 km) southwest of Beardstown.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 105 ft (32 m), cased to 98 ft (30 m), screened to 100 ft (30.5 m), open end.
Instrumentation: Water-stage recorder.

DATUM.--Land-surface datum is 715.26 ft (218.011 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter 2.50 ft (0.76 m) 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 (1.43 m) below land-surface datum, June 15, 1981; lowest, 11.66 ft (3.55 m) below land-surface datum, Dec. 2, 1978.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.44	9.79	9.80	9.27	9.53	8.56	9.14	7.03	6.67	6.34	7.01	7.56
10	9.51	9.88	9.18	9.44	9.48	8.65	9.09	6.56	6.48	6.74	7.39	7.78
15	9.62	9.91	8.87	9.49	9.57	8.64	6.64	5.33	4.69	7.11	7.58	8.03
20	9.65	9.93	9.04	9.55	8.91	8.83	6.67	5.80	5.45	6.54	7.92	8.16
25	9.70	10.03	9.07	9.57	8.71	8.98	6.76	6.19	5.38	6.80	8.16	8.38
EOM	9.72	9.99	9.10	9.52	8.57	9.02	6.74	6.25	6.00	6.48	7.43	7.64
LOW	9.78	10.05	10.04	9.65	9.69	9.06	9.20	7.20	6.79	7.36	8.21	8.42
HIGH	9.23	9.71	8.87	9.17	8.57	8.55	6.52	5.33	4.69	6.09	6.62	7.44

WTR YR 1981 HIGH 4.69 JUN 15 LOW 10.05 NOV 29, 30

PUTNAM COUNTY

393254086590401. Local number, PN 4.

LOCATION.--Lat 39°32'54", long 86°59'04", in NW¼SW¼SE¼ sec.20, T.13 N., R.5 W., Putnam County, Hydrologic Unit 05120203, in the well field of Brazil Water Works about 8.0 mi (12.9 km) east of Brazil.
Owner: Brazil Water Company.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 12 in (305 mm), depth 60 ft (18 m), cased to 20 ft (6.1 m), slotted to 60 ft (18 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 612 ft (186 m). Measuring point: Top of floor of shelter 1.80 ft (0.55 m) above land-surface datum.

REMARKS.--Water level affected by Big Walnut Creek floods, and by pumpage from municipal well field.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.20 ft (0.06 m) below land-surface datum, Apr. 9, 1961; lowest, 19.95 ft (6.08 m) below land-surface datum, Jan. 15-25, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.47	17.32	17.59	17.89	17.23	16.51	16.94	15.28	13.91	16.41	16.10	16.23
10	17.62	17.41	17.59	17.75	17.52	16.86	16.68	12.76	14.82	16.70	16.11	16.76
15	17.73	17.67	17.57	17.81	16.29	16.82	15.91	9.77	15.02	16.61	16.52	16.96
20	17.35	17.65	17.66	17.75	15.86	16.99	16.30	10.35	15.78	16.69	16.77	17.03
25	17.27	17.75	17.76	17.62	16.23	17.09	15.42	13.21	16.17	16.88	17.03	17.20
EOM	17.34	17.64	17.94	17.68	16.51	17.10	15.17	11.99	16.53	14.96	16.93	16.83
LOW	17.86	17.94	18.09	18.14	17.74	17.24	17.26	15.60	16.68	17.05	17.24	17.38
HIGH	17.27	17.22	17.50	17.57	15.65	16.46	15.17	8.13	12.60	14.16	15.30	16.06

WTR YR 1981 HIGH 8.13 MAY 19 LOW 18.14 JAN 4

RANDOLPH COUNTY

401532085085301. Local number, RA 3.

LOCATION.--Lat 40°15'32", long 85°08'53", in NE¼NE¼SE¼ sec.23, T.21 N., R.12 E., Randolph County, Hydrologic Unit 05120103, at the east edge of Purdue University Agriculture Experiment Station, about 5.5 mi (8.9 km) north of Farmland.
Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Silurian Age.
WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 54 ft (16 m), cased to 33 ft (10 m), open end.
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 970 ft (296 m). Measuring point: Top of floor of shelter 3.86 ft (1.18 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.84 ft (2.39 m) below land-surface datum, June 6, 1981; lowest, 15.00 ft (4.57 m) below land-surface datum, Feb. 10, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.75			-----	12.06	10.77	11.19	9.44	8.46	10.26	10.96	11.72
10	12.70			12.78	11.72	10.70	11.02	9.17	9.16	10.82	11.09	11.69
15	12.86			12.78	11.60	10.62	9.86	8.59	9.38	11.11	11.19	11.91
20	12.87			12.76	11.24	11.01	10.03	8.88	9.94	11.11	11.58	11.97
25	-----			12.49	11.12	11.27	10.08	9.00	9.03	11.44	11.85	12.22
EOM	-----			11.94	10.95	11.28	9.59	8.81	9.82	11.12	11.87	12.27
LOW	12.93			12.89	12.26	11.47	11.51	9.47	9.97	11.45	11.95	12.48
HIGH	12.42			11.94	10.84	10.61	9.57	8.20	7.84	9.96	10.82	11.52

WTR YR 1981 HIGH 7.84 JUN 6 LOW 12.93 OCT 12, 13

ST. JOSEPH COUNTY

413255086211026. Local number, SJ 26.

LOCATION.--Lat 41°32'50", long 86°21'10", in NW¼NE¼NE¼ sec.25, T.36 N., R.1 E., St. Joseph County, Hydrologic Unit 07120001, in Porter Cemetery, 4.3 mi (6.9 km) northwest of Lakeville.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 1.5 in (38 mm).
Instrumentation: Water-stage recorder.

DATUM.--Land-surface datum is 770.85 ft (234.955 m) National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--Sept. 1975 to current year. Fragmentary record prior to May 1976 available in District files.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 769.28 ft (234.477 m) Natio nal Geodetic Vertical Datum of 1929, July 29, 1981; lowest, 764.69 ft (233.078 m) National Geodetic Vertical Datum of 1929, Feb. 8-11, 1977.

MEAN WATER LEVEL, IN FEET, NATIONAL GEODETIC VERTICAL DATUM OF 1929, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	766.91	766.74	767.13	767.55	767.69	768.22	767.47	768.36	767.91	767.76	768.65	767.99
10	766.86	766.70	768.01	767.41	767.55	768.08	767.43	768.28	767.74	767.52	768.30	767.92
15	766.80	766.64	768.10	767.32	767.65	767.88	768.21	768.99	768.36	767.37	768.10	767.79
20	766.79	766.59	767.89	767.24	768.32	767.76	768.38	768.66	768.26	767.22	767.88	767.70
25	766.76	766.56	767.76	767.23	768.37	767.60	768.58	768.28	768.12	767.21	767.74	767.56
EOM	766.78	766.59	767.64	767.61	768.35	767.49	768.61	768.10	767.87	769.03	767.99	767.88
LOW	766.76	766.55	766.60	767.22	767.55	767.48	767.42	768.07	767.70	767.20	767.72	767.56
HIGH	766.95	766.78	768.14	767.64	768.38	768.33	768.61	769.02	768.46	769.28	768.95	768.06

WTR YR 1981 HIGH 769.28 JUL 29 LOW 766.55 NOV 26

ST. JOSEPH COUNTY

413257086211027. Local number, SJ 27.

LOCATION.--Lat 41°32'57", long 86°21'10", in NW¼NE¼NE¼ sec.25, T.36 N., R.1 E., St. Joseph County, Hydrologic Unit 07120001, in Porter Cemetery, 4.3 mi (6.9 km) northwest of Lakeville.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 1.5 in (38 mm).
Instrumentation: Water-stage recorder.

DATUM.--Datum is 766.60 ft (233.660 m) National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--September 1975 to current year. Fragmentary record prior to May 1976 available in district files.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 765.40 ft (233.294 m) National Geodetic Vertical Datum of 1929, May 10, 1976; lowest, 759.26 ft (231.422 m) National Geodetic Vertical Datum of 1929, Aug. 28, 1977.

MEAN WATER LEVEL, IN FEET, NATIONAL GEODETIC VERTICAL DATUM OF 1929, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	760.17	760.22	760.55	760.71	760.80	761.26	760.89	761.51	761.00	760.64	761.15	760.77
10	760.15	760.18	761.40	760.68	760.72	761.13	760.94	761.91	760.78	760.40	760.92	760.62
15	760.12	760.16	761.03	760.63	760.78	761.03	762.02	762.38	761.90	760.28	760.77	760.45
20	760.15	760.15	760.88	760.55	762.07	760.96	761.75	761.66	761.20	760.24	760.55	760.38
25	760.15	760.13	760.80	760.53	761.49	760.88	761.84	761.31	761.03	760.12	760.39	760.28
EOM	760.24	760.18	760.75	760.74	761.41	760.86	761.95	761.25	760.80	761.73	760.74	760.60
LOW	760.12	760.13	760.20	760.51	760.71	760.85	760.83	761.15	760.73	760.12	760.37	760.28
HIGH	760.25	760.24	761.66	760.76	762.33	761.39	762.29	763.04	762.15	762.97	761.62	760.83

WTR YR 1981 HIGH 763.04 MAY 11 LOW 760.12 MANY DAYS IN OCTOBER AND JULY

ST. JOSEPH COUNTY

413255086211228. Local number, SJ 28.

LOCATION.--Lat 41°32'55", long 86°21'12", in NW¼NE¼NE¼ sec.25, T.36 N., R.1 E., St. Joseph County, Hydrologic Unit 07120001, in Porter Cemetery, 4.3 mi (6.9 km) northwest of Lakeville.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 1.5 in (38 mm).
Instrumentation: Water-stage recorder.

DATUM.--Land-surface datum is 770.58 ft (234.873 m) National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--Sept. 1975 to current year. Fragmentary record prior to May 1976 available in district files.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 761.26 ft (232.032 m) National Geodetic Vertical Datum of 1929, July 28, 29, 1981; lowest, 755.30 ft (230.215 m) National Geodetic Vertical Datum of 1929, Aug. 25, 1976.

MEAN WATER LEVEL, IN FEET, NATIONAL GEODETIC VERTICAL DATUM OF 1929, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	759.38	759.22	759.44	759.44	759.55	759.94	759.59	760.18	759.90	759.79	760.52	760.00
10	759.28	759.15	760.03	759.41	759.50	759.81	759.64	760.35	759.83	759.57	760.27	759.85
15	759.24	759.16	759.81	759.41	759.60	759.75	760.18	760.84	760.52	759.48	760.11	759.65
20	759.37	759.14	759.60	759.39	760.35	759.66	760.23	760.42	760.23	759.46	759.90	759.58
25	759.29	759.12	759.55	759.41	760.07	759.57	760.36	760.22	760.12	759.37	759.77	759.45
EOM	759.26	759.26	759.58	759.57	760.01	759.56	760.39	760.13	759.90	760.91	760.11	759.96
LOW	759.20	759.11	759.28	759.37	759.46	759.56	759.52	760.02	759.76	759.37	759.75	759.45
HIGH	759.41	759.28	760.04	759.61	760.38	759.99	760.47	760.86	760.53	761.26	760.83	760.11

WTR YR 1981 HIGH 761.26 JUL 28, 29 LOW 759.11 NOV 11, 12, 26

ST. JOSEPH COUNTY

413257086211229. Local number, SJ 29.

LOCATION.--Lat 41°32'57", long 86°21'12", in NW¼NE¼NE¼ sec.25, T.36 N., R.1 E., St. Joseph County, Hydrologic Unit 07120001, in Porter Cemetery, 4.3 mi (6.9 km) northwest of Lakeville.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 1.5 in (38 mm).
Instrumentation: Water-stage recorder.

DATUM.--Land-surface datum is 767.54 ft (233.946 m) National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--Sept. 1975 to current year. Fragmentary record prior to May 1976 available in district files.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 762.02 ft (232.264 m) National Geodetic Vertical Datum of 1929, Apr. 9, 10, 1978; lowest, 754.31 ft (229.914 m) National Geodetic Vertical Datum of 1929, Oct. 1, 14, 15, 17, 18, Nov. 16, 20, 23, 1977.

MEAN WATER LEVEL, IN FEET, NATIONAL GEODETIC VERTICAL DATUM OF 1929, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	758.71	758.61	758.65	759.23	759.26	760.26	759.66	760.89	760.48	759.92	761.00	759.80
10	758.72	758.54	759.06	759.17	759.24	760.10	759.60	760.90	760.20	759.56	760.71	759.64
15	758.66	758.53	759.32	759.15	759.26	760.03	760.10	761.52	760.58	759.35	760.43	759.41
20	758.72	758.52	759.27	759.11	760.14	759.92	760.49	761.26	760.56	759.24	760.04	759.29
25	758.69	758.48	759.30	759.09	760.27	759.76	760.78	761.01	760.44	759.14	759.81	759.14
EOM	758.66	758.59	759.36	759.19	760.36	759.71	760.96	760.76	760.14	761.27	759.97	759.37
LOW	758.61	758.47	758.57	759.08	759.21	759.68	759.55	760.64	760.08	759.13	759.78	759.12
HIGH	758.76	758.69	759.42	759.35	760.38	760.35	760.97	761.54	760.72	761.28	761.26	759.97

WTR YR 1981 HIGH 761.54 MAY 15 LOW 758.47 NOV 26

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 (6.6 km) southeast of New Carlisle.
Owner: U.S. Geological Survey

AQUIFER.--Sand of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 5 in (127 mm), depth 87.5 ft (26.7 m), cased to 83.3 ft (25.4 m) screened to 87.5 ft (26.7 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 737 ft (225 m). Measuring point: Top of floor of shelter 3.20 ft (0.98 m) above land-surface datum.

PERIOD OF RECORD.--May 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.71 ft (1.13 m) below land surface datum June 16, 1981; lowest 8.64 ft (2.63 m) below land surface datum, August 31, 1980.

MEAN WATER LEVEL, IN FEET, NATIONAL GEODETIC VERTICAL DATUM OF 1929, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.03	8.02	8.43	7.88	8.37	5.92	7.20	6.23	5.20	4.83	6.28	7.52
10	7.60	8.13	7.91	8.05	8.36	6.13	7.28	5.68	5.29	5.15	6.50	7.61
15	7.60	8.23	7.37	8.12	----	6.20	6.81	5.17	3.74	5.44	6.67	7.75
20	7.70	8.31	7.54	8.22	----	6.51	6.63	5.14	3.96	5.71	6.99	7.84
25	7.77	8.40	7.58	8.28	5.81	6.72	6.43	5.35	4.27	6.00	7.28	7.96
EOM	7.91	8.44	7.67	8.31	5.78	6.91	6.24	5.13	4.56	6.07	7.40	7.76
LOW	8.13	8.46	8.51	8.38	8.47	7.00	7.41	6.39	5.38	6.11	7.43	7.98
HIGH	7.59	7.93	7.33	7.76	5.70	5.81	6.24	5.09	3.71	4.62	6.11	7.41

WTR YR 1981 HIGH 3.71 JUN 16 LOW 8.51 DEC 3

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 (4.8 km) south of Carrollton.
Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Devonian Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 150 ft (46 m), cased to 128 ft (39 m), open end.
Instrumentation: Water-stage recorder.

DATUM.--Land-surface datum is 816.10 ft (248.747 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter 3.00 ft (0.91 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.90 ft (4.85 m) below land-surface datum, May 27, 1968; lowest, 22.65 ft (6.91 m) below land-surface datum, Feb. 7, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.71	21.08	21.30	21.59	21.82	20.41	20.72	18.99	17.34	19.45	19.90	20.74
10	20.71	21.23	21.35	21.72	21.61	20.23	20.66	18.77	18.09	19.67	20.14	20.82
15	20.83	21.24	21.22	21.66	21.29	20.28	19.72	18.66	18.44	19.79	20.19	20.92
20	20.88	21.28	21.54	21.71	20.43	20.51	19.69	17.93	18.81	19.76	20.44	20.96
25	20.87	21.42	21.48	21.73	20.42	20.76	19.12	17.74	19.12	19.93	20.63	21.13
EOM	21.01	21.24	21.39	21.80	20.38	20.69	19.04	16.44	19.37	19.72	20.64	21.17
LOW	21.09	21.47	21.58	21.98	21.92	20.86	20.85	19.07	19.42	20.03	20.71	21.29
HIGH	20.49	20.99	21.22	21.42	20.21	20.21	19.04	16.44	16.55	19.40	19.75	20.61

WTR YR 1981 HIGH 16.44 MAY 31 LOW 21.98 JAN 30

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, 5.0 mi (8.0 km) south of Knox.
Owner: Samuel A. Craigmile.

AQUIFER.--Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 85 ft (26 m), cased to 77 ft (23 m), screened to.85 ft (26 m).
Instrumentation: Water-stage recorder.

DATUM.--Datum is 712.97 ft (217.313 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter 3.00 ft (0.91 m) 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 (0.25 m) below land surface datum, June 17, 1949; lowest, 6.99 ft (2.13 m) below land-surface datum, Aug. 2, 1939.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.66	5.73	5.53	5.40	5.49	4.68	5.32	4.25	4.35	4.16	4.46	4.78
10	5.73	5.81	4.69	5.51	5.40	4.89	5.31	3.32	4.01	4.49	4.74	4.95
15	5.78	5.80	4.90	5.55	5.37	4.97	3.21	2.71	2.13	4.72	4.85	5.14
20	5.63	5.84	5.14	5.59	4.61	5.13	3.61	3.62	3.19	4.01	5.06	5.19
25	5.69	5.90	5.24	5.59	4.60	5.23	3.86	3.97	3.21	4.35	5.17	5.32
EOM	5.65	5.77	5.29	5.49	4.62	5.28	3.78	4.06	3.88	4.01	4.74	5.00
LOW	5.80	5.90	5.76	5.62	5.60	5.31	5.38	4.44	4.48	4.86	5.20	5.34
HIGH	5.56	5.67	4.67	5.33	4.55	4.65	3.21	2.71	2.09	3.66	4.14	4.72

WTR YR 1981 HIGH 2.09 JUN 14 LOW 5.90 NOV 24-26

STARKE COUNTY

411419086340401. Local number, SK 12.

LOCATION.--Lat 41°14'19", long 86°34'04", in NW¼SE¼NE¼ sec.7, T.32 N., R.1 W., Starke County, Hydrologic Unit 07120001, in the Bass Lake State Fish Hatcheries on the northeast shore of the lake, about 5.0 mi (8.0 km) southeast of Knox.
Owner: State of Indiana.

AQUIFER.--Sand of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 1.5 in (38 mm), depth 17 ft (5.2 m), cased to 15 ft (4.6 m), screened to 17 ft (5.2 m).
Instrumentation: Water-stage recorder.

DATUM.--Datum is 717.02 ft (218.548 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter 2.30 ft (0.70 m) above land-surface datum.

PERIOD OF RECORD.--May 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.34 ft (0.10 m) below land surface datum, June 13, 14, 1981; lowest, 3.31 ft (1.01 m) below land-surface datum, Jan. 12, 13, 1978.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.72	2.82	2.63	2.73	2.88	2.65	2.81	2.33	1.27	1.40	1.38	1.31
10	2.54	2.97	2.24	2.76	2.62	2.76	2.75	1.27	1.10	1.56	1.51	1.39
15	2.63	2.82	2.65	2.73	2.64	2.89	1.40	.81	.58	1.72	1.58	1.65
20	2.56	2.93	2.82	2.73	2.29	2.95	2.49	1.19	1.08	1.16	1.69	1.68
25	2.69	2.87	2.81	2.59	2.39	2.98	2.25	1.25	1.04	1.41	1.61	1.98
EOM	2.69	2.63	2.68	2.57	2.61	2.91	2.16	1.15	1.25	1.24	1.37	2.01
LOW	2.75	3.01	2.96	2.77	3.02	2.99	3.07	2.34	1.40	1.78	1.73	2.22
HIGH	2.36	2.63	1.86	2.48	2.14	2.63	1.31	.81	.34	1.05	1.27	1.27

WTR YR 1981 HIGH .34 JUN 13, 14 LOW 3.07 APR 2

STARKE COUNTY

411255086364501. Local number, SK 13.

LOCATION.--Lat 41°12'55", long 86°36'45", in NE¼NE¼NW¼ sec.23, T.32 N., R.2 W., Starke County, Hydrologic Unit 07120001, on state property in the public parking area at the west end of Bass Lake, at Bass Lake.
Owner: State of Indiana.

AQUIFER.--Sand of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 1.5 in (38 mm), depth 13 ft (4.0 m), cased to 11 ft (3.4 m), screened to 13 ft (4.0 m).
Instrumentation: Water-stage recorder.

DATUM.--Datum is 714.07 ft (217.649 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter 2.20 ft (0.67 m) above land-surface datum.

PERIOD OF RECORD.--May 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.77 ft (0.23 m) below land-surface datum, June 12, 1981; lowest, 3.40 ft (1.03 m) below land-surface datum, Sept. 11, 12, 1978.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.69	2.64	2.29	2.53	2.58	2.31	2.43	2.15	1.81		---	1.96
10	2.72	2.69	1.97	2.58	2.30	2.43	2.46	1.34	1.72		---	2.09
15	2.65	2.58	2.26	2.61	2.38	2.45	1.67	1.24	---		---	2.25
20	2.47	2.67	2.45	2.61	2.12	2.48	1.87	1.83	---		---	2.20
25	2.54	2.72	2.46	2.43	2.16	2.56	1.96	1.73	---		2.45	2.40
EOM	2.52	2.49	2.49	2.46	2.23	2.55	1.86	1.72	---		1.99	1.79
LOW	2.73	2.73	2.49	2.62	2.69	2.59	2.63	2.25	2.06		2.45	2.40
HIGH	2.31	2.49	1.67	2.34	2.11	2.23	1.20	1.23	.77		1.52	1.77

WTR YR 1981 HIGH .77 JUN 12 LOW 2.73 OCT 10-13, NOV 26, 27

STARKE COUNTY

411225086353901. Local number, SK 14

LOCATION.--Lat 41°12'25", long 86°35'39", in NE¼NE¼SW¼ sec.24, T.32 N., R.2 W., Starke County, Hydrologic Unit 07120001, in southeast corner of intersection of State Highway 10 and Beach Street in Bass Lake.
Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water table well, diameter 2 in (51 mm) depth 24 ft (7.3 m) cased to 21 ft (6.4 m) screened to 24 ft (7.3 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 717 ft (219 m). Measuring point: Top of floor of shelter 3.10 ft (0.94 m) above land-surface datum.

PERIOD OF RECORD.--November 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.21 ft (0.06 m) below land-surface datum, June 13, 1981; lowest, 4.59 ft (1.40 m) below land-surface datum, Dec. 8, 1978.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.26	3.25	2.95	3.06	3.07	2.59	2.98	2.33	2.29	2.43	2.66	2.77
10	3.37	3.32	2.31	3.13	2.64	2.74	2.97	.94	2.19	2.69	2.84	2.93
15	3.35	3.26	2.69	3.16	2.79	2.86	1.09	.78	.44	2.73	2.69	3.07
20	3.18	3.32	2.88	3.17	2.31	2.92	1.92	2.02	1.49	1.56	3.05	3.03
25	3.24	3.36	2.97	2.94	2.44	3.01	2.16	2.10	1.71	2.53	3.14	3.18
EOM	3.16	3.08	2.99	3.02	2.55	3.02	2.03	2.10	2.34	2.34	2.73	2.50
LOW	3.41	3.37	3.08	3.17	3.18	3.06	3.11	2.49	2.64	2.98	3.20	3.18
HIGH	3.04	3.08	1.83	2.84	2.30	2.55	.45	.78	.21	1.56	2.18	2.43

WTR YR 1981 HIGH .21 JUN 13 LOW 3.41 OCT 10-13

STEUBEN COUNTY

414109085025701. Local number, SB 5.

LOCATION.--Lat 41°41'09", long 85°02'57", in NE¼NE¼NE¼ sec.8, T.37 N., R.13 E., Steuben County, Hydrologic Unit 04050001, 300 ft (91 m) west of the intersection of County Roads 300 West and 300 North, 0.5 mile (0.8 km) north of Crooked Lake, and 0.9 mile (1.4 km) south of channel between Lake James and Jimmerson Lake, and 4.5 miles (7.2 km) northwest of Angola, Indiana.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 5 in (127 mm), depth 109 ft (23.2 m), cased to 103 ft (31.4 m), screened to 109 ft (23.2 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 1,035 ft (315 m). Measuring point: Top of floor of shelter 3.50 ft (1.07 m) above land-surface datum.

PERIOD OF RECORD.--June 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 58.60 ft (17.86 m) below land-surface datum, Aug. 15, 1981; lowest, 62.82 ft (19.15 m) below land-surface datum, Feb. 18-20, Mar. 1, 2, 1980.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	60.77	60.98	61.26	61.42	61.67	61.39	61.07		-----	58.95	58.69	58.76
10	60.79	61.04	61.25	61.48	61.64	61.35	-----		-----	58.88	58.69	58.79
15	60.83	61.08	61.28	61.46	61.76	61.28	-----		-----	58.84	58.60	58.81
20	60.83	61.14	61.38	61.51	61.59	61.25	-----		-----	58.77	58.70	58.84
25	60.85	61.20	61.39	61.51	61.47	61.24	-----		-----	58.78	58.74	58.94
EOM	60.94	61.21	61.36	61.59	61.44	61.12	-----		59.07	58.74	58.72	58.93
LOW	60.96	61.22	61.41	61.62	61.76	61.44	61.12		59.08	59.07	58.75	58.97
HIGH	60.68	60.95	61.21	61.37	61.44	61.11	61.06		59.07	58.73	58.60	58.71

WTR YR 1981 HIGH 58.60 AUG 15 LOW 61.76 FEB 14, 15

TIPPECANOE COUNTY

402543086533401. Local number, TC 4.

LOCATION.--Lat 40°25'43", long 86°53'34", in NE¼SW¼NE¼ sec.20, T.23 N., R.4 W., Tippecanoe County, Hydrologic Unit 05120108, on flood plain of Wabash River, in the Lafayette Water Department well field at North Canal and Tippecanoe Streets in Lafayette.
Owner: Lafayette Water Department.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 12 in (305 mm), depth 97 ft (30 m).
Instrumentation: Water-stage recorder.

DATUM.--Datum is 520.9 ft (158.8 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter 15.43 ft (4.70 m) above land-surface datum.

REMARKS.--Water level affected by Wabash River floods and by pumpage from municipal supply well field.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.50 ft (2.29 m) above land-surface datum, Apr. 2, 1980; lowest, 40.14 ft (12.23 m) below land-surface datum, Aug. 4, 1944.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.69		-----	22.70	23.41	19.33	22.92	20.04	19.29	16.82	16.45	14.64
10	16.72		-----	20.45	22.15	19.35	24.42	17.04	17.57	18.15	19.83	15.88
15	17.40		20.26	21.99	23.70	21.81	18.81	14.16	12.88	15.43	17.76	16.27
20	-----		20.70	23.14	17.40	21.63	17.66	13.86	10.70	16.54	18.50	15.28
25	-----		18.96	23.59	17.02	22.76	19.52	14.68	14.58	18.09	20.83	17.23
EOM	-----		22.15	23.79	18.41	22.00	18.94	17.04	18.43	16.86	14.33	16.33
LOW	25.20		27.24	28.53	29.27	29.19	30.22	26.38	26.07	26.20	26.10	25.37
HIGH	16.64		18.51	19.95	15.87	17.29	16.92	8.80	10.70	14.04	14.33	13.43

WTR YR 1981 HIGH 8.80 MAY 17 LOW 30.22 APR 11

TIPPECANOE COUNTY

402603086535101. Local number, TC 8.

LOCATION.--Lat 40°26'03", long 86°53'51", in NE¼SE¼SW¼ sec.17, T.23 N., R.4 W., Tippecanoe County, Hydrologic Unit 05120108, on the right bank of the Wabash River in West Lafayette.
Owner: West Lafayette Water Company.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 12 in (305 mm), depth 84 ft (26 m).
Instrumentation: Water-stage recorder.

DATUM.--Datum is 528.80 ft (161.178 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter 13.54 ft (4.13 m) above land-surface datum.

REMARKS.--Water level affected by Wabash River floods and by pumpage from municipal supply wells.

PERIOD OF RECORD.--November 1945 to December 1949, February 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.06 ft (0.93 m) below land-surface datum, Feb. 3, 1949; lowest, 39.9 ft (12.16 m) below land-surface datum, Sept. 16, 1967.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.99	23.10	-----	22.92	23.06	20.50	22.99	19.77		-----	20.59	18.77
10	23.44	23.14	23.11	23.11	23.04	20.82	23.08	19.07		-----	20.35	19.76
15	23.25	-----	22.88	23.24	22.91	21.08	20.26	-----		17.40	21.48	20.40
20	23.15	-----	23.04	23.36	19.94	21.93	18.66	-----		18.21	21.59	20.09
25	23.39	-----	22.38	23.41	19.57	22.61	20.14	15.93		18.52	23.03	20.85
EOM	23.23	-----	22.62	23.26	19.61	22.61	20.30	-----		19.20	19.32	20.74
LOW	24.96	24.77	24.26	24.81	24.43	24.76	24.55	21.90		20.88	24.42	23.21
HIGH	22.86	23.09	22.13	22.58	19.17	19.54	18.42	15.46		17.40	19.32	18.38

WTR YR 1981 HIGH 15.46 MAY 22 LOW 24.96 OCT 23

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 H armony Roads, 1.0 mi (16.km)southwest of Armstrong.
Owner: U.S. Geological Survey.

AQUIFER.--Sandstone of Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 125 ft (38 m), cased to 80 ft (24 m), open end.
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 447 ft (136 m). Measuring point: Top of floor of shelter 3.47 ft (1.06 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.88 ft (7.58 m) below land-surface datum, Apr. 3, 4, 1968; lowest, 33.36 ft (10.17 m) below land-surface datum, Feb. 12, 13, 1981.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	32.53	32.63	32.72	33.15	33.01	32.59	32.70	33.07	32.23	32.68	32.76	33.11
10	32.45	32.69	32.74	---	32.65	32.88	32.74	32.75	32.29	32.75	32.61	32.97
15	32.75	32.73	32.62	32.98	33.20	32.66	33.03	32.58	32.59	32.76	32.55	32.91
20	32.57	32.71	33.00	32.93	32.92	32.61	32.89	32.53	32.67	32.55	32.68	33.05
25	32.33	32.82	32.99	32.83	32.94	32.76	32.81	32.41	32.74	32.67	32.87	33.08
EOM	32.67	32.57	32.75	32.92	32.88	32.61	33.00	32.23	32.96	32.71	32.72	33.08
LOW	32.93	32.92	33.16	33.29	33.38	33.06	33.17	33.20	33.08	33.02	33.02	33.36
HIGH	32.29	32.44	32.59	32.81	32.65	32.44	32.49	32.09	32.16	32.54	32.47	32.63

WTR YR 1981 HIGH 32.09 MAY 27 LOW 33.38 FEB 12, 13

VIGO COUNTY

393201087232101. Local number, VI 6.

LOCATION.--Lat 39°32'01", long 87°23'21", in NE¼NE¼NE¼ sec.34, T.13 N., R.9 W., Vigo County, Hydrologic Unit 05120111, on property of Anaconda Industries, at the north edge of Terre Haute.
Owner: Anaconda Industries.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 138 ft (42.1 m), cased to 137 ft (41.7 m), with perforated pipe.
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 511 ft (156 m). Measuring point: Top of floor of shelter 3.47 ft (1.06 m) above land-surface datum.

PERIOD OF RECORD.--April 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 42.43 ft (12.93 m) below land-surface datum, June 28, 1958; lowest, 52.25 ft (15.93 m) below land-surface datum, Nov. 15-25, 1966.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.07	48.48	49.04	49.32	49.81	49.91	49.63	49.23	45.60	45.54	46.32	46.90
10	48.11	48.58	49.14	49.38	49.85	49.88	49.62	49.04	45.52	45.58	46.44	46.90
15	48.17	48.69	49.21	49.43	49.88	49.84	49.61	48.74	45.50	45.66	46.51	46.88
20	48.25	48.80	49.25	49.48	49.91	49.77	49.58	47.99	45.50	45.81	46.59	46.86
25	48.32	48.90	49.29	49.55	49.93	49.71	49.53	46.72	45.50	45.98	46.65	46.86
EOM	48.41	48.98	49.30	49.63	49.93	49.66	49.42	45.86	45.52	46.19	46.81	46.86
LOW	48.42	48.99	49.30	49.67	49.93	49.93	49.65	49.42	45.86	46.21	46.84	46.90
HIGH	48.02	48.42	48.99	49.30	49.67	49.66	49.42	45.86	45.50	45.52	46.21	46.84

WTR YR 1981 HIGH 45.50 JUN 12-26 LOW 49.93 FEB 23-MAR 3

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 (152 mm), depth 70 ft (21.3 m), cased to 67 ft (20.4 m), screened to 70 ft (21.3 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 502 ft (153 m). Measuring point: Top of floor of shelter 3.00 ft (0.91 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 41.80 ft (12.74 m) below land-surface datum, June 7, 1974; lowest, 51.90 ft (15.82 m) below land-surface datum, Sept. 29 to Oct. 1, 1972 .

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	-----	48.16	48.66	48.93	48.89	48.76	48.71	48.82	46.45	46.53	46.81	46.87
10	-----	48.24	48.79	48.98	48.88	48.58	48.84	48.73	46.50	46.59	46.84	46.61
15	-----	48.32	48.83	48.94	48.92	48.45	48.95	48.51	46.60	46.60	46.90	46.57
20	-----	48.36	48.84	48.92	48.97	48.41	49.01	47.88	46.60	46.64	46.94	46.54
25	-----	48.44	48.86	48.90	48.96	48.45	48.87	47.04	46.52	46.66	46.95	46.55
EOM	48.09	48.53	48.89	48.89	48.92	48.57	48.86	46.52	46.48	46.75	47.03	46.60
LOW	48.10	48.54	48.90	48.98	48.98	48.92	49.03	48.89	46.63	46.77	47.05	47.03
HIGH	48.05	48.10	48.54	48.89	48.88	48.41	48.60	46.52	46.45	46.48	46.76	46.54

WTR YR 1981 HIGH 46.45 JUN 3-5 LOW 49.03 APR 18, 19

VIGO COUNTY

391646087164001. Local number, VI 8.

LOCATION.--Lat 39°16'46", long 87°16'40", in SE¼NE¼SE¼ sec.27, T.10 N., R.8 W., Vigo County, Hydrologic Unit 05120111, 20 ft (6 m) west of County Road 72 East and 1.7 miles (2.7 km) northwest of Lewis.
Owner: U.S. Geological Survey.

AQUIFER.--Sandstone of Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 180 ft (55 m), cased to 40 ft (12 m), open hole.
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 611 ft (186 m). Measuring point: Top of floor of shelter 2.50 ft (0.82 m) above land-surface datum.

PERIOD OF RECORD.--October 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 77.87 ft (23.73 m) below land-surface datum, June 25, 1979; lowest, 79.83 ft (24.33 m) below land-surface datum, Sep 23, 24, 28, 1981.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	79.56	79.42	79.33	-----	79.15	78.62	78.84	78.86	78.68	78.80	79.17	79.46
10	79.37	79.47	79.33	-----	78.74	78.93	78.90	78.68	78.56	78.97	79.28	79.46
15	79.49	79.50	79.20	-----	79.16	78.66	79.16	78.72	78.75	78.94	79.19	79.47
20	79.41	79.47	-----	79.12	78.88	78.70	78.96	78.85	78.75	78.90	79.35	79.52
25	79.40	79.60	-----	78.92	78.92	78.93	78.86	78.74	78.83	79.11	79.44	79.64
EOM	79.48	79.23	-----	79.08	78.84	78.76	78.77	78.71	78.88	79.21	79.35	79.60
LOW	79.61	79.62	79.54	79.39	79.41	79.06	79.26	79.02	79.01	79.31	79.54	79.83
HIGH	79.31	79.17	79.05	78.92	78.67	78.60	78.66	78.63	78.56	78.79	79.09	79.31

WTR YR 1981 HIGH 78.56 JUN 10 LOW 79.83 SEP 23, 24, 28

WAYNE COUNTY

394426085080601. Local number, WE 6.

LOCATION.--Lat 39°44'26", long 85°08'06", in SE¼NW¼NE¼ sec.24, T.15 N., R.12 E., Wayne County, Hydrologic Unit 05080003, on county right of way 750 ft (229 m) east of State Highway 1 on Inter-state Road, 4.0 mi (6.4 km) 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 (152 mm), depth 49 ft (15 m), cased to 47 ft (14 m), screened to 49 ft (15 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 888 ft (271 m). Measuring point: Top of collar in shelter 3.60 ft (1.10 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.07 ft (3.07 m) below land-surface datum, Aug. 3, 1979; lowest, 21.68 ft (6.61 m) below land-surface datum, Feb. 1, 1977.

REVISIONS.--The highest water level for water year 1980 has been revised to 11.60 ft (3.54 m), July 11.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.66	15.99	16.92	17.59	18.31	16.73	16.47	-----			-----	16.83
10	14.91	16.16	17.02	17.73	18.15	16.72	16.08	-----			15.93	16.95
15	15.15	16.33	17.11	17.88	17.32	16.77	15.72	-----			16.10	17.08
20	15.37	16.50	17.19	18.03	16.68	16.86	15.48	-----			16.28	17.21
25	15.58	16.66	17.30	18.17	16.70	16.98	15.38	-----	14.05		16.47	17.35
EOM	15.81	16.80	17.46	18.29	16.70	17.11	15.39	-----			16.69	17.49
LOW	15.82	16.81	17.47	18.30	18.36	17.12	17.16	15.45			16.70	17.50
HIGH	14.46	15.84	16.82	17.49	16.67	16.70	15.38	15.42			15.81	16.72

WTR YR 1981 HIGH 14.46 OCT 1 LOW 18.36 FEB 10

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, 0.75 mi (1.2 km) north of Laud.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (152 mm), depth 191 ft (58 m), cased to 187 ft (57 m), screened to 191 ft (58 m).
Instrumentation: Water-stage recorder.

DATUM.--Altitude of land-surface datum is 870 ft (265 m). Measuring point: Top of floor of shelter 2.68 ft (0.82 m) 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 (15.03 m) below land-surface datum, Mar. 27, 1976; lowest, 52.67 ft (16.05 m) below land-surface datum, Mar. 15, 1979.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	51.80	51.77	51.95	52.00	52.05	51.71	51.85	51.48	51.16	51.00	51.23	51.38
10	51.59	51.93	51.90	52.08	51.68	51.87	51.77	51.31	51.12	51.20	51.28	51.35
15	51.69	51.92	51.80	51.92	52.13	51.61	52.01	51.20	51.16	51.21	51.28	51.43
20	51.66	51.92	52.23	51.98	51.96	51.70	51.85	51.33	51.04	51.03	51.41	51.38
25	51.62	52.06	52.01	51.74	51.98	51.88	51.58	51.18	51.03	51.21	51.49	51.50
EOM	51.74	51.75	51.72	51.97	51.82	51.71	51.46	51.17	51.12	51.33	51.30	51.34
LOW	51.91	52.09	52.29	52.28	52.32	52.01	52.08	51.59	51.29	51.39	51.55	51.66
HIGH	51.54	51.54	51.72	51.74	51.68	51.58	51.37	51.11	50.91	51.00	51.08	51.26

WTR YR 1981 HIGH 50.91 JUN 21 LOW 52.32 FEB 12, 13

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CALENDAR FOR WATER YEAR 1981

1980

OCTOBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

NOVEMBER

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

DECEMBER

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

1981

JANUARY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

FEBRUARY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

MARCH

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

APRIL

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

MAY

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

JUNE

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

JULY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

AUGUST

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

SEPTEMBER

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			