# 1970

# Water Resources Data for Indiana

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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

# CALENDAR FOR WATER YEAR 1970

## OCTOBER 1969

| 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 |
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## NOVEMBER 1969

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## DECEMBER 1969

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## JANUARY 1970

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## FEBRUARY 1970

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## MARCH 1970

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## APRIL 1970

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## MAY 1970

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| 31 | | | | | | |

## JUNE 1970

| S | M | T | W | T | F | S |
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## JULY 1970

| S | M | T | W | T | F | S |
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## AUGUST 1970

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## SEPTEMBER 1970

| S | M | T | W | T | F | S |
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| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | | | |

Prepared in cooperation with

Indiana Department of Natural Resources
Indiana State Board of Health
Indiana State Highway Commission
Corps of Engineers, U. S. Army

Copies of this report may be obtained from
District Chief, Water Resources Division
U. S. Geological Survey
1819 North Meridian Street
Indianapolis, Indiana 46202

1971

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


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# WATER RESOURCES DATA FOR INDIANA, 1970

PART 1. SURFACE-WATER RECORDS
PART 2. WATER-QUALITY RECORDS

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## INTRODUCTION

Water resources data for the 1970 water year for Indiana, including records of streamflow or reservoir storage at gaging stations, partial-record stations, and miscellaneous sites, and records of water-quality data on the chemical and physical characteristics of surface-water are given in this report. Records for a few pertinent gaging and water-quality stations in bordering States also are included. The records were collected and computed by the Water Resources Division of the U.S. Geological Survey under the direction of M. D. Hale, district chief. These data represent that portion of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Indiana.

Through September 30, 1960, the records of discharge and stage of streams and canals and contents and stage of lakes or reservoirs were published in an annual series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States."

Beginning with the 1961 water year, surface-water records have been released by the Geological Survey in annual reports on a State-boundary basis. Distribution of these reports is limited; they are designed primarily for rapid release of data shortly after the end of the water year to meet local needs. The discharge and reservoir storage records for 1961-65 also will be published in a Geological Survey water-supply paper series entitled "Surface Water Supply of the United States 1961-65."

Through September 30, 1965, water-quality records which contain data for chemical quality, temperature, and suspended sediment were published in an annual review of U.S. Geological Survey water-supply papers entitled, "Quality of Surface Waters of the United States." Beginning with the 1964 water year, water-quality records have been released by the Geological Survey in annual reports on a State-boundary basis. Distribution of these reports is limited; they are designed primarily for rapid release of data shortly after the end of the water year to meet local needs. These records will be published later in Geological Survey water-supply papers.

## COOPERATION

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

State Department of Natural Resources, J. R. Lloyd, director, through Bureau of Water and Mineral Resources, W. J. Andrews, deputy director.

State Board of Health, A. C. Offutt, commissioner, and B. A. Poole, Assistant Commissioner for Environmental Health.

State Highway Commission, R. W. Steele, chairman, R. H. Harrell, executive director, and F. L. Ashbaucher, chief engineer.

Ohio River Valley Water Sanitation Commission, R. K. Horton, executive director and chief engineer.

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army, in collecting records for 67 gaging stations published in this report. The following organizations aided in collecting records:

The city of Indianapolis, through its Board of Public Works and Sanitation and its Flood Control Board; cities of Anderson, Bloomington, Muncie, North Vernon, Richmond, and Jasper; Indianapolis Water Co.; Indianapolis Power and Light Co.; Public Service Co. of Indiana; Container Corporation of America; Continental Steel Co.; city of Ft. Wayne Filtration Plant; Indiana and Michigan Electric Co.; Sanitary District of Chicago; and city of Hammond.

## DEFINITION OF TERMS

The terms related to streamflow, water quality and other hydrologic data, as used in this report, are defined as follows:

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 325,851 gallons.

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

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.9835 acre-feet, or 646,317 gallons, and represents a runoff of 0.0372 inch from 1 square mile.

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

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

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

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

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

Mean discharge is the arithmetic mean 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 (cfs)."

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

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

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only to these gaging stations where a continuous record of discharge is obtained.

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 ($CaCO_3$).

Micrograms per liter (,ug/l,UG/L) is a more precise unit for expressing the concentration of chemical constituents in solution. One thousand micrograms per liter is equivalent to one milligram per liter. See below.

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 gramequivalent weight of a constituent) per liter by multiplying by the factors in table1, page 5 . Concentration of suspended sediment expressed in milligrams per liter is based on the weight of sediment in a liter of water-sediment mixture. Sediment concentrations that are expressed in parts per million may be converted to milligrams per liter by using the factors in table 2, page 5 .

Partial-record station is a particular site where limited streamflow 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 sieve and sedimentation methods.

Particle size classification, used in this report agrees closely with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology (Lane and others, 1947, p. 937). The classification is as follows:

| | |
|---|---|
| Clay: | Smaller than 0.004 mm. |
| Silt: | Between 0.004 and 0.062 mm. |
| Sand: | Between 0.062 and 2.0 mm. |
| Gravel: | Between 2.0 and 64.0 mm. |

The particle size distributions given in this report are not necessarily representative of the particle sizes of sediment in transport in the natural stream. Most of the organic matter is removed and the sample is subjected to mechanical and chemical dispersion before analysis of the silt and clay.

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 results by 1,000.

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

| Range of concentration (ppm) | Multiply by | Range of concentration (ppm) | Multiply by |
|---|---|---|---|
| 0 - 15,900 | 1.00 | 322,000 - 341,000 | 1.26 |
| 16,000 - 46,800 | 1.02 | 342,000 - 361,000 | 1.28 |
| 46,900 - 76,500 | 1.04 | 362,000 - 380,000 | 1.30 |
| 76,600 - 105,000 | 1.06 | 381,000 - 399,000 | 1.32 |
| 106,000 - 133,000 | 1.08 | 400,000 - 416,000 | 1.34 |
| 134,000 - 159,000 | 1.10 | 417,000 - 434,000 | 1.36 |
| 160,000 - 185,000 | 1.12 | 435,000 - 451,000 | 1.38 |
| 186,000 - 210,000 | 1.14 | 452,000 - 467,000 | 1.40 |
| 211,000 - 233,000 | 1.16 | 468,000 - 483,000 | 1.42 |
| 234,000 - 256,000 | 1.18 | 484,000 - 498,000 | 1.44 |
| 257,000 - 279,000 | 1.20 | 499,000 - 514,000 | 1.46 |
| 280,000 - 300,000 | 1.22 | 515,000 - 528,000 | 1.48 |
| 301,000 - 321,000 | 1.24 | 529,000 - 542,000 | 1.50 |

*Based on water density of 1.000 g/ml and sediment density of 2.65 g/cc.

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.

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

Sediment is solid material that originates mostly from disintergrated rocks and is transformed 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.

Sediment discharge 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.

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 content in the water. Commonly, the amount of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream and it may even vary in the same source with changes in the composition of the water.

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

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.

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 location of the thermograph or digital mechanism that automatically records water temperature 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 period.

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

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

## SPECIAL NETWORKS AND PROGRAMS

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

## DOWNSTREAM ORDER AND STATION NUMBERS

Records 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 list of gaging stations and water-quality stations in the front of this report the rank of tributaries is indicated by indention, each indention representing one rank.

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 continuous-record 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 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 03-3355.00, includes the part number ("03") and a 6-digit station number. In this report, the records are listed in downstream order by parts. All records for a drainage basin encompassing more than one State could be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

# PART 1. SURFACE WATER RECORDS

## Collection and Computation of Data

The base data collected at gaging stations consists 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 a water-stage recorder that gives a continuous graph of the fluctuations (for digital recorders, a tape punched at 15-, 30-, or 60-minute intervals) or from direct readings on a nonrecording gage. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in standard textbooks on the measurement of stream discharge. (See also SELECTED REFERENCES.) 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 a stream-gaging station rating tables giving the discharge for any stage are prepared from stage-discharge relation curves defined by discharge measurements. If extensions to the rating curves are necessary to define the extremes of discharge, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), velocity-area studies, and logarithmic plotting . The application of the daily mean gage heights to the rating table gives the daily mean discharge, from which the monthly and the yearly mean discharge are computed. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on 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 determining discharge. Information required for determining 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 determining 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 being 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. Discharge over spillways is computed from a stage-discharge relation curve defined by discharge measurements. The application of the stage to the capacity table 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 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 basic data. 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 or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30. A calendar for the 1970 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 or record, type and history of gages, average discharge, extremes of discharge or contents, and general remarks. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD." The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In reference to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey, unless otherwise qualified. The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. The maximum discharge (or contents) and the maximum gage height, the minimum discharge if there is little or no regulation (or the minimum contents), and the minimum gage height if it is significant are given under "EXTREMES." The minimum daily discharge is given if there is extensive regulation (also the minimum discharge and gage height if they are abnormally low). In the first paragraph headed "Current year:" the data given are for the complete current water year unless otherwise specified. In the second paragraph under "EXTREMES" headed "Period of record:" the data given are for the period of record given in the PERIOD OF RECORD paragraph. Reliable information concerning major floods that occurred outside the period of record is given in the third or last paragraph under "EXTREMES." Unless otherwise qualified, the maximum discharge (or contents) corresponds to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur at the same time as the maximum discharge or contents, it is given separately. Information pertaining to the accuracy of the discharge records, to conditions that affect the natural flow at the gaging station, and availability of Water Quality records, is given under "REMARKS"; for reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir, is also given under "REMARKS."

Previously published 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 "REVISIONS (WATER YEARS)" 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, 1933 stands for the water year October 1, 1932, to September 30, 1933. If no daily, monthly, or annual figures of discharge were revised, that 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 publised, 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 daily tables for stream-gaging stations give the discharge corresponding to the daily mean gage height unless there are large or rapid changes in the discharge during a day. For days having large or rapid changes, discharge for the day is computed by averaging the mean discharge for several parts of a day. For digital recorders, the daily mean discharge is always the average of the discharges at each punch reading. For stations equipped with nonrecording gages, the daily discharge corresponds to once-daily readings of the gage or to the mean of twice-daily readings; but for periods of rapidly changing stage the discharge is determined from a gage-height graph based on gage readings.

The monthly summary is given below the daily table. For stream gaging stations the line head "TOTAL" gives the sum of the daily figures; it is the total cubic feet per second per day for the month. 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 of cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, or if the drainage area includes large noncontributing areas.

For reservoir stations the monthly summary gives the elevation (or gage height) at the end of the month and the change in contents during the month. For reservoir stations the yearly summary gives the change in contents for the calendar year and for the water year.

In the yearly summary below the monthly summary, the figures of maximum are the maximum daily discharges for the calendar and water years; likewise, the minimums in this summary are the minimum daily discharges.

Peak discharges and their times of occurrence and corresponding gage heights for many stations are listed below the yearly summary. All independent peaks above the selected base are given. The base discharge, which in parentheses, is selected so that an average of about three peaks a year can 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 and 1:30 p.m. is 1330.

In a general footnote, introduced by the word "NOTE" certain periods are indicated for which the discharge is computed or estimated by special methods becaused 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 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. Footnotes to reservoir tables may be used to explain the use of new capacity tables or for other special conditions.

## 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 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based 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, consumptive use, regulation, evaporation, or other factors. For such stations, discharge in cubic feet per second per square mile and runoff in inches are not published unless satisfactory adjustments can be made for such effects. 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 unadjusted losses (consumptive use, evaporation, seepage, etc.) are large in comparison with the observed discharge.

## Publications

Each volume of the 1960 series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States" contains a listing of the numbers of all water-supply papers in which records of surface-water data were published for the area covered by the individual volumes. Each volume also contains a list of water-supply papers that give detailed information on major floods for the area. A new series of water-supply papers containing surface-water records for the 5-year period October 1, 1960, to September 30, 1965 also will include lists of annual and special reports published as water-supply papers.

Records through September 1950 for the area covered by this report have been compiled and published in Water-Supply Papers 1305 (3A), 1307 (4), and 1308 (5); records for October 1950 to September 1960 have been compiled and published in Water-Supply Papers 1725 (3A), 1727 (4), and 1728 (5). These reports contain summaries of monthly and annual discharge and month-end storage for all previously published records, as well as some records not contained in the 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.

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

## Other Data Available

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

The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of discharge measurements at miscellaneous sites. Data on records available on lakes in Indiana are given in a third table.

More detailed information than that published for most of the gaging stations, such as discharge measurements, gage-height records, and rating tables, is on file in the district office. Many gaging-station records in Indiana through 1966 have been analyzed to give several statistical summaries: (1) the number of days in each year that the daily discharge was between selected limits (duration tables); (2) the lowest mean discharge for selected numbers of consecutive days in each year; and (3) the highest mean discharge for selected numbers of consecutive days in each year.

## PART 2. WATER QUALITY RECORDS

### Collection and examination of data

The data in this report includes a description of the sampling station and tabultations of the samples analyzed. The description of the sampling station gives the location, drainage area, periods of record for the various water-quality data, extremes of the pertinent data, and general remarks, in a format similar to that used for streamflow gaging stations.

Data on the quality of surface water were collected from designated sampling sites (map on page 254 ) at predetermined intervals such as once daily, weekly, monthly or less frequently. Whereas at some sites it was necessary to continuously record data on a punch paper tape at 15-, 30-, or 60-minute intervals.

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 charateristics such as hardness, specific conductance, and pH. 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 furnishes 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 concentrations of suspended sediment were reported in parts per million (ppm) and water temperatures were reported in degrees Fahreheit (°F). In October

1967, the U.S. Geological Survey began to use the metric system; data for chemcial 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 millliliter), parts per millions 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 (See table 2 on page 5). To convert temperature in degrees Fahrenheit to degrees Celsius, see table 3 below.

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

| °F | °C | °F | °C | °F | °C | °F | °C |
|---|---|---|---|---|---|---|---|
| 32 | 0.0 | 50 | 10.0 | 68 | 20.0 | 86 | 30.0 |
| 33 | .5 | 51 | 10.5 | 69 | 20.5 | 87 | 30.5 |
| 34 | 1.0 | 52 | 11.0 | 70 | 21.0 | 88 | 31.0 |
| 35 | 1.5 | 53 | 11.5 | 71 | 21.5 | 89 | 31.5 |
| 36 | 2.0 | 54 | 12.0 | 72 | 22.0 | 90 | 32.0 |
| 37 | 3.0 | 55 | 13.0 | 73 | 23.0 | 91 | 33.0 |
| 38 | 3.5 | 56 | 13.5 | 74 | 23.5 | 92 | 33.5 |
| 39 | 4.0 | 57 | 14.0 | 75 | 24.0 | 93 | 34.0 |
| 40 | 4.5 | 58 | 14.5 | 76 | 24.5 | 94 | 34.5 |
| 41 | 5.0 | 59 | 15.0 | 77 | 25.0 | 95 | 35.0 |
| 42 | 5.5 | 60 | 15.5 | 78 | 25.5 | 96 | 35.5 |
| 43 | 6.0 | 61 | 16.0 | 79 | 26.0 | 97 | 36.0 |
| 44 | 6.5 | 62 | 16.5 | 80 | 26.5 | 98 | 36.5 |
| 45 | 7.0 | 63 | 17.0 | 81 | 27.0 | 99 | 37.0 |
| 46 | 8.0 | 64 | 18.0 | 82 | 28.0 | 100 | 38.0 |
| 47 | 8.5 | 65 | 18.5 | 83 | 28.5 | 101 | 38.5 |
| 48 | 9.0 | 66 | 19.0 | 84 | 29.0 | 102 | 39.0 |
| 49 | 9.5 | 67 | 19.5 | 85 | 29.5 | 103 | 39.5 |

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

In October 1968, the Geological Survey began reporting many of the chemical constituents as well as the minor elements and some pollutants, in micrograms per liter instead of milligrams per liter. (See "Definitions of Terms," p. 4).

## Solutes

The methods of collecting and analyzing water samples for determining the kinds and concentrations of solutes are described by Shougstad and Brown (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 the mixing of the stream. Some 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 constitituent measured. More detailed records (hourly values) may be obtained by writing the Water Resources District Office in Indianapolis.

## Temperature

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

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

## Sediment

At some stations, suspended-sediment samples are collected daily with depth-integrating cable-suspended samplers from fixed sampling points at one or more verticals in cross section. A hand sampler is used at many stations during periods of low flow. Depth-intergrated samples were collected periodically at many verticals in the cross section to determine the ratio of the cross-sectional distribution of the concentration of suspended sediment to the daily sampling verticals.

During periods of high or rapidly changing flow, samples were taken twice or more often throughout the day at most stations. For periods when no samples were collected, daily loads of suspended sediment were estimated

on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

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

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

## Publications

Table 4 (below) shows the annual series of water-supply papers that give information on quality of surface waters in Indiana. Data for the Ohio River Basin are given in part 3, for the St. Lawrence River Basin in part 4 and the Upper Mississippi River Basin in part 5.

Table 4.--Water-supply paper numbers and parts, water years, 1947-66

| Year | Parts 3-4 | Parts 5-6 | Year | Parts 3-4 | Parts 5-6 |
|---|---|---|---|---|---|
| 1947 | 1102 | 1102 | 1957 | 1520 | 1521 |
| 1948 | 1132 | 1132 | 1958 | 1571 | 1572 |
| 1949 | 1162 | 1162 | 1959 | 1642 | 1643 |
| 1950 | 1186 | 1187 | 1960 | 1742 | 1743 |
| 1951 | 1197 | 1198 | 1961 | 1882 | 1883 |
| 1952 | 1250 | 1251 | 1962 | 1942 | 1943 |
| 1953 | 1290 | 1291 | 1963 | 1948 | 1949 |
| 1954 | 1350 | 1351 | 1964 | 1955 | 1956 |
| 1955 | 1400 | 1401 | 1965 | 1962 | 1963 |
| 1956 | 1450 | 1451 | 1966 | 1992 | 1993 |

## Other Data Available

At each stream-gaging station certain water-quality constituents have been collected at the time of each discharge measurement. Water temperatures have been collected since 1949, specific conductance since 1968, and pH since 1970. Data for these constituents may be obtained from district office.

## HYDROLOGIC CONDITIONS

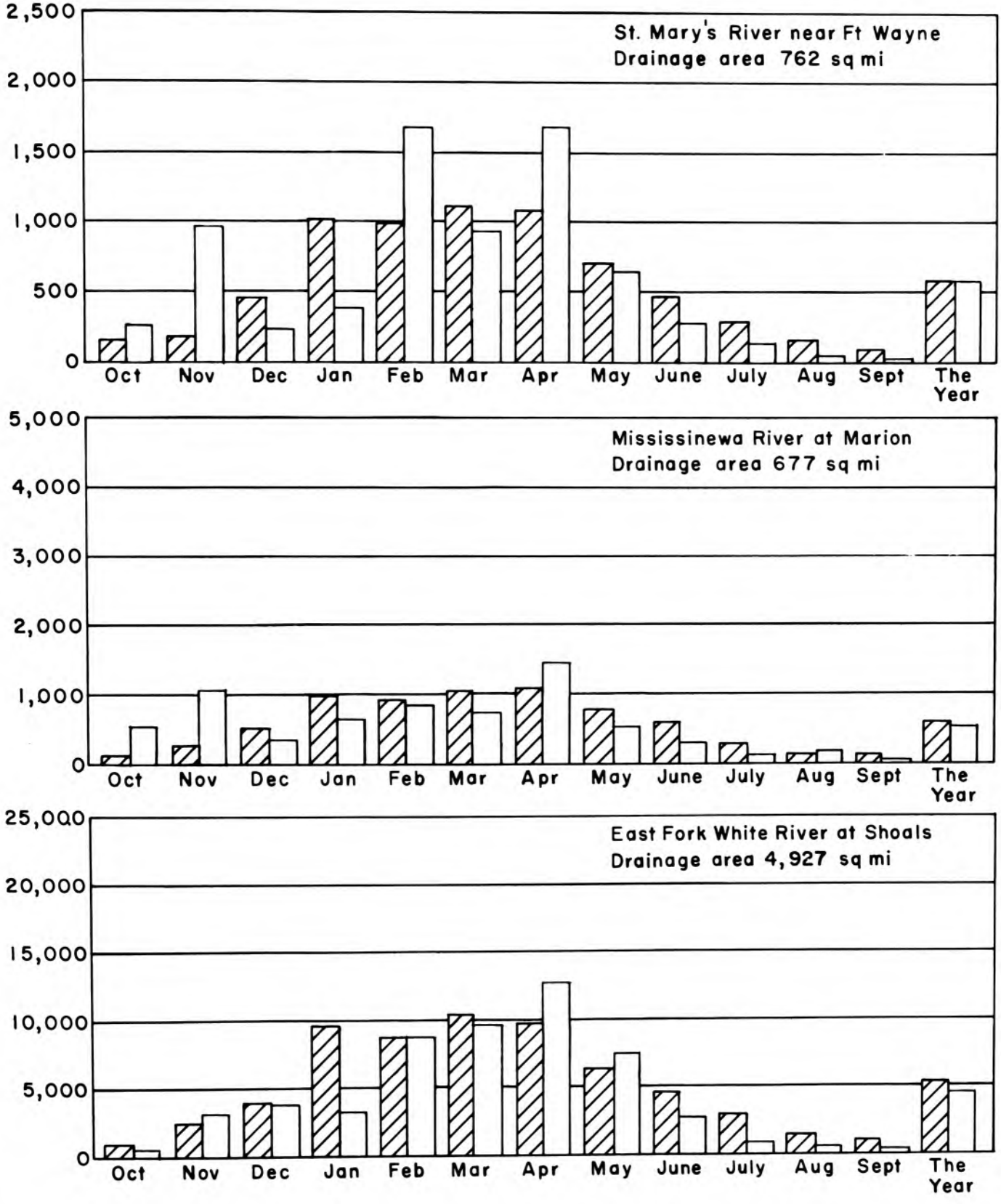
Above normal precipitation for the water year occurred along the northern and southern boundaries of the State, while the central and northeast sections were well below normal. General Storm periods were in October, November, January, April, and May. Heavy summer thunderstorms were less than usual.

Precipitation for the month of October was two to three inches above normal throughout the state. Monthly total at Fort Wayne Weather Bureau was the fourth highest on record, and at Evansville, the second highest. The heaviest storm occurred between the tenth and twelfth causing flooding on tributaries in the Upper and Middle Wabash River and on some tributaries to the Ohio River in the extreme southwestern portion of the state. In November, a general storm on the nineteenth covered the northern and central parts of the state. North of the Wabash River, the precipitation occurred as snow totalling up to four inches. In the Wabash and White River basins local flooding on small tributaries produced yearly maximums.

Streamflow declined until it was deficient by mid-January as most precipitation during December and early January occurred as snow. Extreme cold temperature in late December and early January maintained the ground cover of snow which exceeded twenty inches in the north. A warming trend at the end of January removed the snow causing most streams in the state to rise to near-flood stage. February and March were a repeat of conditions that existed during December and January.

A series of storms passed through the state during April. Beginning on the first, heavy rainfall along the Ohio River, from the Whitewater River to Blue River, raised streams to record stages on some short-term stations. At new gaging station on Buck Creek near New Middletown the storm produced a peak stage which was the highest in some sixty years and surpassed the 1959 flood peak by one foot. The storms on the nineteenth and twenty-fourth covered the entire state with the most rainfall in the Wabash and White River basins. The southwest and south-central were again hit by a heavy storm on the twenth-eighth. Near record peaks occurred at stations on tributaries in the Patoka River basin and those on tributaries to the Ohio River.

The Calumet and Kankakee River basins were raised to yearly maximums by the storm on May thirteenth. Streamflow during June to mid-September was seasonally normal except for localized summer thunderstorms. A storm in late September raised stream-flow at the end of the water year to slightly above normal.




Comparison of discharge at three long-term representative gaging stations during

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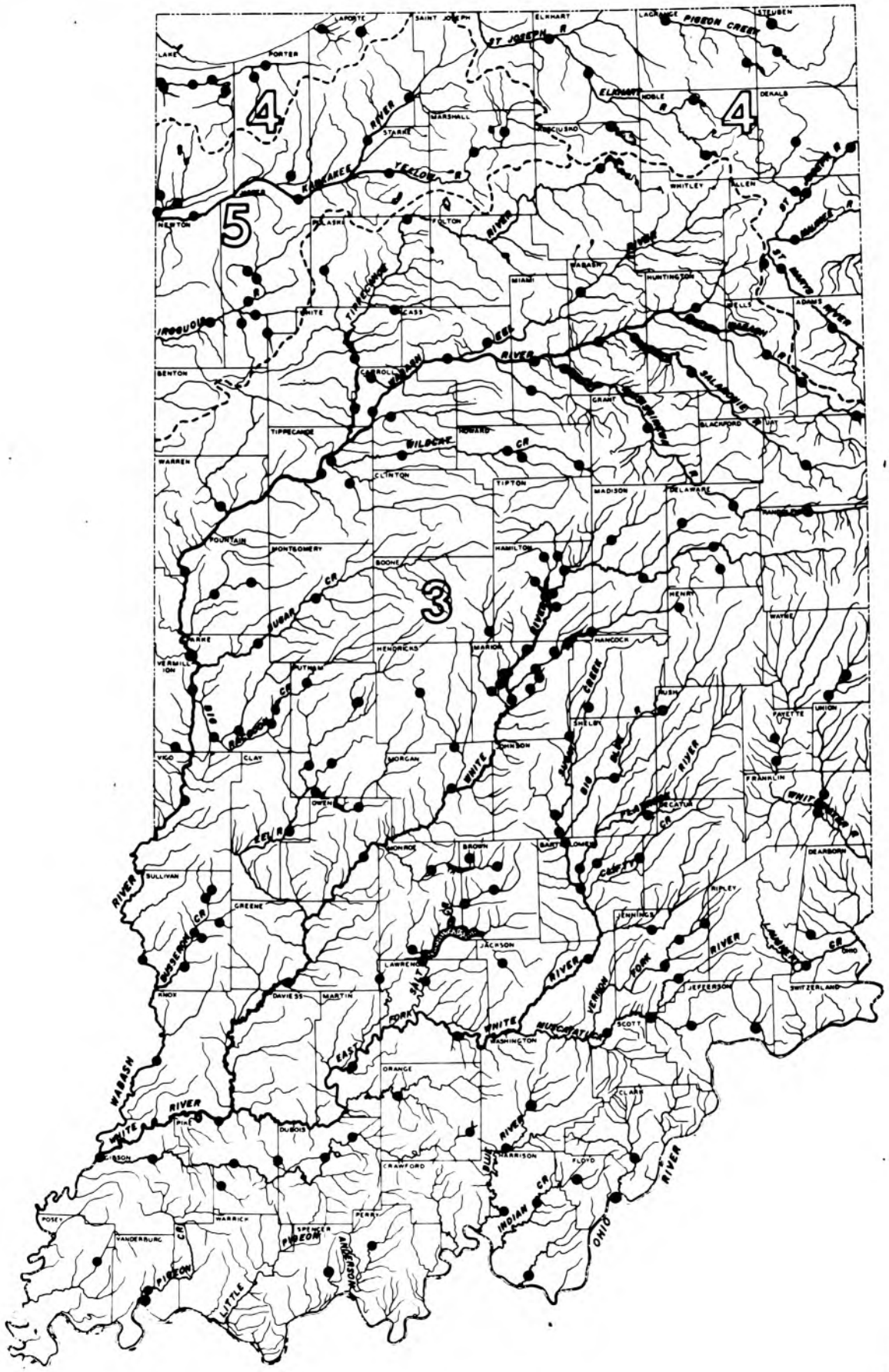
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# PART 1. SURFACE WATER RECORDS

# GAGING STATIONS IN INDIANA



## 03274950 Little Williams Creek at Connersville, Ind.

LOCATION.--Lat 39°38'16", long 85°10'20", in NE¼ sec.27, T.14 N., R.12 E., Fayette County, on downstream right bank wingwall of bridge on State Highway 44, 1 mile west of Connersville, and 2.6 miles upstream from mouth.

DRAINAGE AREA.--8.62 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 842.00 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 684 cfs Apr. 2 (gage height, 7.82 ft); minimum, 0.34 cfs Sept. 4 (gage height, 2.00 ft). Period of record: Maximum discharge, 684 cfs Apr. 2, 1970 (gage height, 7.82 ft); minimum, 0.34 cfs Sept. 4, 1970 (gage height, 2.00 ft).

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.4 | 4.8 | 5.1 | 4.3 | 11 | 5.8 | 32 | 12 | 5.1 | 2.7 | 2.1 | .70 |
| 2 | 2.9 | 3.5 | 4.8 | 4.1 | 22 | 11 | 200 | 11 | 5.1 | 2.6 | 1.7 | .70 |
| 3 | 2.8 | 2.4 | 4.8 | 4.0 | 14 | 13 | 34 | 10 | 6.8 | 2.7 | 1.7 | 1.3 |
| 4 | 2.6 | 2.4 | 4.1 | 3.8 | 6.6 | 53 | 24 | 9.7 | 5.6 | 2.9 | 1.5 | 1.5 |
| 5 | 2.4 | 2.2 | 4.1 | 3.5 | 6.6 | 30 | 19 | 9.3 | 12 | 2.7 | 1.3 | 1.1 |
| 6 | 2.4 | 1.9 | 4.1 | 3.2 | 6.4 | 19 | 17 | 9.0 | 6.2 | 2.6 | .98 | .84 |
| 7 | 3.1 | 1.8 | 34 | 2.9 | 7.2 | 16 | 14 | 8.6 | 5.4 | 2.4 | .84 | 21 |
| 8 | 3.0 | 1.6 | 18 | 2.7 | 13 | 13 | 12 | 8.6 | 4.9 | 2.7 | .84 | 3.1 |
| 9 | 2.2 | 1.6 | 13 | 2.4 | 15 | 12 | 11 | 7.9 | 4.6 | 3.3 | 1.5 | 2.3 |
| 10 | 2.7 | 1.6 | 11 | 2.2 | 12 | 11 | 10 | 7.9 | 4.9 | 3.1 | 2.6 | 1.8 |
| 11 | 4.8 | 1.5 | 9.6 | 2.4 | 10 | 9.6 | 9.6 | 9.7 | 4.9 | 2.7 | 1.5 | 1.7 |
| 12 | 3.2 | 1.5 | 7.7 | 2.6 | 7.8 | 9.6 | 9.1 | 16 | 4.6 | 2.4 | 1.1 | 1.7 |
| 13 | 2.7 | 1.6 | 7.3 | 2.9 | 6.0 | 9.1 | 11 | 13 | 30 | 2.1 | .98 | 2.9 |
| 14 | 2.3 | 1.8 | 7.3 | 3.0 | 5.4 | 8.5 | 8.5 | 10 | 7.2 | 2.1 | .84 | 7.9 |
| 15 | 1.8 | 1.5 | 6.2 | 3.1 | 5.0 | 8.1 | 8.1 | 9.0 | 5.1 | 1.8 | .58 | 4.1 |
| 16 | 1.8 | 1.5 | 5.8 | 2.9 | 5.8 | 7.3 | 7.7 | 9.3 | 4.4 | 1.8 | 2.9 | 2.6 |
| 17 | 1.6 | 1.5 | 5.5 | 2.6 | 7.0 | 7.7 | 7.3 | 8.6 | 4.4 | 1.7 | 1.3 | 2.3 |
| 18 | 1.6 | 10 | 5.5 | 2.4 | 15 | 9.6 | 6.9 | 7.9 | 3.9 | 1.7 | .58 | 2.4 |
| 19 | 1.6 | 58 | 5.1 | 2.2 | 10 | 12 | 22 | 7.5 | 3.7 | 2.0 | 2.0 | 2.3 |
| 20 | 2.2 | 18 | 4.8 | 1.9 | 7.8 | 13 | 29 | 6.8 | 3.5 | 4.1 | 3.1 | 2.0 |
| 21 | 2.9 | 13 | 4.8 | 1.6 | 6.6 | 11 | 16 | 5.9 | 3.9 | 2.4 | 1.3 | 2.0 |
| 22 | 1.9 | 11 | 5.1 | 1.5 | 6.0 | 13 | 12 | 6.2 | 3.5 | 2.0 | 14 | 1.8 |
| 23 | 1.6 | 12 | 4.5 | 1.4 | 5.6 | 13 | 12 | 6.2 | 3.3 | 2.9 | 6.2 | 1.8 |
| 24 | 1.5 | 10 | 4.2 | 1.3 | 5.2 | 11 | 158 | 6.2 | 3.1 | 2.6 | 3.5 | 1.7 |
| 25 | 1.6 | 9.1 | 4.0 | 1.3 | 4.8 | 12 | 33 | 7.5 | 3.1 | 2.1 | 2.7 | 1.8 |
| 26 | 1.6 | 7.3 | 3.8 | 1.9 | 4.6 | 19 | 23 | 6.8 | 5.1 | 2.3 | 2.0 | 2.1 |
| 27 | 1.5 | 6.9 | 3.7 | 2.4 | 4.5 | 14 | 18 | 5.9 | 4.4 | 41 | 1.7 | 2.1 |
| 28 | 1.5 | 6.2 | 3.7 | 2.9 | 4.4 | 12 | 16 | 5.1 | 3.3 | 5.4 | 1.4 | 1.8 |
| 29 | 1.3 | 5.8 | 4.2 | 136 | ------ | 12 | 14 | 4.9 | 2.9 | 2.6 | 1.3 | 1.7 |
| 30 | 1.5 | 5.5 | 4.5 | 97 | ------ | 11 | 13 | 5.1 | 2.9 | 2.7 | 1.3 | 1.7 |
| 31 | 1.8 | ------ | 4.5 | 65 | ------ | 10 | ------ | 5.1 | ------ | 2.4 | .84 | ------ |
| TOTAL | 68.8 | 207.5 | 214.8 | 371.4 | 235.3 | 416.3 | 807.2 | 256.7 | 167.8 | 118.5 | 66.18 | 82.74 |
| MEAN | 2.22 | 6.92 | 6.93 | 12.0 | 8.40 | 13.4 | 26.9 | 8.28 | 5.59 | 3.82 | 2.13 | 2.76 |
| MAX | 4.8 | 58 | 34 | 136 | 22 | 53 | 200 | 16 | 30 | 41 | 14 | 21 |
| MIN | 1.3 | 1.5 | 3.7 | 1.3 | 4.4 | 5.8 | 6.9 | 4.9 | 2.9 | 1.7 | .58 | .70 |
| CFSM | .26 | .80 | .80 | 1.39 | .97 | 1.55 | 3.12 | .96 | .65 | .44 | .25 | .32 |
| IN. | .30 | .90 | .93 | 1.60 | 1.02 | 1.80 | 3.48 | 1.11 | .72 | .51 | .29 | .36 |

CAL YR 1969 TOTAL 4,031.40 MEAN 11.0 MAX 258 MIN 1.3 CFSM 1.28 IN 17.40
WAT YR 1970 TOTAL 3,013.22 MEAN 8.26 MAX 200 MIN .58 CFSM .96 IN 13.00

PEAK DISCHARGE (BASE, 180 CFS)

| DATE | TIME | G.HT. | DISCHARGE | DATE | TIME | G.HT. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 01-29 | 0330 | 5.12 | 257 | 04-24 | 0445 | 5.54 | 410 |
| 04-02 | 0145 | 7.82 | 684 | 07-27 | 1715 | 5.44 | 394 |

## 03275000 Whitewater River near Alpine, Ind.

LOCATION.--Lat 39°34'23", long 85°09'27", in sec.14, T.13 N., R.12 E., Fayette County, on right bank 500 ft downstream from highway bridge, 0.4 mile downstream from Wilson Creek, 1.6 miles northeast of Alpine, and 4.7 miles upstream from Bear Creek.

DRAINAGE AREA.--529 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 750.19 ft above mean sea level. Prior to Nov. 9, 1928, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--42 years, 537 cfs (13.79 inches per year).

EXTREMES.--Current year: Maximum discharge, 9,500 cfs Jan. 29 (gage height, 11.55 ft, from floodmark); minimum, 80 cfs Sept. 3; minimum gage height, 3.37 ft May 1, 2.
Period of record: Maximum discharge, 37,100 cfs Jan. 14, 1937 (gage height, 16.61 ft); minimum, 14 cfs Sept. 22, 1931; minimum daily, 30 cfs Aug. 6, 1934.

REMARKS.--Records poor. Records of suspended sediment loads for the current year are published in Part 2 of this report.

REVISIONS(WATER YEARS).--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.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 216 | 226 | 367 | 280 | 1,240 | 535 | 817 | 761 | 280 | 210 | 167 | 110 |
| 2 | 217 | 237 | 346 | 280 | 1,320 | 567 | 7,330 | 704 | 298 | 195 | 171 | 107 |
| 3 | 216 | 243 | 336 | 270 | 1,380 | 659 | 3,380 | 662 | 371 | 190 | 172 | 110 |
| 4 | 212 | 237 | 321 | 260 | 900 | 2,580 | 1,890 | 632 | 382 | 262 | 164 | 115 |
| 5 | 207 | 230 | 306 | 240 | 800 | 3,780 | 1,380 | 608 | 496 | 220 | 158 | 116 |
| 6 | 207 | 225 | 297 | 220 | 730 | 1,920 | 1,150 | 578 | 577 | 200 | 152 | 104 |
| 7 | 207 | 222 | 670 | 210 | 703 | 1,360 | 1,010 | 560 | 460 | 190 | 149 | 309 |
| 8 | 207 | 219 | 1,370 | 200 | 717 | 1,080 | 906 | 548 | 375 | 230 | 143 | 155 |
| 9 | 207 | 216 | 792 | 190 | 856 | 908 | 853 | 524 | 320 | 261 | 146 | 135 |
| 10 | 207 | 214 | 608 | 190 | 877 | 799 | 800 | 506 | 285 | 266 | 151 | 128 |
| 11 | 218 | 213 | 539 | 190 | 806 | 728 | 754 | 512 | 260 | 253 | 145 | 124 |
| 12 | 240 | 216 | 475 | 200 | 726 | 695 | 723 | 306 | 240 | 220 | 138 | 122 |
| 13 | 259 | 227 | 422 | 210 | 640 | 662 | 731 | 435 | 636 | 200 | 136 | 128 |
| 14 | 255 | 220 | 413 | 220 | 600 | 627 | 714 | 464 | 390 | 190 | 135 | 186 |
| 15 | 247 | 214 | 389 | 230 | 570 | 605 | 682 | 410 | 336 | 185 | 132 | 158 |
| 16 | 239 | 210 | 363 | 230 | 540 | 577 | 656 | 395 | 300 | 180 | 137 | 135 |
| 17 | 231 | 210 | 349 | 240 | 551 | 564 | 633 | 386 | 270 | 175 | 139 | 128 |
| 18 | 223 | 239 | 340 | 250 | 651 | 585 | 610 | 370 | 250 | 170 | 128 | 126 |
| 19 | 218 | 3,760 | 337 | 240 | 2,040 | 619 | 813 | 358 | 230 | 210 | 127 | 126 |
| 20 | 222 | 2,550 | 320 | 230 | 1,150 | 839 | 2,010 | 346 | 220 | 244 | 195 | 122 |
| 21 | 227 | 1,300 | 313 | 230 | 816 | 850 | 1,300 | 337 | 210 | 232 | 169 | 122 |
| 22 | 219 | 893 | 318 | 230 | 753 | 768 | 920 | 329 | 272 | 210 | 176 | 120 |
| 23 | 214 | 804 | 307 | 230 | 720 | 810 | 803 | 322 | 235 | 190 | 168 | 120 |
| 24 | 207 | 739 | 299 | 230 | 680 | 769 | 6,060 | 357 | 200 | 233 | 140 | 118 |
| 25 | 207 | 632 | 294 | 240 | 640 | 711 | 4,140 | 408 | 240 | 205 | 131 | 118 |
| 26 | 207 | 540 | 293 | 662 | 600 | 1,610 | 1,900 | 363 | 289 | 190 | 127 | 132 |
| 27 | 207 | 471 | 288 | 534 | 560 | 1,420 | 1,360 | 332 | 338 | 405 | 122 | 124 |
| 28 | 207 | 431 | 283 | 674 | 550 | 1,000 | 1,090 | 315 | 316 | 219 | 120 | 120 |
| 29 | 204 | 399 | 280 | 6,410 | ------ | 869 | 928 | 290 | 260 | 180 | 116 | 120 |
| 30 | 201 | 377 | 290 | 3,270 | ------ | 784 | 838 | 285 | 230 | 176 | 114 | 118 |
| 31 | 204 | ------ | 290 | 1,690 | ------ | 727 | ------ | 280 | ------ | 174 | 111 | ------ |
| TOTAL | 6,759 | 16,909 | 12,615 | 18,980 | 23,116 | 31,007 | 47,181 | 13,683 | 9,566 | 6,665 | 4,479 | 3,956 |
| MEAN | 218 | 564 | 407 | 612 | 826 | 1,000 | 1,573 | 441 | 319 | 215 | 144 | 132 |
| MAX | 259 | 3,760 | 1,370 | 6,410 | 2,040 | 3,780 | 7,330 | 761 | 636 | 405 | 195 | 309 |
| MIN | 201 | 210 | 280 | 190 | 540 | 535 | 610 | 280 | 200 | 170 | 111 | 104 |
| CFSM | .41 | 1.07 | .77 | 1.16 | 1.56 | 1.89 | 2.97 | .83 | .60 | .41 | .27 | .25 |
| IN. | .48 | 1.19 | .89 | 1.33 | 1.63 | 2.18 | 3.32 | .96 | .67 | .47 | .31 | .28 |

CAL YR 1969 TOTAL 278,569 MEAN 763 MAX 11,900 MIN 183 CFSM 1.44 IN 19.59
WAT YR 1970 TOTAL 194,916 MEAN 534 MAX 7,330 MIN 104 CFSM 1.01 IN 13.71

PEAK DISCHARGE (BASE, 6,500 CFS)

a From floodmark

| DATE | TIME | G.HT. | DISCHARGE | DATE | TIME | G.HT. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 01-29 | 1130 | a11.55 | 9,500 | 04-24 | 2230 | 10.73 | 7,780 |
| 04-02 | 1500 | 11.30 | 9,050 | | | | |

03275500 East Fork Whitewater River at Richmond, Ind.

LOCATION.--Lat 39°48'24", long 84°54'26", in SE¼ sec.8 (revised), T.13 N., R.1 W., Wayne County, on left bank 50 ft downstream from highway bridge, 0.8 mile south of Richmond, and 2 miles upstream from Short Creek.

DRAINAGE AREA.--121 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 854.01 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission). Prior to July 27, 1949, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--21 years, 119 cfs (13.36 inches per year).

EXTREMES.--Current year: Maximum discharge, 8,000 cfs Apr. 2 (gage height, 9.87 ft); minimum daily 15 cfs Sept. 12, 13, 28.
Period of record: Maximum discharge, 15,000 cfs July 20, 1969 (gage height, 12.68 ft), from rating curve extended above 5,000 cfs on basis of contracted-opening measurement of peak flow at stage of 12.44 ft; minimum, 0.6 cfs Sept. 21, 1955; minimum gage height, -0.12 ft Sept. 16, 1959.
Flood in March 1913 reached a stage of 15.0 ft (discharge not determined), from floodmarks.

REMARKS.--Records good except those for winter periods, which are fair. Some regulation at low flow by powerplant upstream from station. During periods of low flow, the City of Richmond diverts a small amount of water for municipal supply which is returned at the sewage plant below the gage.

REVISIONS (WATER YEARS).--WSP 1235: 1951. WSP 1908: Drainage area, 1960.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 25 | 40 | 58 | 43 | 212 | 78 | 174 | 118 | 46 | 35 | 92 | 18 |
| 2 | 28 | 30 | 50 | 40 | 295 | 85 | 3,770 | 106 | 49 | 39 | 33 | 17 |
| 3 | 25 | 25 | 50 | 39 | 303 | 125 | 790 | 97 | 90 | 52 | 27 | 25 |
| 4 | 24 | 24 | 45 | 36 | 202 | 545 | 505 | 92 | 77 | 58 | 25 | 20 |
| 5 | 23 | 23 | 42 | 34 | 158 | 441 | 387 | 87 | 232 | 32 | 25 | 17 |
| 6 | 24 | 21 | 40 | 33 | 146 | 244 | 335 | 82 | 141 | 31 | 23 | 16 |
| 7 | 33 | 21 | 167 | 29 | 146 | 181 | 287 | 77 | 95 | 28 | 23 | 22 |
| 8 | 25 | 21 | 237 | 21 | 152 | 152 | 258 | 77 | 75 | 42 | 23 | 19 |
| 9 | 24 | 20 | 146 | 17 | 219 | 131 | 247 | 72 | 64 | 54 | 28 | 18 |
| 10 | 30 | 20 | 113 | 16 | 205 | 110 | 223 | 70 | 60 | 46 | 23 | 16 |
| 11 | 45 | 25 | 100 | 16 | 174 | 100 | 216 | 75 | 54 | 40 | 23 | 16 |
| 12 | 33 | 23 | 83 | 17 | 149 | 95 | 205 | 127 | 49 | 35 | 23 | 15 |
| 13 | 28 | 25 | 72 | 24 | 134 | 88 | 219 | 127 | 80 | 33 | 23 | 15 |
| 14 | 27 | 23 | 72 | 28 | 119 | 83 | 205 | 103 | 58 | 31 | 22 | 19 |
| 15 | 24 | 18 | 63 | 30 | 113 | 83 | 191 | 100 | 48 | 29 | 20 | 17 |
| 16 | 23 | 18 | 58 | 32 | 103 | 76 | 181 | 87 | 43 | 27 | 19 | 17 |
| 17 | 24 | 18 | 52 | 36 | 100 | 76 | 177 | 77 | 42 | 26 | 19 | 16 |
| 18 | 23 | 100 | 52 | 37 | 177 | 93 | 167 | 70 | 36 | 24 | 19 | 18 |
| 19 | 23 | 550 | 50 | 35 | 378 | 119 | 283 | 66 | 31 | 25 | 92 | 17 |
| 20 | 36 | 268 | 47 | 30 | 198 | 198 | 595 | 64 | 29 | 36 | 115 | 17 |
| 21 | 27 | 161 | 45 | 26 | 140 | 161 | 323 | 60 | 60 | 25 | 28 | 17 |
| 22 | 23 | 122 | 49 | 24 | 131 | 146 | 240 | 56 | 38 | 23 | 39 | 18 |
| 23 | 20 | 122 | 47 | 24 | 120 | 158 | 233 | 58 | 31 | 38 | 30 | 17 |
| 24 | 20 | 119 | 45 | 24 | 115 | 140 | 1,840 | 62 | 39 | 26 | 25 | 17 |
| 25 | 21 | 103 | 42 | 27 | 105 | 134 | 495 | 70 | 97 | 23 | 23 | 17 |
| 26 | 21 | 88 | 43 | 140 | 95 | 265 | 272 | 70 | 80 | 23 | 20 | 19 |
| 27 | 21 | 78 | 42 | 110 | 90 | 205 | 208 | 60 | 90 | 26 | 19 | 17 |
| 28 | 20 | 70 | 39 | 209 | 83 | 158 | 173 | 51 | 56 | 26 | 19 | 15 |
| 29 | 20 | 63 | 41 | 916 | ------ | 137 | 152 | 46 | 45 | 25 | 19 | 17 |
| 30 | 20 | 59 | 43 | 423 | ------ | 119 | 134 | 43 | 39 | 28 | 17 | 17 |
| 31 | 21 | ------ | 44 | 261 | ------ | 110 | ------ | 43 | ------ | 23 | 19 | ------ |
| TOTAL | 781 | 2,298 | 2,077 | 2,777 | 4,562 | 4,836 | 13,485 | 2,393 | 1,974 | 1,009 | 955 | 526 |
| MEAN | 25.2 | 76.6 | 67.0 | 89.6 | 163 | 156 | 450 | 77.2 | 65.8 | 32.5 | 30.8 | 17.5 |
| MAX | 45 | 550 | 237 | 916 | 378 | 545 | 3,770 | 127 | 232 | 58 | 115 | 25 |
| MIN | 20 | 18 | 39 | 16 | 83 | 76 | 134 | 43 | 29 | 23 | 17 | 15 |
| CFSM | .21 | .63 | .55 | .74 | 1.35 | 1.29 | 3.72 | .64 | .54 | .27 | .25 | .14 |
| IN. | .24 | .71 | .64 | .85 | 1.40 | 1.49 | 4.15 | .74 | .61 | .31 | .29 | .16 |

CAL YR 1969 TOTAL 52,864 MEAN 145 MAX 5,950 MIN 18 CFSM 1.20 IN 16.25
WAT YR 1970 TOTAL 37,673 MEAN 103 MAX 3,770 MIN 15 CFSM .85 IN 11.58

PEAK DISCHARGE (BASE, 2,000 CFS)

| DATE | TIME | G.HT. | DISCHARGE | DATE | TIME | G.HT. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 01-29 | 0815 | 6.79 | 3,380 | 04-24 | 1115 | 6.45 | 3,360 |
| 04-02 | 0545 | 9.87 | 8,000 | | | | |

03275600 East Fork Whitewater River at Abington, Ind.

LOCATION.--Lat 39°43'57", long 84°57'35", in SW¼ sec.2, T.12 N., R.2 W., Union County, at downstream side of center pier of bridge on county road at Abington, 3 miles downstream from Elkhorn Creek, and 8 miles southwest of Richmond.

DRAINAGE AREA.--198 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 791.00 ft above mean sea level.

AVERAGE DISCHARGE.--5 years, 238 cfs (16.32 inches per year).

EXTREMES.--Current year: Maximum discharge, 9,380 cfs Apr. 2 (gage height, 13.54 ft); minimum, 31 cfs Oct. 5 (gage height, 3.90 ft). Period of record: Maximum discharge, 13,400 cfs July 20, 1969 (gage height, 16.18 ft); minimum, 19 cfs Aug. 7, 8, 1966 (gage height, 1.94 ft).

REMARKS.--Records good except those for winter periods, which are fair. Records of suspended sediment loads for current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Ind. 1969: 1968(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 40 | 87 | 111 | 82 | 335 | 129 | 281 | 311 | 84 | 61 | 184 | 40 |
| 2 | 48 | 80 | 98 | 78 | 541 | 150 | 6,200 | 270 | 84 | 71 | 78 | 39 |
| 3 | 45 | 62 | 96 | 74 | 522 | 207 | 1,190 | 248 | 188 | 78 | 58 | 41 |
| 4 | 41 | 63 | 87 | 68 | 322 | 1,070 | 695 | 230 | 166 | 134 | 52 | 58 |
| 5 | 37 | 56 | 81 | 64 | 250 | 866 | 542 | 213 | 569 | 64 | 49 | 45 |
| 6 | 38 | 52 | 77 | 60 | 210 | 467 | 470 | 196 | 380 | 57 | 47 | 39 |
| 7 | 54 | 49 | 364 | 53 | 221 | 347 | 400 | 184 | 221 | 54 | 44 | 50 |
| 8 | 45 | 46 | 482 | 49 | 249 | 285 | 355 | 177 | 162 | 64 | 42 | 43 |
| 9 | 40 | 45 | 290 | 46 | 352 | 245 | 330 | 169 | 134 | 88 | 50 | 41 |
| 10 | 40 | 45 | 223 | 45 | 316 | 210 | 293 | 158 | 118 | 78 | 45 | 38 |
| 11 | 93 | 51 | 201 | 45 | 271 | 187 | 275 | 162 | 107 | 66 | 43 | 36 |
| 12 | 71 | 53 | 169 | 52 | 230 | 178 | 257 | 302 | 96 | 57 | 41 | 36 |
| 13 | 59 | 52 | 146 | 56 | 190 | 162 | 284 | 306 | 154 | 54 | 41 | 36 |
| 14 | 58 | 56 | 142 | 60 | 170 | 153 | 257 | 234 | 115 | 51 | 40 | 50 |
| 15 | 51 | 46 | 128 | 64 | 160 | 148 | 234 | 230 | 93 | 48 | 39 | 44 |
| 16 | 48 | 44 | 112 | 66 | 150 | 136 | 221 | 213 | 86 | 45 | 37 | 39 |
| 17 | 46 | 44 | 106 | 74 | 150 | 134 | 213 | 177 | 82 | 44 | 37 | 39 |
| 18 | 43 | 166 | 103 | 76 | 288 | 167 | 200 | 151 | 75 | 42 | 38 | 40 |
| 19 | 41 | 1,160 | 100 | 70 | 594 | 198 | 365 | 137 | 66 | 44 | 63 | 39 |
| 20 | 55 | 566 | 88 | 60 | 302 | 302 | 807 | 131 | 61 | 67 | 762 | 37 |
| 21 | 71 | 328 | 86 | 58 | 210 | 259 | 509 | 121 | 110 | 50 | 112 | 37 |
| 22 | 50 | 249 | 94 | 58 | 190 | 245 | 375 | 107 | 75 | 45 | 112 | 37 |
| 23 | 45 | 243 | 85 | 58 | 180 | 257 | 335 | 104 | 63 | 71 | 118 | 38 |
| 24 | 44 | 235 | 83 | 60 | 170 | 231 | 3,770 | 107 | 60 | 57 | 69 | 38 |
| 25 | 44 | 205 | 77 | 64 | 160 | 218 | 1,200 | 131 | 169 | 48 | 60 | 39 |
| 26 | 43 | 175 | 74 | 390 | 150 | 427 | 677 | 125 | 128 | 45 | 54 | 46 |
| 27 | 42 | 153 | 70 | 250 | 140 | 340 | 531 | 107 | 154 | 55 | 48 | 49 |
| 28 | 41 | 136 | 68 | 419 | 134 | 263 | 443 | 91 | 93 | 60 | 47 | 39 |
| 29 | 41 | 123 | 74 | 3,140 | ------ | 233 | 390 | 84 | 73 | 49 | 44 | 38 |
| 30 | 40 | 115 | 80 | 647 | ------ | 206 | 345 | 80 | 66 | 55 | 41 | 38 |
| 31 | 41 | ------ | 84 | 390 | ------ | 190 | ------ | 80 | ------ | 50 | 40 | ------ |
| TOTAL | 1,495 | 4,785 | 4,079 | 6,776 | 7,157 | 8,610 | 22,444 | 5,336 | 4,032 | 1,852 | 2,535 | 1,229 |
| MEAN | 48.2 | 160 | 132 | 219 | 256 | 278 | 748 | 172 | 134 | 59.7 | 81.8 | 41.0 |
| MAX | 93 | 1,160 | 482 | 3,140 | 594 | 1,070 | 6,200 | 311 | 569 | 134 | 762 | 58 |
| MIN | 37 | 44 | 68 | 45 | 134 | 129 | 200 | 80 | 60 | 42 | 37 | 36 |
| CFSM | .24 | .81 | .67 | 1.11 | 1.29 | 1.40 | 3.78 | .87 | .68 | .30 | .41 | .21 |
| IN. | .28 | .90 | .77 | 1.27 | 1.34 | 1.62 | 4.22 | 1.00 | .76 | .35 | .48 | .23 |

CAL YR 1969 TOTAL 99,795 MEAN 273 MAX 6,610 MIN 36 CFSM 1.38 IN 18.75
WAT YR 1970 TOTAL 70,330 MEAN 193 MAX 6,200 MIN 36 CFSM .97 IN 13.21

PEAK DISCHARGE (BASE, 2,500 CFS)

| DATE | TIME | G.HT. | DISCHARGE | DATE | TIME | G.HT. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 01-29 | 0845 | 10.53 | 5,440 | 04-24 | 1015 | 10.71 | 5,760 |
| 04-02 | 0815 | 13.54 | 9,380 | 08-20 | 0130 | 8.60 | 3,250 |

## 03276000 East Fork Whitewater River at Brookville, Ind.

LOCATION.--Lat 39°26'02", long 85°00'12", in NE¼NE¼ sec.20, T.9 N., R.2 W., Franklin County, on right bank 100 ft upstream from bridge on State Highway 101, 1.4 miles northeast of Brookville, and 1.8 miles upstream from mouth.

DRAINAGE AREA.--380 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 621.76 ft above mean sea level. Prior to May 22, 1954, nonrecording gage at site 100 ft downstream at datum 2.00 ft higher. May 22, 1954, to Aug. 20, 1965, water-stage recorder at site 165 ft downstream at datum 2.00 ft higher.

AVERAGE DISCHARGE.--16 years, 380 cfs (13.56 inches per year).

EXTREMES.--Current year: Maximum discharge, 10,400 cfs Apr. 24 (gage height, 9.97 ft); minimum, 44 cfs Sept. 12 (gage height, 2.04 ft).
Period of record: Maximum discharge, 36,100 cfs Jan. 21, 1959; maximum gage height, 17.35 ft May 24, 1968; minimum discharge, 15 cfs Sept. 10, 1964.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1555: 1954(M), 1955(P). WSP 1908: 1955, drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 59 | 79 | 188 | 190 | 882 | 295 | 1,070 | 612 | 142 | 102 | 111 | 56 |
| 2 | 62 | 129 | 171 | 180 | 1,240 | 315 | 8,300 | 540 | 145 | 97 | 158 | 56 |
| 3 | 67 | 101 | 168 | 160 | 1,210 | 444 | 3,160 | 480 | 228 | 111 | 180 | 53 |
| 4 | 64 | 93 | 151 | 140 | 783 | 1,910 | 1,240 | 450 | 232 | 142 | 120 | 70 |
| 5 | 61 | 89 | 143 | 125 | 618 | 2,230 | 874 | 420 | 939 | 117 | 91 | 68 |
| 6 | 58 | 83 | 137 | 120 | 582 | 1,150 | 730 | 385 | 700 | 94 | 80 | 61 |
| 7 | 59 | 77 | 596 | 110 | 552 | 805 | 600 | 365 | 414 | 86 | 73 | 65 |
| 8 | 69 | 76 | 791 | 105 | 600 | 624 | 510 | 350 | 281 | 89 | 68 | 75 |
| 9 | 64 | 72 | 514 | 96 | 723 | 516 | 456 | 335 | 224 | 162 | 65 | 61 |
| 10 | 62 | 72 | 405 | 90 | 672 | 432 | 396 | 315 | 195 | 135 | 80 | 53 |
| 11 | 77 | 71 | 359 | 90 | 594 | 365 | 365 | 305 | 180 | 108 | 70 | 49 |
| 12 | 106 | 74 | 314 | 95 | 528 | 345 | 345 | 365 | 162 | 97 | 63 | 48 |
| 13 | 91 | 76 | 272 | 100 | 468 | 325 | 350 | 486 | 679 | 86 | 61 | 49 |
| 14 | 81 | 81 | 264 | 110 | 420 | 305 | 345 | 414 | 300 | 78 | 58 | 330 |
| 15 | 76 | 77 | 241 | 120 | 390 | 290 | 310 | 355 | 191 | 73 | 56 | 149 |
| 16 | 71 | 72 | 214 | 130 | 370 | 268 | 290 | 335 | 162 | 68 | 56 | 91 |
| 17 | 67 | 71 | 199 | 140 | 370 | 259 | 281 | 305 | 149 | 65 | 105 | 73 |
| 18 | 65 | 97 | 188 | 160 | 438 | 295 | 272 | 268 | 139 | 63 | 61 | 68 |
| 19 | 64 | 1,510 | 188 | 140 | 882 | 450 | 438 | 202 | 126 | 61 | 70 | 65 |
| 20 | 67 | 982 | 168 | 130 | 558 | 564 | 1,160 | 219 | 117 | 228 | 658 | 58 |
| 21 | 95 | 508 | 168 | 120 | 438 | 498 | 898 | 206 | 114 | 97 | 219 | 53 |
| 22 | 85 | 410 | 160 | 120 | 420 | 456 | 679 | 191 | 145 | 75 | 142 | 50 |
| 23 | 74 | 368 | 155 | 120 | 390 | 468 | 594 | 180 | 114 | 78 | 224 | 50 |
| 24 | 69 | 363 | 150 | 120 | 370 | 432 | 7,330 | 187 | 105 | 102 | 132 | 50 |
| 25 | 67 | 327 | 150 | 130 | 350 | 390 | 3,110 | 184 | 135 | 78 | 105 | 53 |
| 26 | 67 | 288 | 150 | 170 | 330 | 600 | 1,540 | 191 | 195 | 73 | 91 | 73 |
| 27 | 65 | 260 | 150 | 300 | 320 | 606 | 1,110 | 176 | 268 | 290 | 80 | 152 |
| 28 | 64 | 233 | 150 | 500 | 300 | 474 | 906 | 158 | 169 | 250 | 73 | 86 |
| 29 | 64 | 214 | 150 | 1,450 | ------ | 426 | 775 | 149 | 129 | 117 | 68 | 68 |
| 30 | 64 | 199 | 170 | 1,910 | ------ | 396 | 708 | 142 | 111 | 97 | 65 | 61 |
| 31 | 64 | ------ | 190 | 1,070 | ------ | 360 | ------ | 135 | ------ | 97 | 58 | ------ |
| TOTAL | 2,168 | 7,152 | 7,414 | 8,541 | 15,798 | 17,293 | 39,142 | 9,405 | 7,190 | 3,416 | 3,541 | 2,294 |
| MEAN | 69.9 | 238 | 239 | 276 | 564 | 558 | 1,305 | 303 | 240 | 110 | 114 | 76.5 |
| MAX | 106 | 1,510 | 791 | 1,910 | 1,240 | 2,230 | 8,300 | 612 | 939 | 290 | 658 | 330 |
| MIN | 58 | 71 | 137 | 90 | 300 | 259 | 272 | 135 | 105 | 61 | 56 | 48 |
| CFSM | .18 | .63 | .63 | .73 | 1.48 | 1.47 | 3.43 | .80 | .63 | .29 | .30 | .20 |
| IN. | .21 | .70 | .73 | .84 | 1.55 | 1.69 | 3.83 | .92 | .70 | .33 | .35 | .22 |

CAL YR 1969 TOTAL 163,475 MEAN 448 MAX 8,970 MIN 58 CFSM 1.18 IN 16.00
WAT YR 1970 TOTAL 123,354 MEAN 338 MAX 8,300 MIN 48 CFSM .89 IN 12.08

PEAK DISCHARGE (BASE, 4,500 CFS)

| DATE | TIME | G.HT. | DISCHARGE | DATE | TIME | G.HT. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-02 | 2145 | 9.39 | 9,130 | 04-24 | 0745 | 9.97 | 10,400 |

03276500 Whitewater River at Brookville, Ind.

LOCATION.--Lat 39°24'24", long 85°00'46", in NW¼ sec.32, T.9 N., R.2 W., Franklin County, on right bank at downstream side of highway bridge, 0.3 mile downstream from East Fork Whitewater River, and 1.1 miles south of Brookville.

DRAINAGE AREA.--1,224 sq mi.

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.

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

AVERAGE DISCHARGE.--49 years (1915-17, 1923-70), 1,257 cfs (13.95 inches per year).

EXTREMES.--Current year: Maximum discharge, 37,900 cfs Apr. 2 (gage height, 19.14 ft); minimum, 195 cfs Sept. 1 (gage height, 1.00 ft).
Period of record: Maximum discharge, 81,800 cfs Jan. 21, 1959 (gage height, 27.78 ft), from rating curve extended above 45,000 cfs on basis of contracted-opening measurement of peak flow; minimum, 49 cfs Jan. 5, 1935; minimum gage height, 0.12 ft Sept. 21, 1955.
Flood of Mar. 25, 1913, reached a stage of 39.0 ft, present datum, from floodmarks (discharge not determined).

REMARKS.--Records good.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 310 | 321 | 724 | 600 | 2,310 | 921 | 2,310 | 2,220 | 535 | 390 | 342 | 210 |
| 2 | 314 | 426 | 678 | 580 | 3,030 | 1,090 | 29,000 | 1,840 | 535 | 373 | 403 | 210 |
| 3 | 310 | 408 | 650 | 560 | 3,280 | 1,640 | 9,770 | 1,600 | 709 | 381 | 565 | 205 |
| 4 | 301 | 390 | 611 | 520 | 1,900 | 5,540 | 4,550 | 1,460 | 821 | 417 | 550 | 229 |
| 5 | 292 | 373 | 580 | 500 | 1,650 | 7,220 | 3,250 | 1,350 | 1,820 | 394 | 365 | 229 |
| 6 | 289 | 353 | 557 | 460 | 1,500 | 3,760 | 2,650 | 1,230 | 1,580 | 357 | 317 | 218 |
| 7 | 286 | 342 | 2,070 | 420 | 1,430 | 2,550 | 2,290 | 1,150 | 1,150 | 338 | 289 | 689 |
| 8 | 295 | 335 | 2,740 | 370 | 1,690 | 2,080 | 2,010 | 1,110 | 880 | 342 | 271 | 623 |
| 9 | 283 | 324 | 1,780 | 360 | 2,030 | 1,790 | 1,840 | 1,040 | 744 | 448 | 265 | 349 |
| 10 | 280 | 317 | 1,370 | 350 | 1,900 | 1,570 | 1,680 | 974 | 659 | 485 | 283 | 280 |
| 11 | 310 | 314 | 1,190 | 400 | 1,730 | 1,410 | 1,540 | 950 | 629 | 390 | 274 | 247 |
| 12 | 373 | 314 | 1,040 | 410 | 1,540 | 1,320 | 1,460 | 1,130 | 593 | 353 | 256 | 226 |
| 13 | 373 | 324 | 906 | 430 | 1,300 | 1,260 | 1,460 | 1,500 | 2,140 | 328 | 247 | 220 |
| 14 | 373 | 335 | 866 | 440 | 1,200 | 1,200 | 1,550 | 1,270 | 1,160 | 310 | 244 | 545 |
| 15 | 361 | 328 | 808 | 450 | 1,100 | 1,150 | 1,340 | 1,100 | 786 | 298 | 238 | 575 |
| 16 | 349 | 310 | 732 | 450 | 1,050 | 1,050 | 1,260 | 1,040 | 659 | 280 | 238 | 365 |
| 17 | 331 | 307 | 689 | 480 | 1,090 | 1,050 | 1,210 | 966 | 587 | 277 | 292 | 289 |
| 18 | 317 | 342 | 654 | 580 | 1,210 | 1,120 | 1,150 | 880 | 545 | 268 | 244 | 268 |
| 19 | 304 | 4,490 | 650 | 560 | 2,440 | 1,640 | 1,740 | 814 | 500 | 265 | 241 | 259 |
| 20 | 310 | 4,970 | 595 | 470 | 1,990 | 2,480 | 3,940 | 765 | 462 | 744 | 772 | 250 |
| 21 | 365 | 2,260 | 573 | 450 | 1,450 | 1,910 | 3,040 | 723 | 439 | 421 | 659 | 235 |
| 22 | 353 | 1,610 | 593 | 440 | 1,340 | 1,690 | 2,160 | 683 | 475 | 317 | 444 | 223 |
| 23 | 321 | 1,410 | 576 | 440 | 1,280 | 1,730 | 1,910 | 647 | 430 | 310 | 665 | 218 |
| 24 | 304 | 1,370 | 545 | 440 | 1,200 | 1,610 | 23,000 | 641 | 412 | 338 | 444 | 213 |
| 25 | 298 | 1,240 | 531 | 460 | 1,100 | 1,460 | 9,860 | 744 | 430 | 301 | 345 | 218 |
| 26 | 295 | 1,100 | 500 | 2,000 | 1,050 | 2,270 | 4,850 | 716 | 515 | 365 | 301 | 226 |
| 27 | 292 | 972 | 490 | 1,520 | 1,000 | 2,460 | 3,390 | 653 | 653 | 1,050 | 265 | 448 |
| 28 | 292 | 882 | 490 | 1,620 | 960 | 1,860 | 2,780 | 593 | 581 | 1,130 | 256 | 304 |
| 29 | 286 | 813 | 490 | 10,800 | ------ | 1,650 | 2,610 | 565 | 490 | 505 | 244 | 253 |
| 30 | 283 | 762 | 560 | 7,350 | ------ | 1,530 | 4,280 | 540 | 430 | 394 | 232 | 226 |
| 31 | 286 | ------ | 600 | 3,170 | ------ | 1,400 | ------ | 525 | ------ | 377 | 223 | ------ |
| TOTAL | 9,736 | 28,042 | 25,838 | 38,080 | 44,750 | 61,411 | 133,880 | 31,419 | 22,349 | 12,946 | 10,774 | 9,050 |
| MEAN | 314 | 935 | 833 | 1,228 | 1,598 | 1,981 | 4,463 | 1,014 | 745 | 418 | 348 | 302 |
| MAX | 373 | 4,970 | 2,740 | 10,800 | 3,280 | 7,220 | 29,000 | 2,220 | 2,140 | 1,130 | 772 | 689 |
| MIN | 280 | 307 | 490 | 350 | 960 | 921 | 1,150 | 525 | 412 | 265 | 223 | 205 |
| CFSM | .26 | .76 | .68 | 1.00 | 1.31 | 1.62 | 3.65 | .83 | .61 | .34 | .28 | .25 |
| IN. | .30 | .85 | .79 | 1.16 | 1.36 | 1.87 | 4.07 | .95 | .68 | .39 | .33 | .28 |

CAL YR 1969 TOTAL 527,740 MEAN 1,446 MAX 27,100 MIN 280 CFSM 1.18 IN 16.04
WAT YR 1970 TOTAL 428,275 MEAN 1,173 MAX 29,000 MIN 205 CFSM .96 IN 13.02

PEAK DISCHARGE (BASE, 12,000 CFS)

| DATE | TIME | G.HT. | DISCHARGE | DATE | TIME | G.HT. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 01-29 | 1030 | 10.65 | 14,400 | 04-24 | 1300 | 18.18 | 34,600 |
| 04-02 | 1030 | 19.14 | 37,900 | | | | |

03276700 South Hogan Creek near Dillsboro, Ind.
(Hydrologic bench-mark station)

LOCATION.--Lat 39°01'47", long 85°02'17", in NW¼ sec.7, T.4 N., R.2 W., Dearborn County, on left downstream abutment of bridge on county road at Dillsboro Station, 1.2 miles northeast of Dillsboro, and 1.5 miles downstream from Whitaker Creek.

DRAINAGE AREA.--38.2 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 571.00 ft above mean sea level.

AVERAGE DISCHARGE.--9 years, 35.2 cfs (12.51 inches per year).

EXTREMES.--Current year: Maximum discharge, 13,000 cfs Apr. 29 (gage height, 12.7 ft, from floodmark); minimum, 0.02 cfs many days in July, August, September.
Period of record: Maximum discharge, 13,000 cfs Apr. 29, 1970 (gage height, 12.7 ft, from floodmark); no flow at times most years.
Flood of Jan. 21, 1959, reached a stage of 14.00 ft (discharge, 16,300 cfs, computed from contracted-opening).

REMARKS.--Records fair. Records of chemical analysis for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .52 | 4.3 | 5.0 | 33 | 26 | 11 | 138 | 142 | 2.0 | .06 | .23 | .09 |
| 2 | 1.2 | 10 | 4.7 | 22 | 244 | 175 | 1,930 | 81 | 1.9 | .03 | .13 | .05 |
| 3 | 1.1 | 6.3 | 4.6 | 18 | 117 | 224 | 117 | 56 | 50 | .46 | .35 | .04 |
| 4 | 1.1 | 5.0 | 4.3 | 10 | 53 | 514 | 61 | 42 | 208 | .46 | .25 | .05 |
| 5 | 1.1 | 4.3 | 3.9 | 7.0 | 26 | 210 | 43 | 30 | 335 | .23 | .18 | .07 |
| 6 | 1.1 | 4.0 | 3.9 | 6.0 | 21 | 69 | 35 | 22 | 81 | .07 | .13 | .06 |
| 7 | 1.2 | 3.8 | 272 | 5.2 | 20 | 46 | 27 | 18 | 30 | .03 | .07 | 59 |
| 8 | 1.1 | 3.3 | 74 | 4.6 | 81 | 33 | 23 | 15 | 16 | 1.9 | .03 | 16 |
| 9 | .59 | 3.1 | 27 | 4.2 | 96 | 26 | 20 | 13 | 11 | 3.0 | .07 | 4.7 |
| 10 | .41 | 3.1 | 19 | 4.0 | 57 | 22 | 16 | 11 | 8.2 | 5.1 | .11 | 2.4 |
| 11 | .58 | 2.8 | 16 | 4.0 | 43 | 18 | 15 | 10 | 6.2 | 2.4 | .09 | 1.4 |
| 12 | .64 | 2.9 | 14 | 4.1 | 29 | 18 | 13 | 10 | 5.3 | 1.4 | .06 | .90 |
| 13 | 1.3 | 3.8 | 11 | 4.3 | 23 | 20 | 13 | 9.7 | 3.6 | .74 | .06 | .90 |
| 14 | 1.4 | 4.8 | 11 | 4.8 | 20 | 22 | 13 | 9.6 | 3.0 | .46 | .05 | .90 |
| 15 | .92 | 5.6 | 9.5 | 5.4 | 16 | 22 | 12 | 8.2 | 2.5 | .38 | .03 | .74 |
| 16 | .73 | 5.0 | 8.0 | 6.0 | 18 | 16 | 11 | 9.2 | 2.1 | .28 | .03 | 3.1 |
| 17 | .62 | 4.3 | 7.3 | 6.2 | 24 | 15 | 10 | 8.2 | 1.7 | .20 | .03 | 2.0 |
| 18 | .51 | 11 | 6.7 | 5.8 | 29 | 32 | 9.2 | 6.9 | 1.4 | .11 | .03 | 1.3 |
| 19 | .41 | 270 | 6.7 | 5.2 | 42 | 326 | 18 | 5.6 | 1.1 | .03 | .40 | .90 |
| 20 | 1.6 | 36 | 5.3 | 4.1 | 21 | 342 | 60 | 4.7 | .82 | 2.4 | .38 | .60 |
| 21 | .75 | 18 | 5.0 | 3.4 | 19 | 102 | 31 | 3.9 | .60 | 9.2 | .20 | .54 |
| 22 | .42 | 14 | 4.8 | 3.0 | 16 | 74 | 21 | 3.4 | .60 | 3.7 | .40 | .50 |
| 23 | .71 | 12 | 4.6 | 2.7 | 15 | 67 | 69 | 3.1 | .50 | 2.7 | 32 | .82 |
| 24 | .58 | 9.7 | 4.5 | 2.5 | 14 | 48 | 889 | 2.6 | .43 | 1.7 | 6.0 | .82 |
| 25 | .46 | 8.3 | 4.4 | 2.4 | 13 | 241 | 100 | 4.3 | .38 | .90 | 2.2 | 7.1 |
| 26 | .36 | 7.6 | 4.3 | 2.3 | 12 | 326 | 48 | 20 | .33 | .66 | 1.1 | 4.9 |
| 27 | .28 | 6.8 | 4.3 | 11 | 11 | 98 | 53 | 7.1 | .33 | .50 | .60 | 8.2 |
| 28 | .20 | 6.1 | 4.3 | 54 | 11 | 61 | 121 | 4.9 | .28 | 1.6 | .43 | 5.1 |
| 29 | .15 | 5.8 | 6.0 | 440 | ------ | 51 | 217 | 3.1 | .20 | .60 | .35 | 3.0 |
| 30 | .15 | 5.3 | 14 | 70 | ------ | 48 | 1,020 | 2.8 | .12 | .38 | .23 | 2.1 |
| 31 | .15 | ------ | 49 | 36 | ------ | 42 | ------ | 2.4 | ------ | .28 | .15 | ------ |
| TOTAL | 22.34 | 486.9 | 619.1 | 791.2 | 1,117 | 3,319 | 5,153.2 | 568.7 | 774.59 | 41.96 | 46.37 | 128.28 |
| MEAN | .72 | 16.2 | 20.0 | 25.5 | 39.9 | 107 | 172 | 18.3 | 25.8 | 1.35 | 1.50 | 4.28 |
| MAX | 1.6 | 270 | 272 | 440 | 244 | 514 | 1,930 | 142 | 335 | 9.2 | 32 | 59 |
| MIN | .15 | 2.8 | 3.9 | 2.3 | 11 | 11 | 9.2 | 2.4 | .12 | .03 | .03 | .04 |
| CFSM | .019 | .42 | .52 | .67 | 1.04 | 2.80 | 4.50 | .48 | .68 | .035 | .039 | .11 |
| IN. | .02 | .47 | .60 | .77 | 1.09 | 3.23 | 5.02 | .55 | .75 | .04 | .05 | .12 |

CAL YR 1969 TOTAL 9,965.72 MEAN 27.3 MAX 1,090 MIN 0 CFSM .71 IN 9.70
WAT YR 1970 TOTAL 13,068.64 MEAN 35.8 MAX 1,930 MIN .03 CFSM .94 IN 12.73

PEAK DISCHARGE (BASE, 2,500 CFS)

| DATE | TIME | G.HT. | DISCHARGE | DATE | TIME | G.HT. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-02 | 0045 | 10.21 | 7,450 | 04-29 | Unknown | a12.7 | 13,000 |
| 04-24 | 0645 | 6.44 | 2,650 | | | | |

a From floodmarks.

03277000 Laughery Creek near Farmers Retreat, Ind.

LOCATION.--Lat 38°57'08", long 85°04'15", in 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.

DRAINAGE AREA.--248 sq mi.

PERIOD OF RECORD.--October 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 528.54 ft above mean sea level (levels by Indiana Department of Natural Resources). Prior to Apr. 16, 1941, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--30 years, 268 cfs (14.68 inches per year).

EXTREMES.--Current year: Maximum discharge, 15,500 cfs Apr 2 (gage height, 13.56 ft); minimum daily, 0.84 cfs Oct. 15. Period of record: Maximum discharge, 47,800 cfs Jan 21, 1959 (gage height, 21.13 ft), from rating curve extended above 14,000 cfs on basis of slope-area measurement of peak flow; no flow at times in most years.

REMARKS.--Records good except those for winter periods, which are fair and those for periods of no gage-height record, which are poor. Some regulation at low flow by mill above the station.

REVISIONS (WATER YEARS).--WSP 973: 1942(M). WSP 1275: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.4 | 4.5 | 29 | 250 | 312 | 84 | 501 | 2,100 | 10 | 2.8 | 16 | 4.6 |
| 2 | 1.7 | 9.3 | 28 | 170 | 654 | 266 | 6,570 | 522 | 10 | 2.8 | 12 | 3.6 |
| 3 | 1.7 | 11 | 25 | 120 | 1,380 | 1,360 | 3,640 | 334 | 39 | 2.6 | 8.3 | 3.4 |
| 4 | 1.4 | 11 | 24 | 84 | 546 | 2,620 | 683 | 247 | 293 | 2.3 | 7.0 | 4.2 |
| 5 | 1.1 | 9.5 | 22 | 60 | 291 | 2,940 | 459 | 192 | 561 | 2.2 | 5.2 | 6.7 |
| 6 | 1.3 | 14 | 19 | 49 | 170 | 894 | 380 | 152 | 690 | 1.9 | 3.8 | 6.4 |
| 7 | 1.7 | 12 | 498 | 43 | 140 | 471 | 300 | 126 | 226 | 1.8 | 3.4 | 107 |
| 8 | 1.7 | 9.2 | 799 | 38 | 293 | 334 | 250 | 107 | 123 | 2.6 | 2.5 | 30 |
| 9 | 1.7 | 8.2 | 426 | 35 | 573 | 259 | 200 | 93 | 79 | 4.6 | 4.0 | 25 |
| 10 | 1.6 | 7.3 | 211 | 33 | 555 | 206 | 170 | 82 | 57 | 4.0 | 7.3 | 19 |
| 11 | 1.7 | 6.6 | 144 | 34 | 391 | 169 | 140 | 78 | 47 | 6.7 | 6.7 | 21 |
| 12 | 1.6 | 5.8 | 119 | 38 | 307 | 156 | 110 | 79 | 37 | 5.8 | 6.4 | 15 |
| 13 | 1.4 | 5.7 | 100 | 41 | 200 | 161 | 94 | 70 | 32 | 4.0 | 5.5 | 10 |
| 14 | 1.0 | 6.6 | 90 | 45 | 150 | 161 | 78 | 72 | 36 | 3.0 | 4.7 | 9.1 |
| 15 | .84 | 9.0 | 79 | 49 | 120 | 163 | 65 | 66 | 28 | 2.5 | 4.9 | 9.9 |
| 16 | .96 | 9.0 | 70 | 52 | 110 | 154 | 55 | 63 | 36 | 1.9 | 4.7 | 12 |
| 17 | 3.7 | 7.8 | 62 | 50 | 139 | 165 | 40 | 61 | 33 | 1.6 | 4.2 | 9.1 |
| 18 | 4.0 | 9.5 | 57 | 43 | 165 | 218 | 35 | 57 | 24 | 1.4 | 3.6 | 7.3 |
| 19 | 3.0 | 463 | 53 | 36 | 247 | 543 | 39 | 51 | 18 | 1.3 | 7.9 | 6.7 |
| 20 | 2.8 | 663 | 46 | 31 | 310 | 2,200 | 66 | 43 | 15 | 2.0 | 30 | 7.3 |
| 21 | 3.3 | 235 | 43 | 26 | 192 | 1,050 | 61 | 38 | 13 | 2.2 | 10 | 11 |
| 22 | 5.1 | 107 | 43 | 23 | 139 | 540 | 45 | 32 | 10 | 1.8 | 9.5 | 10 |
| 23 | 3.4 | 72 | 42 | 22 | 120 | 519 | 59 | 28 | 7.9 | 2.6 | 16 | 16 |
| 24 | 2.2 | 62 | 41 | 21 | 105 | 444 | 3,030 | 24 | 6.7 | 3.8 | 54 | 12 |
| 25 | 1.8 | 57 | 39 | 20 | 98 | 768 | 3,730 | 21 | 6.4 | 3.6 | 44 | 116 |
| 26 | 1.8 | 50 | 37 | 20 | 90 | 1,470 | 686 | 23 | 5.2 | 3.0 | 35 | 42 |
| 27 | 2.2 | 43 | 37 | 100 | 84 | 936 | 543 | 20 | 4.2 | 3.0 | 22 | 52 |
| 28 | 1.9 | 39 | 36 | 519 | 78 | 462 | 690 | 17 | 3.6 | 14 | 15 | 27 |
| 29 | 1.6 | 34 | 86 | 2,270 | ------ | 345 | 1,010 | 15 | 3.2 | 9.1 | 11 | 16 |
| 30 | 1.4 | 31 | 210 | 2,010 | ------ | 302 | 6,930 | 12 | 3.0 | 4.7 | 8.3 | 13 |
| 31 | 1.2 | ------ | 370 | 504 | ------ | 304 | ------ | 10 | ------ | 21 | 7.6 | ------ |
| TOTAL | 62.20 | 2,012.0 | 3,885 | 6,836 | 7,959 | 20,664 | 30,659 | 4,835 | 2,457.2 | 126.6 | 380.5 | 632.3 |
| MEAN | 2.01 | 67.1 | 125 | 221 | 284 | 667 | 1,022 | 156 | 81.9 | 4.08 | 12.3 | 21.1 |
| MAX | 5.1 | 663 | 799 | 2,270 | 1,380 | 2,940 | 6,930 | 2,100 | 690 | 21 | 54 | 116 |
| MIN | .84 | 4.5 | 19 | 20 | 78 | 84 | 35 | 10 | 3.0 | 1.3 | 2.5 | 3.4 |
| CFSM | .008 | .27 | .50 | .89 | 1.15 | 2.69 | 4.12 | .63 | .33 | .017 | .050 | .085 |
| IN. | .009 | .30 | .58 | 1.03 | 1.19 | 3.10 | 4.60 | .73 | .37 | .02 | .06 | .09 |

CAL YR 1969 TOTAL 84,432.80 MEAN 231 MAX 8,280 MIN .84 CFSM .93 IN 12.66
WAT YR 1970 TOTAL 80,508.80 MEAN 221 MAX 6,930 MIN .84 CFSM .89 IN 12.08

PEAK DISCHARGE (BASE, 6,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-02 | 0245 | 13.56 | 15,500 | 04-30 | 0645 | 12.03 | 11,400 |

Note.--No gage-height record Dec. 29 to Jan. 29

03291780 Indian-Kentuck Creek near Canaan, Ind.

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

DRAINAGE AREA.--27.5 sq mi.

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

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

EXTREMES.--Current year: Maximum discharge, 2,680 cfs Apr. 2 (gage height, 10.22 ft); no flow for many days.
Period of record: Maximum discharge, 2,680 cfs Apr. 2, 1970 (gage height, 10.22 ft); no flow for many days.

REMARKS.--Records fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0 | .57 | 2.9 | 30 | 30 | 9.9 | 90 | 38 | .26 | 0 | .20 | 0 |
| 2 | .02 | 2.4 | 2.8 | 22 | 178 | 110 | 888 | 27 | .25 | 0 | .18 | 0 |
| 3 | .01 | 2.0 | 2.5 | 18 | 90 | 169 | 106 | 21 | 12 | 0 | .17 | 0 |
| 4 | .01 | 1.4 | 2.5 | 9.0 | 50 | 367 | 60 | 17 | 14 | 0 | .14 | 0 |
| 5 | .01 | 1.2 | 2.3 | 6.0 | 20 | 159 | 42 | 14 | 25 | 0 | .14 | 0 |
| 6 | .01 | .97 | 1.9 | 5.0 | 16 | 73 | 34 | 12 | 22 | 0 | .40 | 1.8 |
| 7 | .01 | .82 | 167 | 4.5 | 16 | 48 | 26 | 58 | 9.4 | 0 | 5.8 | 2.6 |
| 8 | 0 | .69 | 58 | 4.0 | 48 | 36 | 21 | 10 | 5.4 | 0 | 2.3 | 4.2 |
| 9 | .01 | .60 | 25 | 3.6 | 81 | 29 | 18 | 8.7 | 3.8 | 0 | .64 | 1.6 |
| 10 | .01 | .53 | 17 | 3.4 | 56 | 23 | 16 | 8.1 | 2.8 | 0 | .39 | .74 |
| 11 | .02 | .52 | 14 | 3.4 | 42 | 19 | 14 | 7.8 | 6.3 | 0 | .32 | .41 |
| 12 | .02 | .43 | 10 | 3.6 | 28 | 19 | 13 | 11 | 3.1 | 0 | .28 | .27 |
| 13 | .02 | .61 | 8.4 | 3.9 | 20 | 19 | 12 | 7.8 | 2.3 | 0 | .22 | .19 |
| 14 | .02 | 1.3 | 8.1 | 4.4 | 17 | 20 | 12 | 6.8 | 2.1 | 0 | .17 | .17 |
| 15 | .02 | 1.9 | 6.7 | 5.2 | 14 | 19 | 10 | 5.3 | 1.6 | 0 | .14 | .16 |
| 16 | .02 | 1.7 | 5.7 | 5.2 | 17 | 19 | 9.0 | 5.2 | 1.2 | 0 | .13 | .30 |
| 17 | .01 | 1.3 | 5.2 | 5.0 | 23 | 22 | 8.5 | 4.9 | 1.0 | 0 | .12 | .20 |
| 18 | .01 | 4.8 | 4.8 | 4.7 | 31 | 32 | 7.5 | 4.0 | .80 | 0 | .11 | .13 |
| 19 | .01 | 112 | 4.6 | 3.7 | 52 | 161 | 9.5 | 3.2 | .66 | 0 | 3.1 | .10 |
| 20 | .03 | 24 | 4.5 | 3.1 | 25 | 135 | 21 | 2.7 | .54 | 0 | 2.3 | .06 |
| 21 | .02 | 11 | 4.3 | 2.7 | 21 | 64 | 14 | 2.2 | .42 | 0 | .90 | .04 |
| 22 | .03 | 8.2 | 4.2 | 2.4 | 17 | 65 | 11 | 1.7 | .37 | 0 | .50 | .04 |
| 23 | .03 | 7.0 | 4.1 | 2.2 | 15 | 61 | 12 | 1.4 | .26 | 0 | .37 | .08 |
| 24 | .02 | 5.9 | 4.0 | 2.0 | 14 | 42 | 232 | 1.1 | .16 | 0 | .68 | .08 |
| 25 | .02 | 5.0 | 3.8 | 5.0 | 13 | 200 | 67 | .88 | .08 | 0 | .35 | 72 |
| 26 | .02 | 4.4 | 3.7 | 10 | 13 | 236 | 39 | .76 | .02 | 0 | .21 | 24 |
| 27 | .02 | 3.9 | 3.7 | 20 | 12 | 86 | 82 | .56 | 0 | 3.2 | .13 | 8.0 |
| 28 | .01 | 3.7 | 3.6 | 45 | 10 | 55 | 120 | .46 | 0 | 4.5 | .05 | 3.8 |
| 29 | .02 | 3.3 | 5.2 | 390 | ------ | 43 | 73 | .37 | 0 | .94 | .01 | 2.1 |
| 30 | .05 | 3.1 | 13 | 87 | ------ | 37 | 72 | .32 | 0 | .32 | 0 | 1.2 |
| 31 | .06 | ------ | 47 | 43 | ------ | 30 | ------ | .28 | ------ | .26 | 0 | ------ |
| TOTAL | .57 | 215.24 | 450.5 | 757.0 | 969 | 2,407.9 | 2,139.5 | 282.53 | 115.82 | 9.22 | 20.45 | 124.27 |
| MEAN | .018 | 7.17 | 14.5 | 24.4 | 34.6 | 77.7 | 71.3 | 9.11 | 3.86 | .30 | .66 | 4.14 |
| MAX | .06 | 112 | 167 | 390 | 178 | 367 | 888 | 58 | 25 | 4.5 | 5.8 | 72 |
| MIN | 0 | .43 | 1.9 | 2.0 | 10 | 9.9 | 7.5 | .28 | 0 | 0 | 0 | 0 |
| CFSM | .0007 | .26 | .53 | .89 | 1.26 | 2.83 | 2.59 | .33 | .14 | .011 | .024 | .15 |
| IN. | 0 | .29 | .61 | 1.02 | 1.31 | 3.26 | 2.89 | .38 | .16 | .01 | .03 | .17 |

WAT YR 1970 TOTAL 7,492.00 MEAN 20.5 MAX 888 MIN 0 CFSM .75 IN 10.13

PEAK DISCHARGE (BASE, 400 CFS)

| DATE | TIME | G.HT. | DISCHARGE | DATE | TIME | G.HT. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 12-07 | 1315 | 5.41 | 488 | 03-25 | 1745 | 6.56 | 778 |
| 01-29 | 0545 | 7.33 | 1,060 | 04-02 | 0015 | 10.22 | 2,680 |
| 03-04 | 0345 | 5.38 | 457 | 04-24 | 0815 | 6.60 | 860 |
| 03-19 | 1945 | 5.15 | 403 | | | | |

## 03293800 Deam Lake near Sellersburg, Ind.

LOCATION.--Lat 38°27'50", long 85°51'30", in NW¼ sec.4, T.1 S., R.6 E., Clark County, In intake tower of reservoir on Big Run, 1 mile above mouth, and 7.2 miles northwest of Sellersburg.

DRAINAGE AREA.--3.74 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 500.00 ft above mean sea level (levels by Indiana Department of Natural Resources).

EXTREMES.--Current year: Maximum contents, 3,482 acre-ft May 14 (gage height, 38.05 ft); minimum, 944 acre-ft Oct. 30, 31 (gage height, 21.82 ft).
Period of record: Maximum contents, 3,482 acre-ft May 14, 1970 (gage height, 38.05 ft); minimum contents since reaching minimum pool elevation of 535.00 ft, 944 acre-ft Oct. 30, 31, 1969 (gage height, 21.82 ft).

REMARKS.--Reservoir is formed by earth fill dam. Releases normally controlled by a sluice gate into 42-inch diameter pipe. Minimum design capacity is 2,850 acre-ft (elevation, 535 ft). Capacity at uncontrolled spillway elevation (555.1 ft) is 8,440 acre-ft. Reservoir is used for flood control and recreation. Reservoir put in operation on Jan. 14, 1965.

COOPERATION.--Capacity tables furnished by Indiana Department of Natural Resources.

Month-end gage height and contents, water year October 1969 to September 1970

| Date | Gage height (feet) | Contents (acre-feet) | Change in contents (acre-feet) |
|---|---|---|---|
| Sept. 30 | 22.04 | 964 | |
| Oct. 31 | 21.82 | 944 | -20 |
| Nov. 30 | 22.12 | 972 | +28 |
| Dec. 31 | 22.67 | 1,027 | +55 |
| Calendar year 1969 | - | - | -1,967 |
| Jan. 31 | 23.08 | 1,069 | +42 |
| Feb. 28 | 24.37 | 1,211 | +142 |
| Mar. 31 | 29.10 | 1,815 | +604 |
| Apr. 30 | 36.02 | 3,054 | +1,239 |
| May 31 | 35.72 | 2,994 | -60 |
| June 30 | 35.33 | 2,916 | -78 |
| July 31 | 34.99 | 2,848 | -68 |
| Aug. 31 | 35.00 | 2,850 | +2 |
| Sept. 30 | 34.89 | 2,828 | -22 |
| Water year 1969-70 | - | - | +1,864 |

03294000 Silver Creek near Sellersburg, Ind.

LOCATION.--Lat 38°22'15", long 85°43'35", in SW¼ lot 68, Clark Military Grant, Clark County, on upstream side of Straws Mill Bridge on Watson Road, 0.3 mile downstream from Pleasant Run, 2.4 miles southeast of Sellersburg, and 11.9 miles upstream from mouth.

DRAINAGE AREA.--188 sq mi.

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

GAGE.--Nonrecording gage and crest-stage gage. Altitude of gage is 430 ft (from topographic map).

AVERAGE DISCHARGE.--16 years, 206 cfs (14.88 inches per year).

EXTREMES.--Current year: Maximum discharge, 8,710 cfs Apr. 2 (gage height, 24.41 ft); minimum, 0.10 cfs Oct. 27, 28 (gage height, 3.63 ft).
Period of record: Maximum discharge, 19,600 cfs Jan. 22, 1959 (gage height, 30.89 ft, from floodmarks), from rating curve extended above 6,300 cfs on basis of contracted-opening measurements of peak flow, at site 5.2 miles upstream, (drainage area, 164 sq mi), adjusted to gage site; no flow at times in most years.

REMARKS.--Records fair.

REVISIONS (WATER YEARS).--WSP 1705: 1955-58.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 7.9 | 1.5 | 3.6 | 181 | 130 | 65 | 735 | 457 | 28 | 12 | 4.0 | 6.4 |
| 2 | 6.7 | 6.1 | 3.6 | 124 | 456 | 233 | 6,610 | 293 | 28 | 10 | 13 | 5.6 |
| 3 | 6.1 | 6.7 | 3.5 | 94 | 550 | 1,750 | 6,320 | 231 | 164 | 14 | 8.9 | 5.1 |
| 4 | 3.8 | 5.6 | 4.0 | 74 | 160 | 2,330 | 1,330 | 181 | 316 | 14 | 9.2 | 79 |
| 5 | 1.7 | 5.3 | 4.0 | 56 | 130 | 1,640 | 480 | 151 | 1,550 | 9.6 | 7.3 | 51 |
| 6 | 1.3 | 7.0 | 6.7 | 45 | 110 | 666 | 316 | 124 | 696 | 7.6 | 6.4 | 32 |
| 7 | 2.4 | 7.9 | 60 | 33 | 115 | 349 | 239 | 103 | 255 | 6.7 | 5.1 | 17 |
| 8 | 1.1 | 5.9 | 323 | 24 | 274 | 251 | 155 | 88 | 147 | 6.1 | 5.1 | 11 |
| 9 | .92 | 3.6 | 92 | 17 | 418 | 211 | 170 | 77 | 100 | 7.9 | 30 | 8.6 |
| 10 | .70 | 3.1 | 48 | 15 | 258 | 168 | 137 | 65 | 72 | 9.2 | 42 | 10 |
| 11 | .57 | 2.7 | 45 | 15 | 221 | 141 | 118 | 74 | 134 | 9.2 | 27 | 6.1 |
| 12 | .63 | 2.7 | 34 | 14 | 173 | 124 | 106 | 115 | 72 | 7.0 | 16 | 5.1 |
| 13 | .63 | 2.4 | 27 | 14 | 140 | 211 | 104 | 115 | 63 | 5.6 | 9.2 | 4.6 |
| 14 | .57 | 6.7 | 22 | 13 | 120 | 280 | 118 | 2,940 | 77 | 5.6 | 7.3 | 10 |
| 15 | .70 | 10 | 20 | 13 | 110 | 259 | 100 | 3,310 | 194 | 6.7 | 6.1 | 8.9 |
| 16 | 1.5 | 3.6 | 20 | 17 | 210 | 171 | 87 | 508 | 171 | 11 | 5.1 | 7.9 |
| 17 | 1.8 | 2.0 | 18 | 23 | 362 | 166 | 74 | 267 | 249 | 8.6 | 4.6 | 7.3 |
| 18 | 1.1 | 3.8 | 16 | 36 | 464 | 323 | 68 | 193 | 124 | 7.0 | 14 | 6.1 |
| 19 | .70 | 57 | 14 | 40 | 472 | 624 | 63 | 147 | 74 | 5.9 | 16 | 5.3 |
| 20 | .46 | 112 | 14 | 32 | 230 | 635 | 209 | 114 | 58 | 8.6 | 52 | 9.2 |
| 21 | 1.7 | 36 | 12 | 21 | 160 | 365 | 219 | 92 | 48 | 8.9 | 55 | 8.6 |
| 22 | 1.4 | 18 | 11 | 14 | 130 | 273 | 147 | 77 | 40 | 4.9 | 24 | 7.9 |
| 23 | .84 | 8.2 | 11 | 13 | 120 | 293 | 776 | 64 | 31 | 7.0 | 348 | 18 |
| 24 | .41 | 5.5 | 10 | 13 | 110 | 257 | 2,270 | 57 | 26 | 7.3 | 112 | 11 |
| 25 | .28 | 6.7 | 9.6 | 13 | 100 | 457 | 1,600 | 49 | 25 | 5.3 | 44 | 12 |
| 26 | .28 | 6.4 | 9.4 | 40 | 92 | 2,600 | 558 | 47 | 28 | 3.6 | 22 | 44 |
| 27 | .10 | 5.3 | 9.2 | 50 | 82 | 1,050 | 1,230 | 44 | 32 | 3.1 | 14 | 25 |
| 28 | .10 | 3.6 | 13 | 42 | 72 | 450 | 4,140 | 38 | 22 | 2.6 | 12 | 16 |
| 29 | .11 | 3.3 | 20 | 265 | ------ | 374 | 4,000 | 28 | 16 | 4.6 | 10 | 14 |
| 30 | .22 | 3.1 | 126 | 293 | ------ | 431 | 996 | 25 | 14 | 5.9 | 7.3 | 8.2 |
| 31 | .22 | ------ | 227 | 147 | ------ | 365 | ------ | 22 | ------ | 4.4 | 6.1 | ------ |
| TOTAL | 46.94 | 352.7 | 1,236.6 | 1,791 | 6,009 | 17,552 | 33,515 | 10,096 | 4,854 | 229.9 | 942.7 | 460.9 |
| MEAN | 1.51 | 11.8 | 39.9 | 57.8 | 215 | 566 | 1,117 | 326 | 162 | 7.42 | 30.4 | 15.4 |
| MAX | 7.9 | 112 | 323 | 293 | 550 | 2,600 | 6,610 | 3,310 | 1,550 | 14 | 348 | 79 |
| MIN | .10 | 1.5 | 3.5 | 13 | 72 | 65 | 63 | 22 | 14 | 2.6 | 4.0 | 4.6 |
| CFSM | .008 | .063 | .21 | .31 | 1.14 | 3.01 | 5.94 | 1.73 | .86 | .040 | .16 | .082 |
| IN. | .009 | .07 | .24 | .35 | 1.19 | 3.47 | 6.63 | 2.00 | .96 | .05 | .19 | .09 |

CAL YR 1969 TOTAL 50,707.54 PEAK 139 MAX 5,600 MIN .10 CFSM .74 IN 10.03
WAT YR 1970 TOTAL 77,086.74 MEAN 211 MAX 6,610 MIN .10 CFSM 1.12 IN 15.25

PEAK DISCHARGE (BASE, 2,500 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 03-26 | 0630 | 15.61 | 2,930 | 04-28 | 2100 | 20.10 | 5,080 |
| 04-02 | 2100 | 24.41 | 8,710 | 05-15 | 0030 | 20.27 | 5,220 |
| 04-24 | 2000 | 15.74 | 2,970 | | | | |

03294500 Ohio River at Louisville, Ky.

LOCATION.--Lat 38°16'49", long 85°47'57", Jefferson County, on left bank at downstream end of lock guide wall in lower pool at McAlpine Locks, at Louisville, 5.3 miles downstream from Beargrass Creek and at mile 607.3.

DRAINAGE AREA.--91,170 sq mi, approximately.

PERIOD OF RECORD.--January 1928 to current year. Prior to October 1935 monthly discharge only, published in WSP 1305. Gage-height record collected in this vicinity since 1871 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 373.18 ft above mean sea level, datum of 1929 or 374.00 ft above mean sea level, Ohio River datum. Prior to Oct. 1, 1939, and Oct. 1, 1943, to Sept. 30, 1946, various combinations of gages near Louisville were used. Oct. 1, 1939, to Sept. 30, 1943, water-stage recorders at Louisville and Kosmosdale, 4 and 20.1 miles, respectively, below McAlpine dam were used to determine discharge. Oct. 1, 1946, to Sept. 30, 1961, nonrecording gage at site 0.3 mile upstream at same datum. Since Oct. 1, 1952, upper nonrecording gage at dam 43, 25.9 miles downstream has been used as an auxiliary gage.

AVERAGE DISCHARGE.--42 years, 110,600 cfs (16.48 inches per year).

EXTREMES.--Current year: Maximum discharge, 506,000 cfs Apr. 6 (gage height, 55.72 ft); minimum daily, 9,580 cfs Oct. 15. Period of record: Maximum discharge, 1,110,000 cfs Jan. 26, 27, 1937; maximum gage height, 85.44 ft Jan. 27, 1937; minimum daily discharge, 2,100 cfs Aug. 12, 1930.

REMARKS.--Records good except those below 10,000 cfs, which are poor. Low and medium flow affected by operation of power plant and navigation dams.

COOPERATION.--Auxiliary gage-height record furnished by Corps of Engineers.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 13,600 | 15,300 | 35,600 | 281,000 | 256,000 | 89,900 | 191,000 | 393,000 | 57,000 | 39,900 | 41,000 | 19,700 |
| 2 | 14,100 | 29,200 | 31,100 | 378,000 | 280,000 | 88,300 | 345,000 | 367,000 | 50,900 | 33,300 | 48,300 | 17,200 |
| 3 | 18,400 | 36,500 | 34,500 | 405,000 | 310,000 | 106,000 | 489,000 | 326,000 | 40,400 | 44,000 | 62,400 | 28,100 |
| 4 | 25,400 | 30,900 | 36,300 | 376,000 | 292,000 | 122,000 | 501,000 | 271,000 | 52,200 | 42,100 | 52,100 | 40,600 |
| 5 | 32,300 | 39,800 | 35,900 | 286,000 | 270,000 | 191,000 | 503,000 | 192,000 | 80,600 | 35,900 | 36,600 | 27,500 |
| 6 | 21,200 | 43,500 | 35,800 | 216,000 | 263,000 | 223,000 | 505,000 | 147,000 | 69,200 | 35,900 | 33,200 | 14,600 |
| 7 | 29,800 | 28,300 | 45,300 | 166,000 | 253,000 | 241,000 | 495,000 | 123,000 | 67,700 | 36,700 | 28,900 | 20,700 |
| 8 | 17,900 | 36,100 | 67,200 | 127,000 | 225,000 | 258,000 | 470,000 | 105,000 | 66,500 | 36,300 | 32,800 | 30,300 |
| 9 | 20,600 | 24,900 | 55,600 | 100,000 | 219,000 | 264,000 | 387,000 | 83,800 | 66,700 | 32,900 | 24,700 | 31,700 |
| 10 | 21,600 | 26,800 | 63,500 | 79,000 | 249,000 | 247,000 | 291,000 | 82,700 | 46,200 | 49,900 | 45,900 | 31,000 |
| 11 | 16,200 | 37,200 | 73,400 | 57,900 | 273,000 | 205,000 | 243,000 | 77,600 | 42,900 | 60,900 | 57,700 | 24,200 |
| 12 | 17,700 | 31,900 | 95,400 | 38,800 | 281,000 | 175,000 | 199,000 | 60,800 | 34,000 | 65,100 | 36,700 | 39,600 |
| 13 | 27,100 | 29,400 | 141,000 | 54,400 | 267,000 | 146,000 | 182,000 | 81,200 | 39,600 | 60,000 | 48,100 | 25,300 |
| 14 | 17,700 | 31,700 | 173,000 | 44,200 | 234,000 | 168,000 | 174,000 | 143,000 | 51,000 | 37,400 | 44,700 | 27,500 |
| 15 | 9,580 | 27,000 | 180,000 | 54,700 | 193,000 | 191,000 | 154,000 | 171,000 | 35,300 | 35,000 | 26,700 | 31,900 |
| 16 | 18,500 | 28,400 | 154,000 | 67,100 | 202,000 | 190,000 | 141,000 | 165,000 | 41,800 | 30,500 | 25,100 | 22,200 |
| 17 | 10,600 | 29,500 | 135,000 | 70,600 | 273,000 | 160,000 | 130,000 | 153,000 | 58,300 | 46,800 | 23,200 | 26,000 |
| 18 | 15,100 | 38,700 | 122,000 | 65,700 | 346,000 | 131,000 | 121,000 | 140,000 | 63,900 | 53,800 | 24,000 | 30,500 |
| 19 | 19,300 | 42,200 | 110,000 | 56,400 | 362,000 | 114,000 | 123,000 | 133,000 | 62,400 | 55,100 | 23,600 | 34,500 |
| 20 | 16,200 | 85,100 | 93,600 | 61,000 | 320,000 | 150,000 | 133,000 | 132,000 | 69,100 | 50,900 | 23,300 | 40,300 |
| 21 | 16,300 | 85,600 | 86,400 | 63,100 | 268,000 | 155,000 | 134,000 | 128,000 | 84,100 | 39,000 | 15,600 | 25,500 |
| 22 | 19,000 | 86,600 | 81,700 | 61,200 | 204,000 | 154,000 | 134,000 | 112,000 | 83,400 | 36,100 | 31,700 | 35,700 |
| 23 | 16,700 | 91,900 | 72,600 | 65,200 | 170,000 | 151,000 | 138,000 | 84,000 | 84,500 | 38,500 | 32,400 | 33,700 |
| 24 | 14,100 | 88,100 | 44,300 | 62,300 | 137,000 | 152,000 | 206,000 | 82,600 | 51,300 | 34,200 | 45,200 | 34,400 |
| 25 | 27,000 | 80,900 | 45,100 | 63,200 | 109,000 | 157,000 | 328,000 | 84,200 | 47,300 | 29,400 | 54,900 | 34,900 |
| 26 | 14,800 | 61,300 | 46,600 | 56,300 | 100,000 | 184,000 | 365,000 | 70,300 | 41,700 | 30,900 | 46,000 | 34,200 |
| 27 | 23,100 | 68,500 | 43,700 | 70,600 | 97,400 | 179,000 | 348,000 | 60,500 | 38,400 | 25,900 | 26,100 | 33,900 |
| 28 | 17,600 | 59,300 | 41,000 | 89,800 | 95,300 | 165,000 | 367,000 | 90,200 | 46,700 | 31,600 | 35,200 | 49,600 |
| 29 | 13,300 | 59,800 | 43,900 | 121,000 | ------ | 156,000 | 377,000 | 89,400 | 48,300 | 29,700 | 29,700 | 42,600 |
| 30 | 12,400 | 58,100 | 66,200 | 193,000 | ------ | 154,000 | 395,000 | 88,800 | 30,200 | 30,400 | 17,700 | 38,300 |
| 31 | 18,600 | ------ | 150,000 | 223,000 | ------ | 167,000 | ------ | 81,300 | ------ | 44,200 | 19,500 | ------ |
| TOTAL | 575,780 | 1,432.5M | 2,439.7M | 4,053.5M | 6,548.7M | 5,234.2M | 8,569.0M | 4,318.4M | 1,651.6M | 1,252.3M | 1,093.0M | 926,200 |
| MEAN | 18,570 | 47,750 | 78,700 | 130,800 | 233,900 | 168,800 | 285,600 | 139,300 | 55,050 | 40,400 | 35,260 | 30,870 |
| MAX | 32,300 | 91,900 | 180,000 | 405,000 | 362,000 | 264,000 | 505,000 | 393,000 | 84,500 | 65,100 | 62,400 | 49,600 |
| MIN | 9,580 | 15,300 | 31,100 | 38,800 | 95,300 | 88,300 | 121,000 | 60,500 | 30,200 | 25,900 | 15,600 | 14,600 |
| CFSM | .20 | .52 | .86 | 1.43 | 2.57 | 1.85 | 3.13 | 1.53 | .60 | .44 | .39 | .34 |
| IN. | .23 | .58 | 1.00 | 1.65 | 2.67 | 2.14 | 3.50 | 1.76 | .67 | .51 | .45 | .38 |

CAL YR 1969 TOTAL 29,836,380 MEAN 81,740 MAX 342,000 MIN 9,580 CFSM .90 IN 12.17
WTR YR 1970 TOTAL 38,094,880 MEAN 104,400 MAX 505,000 MIN 9,580 CFSM 1.15 IN 15.54

## 03302220 Buck Creek near New Middletown, Ind.

LOCATION.--Lat 38°07'13", long 86°05'16", in SE¼NE¼ sec.32, T.4 S., R.4 E., Harrison County, at downstream end of pier of bridge on State Highway 337, 0.5 mile downstream from South Fork Buck Creek, 3.6 miles southwest of New Middletown, and 14.6 miles upstream from mouth.

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

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

GAGE.--Water-stage recorder. Altitude of gage is 500 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 12,700 cfs Apr. 2 (gage height, 14.40 ft); minimum, 1.7 cfs Oct. 1 (gage height, 1.01 ft). Period of record: Maximum discharge, 12,700 cfs Apr. 2, 1970 (gage height, 14.40 ft); minimum, 1.7 cfs Oct. 1, 1969 (gage height, 1.01 ft).

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.7 | 15 | 8.1 | 127 | 84 | 37 | 540 | 182 | 17 | 12 | 14 | 5.1 |
| 2 | 2.5 | 20 | 6.9 | 95 | 224 | 384 | 3,000 | 133 | 15 | 11 | 7.3 | 5.1 |
| 3 | 3.1 | 11 | 6.9 | 75 | 130 | 610 | 1,100 | 104 | 111 | 33 | 46 | 16 |
| 4 | 2.7 | 8.1 | 6.3 | 60 | 80 | 668 | 400 | 85 | 210 | 26 | 30 | 33 |
| 5 | 2.2 | 6.3 | 6.0 | 50 | 60 | 339 | 250 | 72 | 196 | 14 | 12 | 11 |
| 6 | 1.9 | 6.0 | 5.7 | 38 | 54 | 196 | 190 | 61 | 199 | 11 | 8.1 | 6.6 |
| 7 | 2.1 | 5.4 | 93 | 33 | 85 | 141 | 140 | 50 | 104 | 9.5 | 6.3 | 5.4 |
| 8 | 2.4 | 5.1 | 90 | 28 | 135 | 113 | 110 | 46 | 72 | 8.5 | 8.1 | 4.8 |
| 9 | 2.4 | 4.8 | 54 | 25 | 132 | 95 | 92 | 40 | 55 | 8.1 | 69 | 4.2 |
| 10 | 1.9 | 4.5 | 40 | 23 | 105 | 78 | 78 | 40 | 46 | 7.7 | 39 | 3.3 |
| 11 | 2.5 | 4.8 | 33 | 21 | 89 | 64 | 68 | 147 | 39 | 6.9 | 22 | 2.7 |
| 12 | 4.0 | 4.8 | 25 | 20 | 71 | 61 | 60 | 668 | 31 | 6.3 | 14 | 2.4 |
| 13 | 3.8 | 5.4 | 21 | 19 | 52 | 55 | 54 | 217 | 413 | 5.7 | 11 | 2.5 |
| 14 | 3.1 | 7.7 | 20 | 18 | 48 | 53 | 50 | 217 | 152 | 5.4 | 8.5 | 3.3 |
| 15 | 3.1 | 7.7 | 16 | 17 | 130 | 49 | 45 | 118 | 126 | 5.4 | 6.9 | 3.1 |
| 16 | 3.1 | 6.6 | 14 | 17 | 159 | 43 | 39 | 90 | 162 | 10 | 6.0 | 2.5 |
| 17 | 2.9 | 6.0 | 13 | 20 | 196 | 43 | 37 | 68 | 129 | 6.3 | 5.1 | 2.4 |
| 18 | 2.7 | 10 | 12 | 43 | 259 | 56 | 33 | 55 | 86 | 4.8 | 17 | 2.7 |
| 19 | 2.5 | 93 | 12 | 32 | 244 | 83 | 36 | 46 | 63 | 4.8 | 41 | 3.5 |
| 20 | 2.9 | 50 | 10 | 25 | 137 | 82 | 46 | 40 | 51 | 24 | 93 | 3.1 |
| 21 | 11 | 31 | 9.6 | 20 | 100 | 72 | 38 | 35 | 45 | 11 | 27 | 2.7 |
| 22 | 7.3 | 24 | 9.0 | 18 | 87 | 71 | 34 | 30 | 35 | 6.6 | 27 | 4.0 |
| 23 | 4.5 | 20 | 8.6 | 17 | 75 | 63 | 1,160 | 27 | 30 | 9.0 | 65 | 4.2 |
| 24 | 3.5 | 16 | 8.4 | 16 | 65 | 58 | 1,260 | 24 | 27 | 9.0 | 23 | 3.8 |
| 25 | 3.3 | 14 | 8.0 | 16 | 58 | 125 | 453 | 23 | 24 | 6.3 | 15 | 130 |
| 26 | 3.3 | 13 | 7.8 | 15 | 47 | 297 | 246 | 32 | 22 | 5.4 | 11 | 71 |
| 27 | 3.3 | 11 | 7.4 | 15 | 43 | 169 | 165 | 20 | 20 | 4.8 | 8.5 | 39 |
| 28 | 3.3 | 10 | 7.4 | 50 | 40 | 126 | 1,740 | 17 | 16 | 4.5 | 6.9 | 24 |
| 29 | 3.1 | 9.0 | 50 | 248 | ------ | 111 | 596 | 16 | 15 | 4.0 | 6.3 | 16 |
| 30 | 2.9 | 8.1 | 154 | 157 | ------ | 115 | 302 | 14 | 14 | 22 | 5.7 | 12 |
| 31 | 3.3 | ------ | 206 | 104 | ------ | 206 | ------ | 16 | ------ | 33 | 4.8 | ------ |
| TOTAL | 102.3 | 438.3 | 969.1 | 1,462 | 2,989 | 4,663 | 12,362 | 2,733 | 2,525 | 336.0 | 664.5 | 429.4 |
| MEAN | 3.30 | 14.6 | 31.3 | 47.2 | 107 | 150 | 412 | 88.2 | 84.2 | 10.8 | 21.4 | 14.3 |
| MAX | 11 | 93 | 206 | 248 | 259 | 668 | 3,000 | 668 | 413 | 33 | 93 | 130 |
| MIN | 1.7 | 4.5 | 5.7 | 15 | 40 | 37 | 33 | 14 | 14 | 4.0 | 4.8 | 2.4 |
| CFSM | .051 | .22 | .48 | .72 | 1.64 | 2.30 | 6.32 | 1.35 | 1.29 | .17 | .33 | .22 |
| IN. | .06 | .25 | .55 | .83 | 1.71 | 2.66 | 7.05 | 1.56 | 1.44 | .19 | .38 | .24 |

WAT YR 1970 TOTAL 29,673.6 MEAN 81.3 MAX 3,000 MIN 1.7 CFSM 1.25 IN 16.93

PEAK DISCHARGE (BASE, 500 CFS)

| DATE | TIME | G.HT. | DISCHARGE | DATE | TIME | G.HT. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 01-29 | 1030 | 4.48 | 544 | 04-28 | 0930 | 8.83 | 4,260 |
| 03-02 | 1930 | 5.89 | 1,220 | 05-12 | 0115 | 9.12 | 4,670 |
| 04-02 | 0030 | 14.40 | 12,700 | 06-13 | 1230 | 7.06 | 2,170 |
| 04-23 | 1715 | 8.00 | 3,200 | 09-25 | 1800 | 5.41 | 936 |

## 03302300 Little Indian Creek near Galena, Ind.

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

DRAINAGE AREA.--16.1 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 703.00 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 3,090 cfs Apr. 1 (gage height, 7.34 ft), from rating curve extended above 400 cfs on basis of indirect determination of peak flow; no flow Oct. 1-10, 15-20, 24-31.
Period of record: Maximum discharge, 3,090 cfs Apr. 1, 1970 (gage height, 7.34 ft); from rating curve extended above 400 cfs on basis of indirect determination of peak flow; no flow at times in most years.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0 | 2.3 | 1.3 | 16 | 14 | 9.3 | 279 | 41 | 3.4 | .82 | 4.0 | 1.9 |
| 2 | 0 | 1.3 | 1.3 | 13 | 73 | 133 | 750 | 30 | 3.1 | .74 | 2.5 | 1.6 |
| 3 | 0 | .66 | 1.3 | 11 | 51 | 210 | 111 | 23 | 22 | 2.8 | 22 | 4.0 |
| 4 | 0 | .44 | 1.1 | 8.0 | 25 | 240 | 68 | 19 | 45 | 2.5 | 5.5 | 5.2 |
| 5 | 0 | .44 | 1.0 | 7.0 | 17 | 91 | 48 | 15 | 54 | .82 | 2.8 | 2.8 |
| 6 | 0 | .30 | 1.1 | 6.0 | 14 | 52 | 38 | 11 | 36 | .66 | 1.6 | 1.9 |
| 7 | 0 | .30 | 41 | 5.4 | 21 | 35 | 29 | 9.0 | 19 | .60 | 1.1 | 1.4 |
| 8 | 0 | .23 | 15 | 5.0 | 41 | 28 | 25 | 7.8 | 11 | 1.0 | 84 | 1.1 |
| 9 | 0 | .23 | 8.0 | 4.6 | 37 | 22 | 22 | 6.7 | 8.2 | 3.7 | 40 | 1.0 |
| 10 | 0 | .23 | 6.1 | 4.3 | 26 | 18 | 17 | 7.4 | 6.7 | .82 | 11 | .90 |
| 11 | .11 | .23 | 5.0 | 4.0 | 20 | 15 | 14 | 6.7 | 5.8 | .60 | 6.4 | .82 |
| 12 | .44 | .17 | 3.9 | 3.9 | 17 | 17 | 12 | 9.0 | 4.9 | .48 | 4.9 | .74 |
| 13 | .23 | .37 | 3.4 | 3.7 | 14 | 19 | 14 | 13 | 6.4 | .42 | 4.9 | .74 |
| 14 | .05 | 1.0 | 3.2 | 3.5 | 13 | 20 | 12 | 203 | 5.5 | .42 | 3.7 | 1.0 |
| 15 | 0 | .51 | 2.6 | 3.4 | 21 | 17 | 10 | 36 | 12 | 15 | 2.8 | .82 |
| 16 | 0 | .37 | 2.3 | 3.3 | 35 | 15 | 8.6 | 23 | 8.6 | 5.5 | 1.9 | .66 |
| 17 | 0 | .37 | 2.2 | 3.5 | 41 | 15 | 7.8 | 17 | 6.7 | 1.1 | 1.6 | .60 |
| 18 | 0 | 2.6 | 2.3 | 10 | 50 | 27 | 7.0 | 12 | 5.2 | .66 | 1.4 | .60 |
| 19 | 0 | 24 | 2.2 | 11 | 49 | 39 | 16 | 9.0 | 4.0 | .66 | 27 | .74 |
| 20 | 0 | 6.1 | 1.8 | 7.6 | 30 | 36 | 55 | 7.4 | 3.4 | 5.2 | 42 | .74 |
| 21 | 1.1 | 3.4 | 2.1 | 6.0 | 22 | 27 | 30 | 6.4 | 3.7 | 1.0 | 10 | .66 |
| 22 | .30 | 2.8 | 1.9 | 4.7 | 18 | 26 | 22 | 5.5 | 3.1 | .66 | 44 | .60 |
| 23 | .05 | 2.3 | 1.8 | 4.2 | 15 | 24 | 367 | 4.9 | 2.2 | 3.4 | 36 | 1.9 |
| 24 | 0 | 2.1 | 1.7 | 3.7 | 14 | 22 | 474 | 4.0 | 1.4 | 2.2 | 11 | .82 |
| 25 | 0 | 2.0 | 1.6 | 3.5 | 12 | 139 | 111 | 4.6 | 1.4 | 1.0 | 6.7 | 31 |
| 26 | 0 | 1.7 | 1.6 | 3.3 | 11 | 163 | 62 | 8.2 | 4.6 | .74 | 5.2 | 6.4 |
| 27 | 0 | 1.6 | 1.5 | 4.0 | 10 | 64 | 339 | 3.7 | 5.5 | .66 | 4.3 | 4.0 |
| 28 | 0 | 1.5 | 1.5 | 11 | 9.8 | 41 | 478 | 2.8 | 1.9 | .54 | 3.7 | 2.8 |
| 29 | 0 | 1.4 | 13 | 30 | ------ | 37 | 122 | 2.5 | 1.2 | .48 | 3.1 | 1.9 |
| 30 | 0 | 1.4 | 21 | 15 | ------ | 40 | 65 | 1.9 | 1.0 | 24 | 2.8 | 1.4 |
| 31 | 0 | ------ | 23 | 13 | ------ | 47 | ------ | 3.4 | ------ | 13 | 2.2 | ------ |
| TOTAL | 2.28 | 62.35 | 176.8 | 232.6 | 720.8 | 1,688.3 | 3,613.4 | 553.9 | 296.9 | 92.18 | 400.1 | 80.74 |
| MEAN | .074 | 2.08 | 5.70 | 7.50 | 25.7 | 54.5 | 120 | 17.9 | 9.90 | 2.97 | 12.9 | 2.69 |
| MAX | 1.1 | 24 | 41 | 30 | 73 | 240 | 750 | 203 | 54 | 24 | 84 | 31 |
| MIN | 0 | .17 | 1.0 | 3.3 | 9.8 | 9.3 | 7.0 | 1.9 | 1.0 | .42 | 1.1 | .60 |
| CFSM | .005 | .13 | .35 | .47 | 1.60 | 3.39 | 7.45 | 1.11 | .61 | .18 | .80 | .17 |
| IN. | .005 | .14 | .41 | .54 | 1.67 | 3.90 | 8.35 | 1.28 | .69 | .21 | .92 | .19 |

CAL YR 1969 TOTAL 5,717.98 MEAN 15.7 MAX 487 MIN 0 CFSM .98 IN 13.21
WAT YR 1970 TOTAL 7,920.35 MEAN 21.7 MAX 750 MIN 0 CFSM 1.35 IN 18.30

PEAK DISCHARGE (BASE, 250 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 03-04 | 0100 | 3.92 | 458 | 05-14 | 0415 | 5.59 | 1,450 |
| 03-25 | 1645 | 3.86 | 434 | 07-30 | 1630 | 3.51 | 304 |
| 04-01 | 2330 | 7.34 | 3,090 | 08-08 | 2115 | 5.23 | 1,160 |
| 04-24 | 0645 | 5.63 | 1,490 | 08-19 | 2030 | 3.40 | 270 |
| 04-28 | 1015 | 6.03 | 1,850 | 08-22 | 2130 | 4.55 | 745 |

## 03302500 Indian Creek near Corydon, Ind.

LOCATION.--Lat 38°16'35", long 86°06'35", in SE¼ sec.6, T.3 S., R.4 E., Harrison County, on upstream side of bridge on State Highway 335, 0.6 mile upstream from Raccoon Branch, and 4.5 miles north of Corydon.

DRAINAGE AREA.--129 sq mi.

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

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

AVERAGE DISCHARGE.--27 years, 164 cfs (17.26 inches per year).

EXTREMES.--Current year: Maximum discharge, 11,900 cfs Apr. 2 (gage height, 18.80 ft); minimum, 0.10 cfs Oct. 11; minimum gage height, 3.89 ft Sept. 25.
Period of record: Maximum discharge, 26,700 cfs Mar. 5, 1964 (gage height, 22.64 ft); no flow at times during 1943-44, 1951-54, 1959, 1965.

REMARKS.--Records fair.

REVISIONS (WATER YEARS) -- WSP1275: Drainage area. WSP 1385: 1951(M). WSP 1909: 1964(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .50 | 2.8 | 11 | 172 | 138 | 71 | 495 | 544 | 29 | 8.1 | 114 | 12 |
| 2 | .60 | 3.7 | 10 | 134 | 351 | 445 | 8,010 | 368 | 32 | 7.6 | 68 | 9.6 |
| 3 | .60 | 3.9 | 9.9 | 109 | 495 | 1,850 | 1,520 | 275 | 80 | 11 | 171 | 8.6 |
| 4 | .50 | 5.8 | 9.2 | 85 | 248 | 2,380 | 725 | 203 | 237 | 10 | 136 | 25 |
| 5 | .50 | 6.2 | 8.8 | 70 | 150 | 1,180 | 463 | 153 | 517 | 16 | 57 | 34 |
| 6 | .50 | 5.0 | 8.5 | 50 | 130 | 645 | 340 | 117 | 393 | 11 | 38 | 18 |
| 7 | .50 | 3.9 | 87 | 42 | 142 | 403 | 240 | 100 | 198 | 8.1 | 27 | 10 |
| 8 | .50 | 3.2 | 234 | 37 | 312 | 287 | 190 | 89 | 117 | 8.6 | 27 | 6.8 |
| 9 | .50 | 2.8 | 107 | 33 | 389 | 222 | 164 | 79 | 80 | 18 | 795 | 4.9 |
| 10 | .50 | 2.8 | 75 | 31 | 278 | 173 | 139 | 75 | 57 | 17 | 153 | 3.9 |
| 11 | .40 | 2.6 | 60 | 29 | 208 | 144 | 123 | 81 | 43 | 13 | 90 | 2.9 |
| 12 | .60 | 2.2 | 46 | 28 | 162 | 133 | 113 | 91 | 32 | 9.1 | 61 | 1.8 |
| 13 | .40 | 2.2 | 37 | 27 | 136 | 142 | 107 | 82 | 28 | 6.8 | 45 | 1.4 |
| 14 | .80 | 3.0 | 33 | 26 | 120 | 151 | 102 | 1,260 | 31 | 5.2 | 35 | 1.5 |
| 15 | .93 | 3.0 | 30 | 25 | 160 | 144 | 93 | 326 | 75 | 7.6 | 29 | 1.2 |
| 16 | 1.1 | 3.2 | 25 | 30 | 210 | 128 | 84 | 177 | 116 | 47 | 24 | .95 |
| 17 | .93 | 3.5 | 23 | 38 | 326 | 128 | 77 | 134 | 91 | 30 | 22 | 1.1 |
| 18 | .80 | 7.0 | 21 | 75 | 431 | 156 | 73 | 104 | 53 | 14 | 26 | 1.1 |
| 19 | .80 | 111 | 20 | 82 | 421 | 347 | 75 | 85 | 35 | 9.6 | 25 | .95 |
| 20 | .93 | 107 | 19 | 69 | 254 | 354 | 201 | 71 | 26 | 12 | 242 | .85 |
| 21 | 1.2 | 50 | 18 | 39 | 175 | 260 | 177 | 59 | 25 | 9.6 | 113 | .77 |
| 22 | 1.4 | 34 | 17 | 32 | 140 | 219 | 129 | 53 | 21 | 11 | 58 | .77 |
| 23 | 1.1 | 27 | 16 | 29 | 130 | 196 | 1,700 | 45 | 18 | 11 | 508 | .85 |
| 24 | .80 | 23 | 15 | 27 | 110 | 177 | 3,280 | 40 | 14 | 10 | 120 | .69 |
| 25 | .80 | 20 | 15 | 25 | 107 | 428 | 1,280 | 37 | 12 | 9.6 | 73 | 6.0 |
| 26 | .70 | 17 | 15 | 24 | 94 | 1,660 | 660 | 41 | 12 | 10 | 50 | 68 |
| 27 | .60 | 15 | 14 | 40 | 89 | 780 | 940 | 43 | 14 | 11 | 38 | 36 |
| 28 | .50 | 14 | 14 | 74 | 79 | 450 | 3,920 | 32 | 21 | 9.6 | 30 | 21 |
| 29 | .60 | 13 | 24 | 202 | ------ | 344 | 2,000 | 30 | 11 | 6.8 | 24 | 17 |
| 30 | .80 | 12 | 117 | 238 | ------ | 309 | 875 | 28 | 8.6 | 126 | 19 | 14 |
| 31 | .80 | ------ | 201 | 166 | ------ | 358 | ------ | 28 | ------ | 490 | 15 | ------ |
| TOTAL | 22.19 | 509.8 | 1,340.4 | 2,088 | 5,985 | 14,664 | 28,295 | 4,850 | 2,426.6 | 974.3 | 3,233 | 311.63 |
| MEAN | .72 | 17.0 | 43.2 | 67.4 | 214 | 473 | 943 | 156 | 80.9 | 31.4 | 104 | 10.4 |
| MAX | 1.4 | 111 | 234 | 238 | 495 | 2,380 | 8,010 | 1,260 | 517 | 490 | 795 | 68 |
| MIN | .40 | 2.2 | 8.5 | 24 | 79 | 71 | 73 | 28 | 8.6 | 5.2 | 15 | .69 |
| CFSM | .006 | .13 | .33 | .52 | 1.66 | 3.67 | 7.31 | 1.21 | .63 | .24 | .81 | .081 |
| IN. | .006 | .15 | .39 | .60 | 1.73 | 4.23 | 8.16 | 1.40 | .70 | .28 | .93 | .09 |

CAL YR 1969 TOTAL 43,511.29 MEAN 119 MAX 4,330 MIN .40 CFSM .92 IN 12.55
WAT YR 1970 TOTAL 64,699.92 MEAN 177 MAX 8,010 MIN .40 CFSM 1.37 IN 18.66

PEAK DISCHARGE (BASE, 4,500 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-02 | 1500 | 18.80 | 11,900 | 04-28 | 0345 | 13.26 | 5,150 |
| 04-24 | 1615 | 12.81 | 4,750 | | | | |

03302680 West Fork Blue River at Salem, Ind.

LOCATION.--Lat 38°36'05", long 86°06'02", in NE¼NW¼ sec.20, T.2 N., R.4 E., Washington County, near center of span on downstream side of bridge on State Highway 60 and 0.2 mile upstream from Brock Creek at Salem.

DRAINAGE AREA.--19.4 sq mi.

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

GAGE.--Nonrecording gage. Datum of gage is 707.96 ft above mean sea level.

EXTREMES.--Maximum discharge during period, 5.8 cfs July 5 (gage height, 1.66 ft); minimum, 0.02 cfs Sept. 24 (gage height, 1.12 ft).

REMARKS.--Records fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | 2.3 | 2.7 | 1.7 |
| 2 | | | | | | | | | | 3.1 | 2.5 | .29 |
| 3 | | | | | | | | | | 2.7 | 2.5 | .79 |
| 4 | | | | | | | | | | 4.7 | .73 | 1.5 |
| 5 | | | | | | | | | | 4.9 | 1.4 | .57 |
| 6 | | | | | | | | | | 2.8 | 2.5 | .37 |
| 7 | | | | | | | | | | 2.0 | 2.9 | .37 |
| 8 | | | | | | | | | | 1.4 | 3.3 | .42 |
| 9 | | | | | | | | | | .37 | 1.8 | .29 |
| 10 | | | | | | | | | | 2.5 | .52 | .22 |
| 11 | | | | | | | | | | 4.1 | 1.5 | .16 |
| 12 | | | | | | | | | | 3.0 | 2.1 | .10 |
| 13 | | | | | | | | | | 2.3 | 1.5 | .08 |
| 14 | | | | | | | | | | 2.0 | 1.3 | .16 |
| 15 | | | | | | | | | | 2.1 | 1.3 | .19 |
| 16 | | | | | | | | | | 3.1 | 1.5 | .57 |
| 17 | | | | | | | | | | 4.0 | 2.4 | .19 |
| 18 | | | | | | | | | | 4.5 | 1.4 | .10 |
| 19 | | | | | | | | | | 1.1 | 1.4 | .29 |
| 20 | | | | | | | | | | .25 | 1.4 | .08 |
| 21 | | | | | | | | | | 1.4 | 1.0 | .16 |
| 22 | | | | | | | | | | 2.0 | 1.0 | .62 |
| 23 | | | | | | | | | | 1.4 | .52 | .42 |
| 24 | | | | | | | | | | .79 | 1.0 | .02 |
| 25 | | | | | | | | | | 1.2 | .79 | .06 |
| 26 | | | | | | | | | | 3.1 | .57 | .52 |
| 27 | | | | | | | | | | 3.3 | 1.0 | .06 |
| 28 | | | | | | | | | | 3.8 | 1.6 | .10 |
| 29 | | | | | ------ | | | | | 1.6 | 1.9 | .14 |
| 30 | | | | | ------ | | | | | 2.0 | 1.4 | 2.3 |
| 31 | | ------ | | | ------ | | ------ | | ------ | 2.4 | 1.6 | ------ |
| TOTAL | | | | | | | | | | 76.81 | 49.13 | 12.84 |
| MEAN | | | | | | | | | | 2.48 | 1.58 | .43 |
| MAX | | | | | | | | | | 4.9 | 3.3 | 2.3 |
| MIN | | | | | | | | | | .25 | .52 | .02 |
| CFSM | | | | | | | | | | .13 | .081 | .022 |
| IN. | | | | | | | | | | .15 | .09 | .02 |

03302800 Blue River at Fredericksburg, Ind.

LOCATION.--Lat 38°26'02", long 86°11'31", in NW¼ sec.16, T.1 S., R.3 E., Washington County, attached to downstream side of bridge on U.S. Highway 150 at Fredericksburg and 0.5 mile downstream from South Fork Blue River.

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

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

GAGE.--Water-stage recorder. Datum of gage is 590.00 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 8,310 cfs May 14 (gage height, 18.79 ft); minimum, 7.6 cfs Oct. 9, 10 (gage height, 1.85 ft).
Period of record: Maximum discharge 9,450 cfs Jan. 30, 1969 (gage height, 19.95 ft); minimum, 5.6 cfs Oct. 18, 1968 (gage height, 1.85 ft).
Flood of Jan. 21, 1959 reached a stage of 29.20 ft, from floodmark on left upstream wingwall.

REMARKS --Records fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 8.7 | 11 | 36 | 291 | 293 | 127 | 501 | 789 | 66 | 54 | 119 | 22 |
| 2 | 9.9 | 14 | 35 | 239 | 521 | 504 | 5,860 | 600 | 66 | 50 | 66 | 21 |
| 3 | 9.9 | 14 | 32 | 204 | 721 | 2,170 | 2,260 | 470 | 519 | 50 | 44 | 81 |
| 4 | 9.9 | 13 | 29 | 166 | 370 | 3,620 | 1,020 | 389 | 298 | 48 | 56 | 182 |
| 5 | 9.0 | 14 | 26 | 140 | 300 | 2,520 | 754 | 325 | 1,200 | 42 | 35 | 83 |
| 6 | 9.0 | 16 | 24 | 120 | 260 | 1,180 | 628 | 262 | 976 | 38 | 25 | 49 |
| 7 | 9.0 | 14 | 123 | 110 | 247 | 824 | 501 | 221 | 529 | 35 | 20 | 36 |
| 8 | 8.7 | 13 | 491 | 100 | 496 | 667 | 419 | 197 | 330 | 35 | 26 | 30 |
| 9 | 8.3 | 12 | 249 | 94 | 809 | 546 | 369 | 171 | 238 | 42 | 111 | 27 |
| 10 | 7.9 | 11 | 182 | 90 | 609 | 439 | 315 | 163 | 197 | 41 | 66 | 22 |
| 11 | 10 | 11 | 151 | 84 | 480 | 359 | 271 | 187 | 162 | 33 | 39 | 19 |
| 12 | 20 | 10 | 121 | 80 | 379 | 320 | 236 | 215 | 133 | 29 | 29 | 18 |
| 13 | 18 | 10 | 99 | 78 | 290 | 322 | 219 | 185 | 123 | 27 | 23 | 16 |
| 14 | 13 | 11 | 89 | 74 | 250 | 327 | 201 | 4,610 | 157 | 25 | 20 | 16 |
| 15 | 11 | 11 | 80 | 73 | 240 | 312 | 178 | 2,140 | 287 | 26 | 18 | 16 |
| 16 | 9.9 | 11 | 70 | 74 | 228 | 276 | 153 | 669 | 531 | 29 | 17 | 17 |
| 17 | 9.4 | 11 | 62 | 86 | 265 | 283 | 143 | 469 | 769 | 24 | 14 | 15 |
| 18 | 9.9 | 26 | 58 | 220 | 402 | 346 | 130 | 340 | 358 | 22 | 14 | 13 |
| 19 | 9.0 | 314 | 55 | 186 | 484 | 702 | 133 | 263 | 245 | 20 | 13 | 13 |
| 20 | 9.4 | 280 | 51 | 134 | 354 | 996 | 215 | 215 | 190 | 21 | 77 | 13 |
| 21 | 9.9 | 150 | 46 | 100 | 271 | 726 | 215 | 180 | 166 | 20 | 79 | 13 |
| 22 | 23 | 114 | 43 | 92 | 240 | 591 | 167 | 154 | 139 | 19 | 329 | 12 |
| 23 | 17 | 96 | 41 | 82 | 220 | 519 | 176 | 136 | 116 | 20 | 1,260 | 11 |
| 24 | 12 | 84 | 39 | 78 | 200 | 478 | 779 | 123 | 102 | 22 | 240 | 11 |
| 25 | 11 | 72 | 38 | 77 | 180 | 849 | 796 | 110 | 91 | 22 | 124 | 13 |
| 26 | 11 | 63 | 36 | 337 | 166 | 3,400 | 510 | 98 | 145 | 21 | 74 | 27 |
| 27 | 10 | 55 | 35 | 203 | 154 | 1,370 | 1,200 | 87 | 111 | 22 | 55 | 38 |
| 28 | 9.9 | 48 | 34 | 158 | 140 | 894 | 6,780 | 78 | 77 | 22 | 42 | 30 |
| 29 | 9.0 | 43 | 40 | 568 | ------ | 719 | 3,000 | 72 | 66 | 20 | 34 | 18 |
| 30 | 9.0 | 40 | 111 | 616 | ------ | 614 | 1,170 | 68 | 59 | 19 | 28 | 15 |
| 31 | 9.9 | ------ | 263 | 370 | ------ | 531 | ------ | 65 | ------ | 233 | 24 | ------ |
| TOTAL | 341.6 | 1,592 | 2,789 | 5,324 | 9,569 | 27,531 | 29,299 | 14,051 | 8,446 | 1,131 | 3,121 | 897 |
| MEAN | 11.0 | 53.1 | 90.0 | 172 | 342 | 888 | 977 | 453 | 282 | 36.5 | 101 | 29.9 |
| MAX | 23 | 314 | 491 | 616 | 809 | 3,620 | 6,780 | 4,610 | 1,200 | 233 | 1,260 | 182 |
| MIN | 7.9 | 10 | 24 | 73 | 140 | 127 | 130 | 65 | 59 | 19 | 13 | 11 |
| CFSM | .039 | .19 | .32 | .61 | 1.21 | 3.14 | 3.45 | 1.60 | 1.00 | .13 | .36 | .11 |
| IN. | .04 | .21 | .37 | .70 | 1.26 | 3.62 | 3.85 | 1.85 | 1.11 | .15 | .41 | .12 |

CAL YR 1969 TOTAL 86,215.6 MEAN 236 MAX 8,470 MIN 7.9 CFSM .83 IN 11.33
WAT YR 1970 TOTAL 104,091.6 MEAN 285 MAX 6,780 MIN 7.9 CFSM 1.01 IN 13.68

PEAK DISCHARGE (BASE, 2,100 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 03-04 | 1245 | 13.92 | 4,650 | 04-28 | 0645 | 17.97 | 7,580 |
| 03-26 | 0330 | 13.54 | 4,420 | 05-14 | 1900 | 18.79 | 8,310 |
| 04-02 | 1400 | 18.18 | 7,760 | 08-23 | 0415 | 9.87 | 2,440 |

## 03303000 Blue River near White Cloud, Ind.

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

DRAINAGE AREA.--461 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 434.26 ft above mean sea level (levels by Indiana Department of Natural Resources from adjusted elevation of U.S. Coast and Geodetic Survey bench mark). Prior to Nov. 16, 1938, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--40 years, 603 cfs (17.76 inches per year).

EXTREMES.--Current year: Maximum discharge, 12,300 cfs Apr. 28 (gage height, 13.79 ft); minimum, 28 cfs Oct. 29, 31; minimum gage height, 1.80 ft Oct. 29.
Period of record: Maximum discharge, 28,500 cfs Jan. 22, 1959 (gage height, 23.07 ft); minimum, 9.0 cfs Oct. 17, 1964; minimum gage height, 1.40 ft Sept. 20, 1940, Sept. 30, 1941.

REMARKS.--Records good except those for winter periods, which are fair. Records of suspended sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1335: 1931-32, 1933(M), 1935-38(M), 1944. WSP 1385: Drainage area. WSP 1555: 1953.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 31 | 37 | 109 | 820 | 724 | 386 | 1,300 | 2,050 | 191 | 166 | 814 | 114 |
| 2 | 33 | 46 | 100 | 700 | 802 | 892 | 8,360 | 1,450 | 174 | 154 | 390 | 100 |
| 3 | 34 | 48 | 94 | 579 | 1,440 | 4,270 | 7,850 | 1,120 | 399 | 156 | 470 | 98 |
| 4 | 34 | 41 | 88 | 490 | 1,200 | 6,740 | 2,920 | 916 | 1,120 | 171 | 329 | 121 |
| 5 | 32 | 44 | 82 | 417 | 800 | 6,120 | 1,960 | 784 | 3,340 | 159 | 241 | 269 |
| 6 | 33 | 52 | 77 | 340 | 700 | 3,150 | 1,500 | 673 | 3,600 | 141 | 209 | 203 |
| 7 | 33 | 46 | 262 | 290 | 634 | 1,990 | 1,210 | 574 | 1,990 | 130 | 174 | 139 |
| 8 | 33 | 41 | 862 | 260 | 1,000 | 1,490 | 989 | 515 | 1,120 | 118 | 154 | 112 |
| 9 | 32 | 37 | 772 | 240 | 1,560 | 1,210 | 862 | 470 | 796 | 135 | 313 | 96 |
| 10 | 32 | 36 | 515 | 230 | 1,500 | 989 | 766 | 445 | 640 | 139 | 435 | 86 |
| 11 | 36 | 34 | 413 | 220 | 1,190 | 814 | 673 | 510 | 541 | 132 | 289 | 78 |
| 12 | 40 | 32 | 350 | 210 | 968 | 712 | 607 | 1,760 | 460 | 112 | 227 | 73 |
| 13 | 43 | 32 | 297 | 210 | 796 | 678 | 557 | 1,140 | 422 | 98 | 194 | 68 |
| 14 | 39 | 34 | 265 | 200 | 695 | 695 | 515 | 3,070 | 386 | 94 | 174 | 70 |
| 15 | 48 | 33 | 241 | 200 | 673 | 695 | 475 | 6,350 | 480 | 88 | 154 | 73 |
| 16 | 45 | 32 | 215 | 194 | 684 | 640 | 435 | 1,560 | 730 | 137 | 132 | 65 |
| 17 | 38 | 32 | 191 | 221 | 766 | 590 | 404 | 1,120 | 1,350 | 154 | 118 | 60 |
| 18 | 34 | 45 | 174 | 390 | 982 | 651 | 377 | 844 | 910 | 132 | 116 | 59 |
| 19 | 33 | 413 | 166 | 490 | 1,200 | 1,060 | 368 | 673 | 618 | 100 | 112 | 59 |
| 20 | 33 | 802 | 156 | 377 | 1,050 | 1,820 | 413 | 563 | 480 | 141 | 151 | 57 |
| 21 | 62 | 480 | 151 | 250 | 808 | 1,680 | 510 | 480 | 417 | 130 | 154 | 56 |
| 22 | 53 | 325 | 150 | 220 | 689 | 1,280 | 455 | 422 | 372 | 92 | 221 | 53 |
| 23 | 36 | 273 | 140 | 220 | 651 | 1,120 | 802 | 377 | 329 | 94 | 1,520 | 53 |
| 24 | 31 | 234 | 140 | 210 | 585 | 968 | 1,860 | 345 | 293 | 98 | 874 | 50 |
| 25 | 38 | 197 | 130 | 210 | 940 | 1,320 | 2,500 | 317 | 265 | 92 | 408 | 54 |
| 26 | 39 | 171 | 130 | 337 | 720 | 5,820 | 1,480 | 293 | 248 | 86 | 293 | 102 |
| 27 | 34 | 154 | 121 | 568 | 640 | 3,970 | 1,620 | 265 | 258 | 90 | 224 | 118 |
| 28 | 32 | 139 | 118 | 395 | 600 | 2,230 | 9,580 | 244 | 255 | 109 | 183 | 149 |
| 29 | 29 | 128 | 149 | 712 | ------ | 1,650 | 8,430 | 218 | 209 | 102 | 154 | 105 |
| 30 | 29 | 116 | 363 | 1,440 | ------ | 1,340 | 3,290 | 203 | 183 | 130 | 135 | 90 |
| 31 | 28 | ------ | 673 | 982 | ------ | 1,200 | ------ | 194 | ------ | 629 | 121 | ------ |
| TOTAL | 1,127 | 4,134 | 7,694 | 12,622 | 24,997 | 58,170 | 63,068 | 29,945 | 22,576 | 4,309 | 9,483 | 2,830 |
| MEAN | 36.4 | 138 | 248 | 407 | 893 | 1,876 | 2,102 | 966 | 753 | 139 | 306 | 94.3 |
| MAX | 62 | 802 | 862 | 1,440 | 1,560 | 6,740 | 9,580 | 6,350 | 3,600 | 629 | 1,520 | 269 |
| MIN | 28 | 32 | 77 | 194 | 585 | 386 | 368 | 194 | 174 | 86 | 112 | 50 |
| CFSM | .079 | .30 | .54 | .88 | 1.94 | 4.07 | 4.56 | 2.10 | 1.63 | .30 | .66 | .20 |
| IN. | .09 | .33 | .62 | 1.02 | 2.02 | 4.69 | 5.09 | 2.42 | 1.82 | .35 | .77 | .23 |

CAL YR 1969 TOTAL 210,119 MEAN 576 MAX 12,000 MIN 28 CFSM 1.25 IN 16.96
WAT YR 1970 TOTAL 240,955 MEAN 660 MAX 9,580 MIN 28 CFSM 1.43 IN 19.44

PEAK DISCHARGE (BASE, 7,500 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 03-04 | 2245 | 10.54 | 7,600 | 04-28 | 1900 | 13.79 | 12,300 |
| 04-03 | 0230 | 12.83 | 10,800 | 05-15 | 0730 | 11.43 | 8,810 |

03303300 Middle Fork Anderson River at Bristow, Ind.

LOCATION.--Lat 38°08'19", long 86°43'16", in SW¼NE¼ sec.27, T.4 S., R.3 W., Perry County, on left bank at downstream side of bridge on State Highway 145 at Bristow, 2.0 miles downstream from Coon Branch, and 6.0 miles upstream from Sulphur Fork Creek.

DRAINAGE AREA.--41.9 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 395.00 ft above mean sea level.

AVERAGE DISCHARGE.--9 years, 50.1 cfs (16.24 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,120 cfs Apr. 28 (gage height, 17.87 ft); minimum daily, 0.06 cfs Sept. 30.
Period of record: Maximum discharge, 6,360 cfs Mar. 9, 1964; maximum gage height, 19.33 ft Mar. 4, 1964; no flow many days each year.
Flood of Jan. 21, 1959, reached a stage of 20.0 ft (from floodmark), discharge, 15,000 cfs (from rating curve extended above 7,000 cfs). This is the maximum flood since 1905, from information by local resident.

REMARKS.--Records fair. Occasional regulation of Soil Conservation Service control structure No. 6 may affect peaks and recessions. Records of suspended sediment loads for current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .13 | 3.0 | 14 | 128 | 65 | 27 | 129 | 297 | 7.8 | 1.5 | 2.2 | 1.3 |
| 2 | .53 | 4.2 | 13 | 88 | 116 | 182 | 802 | 151 | 6.5 | 13 | 2.1 | 2.1 |
| 3 | 1.2 | 2.5 | 12 | 67 | 108 | 426 | 345 | 82 | 26 | 3.5 | 2.8 | 1.8 |
| 4 | .26 | 1.9 | 10 | 51 | 71 | 563 | 222 | 58 | 183 | 2.4 | 2.2 | .87 |
| 5 | .87 | 1.6 | 8.9 | 42 | 60 | 314 | 113 | 46 | 520 | 1.5 | 1.5 | .63 |
| 6 | .22 | 1.5 | 8.5 | 39 | 58 | 156 | 78 | 37 | 213 | 1.0 | .87 | .75 |
| 7 | .17 | 1.3 | 127 | 31 | 122 | 98 | 59 | 31 | 106 | .63 | .45 | .75 |
| 8 | .22 | 1.2 | 118 | 23 | 190 | 74 | 49 | 27 | 64 | .53 | 1.8 | .63 |
| 9 | .26 | 1.0 | 74 | 18 | 154 | 60 | 42 | 23 | 44 | .87 | 7.5 | .53 |
| 10 | .17 | 1.2 | 56 | 16 | 102 | 49 | 35 | 124 | 32 | .75 | 5.9 | .31 |
| 11 | .37 | .37 | 45 | 17 | 78 | 40 | 31 | 99 | 18 | .53 | 4.5 | .22 |
| 12 | .53 | .26 | 35 | 17 | 61 | 48 | 28 | 64 | 9.7 | .37 | 3.3 | .15 |
| 13 | .75 | .22 | 29 | 16 | 50 | 67 | 33 | 48 | 21 | .26 | 2.5 | .13 |
| 14 | .75 | .37 | 26 | 15 | 46 | 78 | 32 | 322 | 35 | .17 | 2.1 | .37 |
| 15 | .63 | .37 | 22 | 15 | 82 | 64 | 28 | 115 | 74 | .31 | 1.5 | .22 |
| 16 | .63 | .22 | 19 | 16 | 80 | 50 | 26 | 82 | 50 | 2.2 | .87 | .12 |
| 17 | .63 | .22 | 17 | 31 | 94 | 49 | 24 | 69 | 43 | 1.0 | .53 | .09 |
| 18 | .45 | 69 | 16 | 60 | 119 | 95 | 22 | 52 | 29 | .31 | .31 | .09 |
| 19 | .31 | 573 | 16 | 47 | 109 | 178 | 26 | 40 | 22 | .19 | .22 | .09 |
| 20 | .75 | 211 | 14 | 35 | 75 | 199 | 60 | 32 | 18 | .22 | 24 | .09 |
| 21 | 2.7 | 101 | 14 | 24 | 57 | 129 | 52 | 26 | 18 | 8.2 | 11 | .07 |
| 22 | 1.8 | 74 | 15 | 17 | 54 | 106 | 43 | 21 | 11 | 5.9 | 8.2 | .06 |
| 23 | .45 | 57 | 15 | 18 | 58 | 90 | 188 | 18 | 2.7 | 4.5 | 10 | .87 |
| 24 | .19 | 43 | 15 | 17 | 51 | 74 | 472 | 16 | 1.0 | 4.0 | 16 | 3.0 |
| 25 | .19 | 34 | 15 | 25 | 46 | 264 | 267 | 14 | 20 | 2.8 | 11 | 1.9 |
| 26 | .22 | 28 | 15 | 36 | 37 | 555 | 138 | 12 | 9.3 | 2.1 | 8.2 | 1.6 |
| 27 | .19 | 23 | 13 | 31 | 33 | 244 | 191 | 11 | .87 | 1.5 | 6.2 | .87 |
| 28 | .17 | 20 | 12 | 36 | 29 | 129 | 2,030 | 9.3 | .19 | 1.3 | 4.7 | .17 |
| 29 | .31 | 17 | 110 | 194 | ------ | 98 | 452 | 8.2 | .13 | .75 | 3.3 | .09 |
| 30 | .37 | 16 | 165 | 132 | ------ | 97 | 346 | 7.5 | .12 | .45 | 2.4 | .06 |
| 31 | .53 | ------ | 223 | 83 | ------ | 86 | ------ | 7.2 | ------ | 1.3 | 1.6 | ------ |
| TOTAL | 16.95 | 1,287.43 | 1,292.4 | 1,385 | 2,205 | 4,689 | 6,363 | 1,949.2 | 1,585.31 | 64.04 | 149.75 | 19.93 |
| MEAN | .55 | 42.9 | 41.7 | 44.7 | 78.8 | 151 | 212 | 62.9 | 52.8 | 2.07 | 4.83 | .66 |
| MAX | 2.7 | 573 | 223 | 194 | 190 | 563 | 2,030 | 322 | 520 | 13 | 24 | 3.0 |
| MIN | .13 | .22 | 8.5 | 15 | 29 | 27 | 22 | 7.2 | .12 | .17 | .22 | .06 |
| CFSM | .013 | 1.02 | 1.00 | 1.07 | 1.88 | 3.60 | 5.06 | 1.50 | 1.26 | .049 | .12 | .016 |
| IN. | .02 | 1.14 | 1.15 | 1.23 | 1.96 | 4.16 | 5.65 | 1.73 | 1.41 | .06 | .13 | .02 |

CAL YR 1969 TOTAL 25,132.19 MEAN 68.9 MAX 1,070 MIN .13 CFSM 1.64 IN 22.31
WAT YR 1970 TOTAL 21,007.01 MEAN 57.6 MAX 2,030 MIN .06 CFSM 1.37 IN 18.65

PEAK DISCHARGE (BASE, 2,000 CFS).--Apr. 28 (1015) 4,120 cfs (17.87 ft).

## 03303400 Crooked Creek at Santa Claus, Ind.

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

DRAINAGE AREA.--7.86 sq mi.

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

GAGE.--Water-stage recorder.

EXTREMES.--Current year: Maximum discharge, 4,100 cfs April 28 (gage height, 9.74 ft); no flow many days.

REMARKS.--Records fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0 | 9.7 | 3.4 | 18 | 22 | 6.2 | 336 | 7.7 | .37 | 0 | 1.1 | |
| 2 | 3.5 | 4.1 | 3.0 | 12 | 27 | 60 | 376 | 5.4 | .64 | 0 | .29 | |
| 3 | .34 | 3.2 | 2.7 | 10 | 17 | 160 | 24 | 4.0 | 1.6 | 0 | .40 | |
| 4 | .14 | 2.6 | 2.5 | 8.1 | 14 | 110 | 14 | 3.3 | 62 | 0 | .11 | |
| 5 | .08 | 2.1 | 2.3 | 6.8 | 14 | 70 | 10 | 2.8 | 58 | 0 | .03 | |
| 6 | .05 | 1.6 | 2.0 | 5.8 | 24 | 33 | 8.4 | 2.1 | 11 | 0 | .03 | |
| 7 | .05 | 1.1 | 30 | 5.0 | 49 | 20 | 6.4 | 1.8 | 4.0 | 0 | .02 | |
| 8 | .05 | .94 | 14 | 4.6 | 43 | 16 | 5.8 | 1.5 | 2.5 | 9.1 | 3.6 | |
| 9 | .02 | .74 | 9.4 | 4.3 | 27 | 13 | 5.1 | 1.2 | 1.7 | 1.3 | .84 | |
| 10 | .05 | .61 | 7.7 | 4.0 | 19 | 11 | 4.5 | 94 | 1.1 | .09 | .30 | |
| 11 | 3.5 | .47 | 6.4 | 3.8 | 14 | 10 | 4.2 | 10 | .70 | 0 | .18 | |
| 12 | 1.0 | .34 | 5.3 | 3.7 | 12 | 14 | 3.8 | 4.7 | .48 | 0 | .16 | |
| 13 | .98 | .23 | 5.1 | 3.5 | 11 | 18 | 4.2 | 3.4 | .61 | 0 | .12 | |
| 14 | 1.1 | 2.0 | 4.7 | 3.5 | 18 | 16 | 3.5 | 2.8 | 3.2 | 0 | .05 | |
| 15 | .63 | .41 | 4.0 | 3.7 | 24 | 14 | 3.1 | 2.1 | 14 | 10 | .02 | |
| 16 | .45 | .16 | 3.4 | 4.2 | 21 | 12 | 2.7 | 3.8 | 2.2 | 1.9 | 0 | |
| 17 | .26 | .12 | 3.2 | 7.0 | 28 | 20 | 2.4 | 2.8 | 1.3 | .23 | .04 | |
| 18 | .20 | 20 | 3.7 | 13 | 24 | 30 | 2.3 | 1.9 | .68 | .08 | .04 | |
| 19 | .20 | 300 | 3.3 | 9.0 | 19 | 49 | 6.0 | 1.4 | .40 | .04 | .08 | |
| 20 | .33 | 50 | 2.7 | 6.6 | 15 | 30 | 9.1 | 1.1 | .75 | .14 | 8.5 | |
| 21 | .41 | 23 | 3.4 | 5.0 | 13 | 18 | 5.6 | .83 | 1.2 | .04 | .31 | |
| 22 | .24 | 17 | 3.3 | 4.4 | 14 | 19 | 4.5 | .66 | .27 | 0 | .11 | |
| 23 | .12 | 13 | 4.1 | 4.1 | 12 | 13 | 32 | .55 | .15 | .03 | .05 | |
| 24 | .11 | 10 | 3.6 | 5.2 | 11 | 9.9 | 213 | .43 | .09 | .03 | .02 | |
| 25 | .12 | 8.1 | 3.8 | 7.4 | 9.4 | 368 | 22 | .33 | .07 | .01 | 0 | |
| 26 | .12 | 6.5 | 3.7 | 6.3 | 8.2 | 248 | 14 | .24 | .18 | 0 | 0 | |
| 27 | .11 | 5.4 | 3.5 | 5.3 | 7.2 | 21 | 179 | .17 | .05 | .01 | 0 | |
| 28 | .06 | 4.9 | 3.4 | 8.1 | 6.6 | 14 | 1,370 | .14 | 0 | .02 | 0 | |
| 29 | .06 | 4.2 | 95 | 49 | ------ | 18 | 38 | .12 | 0 | 0 | 0 | |
| 30 | .08 | 3.8 | 83 | 21 | ------ | 19 | 14 | .11 | 0 | 0 | 0 | |
| 31 | 2.9 | ------ | 50 | 16 | ------ | 13 | ------ | .33 | ------ | 30 | 0 | ------ |
| TOTAL | 17.26 | 496.32 | 375.6 | 268.4 | 523.4 | 1,473.1 | 2,723.6 | 161.71 | 169.24 | 53.02 | 16.40 | 0 |
| MEAN | .56 | 16.5 | 12.1 | 8.66 | 18.7 | 47.5 | 90.8 | 5.22 | 5.64 | 1.71 | .53 | 0 |
| MAX | 3.5 | 300 | 95 | 49 | 49 | 368 | 1,370 | 94 | 62 | 30 | 8.5 | 0 |
| MIN | 0 | .12 | 2.0 | 3.5 | 6.6 | 6.2 | 2.3 | .11 | 0 | 0 | 0 | 0 |
| CFSM | .071 | 2.10 | 1.54 | 1.10 | 2.38 | 6.04 | 11.6 | .66 | .72 | .22 | .067 | 0 |
| IN. | .08 | 2.35 | 1.78 | 1.27 | 2.48 | 6.97 | 12.89 | .77 | .80 | .25 | .08 | 0 |

WTR YR 1970 TOTAL 6,278.05 MEAN 17.2 MAX 1,370 MIN 0 CFSM 2.19 IN 29.71

PEAK DISCHARGE (BASE, 500 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-19 | Unknown | a9.1 | 2,850 | 04-24 | 0615 | 7.40 | 1,140 |
| 03-25 | 1330 | 8.30 | 1,830 | 04-28 | 0515 | 9.74 | 4,100 |
| 04-01 | 2315 | 8.71 | 2,280 | 05-10 | 1030 | 6.00 | 565 |

a from floodmark.

03322000 Ohio River at Evansville, Ind.

LOCATION.--Lat 37°58'20", long 87°34'35", Vanderburgh County, on right bank at Riverside Drive and Court Street, at Evansville, 0 6 mile upstream from Pigeon Creek and at mile 792.3.

DRAINAGE AREA.--107,000 sq mi, approximately.

PERIOD OF RECORD.-- December 1936 to current year (fragmentary prior to October 1940). Gage-height records collected at same site since 1873 are contained in reports of U.S Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 328.64 ft above mean sea level, datum of 1929 or 329.18 ft above mean sea level, Ohio River datum. Prior to Feb. 20, 1963 and after Sept. 23, 1963, water-stage recorder at same site and datum. Feb. 20, 1963, to Sept. 23, 1963, nonrecording gage 0.6 mile downstream at same datum. Auxiliary nonrecording gage read hourly at lock and dam 48, at Henderson, Henderson County, Ky., 17.3 miles downstream.

AVERAGE DISCHARGE.--30 years (1940-70), 128,800 cfs (16.34 inches per year).

EXTREMES.--Current year: Maximum discharge, 537,000 cfs Apr. 8; maximum gage height, 41.76 ft Apr. 8; minimum discharge not determined.
Period of record: Maximum discharge, 1,410,000 cfs Jan. 29, 1937; maximum gage height, 53.75 ft Jan. 31, 1937; minimum discharge not determined.

REMARKS.--Records good except those for periods of indefinite stage-fall-discharge relation, which are poor.

COOPERATION.--Evansville gage-height record furnished by National Weather Service; lock 48 gage-height record furnished by the Corps of Engineers.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 25,000 | 44,000 | 42,000 | 163,000 | 187,000 | 114,000 | 182,000 | 465,000 | 77,600 | 42,000 | 52,000 | 24,000 |
| 2 | 25,000 | 44,000 | 42,000 | 238,000 | 222,000 | 111,000 | 241,000 | 466,000 | 70,000 | 42,000 | 52,000 | 24,000 |
| 3 | 25,000 | 44,000 | 42,000 | 326,000 | 257,000 | 118,000 | 335,000 | 459,000 | 60,000 | 42,000 | 52,000 | 24,000 |
| 4 | 25,000 | 44,000 | 42,000 | 400,000 | 289,000 | 150,000 | 427,000 | 437,000 | 60,000 | 42,000 | 52,000 | 24,000 |
| 5 | 25,000 | 44,000 | 42,000 | 420,000 | 306,000 | 172,000 | 471,000 | 403,000 | 96,600 | 42,000 | 52,000 | 24,000 |
| 6 | 24,000 | 39,000 | 63,000 | 380,000 | 303,000 | 196,000 | 508,000 | 353,000 | 125,000 | 47,000 | 43,000 | 31,000 |
| 7 | 24,000 | 39,000 | 63,000 | 335,000 | 295,000 | 231,000 | 528,000 | 289,000 | 121,000 | 47,000 | 43,000 | 31,000 |
| 8 | 24,000 | 39,000 | 63,000 | 268,000 | 291,000 | 254,000 | 535,000 | 228,000 | 94,600 | 47,000 | 43,000 | 31,000 |
| 9 | 24,000 | 39,000 | 71,400 | 215,000 | 279,000 | 266,000 | 521,000 | 190,000 | 73,900 | 47,000 | 43,000 | 31,000 |
| 10 | 24,000 | 39,000 | 72,600 | 165,000 | 266,000 | 272,000 | 489,000 | 159,000 | 69,000 | 47,000 | 43,000 | 31,000 |
| 11 | 21,000 | 37,000 | 70,300 | 130,000 | 267,000 | 270,000 | 444,000 | 136,000 | 55,000 | 49,000 | 46,000 | 34,000 |
| 12 | 21,000 | 37,000 | 75,600 | 80,000 | 278,000 | 249,000 | 386,000 | 109,000 | 55,000 | 49,000 | 46,000 | 34,000 |
| 13 | 21,000 | 37,000 | 85,500 | 60,000 | 290,000 | 222,000 | 323,000 | 98,000 | 55,000 | 49,000 | 46,000 | 34,000 |
| 14 | 21,000 | 37,000 | 111,000 | 60,000 | 293,000 | 197,000 | 270,000 | 99,700 | 55,000 | 49,000 | 46,000 | 34,000 |
| 15 | 21,000 | 37,000 | 138,000 | 70,000 | 288,000 | 179,000 | 229,000 | 135,000 | 55,000 | 49,000 | 46,000 | 34,000 |
| 16 | 19,000 | 58,000 | 158,000 | 70,000 | 278,000 | 180,000 | 196,000 | 166,000 | 60,000 | 53,000 | 31,000 | 36,000 |
| 17 | 19,000 | 58,000 | 160,000 | 70,000 | 273,000 | 186,000 | 172,000 | 186,000 | 60,000 | 53,000 | 31,000 | 36,000 |
| 18 | 19,000 | 58,000 | 148,000 | 65,000 | 290,000 | 185,000 | 155,000 | 174,000 | 71,700 | 53,000 | 31,000 | 36,000 |
| 19 | 19,000 | 58,000 | 135,000 | 65,000 | 335,000 | 177,000 | 142,000 | 162,000 | 74,100 | 53,000 | 31,000 | 36,000 |
| 20 | 19,000 | 77,100 | 122,000 | 68,100 | 370,000 | 159,000 | 135,000 | 150,000 | 71,000 | 53,000 | 31,000 | 36,000 |
| 21 | 24,000 | 92,500 | 102,000 | 68,600 | 381,000 | 153,000 | 135,000 | 143,000 | 67,000 | 38,000 | 48,000 | 39,000 |
| 22 | 24,000 | 98,400 | 94,000 | 70,800 | 361,000 | 158,000 | 138,000 | 139,000 | 76,500 | 38,000 | 48,000 | 39,000 |
| 23 | 24,000 | 94,200 | 82,500 | 69,300 | 318,000 | 162,000 | 146,000 | 130,000 | 74,700 | 38,000 | 48,000 | 39,000 |
| 24 | 24,000 | 90,500 | 75,000 | 68,900 | 266,000 | 160,000 | 185,000 | 113,000 | 73,300 | 38,000 | 48,000 | 39,000 |
| 25 | 24,000 | 91,700 | 60,000 | 68,600 | 218,000 | 162,000 | 240,000 | 89,700 | 70,000 | 38,000 | 48,000 | 39,000 |
| 26 | 23,000 | 85,800 | 55,000 | 65,000 | 184,000 | 177,000 | 305,000 | 72,200 | 56,000 | 38,000 | 30,000 | 47,000 |
| 27 | 23,000 | 63,100 | 55,000 | 65,000 | 151,000 | 195,000 | 355,000 | 74,800 | 56,000 | 38,000 | 30,000 | 47,000 |
| 28 | 23,000 | 60,000 | 55,000 | 75,000 | 132,000 | 206,000 | 404,000 | 71,500 | 56,000 | 38,000 | 30,000 | 47,000 |
| 29 | 23,000 | 60,000 | 55,000 | 94,000 | ------ | 203,000 | 492,000 | 73,300 | 56,000 | 38,000 | 30,000 | 47,000 |
| 30 | 23,000 | 60,000 | 55,000 | 116,000 | ------ | 194,000 | 457,000 | 83,500 | 56,000 | 38,000 | 30,000 | 47,000 |
| 31 | 23,000 | ------ | 111,000 | 151,000 | ------ | 184,000 | ------ | 86,800 | ------ | 38,000 | 30,000 | ------ |
| TOTAL | 703,000 | 1,705.3M | 2,545.9M | 4,560.3M | 7,668.0M | 5,842.0M | 9,546.0M | 5,941.5M | 2,101.0M | 1,373.0M | 1,280.0M | 1,055.0M |
| MEAN | 22,680 | 56,840 | 82,130 | 147,100 | 273,900 | 188,500 | 318,200 | 191,700 | 70,030 | 44,290 | 41,290 | 35,170 |
| MAX | 25,000 | 98,400 | 160,000 | 420,000 | 381,000 | 272,000 | 535,000 | 466,000 | 125,000 | 53,000 | 52,000 | 47,000 |
| MIN | 19,000 | 37,000 | 42,000 | 60,000 | 132,000 | 111,000 | 135,000 | 71,500 | 55,000 | 38,000 | 30,000 | 24,000 |
| CFSM | .21 | .53 | .77 | 1.37 | 2.56 | 1.76 | 2.97 | 1.79 | .65 | .41 | .39 | .33 |
| IN. | .24 | .59 | .89 | 1.59 | 2.67 | 2.03 | 3.32 | 2.07 | .73 | .48 | .45 | .37 |

CAL YR 1969 TOTAL 35,372,800.00 MEAN 96,910 MAX 410,000 MIN 0 CFSM .91 IN 12.30
WTR YR 1970 TOTAL 44,321,000.00 MEAN 121,400 MAX 535,000 MIN 19,000 CFSM 1.13 IN 15.41

## 03322100 Pigeon Creek at Evansville, Ind.

LOCATION.--Lat 37°59'45", long 87°31'30", in NW¼SW¼ sec.15, T.6 S., R.10 W., Vanderburgh County, on downstream side of center span of Oak Hill Road Bridge at Evansville and 7.1 miles upstream from mouth.

DRAINAGE AREA.--326 sq mi.

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

GAGE.--Nonrecording gage. Datum of gage is 352.24 ft above mean sea level. Prior to Oct. 1, 1968, water-stage recorder at same site and datum. Auxiliary water-stage recorder 1.3 miles downstream at same datum.

AVERAGE DISCHARGE.--9 years, 298 cfs (12.43 inches per year).

EXTREMES.--Current year: Maximum daily discharge, 5,700 cfs Apr. 30; maximum observed gage height, 21.09 ft May 1 (backwater from Ohio River); minimum, 8.8 cfs Aug. 31 (gage height, 1.53 ft).
Period of record: Maximum discharge, 12,100 cfs May 10, 1961 (gage height, 27.94 ft); minimum daily (unaffected by backwater), 1 cfs 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.

REMARKS.--Records poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 14 | 161 | 96 | 731 | 647 | 114 | 771 | 5,400 | 14 | 76 | 133 | 14 |
| 2 | 26 | 255 | 85 | 630 | 1,090 | 851 | 2,040 | 3,500 | 14 | 60 | 96 | 41 |
| 3 | 18 | 219 | 74 | 440 | 700 | 1,830 | 1,940 | 1,250 | 53 | 54 | 54 | 32 |
| 4 | 16 | 145 | 64 | 320 | 430 | 1,810 | 2,020 | 650 | 554 | 110 | 34 | 22 |
| 5 | 17 | 92 | 55 | 280 | 320 | 1,980 | 2,100 | 290 | 2,830 | 135 | 25 | 61 |
| 6 | 16 | 65 | 51 | 230 | 390 | 1,980 | 1,180 | 195 | 1,890 | 82 | 20 | 42 |
| 7 | 18 | 50 | 380 | 190 | 600 | 1,080 | 800 | 155 | 1,650 | 53 | 16 | 22 |
| 8 | 16 | 36 | 577 | 170 | 900 | 730 | 500 | 130 | 1,960 | 41 | 38 | 19 |
| 9 | 16 | 34 | 524 | 130 | 1,040 | 400 | 330 | 155 | 1,600 | 35 | 178 | 17 |
| 10 | 24 | 30 | 372 | 104 | 880 | 280 | 270 | 1,290 | 802 | 26 | 131 | 17 |
| 11 | 201 | 27 | 273 | 86 | 610 | 230 | 250 | 1,540 | 267 | 22 | 69 | 14 |
| 12 | 326 | 25 | 215 | 74 | 420 | 205 | 300 | 846 | 172 | 18 | 40 | 12 |
| 13 | 356 | 29 | 172 | 66 | 320 | 340 | 500 | 386 | 136 | 15 | 23 | 13 |
| 14 | 239 | 30 | 138 | 63 | 280 | 590 | 415 | 246 | 123 | 14 | 21 | 11 |
| 15 | 152 | 24 | 118 | 55 | 270 | 563 | 280 | 212 | 942 | 13 | 18 | 10 |
| 16 | 91 | 23 | 98 | 61 | 310 | 420 | 179 | 230 | 880 | 16 | 14 | 17 |
| 17 | 64 | 32 | 80 | 131 | 390 | 366 | 126 | 352 | 937 | 22 | 18 | 18 |
| 18 | 45 | 172 | 75 | 286 | 480 | 1,130 | 98 | 282 | 763 | 22 | 16 | 22 |
| 19 | 34 | 1,490 | 72 | 292 | 430 | 1,610 | 266 | 192 | 332 | 19 | 14 | 53 |
| 20 | 28 | 1,180 | 69 | 217 | 340 | 1,440 | 786 | 128 | 197 | 18 | 14 | 206 |
| 21 | 24 | 1,210 | 64 | 145 | 280 | 1,520 | 688 | 90 | 244 | 18 | 12 | 82 |
| 22 | 24 | 1,310 | 61 | 94 | 250 | 1,480 | 488 | 68 | 290 | 20 | 21 | 46 |
| 23 | 21 | 1,050 | 66 | 70 | 230 | 1,060 | 536 | 52 | 217 | 18 | 41 | 29 |
| 24 | 18 | 544 | 58 | 56 | 220 | 596 | 1,460 | 45 | 141 | 18 | 13 | 17 |
| 25 | 20 | 310 | 60 | 120 | 205 | 1,370 | 1,200 | 41 | 192 | 17 | 11 | 13 |
| 26 | 19 | 246 | 63 | 326 | 195 | 2,660 | 1,320 | 36 | 368 | 22 | 12 | 13 |
| 27 | 19 | 192 | 45 | 497 | 185 | 2,320 | 1,600 | 30 | 640 | 53 | 10 | 10 |
| 28 | 20 | 154 | 65 | 515 | 152 | 2,840 | 3,200 | 26 | 376 | 60 | 10 | 10 |
| 29 | 18 | 128 | 206 | 1,190 | ------ | 2,690 | 5,000 | 20 | 199 | 33 | 17 | 11 |
| 30 | 16 | 107 | 761 | 1,030 | ------ | 1,810 | 5,700 | 20 | 125 | 22 | 18 | 11 |
| 31 | 29 | ------ | 981 | 963 | ------ | 1,020 | ------ | 17 | ------ | 115 | 11 | ------ |
| TOTAL | 1,945 | 9,370 | 6,018 | 9,562 | 12,564 | 37,315 | 36,343 | 17,874 | 18,908 | 1,247 | 1,148 | 905 |
| MEAN | 62.7 | 312 | 194 | 308 | 449 | 1,204 | 1,211 | 577 | 630 | 40.2 | 37.0 | 30.2 |
| MAX | 356 | 1,490 | 981 | 1,190 | 1,090 | 2,840 | 5,700 | 5,400 | 2,830 | 135 | 178 | 206 |
| MIN | 14 | 23 | 45 | 55 | 152 | 114 | 98 | 17 | 14 | 13 | 10 | 10 |
| CFSM | .19 | .96 | .60 | .94 | 1.38 | 3.69 | 3.71 | 1.77 | 1.93 | .12 | .11 | .093 |
| IN. | .22 | 1.07 | .69 | 1.09 | 1.43 | 4.26 | 4.15 | 2.04 | 2.16 | .14 | .13 | .10 |

CAL YR 1969 TOTAL 147,410 MEAN 404 MAX 5,770 MIN 10 CFSM 1.24 IN 16.82
WTR YR 1970 TOTAL 153,199 MEAN 420 MAX 5,700 MIN 10 CFSM 1.29 IN 17.48

03322500 Wabash River near New Corydon, Ind.

LOCATION.--Lat 40°33'50", long 84°48'10", in SE¼ sec.3, T.24 N., R.15 E., Jay County, on left bank, 10 ft downstream from county bridge on Indiana-Ohio State line road, 2 miles east of New Corydon, 2.8 miles downstream from Beaver Creek, and at mile 465.6.

DRAINAGE AREA.--262 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 830.10 ft above mean sea level. Prior to June 24, 1953, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--19 years, 181 cfs (9.38 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,740 cfs Jan. 29 (gage height, 18.39 ft); minimum, 6.6 cfs Sept. 1, 2, 8 (gage height, 6.92 ft).
Period of record: Maximum discharge, 8,720 cfs Jan. 22, 1959 (gage height, 20.47 ft, from floodmarks); minimum, 0.7 cfs Sept. 13, 1954; minimum gage height, 5 40 ft Aug 18, 1951.

REMARKS.--Records fair except those for winter periods, which are poor. Occasional regulation by Grand Lake Reservoir, diversion from or into St. Marys River basin, and into Miami and Erie Canal. Records of chemical analyses for the current year are contained in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1555: 1957(P). WSP 1909: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 80 | 19 | 131 | 137 | 514 | 157 | 111 | 296 | 88 | 55 | 60 | 7.1 |
| 2 | 81 | 28 | 149 | 138 | 717 | 160 | 978 | 237 | 87 | 65 | 43 | 7.3 |
| 3 | 82 | 33 | 155 | 138 | 958 | 211 | 866 | 211 | 166 | 76 | 28 | 7.7 |
| 4 | 81 | 34 | 137 | 137 | 480 | 1,070 | 295 | 201 | 192 | 66 | 18 | 8.0 |
| 5 | 82 | 34 | 136 | 137 | 295 | 1,550 | 187 | 190 | 191 | 52 | 14 | 9.1 |
| 6 | 83 | 35 | 147 | 136 | 217 | 656 | 159 | 179 | 216 | 46 | 12 | 8.2 |
| 7 | 83 | 31 | 173 | 137 | 199 | 326 | 140 | 175 | 134 | 41 | 11 | 8.0 |
| 8 | 87 | 30 | 470 | 125 | 204 | 242 | 127 | 170 | 109 | 38 | 10 | 7.1 |
| 9 | 91 | 30 | 297 | 105 | 378 | 207 | 119 | 148 | 100 | 59 | 10 | 7.5 |
| 10 | 95 | 30 | 220 | 86 | 400 | 190 | 107 | 130 | 95 | 78 | 10 | 7.7 |
| 11 | 125 | 28 | 199 | 41 | 300 | 179 | 99 | 125 | 91 | 131 | 11 | 7.3 |
| 12 | 214 | 31 | 185 | 26 | 250 | 175 | 97 | 152 | 86 | 109 | 9.3 | 7.3 |
| 13 | 261 | 30 | 168 | 21 | 216 | 171 | 97 | 553 | 89 | 79 | 9.1 | 7.7 |
| 14 | 240 | 29 | 165 | 19 | 192 | 169 | 102 | 677 | 114 | 55 | 9.1 | 8.2 |
| 15 | 174 | 29 | 158 | 18 | 181 | 165 | 96 | 315 | 111 | 41 | 9.1 | 8.4 |
| 16 | 135 | 28 | 140 | 17 | 173 | 160 | 90 | 231 | 88 | 33 | 8.8 | 8.6 |
| 17 | 147 | 27 | 133 | 17 | 166 | 159 | 86 | 196 | 75 | 25 | 9.1 | 9.7 |
| 18 | 150 | 77 | 143 | 16 | 234 | 123 | 79 | 171 | 69 | 21 | 9.5 | 15 |
| 19 | 144 | 1,620 | 144 | 16 | 990 | 94 | 890 | 161 | 58 | 18 | 9.5 | 22 |
| 20 | 141 | 1,470 | 143 | 16 | 382 | 162 | 2,090 | 150 | 52 | 20 | 9.7 | 13 |
| 21 | 142 | 548 | 141 | 16 | 215 | 176 | 1,020 | 129 | 53 | 25 | 9.9 | 9.1 |
| 22 | 142 | 291 | 143 | 16 | 227 | 147 | 368 | 119 | 49 | 20 | 9.3 | 8.6 |
| 23 | 139 | 496 | 141 | 16 | 288 | 211 | 219 | 114 | 46 | 19 | 9.7 | 8.2 |
| 24 | 138 | 396 | 138 | 16 | 251 | 179 | 1,460 | 116 | 45 | 29 | 9.5 | 7.5 |
| 25 | 138 | 256 | 139 | 16 | 264 | 147 | 1,720 | 114 | 93 | 23 | 8.6 | 7.7 |
| 26 | 140 | 196 | 138 | 17 | 204 | 1,210 | 578 | 108 | 116 | 16 | 8.6 | 8.4 |
| 27 | 141 | 167 | 137 | 65 | 179 | 523 | 283 | 100 | 192 | 16 | 8.6 | 12 |
| 28 | 138 | 150 | 137 | 152 | 162 | 214 | 263 | 100 | 104 | 35 | 8.0 | 10 |
| 29 | 67 | 141 | 136 | 2,990 | ------ | 157 | 500 | 99 | 80 | 37 | 8.2 | 7.7 |
| 30 | 22 | 134 | 136 | 3,240 | ------ | 134 | 434 | 94 | 64 | 33 | 8.2 | 8.0 |
| 31 | 17 | ------ | 137 | 1,380 | ------ | 121 | ------ | 91 | ------ | 50 | 7.3 | ------ |
| TOTAL | 3,800 | 6,448 | 5,116 | 9,407 | 9,236 | 9,544 | 13,660 | 5,852 | 3,053 | 1,411 | 406.1 | 272.1 |
| MEAN | 123 | 215 | 165 | 303 | 330 | 308 | 455 | 189 | 102 | 45.5 | 13.1 | 9.07 |
| MAX | 261 | 1,620 | 470 | 3,240 | 990 | 1,550 | 2,090 | 677 | 216 | 131 | 60 | 22 |
| MIN | 17 | 19 | 131 | 16 | 162 | 94 | 79 | 91 | 45 | 16 | 7.3 | 7.1 |
| CFSM | .47 | .82 | .63 | 1.16 | 1.26 | 1.18 | 1.74 | .72 | .39 | .17 | .050 | .035 |
| IN. | .54 | .92 | .73 | 1.34 | 1.31 | 1.36 | 1.94 | .83 | .43 | .20 | .06 | .04 |

CAL YR 1969 TOTAL 71,898.2 MEAN 197 MAX 3,400 MIN 7.5 CFSM .75 IN 10.21
WAT YR 1970 TOTAL 68,205.2 MEAN 187 MAX 3,240 MIN 7.1 CFSM .71 IN 9.68

PEAK DISCHARGE (BASE, 2,500 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 01-29 | 2045 | 18.39 | 4,740 | 04-24 | 2115 | 16.73 | 2,730 |

## 03322900 Wabash River at Linn Grove, Ind.

LOCATION.--Lat 40°39'22", long 85°01'58", in SE¼SE¼ sec.34, T.26 N., R.13 E., Adams County, on right bank 10 ft downstream from bridge on State Highway 118, 800 ft downstream from Shoemaker ditch, 0.8 mile north of Linn Grove, and 2.2 miles upstream from Rice ditch.

DRAINAGE AREA.--453 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 808.00 ft above mean sea level.

AVERAGE DISCHARGE.--6 years, 303 cfs (9.08 inches per year).

EXTREMES.--Current year: Maximum discharge, 6,200 cfs Jan. 31 (gage height, 12.82 ft); minimum, 8.7 cfs Sept. 12, 13 (gage height, 3.27 ft).
Period of record: Maximum discharge, 6,620 cfs Dec. 11, 1966 (gage height, 13.01 ft); minimum, 4.0 cfs Oct. 7, 1964 (gage height, 3.17 ft).
Flood in April 1964 reached a stage of 13.13 ft, from floodmark (discharge, about 6,900 cfs).

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

REVISIONS (WATER YEARS).--WRD Ind. 1966: 1964(M). WRD Ind. 1969: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 121 | 78 | 205 | 155 | 4,300 | 262 | 167 | 634 | 82 | 77 | 311 | 9.5 |
| 2 | 112 | 154 | 194 | 155 | 2,670 | 261 | 582 | 438 | 79 | 65 | 437 | 9.4 |
| 3 | 107 | 117 | 214 | 155 | 1,800 | 316 | 1,350 | 310 | 138 | 68 | 131 | 9.1 |
| 4 | 107 | 98 | 214 | 155 | 1,300 | 916 | 1,440 | 264 | 425 | 68 | 58 | 9.1 |
| 5 | 101 | 114 | 180 | 155 | 1,000 | 1,530 | 708 | 241 | 451 | 54 | 36 | 11 |
| 6 | 98 | 107 | 182 | 150 | 697 | 1,900 | 312 | 217 | 565 | 43 | 26 | 11 |
| 7 | 93 | 82 | 231 | 140 | 490 | 1,490 | 238 | 198 | 405 | 36 | 21 | 9.9 |
| 8 | 92 | 68 | 621 | 110 | 434 | 799 | 192 | 190 | 213 | 36 | 18 | 9.8 |
| 9 | 96 | 60 | 685 | 92 | 518 | 461 | 168 | 180 | 151 | 49 | 16 | 9.6 |
| 10 | 95 | 54 | 505 | 78 | 757 | 342 | 147 | 138 | 125 | 59 | 15 | 9.2 |
| 11 | 99 | 50 | 361 | 66 | 731 | 292 | 124 | 111 | 109 | 76 | 14 | 8.9 |
| 12 | 561 | 50 | 310 | 56 | 562 | 271 | 111 | 145 | 98 | 142 | 13 | 8.7 |
| 13 | 1,260 | 45 | 270 | 50 | 455 | 260 | 135 | 899 | 93 | 96 | 13 | 8.9 |
| 14 | 1,140 | 43 | 248 | 48 | 350 | 246 | 192 | 1,420 | 357 | 58 | 12 | 9.5 |
| 15 | 765 | 40 | 238 | 46 | 320 | 235 | 153 | 1,700 | 391 | 43 | 11 | 10 |
| 16 | 410 | 37 | 219 | 44 | 294 | 221 | 124 | 1,350 | 208 | 34 | 11 | 9.9 |
| 17 | 278 | 36 | 182 | 43 | 279 | 213 | 110 | 653 | 123 | 28 | 11 | 9.5 |
| 18 | 260 | 172 | 180 | 42 | 363 | 206 | 100 | 356 | 93 | 24 | 11 | 11 |
| 19 | 246 | 1,530 | 180 | 41 | 1,100 | 142 | 1,190 | 272 | 75 | 23 | 11 | 13 |
| 20 | 234 | 1,970 | 180 | 40 | 1,350 | 171 | 2,370 | 236 | 61 | 24 | 12 | 19 |
| 21 | 234 | 2,460 | 180 | 40 | 850 | 317 | 3,400 | 201 | 54 | 23 | 11 | 19 |
| 22 | 234 | 2,050 | 180 | 40 | 563 | 282 | 2,760 | 151 | 53 | 24 | 12 | 16 |
| 23 | 219 | 1,480 | 180 | 40 | 584 | 344 | 1,590 | 127 | 48 | 26 | 14 | 15 |
| 24 | 203 | 1,160 | 180 | 40 | 593 | 379 | 1,220 | 121 | 143 | 31 | 12 | 13 |
| 25 | 199 | 901 | 180 | 42 | 568 | 263 | 1,860 | 128 | 707 | 35 | 11 | 11 |
| 26 | 199 | 605 | 170 | 44 | 488 | 992 | 2,400 | 120 | 629 | 30 | 11 | 14 |
| 27 | 197 | 396 | 160 | 70 | 354 | 1,410 | 1,660 | 101 | 1,210 | 32 | 11 | 16 |
| 28 | 197 | 300 | 156 | 250 | 292 | 1,220 | 733 | 85 | 610 | 44 | 10 | 13 |
| 29 | 186 | 255 | 155 | 1,700 | ------ | 485 | 548 | 79 | 203 | 36 | 10 | 12 |
| 30 | 114 | 226 | 155 | 3,100 | ------ | 256 | 684 | 77 | 115 | 87 | 10 | 12 |
| 31 | 66 | ------ | 155 | 5,500 | ------ | 197 | ------ | 78 | ------ | 192 | 9.9 | ------ |
| TOTAL | 9,323 | 14,738 | 7,450 | 12,687 | 24,062 | 16,679 | 26,768 | 11,220 | 8,014 | 1,663 | 1,309.9 | 347.0 |
| MEAN | 268 | 491 | 240 | 409 | 859 | 538 | 892 | 362 | 267 | 53.6 | 42.3 | 11.6 |
| MAX | 1,260 | 2,460 | 685 | 5,500 | 4,300 | 1,900 | 3,400 | 1,700 | 1,210 | 192 | 437 | 19 |
| MIN | 66 | 36 | 155 | 40 | 279 | 142 | 100 | 77 | 48 | 23 | 9.9 | 8.7 |
| CFSM | .59 | 1.08 | .53 | .90 | 1.90 | 1.19 | 1.97 | .80 | .59 | .12 | .093 | .026 |
| IN. | .68 | 1.21 | .61 | 1.04 | 1.98 | 1.37 | 2.20 | .92 | .66 | .14 | .11 | .03 |

CAL YR 1969 TOTAL 140,294.9 MEAN 384 MAX 5,370 MIN 9.9 CFSM .85 IN 11.52
WAT YR 1970 TOTAL 133,260.9 MEAN 365 MAX 5,500 MIN 8.7 CFSM .81 IN 10.94

PEAK DISCHARGE (BASE, 1,900 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-21 | 1100 | 9.64 | 2,520 | 03-06 | 0930 | 8.65 | 1,940 |
| 01-31 | 0830 | 12.82 | 6,200 | 04-21 | 1130 | 10.93 | 3,530 |

03323000 Wabash River at Bluffton, Ind.

LOCATION.--Lat 40°44'30", long 85°10'19", in sec.4, T.26 N., R.12 E., Wells County, on downstream side of left abutment of Main Street Bridge in Bluffton, 2 miles downstream from Sixmile Creek, and at mile 434.5.

DRAINAGE AREA.--532 sq mi.

PERIOD OF RECORD.--October 1930 to current year. Gage-height records collected at same site since December 1910 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 793.01 ft above mean sea level. Prior to Mar. 31, 1934, nonrecording gage at same site and datum. Mar. 31 to Dec. 5, 1934, nonrecording gage at nearby site at same datum.

AVERAGE DISCHARGE.--40 years, 390 cfs (10.14 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,620 cfs Feb. 1 (gage height, 11.40 ft); minimum, 9.4 cfs Sept. 12, 13 (gage height, 0.98 ft).
Period of record: Maximum discharge, 11,800 cfs Feb. 15, 1950 (gage height, 16.07 ft); minimum, 3.9 cfs July 18, 1936; minimum gage height, 0.83 ft Sept. 13, 14, 1964.
Maximum stage known, about 21.0 ft Mar. 25, 26, 1913, on basis of gage readings published in newspapers (discharge, 25,000 cfs, from rating curve extended above 11,700 cfs on basis of rainfall-runoff relation).

REMARKS.--Records good except those for winter periods, which are fair. Occasional regulation by Grand Lake Reservoir, diversion from or into St. Marys River basin, and into Miami and Erie Canal. Records of suspended sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 823: 1932-35. WSP 1505: 1936(M). WRD Ind. 1969: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 141 | 127 | 275 | 170 | 4,520 | 298 | 235 | 746 | 116 | 132 | 225 | 11 |
| 2 | 145 | 228 | 252 | 170 | 3,630 | 288 | 598 | 545 | 116 | 106 | 536 | 10 |
| 3 | 134 | 208 | 258 | 170 | 2,380 | 322 | 1,570 | 392 | 180 | 95 | 228 | 10 |
| 4 | 119 | 171 | 262 | 170 | 1,620 | 1,060 | 1,700 | 328 | 386 | 95 | 87 | 10 |
| 5 | 108 | 176 | 238 | 170 | 1,200 | 1,680 | 1,120 | 295 | 515 | 85 | 64 | 10 |
| 6 | 102 | 174 | 215 | 160 | 900 | 1,940 | 464 | 272 | 634 | 70 | 46 | 11 |
| 7 | 101 | 149 | 252 | 160 | 644 | 1,800 | 325 | 250 | 536 | 60 | 37 | 13 |
| 8 | 95 | 116 | 581 | 150 | 485 | 1,060 | 268 | 240 | 298 | 56 | 30 | 11 |
| 9 | 97 | 99 | 802 | 120 | 506 | 570 | 235 | 235 | 205 | 67 | 27 | 11 |
| 10 | 101 | 87 | 651 | 100 | 724 | 410 | 200 | 200 | 171 | 73 | 24 | 10 |
| 11 | 130 | 80 | 458 | 90 | 798 | 340 | 176 | 158 | 154 | 80 | 21 | 10 |
| 12 | 632 | 83 | 380 | 78 | 620 | 310 | 156 | 163 | 141 | 132 | 21 | 9.8 |
| 13 | 1,780 | 80 | 335 | 68 | 485 | 298 | 260 | 805 | 138 | 141 | 20 | 10 |
| 14 | 1,610 | 73 | 305 | 60 | 407 | 282 | 308 | 1,460 | 601 | 95 | 19 | 12 |
| 15 | 1,140 | 68 | 290 | 56 | 360 | 270 | 232 | 1,820 | 952 | 68 | 18 | 11 |
| 16 | 602 | 61 | 270 | 54 | 340 | 252 | 189 | 1,810 | 368 | 54 | 16 | 11 |
| 17 | 383 | 64 | 238 | 52 | 318 | 240 | 160 | 1,040 | 212 | 44 | 15 | 11 |
| 18 | 318 | 573 | 220 | 50 | 359 | 238 | 147 | 503 | 158 | 38 | 15 | 19 |
| 19 | 300 | 2,480 | 210 | 48 | 1,180 | 225 | 2,140 | 325 | 123 | 37 | 15 | 15 |
| 20 | 282 | 2,540 | 210 | 47 | 1,360 | 308 | 3,080 | 272 | 102 | 41 | 17 | 16 |
| 21 | 280 | 2,480 | 210 | 47 | 1,260 | 345 | 3,360 | 238 | 88 | 36 | 16 | 24 |
| 22 | 280 | 2,460 | 220 | 47 | 704 | 345 | 3,380 | 191 | 80 | 34 | 17 | 25 |
| 23 | 262 | 2,080 | 220 | 47 | 634 | 401 | 2,220 | 163 | 76 | 41 | 18 | 27 |
| 24 | 242 | 1,570 | 230 | 47 | 658 | 464 | 1,720 | 158 | 72 | 46 | 19 | 24 |
| 25 | 215 | 1,230 | 230 | 48 | 634 | 356 | 2,000 | 169 | 954 | 48 | 17 | 18 |
| 26 | 193 | 822 | 220 | 50 | 548 | 1,330 | 2,340 | 154 | 850 | 45 | 16 | 22 |
| 27 | 176 | 539 | 210 | 60 | 416 | 1,640 | 2,110 | 136 | 1,720 | 47 | 15 | 25 |
| 28 | 158 | 404 | 200 | 182 | 332 | 1,590 | 1,130 | 119 | 1,060 | 59 | 14 | 23 |
| 29 | 138 | 338 | 190 | 2,240 | ------ | 788 | 595 | 108 | 350 | 54 | 13 | 18 |
| 30 | 123 | 300 | 180 | 2,960 | ------ | 371 | 749 | 104 | 193 | 79 | 13 | 16 |
| 31 | 110 | ------ | 175 | 3,900 | ------ | 278 | ------ | 114 | ------ | 202 | 13 | ------ |
| TOTAL | 10,497 | 19,860 | 8,987 | 11,771 | 28,022 | 20,099 | 33,167 | 13,513 | 11,549 | 2,260 | 1,652 | 453.8 |
| MEAN | 339 | 662 | 290 | 380 | 1,001 | 648 | 1,106 | 436 | 385 | 72.9 | 53.3 | 15.1 |
| MAX | 1,780 | 2,540 | 802 | 3,900 | 4,520 | 1,940 | 3,380 | 1,820 | 1,720 | 202 | 536 | 27 |
| MIN | 95 | 61 | 175 | 47 | 318 | 225 | 147 | 104 | 72 | 34 | 13 | 9.8 |
| CFSM | .64 | 1.24 | .55 | .71 | 1.88 | 1.22 | 2.08 | .82 | .72 | .14 | .10 | .028 |
| IN. | .73 | 1.39 | .63 | .82 | 1.96 | 1.41 | 2.32 | .94 | .81 | .16 | .12 | .03 |

CAL YR 1969 TOTAL 166,156.0 MEAN 455 MAX 5,420 MIN 12 CFSM .86 IN 11.62
WAT YR 1970 TOTAL 161,830.8 MEAN 443 MAX 4,520 MIN 9.8 CFSM .83 IN 11.32

PEAK DISCHARGE (BASE, 3,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 02-01 | 1045 | 11.40 | 4,620 | 04-22 | 0300 | 9.97 | 3,580 |

### 03323450 Huntington Reservoir near Huntington, Ind.

LOCATION.--Lat 40°50'43", long 85°28'06", in SW¼SW¼ sec.25, T.28 N., R.9 E., Huntington County, on right bank at upstream side of State Highway 5, 1.5 miles southeast of Huntington, and at mile 411.4.

DRAINAGE AREA.--717 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 700.00 ft above mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents , 33,670 acre-ft Apr. 26 (elevation, 766.13 ft); minimum, 3,790 acre-ft Feb. 12 (elevation, 736.32 ft).
Period of record: Maximum contents observed, 40,060 acre-ft Feb. 4, 1969 (elevation, 769.71 ft); minimum, 240 acre-ft Mar. 5, 1969 (elevation, 733.84 ft), lowered reservoir for repairs.

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 wide and 6.0 ft high and by spillway (crest elevation, 765 ft), with three taintor gates, 45 ft by 36.5 ft setting atop spillway. Minimum design capacity is 4,100 acre-ft (elevation, 737 ft). Seasonal pool capacity is 12,500 acre-ft (elevation, 749 ft). Capacity at flood control pool is 153,100 acre-ft (elevation, 798 ft). Reservoir is used for flood control and recreation. Reservoir put into operation on Jan. 9, 1969.

COOPERATION.--Records furnished by Corps of Engineers.

Month-end elevation and contents, water year October 1969 to September 1970

| Date | Elevation (feet) | Contents (acre-feet) | Change in contents (acre-feet) |
|---|---|---|---|
| Sept. 30 | 736.98 | 4,110 | - |
| Oct. 31 | 737.50 | 4,380 | +270 |
| Nov. 30 | 736.82 | 4,030 | -350 |
| Dec. 31 | 737.02 | 4,130 | +100 |
| Calendar year | - | - | - |
| Jan. 31 | 746.27 | 10,140 | +6,010 |
| Feb. 28 | 736.59 | 3,920 | -6,220 |
| Mar. 31 | 737.19 | 4,220 | +300 |
| Apr. 30 | 754.02 | 17,470 | +13,250 |
| May 31 | 749.13 | 12,600 | -4,870 |
| June 30 | 749.45 | 12,890 | +290 |
| July 31 | 749.25 | 12,710 | -180 |
| Aug. 31 | 748.87 | 12,360 | -350 |
| Sept. 30 | 744.60 | 8,850 | -3,510 |
| Water year 1969-70 | - | - | +4,740 |

03323500 Wabash River at Huntington, Ind.

LOCATION.--Lat 40°51'20", long 85°29'53", in SW¼NE¼ sec.27, T.28 N., R.9 E., Huntington County, on right bank at the Huntington Water and Light Plant, 2 miles south of Huntington, 2.4 miles downstream from Huntington Reservoir, 3.2 miles upstream from Little River, and at mile 409.

DRAINAGE AREA.--721 sq mi.

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

GAGE.--Water-stage recorder and concrete dam. Datum of gage is 700.04 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission). Prior to July 5, 1951, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--19 years, 569 cfs (10.71 inches per year).

EXTREMES.--Current year: Maximum discharge, 5,400 cfs Feb. 3 (gage height, 14.64 ft); minimum, 13 cfs Sept. 11, 12 (gage height, 9.10 ft).
Period of record: Maximum discharge, 14,900 cfs Feb. 10, 1959; maximum gage height, 23.20 ft Feb. 10, 1959 (backwater from ice); minimum discharge, 2.3 cfs Oct. 28, 1964 (gage height, 8.87 ft).
Flood in March 1913 reached a stage of 22.7 ft (from high-water mark by Corps of Engineers).

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Huntington Reservoir (See sta 03323450). Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1909: 1959. WRD Ind. 1969: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 49 | 261 | 355 | 268 | 2,670 | 355 | 400 | 2,310 | 156 | 392 | 205 | 18 |
| 2 | 212 | 274 | 341 | 268 | 3,980 | 328 | 791 | 1,730 | 223 | 249 | 561 | 16 |
| 3 | 236 | 223 | 335 | 255 | 5,280 | 400 | 2,060 | 860 | 146 | 223 | 840 | 18 |
| 4 | 236 | 255 | 378 | 250 | 4,880 | 941 | 2,450 | 592 | 355 | 83 | 650 | 18 |
| 5 | 170 | 223 | 287 | 260 | 4,340 | 1,550 | 2,010 | 490 | 609 | 23 | 268 | 18 |
| 6 | 127 | 223 | 249 | 341 | 2,730 | 1,710 | 1,160 | 422 | 771 | 74 | 90 | 21 |
| 7 | 118 | 223 | 261 | 196 | 940 | 1,780 | 663 | 335 | 672 | 114 | 38 | 23 |
| 8 | 118 | 223 | 430 | 205 | 699 | 2,140 | 447 | 274 | 618 | 106 | 33 | 20 |
| 9 | 118 | 181 | 780 | 212 | 681 | 2,280 | 456 | 274 | 392 | 106 | 31 | 18 |
| 10 | 132 | 110 | 991 | 218 | 558 | 960 | 385 | 274 | 261 | 102 | 27 | 18 |
| 11 | 287 | 110 | 717 | 220 | 700 | 583 | 314 | 281 | 127 | 59 | 29 | 16 |
| 12 | 758 | 110 | 540 | 160 | 500 | 447 | 236 | 281 | 127 | 59 | 31 | 15 |
| 13 | 1,290 | 127 | 472 | 118 | 740 | 438 | 223 | 481 | 127 | 59 | 21 | 16 |
| 14 | 1,400 | 141 | 408 | 141 | 560 | 438 | 408 | 1,190 | 127 | 59 | 21 | 15 |
| 15 | 1,460 | 122 | 400 | 102 | 460 | 415 | 408 | 1,330 | 301 | 59 | 23 | 82 |
| 16 | 1,470 | 110 | 321 | 64 | 410 | 321 | 142 | 1,890 | 699 | 69 | 25 | 132 |
| 17 | 1,380 | 114 | 321 | 64 | 380 | 321 | 36 | 2,610 | 1,310 | 86 | 25 | 132 |
| 18 | 1,190 | 481 | 321 | 90 | 380 | 321 | 33 | 1,890 | 464 | 52 | 21 | 132 |
| 19 | 574 | 1,010 | 294 | 114 | 1,030 | 321 | 266 | 900 | 202 | 52 | 25 | 398 |
| 20 | 392 | 1,120 | 268 | 94 | 1,540 | 328 | 980 | 490 | 21 | 54 | 36 | 372 |
| 21 | 348 | 1,930 | 287 | 90 | 1,520 | 456 | 1,650 | 385 | 16 | 52 | 40 | 21 |
| 22 | 355 | 2,950 | 236 | 84 | 1,280 | 558 | 3,220 | 301 | 16 | 52 | 40 | 25 |
| 23 | 335 | 3,710 | 281 | 80 | 762 | 672 | 4,010 | 249 | 15 | 54 | 40 | 27 |
| 24 | 249 | 3,900 | 181 | 74 | 800 | 735 | 3,180 | 249 | 16 | 57 | 38 | 27 |
| 25 | 266 | 4,070 | 196 | 72 | 800 | 609 | 3,830 | 249 | 460 | 59 | 36 | 31 |
| 26 | 261 | 4,080 | 301 | 80 | 771 | 1,070 | 4,660 | 242 | 850 | 62 | 38 | 90 |
| 27 | 212 | 3,760 | 287 | 90 | 654 | 2,000 | 4,500 | 207 | 960 | 67 | 36 | 202 |
| 28 | 212 | 3,020 | 255 | 114 | 450 | 2,430 | 4,010 | 114 | 991 | 77 | 36 | 186 |
| 29 | 212 | 1,920 | 255 | 1,200 | ------ | 2,130 | 2,570 | 118 | 980 | 94 | 38 | 146 |
| 30 | 212 | 621 | 236 | 2,390 | ------ | 863 | 2,450 | 118 | 870 | 94 | 36 | 98 |
| 31 | 223 | ------ | 242 | 2,520 | ------ | 558 | ------ | 118 | ------ | 98 | 33 | ------ |
| TOTAL | 14,604 | 35,602 | 11,226 | 10,434 | 40,895 | 28,498 | 47,948 | 21,254 | 12,882 | 2,846 | 3,459 | 2,351 |
| MEAN | 471 | 1,187 | 362 | 337 | 1,461 | 919 | 1,598 | 686 | 429 | 91.8 | 112 | 78.4 |
| MAX | 1,470 | 4,080 | 991 | 2,520 | 5,280 | 2,430 | 4,660 | 2,610 | 1,310 | 392 | 840 | 398 |
| MIN | 49 | 110 | 181 | 64 | 380 | 321 | 33 | 114 | 15 | 23 | 21 | 15 |

CAL YR 1969 TOTAL 255,064 MEAN 699 MAX 4,660 MIN 16
WAT YR 1970 TOTAL 231,999 MEAN 636 MAX 5,280 MIN 15

## 03324000 Little River near Huntington, Ind.

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

DRAINAGE AREA.--263 sq mi.

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.

GAGE.--Water-stage recorder. Datum of gage is 728.10 ft above mean sea level. Prior to Oct. 1, 1948, nonrecording gage 4 miles downstream at datum 8.79 ft lower and Oct. 1, 1948, to Sept. 5, 1950, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--27 years, 222 cfs (11.46 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,560 cfs Nov. 19 (gage height, 13.61 ft); minimum, 9.2 cfs Sept. 3 (gage height, 1.61 ft).
Period of record: Maximum discharge, 5,990 cfs Jan. 4, 1950; maximum gage height, 18.43 ft Feb. 11, 1959; minimum discharge, 1.0 cfs Oct. 8, 1946, site and datum then in use; minimum gage height since October 1948, 1.30 ft Oct. 1, 1949.

REMARKS.--Records good. Records of suspended sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Ind. 1969: 1967, Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 18 | 53 | 136 | 49 | 507 | 70 | 193 | 1,160 | 130 | 30 | 586 | 12 |
| 2 | 20 | 81 | 113 | 46 | 571 | 69 | 1,100 | 658 | 70 | 243 | 198 | 11 |
| 3 | 21 | 72 | 109 | 45 | 625 | 83 | 1,180 | 369 | 65 | 114 | 83 | 11 |
| 4 | 18 | 65 | 94 | 42 | 416 | 430 | 716 | 262 | 75 | 63 | 52 | 13 |
| 5 | 18 | 78 | 82 | 41 | 260 | 824 | 387 | 207 | 67 | 46 | 40 | 21 |
| 6 | 18 | 81 | 78 | 40 | 190 | 513 | 289 | 167 | 63 | 36 | 32 | 19 |
| 7 | 16 | 70 | 84 | 39 | 151 | 338 | 220 | 142 | 58 | 30 | 27 | 20 |
| 8 | 18 | 60 | 129 | 37 | 119 | 274 | 184 | 130 | 55 | 29 | 24 | 20 |
| 9 | 17 | 56 | 117 | 36 | 111 | 205 | 174 | 115 | 53 | 30 | 24 | 17 |
| 10 | 20 | 53 | 102 | 35 | 102 | 162 | 147 | 103 | 51 | 59 | 22 | 16 |
| 11 | 88 | 48 | 101 | 34 | 93 | 129 | 129 | 95 | 50 | 38 | 20 | 14 |
| 12 | 428 | 47 | 91 | 33 | 84 | 118 | 120 | 120 | 48 | 31 | 20 | 13 |
| 13 | 838 | 45 | 78 | 32 | 75 | 107 | 180 | 910 | 60 | 26 | 19 | 19 |
| 14 | 425 | 42 | 82 | 32 | 70 | 98 | 637 | 1,210 | 49 | 21 | 18 | 31 |
| 15 | 217 | 41 | 78 | 32 | 67 | 89 | 447 | 1,150 | 48 | 21 | 18 | 38 |
| 16 | 133 | 39 | 66 | 32 | 64 | 78 | 279 | 1,280 | 46 | 21 | 18 | 26 |
| 17 | 91 | 42 | 63 | 31 | 62 | 73 | 207 | 650 | 46 | 19 | 17 | 19 |
| 18 | 68 | 535 | 63 | 31 | 98 | 75 | 167 | 324 | 44 | 18 | 15 | 33 |
| 19 | 59 | 2,460 | 65 | 31 | 378 | 75 | 1,200 | 219 | 42 | 25 | 17 | 58 |
| 20 | 55 | 2,350 | 59 | 31 | 215 | 259 | 2,490 | 169 | 41 | 38 | 20 | 29 |
| 21 | 54 | 1,800 | 60 | 31 | 186 | 418 | 2,390 | 139 | 39 | 43 | 18 | 20 |
| 22 | 50 | 992 | 59 | 31 | 125 | 306 | 1,820 | 116 | 40 | 29 | 17 | 17 |
| 23 | 44 | 846 | 59 | 32 | 136 | 336 | 1,040 | 101 | 39 | 26 | 19 | 29 |
| 24 | 41 | 719 | 58 | 33 | 127 | 278 | 1,390 | 94 | 36 | 36 | 19 | 63 |
| 25 | 39 | 446 | 56 | 35 | 136 | 206 | 1,410 | 132 | 37 | 33 | 16 | 39 |
| 26 | 39 | 320 | 56 | 38 | 99 | 862 | 640 | 113 | 51 | 26 | 15 | 67 |
| 27 | 38 | 248 | 55 | 45 | 89 | 1,260 | 381 | 86 | 118 | 29 | 15 | 182 |
| 28 | 35 | 201 | 51 | 170 | 75 | 573 | 578 | 73 | 71 | 78 | 14 | 73 |
| 29 | 33 | 174 | 51 | 1,200 | ------ | 348 | 882 | 64 | 48 | 44 | 12 | 42 |
| 30 | 33 | 151 | 51 | 1,430 | ------ | 248 | 1,240 | 63 | 38 | 57 | 17 | 33 |
| 31 | 34 | ------ | 48 | 893 | ------ | 205 | ------ | 70 | ------ | 78 | 13 | ------ |
| TOTAL | 3,026 | 12,215 | 2,394 | 4,667 | 5,231 | 9,109 | 22,217 | 10,491 | 1,678 | 1,417 | 1,445 | 1,005 |
| MEAN | 97.6 | 407 | 77.2 | 151 | 187 | 294 | 741 | 338 | 55.9 | 45.7 | 46.6 | 33.5 |
| MAX | 838 | 2,460 | 136 | 1,430 | 625 | 1,260 | 2,490 | 1,280 | 130 | 243 | 586 | 182 |
| MIN | 16 | 39 | 48 | 31 | 62 | 69 | 120 | 63 | 36 | 18 | 12 | 11 |
| CFSM | .37 | 1.55 | .29 | .57 | .71 | 1.12 | 2.82 | 1.29 | .21 | .17 | .18 | .13 |
| IN. | .43 | 1.73 | .34 | .66 | .74 | 1.29 | 3.14 | 1.48 | .24 | .20 | .20 | .14 |

CAL YR 1969 TOTAL 91,021 MEAN 249 MAX 4,190 MIN 13 CFSM .95 IN 12.87
WAT YR 1970 TOTAL 74,895 MEAN 205 MAX 2,490 MIN 11 CFSM .78 IN 10.59

PEAK DISCHARGE (BASE, 2,800 CFS).--No peak above base.

03324200 Salamonie River at Portland, Ind.

LOCATION.--Lat 40°25'40", long 85°02'20", in SE¼ sec.23, T.23 N., R.13 E., Jay County, on right bank at downstream side of county road bridge, 2.4 miles downstream from Butternut Creek, 3.2 miles west of Portland, and 3.7 miles downstream from Little Salamonie River.

DRAINAGE AREA.--85.6 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 877.59 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission). Prior to Oct. 1, 1960, nonrecording gage at site, 1.4 miles upstream at datum 6.43 ft higher.

AVERAGE DISCHARGE.--11 years, 64.8 cfs (10.28 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,700 cfs Jan. 29 (gage height, 14.97 ft); minimum, 0.69 cfs Sept. 28 (gage height, 1.27 ft).
Period of record: Maximum discharge, 3,460 cfs Mar. 5, 1963 (gage height, 16.96 ft); minimum, 0.2 cfs Sept. 27, 1965; minimum gage height, 1.27 ft Sept. 28, 1970.

REMARKS.--Records good except those for periods of no recorder record, which are fair. Natural flow partially affected by sewage effluent.

REVISIONS.--WRD Ind. 1969: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.3 | 12 | 21 | 7.0 | 100 | 23 | 28 | 94 | 13 | 4.2 | 511 | 1.7 |
| 2 | 4.4 | 18 | 17 | 6.8 | 364 | 28 | 580 | 56 | 9.5 | 4.0 | 93 | 1.8 |
| 3 | 3.5 | 18 | 17 | 6.6 | 356 | 55 | 301 | 36 | 107 | 4.4 | 28 | 1.8 |
| 4 | 2.4 | 15 | 16 | 6.4 | 130 | 624 | 87 | 30 | 70 | 3.5 | 15 | 2.6 |
| 5 | 1.7 | 15 | 11 | 6.2 | 80 | 579 | 51 | 24 | 194 | 3.1 | 9.5 | 1.7 |
| 6 | 1.4 | 18 | 10 | 5.8 | 42 | 136 | 42 | 20 | 85 | 3.3 | 6.5 | 1.7 |
| 7 | 4.6 | 13 | 78 | 5.6 | 40 | 76 | 36 | 17 | 29 | 3.3 | 5.1 | 1.3 |
| 8 | 3.1 | 10 | 193 | 5.4 | 51 | 52 | 28 | 16 | 16 | 5.3 | 4.2 | 1.3 |
| 9 | 2.0 | 8.6 | 71 | 5.2 | 188 | 39 | 26 | 13 | 11 | 8.8 | 3.5 | 1.5 |
| 10 | 2.4 | 7.2 | 48 | 5.0 | 157 | 30 | 21 | 11 | 8.6 | 8.0 | 3.3 | 1.4 |
| 11 | 5.8 | 6.8 | 39 | 4.9 | 110 | 23 | 19 | 12 | 7.8 | 5.3 | 3.2 | 1.8 |
| 12 | 80 | 7.2 | 31 | 4.7 | 70 | 21 | 16 | 36 | 7.2 | 3.7 | 3.5 | 1.7 |
| 13 | 91 | 6.8 | 23 | 4.7 | 50 | 18 | 19 | 263 | 8.3 | 3.5 | 3.1 | 1.4 |
| 14 | 96 | 6.2 | 22 | 4.6 | 41 | 16 | 21 | 191 | 7.5 | 3.3 | 2.9 | 2.4 |
| 15 | 54 | 6.2 | 18 | 4.5 | 38 | 15 | 18 | 67 | 6.2 | 6.2 | 2.4 | 2.0 |
| 16 | 30 | 7.5 | 14 | 4.4 | 35 | 13 | 15 | 59 | 6.2 | 3.7 | 2.0 | 1.8 |
| 17 | 15 | 6.5 | 13 | 4.4 | 32 | 12 | 13 | 42 | 6.0 | 3.1 | 2.6 | 2.0 |
| 18 | 13 | 56 | 13 | 4.3 | 97 | 13 | 13 | 30 | 5.8 | 2.2 | 2.6 | 6.3 |
| 19 | 8.3 | 1,350 | 12 | 4.3 | 630 | 24 | 689 | 22 | 5.3 | 4.4 | 3.3 | 2.6 |
| 20 | 6.8 | 589 | 11 | 4.3 | 148 | 130 | 1,040 | 17 | 4.6 | 4.6 | 3.3 | 1.5 |
| 21 | 8.6 | 127 | 11 | 4.3 | 60 | 98 | 251 | 13 | 4.2 | 2.9 | 3.1 | 1.5 |
| 22 | 7.2 | 100 | 10 | 4.3 | 57 | 73 | 111 | 11 | 4.6 | 2.8 | 3.1 | 1.7 |
| 23 | 6.2 | 266 | 9.4 | 4.3 | 55 | 174 | 64 | 11 | 4.8 | 11 | 2.5 | 2.2 |
| 24 | 4.8 | 160 | 9.0 | 4.4 | 55 | 79 | 994 | 19 | 5.7 | 5.3 | 2.2 | 1.4 |
| 25 | 4.4 | 86 | 8.6 | 4.5 | 47 | 55 | 624 | 15 | 10 | 3.1 | 2.2 | 1.3 |
| 26 | 3.5 | 57 | 8.3 | 4.6 | 40 | 716 | 101 | 10 | 12 | 3.1 | 2.2 | 3.1 |
| 27 | 3.3 | 43 | 8.0 | 5.0 | 34 | 173 | 60 | 8.9 | 23 | 5.8 | 2.4 | 2.0 |
| 28 | 4.0 | 35 | 7.7 | 159 | 26 | 74 | 119 | 8.0 | 8.3 | 5.1 | 2.0 | .94 |
| 29 | 4.0 | 30 | 7.4 | 2,470 | ------ | 49 | 195 | 7.5 | 5.8 | 2.9 | 1.7 | 1.0 |
| 30 | 3.7 | 24 | 7.2 | 1,150 | ------ | 36 | 179 | 7.2 | 4.8 | 784 | 1.4 | 1.2 |
| 31 | 4.2 | ------ | 7.0 | 158 | ------ | 30 | ------ | 9.2 | ------ | 132 | 1.3 | ------ |
| TOTAL | 484.6 | 3,105.0 | 771.6 | 4,073.5 | 3,133 | 3,484 | 5,801 | 1,175.8 | 691.0 | 1,049.7 | 732.6 | 56.64 |
| MEAN | 15.6 | 104 | 24.9 | 131 | 112 | 112 | 193 | 37.9 | 23.0 | 33.9 | 23.6 | 1.89 |
| MAX | 96 | 1,350 | 193 | 2,470 | 630 | 716 | 1,040 | 263 | 194 | 784 | 511 | 6.3 |
| MIN | 1.4 | 6.2 | 7.0 | 4.3 | 26 | 12 | 13 | 7.2 | 4.2 | 2.2 | 1.3 | .94 |
| CFSM | .18 | 1.22 | .29 | 1.53 | 1.31 | 1.31 | 2.25 | .44 | .27 | .40 | .28 | .022 |
| IN. | .21 | 1.35 | .34 | 1.77 | 1.36 | 1.51 | 2.52 | .51 | .30 | .46 | .32 | .02 |

CAL YR 1969 TOTAL 23,651.60 MEAN 64.8 MAX 1,710 MIN 1.3 CFSM .76 IN 10.28
WAT YR 1970 TOTAL 24,558.44 MEAN 67.3 MAX 2,470 MIN .94 CFSM .79 IN 10.67

PEAK DISCHARGE (BASE, 1,400 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-19 | 1500 | 11.62 | 1,650 | 04-19 | 2000 | 11.25 | 1,550 |
| 01-29 | 1600 | 14.97 | 2,700 | 04-24 | 1930 | 12.10 | 1,770 |

Note.--No recorder record Oct. 7 to Nov. 18, May 7-19.

03324300 Salamonie River near Warren, Ind.

LOCATION.--Lat 40°42'45", long 85°27'13", in SE¼ sec.12, T.26 N., R.9 E., Huntington County, on right downstream side of county road bridge, 1,700 ft downstream from small right and left bank tributaries, 4,000 ft upstream from abandoned concrete and stone dam, and 2.4 miles northwest of Warren.

DRAINAGE AREA.--425 sq mi.

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

GAGE.--Water-stage recorder and concrete dam. Datum of gage is 784.75 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission). Prior to July 28, 1960, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--13 years, 358 cfs (11.44 inches per year).

EXTREMES.--Current year: Maximum discharge, 7,130 cfs Jan. 30 (gage height, 13.44 ft); minimum discharge, 6.6 cfs Sept. 1, 2; minimum gage height, 6.49 ft July 17, 18.
Period of record: Maximum discharge, 13,200 cfs Feb. 10, 1959 (gage height, 17.05 ft); minimum, 5.0 cfs Sept. 18, 19, 1959; minimum gage height, 5.01 ft Sept. 5, 1966.

REMARKS.--Records good except those below 50 cfs, which are fair, and those for winter periods, which are poor. Records of suspended sediment loads for the current year are published in Part 2 of this report.

REVISIONS.--WRD Ind. 1969: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 74 | 89 | 185 | 68 | 700 | 120 | 195 | 535 | 102 | 68 | 2,390 | 6.6 |
| 2 | 65 | 226 | 154 | 66 | 440 | 112 | 792 | 350 | 109 | 109 | 2,110 | 6.6 |
| 3 | 102 | 210 | 146 | 64 | 1,400 | 130 | 2,010 | 238 | 123 | 95 | 830 | 8.6 |
| 4 | 95 | 166 | 130 | 62 | 1,300 | 738 | 1,040 | 185 | 527 | 56 | 200 | 8.6 |
| 5 | 71 | 175 | 120 | 59 | 600 | 1,950 | 480 | 162 | 315 | 44 | 98 | 11 |
| 6 | 59 | 180 | 106 | 58 | 500 | 1,350 | 336 | 142 | 626 | 38 | 54 | 12 |
| 7 | 56 | 158 | 128 | 54 | 160 | 535 | 262 | 130 | 336 | 34 | 32 | 18 |
| 8 | 56 | 138 | 654 | 52 | 150 | 357 | 200 | 126 | 166 | 36 | 10 | 18 |
| 9 | 56 | 120 | 694 | 49 | 300 | 250 | 180 | 116 | 120 | 38 | 16 | 18 |
| 10 | 65 | 109 | 364 | 48 | 442 | 185 | 158 | 109 | 92 | 38 | 13 | 15 |
| 11 | 109 | 98 | 262 | 47 | 371 | 154 | 138 | 109 | 86 | 56 | 11 | 13 |
| 12 | 840 | 95 | 210 | 46 | 280 | 138 | 123 | 120 | 77 | 49 | 9.4 | 12 |
| 13 | 2,870 | 102 | 170 | 45 | 215 | 126 | 130 | 1,680 | 74 | 38 | 8.6 | 13 |
| 14 | 2,220 | 95 | 154 | 44 | 162 | 120 | 166 | 2,490 | 95 | 32 | 8.6 | 20 |
| 15 | 1,060 | 89 | 138 | 44 | 150 | 109 | 170 | 2,140 | 170 | 28 | 10 | 22 |
| 16 | 584 | 86 | 122 | 43 | 142 | 95 | 150 | 1,650 | 109 | 26 | 12 | 20 |
| 17 | 350 | 83 | 112 | 43 | 123 | 89 | 134 | 977 | 80 | 25 | 10 | 19 |
| 18 | 226 | 1,190 | 102 | 43 | 146 | 89 | 120 | 519 | 71 | 25 | 9.4 | 25 |
| 19 | 162 | 4,710 | 102 | 43 | 1,280 | 92 | 1,950 | 322 | 65 | 34 | 11 | 20 |
| 20 | 134 | 4,600 | 95 | 42 | 1,280 | 162 | 5,040 | 226 | 54 | 46 | 13 | 19 |
| 21 | 134 | 3,390 | 89 | 42 | 503 | 458 | 4,320 | 175 | 52 | 44 | 12 | 20 |
| 22 | 134 | 1,670 | 89 | 42 | 301 | 371 | 2,770 | 150 | 52 | 44 | 12 | 26 |
| 23 | 116 | 1,400 | 86 | 43 | 280 | 399 | 977 | 134 | 49 | 44 | 14 | 32 |
| 24 | 98 | 1,250 | 74 | 44 | 270 | 455 | 1,700 | 123 | 46 | 40 | 19 | 40 |
| 25 | 89 | 762 | 80 | 46 | 250 | 315 | 2,920 | 138 | 77 | 49 | 13 | 40 |
| 26 | 86 | 535 | 74 | 50 | 230 | 1,610 | 2,490 | 175 | 162 | 54 | 10 | 46 |
| 27 | 83 | 392 | 74 | 60 | 205 | 2,170 | 779 | 130 | 220 | 52 | 8.6 | 49 |
| 28 | 77 | 308 | 71 | 230 | 142 | 804 | 465 | 106 | 205 | 42 | 7.8 | 65 |
| 29 | 74 | 250 | 71 | 6,000 | ------ | 442 | 592 | 92 | 123 | 36 | 7.8 | 40 |
| 30 | 68 | 200 | 68 | 7,100 | ------ | 301 | 618 | 86 | 89 | 146 | 5.4 | 28 |
| 31 | 68 | ------ | 68 | 2,500 | ------ | 220 | ------ | 92 | ------ | 989 | 7.8 | ------ |
| TOTAL | 10,281 | 22,876 | 4,993 | 17,175 | 12,322 | 14,526 | 31,405 | 13,727 | 4,472 | 2,455 | 5,977.4 | 691.4 |
| MEAN | 332 | 763 | 161 | 554 | 440 | 469 | 1,047 | 443 | 149 | 79.2 | 193 | 23.0 |
| MAX | 2,870 | 4,710 | 694 | 7,100 | 1,400 | 2,170 | 5,040 | 2,490 | 626 | 989 | 2,390 | 65 |
| MIN | 56 | 83 | 68 | 42 | 123 | 89 | 120 | 86 | 46 | 25 | 7.8 | 6.6 |
| CFSM | .78 | 1.80 | .38 | 1.30 | 1.04 | 1.10 | 2.46 | 1.04 | .35 | .19 | .45 | .054 |
| IN. | .90 | 2.00 | .44 | 1.50 | 1.08 | 1.27 | 2.75 | 1.20 | .39 | .21 | .52 | .06 |

CAL YR 1969 TOTAL 147,256.0 MEAN 403 MAX 6,170 MIN 12 CFSM .95 IN 12.89
WAT YR 1970 TOTAL 140,900.8 MEAN 386 MAX 7,100 MIN 6.6 CFSM .91 IN 12.33

PEAK DISCHARGE (BASE, 3,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-19 | 2300 | 11.98 | 5,380 | 04-25 | 0530 | 9.86 | 3,050 |
| 01-30 | Unknown | 13.44 | 7,130 | 08-01 | 1100 | 9.82 | 3,010 |
| 04-20 | 0800 | 11.96 | 5,360 | | | | |

03324450 Salamonie Reservoir at Dora, Ind.

LOCATION.--Lat 40°48'27", long 85°40'46", in NE¼ sec.12, T.27 N., R.7 E., Wabash County (revised), in discharge tower of reservoir on Salamonie River, 1.1 miles northwest of Dora, and 3.4 miles upstream from mouth.

DRAINAGE AREA.--553 sq mi.

PERIOD OF RECORD.--April 1967 to current year.

GAGE.--Water-stage recorder.--Datum of gage is 700.00 ft above mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents, 84,320 acre-ft May 1 (elevation, 762.32 ft); minimum, 13,010 acre-ft Mar. 7 (elevation, 729.90 ft).
Period of record: Maximum contents, 90,200 acre-ft Feb. 4, 1969 (elevation, 763.91 ft); minimum, 10,000 acre-ft Mar. 11, 1969 (elevation, 726.44 ft).

REMARKS.--Reservoir is formed by earth fill dam. Releases normally controlled by three gates, 4.75 ft wide and 16.0 ft high, in semi-elliptical conduit through dam. Minimum design capacity is 13,100 acre-ft (elevation, 730 ft). Seasonal pool capacity is 60,700 acre-ft (elevation, 755 ft). Capacity at uncontrolled spillway elevation (793 ft) is 263,600 acre-ft. Reservoir is used for flood control and recreation. Reservoir put in operation on April 17, 1967.

COOPERATION.--Records furnished by Corps of Engineers.

Month-end elevation and contents, water year October 1969 to September 1970

| Date | Elevation (feet) | Contents (acre-feet) | Change in contents (acre-feet) |
|---|---|---|---|
| Sept. 30 | 750.98 | 49,980 | - |
| Oct. 31 | 742.63 | 31,520 | -18,460 |
| Nov. 30 | 742.02 | 30,350 | -1,170 |
| Dec. 31 | 730.22 | 13,320 | -17,030 |
| Calendar year 1969 | - | - | +16,880 |
| Jan. 31 | 740.93 | 28,310 | +14,990 |
| Feb. 28 | 729.98 | 13,090 | -15,220 |
| Mar. 31 | 736.10 | 20,370 | +7,280 |
| Apr. 30 | 762.18 | 83,820 | +63,450 |
| May 31 | 755.07 | 60,890 | -22,930 |
| June 30 | 755.18 | 61,210 | +320 |
| July 31 | 755.43 | 61,930 | +720 |
| Aug. 31 | 754.98 | 60,640 | -1,290 |
| Sept. 30 | 751.38 | 50,960 | -9,680 |
| Water year 1969-70 | - | - | +980 |

03324500 Salamonie River at Dora, Ind.

LOCATION.--Lat 40°48'42", long 85°41'02", in NE¼ sec.12, T.27 N., R.7 E., Wabash County, on right bank 1.5 miles northwest of Dora and 3 miles upstream from mouth.

DRAINAGE AREA.--557 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 673.96 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission). Prior to Oct. 1, 1951, nonrecording gage at site 1.5 miles upstream at datum 688.59 ft above mean sea level (levels by Corps of Engineers) and Oct. 1, 1951, to Oct. 8, 1961, water-stage recorder located on left bank, 2,000 ft upstream at datum 679.77 ft above mean sea level, (levels by Corps of Engineers).

AVERAGE DISCHARGE.--46 years (1924-70), 495 cfs (12.07 inches per year).

EXTREMES.--Current year: Maximum discharge, 5,810 cfs Dec. 3 (gage height, 10.26 ft); minimum, 0.90 cfs Dec. 2; (gage height, 2.00 ft).
Period of record: Maximum discharge, 16,500 cfs May 18, 1943 (gage height, 14.75 ft, from graph based on gage readings, site and datum then in use); minimum, 0.34 cfs July 18, 1967 (gage height, 2.04 ft) result of abnormal regulation.

REMARKS.--Records good. Flow regulated by Salamonie Reservoir (see sta 03324450) about 0.5 mile upstream.

REVISIONS (WATER YEARS).--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. WRD Ind. 1969: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 520 | 395 | 1,040 | 103 | 946 | 162 | 922 | 838 | 98 | 177 | 519 | 26 |
| 2 | 515 | 424 | 1.2 | 103 | 1,940 | 162 | 922 | 1,530 | 112 | 252 | 560 | 26 |
| 3 | 460 | 595 | 3,750 | 103 | 2,170 | 171 | 934 | 3,110 | 125 | 363 | 1,690 | 27 |
| 4 | 460 | 744 | 2,620 | 103 | 826 | 363 | 946 | 3,900 | 204 | 199 | 2,650 | 26 |
| 5 | 460 | 613 | 2,260 | 98 | 1,840 | 1,390 | 946 | 3,830 | 451 | 82 | 2,890 | 26 |
| 6 | 456 | 892 | 790 | 85 | 2,910 | 2,230 | 411 | 1,940 | 640 | 64 | 2,850 | 26 |
| 7 | 456 | 659 | 290 | 74 | 3,510 | 1,550 | 29 | 198 | 575 | 19 | 1,770 | 27 |
| 8 | 456 | 545 | 339 | 67 | 2,890 | 420 | 25 | 198 | 332 | 24 | 351 | 27 |
| 9 | 429 | 540 | 716 | 67 | 814 | 535 | 23 | 204 | 156 | 25 | 180 | 27 |
| 10 | 411 | 535 | 838 | 59 | 351 | 279 | 23 | 216 | 153 | 25 | 123 | 26 |
| 11 | 535 | 530 | 424 | 43 | 535 | 180 | 23 | 216 | 112 | 59 | 24 | 26 |
| 12 | 904 | 320 | 424 | 48 | 496 | 180 | 22 | 262 | 52 | 119 | 24 | 26 |
| 13 | 1,040 | 20 | 269 | 55 | 293 | 180 | 24 | 928 | 52 | 119 | 24 | 27 |
| 14 | 1,270 | 22 | 130 | 58 | 213 | 180 | 23 | 109 | 64 | 119 | 24 | 279 |
| 15 | 1,500 | 22 | 234 | 66 | 213 | 180 | 23 | 107 | 162 | 119 | 37 | 451 |
| 16 | 1,490 | 22 | 258 | 66 | 210 | 180 | 23 | 487 | 262 | 69 | 45 | 451 |
| 17 | 1,480 | 17 | 210 | 80 | 198 | 180 | 23 | 1,240 | 122 | 27 | 45 | 335 |
| 18 | 1,470 | 14 | 162 | 93 | 147 | 156 | 23 | 1,710 | 93 | 22 | 46 | 367 |
| 19 | 1,460 | 48 | 133 | 103 | 520 | 112 | 43 | 2,510 | 58 | 17 | 46 | 456 |
| 20 | 1,440 | 125 | 133 | 98 | 1,530 | 304 | 29 | 3,230 | 45 | 57 | 46 | 407 |
| 21 | 1,020 | 872 | 133 | 80 | 1,210 | 487 | 29 | 2,930 | 45 | 122 | 46 | 24 |
| 22 | 1,420 | 1,810 | 133 | 59 | 375 | 545 | 28 | 1,250 | 38 | 119 | 53 | 83 |
| 23 | 990 | 2,120 | 130 | 45 | 328 | 545 | 28 | 307 | 27 | 103 | 64 | 262 |
| 24 | 944 | 2,530 | 130 | 52 | 395 | 540 | 447 | 180 | 27 | 82 | 64 | 343 |
| 25 | 1,370 | 3,070 | 114 | 56 | 403 | 540 | 820 | 311 | 27 | 82 | 58 | 387 |
| 26 | 832 | 3,330 | 89 | 59 | 411 | 1,160 | 826 | 447 | 27 | 47 | 46 | 415 |
| 27 | 590 | 3,260 | 89 | 69 | 359 | 1,080 | 1,080 | 286 | 141 | 120 | 34 | 411 |
| 28 | 585 | 2,810 | 89 | 141 | 241 | 85 | 1,020 | 192 | 210 | 272 | 26 | 451 |
| 29 | 456 | 2,150 | 96 | 535 | ------ | 85 | 826 | 112 | 207 | 99 | 26 | 442 |
| 30 | 399 | 2,120 | 103 | 820 | ------ | 492 | 832 | 93 | 143 | 405 | 26 | 383 |
| 31 | 395 | ------ | 103 | 910 | ------ | 928 | ------ | 91 | ------ | 633 | 26 | ------ |
| TOTAL | 26,213 | 31,154 | 16,230.2 | 4,398 | 26,274 | 15,581 | 11,373 | 32,962 | 4,760 | 4,041 | 14,413 | 6,290 |
| MEAN | 846 | 1,038 | 524 | 142 | 938 | 503 | 379 | 1,063 | 159 | 130 | 465 | 210 |
| MAX | 1,500 | 3,330 | 3,750 | 910 | 3,510 | 2,230 | 1,080 | 3,900 | 640 | 633 | 2,890 | 456 |
| MIN | 395 | 14 | 1.2 | 43 | 147 | 85 | 22 | 91 | 27 | 17 | 24 | 24 |

CAL YR 1969 TOTAL 207,255.0 MEAN 568 MAX 6,040 MIN .85
WAT YR 1970 TOTAL 193,689.2 MEAN 531 MAX 3,900 MIN 1.2

03325000 Wabash River at Wabash, Ind.

LOCATION.--Lat 40°47'25", long 85°49'13", in sec.14, T.27 N., R.6 E., Wabash County, on right bank on upstream side of Wabash Street Bridge in Wabash, 7 miles downstream from Salamonie River, and at mile 387.2.

DRAINAGE AREA.--1,768 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 642.66 ft above mean sea level. Prior to Sept. 30, 1954, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--47 years, 1,448 cfs (11.12 inches per year).

EXTREMES.--Current year: Maximum discharge, 8,070 cfs Feb. 3 (gage height, 12.36 ft); minimum daily, 70 cfs Sept. 21.
Period of record: Maximum discharge, 49,600 cfs May 18, 1943; maximum gage height, 24.44 ft Feb. 11, 1959 (ice jam); minimum discharge observed, 17 cfs Aug. 4, 5, 9, 1934, July 21, 22, 1936; minimum gage height, 1.66 ft Aug. 4, 5, 9, 1934.
Maximum stage known, 28.7 ft Mar. 26, 1913, from floodmark, determined by Corps of Engineers (discharge, 90,000 cfs, from rating curve extended above 49,000 cfs).

REMARKS.--Records good except those for winter periods or periods of no gage-height record, which are fair. Flow partially regulated by Huntington Reservoir (see sta 03323450) and Salamonie Reservoir (see sta 03324450).

REVISIONS (WATER YEARS).--WSP 1275: 1931-37(M), 1938-39, 1940(M). WSP 1385: 1942. WSP 1505: 1955. WRD Ind. 1969: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 570 | 803 | 2,110 | 469 | 3,860 | 727 | 1,820 | 5,490 | 367 | 993 | 2,690 | 96 |
| 2 | 592 | 925 | 708 | 452 | 4,800 | 610 | 2,700 | 4,830 | 476 | 780 | 1,870 | 85 |
| 3 | 711 | 945 | 3,600 | 432 | 7,830 | 647 | 4,500 | 4,900 | 426 | 1,100 | 2,840 | 84 |
| 4 | 706 | 1,130 | 3,380 | 406 | 6,480 | 1,800 | 4,630 | 4,990 | 420 | 725 | 3,680 | 90 |
| 5 | 701 | 1,030 | 3,260 | 420 | 5,370 | 4,250 | 3,920 | 4,770 | 913 | 295 | 3,600 | 90 |
| 6 | 623 | 1,260 | 1,470 | 420 | 5,630 | 4,650 | 2,820 | 4,530 | 1,550 | 223 | 3,250 | 88 |
| 7 | 606 | 1,100 | 812 | 410 | 4,370 | 4,190 | 1,170 | 932 | 1,350 | 212 | 2,470 | 96 |
| 8 | 584 | 906 | 1,030 | 400 | 2,500 | 2,750 | 957 | 760 | 1,150 | 225 | 708 | 94 |
| 9 | 558 | 880 | 1,530 | 380 | 1,500 | 3,330 | 740 | 725 | 649 | 237 | 327 | 92 |
| 10 | 538 | 811 | 2,270 | 370 | 1,030 | 2,000 | 802 | 710 | 515 | 229 | 300 | 88 |
| 11 | 779 | 769 | 1,610 | 370 | 1,480 | 1,140 | 587 | 685 | 382 | 240 | 140 | 85 |
| 12 | 2,100 | 679 | 1,210 | 360 | 1,660 | 866 | 550 | 730 | 274 | 279 | 125 | 83 |
| 13 | 4,350 | 263 | 1,050 | 360 | 1,060 | 822 | 500 | 3,260 | 291 | 272 | 118 | 89 |
| 14 | 3,580 | 244 | 739 | 350 | 860 | 802 | 1,040 | 4,660 | 298 | 266 | 113 | 182 |
| 15 | 3,440 | 249 | 786 | 350 | 800 | 775 | 1,280 | 4,110 | 474 | 260 | 115 | 600 |
| 16 | 3,240 | 223 | 785 | 340 | 760 | 665 | 828 | 3,620 | 1,130 | 237 | 128 | 620 |
| 17 | 3,090 | 224 | 677 | 340 | 740 | 638 | 480 | 4,870 | 1,660 | 174 | 124 | 520 |
| 18 | 2,940 | 909 | 640 | 330 | 769 | 631 | 388 | 4,470 | 578 | 190 | 122 | 570 |
| 19 | 2,430 | 6,800 | 587 | 330 | 1,590 | 574 | 3,140 | 4,170 | 411 | 156 | 124 | 980 |
| 20 | 1,940 | 5,200 | 516 | 320 | 3,370 | 1,240 | 5,750 | 4,090 | 241 | 275 | 130 | 860 |
| 21 | 1,480 | 4,690 | 556 | 320 | 3,080 | 1,840 | 5,000 | 3,670 | 150 | 296 | 130 | 70 |
| 22 | 1,570 | 5,840 | 499 | 320 | 2,240 | 1,780 | 4,920 | 2,170 | 146 | 279 | 138 | 140 |
| 23 | 1,390 | 6,390 | 526 | 310 | 1,420 | 1,820 | 5,070 | 828 | 125 | 266 | 158 | 355 |
| 24 | 1,390 | 6,830 | 477 | 310 | 1,410 | 1,840 | 6,360 | 633 | 120 | 236 | 153 | 458 |
| 25 | 1,610 | 6,820 | 425 | 310 | 1,430 | 1,610 | 6,020 | 1,040 | 183 | 231 | 152 | 508 |
| 26 | 1,400 | 7,230 | 474 | 344 | 1,410 | 4,550 | 4,790 | 1,110 | 710 | 217 | 133 | 612 |
| 27 | 883 | 6,900 | 470 | 387 | 1,220 | 5,700 | 5,310 | 788 | 1,350 | 465 | 126 | 963 |
| 28 | 867 | 6,370 | 441 | 676 | 1,040 | 3,700 | 5,630 | 519 | 1,490 | 603 | 105 | 1,050 |
| 29 | 788 | 4,790 | 436 | 3,860 | ------ | 3,030 | 5,740 | 409 | 1,440 | 454 | 102 | 835 |
| 30 | 677 | 3,710 | 445 | 5,070 | ------ | 2,320 | 6,060 | 362 | 1,360 | 924 | 99 | 690 |
| 31 | 681 | ------ | 417 | 4,310 | ------ | 1,930 | ------ | 355 | ------ | 1,000 | 98 | ------ |
| TOTAL | 46,814 | 84,920 | 33,936 | 23,826 | 69,709 | 63,227 | 93,502 | 79,186 | 20,629 | 12,339 | 24,368 | 11,173 |
| MEAN | 1,510 | 2,831 | 1,095 | 769 | 2,490 | 2,040 | 3,117 | 2,554 | 688 | 398 | 786 | 372 |
| MAX | 4,350 | 7,230 | 3,600 | 5,070 | 7,830 | 5,700 | 6,360 | 5,490 | 1,660 | 1,100 | 3,680 | 1,050 |
| MIN | 538 | 223 | 417 | 310 | 740 | 574 | 388 | 355 | 120 | 156 | 98 | 70 |
| CFSM | .85 | 1.60 | .62 | .44 | 1.41 | 1.15 | 1.76 | 1.44 | .39 | .23 | .44 | .21 |
| IN. | .99 | 1.79 | .71 | .50 | 1.47 | 1.33 | 1.97 | 1.67 | .43 | .26 | .51 | .24 |

CAL YR 1969 TOTAL 652,549 MEAN 1,788 MAX 11,800 MIN 61 CFSM 1.01 IN 13.73
WAT YR 1970 TOTAL 563,629 MEAN 1,544 MAX 7,830 MIN 70 CFSM .87 IN 11.86

PEAK DISCHARGE (BASE, 11,000 CFS).--No peak above base.

## 03325500 Mississinewa River near Ridgeville, Ind.

LOCATION.--Lat 40°16'49", long 84°59'44", on line between secs. 7 and 8, T.21 N., R.14 E., Randolph County, on right bank 10 ft downstream from highway bridge, 0.8 mile downstream from Mud Creek, and 2 miles east of Ridgeville.

DRAINAGE AREA.--133 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 965.28 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission). Prior to Oct. 5, 1950, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--24 years, 122 cfs (12.46 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,320 cfs Jan. 29 (gage height, 12.03 ft); minimum, 3.1 cfs Sept. 8, 9, 21, 22, 28, 29 (gage height, 2.21 ft).
Period of record: Maximum discharge, 13,900 cfs June 10, 1958 (gage height, 16.25 ft), from rating curve extended above 5,000 cfs on basis of contracted-opening measurement of peak flow; minimum, 0.1 cfs Oct. 24, 1946; minimum gage height, 1.65 ft Sept. 11, 1953.

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

REVISIONS (WATER YEARS).--WSP 1235: 1948. WSP 1335: 1953. WRD Ind. 1969: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.5 | 18 | 55 | 19 | 284 | 48 | 71 | 85 | 18 | 12 | 98 | 3.2 |
| 2 | 6.8 | 30 | 44 | 18 | 329 | 55 | 927 | 67 | 19 | 13 | 40 | 3.6 |
| 3 | 7.3 | 23 | 46 | 17 | 396 | 117 | 434 | 57 | 126 | 18 | 15 | 3.7 |
| 4 | 6.5 | 22 | 36 | 16 | 209 | 698 | 212 | 51 | 109 | 14 | 11 | 4.4 |
| 5 | 6.3 | 23 | 30 | 16 | 123 | 764 | 137 | 46 | 252 | 11 | 9.6 | 3.7 |
| 6 | 6.0 | 23 | 29 | 18 | 70 | 299 | 112 | 40 | 152 | 10 | 8.6 | 3.6 |
| 7 | 8.2 | 21 | 97 | 16 | 55 | 191 | 83 | 37 | 72 | 10 | 7.9 | 3.6 |
| 8 | 11 | 17 | 264 | 15 | 70 | 134 | 74 | 38 | 46 | 20 | 7.5 | 3.1 |
| 9 | 7.9 | 15 | 135 | 14 | 290 | 100 | 69 | 35 | 36 | 93 | 7.0 | 3.2 |
| 10 | 7.5 | 14 | 98 | 13 | 400 | 79 | 59 | 30 | 32 | 78 | 6.5 | 3.4 |
| 11 | 88 | 14 | 87 | 12 | 170 | 65 | 53 | 32 | 29 | 28 | 7.0 | 3.4 |
| 12 | 159 | 15 | 68 | 12 | 126 | 56 | 49 | 82 | 24 | 16 | 6.5 | 3.6 |
| 13 | 143 | 14 | 57 | 11 | 98 | 50 | 54 | 285 | 60 | 12 | 6.3 | 3.4 |
| 14 | 143 | 13 | 57 | 11 | 70 | 45 | 52 | 179 | 22 | 11 | 6.0 | 3.4 |
| 15 | 82 | 12 | 45 | 10 | 60 | 40 | 43 | 94 | 20 | 10 | 5.8 | 3.9 |
| 16 | 58 | 10 | 37 | 10 | 53 | 36 | 41 | 71 | 18 | 10 | 5.3 | 3.6 |
| 17 | 39 | 9.6 | 35 | 10 | 51 | 35 | 40 | 57 | 16 | 8.9 | 4.9 | 3.6 |
| 18 | 28 | 31 | 35 | 9.8 | 182 | 39 | 36 | 44 | 15 | 8.6 | 4.7 | 4.7 |
| 19 | 23 | 720 | 34 | 9.5 | 490 | 60 | 608 | 38 | 14 | 8.2 | 5.1 | 5.5 |
| 20 | 21 | 544 | 28 | 9.5 | 186 | 176 | 972 | 33 | 13 | 8.6 | 5.8 | 3.6 |
| 21 | 21 | 231 | 24 | 9.4 | 107 | 128 | 368 | 30 | 13 | 8.6 | 5.5 | 3.4 |
| 22 | 18 | 179 | 21 | 9.4 | 110 | 135 | 192 | 28 | 13 | 7.9 | 4.9 | 3.7 |
| 23 | 13 | 317 | 19 | 9.4 | 146 | 218 | 131 | 27 | 12 | 9.3 | 4.5 | 3.6 |
| 24 | 12 | 242 | 14 | 9.4 | 126 | 126 | 1,650 | 28 | 13 | 11 | 4.4 | 3.4 |
| 25 | 12 | 158 | 13 | 9.8 | 146 | 110 | 850 | 28 | 28 | 7.9 | 4.2 | 3.4 |
| 26 | 12 | 113 | 13 | 25 | 86 | 838 | 290 | 28 | 30 | 7.3 | 4.2 | 3.9 |
| 27 | 11 | 92 | 14 | 158 | 70 | 288 | 179 | 22 | 57 | 13 | 4.2 | 4.0 |
| 28 | 11 | 74 | 15 | 254 | 50 | 167 | 192 | 19 | 22 | 8.6 | 4.0 | 3.6 |
| 29 | 10 | 67 | 16 | 2,550 | ------ | 116 | 183 | 18 | 15 | 8.9 | 3.9 | 3.4 |
| 30 | 10 | 59 | 19 | 1,370 | ------ | 88 | 105 | 18 | 13 | 94 | 3.7 | 3.6 |
| 31 | 11 | ------ | 20 | 488 | ------ | 77 | ------ | 17 | ------ | 56 | 3.6 | ------ |
| TOTAL | 999.0 | 3,120.6 | 1,505 | 5,159.2 | 4,553 | 5,378 | 8,266 | 1,664 | 1,309 | 632.8 | 315.6 | 110.2 |
| MEAN | 32.2 | 104 | 48.5 | 166 | 163 | 173 | 276 | 53.7 | 43.6 | 20.4 | 10.2 | 3.67 |
| MAX | 159 | 720 | 264 | 2,550 | 490 | 838 | 1,650 | 285 | 252 | 94 | 98 | 5.5 |
| MIN | 6.0 | 9.6 | 13 | 9.4 | 50 | 35 | 36 | 17 | 12 | 7.3 | 3.6 | 3.1 |
| CFSM | .24 | .78 | .36 | 1.25 | 1.23 | 1.30 | 2.08 | .40 | .33 | .15 | .077 | .028 |
| IN. | .28 | .87 | .42 | 1.44 | 1.27 | 1.50 | 2.31 | .47 | .37 | .18 | .09 | .03 |

CAL YR 1969 TOTAL 36,351.4 MEAN 99.6 MAX 2,100 MIN 4.3 CFSM .75 IN 10.17
WAT YR 1970 TOTAL 33,012.4 MEAN 90.4 MAX 2,550 MIN 3.1 CFSM .68 IN 9.23

PEAK DISCHARGE (BASE, 2,400 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 01-29 | 1000 | 12.03 | 3,320 | 04-24 | 1645 | 11.38 | 2,660 |

## 03326000 Mississinewa River near Eaton, Ind.

LOCATION.--Lat 40°19'08", long 85°19'10", in NE¼ sec. 31, T.22 N., R.11 E., Delaware County, on right bank at downstream side of bridge, 1.5 miles upstream from Estey Creek, and 2.5 miles southeast of Eaton.

DRAINAGE AREA.--310 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 880.60 ft above mean sea level. Prior to Sept. 24, 1954, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--18 years, 271 cfs (11.87 inches per year).

EXTREMES.--Current year: Maximum discharge, 5,930 cfs Jan. 30 (gage height, 12.51 ft); minimum, 6.5 cfs Sept. 13; minimum gage height, 2.60 ft Sept. 12, 13.
Period of record: Maximum discharge, 19,400 cfs June 10, 1958 (gage height, 18.53 ft) from rating curve extended above 6,000 cfs on basis of contracted-opening measurement of peak flow; minimum, 2.0 cfs Sept. 23, 27, 1954 (gage height, 2.23 ft).

REMARKS.--Records fair.

REVISIONS.--WRD Ind. 1969: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 44 | 55 | 167 | 50 | 681 | 122 | 174 | 245 | 64 | 37 | 735 | 8.0 |
| 2 | 43 | 70 | 143 | 49 | 795 | 122 | 776 | 193 | 63 | 32 | 1,030 | 8.3 |
| 3 | 45 | 76 | 130 | 46 | 1,220 | 163 | 2,090 | 154 | 225 | 42 | 313 | 8.0 |
| 4 | 43 | 71 | 120 | 45 | 609 | 895 | 868 | 133 | 556 | 73 | 149 | 8.3 |
| 5 | 40 | 69 | 99 | 44 | 365 | 2,540 | 425 | 120 | 512 | 48 | 83 | 8.0 |
| 6 | 34 | 73 | 88 | 43 | 209 | 1,800 | 304 | 105 | 850 | 32 | 55 | 8.3 |
| 7 | 35 | 68 | 182 | 41 | 165 | 677 | 237 | 93 | 354 | 26 | 38 | 8.9 |
| 8 | 33 | 61 | 645 | 39 | 195 | 424 | 185 | 90 | 204 | 31 | 31 | 9.5 |
| 9 | 35 | 54 | 470 | 37 | 686 | 298 | 171 | 87 | 145 | 131 | 26 | 8.6 |
| 10 | 42 | 50 | 319 | 36 | 775 | 225 | 150 | 80 | 114 | 316 | 23 | 8.0 |
| 11 | 48 | 48 | 255 | 35 | 496 | 180 | 128 | 77 | 97 | 216 | 22 | 7.4 |
| 12 | 500 | 46 | 209 | 33 | 347 | 153 | 116 | 92 | 83 | 92 | 20 | 6.8 |
| 13 | 910 | 45 | 167 | 32 | 255 | 120 | 116 | 280 | 337 | 52 | 19 | 6.5 |
| 14 | 825 | 43 | 151 | 31 | 193 | 100 | 125 | 548 | 393 | 37 | 18 | 8.9 |
| 15 | 568 | 40 | 139 | 30 | 160 | 92 | 113 | 286 | 162 | 29 | 17 | 9.5 |
| 16 | 337 | 35 | 111 | 29 | 150 | 101 | 96 | 260 | 95 | 25 | 16 | 9.5 |
| 17 | 234 | 33 | 98 | 28 | 145 | 88 | 91 | 202 | 70 | 23 | 14 | 9.2 |
| 18 | 174 | 172 | 94 | 28 | 157 | 91 | 85 | 145 | 53 | 20 | 14 | 11 |
| 19 | 135 | 1,810 | 94 | 27 | 1,310 | 102 | 712 | 111 | 43 | 22 | 13 | 14 |
| 20 | 81 | 2,560 | 91 | 27 | 1,030 | 242 | 2,400 | 96 | 36 | 23 | 25 | 13 |
| 21 | 75 | 1,180 | 80 | 27 | 403 | 393 | 2,140 | 87 | 31 | 22 | 23 | 15 |
| 22 | 68 | 512 | 64 | 27 | 274 | 274 | 842 | 81 | 29 | 20 | 19 | 14 |
| 23 | 59 | 695 | 60 | 27 | 304 | 424 | 451 | 77 | 28 | 22 | 17 | 12 |
| 24 | 50 | 686 | 58 | 27 | 304 | 391 | 1,660 | 77 | 25 | 25 | 14 | 9.5 |
| 25 | 45 | 480 | 56 | 29 | 310 | 253 | 3,700 | 80 | 30 | 25 | 13 | 8.9 |
| 26 | 44 | 379 | 54 | 45 | 274 | 1,110 | 1,870 | 80 | 156 | 23 | 12 | 9.9 |
| 27 | 43 | 310 | 52 | 283 | 193 | 1,630 | 636 | 75 | 171 | 20 | 12 | 12 |
| 28 | 40 | 250 | 50 | 424 | 151 | 585 | 428 | 67 | 175 | 27 | 11 | 13 |
| 29 | 36 | 211 | 60 | 3,950 | ------ | 354 | 554 | 61 | 77 | 37 | 10 | 14 |
| 30 | 35 | 184 | 60 | 5,180 | ------ | 250 | 357 | 58 | 49 | 116 | 9.9 | 12 |
| 31 | 37 | ------ | 51 | 2,210 | ------ | 202 | ------ | 62 | ------ | 636 | 8.9 | ------ |
| TOTAL | 4,738 | 10,366 | 4,417 | 12,959 | 12,156 | 14,401 | 22,000 | 4,202 | 5,227 | 2,280 | 2,810.8 | 300.0 |
| MEAN | 153 | 346 | 142 | 418 | 434 | 465 | 733 | 136 | 174 | 73.5 | 90.7 | 10.0 |
| MAX | 910 | 2,560 | 645 | 5,180 | 1,310 | 2,540 | 3,700 | 548 | 850 | 636 | 1,030 | 15 |
| MIN | 33 | 33 | 50 | 27 | 145 | 88 | 85 | 58 | 25 | 20 | 8.9 | 6.5 |
| CFSM | .49 | 1.12 | .46 | 1.35 | 1.40 | 1.50 | 2.36 | .44 | .56 | .24 | .29 | .032 |
| IN. | .57 | 1.24 | .53 | 1.56 | 1.46 | 1.73 | 2.64 | .50 | .63 | .27 | .34 | .04 |

CAL YR 1969 TOTAL 107,066.7 MEAN 293 MAX 4,510 MIN 7.3 CFSM .95 IN 12.85
WAT YR 1970 TOTAL 95,856.8 MEAN 263 MAX 5,180 MIN 6.5 CFSM .85 IN 11.50

PEAK DISCHARGE (BASE, 5,000 CFS).--Jan. 30 (0430) 5,930 cfs (12.51 ft).

## 03326500 Mississinewa River at Marion, Ind.

LOCATION.--Lat 40°34'34", long 85°39'34", in sec.31, T.25 N., R.8 E., Grant County, on left bank 12 ft downstream from Highland Avenue Bridge in Marion, 1 mile upstream from Hummels Creek, and 4 miles downstream from Lugar Creek.

DRAINAGE AREA.--682 sq mi (revised).

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

GAGE.--Water-stage recorder. Datum of gage is 774.56 ft above mean sea level. Prior to Dec. 9, 1933, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--47 years, 622 cfs (12.29 inches per year).

EXTREMES.--Current year: Maximum discharge, 7,900 cfs Jan. 29 (gage height, 9.50 ft); minimum, 1.3 cfs June 8 (gage height, 0.19 ft).
Period of record: Maximum discharge, 25,000 cfs Mar. 21, 1927 (gage height, 17.4 ft from graph based on gage readings), from rating curve extended above 18,000 cfs; minimum, 1.1 cfs Apr. 17, 1959; minimum gage height, -0.27 ft Sept. 25, 1935.
Flood in March 1913 reached a stage of 19.2 ft, from information by Indiana Flood Control and Water Resources Commission.

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

REVISIONS (WATER YEARS).--WSP 1275: Drainage area. WSP 1335: 1927(M), 1931(M). WSP 1385: 1948.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 152 | 218 | 444 | 162 | 1,910 | 292 | 370 | 774 | 190 | 139 | 651 | 41 |
| 2 | 145 | 365 | 382 | 169 | 1,470 | 266 | 789 | 634 | 198 | 123 | 1,450 | 41 |
| 3 | 158 | 350 | 350 | 158 | 2,060 | 288 | 2,170 | 494 | 237 | 136 | 949 | 41 |
| 4 | 162 | 302 | 315 | 145 | 1,450 | 842 | 2,080 | 409 | 636 | 133 | 387 | 43 |
| 5 | 139 | 315 | 288 | 136 | 977 | 2,360 | 1,080 | 360 | 683 | 133 | 250 | 41 |
| 6 | 129 | 320 | 262 | 129 | 746 | 2,720 | 616 | 325 | 896 | 133 | 176 | 44 |
| 7 | 126 | 288 | 347 | 123 | 515 | 1,530 | 592 | 297 | 795 | 111 | 142 | 44 |
| 8 | 114 | 254 | 1,210 | 114 | 468 | 907 | 468 | 279 | 391 | 120 | 117 | 44 |
| 9 | 114 | 234 | 1,370 | 111 | 543 | 669 | 409 | 266 | 288 | 133 | 103 | 43 |
| 10 | 133 | 218 | 858 | 108 | 1,120 | 515 | 365 | 250 | 242 | 176 | 91 | 41 |
| 11 | 222 | 206 | 634 | 106 | 1,030 | 404 | 488 | 266 | 206 | 355 | 84 | 41 |
| 12 | 1,540 | 206 | 515 | 105 | 760 | 350 | 315 | 504 | 194 | 279 | 78 | 41 |
| 13 | 3,540 | 194 | 414 | 102 | 459 | 320 | 171 | 1,930 | 569 | 186 | 73 | 46 |
| 14 | 2,600 | 186 | 382 | 102 | 410 | 292 | 355 | 1,770 | 1,200 | 139 | 71 | 55 |
| 15 | 1,720 | 180 | 340 | 100 | 370 | 270 | 335 | 1,410 | 620 | 117 | 66 | 50 |
| 16 | 1,210 | 166 | 310 | 100 | 340 | 246 | 302 | 1,390 | 370 | 103 | 61 | 46 |
| 17 | 816 | 172 | 274 | 100 | 325 | 230 | 274 | 1,020 | 284 | 94 | 55 | 46 |
| 18 | 578 | 1,170 | 254 | 100 | 371 | 226 | 258 | 662 | 226 | 97 | 53 | 89 |
| 19 | 426 | 5,450 | 250 | 100 | 1,540 | 234 | 2,650 | 456 | 180 | 166 | 59 | 55 |
| 20 | 355 | 5,490 | 238 | 100 | 1,870 | 325 | 5,440 | 360 | 155 | 180 | 64 | 55 |
| 21 | 325 | 3,580 | 226 | 100 | 1,640 | 627 | 4,270 | 284 | 142 | 166 | 64 | 55 |
| 22 | 292 | 2,020 | 226 | 100 | 641 | 655 | 2,540 | 262 | 136 | 126 | 90 | 73 |
| 23 | 250 | 1,800 | 210 | 100 | 578 | 620 | 1,420 | 234 | 126 | 133 | 84 | 91 |
| 24 | 222 | 1,820 | 180 | 100 | 585 | 760 | 2,600 | 246 | 151 | 133 | 66 | 76 |
| 25 | 202 | 1,520 | 180 | 105 | 578 | 606 | 4,630 | 310 | 136 | 139 | 59 | 66 |
| 26 | 190 | 1,110 | 194 | 126 | 543 | 1,590 | 3,850 | 306 | 142 | 117 | 55 | 94 |
| 27 | 183 | 851 | 190 | 158 | 450 | 2,360 | 1,770 | 234 | 206 | 114 | 55 | 100 |
| 28 | 172 | 676 | 172 | 433 | 345 | 1,540 | 1,120 | 194 | 210 | 133 | 53 | 89 |
| 29 | 166 | 564 | 166 | 4,060 | ------ | 830 | 1,010 | 176 | 234 | 120 | 50 | 73 |
| 30 | 155 | 480 | 162 | 6,560 | ------ | 571 | 963 | 162 | 169 | 139 | 48 | 61 |
| 31 | 166 | ------ | 158 | 4,860 | ------ | 432 | ------ | 166 | ------ | 209 | 48 | ------ |
| TOTAL | 16,702 | 30,705 | 11,501 | 19,072 | 23,494 | 23,907 | 43,700 | 16,430 | 10,212 | 4,582 | 5,652 | 1,725 |
| MEAN | 539 | 1,024 | 371 | 615 | 839 | 771 | 1,457 | 530 | 340 | 148 | 182 | 57.5 |
| MAX | 3,540 | 5,490 | 1,370 | 6,560 | 2,060 | 2,720 | 5,440 | 1,930 | 1,200 | 355 | 1,450 | 100 |
| MIN | 114 | 166 | 158 | 100 | 325 | 226 | 171 | 162 | 126 | 94 | 48 | 41 |
| CFSM | .79 | 1.50 | .54 | .90 | 1.23 | 1.13 | 2.14 | .78 | .50 | .22 | .28 | .084 |
| IN. | .91 | 1.67 | .63 | 1.04 | 1.28 | 1.30 | 2.38 | .90 | .56 | .25 | .32 | .09 |

CAL YR 1969 TOTAL 230,373 MEAN 631 MAX 8,550 MIN 6.8 CFSM .93 IN 12.57
WAT YR 1970 TOTAL 207,922 MEAN 570 MAX 6,560 MIN 41 CFSM .84 IN 11.34

PEAK DISCHARGE (BASE, 5,600 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-19 | 1730 | 8.51 | 6,360 | | | | |
| 01-29 | 1330 | 9.50 | 7,900 | 04-19 | 2300 | 8.63 | 6,540 |

03326950 Mississinewa Reservoir at Peoria, Ind.

LOCATION (revised).--Lat 40°43'00", long 85°57'22", in NW¼ sec.10, T.26 N., R.5 E., Miami County, in discharge tower of reservoir on Mississinewa River at Peoria, 6.8 miles southeast of Peru, and 7.3 miles above mouth.

DRAINAGE AREA.--807 sq mi (revised).

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

GAGE.--Water-stage recorder. Datum of gage is 700.00 ft above mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents, 116,730 acre-ft May 1 (elevation, 747.63 ft); minimum, 23,260 acre-ft Feb. 27 (elevation, 711.98 ft).
Period of record: Maximum contents, 116,730 acre-ft May 1, 1970 (elevation, 747.63 ft); minimum, 22,940 acre-ft Jan. 13, 1969 (elevation, 711.73 ft).

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

COOPERATION.--Records furnished by Corps of Engineers.

Month-end elevation and contents, water year October 1969 to September 1970

| Date | Elevation (feet) | Contents (acre-feet) | Change in contents (acre-feet) |
|---|---|---|---|
| Sept. 30 | 721.09 | 37,100 | - |
| Oct. 31 | 727.52 | 49,990 | +12,890 |
| Nov. 30 | 712.70 | 24,200 | -25,790 |
| Dec. 31 | 712.21 | 23,560 | -640 |
| Calendar year 1969 | - | - | -14,530 |
| Jan. 31 | 724.72 | 44,010 | +20,450 |
| Feb. 28 | 712.02 | 23,320 | -20,690 |
| Mar. 31 | 718.43 | 32,580 | +9,260 |
| Apr. 30 | 747.42 | 115,750 | +83,170 |
| May 31 | 737.13 | 75,600 | -40,150 |
| June 30 | 737.34 | 76,270 | +670 |
| July 31 | 737.37 | 76,370 | +100 |
| Aug. 31 | 737.05 | 75,340 | -1,030 |
| Sept. 30 | 733.28 | 64,210 | -11,130 |
| Water year 1969-70 | - | - | +27,110 |

## 03327000 Mississinewa River at Peoria, Ind.

LOCATION.--Lat 40°43'24", long 85°57'27", in SW¼ sec. 3, T.26 N., R.5 E., Miami County, on right bank at Peoria, 3,000 ft downstream from flood control dam, 6.7 miles (revised) upstream from mouth, and 6.5 miles southeast of Peru.

DRAINAGE AREA.--808 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 660.00 ft above mean sea level. Prior to Oct. 7, 1954, nonrecording gage and crest-stage gage on highway bridge 2,500 ft upstream, and Oct. 7, 1954, to Sept. 30, 1962, water-stage recorder on right bank at site 2,500 ft upstream at same datum.

AVERAGE DISCHARGE.--18 years, 672 cfs (11.16 inches per year).

EXTREMES.--Current year: Maximum discharge, 6,530 cfs Sept. 23 (gage height, 9.17 ft); minimum, 5.0 cfs many days (gage height, 0.20 ft); minimum daily discharge, 6.2 cfs Oct. 3.
Period of record: Maximum discharge, 28,000 cfs June 11, 1958 (gage height, 19.26 ft, site then in use); minimum, 5.0 cfs Nov. 8, 1967, many days in 1969-70 (gage height, 0.20 ft); minimum daily, 6.2 cfs Oct 3, 1969.

REMARKS.--Records good. Flow regulated by Mississinewa Reservoir (see sta 03326950) since April 1968.

REVISIONS (WATER YEARS).--WSP 1335: 1953. WRD Ind. 1969: Drainage area

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 488 | 453 | 692 | 235 | 2,400 | 333 | 828 | 1,860 | 146 | 127 | 417 | 40 |
| 2 | 6.8 | 528 | 512 | 234 | 3,860 | 311 | 830 | 3,900 | 190 | 147 | 909 | 31 |
| 3 | 6.2 | 460 | 512 | 217 | 5,330 | 290 | 836 | 3,840 | 256 | 260 | 1,240 | 31 |
| 4 | 636 | 436 | 436 | 174 | 5,120 | 656 | 854 | 3,790 | 380 | 265 | 956 | 32 |
| 5 | 930 | 223 | 362 | 155 | 2,780 | 1,460 | 863 | 4,440 | 434 | 198 | 352 | 32 |
| 6 | 464 | 175 | 428 | 155 | 842 | 2,280 | 864 | 4,580 | 30 | 141 | 283 | 32 |
| 7 | 380 | 173 | 403 | 155 | 657 | 2,460 | 860 | 2,240 | 553 | 143 | 211 | 67 |
| 8 | 380 | 310 | 474 | 157 | 548 | 1,520 | 365 | 435 | 818 | 156 | 141 | 84 |
| 9 | 376 | 716 | 781 | 145 | 565 | 786 | 26 | 283 | 766 | 167 | 119 | 84 |
| 10 | 373 | 328 | 574 | 133 | 703 | 605 | 21 | 283 | 605 | 251 | 73 | 84 |
| 11 | 548 | 446 | 176 | 133 | 959 | 508 | 26 | 322 | 358 | 301 | 31 | 83 |
| 12 | 1,200 | 271 | 1,210 | 133 | 853 | 290 | 26 | 779 | 253 | 301 | 31 | 72 |
| 13 | 788 | 241 | 1,910 | 133 | 471 | 392 | 19 | 1,650 | 193 | 301 | 31 | 48 |
| 14 | 915 | 301 | 490 | 134 | 507 | 365 | 19 | 1,320 | 488 | 301 | 65 | 283 |
| 15 | 1,170 | 298 | 383 | 171 | 441 | 315 | 27 | 120 | 658 | 276 | 85 | 411 |
| 16 | 1,210 | 188 | 337 | 181 | 445 | 315 | 24 | 120 | 659 | 188 | 85 | 405 |
| 17 | 1,240 | 233 | 337 | 178 | 356 | 283 | 27 | 516 | 658 | 158 | 85 | 405 |
| 18 | 2,740 | 740 | 322 | 176 | 337 | 273 | 27 | 526 | 548 | 140 | 86 | 441 |
| 19 | 2,680 | 668 | 289 | 175 | 898 | 268 | 40 | 763 | 269 | 194 | 87 | 389 |
| 20 | 1,180 | 84 | 289 | 177 | 1,260 | 356 | 35 | 1,300 | 182 | 338 | 87 | 364 |
| 21 | 1,160 | 796 | 271 | 150 | 1,570 | 649 | 33 | 1,090 | 148 | 282 | 87 | 367 |
| 22 | 995 | 4,080 | 233 | 133 | 989 | 768 | 80 | 1,730 | 125 | 177 | 87 | 374 |
| 23 | 1,120 | 4,270 | 233 | 133 | 480 | 676 | 121 | 1,590 | 125 | 141 | 121 | 1,970 |
| 24 | 1,100 | 3,980 | 233 | 133 | 376 | 634 | 126 | 911 | 125 | 119 | 134 | 291 |
| 25 | 2,310 | 1,190 | 233 | 133 | 754 | 636 | 127 | 416 | 125 | 120 | 114 | 220 |
| 26 | 2,400 | 2,440 | 233 | 169 | 629 | 1,570 | 131 | 422 | 127 | 119 | 82 | 223 |
| 27 | 788 | 3,530 | 233 | 208 | 502 | 1,410 | 1,960 | 316 | 127 | 121 | 83 | 222 |
| 28 | 429 | 3,890 | 201 | 283 | 392 | 119 | 2,160 | 212 | 126 | 159 | 83 | 359 |
| 29 | 343 | 3,720 | 183 | 1,390 | ------ | 126 | 130 | 193 | 127 | 180 | 73 | 427 |
| 30 | 280 | 2,670 | 183 | 2,220 | ------ | 485 | 131 | 193 | 127 | 243 | 43 | 426 |
| 31 | 223 | ------ | 217 | 2,360 | ------ | 829 | ------ | 193 | ------ | 298 | 43 | ------ |
| TOTAL | 28,859.0 | 37,838 | 13,370 | 10,663 | 35,024 | 21,968 | 11,616 | 40,333 | 9,726 | 6,312 | 6,324 | 8,297 |
| MEAN | 931 | 1,261 | 431 | 344 | 1,251 | 709 | 387 | 1,301 | 324 | 204 | 204 | 277 |
| MAX | 2,740 | 4,270 | 1,910 | 2,360 | 5,330 | 2,460 | 2,160 | 4,580 | 818 | 338 | 1,240 | 1,970 |
| MIN | 6.2 | 84 | 176 | 133 | 337 | 119 | 19 | 120 | 30 | 119 | 31 | 31 |

CAL YR 1969 TOTAL 295,710.0 MEAN 810 MAX 7,890 MIN 6.2
WAT YR 1970 TOTAL 230,330.0 MEAN 631 MAX 5,330 MIN 6.2

03327500 Wabash River at Peru, Ind.

LOCATION.--Lat 40°44'35", long 86°05'45", in sec.32, T.27 N., R.4 E., Miami County, on right bank at upstream side of bridge on U.S. Highway 31, 0.5 mile southwest of Peru, 4.3 miles downstream from Mississinewa River, and at mile 370.5.

DRAINAGE AREA.--2,686 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 617.94 ft above mean sea level (levels by Corps of Engineers). Prior to June 20, 1961, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--27 years, 2,297 cfs (11.61 inches per year).

EXTREMES.--Current year: Maximum discharge, 14,000 cfs Feb. 3 (gage height, 11.77 ft); minimum, 158 cfs Sept. 3 (gage height, 1.98 ft).
Period of record: Maximum discharge, 68,000 cfs May 18, 1943 (gage height, 24.46 ft, from floodmark); minimum, 62 cfs Sept. 19, 1945; minimum gage height, 1.70 ft Oct. 5, 26, 1946.
Flood of Mar. 26, 1913, reached a stage of 28.1 ft (discharge, about 115,000 cfs, from rating curve extended above 63,000 cfs).

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Huntington Reservoir (see sta 03323450), Salamonie Reservoir (see sta 03324450), and Mississinewa Reservoir (see sta 03326950).

REVISIONS.--WRD Ind. 1969: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,710 | 1,500 | 3,290 | 740 | 6,200 | 1,500 | 2,830 | 6,490 | 660 | 1,350 | 2,460 | 193 |
| 2 | 576 | 1,660 | 1,430 | 740 | 7,500 | 1,100 | 3,410 | 8,480 | 666 | 914 | 2,910 | 182 |
| 3 | 697 | 1,570 | 3,160 | 720 | 13,100 | 1,040 | 5,480 | 8,240 | 851 | 1,390 | 3,720 | 168 |
| 4 | 1,070 | 1,690 | 3,580 | 620 | 10,900 | 1,880 | 5,660 | 8,480 | 816 | 1,310 | 4,430 | 208 |
| 5 | 1,770 | 1,530 | 4,160 | 600 | 8,360 | 5,040 | 4,870 | 8,620 | 1,390 | 739 | 3,860 | 208 |
| 6 | 1,290 | 1,390 | 2,360 | 580 | 7,020 | 6,750 | 4,030 | 8,280 | 1,570 | 525 | 3,440 | 176 |
| 7 | 1,030 | 1,480 | 1,270 | 560 | 5,300 | 6,730 | 2,470 | 3,860 | 1,810 | 430 | 3,110 | 186 |
| 8 | 1,020 | 1,210 | 1,540 | 550 | 3,500 | 4,400 | 1,840 | 1,580 | 2,300 | 460 | 1,430 | 220 |
| 9 | 970 | 1,680 | 2,690 | 540 | 2,500 | 4,070 | 1,000 | 1,210 | 1,740 | 465 | 630 | 220 |
| 10 | 970 | 1,390 | 3,670 | 530 | 1,940 | 2,950 | 1,060 | 1,160 | 1,380 | 666 | 525 | 220 |
| 11 | 1,190 | 1,230 | 2,350 | 520 | 2,460 | 1,850 | 851 | 1,190 | 1,030 | 636 | 366 | 216 |
| 12 | 2,720 | 1,190 | 1,420 | 510 | 2,840 | 1,380 | 767 | 1,670 | 725 | 618 | 260 | 210 |
| 13 | 5,140 | 739 | 3,820 | 500 | 1,920 | 1,370 | 704 | 4,640 | 678 | 630 | 244 | 220 |
| 14 | 4,190 | 594 | 1,490 | 500 | 1,480 | 1,330 | 942 | 6,490 | 802 | 630 | 244 | 270 |
| 15 | 4,330 | 718 | 1,250 | 490 | 1,350 | 1,230 | 1,560 | 4,290 | 1,200 | 618 | 289 | 500 |
| 16 | 4,160 | 530 | 1,320 | 480 | 1,300 | 1,170 | 1,180 | 3,930 | 1,750 | 520 | 285 | 660 |
| 17 | 4,030 | 505 | 1,190 | 480 | 1,220 | 1,070 | 802 | 5,120 | 2,290 | 420 | 289 | 700 |
| 18 | 5,350 | 1,220 | 1,150 | 470 | 1,210 | 1,050 | 612 | 4,970 | 1,750 | 415 | 266 | 700 |
| 19 | 5,120 | 7,380 | 1,000 | 460 | 2,020 | 986 | 3,150 | 4,430 | 823 | 455 | 276 | 800 |
| 20 | 3,140 | 5,560 | 986 | 460 | 4,150 | 1,430 | 6,620 | 5,300 | 642 | 1,030 | 280 | 820 |
| 21 | 2,550 | 4,540 | 907 | 460 | 4,840 | 2,470 | 5,460 | 4,720 | 445 | 781 | 276 | 720 |
| 22 | 2,690 | 9,140 | 900 | 460 | 3,460 | 2,710 | 5,140 | 4,340 | 370 | 555 | 330 | 580 |
| 23 | 2,500 | 10,100 | 805 | 460 | 2,150 | 2,600 | 5,300 | 2,810 | 361 | 520 | 302 | 1,100 |
| 24 | 2,530 | 10,500 | 851 | 460 | 1,870 | 2,840 | 6,440 | 2,010 | 343 | 460 | 342 | 830 |
| 25 | 3,810 | 7,900 | 725 | 460 | 2,290 | 2,510 | 6,380 | 1,470 | 405 | 430 | 338 | 739 |
| 26 | 4,030 | 5,180 | 732 | 485 | 2,230 | 6,110 | 4,930 | 1,790 | 550 | 425 | 285 | 963 |
| 27 | 2,180 | 9,960 | 816 | 540 | 1,950 | 7,840 | 6,140 | 1,350 | 1,430 | 485 | 264 | 1,160 |
| 28 | 1,490 | 5,880 | 805 | 711 | 1,660 | 4,020 | 8,360 | 978 | 1,720 | 1,150 | 248 | 1,470 |
| 29 | 1,340 | 8,160 | 697 | 3,500 | ------ | 3,210 | 5,840 | 781 | 1,670 | 802 | 240 | 1,500 |
| 30 | 1,170 | 6,490 | 700 | 6,840 | ------ | 2,860 | 5,870 | 697 | 1,600 | 1,110 | 208 | 1,310 |
| 31 | 1,030 | ------ | 740 | 6,540 | ------ | 2,890 | ------ | 678 | ------ | 1,460 | 156 | ------ |
| TOTAL | 76,273 | 120,616 | 52,212 | 32,366 | 106,760 | 88,186 | 109,698 | 120,054 | 33,767 | 22,399 | 32,354 | 17,449 |
| MEAN | 2,460 | 4,021 | 1,684 | 1,044 | 3,813 | 2,845 | 3,657 | 3,873 | 1,126 | 723 | 1,044 | 582 |
| MAX | 5,390 | 10,500 | 4,160 | 6,840 | 13,100 | 7,840 | 8,360 | 8,620 | 2,300 | 1,460 | 4,430 | 1,500 |
| MIN | 576 | 505 | 697 | 460 | 1,210 | 986 | 612 | 678 | 343 | 415 | 156 | 168 |
| CFSM | .92 | 1.50 | .63 | .39 | 1.42 | 1.06 | 1.36 | 1.44 | .42 | .27 | .39 | .22 |
| IN. | 1.06 | 1.67 | .72 | .45 | 1.48 | 1.22 | 1.52 | 1.66 | .47 | .31 | .45 | .24 |

CAL YR 1969 TOTAL 1,007,193 MEAN 2,759 MAX 15,700 MIN 158 CFSM 1.03 IN 13.95
WAT YR 1970 TOTAL 812,134 MEAN 2,225 MAX 13,100 MIN 168 CFSM .83 IN 11.25

PEAK DISCHARGE (BASE, 18,000 CFS).--No peak above base.

## 03327520 Pipe Creek near Bunker Hill, Ind.

LOCATION.--Lat 40°40'06", long 86°05'44", in SE¼ sec.29, T.26 N., R.4 E., Miami County, on right bank 150 ft downstream from bridge on County Road 125 West, 0.5 mile northeast of Bunker Hill.

DRAINAGE AREA.--159 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 736.00 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 1,440 cfs Oct. 14 (gage height, 9.43 ft); minimum 2.0 cfs Sept. 11 (gage height, 1.98 ft).
Period of record: Maximum discharge, 3,050 cfs Jan. 30, 1969 (gage height, 13.43 ft); minimum, 2.0 cfs Sept. 11, 1970 (gage height, 1.98 ft).

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

REVISIONS (WATER YEARS).--WRD Ind. 1969: 1968(m), drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 26 | 158 | 121 | 37 | 170 | 41 | 102 | 220 | 59 | 33 | 73 | 6.1 |
| 2 | 25 | 272 | 101 | 36 | 231 | 41 | 415 | 150 | 58 | 29 | 53 | 6.1 |
| 3 | 24 | 198 | 96 | 35 | 170 | 44 | 605 | 100 | 54 | 30 | 41 | 6.3 |
| 4 | 22 | 145 | 85 | 33 | 130 | 104 | 455 | 80 | 50 | 29 | 33 | 6.9 |
| 5 | 20 | 130 | 74 | 32 | 100 | 241 | 236 | 70 | 50 | 27 | 29 | 7.1 |
| 6 | 19 | 116 | 70 | 31 | 85 | 169 | 175 | 60 | 48 | 24 | 26 | 7.3 |
| 7 | 22 | 103 | 85 | 30 | 73 | 131 | 131 | 56 | 44 | 22 | 23 | 8.2 |
| 8 | 22 | 91 | 156 | 29 | 70 | 116 | 105 | 52 | 40 | 24 | 21 | 9.0 |
| 9 | 20 | 83 | 162 | 29 | 68 | 101 | 98 | 50 | 38 | 43 | 21 | 7.3 |
| 10 | 21 | 77 | 128 | 28 | 62 | 87 | 86 | 48 | 37 | 292 | 19 | 6.6 |
| 11 | 129 | 73 | 115 | 28 | 58 | 73 | 75 | 48 | 36 | 129 | 18 | 5.8 |
| 12 | 692 | 71 | 98 | 28 | 52 | 67 | 71 | 56 | 35 | 70 | 16 | 6.0 |
| 13 | 1,230 | 74 | 85 | 28 | 45 | 63 | 70 | 450 | 52 | 48 | 15 | 6.4 |
| 14 | 1,270 | 71 | 85 | 27 | 44 | 58 | 68 | 790 | 141 | 38 | 14 | 8.6 |
| 15 | 802 | 65 | 77 | 27 | 43 | 55 | 59 | 700 | 92 | 33 | 13 | 10 |
| 16 | 617 | 59 | 67 | 27 | 43 | 49 | 54 | 600 | 70 | 29 | 12 | 8.6 |
| 17 | 461 | 66 | 62 | 27 | 42 | 46 | 51 | 400 | 59 | 26 | 11 | 7.3 |
| 18 | 255 | 266 | 61 | 27 | 62 | 47 | 49 | 250 | 52 | 24 | 11 | 9.9 |
| 19 | 174 | 926 | 61 | 27 | 138 | 47 | 637 | 188 | 44 | 34 | 13 | 13 |
| 20 | 142 | 1,140 | 56 | 26 | 98 | 107 | 1,230 | 150 | 39 | 133 | 13 | 9.5 |
| 21 | 130 | 1,130 | 53 | 26 | 70 | 132 | 1,090 | 121 | 37 | 59 | 12 | 7.9 |
| 22 | 116 | 725 | 52 | 26 | 65 | 127 | 763 | 104 | 35 | 39 | 11 | 6.8 |
| 23 | 97 | 662 | 50 | 26 | 59 | 125 | 593 | 92 | 32 | 32 | 13 | 12 |
| 24 | 82 | 623 | 48 | 26 | 54 | 111 | 829 | 86 | 30 | 33 | 12 | 17 |
| 25 | 78 | 528 | 46 | 27 | 54 | 100 | 919 | 83 | 34 | 29 | 11 | 17 |
| 26 | 73 | 367 | 45 | 30 | 48 | 542 | 643 | 87 | 47 | 26 | 9.9 | 19 |
| 27 | 68 | 247 | 44 | 40 | 48 | 607 | 465 | 79 | 102 | 194 | 8.8 | 30 |
| 28 | 63 | 184 | 41 | 137 | 44 | 440 | 279 | 67 | 74 | 199 | 8.1 | 19 |
| 29 | 57 | 153 | 40 | 726 | ------ | 234 | 188 | 62 | 48 | 124 | 7.6 | 14 |
| 30 | 53 | 132 | 40 | 638 | ------ | 142 | 290 | 59 | 38 | 124 | 7.3 | 12 |
| 31 | 54 | ------ | 38 | 304 | ------ | 113 | ------ | 57 | ------ | 105 | 6.6 | ------ |
| TOTAL | 6,864 | 8,935 | 2,342 | 2,598 | 2,226 | 4,360 | 10,831 | 5,415 | 1,575 | 2,081 | 582.3 | 310.7 |
| MEAN | 221 | 298 | 75.5 | 83.8 | 79.5 | 141 | 361 | 175 | 52.5 | 67.1 | 18.8 | 10.4 |
| MAX | 1,270 | 1,140 | 162 | 726 | 231 | 607 | 1,230 | 790 | 141 | 292 | 73 | 30 |
| MIN | 19 | 59 | 38 | 26 | 42 | 41 | 49 | 48 | 30 | 22 | 6.6 | 5.8 |
| CFSM | 1.39 | 1.87 | .47 | .53 | .50 | .89 | 2.27 | 1.10 | .33 | .42 | .12 | .065 |
| IN. | 1.61 | 2.09 | .55 | .61 | .52 | 1.02 | 2.53 | 1.27 | .37 | .49 | .14 | .07 |

CAL YR 1969 TOTAL 53,956.5 MEAN 148 MAX 2,960 MIN 7.6 CFSM .93 IN 12.62
WAT YR 1970 TOTAL 48,120.0 MEAN 132 MAX 1,270 MIN 5.8 CFSM .83 IN 11.26

PEAK DISCHARGE (BASE, 500 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-14 | 0800 | 9.43 | 1,440 | 03-27 | 1345 | 5.70 | 620 |
| 11-21 | 0115 | 9.12 | 1,330 | 04-03 | 0215 | 5.89 | 648 |
| 01-29 | 1045 | 6.64 | 751 | 04-20 | 1445 | 9.01 | 1,290 |

NOTE.--No gage-height record Apr. 30 to May 18.

03328000 Eel River at North Manchester, Ind.

LOCATION.--Lat 40°59'55", long 85°45'50", in NE¼ sec.5, T.29 N., R.7 E., Wabash County, on right bank 200 ft downstream from Main Street Bridge in North Manchester and 1.2 miles upstream from Pony Creek. Records include flow of Pony Creek.

DRAINAGE AREA.--417 sq mi, 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 October 1924 are available in the district office.

GAGE.--Water-stage recorder. Datum of gage is 738.00 ft above mean sea level. Prior to July 24, 1953, nonrecording gage on downstream side of Second Street Bridge, 700 ft upstream at same datum.

AVERAGE DISCHARGE.--41 years, 348 cfs (11.33 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,630 cfs Apr. 20 (gage height, 8.35 ft); minimum, 62 cfs Sept. 1, 2 (gage height, 0.72 ft).
Period of record: Maximum discharge, 7,940 cfs Dec. 22, 1967 (gage height, 13.55 ft); maximum gage height, 14.00 ft Feb. 27, 1936; minimum not determined, occurred Oct. 7, 1957, due to unusual regulation; minimum daily, 16 cfs Oct. 19, 1956.

REMARKS.--Records good except those for winter periods and periods of no gage-height record, which are fair. Diurnal fluctuation caused by grist mill above station.

REVISIONS (WATER YEARS).--WSP 1275: 1930-37, 1939, 1940(M), 1942, 1948. WSP 1909: 1957. WRD Ind. 1969: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 77 | 175 | 214 | 82 | 733 | 147 | 448 | 1,280 | 164 | 91 | 793 | 64 |
| 2 | 77 | 198 | 192 | 80 | 726 | 143 | 857 | 985 | 167 | 98 | 479 | 71 |
| 3 | 77 | 166 | 181 | 80 | 677 | 170 | 1,220 | 739 | 159 | 96 | 204 | 66 |
| 4 | 77 | 159 | 168 | 78 | 500 | 1,010 | 881 | 604 | 156 | 89 | 141 | 116 |
| 5 | 77 | 160 | 157 | 77 | 400 | 1,220 | 617 | 531 | 152 | 87 | 112 | 99 |
| 6 | 77 | 162 | 149 | 77 | 350 | 797 | 500 | 453 | 149 | 84 | 96 | 82 |
| 7 | 80 | 159 | 160 | 76 | 307 | 577 | 420 | 396 | 142 | 83 | 88 | 82 |
| 8 | 85 | 147 | 209 | 75 | 242 | 465 | 363 | 355 | 137 | 87 | 83 | 83 |
| 9 | 82 | 137 | 194 | 75 | 216 | 376 | 333 | 310 | 132 | 93 | 80 | 76 |
| 10 | 83 | 130 | 178 | 74 | 189 | 319 | 300 | 273 | 128 | 102 | 77 | 71 |
| 11 | 95 | 125 | 170 | 74 | 180 | 271 | 269 | 248 | 125 | 92 | 76 | 68 |
| 12 | 153 | 125 | 159 | 75 | 166 | 253 | 251 | 318 | 117 | 85 | 73 | 67 |
| 13 | 258 | 120 | 145 | 84 | 147 | 230 | 287 | 840 | 119 | 82 | 71 | 72 |
| 14 | 207 | 115 | 147 | 84 | 140 | 209 | 583 | 1,400 | 129 | 82 | 71 | 85 |
| 15 | 160 | 110 | 141 | 85 | 130 | 186 | 705 | 1,300 | 126 | 82 | 70 | 100 |
| 16 | 132 | 107 | 123 | 82 | 135 | 169 | 538 | 800 | 124 | 80 | 69 | 125 |
| 17 | 111 | 123 | 118 | 80 | 123 | 159 | 420 | 600 | 121 | 78 | 68 | 125 |
| 18 | 100 | 296 | 113 | 78 | 198 | 159 | 340 | 480 | 119 | 76 | 70 | 140 |
| 19 | 97 | 1,470 | 113 | 78 | 547 | 157 | 1,030 | 400 | 116 | 89 | 71 | 180 |
| 20 | 100 | 1,470 | 107 | 78 | 319 | 488 | 2,520 | 330 | 112 | 94 | 80 | 170 |
| 21 | 103 | 961 | 97 | 78 | 258 | 761 | 2,290 | 290 | 110 | 87 | 72 | 125 |
| 22 | 100 | 598 | 100 | 78 | 220 | 589 | 1,940 | 253 | 100 | 81 | 72 | 120 |
| 23 | 97 | 583 | 102 | 78 | 289 | 538 | 1,380 | 224 | 94 | 81 | 82 | 154 |
| 24 | 96 | 550 | 91 | 80 | 275 | 473 | 1,180 | 215 | 96 | 91 | 74 | 219 |
| 25 | 96 | 444 | 113 | 82 | 289 | 396 | 1,220 | 512 | 100 | 85 | 71 | 156 |
| 26 | 96 | 372 | 108 | 90 | 226 | 1,620 | 898 | 358 | 95 | 82 | 69 | 190 |
| 27 | 93 | 321 | 97 | 107 | 198 | 2,060 | 719 | 250 | 123 | 102 | 68 | 509 |
| 28 | 88 | 280 | 95 | 175 | 157 | 1,550 | 946 | 202 | 103 | 128 | 67 | 268 |
| 29 | 89 | 253 | 93 | 1,480 | ------ | 985 | 1,270 | 181 | 96 | 93 | 67 | 168 |
| 30 | 89 | 230 | 91 | 1,630 | ------ | 687 | 1,420 | 171 | 93 | 133 | 66 | 138 |
| 31 | 91 | ------ | 88 | 997 | ------ | 535 | ------ | 163 | ------ | 120 | 65 | ------ |
| TOTAL | 3,243 | 10,246 | 4,213 | 6,447 | 8,337 | 17,699 | 26,145 | 15,461 | 3,704 | 2,833 | 3,645 | 3,989 |
| MEAN | 105 | 342 | 136 | 208 | 298 | 571 | 872 | 499 | 123 | 91.4 | 118 | 133 |
| MAX | 258 | 1,470 | 214 | 1,630 | 733 | 2,060 | 2,520 | 1,400 | 167 | 133 | 793 | 509 |
| MIN | 77 | 107 | 88 | 74 | 123 | 143 | 251 | 163 | 93 | 76 | 65 | 64 |
| CFSM | .25 | .82 | .33 | .50 | .71 | 1.37 | 2.09 | 1.20 | .30 | .22 | .28 | .32 |
| IN. | .29 | .91 | .38 | .58 | .74 | 1.58 | 2.33 | 1.38 | .33 | .25 | .33 | .36 |

CAL YR 1969 TOTAL 141,610 MEAN 388 MAX 5,110 MIN 58 CFSM .93 IN 12.63
WAT YR 1970 TOTAL 105,962 MEAN 290 MAX 2,520 MIN 64 CFSM .70 IN 9.45

PEAK DISCHARGE (BASE, 2,200 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 03-26 | 2315 | 7.60 | 2,240 | 04-20 | 1115 | 8.35 | 2,630 |

## 03328500 Eel River near Logansport, Ind.

LOCATION.--Lat 40°46'55", long 86°15'50", in sec.14, T.27 N., R.2 E., Cass County, on right bank at downstream side of bridge on Adamsboro Road, 5.5 miles northeast of Logansport, and 6.9 miles upstream from mouth.

DRAINAGE AREA.--789 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 621.50 ft above mean sea level. Prior to Aug. 16, 1956, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--27 years, 709 cfs (12.20 inches per year).

EXTREMES.--Current year: Maximum discharge, 6,700 cfs Apr. 20 (gage height, 8.65 ft); minimum, 162 cfs Aug. 31 to Sept. 3 (gage height, 3.11 ft).
Period of record: Maximum discharge, 14,200 cfs Dec. 9, 1966 (gage height, 12.20 ft); minimum, 65 cfs Mar. 16, 1960, result of freezeup (gage height, 2.60 ft).
Flood of May 18, 1943 reached a stage of 13.2 ft, from floodmark (discharge, 17,000 cfs).

REMARKS.--Records good except those for winter periods, which are fair. Records of suspended sediment loads and water temperatures for current year are published in Part 2 of this report.

REVISIONS.--WRD Ind. 1969: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 203 | 554 | 584 | 311 | 1,240 | 371 | 948 | 1,930 | 566 | 217 | 572 | 162 |
| 2 | 208 | 970 | 542 | 302 | 1,140 | 362 | 1,370 | 1,580 | 566 | 210 | 1,390 | 162 |
| 3 | 208 | 704 | 518 | 289 | 1,250 | 386 | 2,270 | 1,260 | 530 | 222 | 789 | 162 |
| 4 | 208 | 584 | 494 | 263 | 740 | 1,030 | 1,830 | 1,030 | 488 | 220 | 476 | 175 |
| 5 | 205 | 542 | 452 | 250 | 620 | 2,050 | 1,330 | 895 | 482 | 203 | 337 | 225 |
| 6 | 203 | 500 | 435 | 250 | 580 | 1,510 | 1,080 | 796 | 470 | 196 | 278 | 235 |
| 7 | 215 | 458 | 464 | 250 | 520 | 1,140 | 925 | 722 | 435 | 192 | 245 | 220 |
| 8 | 220 | 424 | 650 | 240 | 548 | 940 | 803 | 674 | 397 | 194 | 225 | 200 |
| 9 | 217 | 391 | 656 | 240 | 518 | 789 | 754 | 632 | 376 | 203 | 215 | 194 |
| 10 | 220 | 366 | 584 | 240 | 488 | 686 | 698 | 590 | 362 | 232 | 208 | 183 |
| 11 | 306 | 352 | 542 | 240 | 452 | 608 | 644 | 572 | 347 | 278 | 200 | 175 |
| 12 | 698 | 342 | 506 | 245 | 424 | 554 | 602 | 578 | 333 | 217 | 196 | 172 |
| 13 | 1,600 | 328 | 464 | 250 | 397 | 524 | 602 | 1,460 | 530 | 192 | 192 | 177 |
| 14 | 1,140 | 319 | 446 | 250 | 366 | 488 | 716 | 3,180 | 482 | 183 | 188 | 203 |
| 15 | 817 | 311 | 429 | 250 | 357 | 458 | 970 | 3,150 | 470 | 183 | 185 | 242 |
| 16 | 614 | 297 | 408 | 255 | 357 | 418 | 963 | 2,380 | 386 | 179 | 181 | 311 |
| 17 | 488 | 342 | 386 | 255 | 337 | 402 | 810 | 1,610 | 357 | 175 | 179 | 311 |
| 18 | 402 | 810 | 381 | 250 | 381 | 397 | 704 | 1,200 | 324 | 174 | 175 | 333 |
| 19 | 357 | 3,260 | 376 | 240 | 768 | 397 | 2,260 | 978 | 302 | 252 | 181 | 476 |
| 20 | 347 | 3,930 | 366 | 235 | 789 | 602 | 6,090 | 831 | 282 | 782 | 190 | 440 |
| 21 | 347 | 2,350 | 347 | 230 | 530 | 1,190 | 5,300 | 728 | 270 | 506 | 190 | 319 |
| 22 | 333 | 1,540 | 347 | 230 | 512 | 1,130 | 3,800 | 662 | 270 | 285 | 190 | 289 |
| 23 | 315 | 1,360 | 347 | 230 | 488 | 978 | 2,890 | 614 | 259 | 225 | 190 | 386 |
| 24 | 293 | 1,320 | 293 | 230 | 542 | 895 | 2,670 | 644 | 248 | 215 | 190 | 548 |
| 25 | 282 | 1,130 | 328 | 235 | 536 | 796 | 2,560 | 3,120 | 245 | 212 | 185 | 632 |
| 26 | 278 | 955 | 337 | 245 | 524 | 2,700 | 1,850 | 1,730 | 245 | 198 | 179 | 482 |
| 27 | 270 | 824 | 328 | 270 | 452 | 4,040 | 1,390 | 1,080 | 263 | 196 | 175 | 782 |
| 28 | 263 | 734 | 306 | 429 | 413 | 2,800 | 1,200 | 817 | 278 | 239 | 172 | 933 |
| 29 | 255 | 668 | 297 | 1,990 | ------ | 1,940 | 1,570 | 692 | 245 | 311 | 170 | 602 |
| 30 | 252 | 620 | 297 | 2,870 | ------ | 1,350 | 1,700 | 620 | 225 | 342 | 169 | 435 |
| 31 | 263 | ------ | 306 | 1,820 | ------ | 1,100 | ------ | 572 | ------ | 608 | 163 | ------ |
| TOTAL | 12,027 | 27,285 | 13,216 | 13,884 | 16,269 | 33,031 | 51,299 | 37,327 | 11,033 | 8,041 | 8,575 | 10,166 |
| MEAN | 388 | 910 | 426 | 448 | 581 | 1,066 | 1,710 | 1,204 | 368 | 259 | 277 | 339 |
| MAX | 1,600 | 3,930 | 656 | 2,870 | 1,250 | 4,040 | 6,090 | 3,180 | 566 | 782 | 1,390 | 933 |
| MIN | 203 | 297 | 293 | 230 | 337 | 362 | 602 | 572 | 225 | 174 | 163 | 162 |
| CFSM | .49 | 1.15 | .54 | .57 | .74 | 1.35 | 2.17 | 1.53 | .47 | .33 | .35 | .43 |
| IN. | .57 | 1.29 | .62 | .65 | .77 | 1.56 | 2.42 | 1.76 | .52 | .38 | .40 | .48 |

CAL YR 1969 TOTAL 323,280 MEAN 886 MAX 11,400 MIN 175 CFSM 1.12 IN 15.24
WAT YR 1970 TOTAL 242,153 MEAN 663 MAX 6,090 MIN 162 CFSM .84 IN 11.42

PEAK DISCHARGE (BASE, 5,000 CFS).--Apr. 20 (1400) 6,700 cfs (8.65 ft).

03329000 Wabash River at Logansport, Ind.

LOCATION.--Lat 40°44'47", long 86°22'39", in NE¼ sec.35, T.27 N., R.1 E., Cass County, on left bank 150 ft downstream from Cicott Street Bridge in Logansport, 1,000 ft downstream from Eel River, and at mile 353.7.

DRAINAGE AREA.--3,779 sq mi.

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 U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 573.28 ft above mean sea level (levels by Corps of Engineers). See WSP 1705 for history of changes prior to Oct. 1, 1927.

AVERAGE DISCHARGE.--47 years (1923-70), 3,217 cfs (11.56 inches per year).

EXTREMES.--Current year: Maximum discharge, 18,000 cfs Apr. 20 (gage height, 9.43 ft); minimum, 340 cfs Aug. 27-30, Sept. 3 (gage height, 2.80 ft).
Period of record: Maximum discharge, 89,800 cfs May 18, 1943 (gage height, 21.32 ft); minimum, 97 cfs Sept. 25, 1941; minimum daily, 135 cfs Sept. 26, 1941; minimum gage height, 2.27 ft July 23, 1936.
Maximum stage known, 25.3 ft Mar. 26, 1913, from floodmarks (discharge, 140,000 cfs, estimated).

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

REVISIONS (WATER YEARS).--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). WRD Ind. 1969: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2,510 | 1,910 | 5,300 | 1,130 | 8,560 | 1,770 | 4,270 | 9,520 | 1,490 | 1,620 | 2,320 | 364 |
| 2 | 984 | 2,870 | 2,580 | 1,170 | 9,010 | 1,500 | 5,410 | 11,600 | 1,320 | 1,270 | 4,570 | 363 |
| 3 | 905 | 2,630 | 2,840 | 1,110 | 15,200 | 1,460 | 9,070 | 11,200 | 1,380 | 1,360 | 4,320 | 354 |
| 4 | 977 | 2,390 | 5,560 | 929 | 12,800 | 2,390 | 9,120 | 10,700 | 1,340 | 1,540 | 5,040 | 367 |
| 5 | 1,840 | 2,360 | 4,430 | 938 | 11,000 | 7,290 | 7,590 | 10,500 | 1,730 | 1,170 | 4,480 | 461 |
| 6 | 1,770 | 1,930 | 3,280 | 882 | 8,840 | 9,370 | 6,320 | 10,200 | 1,990 | 838 | 3,830 | 470 |
| 7 | 1,280 | 2,070 | 2,210 | 880 | 6,910 | 9,110 | 4,280 | 5,740 | 2,090 | 704 | 3,500 | 460 |
| 8 | 1,240 | 1,750 | 2,410 | 850 | 4,800 | 6,690 | 3,280 | 2,850 | 2,840 | 728 | 2,070 | 446 |
| 9 | 1,200 | 1,960 | 3,010 | 840 | 3,500 | 5,390 | 2,160 | 1,940 | 2,370 | 766 | 1,060 | 456 |
| 10 | 1,200 | 2,080 | 3,800 | 820 | 2,790 | 4,370 | 1,890 | 1,820 | 1,860 | 1,010 | 784 | 439 |
| 11 | 1,360 | 1,500 | 3,150 | 800 | 2,950 | 2,930 | 1,740 | 1,800 | 1,550 | 1,180 | 693 | 421 |
| 12 | 3,460 | 1,730 | 2,250 | 780 | 3,600 | 2,260 | 1,520 | 2,330 | 1,170 | 1,010 | 540 | 410 |
| 13 | 8,970 | 1,330 | 4,670 | 780 | 2,850 | 1,890 | 1,480 | 6,210 | 1,240 | 945 | 481 | 432 |
| 14 | 7,520 | 1,060 | 2,340 | 760 | 2,070 | 1,890 | 1,570 | 13,200 | 1,260 | 911 | 462 | 480 |
| 15 | 6,610 | 1,060 | 1,850 | 750 | 1,910 | 1,760 | 2,550 | 9,200 | 1,650 | 896 | 465 | 857 |
| 16 | 5,840 | 990 | 1,790 | 730 | 1,750 | 1,640 | 2,420 | 7,920 | 1,930 | 847 | 481 | 1,250 |
| 17 | 5,290 | 989 | 1,660 | 720 | 1,650 | 1,520 | 1,870 | 8,010 | 2,560 | 741 | 483 | 1,370 |
| 18 | 6,010 | 1,820 | 1,590 | 720 | 1,610 | 1,470 | 1,490 | 7,540 | 2,550 | 663 | 476 | 1,430 |
| 19 | 6,160 | 12,400 | 1,500 | 710 | 2,470 | 1,460 | 5,990 | 6,680 | 1,390 | 865 | 539 | 1,420 |
| 20 | 4,500 | 12,800 | 1,420 | 700 | 4,980 | 1,890 | 16,800 | 9,000 | 1,090 | 2,040 | 540 | 1,740 |
| 21 | 3,680 | 9,170 | 1,340 | 700 | 6,290 | 3,820 | 13,800 | 8,000 | 882 | 1,660 | 511 | 1,600 |
| 22 | 3,190 | 11,900 | 1,330 | 700 | 4,710 | 4,310 | 11,200 | 7,400 | 773 | 1,080 | 523 | 1,150 |
| 23 | 3,040 | 13,100 | 1,240 | 700 | 3,150 | 4,010 | 10,000 | 6,000 | 724 | 900 | 532 | 1,480 |
| 24 | 2,960 | 13,600 | 1,150 | 700 | 2,540 | 3,880 | 11,100 | 4,500 | 692 | 838 | 529 | 2,240 |
| 25 | 3,600 | 11,200 | 1,100 | 700 | 2,710 | 3,660 | 11,900 | 3,500 | 670 | 777 | 551 | 1,330 |
| 26 | 4,560 | 11,100 | 1,100 | 740 | 2,930 | 9,330 | 8,760 | 3,000 | 800 | 739 | 530 | 1,290 |
| 27 | 3,280 | 12,100 | 1,100 | 1,000 | 2,570 | 14,600 | 8,410 | 2,990 | 1,320 | 762 | 455 | 1,690 |
| 28 | 1,740 | 12,100 | 1,100 | 1,570 | 2,150 | 8,820 | 11,600 | 2,190 | 1,950 | 1,580 | 411 | 2,160 |
| 29 | 1,550 | 10,300 | 1,100 | 6,320 | ------ | 6,350 | 8,520 | 1,800 | 1,880 | 1,450 | 422 | 2,000 |
| 30 | 1,420 | 8,700 | 1,090 | 11,900 | ------ | 4,910 | 8,580 | 1,700 | 1,800 | 1,510 | 389 | 1,660 |
| 31 | 1,260 | ------ | 1,130 | 9,860 | ------ | 4,630 | ------ | 1,600 | ------ | 2,250 | 363 | ------ |
| TOTAL | 99,906 | 170,899 | 70,420 | 51,889 | 136,300 | 136,370 | 194,690 | 190,640 | 46,291 | 34,650 | 42,350 | 30,590 |
| MEAN | 3,223 | 5,697 | 2,272 | 1,674 | 4,868 | 4,399 | 6,490 | 6,150 | 1,543 | 1,118 | 1,366 | 1,020 |
| MAX | 8,970 | 13,600 | 5,560 | 11,900 | 15,200 | 14,600 | 16,800 | 13,200 | 2,840 | 2,250 | 5,040 | 2,240 |
| MIN | 905 | 989 | 1,090 | 700 | 1,610 | 1,460 | 1,480 | 1,600 | 670 | 663 | 363 | 354 |
| CFSM | .85 | 1.51 | .60 | .44 | 1.29 | 1.16 | 1.72 | 1.63 | .41 | .30 | .36 | .27 |
| IN. | .98 | 1.68 | .69 | .51 | 1.34 | 1.34 | 1.92 | 1.88 | .46 | .34 | .42 | .30 |

CAL YR 1969 TOTAL 1,468,096 MEAN 4,022 MAX 32,600 MIN 400 CFSM 1.06 IN 14.45
WAT YR 1970 TOTAL 1,204,995 MEAN 3,301 MAX 16,800 MIN 354 CFSM .87 IN 11.86

PEAK DISCHARGE (BASE, 22,000 CFS).--No peak above base.

## 03329400 Rattlesnake Creek near Patton, Ind.

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

DRAINAGE AREA.--6.83 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 645 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 143 cfs May 13 (gage height, 3.56 ft); minimum, 0.43 cfs Sept. 3 (gage height, 0.35 ft). Period of record: Maximum discharge, 157 cfs June 23, 1969; maximum gage height, 3.70 ft July 5, 1969; minimum discharge, 0.43 cfs Sept. 3, 1970 (gage height, 0.35 ft).

REMARKS.--Records good except those for parts of January and February, which are poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.3 | 31 | 5.6 | 1.9 | 5.6 | 2.2 | 12 | 12 | 6.6 | 1.9 | 1.3 | .75 |
| 2 | 1.3 | 18 | 5.3 | 1.8 | 8.4 | 2.3 | 42 | 9.5 | 7.4 | 2.0 | 1.1 | .56 |
| 3 | 1.2 | 12 | 5.0 | 1.7 | 6.4 | 7.1 | 35 | 8.6 | 5.5 | 2.1 | 1.1 | 5.2 |
| 4 | 1.1 | 12 | 3.9 | 1.6 | 5.7 | 17 | 23 | 7.7 | 4.9 | 2.1 | 1.0 | 6.9 |
| 5 | 1.1 | 12 | 3.8 | 1.5 | 5.1 | 10 | 17 | 7.1 | 5.7 | 1.8 | 1.0 | 2.0 |
| 6 | 1.1 | 9.3 | 3.9 | 1.5 | 4.3 | 7.6 | 13 | 6.5 | 5.5 | 1.8 | .97 | 1.5 |
| 7 | 2.9 | 7.4 | 6.8 | 1.4 | 3.8 | 6.6 | 10 | 6.3 | 4.7 | 1.6 | .97 | 1.3 |
| 8 | 2.6 | 6.3 | 7.7 | 1.3 | 3.6 | 5.6 | 9.5 | 6.2 | 4.2 | 2.1 | .97 | 2.6 |
| 9 | 1.9 | 5.6 | 6.5 | 1.3 | 3.5 | 4.8 | 9.0 | 6.0 | 3.9 | 2.0 | .92 | 2.0 |
| 10 | 1.8 | 5.0 | 6.0 | 1.3 | 3.4 | 4.2 | 8.6 | 5.9 | 3.8 | 1.8 | .86 | 1.4 |
| 11 | 27 | 4.9 | 5.2 | 1.5 | 3.2 | 3.8 | 8.1 | 5.9 | 3.4 | 1.7 | .81 | 1.1 |
| 12 | 41 | 4.3 | 4.1 | 1.7 | 2.7 | 3.8 | 7.4 | 11 | 3.3 | 1.5 | .81 | .97 |
| 13 | 37 | 4.1 | 4.3 | 1.9 | 2.5 | 3.5 | 9.1 | 104 | 3.4 | 1.4 | .81 | 1.4 |
| 14 | 24 | 3.7 | 3.9 | 2.0 | 2.3 | 3.4 | 7.1 | 75 | 3.4 | 1.4 | .81 | 12 |
| 15 | 15 | 3.4 | 3.3 | 2.0 | 2.2 | 3.2 | 6.3 | 61 | 8.6 | 1.4 | .81 | 16 |
| 16 | 11 | 2.9 | 3.1 | 2.0 | 2.2 | 2.8 | 5.9 | 42 | 4.4 | 1.3 | .75 | 5.3 |
| 17 | 7.4 | 9.3 | 3.0 | 2.0 | 2.2 | 2.8 | 5.5 | 31 | 3.7 | 1.2 | .65 | 4.3 |
| 18 | 5.9 | 33 | 3.1 | 2.0 | 6.0 | 2.9 | 5.5 | 24 | 3.4 | 1.2 | .70 | 40 |
| 19 | 5.3 | 49 | 2.8 | 1.6 | 4.5 | 3.4 | 71 | 19 | 3.0 | 7.4 | 15 | 19 |
| 20 | 5.0 | 31 | 2.6 | 1.4 | 3.9 | 7.9 | 82 | 15 | 2.9 | 9.7 | 34 | 8.4 |
| 21 | 4.7 | 20 | 2.8 | 1.3 | 3.5 | 6.8 | 56 | 12 | 2.9 | 2.9 | 5.7 | 3.1 |
| 22 | 3.9 | 18 | 2.5 | 1.3 | 3.2 | 6.0 | 40 | 9.9 | 2.6 | 2.1 | 8.7 | 15 |
| 23 | 3.2 | 20 | 2.5 | 1.3 | 2.9 | 4.9 | 32 | 8.4 | 2.5 | 2.0 | 7.4 | 37 |
| 24 | 3.2 | 15 | 2.8 | 1.4 | 2.7 | 4.4 | 48 | 9.0 | 2.6 | 1.8 | 2.5 | 27 |
| 25 | 3.1 | 12 | 2.4 | 1.5 | 2.5 | 6.5 | 32 | 9.7 | 2.4 | 1.7 | 1.6 | 17 |
| 26 | 2.9 | 10 | 2.2 | 2.0 | 2.4 | 48 | 24 | 7.4 | 2.5 | 1.4 | 1.3 | 12 |
| 27 | 2.7 | 8.6 | 2.0 | 3.2 | 2.4 | 26 | 19 | 6.3 | 2.3 | 1.5 | 1.1 | 12 |
| 28 | 2.5 | 7.6 | 2.0 | 17 | 2.2 | 18 | 16 | 5.7 | 2.2 | 1.3 | 1.0 | 8.1 |
| 29 | 2.5 | 6.9 | 2.1 | 18 | ------ | 13 | 14 | 5.3 | 2.1 | 1.3 | .86 | 6.2 |
| 30 | 2.4 | 6.6 | 2.1 | 8.3 | ------ | 9.7 | 14 | 5.0 | 2.1 | 2.2 | .81 | 4.8 |
| 31 | 3.3 | ------ | 2.0 | 6.2 | ------ | 8.1 | ------ | 4.8 | ------ | 1.5 | .70 | ------ |
| TOTAL | 229.3 | 388.9 | 115.3 | 94.9 | 103.3 | 256.3 | 681.0 | 547.2 | 115.9 | 67.1 | 97.01 | 274.88 |
| MEAN | 7.40 | 13.0 | 3.72 | 3.06 | 3.69 | 8.27 | 22.7 | 17.7 | 3.86 | 2.16 | 3.13 | 9.16 |
| MAX | 41 | 49 | 7.7 | 18 | 8.4 | 48 | 82 | 104 | 8.6 | 9.7 | 34 | 40 |
| MIN | 1.1 | 2.9 | 2.0 | 1.3 | 2.2 | 2.2 | 5.5 | 4.8 | 2.1 | 1.2 | .65 | .56 |
| CFSM | 1.08 | 1.90 | .54 | .45 | .54 | 1.21 | 3.32 | 2.59 | .57 | .32 | .46 | 1.34 |
| IN. | 1.25 | 2.12 | .63 | .52 | .56 | 1.40 | 3.71 | 2.98 | .63 | .37 | .53 | 1.50 |

CAL YR 1969 TOTAL 3,381.96 MEAN 9.27 MAX 105 MIN .56 CFSM 1.36 IN 18.42
WAT YR 1970 TOTAL 2,971.09 MEAN 8.14 MAX 104 MIN .56 CFSM 1.19 IN 16.18

PEAK DISCHARGE (BASE, 65 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-20 | 0230 | 3.38 | 120 | 05-14 | 1630 | 3.39 | 125 |
| 05-13 | 0100 | 3.56 | 143 | 08-19 | 2100 | 2.96 | 81 |

03329500 Wabash River at Delphi, Ind.

LOCATION.--Lat 40°35'26", long 86°41'54", in SE¼SE¼ sec.24, T.25 N., R.3 W., Carroll County, on downstream side of second pier from left abutment of highway bridge, 1 mile west of Delphi, 1.6 miles upstream from Deer Creek, 8.6 miles upstream from Tippecanoe River, and at mile 330.8.

DRAINAGE AREA.--4,072 sq mi (revised).

PERIOD OF RECORD.--October 1939 to current year. Prior to January 1940 monthly discharge only, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 519.90 ft above mean sea level (Corps of Engineers bench mark). Prior to July 20, 1942, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--31 years, 3,346 cfs (11.16 inches per year).

EXTREMES.--Current year: Maximum discharge, 20,400 cfs Apr. 20 (gage height, 15.92 ft); minimum, 528 cfs Sept. 3, 4 (gage height, 1.56 ft).
Period of record: Maximum discharge, 85,300 cfs May 19, 1943 (gage height, 25.60 ft); maximum gage height, 27.48 ft Feb. 11, 1959 (ice jam); minimum daily discharge, 158 cfs Sept. 19, 20, 1941.
Maximum stage known, 28.4 ft Mar. 26, 1913, from information by State Highway Commission (discharge, about 145,000 cfs, from rating curve extended above 82,000 cfs).

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3,260 | 2,310 | 6,530 | 1,360 | 8,550 | 2,220 | 4,670 | 9,520 | 1,730 | 1,980 | 2,320 | 542 |
| 2 | 1,790 | 3,560 | 3,630 | 1,390 | 8,140 | 1,870 | 5,660 | 10,800 | 1,730 | 1,720 | 4,000 | 534 |
| 3 | 1,100 | 3,360 | 2,550 | 1,370 | 11,800 | 1,790 | 9,000 | 10,500 | 1,700 | 1,430 | 4,200 | 531 |
| 4 | 1,140 | 2,870 | 5,180 | 1,270 | 12,600 | 2,360 | 9,630 | 10,100 | 1,750 | 1,820 | 4,710 | 534 |
| 5 | 1,520 | 2,850 | 4,510 | 1,090 | 11,300 | 6,050 | 8,290 | 9,720 | 1,830 | 1,660 | 4,720 | 543 |
| 6 | 2,080 | 2,480 | 4,010 | 1,000 | 8,670 | 8,640 | 6,950 | 10,000 | 2,340 | 1,220 | 4,020 | 599 |
| 7 | 1,660 | 2,460 | 2,940 | 940 | 7,380 | 8,670 | 5,330 | 7,750 | 2,430 | 990 | 3,640 | 612 |
| 8 | 1,490 | 2,300 | 2,630 | 920 | 6,330 | 7,380 | 3,870 | 4,020 | 2,810 | 915 | 3,000 | 588 |
| 9 | 1,430 | 2,130 | 3,140 | 900 | 5,200 | 5,540 | 3,010 | 2,660 | 2,870 | 977 | 1,710 | 580 |
| 10 | 1,410 | 2,490 | 3,730 | 870 | 3,490 | 4,960 | 2,370 | 2,400 | 2,320 | 978 | 1,100 | 571 |
| 11 | 1,650 | 2,000 | 3,650 | 840 | 2,990 | 3,610 | 2,290 | 2,360 | 1,990 | 1,440 | 945 | 560 |
| 12 | 3,250 | 2,000 | 2,840 | 830 | 3,640 | 2,730 | 1,990 | 2,550 | 1,650 | 1,330 | 817 | 540 |
| 13 | 9,520 | 1,810 | 3,790 | 840 | 3,380 | 2,250 | 1,920 | 7,620 | 1,510 | 1,170 | 673 | 650 |
| 14 | 9,500 | 1,470 | 3,490 | 900 | 2,420 | 2,220 | 1,880 | 15,100 | 1,840 | 1,130 | 614 | 1,100 |
| 15 | 7,750 | 1,300 | 2,270 | 980 | 2,160 | 2,130 | 2,440 | 12,900 | 1,870 | 1,110 | 581 | 1,350 |
| 16 | 6,540 | 1,340 | 2,090 | 1,000 | 2,150 | 1,980 | 2,860 | 9,940 | 2,070 | 1,080 | 584 | 1,450 |
| 17 | 5,720 | 1,280 | 2,030 | 1,000 | 2,070 | 1,860 | 2,350 | 8,700 | 2,610 | 986 | 590 | 1,550 |
| 18 | 5,500 | 2,020 | 1,900 | 920 | 1,960 | 1,800 | 1,900 | 8,240 | 3,020 | 874 | 592 | 1,600 |
| 19 | 6,300 | 9,850 | 1,850 | 840 | 2,240 | 1,780 | 5,370 | 7,110 | 2,130 | 1,010 | 944 | 1,700 |
| 20 | 5,510 | 15,000 | 1,720 | 810 | 4,310 | 1,980 | 18,700 | 6,880 | 1,500 | 2,100 | 1,440 | 1,700 |
| 21 | 3,930 | 11,100 | 1,640 | 800 | 5,600 | 3,590 | 17,900 | 6,780 | 1,310 | 2,500 | 802 | 1,350 |
| 22 | 3,430 | 10,700 | 1,620 | 800 | 5,160 | 4,590 | 14,100 | 5,930 | 1,150 | 1,700 | 715 | 1,550 |
| 23 | 3,270 | 12,200 | 1,570 | 800 | 3,830 | 4,340 | 11,600 | 4,960 | 1,050 | 1,240 | 775 | 2,100 |
| 24 | 3,170 | 12,800 | 1,410 | 800 | 2,850 | 4,110 | 11,600 | 4,040 | 1,000 | 1,140 | 704 | 1,800 |
| 25 | 3,220 | 11,700 | 1,400 | 800 | 2,770 | 3,940 | 13,700 | 4,840 | 945 | 1,040 | 725 | 1,400 |
| 26 | 4,450 | 9,840 | 1,530 | 800 | 3,150 | 7,930 | 10,700 | 4,870 | 963 | 970 | 712 | 1,700 |
| 27 | 4,150 | 11,000 | 1,480 | 1,000 | 2,900 | 14,200 | 8,500 | 3,580 | 1,190 | 943 | 664 | 2,200 |
| 28 | 2,180 | 11,000 | 1,490 | 2,500 | 2,540 | 10,800 | 11,000 | 2,750 | 1,980 | 1,290 | 620 | 2,150 |
| 29 | 1,920 | 10,100 | 1,410 | 5,310 | ------ | 7,300 | 9,240 | 2,170 | 2,170 | 1,920 | 605 | 1,850 |
| 30 | 1,700 | 8,740 | 1,350 | 11,400 | ------ | 5,710 | 8,910 | 1,900 | 2,080 | 1,750 | 585 | 1,600 |
| 31 | 1,640 | ------ | 1,380 | 10,000 | ------ | 4,970 | ------ | 1,740 | ------ | 2,240 | 569 | ------ |
| TOTAL | 111,180 | 174,060 | 80,760 | 55,080 | 139,580 | 143,300 | 217,730 | 202,430 | 55,538 | 42,653 | 48,576 | 35,534 |
| MEAN | 3,586 | 5,802 | 2,605 | 1,777 | 4,985 | 4,623 | 7,258 | 6,530 | 1,851 | 1,376 | 1,567 | 1,184 |
| MAX | 9,520 | 15,000 | 6,530 | 11,400 | 12,600 | 14,200 | 18,700 | 15,100 | 3,020 | 2,500 | 4,720 | 2,200 |
| MIN | 1,100 | 1,280 | 1,350 | 800 | 1,960 | 1,780 | 1,880 | 1,740 | 945 | 874 | 569 | 531 |
| CFSM | .88 | 1.42 | .64 | .44 | 1.22 | 1.14 | 1.78 | 1.60 | .45 | .34 | .38 | .29 |
| IN. | 1.02 | 1.59 | .74 | .50 | 1.28 | 1.31 | 1.99 | 1.85 | .51 | .39 | .44 | .32 |

CAL YR 1969 TOTAL 1,605,424 MEAN 4,398 MAX 39,600 MIN 545 CFSM 1.08 IN 14.67
WAT YR 1970 TOTAL 1,306,421 MEAN 3,579 MAX 18,700 MIN 531 CFSM .88 IN 11.93

PEAK DISCHARGE (BASE, 24,000 CFS).--No peak above base.

## 03329700 Deer Creek near Delphi, Ind.

LOCATION.--Lat 40°35'25", long 86°37'15", in NE¼NE¼ sec.27, T.25 N., R.2 W., Carroll County, on downstream side of left wingwall of highway bridge, 2.6 miles northeast of Delphi Post Office, and 4.5 miles upstream from mouth.

DRAINAGE AREA.--274 sq mi (revised).

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

GAGE.--Water-stage recorder. Datum of gage is 553.81 ft above mean sea level (Corps of Engineers bench mark, levels by Indiana Department of Natural Resources).

AVERAGE DISCHARGE.--27 years, 233 cfs (11.55 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,050 cfs May 13 (gage height, 9.22 ft); minimum, 24 cfs Aug. 18, Sept. 12, 13 (gage height, 2.25 ft).
Period of record: Maximum discharge, 14,400 cfs June 10, 1958 (gage height, 18.26 ft); minimum, 5.6 cfs Sept. 27, 1954.
Flood in May 1943 reached a stage of 19.8 ft, from floodmarks (discharge, 18,000 cfs, from rating curve extended above 8,000 cfs).

REMARKS.--Records good except those for parts of December, January, February, which are fair. Records of suspended sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1275: 1944, 1947-48.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 70 | 590 | 274 | 100 | 337 | 94 | 310 | 844 | 157 | 59 | 177 | 30 |
| 2 | 71 | 750 | 236 | 90 | 352 | 94 | 645 | 630 | 154 | 55 | 118 | 29 |
| 3 | 70 | 502 | 225 | 85 | 406 | 110 | 1,040 | 438 | 144 | 76 | 86 | 29 |
| 4 | 65 | 386 | 205 | 80 | 301 | 316 | 735 | 349 | 137 | 85 | 68 | 32 |
| 5 | 61 | 378 | 182 | 75 | 295 | 466 | 522 | 301 | 135 | 70 | 59 | 32 |
| 6 | 59 | 346 | 175 | 70 | 207 | 355 | 430 | 256 | 133 | 59 | 51 | 30 |
| 7 | 70 | 298 | 205 | 65 | 175 | 292 | 346 | 228 | 123 | 52 | 46 | 31 |
| 8 | 79 | 256 | 304 | 60 | 165 | 262 | 298 | 217 | 112 | 55 | 44 | 30 |
| 9 | 88 | 228 | 298 | 55 | 161 | 230 | 280 | 200 | 105 | 56 | 42 | 29 |
| 10 | 88 | 210 | 265 | 50 | 146 | 205 | 244 | 185 | 102 | 55 | 39 | 27 |
| 11 | 190 | 200 | 250 | 52 | 139 | 175 | 222 | 200 | 98 | 122 | 38 | 26 |
| 12 | 976 | 190 | 217 | 55 | 127 | 163 | 207 | 340 | 95 | 127 | 35 | 25 |
| 13 | 2,630 | 175 | 195 | 58 | 120 | 152 | 210 | 2,630 | 94 | 85 | 32 | 31 |
| 14 | 2,100 | 163 | 197 | 60 | 110 | 142 | 197 | 3,180 | 102 | 65 | 31 | 40 |
| 15 | 1,250 | 152 | 180 | 64 | 100 | 139 | 177 | 1,630 | 110 | 55 | 29 | 36 |
| 16 | 765 | 141 | 161 | 64 | 100 | 125 | 165 | 1,080 | 102 | 48 | 27 | 33 |
| 17 | 518 | 175 | 152 | 64 | 100 | 120 | 159 | 775 | 95 | 44 | 26 | 31 |
| 18 | 386 | 680 | 150 | 64 | 125 | 123 | 150 | 554 | 88 | 42 | 25 | 38 |
| 19 | 313 | 2,540 | 150 | 62 | 197 | 127 | 1,190 | 434 | 80 | 74 | 466 | 35 |
| 20 | 277 | 2,590 | 141 | 56 | 177 | 274 | 3,160 | 352 | 74 | 71 | 922 | 35 |
| 21 | 262 | 1,540 | 142 | 50 | 142 | 398 | 2,290 | 295 | 73 | 62 | 313 | 32 |
| 22 | 244 | 964 | 141 | 50 | 141 | 346 | 1,400 | 256 | 71 | 57 | 182 | 47 |
| 23 | 207 | 964 | 139 | 50 | 122 | 307 | 916 | 236 | 68 | 50 | 127 | 74 |
| 24 | 180 | 810 | 135 | 50 | 114 | 271 | 1,450 | 247 | 64 | 48 | 89 | 76 |
| 25 | 170 | 620 | 170 | 66 | 114 | 247 | 1,860 | 236 | 62 | 45 | 68 | 56 |
| 26 | 161 | 498 | 122 | 78 | 105 | 1,450 | 1,050 | 233 | 68 | 42 | 55 | 52 |
| 27 | 150 | 414 | 112 | 82 | 105 | 1,500 | 690 | 202 | 70 | 42 | 47 | 65 |
| 28 | 141 | 352 | 110 | 350 | 98 | 856 | 534 | 175 | 76 | 123 | 42 | 83 |
| 29 | 129 | 319 | 109 | 1,210 | ------ | 570 | 474 | 161 | 83 | 259 | 39 | 73 |
| 30 | 122 | 289 | 109 | 922 | ------ | 426 | 462 | 152 | 67 | 274 | 36 | 61 |
| 31 | 137 | ------ | 105 | 486 | ------ | 343 | ------ | 146 | ------ | 242 | 32 | ------ |
| TOTAL | 12,029 | 17,720 | 5,556 | 4,723 | 4,781 | 10,678 | 21,813 | 17,162 | 2,942 | 2,599 | 3,391 | 1,248 |
| MEAN | 388 | 591 | 179 | 152 | 171 | 344 | 727 | 554 | 98.1 | 83.8 | 109 | 41.6 |
| MAX | 2,630 | 2,590 | 304 | 1,210 | 406 | 1,500 | 3,160 | 3,180 | 157 | 274 | 922 | 83 |
| MIN | 59 | 141 | 105 | 50 | 98 | 94 | 150 | 146 | 62 | 42 | 25 | 25 |
| CFSM | 1.42 | 2.16 | .65 | .55 | .62 | 1.26 | 2.65 | 2.02 | .36 | .31 | .40 | .15 |
| IN. | 1.63 | 2.41 | .75 | .64 | .65 | 1.45 | 2.96 | 2.33 | .40 | .35 | .46 | .17 |

CAL YR 1969 TOTAL 125,803 MEAN 345 MAX 5,970 MIN 28 CFSM 1.26 IN 17.08
WAT YR 1970 TOTAL 104,642 MEAN 287 MAX 3,180 MIN 25 CFSM 1.05 IN 14.21

PEAK DISCHARGE (BASE, 2,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-13 | 0500 | 7.68 | 2,740 | 04-25 | 0300 | 6.76 | 2,080 |
| 11-20 | 0030 | 7.85 | 2,880 | 05-13 | 2400 | 9.22 | 4,050 |
| 01-29 | 0215 | 7.77 | 2,820 | 08-19 | 2130 | 7.59 | 2,670 |
| 04-20 | 1415 | 8.46 | 3,370 | | | | |

## 03330500 Tippecanoe River at Oswego, Ind.

LOCATION.--Lat 41°19'14", long 85°47'21", in NE¼NE¼ sec.14, T.33 N., R.6 E., Kosciusko County, on left bank 10 ft downstream from dam at Tippecanoe Lake Outlet in Oswego and 3 miles east of Leesburg.

DRAINAGE AREA.--113 sq mi (revised).

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

GAGE.--Water-stage recorder. Datum of gage is 830.00 ft above mean sea level. Prior to Aug. 12, 1953, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--21 years, 97.1 cfs (11.67 inches per year).

EXTREMES.--Current year: Maximum discharge, 275 cfs Apr. 26 (gage height, 7.47 ft); minimum daily, 1.2 cfs July 23, Aug. 11.
Period of record: Maximum discharge, 700 cfs Oct. 17, 1954 (gage height, 8.64 ft); minimum, 0.08 cfs Aug. 4, 5, 1967 (gage height, 4.25 ft).

REMARKS.--Records fair except those for period of no gage-height record, which are poor. Occasional regulation by flashboards at lake outlet.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 8.8 | 20 | 125 | 59 | 62 | 69 | 172 | 259 | 60 | 22 | 70 | 2.5 |
| 2 | 33 | 80 | 120 | 59 | 63 | 68 | 188 | 254 | 61 | 18 | 101 | 2.1 |
| 3 | 40 | 84 | 115 | 58 | 63 | 68 | 197 | 241 | 62 | 30 | 117 | 15 |
| 4 | 30 | 83 | 112 | 58 | 63 | 72 | 203 | 229 | 62 | 43 | 112 | 56 |
| 5 | 2.4 | 78 | 110 | 57 | 64 | 75 | 209 | 218 | 61 | 23 | 108 | 46 |
| 6 | 2.0 | 74 | 105 | 57 | 65 | 78 | 212 | 211 | 49 | 9.3 | 98 | 8.8 |
| 7 | 2.1 | 70 | 100 | 56 | 68 | 82 | 213 | 202 | 42 | 10 | 67 | 1.7 |
| 8 | 2.3 | 66 | 98 | 55 | 70 | 89 | 213 | 192 | 29 | 20 | 67 | 2.9 |
| 9 | 2.9 | 62 | 95 | 54 | 74 | 94 | 212 | 185 | 26 | 43 | 66 | 7.4 |
| 10 | 3.9 | 58 | 94 | 54 | 78 | 98 | 209 | 175 | 25 | 34 | 59 | 35 |
| 11 | 40 | 54 | 90 | 54 | 83 | 99 | 202 | 164 | 20 | 20 | 1.2 | 35 |
| 12 | 67 | 52 | 87 | 54 | 85 | 101 | 197 | 158 | 22 | 8.3 | 1.7 | 26 |
| 13 | 81 | 49 | 85 | 54 | 91 | 102 | 188 | 173 | 39 | 8.3 | 2.3 | 24 |
| 14 | 80 | 47 | 82 | 54 | 95 | 110 | 181 | 187 | 46 | 7.8 | 3.4 | 48 |
| 15 | 79 | 45 | 80 | 54 | 97 | 117 | 176 | 192 | 45 | 7.4 | 3.9 | 91 |
| 16 | 76 | 45 | 78 | 54 | 95 | 114 | 171 | 197 | 45 | 7.8 | 3.9 | 82 |
| 17 | 74 | 46 | 76 | 55 | 93 | 111 | 167 | 199 | 45 | 5.2 | 4.5 | 49 |
| 18 | 51 | 66 | 74 | 56 | 91 | 110 | 166 | 199 | 43 | 4.5 | 5.0 | 96 |
| 19 | 41 | 130 | 71 | 56 | 89 | 107 | 177 | 198 | 32 | 23 | 55 | 119 |
| 20 | 41 | 165 | 70 | 56 | 88 | 105 | 193 | 196 | 33 | 45 | 80 | 125 |
| 21 | 41 | 195 | 70 | 56 | 86 | 104 | 211 | 188 | 33 | 40 | 67 | 58 |
| 22 | 41 | 190 | 69 | 56 | 82 | 102 | 224 | 181 | 27 | 20 | 54 | 2.1 |
| 23 | 26 | 180 | 68 | 56 | 80 | 102 | 240 | 175 | 15 | 1.2 | 53 | 38 |
| 24 | 14 | 173 | 68 | 56 | 77 | 107 | 257 | 169 | 12 | 3.9 | 50 | 143 |
| 25 | 14 | 165 | 68 | 55 | 76 | 104 | 267 | 160 | 6.2 | 14 | 1.4 | 65 |
| 26 | 14 | 160 | 68 | 52 | 75 | 113 | 275 | 150 | 22 | 17 | 1.7 | 50 |
| 27 | 13 | 150 | 68 | 52 | 72 | 117 | 271 | 133 | 50 | 25 | 2.0 | 144 |
| 28 | 13 | 145 | 68 | 53 | 70 | 124 | 264 | 97 | 47 | 55 | 2.3 | 90 |
| 29 | 12 | 135 | 66 | 58 | ------ | 133 | 260 | 61 | 37 | 56 | 2.8 | 62 |
| 30 | 12 | 130 | 59 | 59 | ------ | 141 | 262 | 61 | 24 | 63 | 2.5 | 7.4 |
| 31 | 12 | ------ | 59 | 60 | ------ | 152 | ------ | 60 | ------ | 61 | 2.9 | ------ |
| TOTAL | 969.4 | 2,997 | 2,598 | 1,727 | 2,195 | 3,168 | 6,377 | 5,464 | 1,120.2 | 745.7 | 1,265.5 | 1,531.9 |
| MEAN | 31.3 | 99.9 | 83.8 | 55.7 | 78.4 | 102 | 213 | 176 | 37.3 | 24.1 | 40.8 | 51.1 |
| MAX | 81 | 195 | 125 | 60 | 97 | 152 | 275 | 259 | 62 | 63 | 117 | 144 |
| MIN | 2.0 | 20 | 59 | 52 | 62 | 68 | 166 | 60 | 6.2 | 1.2 | 1.2 | 1.7 |
| CFSM | .28 | .88 | .74 | .49 | .69 | .90 | 1.89 | 1.56 | .33 | .21 | .36 | .45 |
| IN. | .32 | .99 | .86 | .57 | .72 | 1.04 | 2.10 | 1.80 | .37 | .25 | .42 | .50 |

CAL YR 1969 TOTAL 36,299.4 MEAN 99.5 MAX 440 MIN 1.2 CFSM .88 IN 11.95
WAT YR 1970 TOTAL 30,158.7 MEAN 82.6 MAX 275 MIN 1.2 CFSM .73 IN 9.93

PEAK DISCHARGE (BASE, 200 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-08 | 0230 | 7.68 | 215 | 04-26 | 0400 | 7.47 | 275 |

NOTE.--No gage-height record Oct. 26 to Dec. 9.

## 03331110 Walnut Creek near Warsaw, Ind.

LOCATION.--Lat 41°12'17", long 85°52'11", in NW¼NE¼ sec.30, T.32 N., R.6 E., Kosciusko County, on left bank 10 ft upstream from bridge on County Road 200 South, 0.3 mile downstream from small right bank tributary and 2.5 miles south of court house in Warsaw.

DRAINAGE AREA.--19.6 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 823.00 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 141 cfs Apr. 21 (gage height, 3.02 ft); minimum, 2.4 cfs Sept. 2, 3 (gage height, 1.42 ft).

REMARKS.--Records good except those for parts of December, January, February, which are poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.1 | 5.3 | 13 | 4.0 | 18 | 6.5 | 31 | 86 | 12 | 4.4 | 19 | 2.5 |
| 2 | 3.2 | 12 | 12 | 3.8 | 18 | 6.5 | 48 | 74 | 13 | 3.8 | 26 | 2.5 |
| 3 | 3.2 | 13 | 11 | 3.6 | 20 | 9.8 | 60 | 55 | 12 | 3.5 | 21 | 2.5 |
| 4 | 3.2 | 12 | 10 | 3.4 | 25 | 33 | 60 | 44 | 11 | 3.5 | 13 | 2.7 |
| 5 | 3.1 | 12 | 9.1 | 3.3 | 15 | 44 | 50 | 36 | 8.5 | 3.4 | 5.9 | 3.4 |
| 6 | 3.1 | 11 | 8.5 | 3.2 | 13 | 40 | 40 | 31 | 6.5 | 3.3 | 5.6 | 3.5 |
| 7 | 3.2 | 9.1 | 9.1 | 3.1 | 11 | 32 | 34 | 28 | 5.9 | 3.3 | 5.0 | 3.8 |
| 8 | 3.2 | 7.8 | 12 | 3.0 | 10 | 26 | 32 | 24 | 5.6 | 3.3 | 4.1 | 3.5 |
| 9 | 3.2 | 6.2 | 13 | 3.0 | 9.5 | 23 | 27 | 22 | 5.3 | 3.4 | 3.4 | 3.4 |
| 10 | 3.2 | 5.9 | 13 | 3.4 | 8.9 | 20 | 23 | 20 | 5.0 | 3.4 | 3.3 | 3.4 |
| 11 | 3.4 | 5.6 | 12 | 4.5 | 8.4 | 17 | 20 | 19 | 4.7 | 3.3 | 3.1 | 3.3 |
| 12 | 5.6 | 5.3 | 11 | 5.6 | 7.8 | 16 | 19 | 22 | 4.7 | 3.0 | 3.1 | 3.1 |
| 13 | 14 | 5.6 | 9.8 | 7.6 | 7.5 | 14 | 21 | 67 | 5.9 | 2.9 | 3.0 | 3.2 |
| 14 | 16 | 5.6 | 9.1 | 9.0 | 7.1 | 12 | 25 | 88 | 7.8 | 2.9 | 2.9 | 3.8 |
| 15 | 13 | 5.6 | 8.5 | 9.0 | 7.0 | 12 | 25 | 80 | 8.5 | 3.0 | 2.9 | 12 |
| 16 | 11 | 5.6 | 12 | 8.0 | 6.8 | 10 | 23 | 69 | 7.8 | 3.0 | 2.8 | 16 |
| 17 | 7.4 | 8.5 | 7.2 | 7.0 | 6.8 | 9.1 | 20 | 58 | 7.2 | 3.0 | 2.7 | 12 |
| 18 | 6.2 | 19 | 6.5 | 6.0 | 7.2 | 9.1 | 17 | 46 | 7.8 | 3.0 | 2.7 | 25 |
| 19 | 5.9 | 48 | 6.5 | 5.0 | 11 | 9.1 | 42 | 37 | 6.2 | 3.2 | 2.8 | 24 |
| 20 | 5.9 | 60 | 6.2 | 5.0 | 15 | 14 | 114 | 31 | 5.3 | 3.5 | 2.9 | 17 |
| 21 | 5.6 | 51 | 5.8 | 5.0 | 12 | 18 | 138 | 26 | 5.6 | 3.5 | 2.9 | 11 |
| 22 | 5.3 | 40 | 5.4 | 5.0 | 10 | 19 | 118 | 22 | 5.3 | 3.5 | 3.1 | 12 |
| 23 | 5.0 | 36 | 5.2 | 5.0 | 8.8 | 18 | 89 | 19 | 4.7 | 3.5 | 3.3 | 19 |
| 24 | 4.7 | 33 | 5.0 | 5.0 | 9.4 | 17 | 74 | 19 | 4.4 | 3.5 | 3.1 | 25 |
| 25 | 4.7 | 29 | 4.8 | 5.0 | 12 | 17 | 64 | 24 | 4.1 | 3.5 | 3.0 | 24 |
| 26 | 4.4 | 26 | 4.8 | 6.0 | 19 | 50 | 54 | 24 | 7.2 | 3.4 | 2.9 | 22 |
| 27 | 4.4 | 22 | 4.8 | 7.7 | 9.1 | 74 | 45 | 19 | 7.8 | 3.4 | 2.8 | 24 |
| 28 | 4.1 | 19 | 4.7 | 34 | 7.8 | 67 | 47 | 17 | 6.5 | 3.3 | 2.7 | 19 |
| 29 | 3.8 | 17 | 4.5 | 64 | ------ | 53 | 53 | 14 | 5.6 | 3.3 | 2.7 | 14 |
| 30 | 3.4 | 14 | 4.2 | 65 | ------ | 41 | 72 | 12 | 5.0 | 5.3 | 2.6 | 10 |
| 31 | 3.4 | ------ | 4.1 | 23 | ------ | 33 | ------ | 12 | ------ | 5.0 | 2.6 | ------ |
| TOTAL | 168.9 | 550.1 | 252.8 | 325.2 | 321.1 | 770.1 | 1,485 | 1,145 | 206.9 | 107.3 | 166.9 | 330.6 |
| MEAN | 5.45 | 18.3 | 8.15 | 10.5 | 11.5 | 24.8 | 49.5 | 36.9 | 6.90 | 3.46 | 5.38 | 11.0 |
| MAX | 16 | 60 | 13 | 65 | 25 | 74 | 138 | 88 | 13 | 5.3 | 26 | 25 |
| MIN | 3.1 | 5.3 | 4.1 | 3.0 | 6.8 | 6.5 | 17 | 12 | 4.1 | 2.9 | 2.6 | 2.5 |
| CFSM | .28 | .93 | .42 | .54 | .59 | 1.27 | 2.53 | 1.88 | .35 | .18 | .27 | .56 |
| IN. | .32 | 1.04 | .48 | .62 | .61 | 1.46 | 2.82 | 2.17 | .39 | .20 | .32 | .63 |

WTR YR 1970 TOTAL 5,829.9 MEAN 16.0 MAX 138 MIN 2.5 CFSM .82 IN 11.06

PEAK DISCHARGE (BASE, 75 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 01-30 | 1015 | 2.80 | 108 | 05-01 | 1100 | 2.65 | 88 |
| 03-27 | 0415 | 2.54 | 75 | 05-13 | 1645 | 2.68 | 92 |
| 04-21 | 0630 | 3.02 | 141 | | | | |

## 03331500 Tippecanoe River near Ora, Ind.

LOCATION.--Lat 41°09'26", long 86°33'49", in SE¼SE¼ sec.6, T.31 N., R.1 W., Pulaski County, on right bank at downstream side of highway bridge, 1.0 mile upstream from Bartee ditch, and 1.3 miles southwest of Ora.

DRAINAGE AREA.--856 sq mi (revised).

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

GAGE.--Water-stage recorder. Altitude of gage is 694 ft (by barometer). Prior to July 30, 1956, nonrecording gage on upstream side of old highway bridge, 120 ft downstream from present gage. July 30, 1956, to Dec. 20, 1964, water-stage recorder on right bank at downstream side of old highway bridge, and Dec. 21, 1964, to Aug. 19, 1965, nonrecording gage on right bank 500 ft downstream from present site. All gages at same datum.

AVERAGE DISCHARGE.--27 years, 782 cfs (12.41 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,500 cfs Apr. 22 (gage height, 12.17 ft); minimum, 184 cfs Sept. 2, 3 (gage height, 4.73 ft).
Period of record: Maximum discharge, 7,800 cfs Apr. 5, 1950 (gage height, 14.40 ft site then in use); minimum, 86 cfs Sept. 14, 1966; minimum gage height, 4.15 ft Aug. 14, 1944, Oct. 16, 17, 1946.

REMARKS.--Records good except those for December, January, February and periods of no gage-height record, which are fair. Records of suspended sediment loads for current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1335: 1944(M). WSP 1505: 1949-50(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 233 | 360 | 781 | 390 | 1,770 | 514 | 1,370 | 1,550 | 840 | 420 | 330 | 192 |
| 2 | 213 | 582 | 745 | 370 | 1,740 | 507 | 1,540 | 1,400 | 850 | 390 | 390 | 186 |
| 3 | 211 | 636 | 713 | 350 | 1,380 | 527 | 1,890 | 1,300 | 856 | 367 | 375 | 185 |
| 4 | 211 | 623 | 695 | 340 | 950 | 737 | 2,100 | 1,150 | 793 | 352 | 350 | 197 |
| 5 | 209 | 597 | 667 | 325 | 860 | 1,020 | 2,090 | 1,050 | 740 | 337 | 325 | 392 |
| 6 | 216 | 588 | 648 | 305 | 800 | 1,010 | 1,940 | 980 | 724 | 317 | 310 | 386 |
| 7 | 236 | 568 | 647 | 300 | 760 | 960 | 1,790 | 920 | 678 | 308 | 290 | 364 |
| 8 | 243 | 532 | 705 | 300 | 720 | 920 | 1,630 | 870 | 626 | 306 | 280 | 397 |
| 9 | 236 | 504 | 742 | 300 | 680 | 870 | 1,500 | 820 | 573 | 309 | 270 | 394 |
| 10 | 238 | 482 | 715 | 300 | 650 | 820 | 1,380 | 820 | 526 | 313 | 255 | 342 |
| 11 | 259 | 461 | 691 | 300 | 620 | 767 | 1,260 | 1,400 | 489 | 320 | 245 | 304 |
| 12 | 332 | 449 | 660 | 310 | 540 | 731 | 1,190 | 2,150 | 467 | 318 | 235 | 274 |
| 13 | 451 | 434 | 624 | 320 | 520 | 702 | 1,160 | 2,500 | 561 | 303 | 230 | 282 |
| 14 | 528 | 416 | 601 | 330 | 510 | 674 | 1,180 | 2,400 | 724 | 292 | 220 | 339 |
| 15 | 528 | 385 | 582 | 350 | 500 | 649 | 1,160 | 2,000 | 649 | 295 | 215 | 500 |
| 16 | 489 | 359 | 561 | 350 | 500 | 617 | 1,120 | 1,700 | 644 | 273 | 210 | 612 |
| 17 | 446 | 369 | 541 | 350 | 500 | 593 | 1,080 | 1,500 | 624 | 255 | 205 | 551 |
| 18 | 415 | 533 | 531 | 340 | 530 | 590 | 1,040 | 1,350 | 582 | 247 | 205 | 657 |
| 19 | 397 | 1,060 | 524 | 330 | 540 | 592 | 1,250 | 1,300 | 551 | 355 | 225 | 913 |
| 20 | 397 | 1,530 | 508 | 320 | 540 | 628 | 2,160 | 1,200 | 505 | 511 | 215 | 769 |
| 21 | 397 | 1,580 | 486 | 315 | 530 | 729 | 3,070 | 1,150 | 487 | 490 | 220 | 715 |
| 22 | 389 | 1,430 | 483 | 305 | 520 | 749 | 3,480 | 1,100 | 474 | 422 | 340 | 751 |
| 23 | 368 | 1,320 | 460 | 300 | 500 | 740 | 3,390 | 1,050 | 448 | 388 | 325 | 990 |
| 24 | 350 | 1,280 | 450 | 300 | 480 | 729 | 2,900 | 1,000 | 430 | 363 | 300 | 1,080 |
| 25 | 334 | 1,190 | 435 | 300 | 470 | 712 | 2,500 | 950 | 413 | 342 | 290 | 995 |
| 26 | 321 | 1,080 | 420 | 330 | 490 | 935 | 2,150 | 910 | 453 | 325 | 285 | 912 |
| 27 | 301 | 997 | 415 | 400 | 500 | 1,560 | 1,850 | 860 | 648 | 310 | 267 | 887 |
| 28 | 285 | 930 | 410 | 745 | 500 | 1,760 | 1,900 | 800 | 583 | 296 | 245 | 869 |
| 29 | 275 | 871 | 420 | 1,160 | ------ | 1,640 | 1,950 | 750 | 511 | 293 | 219 | 760 |
| 30 | 269 | 819 | 435 | 1,670 | ------ | 1,520 | 1,750 | 720 | 462 | 370 | 206 | 708 |
| 31 | 272 | ------ | 410 | 1,830 | ------ | 1,440 | ------ | 730 | ------ | 355 | 197 | ------ |
| TOTAL | 10,049 | 22,965 | 17,705 | 14,235 | 19,600 | 26,942 | 54,770 | 38,380 | 17,911 | 10,542 | 8,274 | 16,903 |
| MEAN | 324 | 766 | 571 | 459 | 700 | 869 | 1,826 | 1,238 | 597 | 340 | 267 | 563 |
| MAX | 528 | 1,580 | 781 | 1,830 | 1,770 | 1,760 | 3,480 | 2,500 | 856 | 511 | 390 | 1,080 |
| MIN | 209 | 359 | 410 | 300 | 470 | 507 | 1,040 | 720 | 413 | 247 | 197 | 185 |
| CFSM | .38 | .89 | .67 | .54 | .82 | 1.02 | 2.13 | 1.45 | .70 | .40 | .31 | .66 |
| IN. | .44 | 1.00 | .77 | .62 | .85 | 1.17 | 2.38 | 1.67 | .78 | .46 | .36 | .73 |

CAL YR 1969 TOTAL 324,252 MEAN 888 MAX 4,790 MIN 167 CFSM 1.04 IN 14.09
WAT YR 1970 TOTAL 258,276 MEAN 708 MAX 3,480 MIN 185 CFSM .83 IN 11.22

NOTE.--No gage-height record Apr. 24 to June 2.

PEAK DISCHARGE (BASE, 2,300 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-22 | 1230 | 12.17 | 3,500 | 05-13 | Unknown | Unknown | 2,500 |

## 03332300 Little Indian Creek near Royal Center, Ind.

LOCATION.--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.

DRAINAGE AREA.--35.0 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 692.73 ft above mean sea level.

AVERAGE DISCHARGE.--11 years, 26.7 cfs (10.36 inches per year).

EXTREMES.--Current year: Maximum discharge, 419 cfs Apr. 20 (gage height, 7.10 ft); minimum, 3.2 cfs part of each day Aug. 30 to Sept. 3 (gage height, 0.76 ft).
Period of record: Maximum discharge, about 500 cfs Mar. 5, 1963 (gage height, unknown); minimum daily, 0.5 cfs Dec. 17-22, 1963.
Maximum stage known, 11.2 ft in spring of 1957, from information by local residents.

REMARKS.--Records good except those for parts of December, January, February, which are poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.4 | 61 | 30 | 11 | 30 | 11 | 38 | 88 | 29 | 9.4 | 6.7 | 3.4 |
| 2 | 6.4 | 52 | 28 | 11 | 32 | 11 | 146 | 67 | 32 | 9.0 | 6.1 | 3.4 |
| 3 | 6.4 | 33 | 27 | 11 | 26 | 16 | 162 | 57 | 28 | 11 | 5.8 | 5.8 |
| 4 | 6.1 | 32 | 24 | 10 | 22 | 56 | 137 | 49 | 25 | 9.4 | 5.5 | 20 |
| 5 | 5.8 | 32 | 23 | 9.8 | 20 | 37 | 88 | 44 | 31 | 8.6 | 5.5 | 7.8 |
| 6 | 5.8 | 27 | 23 | 9.5 | 17 | 27 | 67 | 39 | 34 | 7.8 | 5.2 | 5.5 |
| 7 | 8.6 | 24 | 28 | 9.2 | 15 | 24 | 52 | 36 | 27 | 7.4 | 4.9 | 7.8 |
| 8 | 7.8 | 21 | 36 | 8.8 | 14 | 21 | 46 | 33 | 23 | 11 | 5.2 | 18 |
| 9 | 6.7 | 20 | 31 | 8.4 | 13 | 18 | 43 | 30 | 21 | 9.8 | 5.5 | 13 |
| 10 | 6.4 | 19 | 29 | 8.0 | 12 | 16 | 39 | 28 | 20 | 8.6 | 4.9 | 11 |
| 11 | 33 | 18 | 27 | 8.8 | 11 | 13 | 34 | 28 | 19 | 7.8 | 4.6 | 9.0 |
| 12 | 55 | 18 | 24 | 9.4 | 11 | 13 | 31 | 60 | 18 | 7.0 | 4.9 | 6.7 |
| 13 | 68 | 16 | 23 | 9.6 | 11 | 13 | 35 | 218 | 20 | 6.7 | 4.6 | 13 |
| 14 | 38 | 15 | 23 | 9.8 | 10 | 12 | 36 | 263 | 20 | 7.4 | 4.3 | 27 |
| 15 | 27 | 15 | 21 | 10 | 10 | 11 | 31 | 272 | 19 | 11 | 4.0 | 45 |
| 16 | 22 | 13 | 11 | 10 | 10 | 9.8 | 29 | 210 | 18 | 7.0 | 4.0 | 29 |
| 17 | 18 | 27 | 19 | 10 | 10 | 9.4 | 28 | 142 | 17 | 6.1 | 4.0 | 19 |
| 18 | 15 | 94 | 19 | 9.8 | 10 | 9.8 | 26 | 104 | 15 | 6.1 | 4.0 | 110 |
| 19 | 14 | 216 | 18 | 9.2 | 10 | 10 | 213 | 77 | 14 | 20 | 5.5 | 121 |
| 20 | 14 | 181 | 17 | 9.0 | 10 | 21 | 415 | 60 | 13 | 75 | 6.1 | 76 |
| 21 | 14 | 107 | 17 | 8.5 | 10 | 23 | 392 | 50 | 13 | 32 | 4.3 | 51 |
| 22 | 13 | 79 | 16 | 8.2 | 10 | 21 | 314 | 42 | 13 | 18 | 6.4 | 67 |
| 23 | 11 | 86 | 15 | 8.0 | 10 | 19 | 226 | 38 | 12 | 13 | 7.0 | 106 |
| 24 | 11 | 67 | 14 | 8.0 | 10 | 18 | 181 | 37 | 12 | 12 | 4.3 | 88 |
| 25 | 11 | 55 | 14 | 9.0 | 10 | 17 | 146 | 52 | 11 | 11 | 4.0 | 68 |
| 26 | 11 | 46 | 13 | 12 | 10 | 137 | 116 | 40 | 12 | 9.0 | 3.8 | 52 |
| 27 | 10 | 41 | 12 | 35 | 10 | 115 | 94 | 33 | 11 | 8.6 | 3.6 | 50 |
| 28 | 9.8 | 36 | 12 | 90 | 10 | 71 | 81 | 29 | 10 | 7.8 | 3.6 | 42 |
| 29 | 9.4 | 34 | 12 | 120 | ------ | 51 | 103 | 28 | 10 | 7.0 | 3.6 | 35 |
| 30 | 9.4 | 32 | 12 | 57 | ------ | 40 | 96 | 27 | 9.8 | 9.0 | 3.4 | 31 |
| 31 | 11 | ------ | 12 | 34 | ------ | 34 | ------ | 25 | ------ | 7.4 | 3.4 | ------ |
| TOTAL | 491.0 | 1,517 | 630 | 582.0 | 384 | 905.0 | 3,445 | 2,306 | 556.8 | 380.9 | 148.7 | 1,141.4 |
| MEAN | 15.8 | 50.6 | 20.3 | 18.8 | 13.7 | 29.2 | 115 | 74.4 | 18.6 | 12.3 | 4.80 | 38.0 |
| MAX | 68 | 216 | 36 | 120 | 32 | 137 | 415 | 272 | 34 | 75 | 7.0 | 121 |
| MIN | 5.8 | 13 | 11 | 8.0 | 10 | 9.4 | 26 | 25 | 9.8 | 6.1 | 3.4 | 3.4 |
| CFSM | .45 | 1.45 | .58 | .54 | .39 | .83 | 3.29 | 2.13 | .53 | .35 | .14 | 1.09 |
| IN. | .52 | 1.61 | .67 | .62 | .41 | .96 | 3.66 | 2.45 | .59 | .40 | .16 | 1.21 |

CAL YR 1969 TOTAL 13,920.0 MEAN 38.1 MAX 387 MIN 4.0 CFSM 1.09 IN 14.79
WAT YR 1970 TOTAL 12,487.8 MEAN 34.2 MAX 415 MIN 3.4 CFSM .98 IN 13.27

PEAK DISCHARGE (BASE, 250 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-20 | 0630 | 7.10 | 419 | 05-15 | 0445 | 5.50 | 290 |

## 03332400 Big Monon Creek near Francesville, Ind.

LOCATION.--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.

DRAINAGE AREA.--152 sq mi (revised).

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

GAGE.--Water-stage recorder. Datum of gage is 653.17 ft above mean sea level.

AVERAGE DISCHARGE.--11 years, 137 cfs (12.24 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,580 cfs Apr. 20 (gage height, 13.14 ft); minimum daily, 16 cfs Sept. 1.
Period of record: Maximum discharge, 2,750 cfs Dec. 25, 1965 (gage height, 15.14 ft, from floodmarks); maximum gage height 15.90 ft Feb. 2, 1968; minimum discharge, 4.0 cfs Oct. 3, 1964 (gage height, 1.17 ft).
Maximum stage known, about 18.60 ft in Spring of 1957, from information by local residents.

REMARKS.--Records good except those for part of December, January, and February, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 31 | 144 | 110 | 67 | 320 | 83 | 242 | 289 | 115 | 50 | 27 | 16 |
| 2 | 30 | 150 | 115 | 66 | 230 | 88 | 706 | 236 | 138 | 46 | 23 | 25 |
| 3 | 31 | 124 | 114 | 56 | 185 | 120 | 744 | 201 | 137 | 43 | 22 | 25 |
| 4 | 29 | 133 | 104 | 53 | 165 | 242 | 473 | 179 | 125 | 45 | 44 | 24 |
| 5 | 28 | 142 | 98 | 50 | 150 | 217 | 340 | 164 | 123 | 43 | 26 | 28 |
| 6 | 28 | 125 | 102 | 47 | 145 | 183 | 288 | 151 | 119 | 40 | 25 | 23 |
| 7 | 40 | 113 | 115 | 45 | 140 | 170 | 252 | 136 | 105 | 41 | 34 | 25 |
| 8 | 37 | 103 | 137 | 45 | 135 | 154 | 222 | 133 | 95 | 45 | 54 | 26 |
| 9 | 32 | 98 | 124 | 45 | 135 | 138 | 200 | 124 | 87 | 46 | 35 | 27 |
| 10 | 32 | 93 | 115 | 45 | 130 | 126 | 176 | 125 | 84 | 44 | 32 | 24 |
| 11 | 91 | 90 | 114 | 45 | 125 | 111 | 164 | 110 | 79 | 41 | 30 | 24 |
| 12 | 147 | 87 | 101 | 47 | 90 | 109 | 161 | 151 | 77 | 37 | 26 | 23 |
| 13 | 245 | 83 | 98 | 48 | 82 | 102 | 170 | 853 | 79 | 34 | 22 | 31 |
| 14 | 199 | 81 | 99 | 49 | 76 | 95 | 182 | 1,420 | 159 | 37 | 19 | 42 |
| 15 | 146 | 75 | 89 | 50 | 74 | 90 | 160 | 1,400 | 193 | 42 | 19 | 62 |
| 16 | 126 | 68 | 84 | 50 | 73 | 83 | 150 | 946 | 126 | 36 | 20 | 55 |
| 17 | 107 | 86 | 83 | 50 | 79 | 83 | 136 | 613 | 109 | 32 | 28 | 44 |
| 18 | 93 | 164 | 84 | 49 | 74 | 87 | 129 | 422 | 97 | 29 | 18 | 46 |
| 19 | 91 | 414 | 82 | 48 | 70 | 89 | 681 | 321 | 81 | 59 | 29 | 44 |
| 20 | 107 | 343 | 77 | 48 | 74 | 112 | 1,550 | 266 | 76 | 146 | 30 | 44 |
| 21 | 138 | 240 | 74 | 47 | 82 | 118 | 1,410 | 224 | 95 | 108 | 26 | 41 |
| 22 | 121 | 211 | 72 | 46 | 81 | 111 | 887 | 193 | 91 | 72 | 26 | 72 |
| 23 | 100 | 229 | 70 | 45 | 79 | 103 | 566 | 177 | 79 | 62 | 31 | 138 |
| 24 | 89 | 200 | 64 | 45 | 76 | 98 | 471 | 173 | 73 | 60 | 26 | 174 |
| 25 | 86 | 169 | 68 | 46 | 70 | 95 | 347 | 170 | 70 | 58 | 23 | 179 |
| 26 | 82 | 155 | 68 | 54 | 72 | 319 | 292 | 154 | 67 | 50 | 21 | 145 |
| 27 | 76 | 141 | 66 | 80 | 78 | 455 | 254 | 136 | 69 | 48 | 20 | 153 |
| 28 | 73 | 130 | 64 | 208 | 82 | 446 | 274 | 129 | 63 | 45 | 19 | 128 |
| 29 | 69 | 122 | 66 | 646 | ------ | 327 | 309 | 119 | 58 | 35 | 18 | 110 |
| 30 | 67 | 115 | 68 | 500 | ------ | 258 | 282 | 114 | 53 | 46 | 18 | 101 |
| 31 | 70 | ------ | 68 | 378 | ------ | 228 | ------ | 112 | ------ | 47 | 19 | ------ |
| TOTAL | 2,641 | 4,428 | 2,757 | 3,098 | 3,172 | 5,040 | 12,218 | 9,941 | 2,922 | 1,567 | 810 | 1,899 |
| MEAN | 85.2 | 148 | 90.2 | 99.9 | 113 | 163 | 407 | 321 | 97.4 | 50.5 | 26.1 | 63.3 |
| MAX | 245 | 414 | 137 | 646 | 320 | 455 | 1,550 | 1,420 | 193 | 146 | 54 | 179 |
| MIN | 28 | 68 | 64 | 45 | 70 | 83 | 129 | 110 | 53 | 29 | 18 | 16 |
| CFSM | .56 | .97 | .59 | .66 | .74 | 1.07 | 2.68 | 2.11 | .64 | .33 | .17 | .42 |
| IN. | .65 | 1.08 | .68 | .76 | .78 | 1.23 | 2.99 | 2.43 | .72 | .38 | .20 | .46 |

CAL YR 1969 TOTAL 60,771 MEAN 166 MAX 1,430 MIN 28 CFSM 1.09 IN 14.87
WAT YR 1970 TOTAL 50,533 MEAN 138 MAX 1,550 MIN 16 CFSM .91 IN 12.37

## 03332500 Tippecanoe River near Monticello, Ind.

LOCATION.--Lat 40°46'48", long 86°45'36", in NW¼NE¼ sec.21, T.27 N., R.3 W., White County, at Norway plant of Northern Indiana Public Service Co., 2 miles north of Monticello.

DRAINAGE AREA.--1,732 sq mi (revised).

PERIOD OF RECORD.--October 1931 to current year.

AVERAGE DISCHARGE.--39 years, 1,463 cfs (11.47 inches per year).

EXTREMES.--Current year: Maximum daily discharge, 12,100 cfs Apr. 20; minimum daily, 260 cfs Sept. 2.
Period of record: Maximum daily discharge, 16,800 cfs June 13, 1958; minimum daily, 103 cfs July 27, 1934.

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.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 520 | 1,050 | 1,600 | 916 | 2,140 | 916 | 2,700 | 3,820 | 1,520 | 717 | 915 | 477 |
| 2 | 412 | 1,430 | 1,430 | 742 | 2,310 | 916 | 4,800 | 3,380 | 1,810 | 849 | 750 | 260 |
| 3 | 520 | 1,560 | 1,430 | 781 | 1,600 | 1,000 | 5,280 | 3,060 | 1,580 | 635 | 833 | 368 |
| 4 | 520 | 1,430 | 1,150 | 608 | 1,450 | 1,770 | 4,750 | 2,970 | 1,550 | 701 | 668 | 498 |
| 5 | 303 | 1,430 | 1,200 | 521 | 1,430 | 2,040 | 4,090 | 2,530 | 1,590 | 520 | 833 | 520 |
| 6 | 520 | 1,220 | 1,340 | 521 | 1,180 | 1,810 | 3,750 | 2,380 | 1,560 | 734 | 602 | 701 |
| 7 | 520 | 1,170 | 1,240 | 521 | 1,430 | 1,810 | 3,160 | 2,310 | 1,430 | 520 | 685 | 734 |
| 8 | 668 | 1,130 | 1,430 | 702 | 1,430 | 1,810 | 3,060 | 1,980 | 1,430 | 705 | 734 | 829 |
| 9 | 520 | 1,060 | 1,430 | 689 | 1,570 | 1,430 | 2,750 | 2,020 | 1,170 | 652 | 520 | 668 |
| 10 | 520 | 1,130 | 1,430 | 603 | 1,140 | 1,650 | 2,550 | 1,820 | 958 | 635 | 701 | 683 |
| 11 | 734 | 915 | 1,430 | 620 | 1,510 | 1,220 | 2,230 | 1,810 | 1,110 | 619 | 520 | 520 |
| 12 | 1,040 | 915 | 1,300 | 702 | 1,290 | 1,390 | 2,060 | 1,970 | 915 | 520 | 520 | 520 |
| 13 | 2,010 | 896 | 1,130 | 669 | 1,150 | 1,260 | 2,110 | 6,430 | 979 | 685 | 520 | 701 |
| 14 | 1,340 | 915 | 1,170 | 636 | 980 | 1,110 | 2,140 | 8,920 | 1,610 | 569 | 520 | 873 |
| 15 | 1,170 | 915 | 1,090 | 751 | 1,040 | 1,130 | 2,040 | 10,100 | 1,810 | 734 | 323 | 1,110 |
| 16 | 1,200 | 668 | 1,090 | 636 | 990 | 1,140 | 1,940 | 7,700 | 1,540 | 520 | 520 | 1,050 |
| 17 | 915 | 933 | 1,070 | 702 | 916 | 1,000 | 1,980 | 6,400 | 1,120 | 520 | 390 | 1,130 |
| 18 | 915 | 1,720 | 980 | 934 | 1,110 | 1,090 | 1,560 | 4,770 | 915 | 520 | 390 | 2,390 |
| 19 | 915 | 3,250 | 916 | 585 | 1,340 | 1,090 | 6,600 | 4,330 | 1,110 | 869 | 682 | 1,810 |
| 20 | 915 | 3,670 | 916 | 656 | 1,010 | 1,220 | 12,100 | 3,770 | 915 | 1,620 | 542 | 1,700 |
| 21 | 915 | 3,500 | 916 | 574 | 986 | 1,430 | 10,600 | 3,070 | 1,040 | 1,230 | 368 | 1,430 |
| 22 | 915 | 2,840 | 980 | 641 | 1,170 | 1,430 | 8,580 | 2,640 | 915 | 696 | 624 | 1,940 |
| 23 | 915 | 2,990 | 850 | 750 | 1,020 | 1,430 | 7,620 | 2,310 | 915 | 866 | 526 | 2,820 |
| 24 | 619 | 2,380 | 636 | 603 | 980 | 1,260 | 6,910 | 2,490 | 915 | 701 | 520 | 3,030 |
| 25 | 783 | 2,410 | 669 | 620 | 1,170 | 1,370 | 6,120 | 2,960 | 668 | 833 | 520 | 2,420 |
| 26 | 757 | 2,080 | 867 | 768 | 916 | 3,430 | 5,260 | 2,250 | 934 | 602 | 520 | 1,890 |
| 27 | 635 | 2,180 | 916 | 735 | 1,020 | 3,900 | 4,620 | 2,080 | 841 | 602 | 520 | 2,040 |
| 28 | 800 | 1,810 | 1,020 | 1,060 | 1,000 | 3,570 | 3,920 | 1,810 | 915 | 676 | 303 | 1,760 |
| 29 | 520 | 1,630 | 945 | 2,400 | ------ | 3,180 | 4,230 | 1,810 | 915 | 520 | 520 | 1,430 |
| 30 | 750 | 1,530 | 971 | 2,230 | ------ | 3,060 | 3,820 | 1,520 | 915 | 800 | 347 | 1,460 |
| 31 | 520 | ------ | 941 | 2,270 | ------ | 2,500 | ------ | 1,570 | ------ | 718 | 325 | ------ |
| TOTAL | 24,306 | 50,757 | 34,483 | 26,146 | 35,278 | 53,362 | 133,330 | 106,980 | 35,595 | 22,088 | 17,261 | 37,762 |
| MEAN | 784 | 1,692 | 1,112 | 843 | 1,260 | 1,721 | 4,444 | 3,451 | 1,187 | 713 | 557 | 1,259 |
| MAX | 2,010 | 3,670 | 1,600 | 2,400 | 2,310 | 3,900 | 12,100 | 10,100 | 1,810 | 1,620 | 915 | 3,030 |
| MIN | 303 | 668 | 636 | 521 | 916 | 916 | 1,560 | 1,520 | 668 | 520 | 303 | 260 |
| CFSM | .46 | .99 | .65 | .49 | .74 | 1.01 | 2.60 | 2.02 | .69 | .42 | .33 | .74 |
| IN. | .53 | 1.10 | .75 | .57 | .77 | 1.16 | 2.90 | 2.33 | .77 | .48 | .38 | .82 |

CAL YR 1969 TOTAL 662,987 MEAN 1,816 MAX 12,400 MIN 303 CFSM 1.06 IN 14.42
WTR YR 1970 TOTAL 577,348 MEAN 1,582 MAX 12,100 MIN 260 CFSM .93 IN 12.56

03333000 Tippecanoe River near Delphi, Ind.

LOCATION.--Lat 40°37'02", long 86°45'39", in NW¼NE¼ sec.16, T.25 N., R.3 W., Carroll County, on right bank 2 miles northeast of Springboro, 2 miles downstream from Big Creek, and 5 miles northwest of Delphi.

DRAINAGE AREA.--1,865 sq mi (revised).

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.

GAGE.--Water-stage recorder. Datum of gage is 552.01 ft above mean sea level (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 downstream at different datum.

AVERAGE DISCHARGE.--31 years (1939 to current year), 1,590 cfs (11.58 inches per year).

EXTREMES.--Current year: Maximum discharge, 14,600 cfs Apr. 20 (gage height, 11.97 ft); minimum, 261 cfs Sept. 10 (gage height, 2.49 ft).
Period of record: Maximum discharge, 22,600 cfs Feb. 10, 1959 (gage height, 15.10 ft); minimum daily, 1 cfs Nov. 2, 3, 1954, caused by repair work at Oakdale Dam, 6.5 miles upstream.

REMARKS.--Records good. Flow regulated by powerplant above station.

REVISIONS (WATER YEARS).--WSP 973: 1942. WSP 1335: 1905-6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 555 | 1,290 | 1,820 | 1,070 | 2,260 | 1,080 | 2,800 | 3,690 | 1,610 | 1,060 | 860 | 339 |
| 2 | 471 | 1,880 | 1,540 | 807 | 2,350 | 1,070 | 4,890 | 3,660 | 1,990 | 720 | 800 | 220 |
| 3 | 551 | 1,450 | 1,600 | 978 | 1,770 | 1,060 | 5,600 | 3,120 | 1,770 | 772 | 860 | 477 |
| 4 | 606 | 1,640 | 1,270 | 652 | 1,840 | 2,020 | 4,710 | 3,090 | 1,860 | 860 | 750 | 599 |
| 5 | 500 | 1,500 | 1,350 | 726 | 1,370 | 2,090 | 4,140 | 2,640 | 1,820 | 481 | 840 | 608 |
| 6 | 400 | 1,410 | 1,450 | 493 | 1,380 | 2,020 | 3,820 | 2,510 | 1,630 | 831 | 600 | 566 |
| 7 | 550 | 1,440 | 1,490 | 826 | 1,610 | 2,040 | 3,420 | 2,420 | 1,510 | 566 | 720 | 1,040 |
| 8 | 1,000 | 1,100 | 1,470 | 800 | 1,430 | 1,880 | 3,140 | 2,300 | 1,680 | 817 | 660 | 837 |
| 9 | 550 | 1,170 | 1,700 | 700 | 1,780 | 1,630 | 2,780 | 2,100 | 1,340 | 671 | 550 | 451 |
| 10 | 400 | 1,360 | 1,420 | 700 | 1,350 | 1,780 | 2,660 | 2,020 | 1,250 | 684 | 700 | 808 |
| 11 | 1,000 | 983 | 1,770 | 800 | 1,440 | 1,330 | 2,270 | 2,140 | 1,170 | 630 | 400 | 615 |
| 12 | 1,400 | 1,090 | 1,420 | 700 | 1,210 | 1,590 | 2,330 | 2,120 | 1,170 | 580 | 600 | 454 |
| 13 | 2,200 | 940 | 1,170 | 700 | 1,210 | 1,280 | 2,320 | 9,520 | 1,170 | 727 | 400 | 886 |
| 14 | 1,500 | 1,100 | 1,460 | 800 | 1,070 | 1,250 | 2,200 | 10,300 | 1,970 | 477 | 400 | 668 |
| 15 | 1,350 | 871 | 1,200 | 900 | 1,100 | 1,250 | 2,250 | 10,700 | 1,890 | 1,030 | 400 | 1,430 |
| 16 | 1,200 | 985 | 1,300 | 700 | 1,210 | 1,160 | 2,010 | 8,110 | 1,690 | 465 | 400 | 1,140 |
| 17 | 1,100 | 918 | 1,070 | 900 | 1,050 | 1,180 | 2,160 | 6,520 | 1,560 | 448 | 450 | 1,210 |
| 18 | 1,100 | 1,890 | 1,070 | 900 | 1,190 | 1,210 | 1,750 | 5,140 | 1,420 | 540 | 400 | 2,520 |
| 19 | 950 | 3,610 | 1,070 | 500 | 1,440 | 1,170 | 7,050 | 4,680 | 1,170 | 1,010 | 1,100 | 1,940 |
| 20 | 1,100 | 3,950 | 1,180 | 850 | 1,040 | 1,410 | 14,000 | 3,790 | 1,170 | 1,710 | 550 | 1,860 |
| 21 | 1,100 | 3,550 | 1,070 | 400 | 1,100 | 1,670 | 11,400 | 3,360 | 1,160 | 1,570 | 385 | 1,580 |
| 22 | 950 | 3,030 | 1,080 | 850 | 1,360 | 1,480 | 8,900 | 2,920 | 1,150 | 942 | 804 | 1,950 |
| 23 | 900 | 3,160 | 1,070 | 850 | 1,060 | 1,470 | 7,630 | 2,650 | 829 | 740 | 596 | 3,190 |
| 24 | 800 | 2,870 | 767 | 600 | 1,060 | 1,460 | 7,560 | 2,610 | 1,130 | 971 | 489 | 3,080 |
| 25 | 800 | 2,480 | 776 | 800 | 1,340 | 1,500 | 6,330 | 3,210 | 969 | 696 | 484 | 2,720 |
| 26 | 800 | 2,040 | 923 | 850 | 1,060 | 3,730 | 5,440 | 2,560 | 1,040 | 733 | 475 | 2,050 |
| 27 | 800 | 2,330 | 1,080 | 600 | 1,070 | 4,330 | 4,770 | 2,280 | 830 | 490 | 560 | 2,040 |
| 28 | 900 | 1,870 | 1,190 | 1,200 | 1,070 | 3,640 | 4,070 | 2,190 | 1,050 | 711 | 380 | 2,050 |
| 29 | 400 | 1,850 | 1,070 | 2,770 | ------ | 3,430 | 4,090 | 1,890 | 937 | 600 | 378 | 1,400 |
| 30 | 900 | 1,740 | 1,070 | 2,310 | ------ | 3,170 | 4,050 | 1,830 | 1,080 | 860 | 377 | 1,710 |
| 31 | 560 | ------ | 1,070 | 2,330 | ------ | 2,660 | ------ | 1,800 | ------ | 860 | 373 | ------ |
| TOTAL | 27,393 | 55,497 | 38,986 | 29,062 | 38,220 | 58,040 | 140,540 | 117,870 | 41,015 | 24,252 | 17,741 | 40,438 |
| MEAN | 884 | 1,850 | 1,258 | 937 | 1,365 | 1,872 | 4,685 | 3,802 | 1,367 | 782 | 572 | 1,348 |
| MAX | 2,200 | 3,950 | 1,820 | 2,770 | 2,350 | 4,330 | 14,000 | 10,700 | 1,990 | 1,710 | 1,100 | 3,190 |
| MIN | 400 | 871 | 767 | 400 | 1,040 | 1,060 | 1,750 | 1,800 | 829 | 448 | 373 | 220 |
| CFSM | .47 | .99 | .67 | .50 | .73 | 1.00 | 2.51 | 2.04 | .73 | .42 | .31 | .72 |
| IN. | .55 | 1.11 | .78 | .58 | .76 | 1.16 | 2.80 | 2.35 | .82 | .48 | .35 | .81 |

CAL YR 1969 TOTAL 727,841 MEAN 1,994 MAX 13,800 MIN 352 CFSM 1.07 IN 14.52
WAT YR 1970 TOTAL 629,054 MEAN 1,723 MAX 14,000 MIN 220 CFSM .92 IN 12.55

03333450 Wildcat Creek near Jerome, Ind.

LOCATION.--Lat 40°26'29", long 85°55'08", NE¼SE¼ sec.14, T.23 N., R.5 E., Howard County, on right bank at downstream side of bridge on County Road 1100 East, 0.5 miles downstream from Mud Creek, and 1.5 miles southeast of Jerome.

DRAINAGE AREA.--146 sq mi (revised).

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

GAGE.--Water-stage recorder. Datum of gage is 820.04 ft above mean sea level.

AVERAGE DISCHARGE.--9 years, 108 cfs (10.04 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,180 cfs Nov. 19 (gage height, 9.58 ft); minimum, 11 cfs Sept. 12, 13 (gage height, 1.52 ft).
Period of record: Maximum discharge, 4,160 cfs Apr. 20, 1964; maximum gage height, 11.98 ft Jan. 26, 1962; minimum discharge, 0.9 cfs Oct. 12, 1966.
Flood in March 1913 reached a stage of about 18 ft, from information by local residents.

REMARKS.--Records good except those for part of January, which is fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | 189 | 146 | 44 | 188 | 48 | 115 | 340 | 67 | 18 | 329 | 14 |
| 2 | 34 | 372 | 119 | 40 | 223 | 50 | 162 | 316 | 63 | 17 | 181 | 14 |
| 3 | 34 | 264 | 116 | 37 | 233 | 55 | 249 | 229 | 62 | 34 | 109 | 14 |
| 4 | 30 | 205 | 97 | 33 | 169 | 149 | 217 | 183 | 60 | 62 | 73 | 14 |
| 5 | 25 | 181 | 82 | 31 | 126 | 241 | 173 | 149 | 58 | 38 | 53 | 14 |
| 6 | 23 | 164 | 80 | 28 | 95 | 181 | 161 | 122 | 56 | 26 | 42 | 13 |
| 7 | 25 | 143 | 109 | 28 | 82 | 146 | 125 | 107 | 50 | 21 | 32 | 14 |
| 8 | 26 | 123 | 225 | 29 | 80 | 129 | 107 | 102 | 44 | 24 | 28 | 13 |
| 9 | 25 | 111 | 185 | 30 | 79 | 111 | 104 | 93 | 40 | 47 | 26 | 12 |
| 10 | 29 | 100 | 156 | 32 | 69 | 93 | 90 | 82 | 39 | 167 | 24 | 12 |
| 11 | 268 | 95 | 142 | 33 | 64 | 76 | 82 | 82 | 39 | 114 | 21 | 11 |
| 12 | 898 | 100 | 115 | 36 | 57 | 71 | 80 | 189 | 36 | 60 | 18 | 11 |
| 13 | 1,600 | 88 | 100 | 38 | 52 | 67 | 80 | 457 | 33 | 39 | 18 | 12 |
| 14 | 1,240 | 83 | 105 | 39 | 50 | 60 | 75 | 488 | 33 | 30 | 17 | 14 |
| 15 | 780 | 75 | 87 | 38 | 51 | 59 | 65 | 329 | 31 | 27 | 17 | 14 |
| 16 | 549 | 65 | 74 | 37 | 47 | 51 | 61 | 383 | 31 | 24 | 16 | 13 |
| 17 | 392 | 62 | 70 | 36 | 46 | 48 | 59 | 359 | 31 | 21 | 15 | 12 |
| 18 | 293 | 314 | 70 | 36 | 69 | 51 | 56 | 253 | 30 | 19 | 14 | 17 |
| 19 | 231 | 1,830 | 70 | 31 | 250 | 53 | 429 | 197 | 26 | 75 | 16 | 27 |
| 20 | 197 | 1,480 | 61 | 30 | 136 | 129 | 1,140 | 164 | 24 | 121 | 136 | 24 |
| 21 | 177 | 788 | 62 | 29 | 88 | 189 | 870 | 135 | 23 | 65 | 183 | 19 |
| 22 | 156 | 556 | 65 | 30 | 88 | 164 | 602 | 114 | 23 | 40 | 95 | 17 |
| 23 | 121 | 558 | 59 | 31 | 81 | 148 | 419 | 100 | 22 | 31 | 83 | 25 |
| 24 | 102 | 475 | 56 | 34 | 74 | 129 | 668 | 95 | 21 | 31 | 60 | 53 |
| 25 | 98 | 376 | 53 | 37 | 77 | 112 | 838 | 108 | 21 | 25 | 39 | 48 |
| 26 | 90 | 304 | 51 | 43 | 61 | 304 | 501 | 162 | 23 | 23 | 28 | 40 |
| 27 | 82 | 250 | 47 | 46 | 67 | 377 | 349 | 121 | 28 | 23 | 23 | 199 |
| 28 | 73 | 205 | 43 | 93 | 52 | 257 | 278 | 88 | 23 | 53 | 20 | 151 |
| 29 | 64 | 180 | 42 | 644 | ------ | 201 | 241 | 75 | 20 | 49 | 19 | 87 |
| 30 | 61 | 157 | 44 | 471 | ------ | 159 | 332 | 69 | 19 | 175 | 17 | 61 |
| 31 | 63 | ------ | 47 | 253 | ------ | 132 | ------ | 67 | ------ | 547 | 16 | ------ |
| TOTAL | 7,822 | 9,893 | 2,778 | 2,397 | 2,754 | 4,040 | 8,728 | 5,758 | 1,076 | 2,046 | 1,768 | 989 |
| MEAN | 252 | 330 | 89.6 | 77.3 | 98.4 | 130 | 291 | 186 | 35.9 | 66.0 | 57.0 | 33.0 |
| MAX | 1,600 | 1,830 | 225 | 644 | 250 | 377 | 1,140 | 488 | 67 | 547 | 329 | 199 |
| MIN | 23 | 62 | 42 | 28 | 46 | 48 | 56 | 67 | 19 | 17 | 14 | 11 |
| CFSM | 1.73 | 2.26 | .61 | .53 | .67 | .89 | 1.99 | 1.27 | .25 | .45 | .39 | .23 |
| IN. | 1.99 | 2.52 | .71 | .61 | .70 | 1.03 | 2.22 | 1.47 | .27 | .52 | .45 | .25 |

CAL YR 1969 TOTAL 56,408.3 MEAN 155 MAX 2,630 MIN 4.0 CFSM 1.06 IN 14.37
WAT YR 1970 TOTAL 50,049.0 MEAN 137 MAX 1,830 MIN 11 CFSM .94 IN 12.75

PEAK DISCHARGE (BASE, 1,200 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-13 | 0515 | 8.63 | 1,680 | 04-20 | 0945 | 7.59 | 1,260 |
| 11-19 | 1700 | 9.58 | 2,180 | | | | |

03333600 Kokomo Creek near Kokomo, Ind.

LOCATION.--Lat 40°26'28", long 86°05'20", in NW¼SW¼ sec.16, T.23 N., R.4 E., Howard County, on left bank at upstream side of bridge on County Road 200 East, 2.6 miles southeast of intersection of U.S. Highways 31 and 35 in Kokomo, and 4.2 miles upstream from mouth.

DRAINAGE AREA.--24.7 sq mi (revised).

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

GAGE.--Water-stage recorder. Datum of gage is 807.68 ft above mean sea level (unadjusted).

AVERAGE DISCHARGE.--11 years, 17.8 cfs (9.79 inches per year).

EXTREMES.--Current year: Maximum discharge, 632 cfs Oct. 12 (gage height, 8.30 ft); minimum daily, 0.62 cfs July 2.
Period of record: Maximum discharge, 1,040 cfs Apr. 20, 1964 (gage height, 9.88 ft); minimum, 0.11 cfs Oct. 3, 1967; minimum gage height, 1.30 ft Aug. 12, 27, 1959.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.7 | 60 | 28 | 9.8 | 31 | 7.9 | 26 | 43 | 12 | .66 | 34 | 1.7 |
| 2 | 6.1 | 60 | 24 | 8.4 | 40 | 8.4 | 42 | 37 | 11 | .62 | 22 | 1.3 |
| 3 | 6.6 | 43 | 24 | 7.9 | 35 | 10 | 54 | 31 | 9.8 | 4.0 | 16 | 1.4 |
| 4 | 5.7 | 37 | 20 | 7.5 | 27 | 32 | 44 | 26 | 8.4 | 3.7 | 11 | 1.9 |
| 5 | 5.7 | 34 | 18 | 6.6 | 22 | 39 | 37 | 23 | 8.4 | 1.6 | 8.4 | 1.7 |
| 6 | 5.7 | 32 | 18 | 5.7 | 18 | 31 | 34 | 20 | 6.6 | .90 | 6.6 | 1.5 |
| 7 | 7.5 | 28 | 25 | 4.4 | 16 | 28 | 26 | 19 | 4.8 | .75 | 5.2 | 2.0 |
| 8 | 7.5 | 24 | 35 | 4.0 | 16 | 25 | 24 | 18 | 3.7 | 1.3 | 4.4 | 1.6 |
| 9 | 3.7 | 23 | 30 | 4.0 | 15 | 22 | 23 | 16 | 2.8 | 15 | 4.4 | 1.3 |
| 10 | 14 | 21 | 28 | 3.7 | 13 | 19 | 20 | 15 | 2.8 | 40 | 3.3 | .90 |
| 11 | 225 | 21 | 26 | 4.4 | 13 | 16 | 19 | 27 | 2.6 | 19 | 3.0 | .70 |
| 12 | 457 | 29 | 22 | 5.2 | 11 | 15 | 18 | 120 | 2.2 | 8.9 | 2.8 | .66 |
| 13 | 481 | 26 | 21 | 4.8 | 10 | 14 | 18 | 251 | 2.0 | 4.8 | 2.8 | 1.7 |
| 14 | 236 | 24 | 21 | 4.8 | 9.4 | 12 | 16 | 136 | 1.9 | 2.8 | 2.6 | 3.0 |
| 15 | 131 | 21 | 18 | 5.2 | 9.4 | 12 | 14 | 82 | 2.8 | 2.2 | 2.6 | 2.0 |
| 16 | 93 | 17 | 16 | 5.2 | 7.9 | 10 | 13 | 96 | 5.7 | 1.8 | 2.6 | 1.6 |
| 17 | 67 | 19 | 15 | 5.7 | 8.9 | 9.8 | 13 | 68 | 4.8 | 1.4 | 3.0 | 1.3 |
| 18 | 49 | 110 | 16 | 5.7 | 19 | 10 | 12 | 47 | 2.0 | 1.1 | 3.0 | 2.4 |
| 19 | 41 | 421 | 15 | 4.8 | 35 | 11 | 126 | 38 | 1.7 | 7.9 | 11 | 7.5 |
| 20 | 35 | 244 | 13 | 4.0 | 18 | 35 | 230 | 31 | 1.5 | 9.4 | 21 | 5.7 |
| 21 | 32 | 119 | 14 | 3.3 | 15 | 38 | 145 | 26 | 1.7 | 3.7 | 16 | 3.7 |
| 22 | 28 | 92 | 14 | 3.3 | 15 | 34 | 87 | 23 | 1.6 | 2.0 | 12 | 7.5 |
| 23 | 23 | 102 | 12 | 3.7 | 13 | 30 | 60 | 20 | 1.7 | 1.9 | 17 | 17 |
| 24 | 21 | 75 | 11 | 3.7 | 13 | 26 | 177 | 18 | 2.4 | 2.0 | 14 | 26 |
| 25 | 21 | 58 | 10 | 4.8 | 13 | 24 | 129 | 25 | 3.0 | 1.5 | 8.9 | 16 |
| 26 | 20 | 47 | 11 | 7.9 | 10 | 111 | 72 | 31 | 3.7 | 1.2 | 7.0 | 22 |
| 27 | 19 | 41 | 9.8 | 8.9 | 11 | 73 | 50 | 21 | 2.4 | 11 | 5.7 | 49 |
| 28 | 17 | 35 | 8.9 | 26 | 8.4 | 50 | 41 | 17 | 1.9 | 13 | 4.0 | 31 |
| 29 | 15 | 33 | 8.9 | 114 | ------ | 40 | 37 | 15 | 1.1 | 7.9 | 3.0 | 21 |
| 30 | 15 | 30 | 9.4 | 54 | ------ | 32 | 49 | 13 | .75 | 41 | 2.4 | 16 |
| 31 | 17 | ------ | 8.9 | 36 | ------ | 28 | ------ | 12 | ------ | 60 | 1.9 | ------ |
| TOTAL | 2,111.2 | 1,926 | 550.9 | 377.4 | 473.0 | 853.1 | 1,656 | 1,365 | 117.75 | 273.03 | 261.6 | 251.06 |
| MEAN | 68.1 | 64.2 | 17.8 | 12.2 | 16.9 | 27.5 | 55.2 | 44.0 | 3.93 | 8.81 | 8.44 | 8.37 |
| MAX | 481 | 421 | 35 | 114 | 40 | 111 | 230 | 251 | 12 | 60 | 34 | 49 |
| MIN | 3.7 | 17 | 8.9 | 3.3 | 7.9 | 7.9 | 12 | 12 | .75 | .62 | 1.9 | .66 |
| CFSM | 2.76 | 2.60 | .72 | .49 | .68 | 1.11 | 2.23 | 1.78 | .16 | .36 | .34 | .34 |
| IN. | 3.18 | 2.90 | .83 | .57 | .71 | 1.28 | 2.49 | 2.06 | .18 | .41 | .39 | .38 |

CAL YR 1969 TOTAL 10,460.85 MEAN 28.7 MAX 481 MIN .54 CFSM 1.16 IN 15.75
WAT YR 1970 TOTAL 10,216.04 MEAN 28.0 MAX 481 MIN .62 CFSM 1.13 IN 15.39

PEAK DISCHARGE (BASE, 260 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-12 | 1715 | 8.30 | 632 | 04-20 | 0500 | 5.09 | 279 |
| 11-19 | 0700 | 6.79 | 449 | 05-13 | 1430 | 5.02 | 272 |

## 03333700 Wildcat Creek at Kokomo, Ind.

LOCATION.--Lat 40°28'24", long 86°09'26", in NE¼NW¼ sec.2, T.23 N., R.3 E., Howard County, on right bank on property of Continental Steel Corporation in Kokomo, 0.3 mile downstream from Kokomo Creek, and 0.4 mile upstream from Dixon Road Bridge.

DRAINAGE AREA.--242 sq mi (revised).

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 775.62 ft above mean sea level (levels by Indiana Department of Natural Resources).

AVERAGE DISCHARGE.--15 years, 205 cfs (11.50 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,160 cfs Oct. 12 (gage height, 7.62 ft); minimum, 23 cfs Sept. 20 (gage height, 1.22 ft).
Period of record: Maximum discharge, 8,100 cfs Feb. 10, 1959; maximum gage height, 11.77 ft Apr. 21, 1964; minimum discharge, 5.0 cfs Sept. 30, 1956; minimum gage height, 0.90 ft Nov. 1, 1966.

REMARKS.--Records good. Some regulation at low stages for municipal water supply by regulation of Kokomo Reservoirs No. 1 and No. 2 (combined capacity, 4,170 acre-ft).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 57 | 300 | 270 | 80 | 346 | 86 | 261 | 546 | 144 | 31 | 526 | 39 |
| 2 | 62 | 282 | 238 | 75 | 356 | 87 | 335 | 538 | 125 | 59 | 285 | 36 |
| 3 | 55 | 386 | 230 | 68 | 394 | 98 | 470 | 418 | 128 | 89 | 184 | 36 |
| 4 | 50 | 356 | 220 | 62 | 282 | 180 | 438 | 335 | 106 | 41 | 130 | 45 |
| 5 | 45 | 311 | 213 | 63 | 243 | 346 | 349 | 279 | 104 | 54 | 98 | 40 |
| 6 | 42 | 276 | 208 | 60 | 190 | 325 | 273 | 240 | 99 | 53 | 78 | 31 |
| 7 | 61 | 249 | 238 | 53 | 162 | 255 | 176 | 200 | 84 | 45 | 62 | 33 |
| 8 | 42 | 218 | 243 | 51 | 148 | 230 | 142 | 184 | 81 | 68 | 52 | 34 |
| 9 | 40 | 198 | 235 | 48 | 154 | 205 | 83 | 170 | 78 | 90 | 47 | 31 |
| 10 | 87 | 193 | 230 | 44 | 140 | 172 | 71 | 154 | 70 | 249 | 51 | 30 |
| 11 | 410 | 190 | 230 | 44 | 123 | 146 | 87 | 335 | 66 | 213 | 41 | 30 |
| 12 | 2,080 | 198 | 466 | 48 | 110 | 132 | 146 | 658 | 67 | 123 | 38 | 30 |
| 13 | 2,690 | 193 | 291 | 49 | 99 | 112 | 138 | 1,310 | 99 | 89 | 38 | 34 |
| 14 | 2,170 | 186 | 198 | 52 | 89 | 102 | 136 | 1,050 | 70 | 71 | 39 | 55 |
| 15 | 1,460 | 178 | 140 | 53 | 86 | 110 | 130 | 714 | 62 | 54 | 35 | 37 |
| 16 | 935 | 170 | 90 | 56 | 84 | 99 | 112 | 670 | 60 | 46 | 31 | 30 |
| 17 | 694 | 198 | 119 | 54 | 84 | 90 | 106 | 642 | 61 | 44 | 32 | 30 |
| 18 | 522 | 414 | 121 | 56 | 109 | 101 | 109 | 498 | 55 | 42 | 35 | 41 |
| 19 | 410 | 2,070 | 117 | 54 | 279 | 104 | 706 | 374 | 46 | 109 | 67 | 27 |
| 20 | 349 | 2,690 | 114 | 50 | 273 | 180 | 1,740 | 304 | 43 | 203 | 208 | 26 |
| 21 | 318 | 1,520 | 109 | 44 | 172 | 288 | 1,640 | 252 | 40 | 132 | 114 | 29 |
| 22 | 270 | 940 | 110 | 42 | 152 | 291 | 1,090 | 215 | 38 | 93 | 186 | 45 |
| 23 | 230 | 880 | 116 | 42 | 142 | 258 | 754 | 190 | 37 | 83 | 174 | 50 |
| 24 | 195 | 790 | 107 | 41 | 130 | 230 | 1,130 | 193 | 41 | 61 | 126 | 67 |
| 25 | 186 | 642 | 89 | 55 | 128 | 238 | 1,440 | 230 | 43 | 50 | 104 | 49 |
| 26 | 182 | 534 | 87 | 67 | 117 | 574 | 920 | 238 | 71 | 43 | 78 | 156 |
| 27 | 180 | 442 | 83 | 70 | 107 | 678 | 634 | 238 | 49 | 107 | 60 | 132 |
| 28 | 176 | 370 | 77 | 148 | 99 | 510 | 502 | 182 | 42 | 152 | 51 | 228 |
| 29 | 170 | 321 | 75 | 690 | ------ | 386 | 438 | 144 | 39 | 110 | 45 | 162 |
| 30 | 166 | 282 | 77 | 835 | ------ | 300 | 562 | 130 | 34 | 249 | 40 | 114 |
| 31 | 195 | ------ | 86 | 510 | ------ | 252 | ------ | 121 | ------ | 562 | 35 | ------ |
| TOTAL | 14,529 | 15,977 | 5,227 | 3,664 | 4,798 | 7,165 | 15,118 | 11,752 | 2,082 | 3,415 | 3,090 | 1,727 |
| MEAN | 469 | 533 | 169 | 118 | 171 | 231 | 504 | 379 | 69.4 | 110 | 99.7 | 57.6 |
| MAX | 2,690 | 2,690 | 466 | 835 | 394 | 678 | 1,740 | 1,310 | 144 | 562 | 526 | 228 |
| MIN | 40 | 170 | 75 | 41 | 84 | 86 | 71 | 121 | 34 | 31 | 31 | 26 |
| CFSM | 1.94 | 2.20 | .70 | .49 | .71 | .95 | 2.08 | 1.57 | .29 | .45 | .41 | .24 |
| IN. | 2.23 | 2.46 | .80 | .56 | .74 | 1.10 | 2.32 | 1.81 | .32 | .52 | .47 | .27 |

CAL YR 1969 TOTAL 94,980 MEAN 260 MAX 4,100 MIN 23 CFSM 1.07 IN 14.60
WAT YR 1970 TOTAL 88,544 MEAN 243 MAX 2,690 MIN 26 CFSM 1.00 IN 13.61

PEAK DISCHARGE (BASE, 2,100 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-12 | 2015 | 7.62 | 3,160 | 11-20 | 0200 | 7.46 | 3,010 |

## 03334000 Wildcat Creek at Owasco, Ind.

LOCATION.--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.

DRAINAGE AREA.--396 sq mi (revised).

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

GAGE.--Water-stage recorder. Datum of gage is 624.63 ft above mean sea level. Prior to Oct. 1, 1950 nonrecording gage at site 500 ft upstream at same datum.

AVERAGE DISCHARGE.--27 years, 351 cfs (12.04 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,380 cfs Oct. 14 (gage height, 8.90 ft); minimum, 58 cfs Sept. 12, 13 (gage height, 1.35 ft).
Period of record: Maximum discharge, 10,200 cfs Jan. 5, 1950 (gage height, 13.3 ft), from rating curve extended above 6,700 cfs; minimum observed, 10 cfs Sept. 25, 1944.
Flood of May 18, 1943, reached a stage of 14.0 ft, from floodmarks.

REMARKS.--Records good. Some regulation at low stages for municipal water supply by regulation of Kokomo Reservoirs No. 1 and No. 2 (combined capacity, 4,170 acre-ft).

REVISIONS (WATER YEARS).--WSP 1625: 1958.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 112 | 508 | 379 | 154 | 536 | 183 | 390 | 973 | 245 | 76 | 768 | 79 |
| 2 | 105 | 642 | 344 | 146 | 461 | 173 | 540 | 744 | 263 | 76 | 522 | 76 |
| 3 | 110 | 533 | 322 | 137 | 492 | 188 | 744 | 628 | 239 | 137 | 358 | 73 |
| 4 | 101 | 586 | 302 | 125 | 378 | 273 | 703 | 503 | 239 | 193 | 285 | 74 |
| 5 | 90 | 542 | 283 | 135 | 411 | 399 | 580 | 426 | 226 | 103 | 228 | 84 |
| 6 | 90 | 491 | 278 | 125 | 355 | 438 | 489 | 378 | 220 | 92 | 180 | 72 |
| 7 | 99 | 449 | 295 | 115 | 305 | 388 | 402 | 348 | 203 | 94 | 152 | 67 |
| 8 | 117 | 410 | 363 | 105 | 290 | 345 | 345 | 320 | 180 | 98 | 131 | 69 |
| 9 | 97 | 376 | 348 | 98 | 273 | 325 | 313 | 305 | 168 | 154 | 122 | 64 |
| 10 | 89 | 351 | 329 | 90 | 260 | 300 | 265 | 288 | 163 | 144 | 100 | 68 |
| 11 | 159 | 344 | 324 | 100 | 248 | 270 | 245 | 333 | 152 | 285 | 98 | 67 |
| 12 | 1,000 | 343 | 304 | 113 | 230 | 248 | 253 | 766 | 147 | 252 | 91 | 61 |
| 13 | 2,670 | 349 | 482 | 116 | 210 | 235 | 288 | 1,800 | 149 | 174 | 81 | 65 |
| 14 | 4,120 | 346 | 317 | 112 | 190 | 213 | 285 | 2,190 | 184 | 134 | 76 | 86 |
| 15 | 3,070 | 340 | 263 | 115 | 183 | 205 | 275 | 1,450 | 147 | 109 | 82 | 102 |
| 16 | 1,910 | 324 | 217 | 123 | 170 | 203 | 260 | 1,110 | 133 | 94 | 73 | 80 |
| 17 | 1,140 | 346 | 183 | 126 | 170 | 190 | 245 | 969 | 130 | 84 | 67 | 65 |
| 18 | 825 | 609 | 201 | 128 | 190 | 185 | 233 | 775 | 124 | 88 | 61 | 68 |
| 19 | 633 | 1,830 | 196 | 122 | 270 | 203 | 744 | 580 | 115 | 266 | 156 | 78 |
| 20 | 526 | 2,820 | 185 | 114 | 353 | 290 | 2,280 | 461 | 103 | 297 | 976 | 73 |
| 21 | 479 | 3,430 | 180 | 98 | 308 | 362 | 2,550 | 399 | 98 | 284 | 454 | 62 |
| 22 | 441 | 2,210 | 179 | 87 | 260 | 408 | 2,240 | 358 | 93 | 204 | 330 | 70 |
| 23 | 387 | 1,350 | 180 | 88 | 238 | 383 | 1,400 | 328 | 83 | 159 | 345 | 99 |
| 24 | 347 | 1,160 | 169 | 98 | 228 | 353 | 1,650 | 325 | 91 | 147 | 292 | 104 |
| 25 | 318 | 960 | 179 | 102 | 220 | 335 | 2,170 | 330 | 86 | 121 | 228 | 113 |
| 26 | 304 | 766 | 161 | 129 | 210 | 915 | 1,830 | 390 | 91 | 101 | 181 | 111 |
| 27 | 292 | 633 | 151 | 169 | 208 | 1,060 | 1,130 | 363 | 138 | 91 | 146 | 326 |
| 28 | 288 | 531 | 145 | 200 | 193 | 888 | 798 | 335 | 117 | 211 | 123 | 275 |
| 29 | 281 | 465 | 140 | 640 | ------ | 640 | 624 | 295 | 89 | 240 | 111 | 296 |
| 30 | 275 | 415 | 139 | 1,110 | ------ | 503 | 753 | 263 | 80 | 484 | 100 | 238 |
| 31 | 284 | ------ | 147 | 874 | ------ | 426 | ------ | 248 | ------ | 824 | 89 | ------ |
| TOTAL | 20,759 | 24,459 | 7,685 | 5,994 | 7,840 | 11,527 | 25,024 | 18,981 | 4,496 | 5,816 | 7,006 | 3,165 |
| MEAN | 670 | 815 | 248 | 193 | 280 | 372 | 834 | 612 | 150 | 188 | 226 | 106 |
| MAX | 4,120 | 3,430 | 482 | 1,110 | 536 | 1,060 | 2,550 | 2,190 | 263 | 824 | 976 | 326 |
| MIN | 89 | 324 | 139 | 87 | 170 | 173 | 233 | 248 | 80 | 76 | 61 | 61 |
| CFSM | 1.69 | 2.06 | .63 | .49 | .71 | .94 | 2.11 | 1.55 | .38 | .47 | .57 | .27 |
| IN. | 1.95 | 2.30 | .72 | .56 | .74 | 1.08 | 2.35 | 1.78 | .42 | .55 | .66 | .30 |

CAL YR 1969 TOTAL 153,817 MEAN 421 MAX 5,970 MIN 43 CFSM 1.06 IN 14.45
WAT YR 1970 TOTAL 142,752 MEAN 391 MAX 4,120 MIN 61 CFSM .99 IN 13.41

PEAK DISCHARGE (BASE, 3,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-14 | 1030 | 8.90 | 4,380 | 11-21 | 1100 | 7.85 | 3,530 |

## 03334500 South Fork Wildcat Creek near Lafayette, Ind.

LOCATION.--Lat 40°25'04", long 86°46'05", in SW¼SW¼ sec.21, T.23 N., R.3 W., Tippecanoe County, on right bank 40 ft upstream from bridge on State Highway 26, 0.5 mile upstream from Middle Fork, 4.2 miles upstream from mouth, and 5 miles east of Lafayette.

DRAINAGE AREA.--243 sq mi (revised).

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

GAGE.--Water-stage recorder. Datum of gage is 566.60 ft above mean sea level (State Highway Department of Indiana bench mark). Prior to July 29, 1954, nonrecording gage at site 40 ft downstream at datum 3.15 ft lower. July 29, 1954, to Sept. 30, 1969, water-stage recorder at present site at datum 3.15 ft lower.

AVERAGE DISCHARGE.--27 years, 229 cfs (12.80 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,480 cfs Apr. 20 (gage height, 9.24 ft); minimum, 28 cfs Sept. 11, 12, 13 (gage height, 1.44 ft).
Period of record: Maximum discharge, 12,600 cfs June 10, 1958 (gage height, 12.13 ft, present datum, from rating curve extended above 6,000 cfs on basis of contracted-opening measurement at 13.6 ft, present datum; minimum, 12 cfs Aug. 31, 1969.
Flood in May 1943 reached a stage of 13.6 ft (present datum) from floodmarks (discharge, 17,900 cfs, by contracted-opening method).

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

REVISIONS (WATER YEARS).--WSP 1335: 1948(M). WSP 1505: 1947. WSP 1725: 1951-53(M), 1955(M). WSP 1909: 1955(P), 1965.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 57 | 452 | 259 | 80 | 390 | 92 | 293 | 752 | 239 | 58 | 1,200 | 35 |
| 2 | 57 | 772 | 224 | 76 | 410 | 92 | 558 | 532 | 245 | 57 | 720 | 34 |
| 3 | 62 | 584 | 208 | 70 | 430 | 106 | 852 | 416 | 212 | 91 | 460 | 35 |
| 4 | 57 | 440 | 190 | 66 | 300 | 326 | 730 | 348 | 191 | 95 | 312 | 42 |
| 5 | 53 | 400 | 165 | 62 | 250 | 627 | 554 | 292 | 186 | 69 | 221 | 42 |
| 6 | 50 | 368 | 155 | 58 | 200 | 442 | 461 | 239 | 178 | 64 | 178 | 38 |
| 7 | 54 | 308 | 175 | 54 | 170 | 331 | 370 | 213 | 157 | 57 | 143 | 36 |
| 8 | 65 | 259 | 249 | 50 | 160 | 274 | 297 | 200 | 143 | 61 | 122 | 34 |
| 9 | 72 | 227 | 245 | 50 | 170 | 228 | 271 | 185 | 136 | 64 | 110 | 33 |
| 10 | 75 | 208 | 224 | 50 | 150 | 197 | 234 | 168 | 129 | 65 | 96 | 32 |
| 11 | 104 | 193 | 215 | 70 | 130 | 169 | 210 | 304 | 124 | 64 | 84 | 31 |
| 12 | 1,040 | 190 | 193 | 76 | 120 | 152 | 197 | 684 | 117 | 57 | 73 | 30 |
| 13 | 2,670 | 183 | 168 | 80 | 110 | 143 | 211 | 1,220 | 111 | 52 | 66 | 34 |
| 14 | 2,290 | 173 | 170 | 83 | 95 | 130 | 200 | 1,160 | 110 | 48 | 62 | 54 |
| 15 | 1,370 | 160 | 160 | 81 | 90 | 129 | 176 | 856 | 121 | 46 | 62 | 57 |
| 16 | 1,000 | 145 | 143 | 69 | 90 | 117 | 162 | 768 | 112 | 45 | 54 | 43 |
| 17 | 752 | 155 | 134 | 62 | 90 | 110 | 155 | 688 | 106 | 43 | 50 | 42 |
| 18 | 580 | 536 | 132 | 58 | 130 | 115 | 147 | 496 | 101 | 52 | 48 | 47 |
| 19 | 456 | 2,280 | 132 | 54 | 300 | 122 | 1,350 | 376 | 91 | 690 | 59 | 90 |
| 20 | 368 | 2,080 | 124 | 50 | 280 | 217 | 2,950 | 292 | 84 | 509 | 102 | 80 |
| 21 | 316 | 1,370 | 118 | 44 | 180 | 338 | 1,910 | 236 | 80 | 254 | 96 | 65 |
| 22 | 263 | 984 | 126 | 42 | 165 | 287 | 1,270 | 203 | 79 | 149 | 86 | 57 |
| 23 | 218 | 936 | 122 | 42 | 150 | 249 | 952 | 183 | 77 | 112 | 106 | 68 |
| 24 | 185 | 816 | 106 | 42 | 140 | 216 | 2,250 | 300 | 76 | 101 | 98 | 80 |
| 25 | 173 | 660 | 114 | 58 | 130 | 202 | 1,800 | 1,100 | 103 | 88 | 72 | 106 |
| 26 | 163 | 540 | 112 | 70 | 120 | 1,160 | 1,130 | 1,310 | 92 | 78 | 59 | 102 |
| 27 | 148 | 452 | 102 | 76 | 110 | 1,100 | 816 | 808 | 79 | 73 | 51 | 520 |
| 28 | 134 | 376 | 96 | 160 | 102 | 754 | 724 | 536 | 71 | 387 | 47 | 369 |
| 29 | 124 | 324 | 94 | 760 | ------ | 561 | 632 | 380 | 65 | 438 | 45 | 192 |
| 30 | 116 | 280 | 86 | 930 | ------ | 426 | 972 | 292 | 61 | 1,080 | 43 | 124 |
| 31 | 122 | ------ | 83 | 370 | ------ | 339 | ------ | 245 | ------ | 2,010 | 40 | ------ |
| TOTAL | 13,194 | 16,851 | 4,824 | 3,893 | 5,162 | 9,751 | 22,834 | 15,782 | 3,676 | 7,057 | 4,965 | 2,552 |
| MEAN | 426 | 562 | 156 | 126 | 184 | 315 | 761 | 509 | 123 | 228 | 160 | 85.1 |
| MAX | 2,670 | 2,280 | 259 | 930 | 430 | 1,160 | 2,950 | 1,310 | 245 | 2,010 | 1,200 | 520 |
| MIN | 50 | 145 | 83 | 42 | 90 | 92 | 147 | 168 | 61 | 43 | 40 | 30 |
| CFSM | 1.75 | 2.31 | .64 | .52 | .76 | 1.30 | 3.13 | 2.09 | .51 | .94 | .66 | .35 |
| IN. | 2.02 | 2.58 | .74 | .60 | .79 | 1.49 | 3.50 | 2.42 | .56 | 1.08 | .76 | .39 |

CAL YR 1969 TOTAL 109,063 MEAN 299 MAX 4,580 MIN 15 CFSM 1.23 IN 16.70
WAT YR 1970 TOTAL 110,541 MEAN 303 MAX 2,950 MIN 30 CFSM 1.25 IN 16.92

PEAK DISCHARGE (BASE, 3,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-13 | 1645 | 8.56 | 3,010 | 04-20 | 0915 | 9.24 | 3,480 |

## 03335000 Wildcat Creek near Lafayette, Ind.

LOCATION.--Lat 40°26'26", long 86°49'46", in SE¼NE¼ sec.14, T.23 N., R.4 W., Tippecanoe County, on downstream side of bridge on County Road 2A East, 2.5 miles upstream from mouth, 3 miles downstream from South Fork Wildcat Creek, and 3.7 miles northeast of Courthouse in Lafayette.

DRAINAGE AREA.--794 sq mi (revised).

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

GAGE.--Water-stage recorder. Datum of gage is 527.66 ft above mean sea level (Indiana Flood Control and Water Resources Commission bench mark). Prior to June 13, 1957, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--16 years, 704 cfs (12.04 inches per year).

EXTREMES.--Current year: Maximum discharge, 8,040 cfs Apr. 20 (gage height, 11.94 ft); minimum, 128 cfs Sept. 12, 13 (gage height, 2.57 ft).
Period of record: Maximum discharge, 25,000 cfs June 10, 1958 (gage height, 21.52 ft), from rating curve extended above 18,000 cfs; minimum, 46 cfs Sept. 27-29, 1954, Sept. 6, 7, 1964; minimum gage height, 2.22 ft Sept. 3, 4, 1966.

REMARKS.--Records good. Some regulation during low flow for municipal water supply for Kokomo. Records of suspended sediment loads for current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1555: 1955, 1957(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 214 | 1,150 | 885 | 382 | 1,210 | 336 | 885 | 2,860 | 590 | 204 | 2,360 | 169 |
| 2 | 208 | 1,700 | 790 | 326 | 1,060 | 338 | 1,250 | 1,990 | 610 | 200 | 1,480 | 160 |
| 3 | 208 | 1,300 | 730 | 312 | 1,180 | 366 | 2,100 | 1,610 | 562 | 260 | 951 | 157 |
| 4 | 208 | 1,170 | 680 | 302 | 1,000 | 655 | 1,810 | 1,330 | 517 | 354 | 670 | 172 |
| 5 | 184 | 1,120 | 615 | 310 | 900 | 1,180 | 1,410 | 1,150 | 504 | 260 | 517 | 181 |
| 6 | 175 | 1,020 | 587 | 290 | 750 | 1,090 | 1,170 | 740 | 486 | 214 | 422 | 160 |
| 7 | 190 | 908 | 640 | 270 | 705 | 929 | 995 | 846 | 434 | 208 | 362 | 152 |
| 8 | 208 | 805 | 805 | 250 | 598 | 810 | 810 | 830 | 414 | 228 | 320 | 145 |
| 9 | 225 | 720 | 810 | 230 | 557 | 730 | 750 | 775 | 386 | 250 | 292 | 142 |
| 10 | 218 | 660 | 700 | 220 | 526 | 670 | 625 | 720 | 370 | 264 | 270 | 138 |
| 11 | 242 | 620 | 730 | 210 | 490 | 580 | 517 | 830 | 362 | 354 | 250 | 132 |
| 12 | 1,860 | 605 | 680 | 240 | 454 | 526 | 544 | 1,910 | 342 | 374 | 236 | 132 |
| 13 | 6,060 | 595 | 770 | 260 | 418 | 494 | 600 | 3,960 | 338 | 302 | 214 | 150 |
| 14 | 6,800 | 576 | 715 | 260 | 382 | 454 | 604 | 4,530 | 362 | 246 | 204 | 172 |
| 15 | 5,580 | 553 | 585 | 260 | 390 | 436 | 544 | 3,340 | 358 | 222 | 204 | 216 |
| 16 | 3,870 | 517 | 512 | 270 | 350 | 414 | 526 | 2,780 | 323 | 200 | 194 | 187 |
| 17 | 2,500 | 544 | 442 | 290 | 342 | 397 | 495 | 2,260 | 316 | 181 | 178 | 160 |
| 18 | 1,740 | 1,260 | 458 | 290 | 386 | 397 | 610 | 1,750 | 306 | 181 | 169 | 150 |
| 19 | 1,350 | 4,990 | 454 | 280 | 580 | 410 | 2,220 | 1,370 | 284 | 1,020 | 218 | 200 |
| 20 | 1,130 | 5,540 | 430 | 270 | 680 | 600 | 7,090 | 1,130 | 264 | 1,100 | 1,320 | 190 |
| 21 | 1,000 | 5,220 | 414 | 230 | 571 | 918 | 5,840 | 973 | 256 | 670 | 936 | 181 |
| 22 | 896 | 4,290 | 418 | 200 | 512 | 929 | 4,710 | 863 | 250 | 458 | 535 | 190 |
| 23 | 790 | 3,100 | 410 | 200 | 450 | 863 | 3,400 | 770 | 239 | 350 | 595 | 239 |
| 24 | 685 | 2,670 | 386 | 220 | 426 | 775 | 5,310 | 830 | 242 | 309 | 508 | 246 |
| 25 | 615 | 2,200 | 426 | 240 | 414 | 730 | 5,840 | 1,400 | 264 | 284 | 382 | 250 |
| 26 | 560 | 1,740 | 378 | 290 | 394 | 2,570 | 4,310 | 1,860 | 253 | 250 | 312 | 264 |
| 27 | 540 | 1,440 | 346 | 370 | 386 | 2,990 | 2,960 | 1,330 | 250 | 228 | 270 | 784 |
| 28 | 512 | 1,220 | 338 | 460 | 370 | 2,180 | 2,300 | 1,010 | 270 | 510 | 242 | 760 |
| 29 | 490 | 1,080 | 330 | 1,700 | ------ | 1,540 | 1,830 | 805 | 236 | 715 | 218 | 600 |
| 30 | 474 | 962 | 330 | 2,500 | ------ | 1,190 | 2,360 | 690 | 211 | 1,810 | 204 | 478 |
| 31 | 486 | ------ | 334 | 1,900 | ------ | 1,030 | ------ | 610 | ------ | 3,650 | 194 | ------ |
| TOTAL | 40,238 | 50,275 | 17,128 | 13,832 | 16,491 | 27,527 | 64,415 | 47,852 | 10,595 | 15,856 | 15,207 | 7,257 |
| MEAN | 1,298 | 1,676 | 553 | 446 | 589 | 888 | 2,147 | 1,544 | 353 | 511 | 491 | 242 |
| MAX | 6,800 | 5,540 | 885 | 2,500 | 1,210 | 2,990 | 7,090 | 4,530 | 610 | 3,650 | 2,360 | 784 |
| MIN | 175 | 517 | 330 | 200 | 342 | 336 | 495 | 610 | 211 | 181 | 169 | 132 |
| CFSM | 1.63 | 2.11 | .70 | .56 | .74 | 1.12 | 2.70 | 1.94 | .44 | .64 | .62 | .30 |
| IN. | 1.89 | 2.36 | .80 | .65 | .77 | 1.29 | 3.02 | 2.24 | .50 | .74 | .71 | .34 |

CAL YR 1969 TOTAL 434,308 MEAN 1,190 MAX 12,000 MIN 98 CFSM 1.50 IN 20.35
WAT YR 1970 TOTAL 326,667 MEAN 895 MAX 7,090 MIN 132 CFSM 1.13 IN 15.30

PEAK DISCHARGE (BASE, 6,300 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-14 | 0630 | 11.06 | 6,790 | 04-24 | 2230 | 11.55 | 7,420 |
| 04-20 | 1300 | 11.94 | 8,040 | | | | |

## 03335500 Wabash River at Lafayette, Ind.

LOCATION.--Lat 40°25'19", long 86°53'49", in NE¼SW¼ sec.20, T.23 N., R.4 W., Tippecanoe County, on right bank 20 ft downstream from Brown Street Bridge in Lafayette, 5.1 miles downstream from Wildcat Creek, and at mile 311.9.

DRAINAGE AREA.--7,267 sq mi (revised).

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 U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 504.14 ft above mean sea level. Prior to May 2, 1903, nonrecording gage 0.5 mile upstream at different datum. Oct. 7, 1923, to Nov. 20, 1933, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--47 years (1923 to current year), 6,252 cfs (11.68 inches per year).

EXTREMES.--Current year: Maximum discharge, 42,600 cfs Apr. 21 (gage height, 18.71 ft); minimum, 1,240 cfs Sept. 3 (gage height, 1.40 ft).
Period of record: Maximum discharge, 131,000 cfs May 19, 1943 (gage height, 28.47 ft); minimum, 265 cfs Jan. 12, 1954.
Flood of Mar. 26, 1913, reached a stage of 32.9 ft, from floodmark determined by U.S. Weather Bureau (discharge, 190,000 cfs, estimated).

REMARKS.--Records good except those for periods of no gage-height record, which are poor. Natural flow of stream affected by storage reservoirs and power development. Record of water temperature for the current year is published in Part 2 of the report.

REVISIONS (WATER YEARS).--WSP 1335: 1929, 1932-33, 1936. WSP 1505: 1950. WSP 1555: 1928(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5,500 | 3,650 | 11,500 | 3,000 | 14,300 | 4,500 | 9,300 | 19,000 | 5,200 | 3,620 | 6,630 | 1,320 |
| 2 | 3,620 | 7,800 | 8,100 | 2,900 | 13,000 | 4,180 | 11,500 | 19,100 | 5,220 | 3,500 | 5,980 | 1,280 |
| 3 | 2,350 | 8,000 | 5,800 | 2,900 | 14,000 | 4,060 | 18,000 | 18,600 | 5,100 | 3,240 | 6,770 | 1,280 |
| 4 | 2,260 | 6,400 | 7,000 | 2,800 | 16,000 | 5,090 | 19,600 | 17,100 | 4,840 | 3,040 | 6,380 | 1,550 |
| 5 | 2,310 | 6,200 | 7,600 | 2,500 | 14,500 | 9,210 | 17,200 | 16,100 | 4,500 | 3,040 | 6,520 | 1,410 |
| 6 | 2,940 | 6,200 | 7,000 | 2,200 | 13,000 | 13,400 | 14,300 | 15,700 | 5,100 | 2,690 | 6,220 | 1,640 |
| 7 | 3,080 | 5,300 | 6,400 | 2,100 | 10,800 | 13,500 | 12,000 | 13,800 | 5,150 | 2,300 | 5,560 | 1,600 |
| 8 | 2,770 | 5,100 | 5,500 | 2,000 | 8,960 | 12,700 | 9,320 | 9,250 | 5,140 | 1,930 | 5,100 | 1,780 |
| 9 | 2,960 | 4,500 | 5,900 | 2,000 | 8,320 | 9,510 | 8,030 | 6,860 | 5,420 | 2,040 | 4,070 | 1,700 |
| 10 | 2,460 | 4,600 | 6,400 | 1,900 | 6,430 | 8,870 | 6,570 | 6,250 | 5,200 | 1,880 | 2,820 | 1,810 |
| 11 | 2,570 | 5,000 | 7,000 | 1,850 | 5,360 | 7,150 | 6,070 | 5,930 | 4,780 | 2,140 | 2,510 | 1,440 |
| 12 | 5,300 | 3,800 | 6,200 | 1,850 | 5,670 | 5,830 | 5,570 | 7,550 | 4,460 | 2,460 | 2,330 | 1,550 |
| 13 | 17,100 | 4,200 | 5,500 | 1,850 | 5,800 | 4,970 | 5,300 | 18,800 | 4,100 | 2,420 | 2,160 | 1,470 |
| 14 | 22,000 | 3,600 | 7,100 | 1,950 | 5,400 | 4,860 | 5,390 | 30,200 | 3,940 | 2,260 | 1,940 | 1,900 |
| 15 | 19,000 | 3,400 | 5,100 | 2,150 | 5,800 | 4,540 | 5,210 | 32,400 | 4,480 | 2,210 | 1,800 | 2,810 |
| 16 | 15,000 | 2,900 | 4,600 | 2,200 | 5,800 | 4,180 | 6,090 | 27,000 | 4,700 | 2,260 | 1,730 | 2,910 |
| 17 | 11,500 | 3,200 | 4,300 | 2,200 | 4,400 | 4,190 | 5,500 | 22,000 | 4,730 | 1,970 | 1,670 | 2,860 |
| 18 | 10,000 | 3,800 | 4,100 | 2,150 | 4,060 | 4,000 | 5,220 | 18,800 | 4,960 | 1,810 | 1,610 | 3,860 |
| 19 | 10,000 | 13,000 | 4,000 | 2,000 | 4,390 | 3,830 | 10,800 | 16,000 | 4,820 | 2,100 | 1,580 | 4,580 |
| 20 | 9,000 | 27,500 | 3,900 | 1,900 | 5,790 | 4,360 | 34,300 | 13,800 | 3,780 | 3,540 | 4,120 | 4,130 |
| 21 | 7,400 | 25,400 | 3,700 | 1,800 | 7,620 | 5,990 | 41,700 | 13,200 | 3,470 | 4,730 | 3,290 | 4,180 |
| 22 | 6,800 | 21,700 | 3,600 | 1,800 | 7,850 | 7,830 | 35,900 | 11,600 | 3,230 | 4,580 | 2,240 | 3,900 |
| 23 | 6,300 | 21,600 | 3,600 | 1,800 | 6,410 | 7,530 | 29,000 | 10,300 | 2,990 | 3,020 | 2,500 | 5,000 |
| 24 | 6,000 | 22,000 | 3,400 | 1,800 | 5,080 | 7,080 | 27,200 | 8,890 | 2,470 | 2,590 | 2,200 | 5,990 |
| 25 | 5,500 | 20,500 | 3,400 | 1,800 | 4,970 | 6,900 | 30,300 | 10,400 | 2,600 | 2,470 | 1,960 | 5,580 |
| 26 | 6,100 | 16,700 | 2,900 | 1,800 | 5,240 | 12,600 | 26,600 | 11,600 | 2,500 | 2,340 | 1,900 | 4,630 |
| 27 | 6,600 | 16,900 | 3,300 | 2,100 | 5,120 | 23,600 | 21,000 | 9,130 | 2,510 | 2,100 | 1,790 | 4,640 |
| 28 | 5,300 | 15,800 | 3,300 | 6,000 | 4,820 | 22,200 | 19,900 | 7,190 | 2,780 | 2,110 | 1,700 | 5,050 |
| 29 | 4,800 | 15,900 | 3,400 | 13,000 | ------ | 16,500 | 18,800 | 6,570 | 3,380 | 3,340 | 1,540 | 5,030 |
| 30 | 3,200 | 13,600 | 3,100 | 17,300 | ------ | 12,000 | 18,000 | 5,770 | 3,580 | 4,080 | 1,450 | 4,600 |
| 31 | 3,650 | ------ | 3,000 | 17,300 | ------ | 10,100 | ------ | 5,400 | ------ | 7,550 | 1,360 | ------ |
| TOTAL | 213,070 | 319,250 | 159,700 | 110,900 | 218,890 | 265,260 | 483,670 | 434,290 | 125,530 | 89,360 | 99,430 | 91,450 |
| MEAN | 6,873 | 10,640 | 5,152 | 3,577 | 7,818 | 8,557 | 16,120 | 14,010 | 4,184 | 2,883 | 3,207 | 3,048 |
| MAX | 22,000 | 27,500 | 11,500 | 17,300 | 16,000 | 23,600 | 41,700 | 32,400 | 5,420 | 7,550 | 6,770 | 5,990 |
| MIN | 2,260 | 2,900 | 2,900 | 1,800 | 4,060 | 3,830 | 5,210 | 5,400 | 2,470 | 1,810 | 1,360 | 1,280 |
| CFSM | .95 | 1.46 | .71 | .49 | 1.08 | 1.18 | 2.22 | 1.93 | .58 | .40 | .44 | .42 |
| IN. | 1.09 | 1.63 | .82 | .57 | 1.12 | 1.36 | 2.48 | 2.22 | .64 | .46 | .51 | .47 |

CAL YR 1969 TOTAL 3,302,820 MEAN 9,049 MAX 64,900 MIN 2,260 CFSM 1.25 IN 16.91
WAT YR 1970 TOTAL 2,610,800 MEAN 7,153 MAX 41,700 MIN 1,280 CFSM .98 IN 13.36

NOTE.--No gage-height record Oct. 14 to Nov. 19, Dec. 30 to Jan. 29.

03335700 Big Pine Creek near Williamsport, Ind.

LOCATION.--Lat 40°19'03", long 87°17'26", in SW¼SE¼ sec.26, T.22 N., R.8 W., Warren County, on downstream side of county road bridge, 1.6 miles north of city limits of Williamsport, and 2.5 miles upstream from mouth.

DRAINAGE AREA.--323 sq mi (revised).

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 511.68 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission). Prior to May 19, 1967, nonrecording gage and crest-stage gage at same site and datum.

AVERAGE DISCHARGE.--15 years, 246 cfs (10.34 inches per year).

EXTREMES.--Current year: Maximum discharge, 5,600 cfs Apr. 20 (gage height, 11.88 ft); minimum daily, 21 cfs Sept. 1, 2.
Period of record: Maximum discharge, 12,600 cfs Feb. 10, 1959 (gage height, 16.00 ft, from floodmark), from rating curve extended above 6,000 cfs on basis of contracted-opening measurement; minimum daily, 6.5 cfs Oct. 6-8, 1966.

REMARKS.--Records good. Records of chemical analysis for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 31 | 244 | 230 | 84 | 251 | 82 | 340 | 680 | 219 | 65 | 417 | 21 |
| 2 | 31 | 336 | 202 | 82 | 248 | 79 | 975 | 540 | 260 | 60 | 180 | 21 |
| 3 | 31 | 262 | 202 | 69 | 290 | 100 | 1,180 | 453 | 223 | 118 | 118 | 23 |
| 4 | 30 | 234 | 174 | 64 | 250 | 230 | 965 | 408 | 194 | 98 | 86 | 81 |
| 5 | 28 | 262 | 157 | 60 | 225 | 304 | 685 | 359 | 198 | 72 | 70 | 93 |
| 6 | 28 | 258 | 154 | 56 | 200 | 255 | 547 | 309 | 201 | 62 | 62 | 51 |
| 7 | 40 | 227 | 181 | 53 | 180 | 223 | 425 | 323 | 173 | 57 | 55 | 39 |
| 8 | 55 | 202 | 199 | 50 | 160 | 213 | 360 | 462 | 156 | 54 | 49 | 33 |
| 9 | 56 | 181 | 174 | 50 | 150 | 195 | 332 | 495 | 145 | 55 | 48 | 29 |
| 10 | 47 | 167 | 164 | 50 | 135 | 178 | 293 | 310 | 142 | 57 | 44 | 27 |
| 11 | 56 | 157 | 171 | 50 | 118 | 157 | 272 | 900 | 136 | 52 | 41 | 24 |
| 12 | 610 | 154 | 151 | 54 | 115 | 154 | 262 | 1,500 | 127 | 48 | 37 | 23 |
| 13 | 1,080 | 142 | 139 | 57 | 109 | 145 | 312 | 2,100 | 121 | 45 | 35 | 31 |
| 14 | 975 | 130 | 151 | 60 | 97 | 136 | 324 | 1,500 | 121 | 41 | 34 | 100 |
| 15 | 685 | 121 | 139 | 62 | 82 | 130 | 279 | 1,100 | 264 | 38 | 31 | 156 |
| 16 | 434 | 109 | 118 | 65 | 82 | 121 | 265 | 900 | 282 | 36 | 29 | 118 |
| 17 | 316 | 121 | 115 | 66 | 90 | 115 | 255 | 780 | 205 | 35 | 28 | 79 |
| 18 | 248 | 297 | 118 | 66 | 127 | 121 | 241 | 600 | 163 | 93 | 27 | 86 |
| 19 | 213 | 890 | 118 | 64 | 164 | 127 | 3,590 | 480 | 139 | 345 | 93 | 62 |
| 20 | 192 | 850 | 106 | 60 | 154 | 164 | 4,890 | 400 | 124 | 136 | 115 | 58 |
| 21 | 178 | 605 | 118 | 56 | 92 | 234 | 3,000 | 350 | 118 | 105 | 48 | 49 |
| 22 | 154 | 461 | 118 | 50 | 121 | 230 | 2,050 | 320 | 113 | 77 | 37 | 90 |
| 23 | 130 | 488 | 115 | 50 | 112 | 220 | 1,530 | 300 | 100 | 57 | 35 | 695 |
| 24 | 112 | 457 | 103 | 50 | 97 | 199 | 1,710 | 350 | 95 | 51 | 41 | 705 |
| 25 | 109 | 389 | 145 | 60 | 95 | 202 | 1,390 | 450 | 90 | 46 | 35 | 510 |
| 26 | 109 | 336 | 109 | 74 | 95 | 975 | 1,060 | 399 | 88 | 42 | 29 | 345 |
| 27 | 100 | 300 | 97 | 100 | 84 | 990 | 884 | 318 | 83 | 39 | 27 | 273 |
| 28 | 92 | 269 | 87 | 150 | 92 | 765 | 805 | 278 | 75 | 37 | 25 | 223 |
| 29 | 84 | 255 | 79 | 466 | ------ | 529 | 670 | 247 | 70 | 36 | 25 | 184 |
| 30 | 79 | 237 | 82 | 515 | ------ | 412 | 790 | 231 | 68 | 435 | 24 | 156 |
| 31 | 92 | ------ | 97 | 324 | ------ | 336 | ------ | 219 | ------ | 625 | 22 | ------ |
| TOTAL | 6,425 | 9,141 | 4,313 | 3,117 | 4,015 | 8,321 | 30,681 | 18,061 | 4,493 | 3,117 | 1,947 | 4,385 |
| MEAN | 207 | 305 | 139 | 101 | 143 | 268 | 1,023 | 583 | 150 | 101 | 62.8 | 146 |
| MAX | 1,080 | 890 | 230 | 515 | 290 | 990 | 4,890 | 2,100 | 282 | 625 | 417 | 705 |
| MIN | 28 | 109 | 79 | 50 | 82 | 79 | 241 | 219 | 68 | 35 | 22 | 21 |
| CFSM | .64 | .94 | .43 | .31 | .44 | .83 | 3.17 | 1.81 | .46 | .31 | .19 | .45 |
| IN. | .74 | 1.05 | .50 | .36 | .46 | .96 | 3.53 | 2.08 | .52 | .36 | .22 | .51 |

CAL YR 1969 TOTAL 115,813 MEAN 317 MAX 4,280 MIN 18 CFSM .98 IN 13.34
WAT YR 1970 TOTAL 98,016 MEAN 269 MAX 4,890 MIN 21 CFSM .83 IN 11.29

PEAK DISCHARGE (BASE, 2,800 CFS).--Apr. 20 (0845) 5,600 cfs (11.88 ft).

## 03336000 Wabash River at Covington, Ind.

LOCATION.--Lat 40°08'24", long 87°24'20", in NE¼NW¼ sec.35, T.20 N., R.9 W., on Fountain-Warren county line, near center of span on downstream side of bridge on U.S. Highway 136 at Covington, 2.9 miles downstream from Oppossum Run, 3.6 miles upstream from Spring Creek, and at mile 271.1.

DRAINAGE AREA.--8,208 sq mi.

PERIOD OF RECORD.--October 1939 to current year. Gage-height records collected at site 0.4 mile downstream January 1927 to December 1930 and at present site since December 1930 are contained in reports of U.S. Weather Bureau.

GAGE.--Nonrecording gage. Datum of gage is 473.97 ft above mean sea level.

AVERAGE DISCHARGE.--31 years, 7,029 cfs (11.63 inches per year).

EXTREMES.--Current year: Maximum discharge observed, 42,100 cfs Apr. 22 (gage height, 22.78 ft); minimum daily, 1,650 cfs Sept. 2-5.
Period of record: Maximum discharge, 147,000 cfs May 20, 1943 (gage height, 32.44 ft); minimum observed, 487 cfs Sept. 29, 1941 (gage height, 1.81 ft).
Flood in March 1913 reached a stage of 35.1 ft, from floodmark determined by U.S. Weather Bureau (discharge, 200,000 cfs estimated).

REMARKS.--Records poor. Natural flow of stream affected by reservoirs.

REVISIONS.--WSP 1275: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4,260 | 4,390 | 13,900 | 3,280 | 16,600 | 4,530 | 12,200 | 22,200 | 7,760 | 3,500 | 4,000 | 1,680 |
| 2 | 5,480 | 6,280 | 12,700 | 3,270 | 15,300 | 4,380 | 11,900 | 21,700 | 5,980 | 3,640 | 6,830 | 1,650 |
| 3 | 5,330 | 8,340 | 12,200 | 3,100 | 15,200 | 4,320 | 16,800 | 21,100 | 5,750 | 3,630 | 7,680 | 1,650 |
| 4 | 5,200 | 8,370 | 10,900 | 2,950 | 15,000 | 4,270 | 20,100 | 20,000 | 5,630 | 3,640 | 7,680 | 1,650 |
| 5 | 4,580 | 8,240 | 8,570 | 2,730 | 15,300 | 4,390 | 20,000 | 18,800 | 5,450 | 3,620 | 6,930 | 1,650 |
| 6 | 3,520 | 8,110 | 7,540 | 2,600 | 14,400 | 5,170 | 17,800 | 17,700 | 5,170 | 3,510 | 6,770 | 1,790 |
| 7 | 3,580 | 6,530 | 7,260 | 2,430 | 12,800 | 9,110 | 15,700 | 16,800 | 5,040 | 3,350 | 6,350 | 1,800 |
| 8 | 3,600 | 5,600 | 6,990 | 2,320 | 12,600 | 13,100 | 13,600 | 15,600 | 4,960 | 3,020 | 5,870 | 1,800 |
| 9 | 3,450 | 5,300 | 6,620 | 2,250 | 10,900 | 10,900 | 10,300 | 14,000 | 4,910 | 2,600 | 5,630 | 1,800 |
| 10 | 3,300 | 5,010 | 6,380 | 2,150 | 7,760 | 9,030 | 9,080 | 9,100 | 4,840 | 2,570 | 5,270 | 1,880 |
| 11 | 4,350 | 4,920 | 6,130 | 2,100 | 6,460 | 6,850 | 8,710 | 7,360 | 4,840 | 2,510 | 3,640 | 1,880 |
| 12 | 7,500 | 4,300 | 5,900 | 2,100 | 5,980 | 6,530 | 7,790 | 11,000 | 5,100 | 2,450 | 3,100 | 1,820 |
| 13 | 13,500 | 3,160 | 5,530 | 2,150 | 6,050 | 6,360 | 6,760 | 16,800 | 4,910 | 2,420 | 2,700 | 1,800 |
| 14 | 19,600 | 2,900 | 5,900 | 2,300 | 5,630 | 6,080 | 6,470 | 25,600 | 4,750 | 2,370 | 2,400 | 1,950 |
| 15 | 21,200 | 2,800 | 6,440 | 2,450 | 5,450 | 5,200 | 6,080 | 29,000 | 4,720 | 2,350 | 2,150 | 2,150 |
| 16 | 18,600 | 2,780 | 6,410 | 2,500 | 5,170 | 4,770 | 6,080 | 32,200 | 4,750 | 2,290 | 1,980 | 2,350 |
| 17 | 15,000 | 2,850 | 6,320 | 2,500 | 4,840 | 4,720 | 5,780 | 31,500 | 4,700 | 2,280 | 1,820 | 2,650 |
| 18 | 11,900 | 3,860 | 5,780 | 2,450 | 4,640 | 4,640 | 5,240 | 26,800 | 4,640 | 2,290 | 1,800 | 2,950 |
| 19 | 10,900 | 8,770 | 5,010 | 2,300 | 5,200 | 4,340 | 14,600 | 22,500 | 4,580 | 2,620 | 1,840 | 3,550 |
| 20 | 9,950 | 19,500 | 4,390 | 2,170 | 5,800 | 4,210 | 26,600 | 20,700 | 4,400 | 3,420 | 2,300 | 3,900 |
| 21 | 9,630 | 24,100 | 4,330 | 2,100 | 6,400 | 4,940 | 34,600 | 15,400 | 4,100 | 4,750 | 2,950 | 4,000 |
| 22 | 6,580 | 25,200 | 4,290 | 2,100 | 7,100 | 7,760 | 41,400 | 14,300 | 3,850 | 5,200 | 3,600 | 3,900 |
| 23 | 5,270 | 23,800 | 4,270 | 2,100 | 7,500 | 8,000 | 40,300 | 13,700 | 3,700 | 5,070 | 4,400 | 3,950 |
| 24 | 5,420 | 22,700 | 4,200 | 2,100 | 7,500 | 7,680 | 36,700 | 13,300 | 3,500 | 4,150 | 3,150 | 5,050 |
| 25 | 5,450 | 22,300 | 3,930 | 2,100 | 6,500 | 7,520 | 34,200 | 13,700 | 3,250 | 3,200 | 2,400 | 6,800 |
| 26 | 5,300 | 20,600 | 3,500 | 2,100 | 5,900 | 10,500 | 33,000 | 13,800 | 3,100 | 2,600 | 2,200 | 8,000 |
| 27 | 5,340 | 18,600 | 3,400 | 4,230 | 5,300 | 18,600 | 31,200 | 12,100 | 3,000 | 2,400 | 2,020 | 7,600 |
| 28 | 4,990 | 17,400 | 3,350 | 7,980 | 4,730 | 22,800 | 27,900 | 11,800 | 3,100 | 2,350 | 1,950 | 6,800 |
| 29 | 4,940 | 16,900 | 3,340 | 10,500 | ------ | 21,700 | 24,900 | 10,200 | 3,200 | 2,300 | 1,850 | 5,700 |
| 30 | 4,730 | 16,000 | 3,340 | 14,400 | ------ | 16,400 | 22,800 | 9,910 | 3,400 | 2,300 | 1,800 | 5,000 |
| 31 | 4,530 | ------ | 3,300 | 18,000 | ------ | 13,500 | ------ | 8,400 | ------ | 2,900 | 1,750 | ------ |
| TOTAL | 236,080 | 329,610 | 192,120 | 117,780 | 242,410 | 262,300 | 568,590 | 537,070 | 137,080 | 95,300 | 114,810 | 99,150 |
| MEAN | 7,615 | 10,990 | 6,197 | 3,799 | 8,658 | 8,461 | 18,950 | 17,320 | 4,569 | 3,074 | 3,704 | 3,305 |
| MAX | 21,200 | 25,200 | 13,900 | 18,000 | 16,600 | 22,800 | 41,400 | 32,200 | 7,760 | 5,200 | 7,680 | 8,000 |
| MIN | 3,300 | 2,780 | 3,300 | 2,100 | 4,640 | 4,210 | 5,240 | 7,360 | 3,000 | 2,280 | 1,750 | 1,650 |
| CFSM | .93 | 1.34 | .76 | .46 | 1.05 | 1.03 | 2.31 | 2.11 | .56 | .37 | .45 | .40 |
| IN. | 1.07 | 1.49 | .87 | .53 | 1.10 | 1.19 | 2.58 | 2.43 | .62 | .43 | .52 | .45 |

CAL YR 1969 TOTAL 3,490,330 MEAN 9,563 MAX 69,400 MIN 1,500 CFSM 1.17 IN 15.82
WAT YR 1970 TOTAL 2,932,300 MEAN 8,034 MAX 41,400 MIN 1,650 CFSM .98 IN 13.29

## 03339000 Vermilion River near Danville, Ill.

LOCATION.--Lat 40°05'53", long 87°35'37", in SE¼NW¼ sec.22, T.19 N., R.11 W., Vermilion County, on left bank 1.5 miles upstream from Stony Creek and 2.5 miles southeast of Danville.

DRAINAGE AREA.--1,279 sq mi.

PERIOD OF RECORD.--October 1914 to September 1921, June 1928 to current year. Monthly discharge only for some periods, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 503.33 ft above mean sea level (levels by Corps of Engineers). Prior to Jan. 9, 1935, nonrecording gage at site 0.3 mile upstream at same datum.

AVERAGE DISCHARGE.--49 years, 890 cfs (9.45 inches per year).

EXTREMES.--Current year: Maximum discharge, 16,300 cfs Apr. 20 (gage height, 19.80 ft); minimum, 62 cfs Oct. 1.
Period of record: Maximum discharge, 48,700 cfs Mar. 13, 1939 (gage height, 28.59 ft); minimum daily, 2 cfs Oct. 9-12, 1920, Aug. 10, 1930.

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 miles above station (usable capacity, 7,440 acre-ft in 1940), and by Danville sewage-disposal plant.

REVISIONS (WATER YEARS).--WSP 853: 1936(M). WSP 973: 1939. WSP 1173: 1915-16, 1920, 1929. WSP 1335: 1934(m). WSP 1725: 1960 (monthly and yearly figures). WSP 1909: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 66 | 680 | 660 | 260 | 832 | 273 | 796 | 2,760 | 780 | 227 | 624 | 78 |
| 2 | 74 | 690 | 620 | 250 | 760 | 269 | 1,640 | 2,720 | 922 | 236 | 504 | 74 |
| 3 | 80 | 595 | 585 | 230 | 700 | 314 | 3,580 | 2,120 | 1,210 | 401 | 459 | 85 |
| 4 | 80 | 474 | 545 | 210 | 650 | 555 | 3,180 | 1,620 | 950 | 862 | 371 | 94 |
| 5 | 80 | 354 | 490 | 200 | 645 | 874 | 2,350 | 1,360 | 780 | 882 | 299 | 103 |
| 6 | 82 | 370 | 466 | 190 | 595 | 770 | 1,940 | 1,280 | 800 | 550 | 259 | 140 |
| 7 | 143 | 366 | 515 | 180 | 500 | 670 | 1,420 | 1,160 | 799 | 373 | 206 | 145 |
| 8 | 135 | 354 | 570 | 170 | 478 | 620 | 1,010 | 1,100 | 713 | 319 | 131 | 104 |
| 9 | 166 | 346 | 615 | 160 | 478 | 575 | 982 | 988 | 647 | 281 | 132 | 86 |
| 10 | 105 | 318 | 560 | 160 | 454 | 525 | 928 | 976 | 607 | 261 | 131 | 74 |
| 11 | 125 | 314 | 545 | 160 | 442 | 490 | 850 | 1,210 | 577 | 217 | 129 | 72 |
| 12 | 1,600 | 302 | 510 | 160 | 402 | 458 | 808 | 2,390 | 547 | 202 | 115 | 78 |
| 13 | 3,150 | 294 | 470 | 170 | 370 | 438 | 1,590 | 3,270 | 507 | 176 | 103 | 113 |
| 14 | 3,040 | 290 | 442 | 180 | 322 | 418 | 2,650 | 2,650 | 482 | 157 | 94 | 124 |
| 15 | 2,240 | 280 | 442 | 190 | 330 | 398 | 2,630 | 3,440 | 799 | 148 | 90 | 236 |
| 16 | 1,320 | 262 | 402 | 190 | 318 | 378 | 2,000 | 3,490 | 847 | 145 | 86 | 478 |
| 17 | 770 | 298 | 374 | 180 | 310 | 362 | 1,500 | 2,480 | 804 | 145 | 83 | 520 |
| 18 | 620 | 500 | 394 | 170 | 366 | 370 | 1,270 | 1,670 | 1,230 | 139 | 75 | 458 |
| 19 | 505 | 2,000 | 386 | 160 | 590 | 382 | 9,040 | 1,290 | 1,620 | 317 | 106 | 364 |
| 20 | 458 | 2,710 | 350 | 150 | 695 | 410 | 16,000 | 1,200 | 1,110 | 339 | 291 | 306 |
| 21 | 406 | 2,440 | 314 | 140 | 470 | 478 | 15,300 | 1,010 | 707 | 310 | 200 | 243 |
| 22 | 362 | 1,570 | 300 | 140 | 450 | 520 | 12,600 | 796 | 584 | 211 | 362 | 248 |
| 23 | 302 | 1,050 | 280 | 140 | 410 | 505 | 8,640 | 898 | 498 | 165 | 222 | 3,320 |
| 24 | 280 | 1,100 | 252 | 150 | 390 | 478 | 7,510 | 5,080 | 406 | 139 | 166 | 5,440 |
| 25 | 259 | 1,000 | 314 | 180 | 374 | 510 | 6,740 | 6,110 | 359 | 105 | 197 | 4,760 |
| 26 | 248 | 916 | 300 | 234 | 342 | 2,080 | 4,610 | 2,400 | 326 | 111 | 147 | 3,530 |
| 27 | 234 | 838 | 280 | 306 | 326 | 3,420 | 3,690 | 1,480 | 303 | 112 | 130 | 1,540 |
| 28 | 217 | 765 | 280 | 525 | 302 | 2,790 | 3,450 | 1,130 | 279 | 106 | 120 | 1,220 |
| 29 | 202 | 705 | 280 | 1,250 | ------ | 2,160 | 2,740 | 994 | 243 | 107 | 107 | 1,160 |
| 30 | 193 | 685 | 280 | 1,430 | ------ | 1,530 | 2,380 | 1,060 | 235 | 406 | 96 | 994 |
| 31 | 248 | ------ | 270 | 1,120 | ------ | 1,010 | ------ | 988 | ------ | 608 | 84 | ------ |
| TOTAL | 17,790 | 22,866 | 13,091 | 9,335 | 13,301 | 25,030 | 123,824 | 61,120 | 20,671 | 8,757 | 6,119 | 26,187 |
| MEAN | 574 | 762 | 422 | 301 | 475 | 807 | 4,127 | 1,972 | 689 | 282 | 197 | 873 |
| MAX | 3,150 | 2,710 | 660 | 1,430 | 832 | 3,420 | 16,000 | 6,110 | 1,620 | 882 | 624 | 5,440 |
| MIN | 66 | 262 | 252 | 140 | 302 | 269 | 796 | 796 | 235 | 105 | 75 | 72 |
| CFSM | .45 | .60 | .33 | .24 | .37 | .63 | 3.23 | 1.54 | .54 | .22 | .15 | .68 |
| IN. | .52 | .67 | .38 | .27 | .39 | .73 | 3.60 | 1.78 | .60 | .25 | .18 | .76 |

CAL YR 1969 TOTAL 345,516 MEAN 947 MAX 14,400 MIN 50 CFSM .74 IN 10.05
WTR YR 1970 TOTAL 348,091 MEAN 954 MAX 16,000 MIN 66 CFSM .75 IN 10.12

PEAK DISCHARGE (BASE, 6,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-20 | 1245 | 19.80 | 16,300 | 05-25 | 0515 | 12.42 | 7,130 |

## 03339108 East Fork Coal Creek near Hillsboro, Ind.

LOCATION.--Lat 40°06'06", long 87°07'54", in NW¼SW¼ sec.8, T.19 N., R.6 W., Fountain County, at center pier on downstream side of bridge on County Road 700 East, 1.5 miles east of Hillsboro, 3.7 miles northwest of Waynetown, and 9.6 miles upstream from mouth.

DRAINAGE AREA.--33.4 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 673.76 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 1,280 cfs May 25 (gage height, 7.43 ft); minimum, 5.0 cfs Sept. 1, 2, 3, 10, 11, 12, 13; minimum gage height, 1.87 ft Sept. 10, 11, 12, 13.
Period of record: Maximum discharge, 1,280 cfs May 25, 1970 (gage height, 7.43 ft); minimum, 4.7 cfs Aug. 30, 31, Sept. 1, 1969; minimum gage height, 1.81 ft Oct. 3, 4, 1968.

REMARKS.--Records good except those for parts of December, January, and February, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9.1 | 109 | 25 | 11 | 46 | 14 | 37 | 93 | 50 | 10 | 95 | 5.3 |
| 2 | 9.6 | 64 | 22 | 11 | 66 | 16 | 84 | 65 | 45 | 10 | 29 | 5.2 |
| 3 | 9.1 | 44 | 22 | 10 | 54 | 32 | 105 | 55 | 39 | 13 | 20 | 5.5 |
| 4 | 9.1 | 40 | 19 | 10 | 40 | 69 | 69 | 48 | 37 | 11 | 15 | 6.4 |
| 5 | 8.6 | 38 | 18 | 9.5 | 35 | 52 | 53 | 43 | 45 | 10 | 13 | 6.6 |
| 6 | 8.6 | 32 | 19 | 9.0 | 26 | 39 | 45 | 38 | 39 | 9.1 | 12 | 6.1 |
| 7 | 12 | 27 | 33 | 8.8 | 25 | 34 | 36 | 36 | 34 | 8.6 | 11 | 6.4 |
| 8 | 10 | 24 | 40 | 8.6 | 26 | 29 | 34 | 35 | 30 | 8.6 | 10 | 5.7 |
| 9 | 9.2 | 22 | 31 | 8.4 | 26 | 26 | 31 | 32 | 28 | 9.1 | 10 | 5.8 |
| 10 | 11 | 21 | 28 | 8.4 | 24 | 22 | 27 | 30 | 27 | 9.1 | 9.5 | 5.4 |
| 11 | 37 | 20 | 27 | 8.4 | 24 | 20 | 26 | 39 | 25 | 8.6 | 9.3 | 5.2 |
| 12 | 230 | 18 | 22 | 8.6 | 21 | 20 | 24 | 50 | 24 | 7.6 | 8.3 | 5.2 |
| 13 | 120 | 17 | 22 | 9.0 | 20 | 18 | 31 | 45 | 23 | 7.6 | 8.0 | 39 |
| 14 | 74 | 16 | 22 | 9.6 | 19 | 17 | 25 | 69 | 21 | 7.1 | 7.6 | 74 |
| 15 | 51 | 15 | 19 | 9.8 | 18 | 17 | 23 | 61 | 25 | 7.1 | 7.2 | 22 |
| 16 | 40 | 14 | 18 | 9.8 | 17 | 16 | 22 | 47 | 23 | 6.7 | 7.0 | 12 |
| 17 | 30 | 34 | 18 | 9.8 | 17 | 15 | 21 | 39 | 23 | 6.3 | 7.0 | 10 |
| 18 | 25 | 137 | 18 | 9.8 | 39 | 17 | 21 | 33 | 22 | 6.7 | 6.6 | 18 |
| 19 | 22 | 222 | 15 | 9.4 | 45 | 22 | 334 | 29 | 18 | 39 | 10 | 13 |
| 20 | 22 | 103 | 14 | 9.0 | 28 | 56 | 308 | 27 | 17 | 16 | 19 | 9.7 |
| 21 | 21 | 68 | 14 | 8.5 | 32 | 42 | 138 | 25 | 16 | 10 | 8.9 | 9.4 |
| 22 | 18 | 60 | 14 | 8.2 | 20 | 35 | 86 | 23 | 16 | 8.6 | 8.4 | 12 |
| 23 | 16 | 72 | 14 | 8.2 | 18 | 29 | 83 | 29 | 15 | 8.6 | 8.4 | 17 |
| 24 | 16 | 53 | 14 | 8.2 | 18 | 25 | 487 | 124 | 15 | 9.1 | 7.3 | 12 |
| 25 | 15 | 45 | 13 | 15 | 19 | 28 | 150 | 691 | 16 | 8.0 | 7.0 | 10 |
| 26 | 15 | 39 | 12 | 30 | 21 | 168 | 93 | 156 | 14 | 8.0 | 6.7 | 17 |
| 27 | 14 | 36 | 11 | 70 | 16 | 72 | 104 | 89 | 13 | 8.6 | 6.5 | 22 |
| 28 | 13 | 33 | 11 | 130 | 14 | 53 | 196 | 65 | 12 | 7.6 | 6.3 | 14 |
| 29 | 13 | 29 | 11 | 217 | ------ | 42 | 104 | 55 | 12 | 8.0 | 6.1 | 12 |
| 30 | 13 | 26 | 11 | 81 | ------ | 36 | 150 | 48 | 11 | 89 | 5.7 | 11 |
| 31 | 23 | ------ | 11 | 55 | ------ | 31 | ------ | 44 | ------ | 34 | 5.4 | ------ |
| TOTAL | 924.3 | 1,478 | 588 | 819.0 | 774 | 1,112 | 2,947 | 2,263 | 735 | 410.7 | 391.2 | 402.9 |
| MEAN | 29.8 | 49.3 | 19.0 | 26.4 | 27.6 | 35.9 | 98.2 | 73.0 | 24.5 | 13.2 | 12.6 | 13.4 |
| MAX | 230 | 222 | 40 | 217 | 66 | 168 | 487 | 691 | 50 | 89 | 95 | 74 |
| MIN | 8.6 | 14 | 11 | 8.2 | 14 | 14 | 21 | 23 | 11 | 6.3 | 5.4 | 5.2 |
| CFSM | .89 | 1.48 | .57 | .79 | .83 | 1.07 | 2.94 | 2.19 | .73 | .40 | .38 | .40 |
| IN. | 1.03 | 1.65 | .65 | .91 | .86 | 1.24 | 3.28 | 2.52 | .82 | .46 | .44 | .45 |

CAL YR 1969 TOTAL 13,147.7 MEAN 36.0 MAX 672 MIN 5.0 CFSM 1.08 IN 14.64
WAT YR 1970 TOTAL 12,845.1 MEAN 35.2 MAX 691 MIN 5.2 CFSM 1.05 IN 14.31

PEAK DISCHARGE (BASE, 500 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-24 | 0745 | 5.99 | 827 | 05-25 | 1200 | 7.43 | 1,280 |

03339120 Coal Creek at Coal Creek, Ind.

LOCATION.--Lat 40°01'42", long 87°22'30", in SW¼SW¼ sec.6, T.18 N., R.8 W., Fountain County, on downstream side of county road bridge, 0.7 mile southeast of Coal Creek.

DRAINAGE AREA.--214 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 505.96 ft above mean sea level (levels by Corps of Engineers). Prior to Sept. 16, 1970, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--6 years, 181 cfs (11.49 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,820 cfs Apr. 19 (gage height, 12.28 ft); minimum, 24 cfs Sept. 12, 13 (gage height, 1.07 ft).
Period of record: Maximum discharge, 10,100 cfs Aug. 4, 1968 (gage height, 17.5 ft estimated by gage observer); minimum, 6.0 cfs Sept. 12, 13, 1966 (gage height, 0.85 ft).

REMARKS.--Records fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 34 | 318 | 168 | 71 | 251 | 80 | 201 | 600 | 382 | 60 | 271 | 27 |
| 2 | 33 | 448 | 156 | 71 | 310 | 81 | 681 | 416 | 364 | 57 | 162 | 25 |
| 3 | 31 | 255 | 145 | 66 | 244 | 92 | 585 | 340 | 241 | 56 | 87 | 27 |
| 4 | 31 | 205 | 128 | 62 | 164 | 214 | 436 | 293 | 202 | 55 | 82 | 30 |
| 5 | 31 | 195 | 110 | 58 | 168 | 259 | 322 | 253 | 205 | 56 | 68 | 30 |
| 6 | 32 | 181 | 108 | 56 | 198 | 179 | 277 | 228 | 174 | 53 | 56 | 30 |
| 7 | 54 | 157 | 129 | 54 | 173 | 152 | 233 | 213 | 164 | 52 | 45 | 29 |
| 8 | 50 | 140 | 176 | 53 | 150 | 140 | 210 | 190 | 147 | 49 | 44 | 29 |
| 9 | 40 | 126 | 161 | 52 | 137 | 129 | 192 | 166 | 139 | 49 | 43 | 27 |
| 10 | 37 | 115 | 147 | 51 | 121 | 120 | 161 | 159 | 131 | 48 | 41 | 26 |
| 11 | 63 | 115 | 138 | 50 | 132 | 108 | 142 | 262 | 125 | 46 | 40 | 25 |
| 12 | 856 | 108 | 126 | 52 | 126 | 102 | 140 | 494 | 115 | 45 | 38 | 24 |
| 13 | 970 | 102 | 121 | 56 | 107 | 101 | 223 | 320 | 105 | 43 | 36 | 24 |
| 14 | 476 | 91 | 121 | 60 | 104 | 92 | 196 | 390 | 105 | 39 | 34 | 200 |
| 15 | 318 | 82 | 118 | 62 | 104 | 89 | 161 | 462 | 121 | 37 | 31 | 84 |
| 16 | 235 | 82 | 108 | 63 | 95 | 82 | 140 | 360 | 123 | 38 | 31 | 46 |
| 17 | 178 | 112 | 95 | 63 | 92 | 82 | 131 | 217 | 115 | 37 | 31 | 34 |
| 18 | 147 | 595 | 97 | 62 | 116 | 88 | 126 | 196 | 94 | 35 | 31 | 32 |
| 19 | 128 | 1,350 | 101 | 58 | 203 | 82 | 3,050 | 183 | 88 | 157 | 31 | 35 |
| 20 | 112 | 708 | 95 | 56 | 113 | 188 | 3,300 | 159 | 85 | 107 | 61 | 32 |
| 21 | 108 | 458 | 95 | 52 | 101 | 205 | 1,250 | 152 | 82 | 72 | 45 | 30 |
| 22 | 94 | 450 | 98 | 52 | 104 | 178 | 681 | 149 | 82 | 48 | 41 | 29 |
| 23 | 80 | 426 | 95 | 52 | 98 | 147 | 735 | 136 | 78 | 43 | 39 | 37 |
| 24 | 74 | 344 | 84 | 52 | 92 | 137 | 3,090 | 1,730 | 75 | 42 | 36 | 41 |
| 25 | 73 | 286 | 84 | 120 | 94 | 206 | 1,380 | 1,380 | 217 | 41 | 33 | 33 |
| 26 | 72 | 246 | 84 | 269 | 94 | 850 | 636 | 520 | 106 | 45 | 32 | 31 |
| 27 | 67 | 221 | 81 | 358 | 92 | 518 | 594 | 480 | 91 | 39 | 31 | 37 |
| 28 | 62 | 196 | 81 | 688 | 82 | 352 | 882 | 408 | 85 | 33 | 30 | 42 |
| 29 | 62 | 169 | 78 | 1,380 | ------ | 262 | 516 | 282 | 80 | 31 | 30 | 34 |
| 30 | 57 | 159 | 76 | 476 | ------ | 217 | 720 | 246 | 69 | 356 | 30 | 31 |
| 31 | 82 | ------ | 76 | 310 | ------ | 193 | ------ | 221 | ------ | 210 | 29 | ------ |
| TOTAL | 4,687 | 8,440 | 3,480 | 4,985 | 3,865 | 5,725 | 21,391 | 11,605 | 4,190 | 2,079 | 1,639 | 1,161 |
| MEAN | 151 | 281 | 112 | 161 | 138 | 185 | 713 | 374 | 140 | 67.1 | 52.9 | 38.7 |
| MAX | 970 | 1,350 | 176 | 1,380 | 310 | 850 | 3,300 | 1,730 | 382 | 356 | 271 | 200 |
| MIN | 31 | 82 | 76 | 50 | 82 | 80 | 126 | 136 | 69 | 31 | 29 | 24 |
| CFSM | .71 | 1.31 | .52 | .75 | .64 | .86 | 3.33 | 1.75 | .65 | .31 | .25 | .18 |
| IN. | .81 | 1.47 | .60 | .87 | .67 | 1.00 | 3.72 | 2.02 | .73 | .36 | .28 | .20 |

CAL YR 1969 TOTAL 73,846 MEAN 202 MAX 4,440 MIN 15 CFSM .94 IN 12.84
WTR YR 1970 TOTAL 73,247 MEAN 201 MAX 3,300 MIN 24 CFSM .94 IN 12.73

PEAK DISCHARGE (BASE, 2,600 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 01-28 | 2400 | 9.35 | 2,710 | 04-24 | 1200 | 10.95 | 3,760 |
| 04-19 | 2100 | 12.28 | 4,820 | | | | |

## 03339150 Little Vermilion River near Newport, Ind.

LOCATION.--Lat 39°53'32", long 87°25'42", in SW¼NW¼ sec.27, T.17 N., R.9 W., Vermillion County, on downstream side of bridge on State Highway 63, 1.2 miles northwest of Newport, and 6 miles upstream from mouth.

DRAINAGE AREA.--240 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 489.78 ft above mean sea level (Indiana State Highway Commission bench mark, levels by Corps of Engineers). Prior to Nov. 6, 1969, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--6 years, 198 cfs (11.20 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,120 cfs Apr. 20 (gage height, 10.28 ft, from peak-stage indicator); minimum , 1.4 cfs Sept. 13; minimum gage height, 0.23 ft Sept. 11, 12, 13.
Period of record: Maximum discharge, 6,520 cfs Dec. 8, 1966 (gage height, 11.54 ft); no flow Oct. 3-6, 1964.

REMARKS.--Records fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 17 | 351 | 192 | 68 | 302 | 80 | 203 | 550 | 189 | 38 | 58 | 3.0 |
| 2 | 15 | 466 | 178 | 65 | 324 | 94 | 313 | 480 | 250 | 35 | 54 | 2.8 |
| 3 | 15 | 320 | 171 | 60 | 340 | 123 | 543 | 420 | 203 | 40 | 37 | 3.4 |
| 4 | 14 | 259 | 160 | 55 | 251 | 205 | 548 | 396 | 185 | 60 | 30 | 4.0 |
| 5 | 12 | 227 | 136 | 50 | 225 | 235 | 427 | 343 | 165 | 49 | 24 | 3.6 |
| 6 | 12 | 199 | 131 | 45 | 210 | 217 | 352 | 296 | 175 | 37 | 16 | 3.6 |
| 7 | 37 | 181 | 153 | 41 | 203 | 195 | 286 | 266 | 154 | 33 | 11 | 3.2 |
| 8 | 60 | 161 | 186 | 40 | 181 | 180 | 235 | 256 | 130 | 32 | 10 | 3.0 |
| 9 | 50 | 147 | 160 | 40 | 186 | 169 | 216 | 238 | 116 | 33 | 11 | 3.0 |
| 10 | 55 | 136 | 149 | 40 | 177 | 154 | 191 | 227 | 106 | 33 | 9.7 | 2.8 |
| 11 | 128 | 132 | 146 | 41 | 160 | 139 | 174 | 250 | 100 | 31 | 7.9 | 2.2 |
| 12 | 515 | 128 | 139 | 42 | 143 | 127 | 165 | 468 | 93 | 26 | 7.0 | 2.0 |
| 13 | 1,470 | 118 | 119 | 47 | 128 | 123 | 345 | 500 | 87 | 23 | 6.7 | 3.2 |
| 14 | 1,200 | 108 | 122 | 52 | 122 | 120 | 357 | 428 | 85 | 21 | 6.4 | 6.4 |
| 15 | 780 | 101 | 113 | 55 | 120 | 117 | 264 | 408 | 125 | 19 | 6.1 | 6.7 |
| 16 | 540 | 93 | 98 | 55 | 125 | 108 | 228 | 456 | 161 | 18 | 5.8 | 6.7 |
| 17 | 398 | 113 | 88 | 55 | 129 | 104 | 207 | 354 | 209 | 17 | 4.6 | 5.8 |
| 18 | 300 | 450 | 86 | 52 | 139 | 115 | 185 | 278 | 149 | 17 | 4.0 | 7.0 |
| 19 | 258 | 984 | 87 | 48 | 219 | 130 | 1,600 | 241 | 111 | 45 | 5.2 | 8.8 |
| 20 | 228 | 900 | 85 | 43 | 195 | 192 | 3,040 | 216 | 90 | 111 | 7.6 | 6.4 |
| 21 | 206 | 618 | 86 | 40 | 161 | 179 | 1,500 | 196 | 85 | 58 | 7.0 | 5.2 |
| 22 | 178 | 470 | 92 | 39 | 137 | 158 | 950 | 177 | 79 | 34 | 6.7 | 5.2 |
| 23 | 150 | 474 | 83 | 39 | 123 | 145 | 700 | 165 | 67 | 28 | 6.1 | 6.7 |
| 24 | 126 | 422 | 80 | 42 | 111 | 133 | 2,000 | 332 | 62 | 25 | 5.8 | 8.2 |
| 25 | 118 | 352 | 84 | 49 | 111 | 131 | 1,400 | 773 | 68 | 21 | 5.5 | 7.0 |
| 26 | 117 | 302 | 87 | 60 | 98 | 594 | 900 | 462 | 69 | 88 | 4.9 | 6.7 |
| 27 | 106 | 264 | 74 | 130 | 94 | 539 | 700 | 294 | 57 | 101 | 4.3 | 7.0 |
| 28 | 93 | 240 | 71 | 242 | 88 | 380 | 900 | 226 | 48 | 33 | 4.0 | 7.0 |
| 29 | 84 | 223 | 70 | 693 | ------ | 295 | 750 | 195 | 43 | 26 | 3.6 | 6.4 |
| 30 | 81 | 207 | 70 | 801 | ------ | 250 | 630 | 186 | 40 | 35 | 3.2 | 5.5 |
| 31 | 105 | ------ | 70 | 446 | ------ | 218 | ------ | 178 | ------ | 62 | 3.4 | ------ |
| TOTAL | 7,468 | 9,146 | 3,566 | 3,575 | 4,802 | 5,949 | 20,309 | 10,255 | 3,501 | 1,229 | 376.5 | 152.5 |
| MEAN | 241 | 305 | 115 | 115 | 172 | 192 | 677 | 331 | 117 | 39.6 | 12.1 | 5.08 |
| MAX | 1,470 | 984 | 192 | 801 | 340 | 594 | 3,040 | 773 | 250 | 111 | 58 | 8.8 |
| MIN | 12 | 93 | 70 | 39 | 88 | 80 | 165 | 165 | 40 | 17 | 3.2 | 2.0 |
| CFSM | 1.00 | 1.27 | .48 | .48 | .72 | .80 | 2.82 | 1.38 | .49 | .17 | .050 | .021 |
| IN. | 1.16 | 1.42 | .55 | .55 | .74 | .92 | 3.15 | 1.59 | .54 | .19 | .06 | .02 |

CAL YR 1969 TOTAL 88,431.9 MEAN 242 MAX 5,870 MIN 2.4 CFSM 1.01 IN 13.71
WTR YR 1970 TOTAL 70,329.0 MEAN 193 MAX 3,040 MIN 2.0 CFSM .80 IN 10.90

PEAK DISCHARGE (BASE, 2,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-20 | Unknown | 10.28 | 4,120 | 04-24 | Unknown | Unknown | a2,000 |

a Daily mean discharge, estimated

## 03339500 Sugar Creek at Crawfordsville, Ind.

LOCATION.--Lat 40°02'56", long 86°53'58", in SW¼NW¼ sec.32, T.19 N., R.4 W., Montgomery County, on left bank 327 ft upstream from Crawfordsville Electric Light and Power Co.'s dam at Crawfordsville, 0.5 mile upstream from bridge on State Highway 43, and 1 mile downstream from Walnut Fork Sugar Creek.

DRAINAGE AREA.--509 sq mi.

PERIOD OF RECORD.--June 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 657.77 ft above mean sea level.

AVERAGE DISCHARGE.--32 years, 464 cfs (12.38 inches per year).

EXTREMES.--Current year: Maximum discharge, 6,670 cfs Oct. 12 (gage height, 6.51 ft); minimum daily, 22 cfs Sept. 12.
Period of record: Maximum discharge, 26,300 cfs June 28, 1957 (gage height, 14.48 ft), no flow part of Oct. 19, 1964 (unusual regulation).
Flood in March 1913 reached a stage of 17.3 ft from information by local resident (discharge, about 36,000 cfs).

REMARKS.--Records good except those for parts of January and February and no gage-height record, which are poor.

REVISIONS (WATER YEARS).--WSP 973: 1939(M). WSP 1275: Drainage area. WSP 1335: 1949. WRD Ind. 1969: 1967.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 120 | 1,680 | 683 | 240 | 1,150 | 313 | 651 | 1,460 | 489 | 161 | 1,680 | 52 |
| 2 | 120 | 2,650 | 589 | 220 | 1,200 | 316 | 899 | 1,250 | 581 | 146 | 921 | 49 |
| 3 | 130 | 1,680 | 540 | 190 | 1,480 | 426 | 1,470 | 1,020 | 591 | 166 | 575 | 49 |
| 4 | 125 | 1,260 | 494 | 180 | 951 | 1,550 | 1,360 | 860 | 513 | 167 | 394 | 60 |
| 5 | 120 | 1,130 | 421 | 180 | 806 | 2,120 | 1,050 | 747 | 461 | 169 | 302 | 68 |
| 6 | 113 | 1,000 | 395 | 180 | 657 | 1,470 | 900 | 636 | 423 | 146 | 249 | 61 |
| 7 | 129 | 842 | 489 | 180 | 533 | 1,090 | 769 | 557 | 363 | 136 | 214 | 58 |
| 8 | 124 | 704 | 785 | 170 | 537 | 909 | 616 | 524 | 317 | 127 | 186 | 53 |
| 9 | 137 | 606 | 799 | 170 | 546 | 763 | 576 | 483 | 289 | 122 | 166 | 49 |
| 10 | 144 | 544 | 677 | 170 | 483 | 636 | 513 | 439 | 277 | 134 | 148 | 48 |
| 11 | 830 | 492 | 627 | 170 | 441 | 532 | 454 | 432 | 266 | 128 | 140 | 44 |
| 12 | 6,270 | 465 | 548 | 170 | 400 | 459 | 431 | 583 | 254 | 120 | 128 | 42 |
| 13 | 7,770 | 427 | 456 | 170 | 363 | 425 | 472 | 678 | 245 | 112 | 120 | 49 |
| 14 | 5,830 | 398 | 451 | 190 | 319 | 381 | 489 | 1,410 | 231 | 105 | 112 | 103 |
| 15 | 3,090 | 379 | 423 | 210 | 347 | 358 | 415 | 1,080 | 280 | 100 | 106 | 144 |
| 16 | 2,070 | 345 | 370 | 200 | 308 | 323 | 376 | 1,120 | 256 | 97 | 99 | 108 |
| 17 | 1,510 | 363 | 341 | 180 | 313 | 300 | 359 | 1,270 | 245 | 93 | 92 | 85 |
| 18 | 1,130 | 1,160 | 334 | 170 | 410 | 319 | 342 | 901 | 227 | 89 | 89 | 436 |
| 19 | 889 | 6,130 | 320 | 170 | 1,460 | 354 | 2,990 | 684 | 206 | 134 | 103 | 207 |
| 20 | 737 | 6,380 | 300 | 170 | 1,090 | 718 | 7,150 | 558 | 193 | 377 | 178 | 130 |
| 21 | 646 | 3,460 | 300 | 170 | 667 | 998 | 5,330 | 470 | 185 | 273 | 128 | 98 |
| 22 | 550 | 2,260 | 300 | 170 | 617 | 837 | 3,160 | 416 | 182 | 187 | 107 | 91 |
| 23 | 458 | 2,270 | 270 | 170 | 523 | 714 | 2,300 | 389 | 177 | 146 | 91 | 195 |
| 24 | 380 | 2,000 | 270 | 190 | 489 | 612 | 6,470 | 560 | 172 | 134 | 84 | 182 |
| 25 | 350 | 1,580 | 270 | 310 | 471 | 552 | 6,060 | 2,860 | 485 | 124 | 78 | 137 |
| 26 | 334 | 1,300 | 260 | 600 | 420 | 2,090 | 3,120 | 2,880 | 594 | 115 | 74 | 494 |
| 27 | 309 | 1,090 | 250 | 940 | 406 | 2,620 | 2,270 | 1,700 | 337 | 116 | 72 | 1,050 |
| 28 | 286 | 932 | 240 | 1,220 | 364 | 1,600 | 2,480 | 1,030 | 242 | 111 | 67 | 751 |
| 29 | 264 | 820 | 240 | 3,940 | ------ | 1,180 | 2,230 | 734 | 200 | 1,120 | 64 | 404 |
| 30 | 249 | 739 | 240 | 2,920 | ------ | 918 | 1,680 | 576 | 178 | 838 | 60 | 268 |
| 31 | 282 | ------ | 240 | 1,610 | ------ | 750 | ------ | 479 | ------ | 2,490 | 55 | ------ |
| TOTAL | 35,496 | 45,086 | 12,922 | 15,920 | 17,751 | 26,633 | 57,382 | 28,786 | 9,459 | 8,483 | 6,882 | 5,565 |
| MEAN | 1,145 | 1,503 | 417 | 514 | 634 | 859 | 1,913 | 929 | 315 | 274 | 222 | 186 |
| MAX | 7,770 | 6,380 | 799 | 3,940 | 1,480 | 2,620 | 7,150 | 2,880 | 594 | 2,490 | 1,680 | 1,050 |
| MIN | 113 | 345 | 240 | 170 | 308 | 300 | 342 | 389 | 172 | 89 | 55 | 42 |
| CFSM | 1.71 | 2.24 | .62 | .77 | .95 | 1.28 | 2.86 | 1.39 | .47 | .41 | .33 | .28 |
| IN. | 1.97 | 2.50 | .72 | .88 | .99 | 1.48 | 3.19 | 1.60 | .53 | .47 | .38 | .31 |

CAL YR 1969 TOTAL 307,465 MEAN 842 MAX 14,000 MIN 52 CFSM 1.26 IN 17.07
WAT YR 1970 TOTAL 270,365 MEAN 741 MAX 7,770 MIN 42 CFSM 1.11 IN 15.01

NOTE.--No gage-height record Aug. 3 to Sept. 13.

PEAK DISCHARGE (BASE, 4,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-12 | 2030 | 6.51 | 6,670 | 04-20 | 0715 | 5.64 | 5,620 |
| 11-20 | 0015 | 5.80 | 5,810 | 04-24 | 1730 | 5.79 | 5,800 |

## 03340000 Sugar Creek near Byron, Ind.

LOCATION.--Lat 39°55'52", long 87°07'33", in NE¼SW¼ sec.8, T.17 N., R.6 W., Parke County, on right bank 30 ft upstream from county highway bridge, 2.5 miles northwest of Byron, and 5 miles downstream from Indian Creek.

DRAINAGE AREA.--670 sq mi (revised).

PERIOD OF RECORD.--October 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 538.92 ft above mean sea level (levels by Corps of Engineers). Prior to Nov. 18, 1941, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--30 years, 632 cfs (12.81 inches per year).

EXTREMES.--Current year: Maximum discharge, 10,400 cfs Oct. 12 (gage height, 12.24 ft); minimum, 41 cfs Sept. 12, 13, (gage height, 1.90 ft).
Period of record: Maximum discharge, 32,200 cfs June 28, 1957 (gage height, 22.98 ft); minimum observed, 12 cfs Sept. 21, 1941; minimum gage height, 1.69 ft Sept. 12, 13, 1966.

REMARKS.--Records good except those for parts of December and January, which are fair.

REVISIONS (WATER YEARS).--WSP 1335: 1944.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 94 | 2,130 | 498 | 204 | 927 | 236 | 446 | 1,080 | 355 | 116 | 972 | 37 |
| 2 | 94 | 1,990 | 413 | 187 | 1,050 | 248 | 644 | 919 | 389 | 101 | 500 | 35 |
| 3 | 101 | 1,220 | 398 | 161 | 1,230 | 345 | 1,190 | 719 | 388 | 100 | 400 | 33 |
| 4 | 96 | 944 | 354 | 149 | 676 | 1,380 | 1,010 | 601 | 325 | 112 | 330 | 38 |
| 5 | 91 | 873 | 303 | 145 | 596 | 1,740 | 756 | 515 | 308 | 114 | 230 | 50 |
| 6 | 88 | 715 | 294 | 145 | 440 | 1,110 | 649 | 441 | 285 | 101 | 180 | 42 |
| 7 | 93 | 583 | 362 | 145 | 374 | 818 | 530 | 394 | 265 | 92 | 150 | 37 |
| 8 | 105 | 481 | 624 | 145 | 380 | 660 | 438 | 376 | 247 | 85 | 130 | 32 |
| 9 | 111 | 422 | 566 | 145 | 362 | 537 | 421 | 350 | 228 | 83 | 120 | 28 |
| 10 | 127 | 379 | 486 | 145 | 325 | 439 | 371 | 321 | 216 | 89 | 110 | 26 |
| 11 | 1,380 | 350 | 457 | 145 | 296 | 352 | 338 | 321 | 207 | 84 | 100 | 25 |
| 12 | 5,420 | 335 | 389 | 145 | 272 | 326 | 326 | 398 | 194 | 79 | 92 | 22 |
| 13 | 6,250 | 305 | 334 | 145 | 256 | 298 | 358 | 771 | 182 | 70 | 84 | 35 |
| 14 | 4,240 | 288 | 342 | 150 | 224 | 276 | 350 | 1,170 | 174 | 64 | 78 | 67 |
| 15 | 2,460 | 268 | 311 | 160 | 244 | 264 | 303 | 831 | 194 | 60 | 72 | 98 |
| 16 | 1,670 | 248 | 277 | 155 | 200 | 236 | 284 | 1,080 | 187 | 55 | 68 | 73 |
| 17 | 1,160 | 264 | 264 | 150 | 208 | 228 | 275 | 993 | 177 | 52 | 64 | 52 |
| 18 | 853 | 1,230 | 262 | 145 | 315 | 236 | 263 | 672 | 162 | 48 | 64 | 320 |
| 19 | 648 | 5,380 | 262 | 140 | 1,190 | 260 | 2,390 | 508 | 147 | 148 | 72 | 190 |
| 20 | 536 | 5,190 | 243 | 140 | 668 | 470 | 5,090 | 423 | 135 | 274 | 130 | 100 |
| 21 | 463 | 2,800 | 239 | 140 | 404 | 700 | 4,060 | 366 | 130 | 180 | 90 | 65 |
| 22 | 395 | 1,970 | 248 | 140 | 392 | 582 | 2,580 | 327 | 126 | 131 | 76 | 80 |
| 23 | 320 | 2,070 | 231 | 150 | 345 | 484 | 1,880 | 302 | 122 | 100 | 68 | 157 |
| 24 | 284 | 1,680 | 166 | 170 | 325 | 416 | 4,570 | 512 | 117 | 81 | 61 | 118 |
| 25 | 276 | 1,310 | 234 | 195 | 330 | 374 | 4,520 | 2,230 | 561 | 73 | 57 | 87 |
| 26 | 260 | 1,040 | 221 | 250 | 288 | 1,220 | 2,390 | 2,280 | 355 | 66 | 53 | 270 |
| 27 | 244 | 866 | 202 | 456 | 296 | 2,010 | 1,670 | 1,280 | 233 | 60 | 50 | 749 |
| 28 | 224 | 698 | 199 | 629 | 260 | 1,170 | 1,860 | 733 | 189 | 600 | 47 | 412 |
| 29 | 208 | 612 | 193 | 3,380 | ------ | 846 | 1,660 | 510 | 152 | 780 | 44 | 245 |
| 30 | 200 | 536 | 196 | 2,340 | ------ | 620 | 1,260 | 404 | 130 | 620 | 42 | 181 |
| 31 | 256 | ------ | 197 | 1,300 | ------ | 512 | ------ | 343 | ------ | 2,090 | 40 | ------ |
| TOTAL | 28,747 | 37,177 | 9,764 | 12,196 | 12,873 | 19,393 | 42,882 | 22,170 | 6,880 | 6,708 | 4,574 | 3,704 |
| MEAN | 927 | 1,239 | 315 | 393 | 460 | 626 | 1,429 | 715 | 229 | 216 | 148 | 123 |
| MAX | 6,250 | 5,380 | 624 | 3,380 | 1,230 | 2,010 | 5,090 | 2,280 | 561 | 2,090 | 972 | 749 |
| MIN | 88 | 248 | 166 | 140 | 200 | 228 | 263 | 302 | 117 | 48 | 40 | 22 |
| CFSM | 1.82 | 2.43 | .62 | .77 | .90 | 1.23 | 2.81 | 1.40 | .45 | .42 | .29 | .24 |
| IN. | 2.10 | 2.72 | .71 | .89 | .94 | 1.42 | 3.13 | 1.62 | .50 | .49 | .33 | .27 |

CAL YR 1969 TOTAL 233,456 MEAN 640 MAX 10,500 MIN 28 CFSM 1.26 IN 17.06
WAT YR 1970 TOTAL 207,068 MEAN 567 MAX 6,250 MIN 22 CFSM 1.11 IN 15.13

PEAK DISCHARGE (BASE, 6,500 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-12 | 1600 | 12.24 | 10,400 | 04-20 | 0615 | 10.69 | 8,040 |
| 11-19 | 1015 | 9.98 | 6,930 | 04-24 | 1415 | 10.98 | 8,470 |

03340500 Wabash River at Montezuma, Ind.

LOCATION.--Lat 39°47'33", long 87°22'26", in SE¼NE¼ sec.35, T.16 N., R.9 W., Parke County, in downstream side of first pier from left bank of bridge on U.S. Highway 36 at Montezuma, 2.0 miles upstream from Raccoon Creek, 4.9 miles downstream from Sugar Creek, and at mile 240.

DRAINAGE AREA.--11,100 sq mi, approximately.

PERIOD OF RECORD.--October 1927 to current year. July 1924 to September 1927 (gage heights only) in reports of Indiana Department of Conservation.

GAGE.--Water-stage recorder. Datum of gage is 457.75 ft above mean sea level (levels by Corps of Engineers). Oct. 1, 1927, to July 12, 1950, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--43 years, 9,310 cfs (11.39 inches per year).

EXTREMES.--Current year: Maximum discharge, 63,300 cfs Apr. 25 (gage height, 24.62 ft); minimum, 1,780 cfs Sept. 4 (gage height, 2.66 ft).
Period of record: Maximum discharge, 184,000 cfs May 20, 1943 (gage height, 32.83 ft); minimum observed, 560 cfs Sept. 24, 1941; minimum gage height, 1.43 ft Aug. 3, 10, 1934.
Flood of Mar. 27, 1913, reached a stage of 34.0 ft, from floodmarks (discharge, 230,000 cfs, estimated).

REMARKS.--Records good except those for parts of January, which are fair. Daily flow is affected at times by the operation of several reservoirs and power plants.

REVISIONS (WATER YEARS).--WSP 1335: 1929, 1931(M), drainage area. WSP 1505: 1954. WSP 1915: 1954(m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6,830 | 7,250 | 17,300 | 4,810 | 19,900 | 6,370 | 14,600 | 31,100 | 8,780 | 4,830 | 10,800 | 2,040 |
| 2 | 6,190 | 10,400 | 15,400 | 4,780 | 18,400 | 5,970 | 14,200 | 29,200 | 8,920 | 4,730 | 9,770 | 1,960 |
| 3 | 4,720 | 12,100 | 12,600 | 4,640 | 17,500 | 5,800 | 18,800 | 27,500 | 9,210 | 4,640 | 8,340 | 1,900 |
| 4 | 3,550 | 12,100 | 10,100 | 4,200 | 17,500 | 6,770 | 23,000 | 25,800 | 9,000 | 4,540 | 8,300 | 1,820 |
| 5 | 3,020 | 10,900 | 9,970 | 3,500 | 18,800 | 9,200 | 23,900 | 23,700 | 8,200 | 4,870 | 7,880 | 2,100 |
| 6 | 2,930 | 10,300 | 10,900 | 3,200 | 17,600 | 12,000 | 22,700 | 21,700 | 8,020 | 4,900 | 7,740 | 2,410 |
| 7 | 3,290 | 9,720 | 10,400 | 2,600 | 15,900 | 14,800 | 19,900 | 20,300 | 8,040 | 4,240 | 7,260 | 2,150 |
| 8 | 3,670 | 8,980 | 9,900 | 2,900 | 14,000 | 15,300 | 16,800 | 18,900 | 7,770 | 3,860 | 6,500 | 2,260 |
| 9 | 3,450 | 8,380 | 9,320 | 3,200 | 12,700 | 14,600 | 14,000 | 15,700 | 7,520 | 3,490 | 5,960 | 2,420 |
| 10 | 3,520 | 7,650 | 9,250 | 3,500 | 11,700 | 12,300 | 11,900 | 12,000 | 7,720 | 3,440 | 5,060 | 2,340 |
| 11 | 3,650 | 7,450 | 9,450 | 3,700 | 10,100 | 10,900 | 10,600 | 11,400 | 7,250 | 3,350 | 4,080 | 2,040 |
| 12 | 7,950 | 7,450 | 9,640 | 3,800 | 8,400 | 9,570 | 9,770 | 14,100 | 6,580 | 3,340 | 3,450 | 2,180 |
| 13 | 21,300 | 6,710 | 9,090 | 3,900 | 8,080 | 8,120 | 9,550 | 17,800 | 6,130 | 3,640 | 3,160 | 2,000 |
| 14 | 25,300 | 6,400 | 8,280 | 4,000 | 7,880 | 7,180 | 10,600 | 22,200 | 5,670 | 3,540 | 2,920 | 2,280 |
| 15 | 26,900 | 5,900 | 9,090 | 4,000 | 7,070 | 6,610 | 10,900 | 27,700 | 5,920 | 3,370 | 2,720 | 2,630 |
| 16 | 24,700 | 5,530 | 7,970 | 4,000 | 6,330 | 6,290 | 10,300 | 31,900 | 7,200 | 3,540 | 2,500 | 2,850 |
| 17 | 20,300 | 5,390 | 6,960 | 3,900 | 6,180 | 5,960 | 10,100 | 35,100 | 7,520 | 3,620 | 2,380 | 3,590 |
| 18 | 16,400 | 6,780 | 6,620 | 3,900 | 6,180 | 5,820 | 9,450 | 34,300 | 7,140 | 3,350 | 2,300 | 4,210 |
| 19 | 13,800 | 15,800 | 6,310 | 3,800 | 7,190 | 5,800 | 16,200 | 30,200 | 7,740 | 3,220 | 2,330 | 4,750 |
| 20 | 13,000 | 24,700 | 6,100 | 3,700 | 7,970 | 6,230 | 36,100 | 25,000 | 7,650 | 4,710 | 2,760 | 5,260 |
| 21 | 12,300 | 28,000 | 5,860 | 3,600 | 8,310 | 7,090 | 42,500 | 20,100 | 6,210 | 5,880 | 4,480 | 4,880 |
| 22 | 10,700 | 28,200 | 5,740 | 3,500 | 9,460 | 8,390 | 51,000 | 17,400 | 5,360 | 6,420 | 4,970 | 4,850 |
| 23 | 9,210 | 28,000 | 5,600 | 3,400 | 9,960 | 9,870 | 57,300 | 16,100 | 5,040 | 5,750 | 3,790 | 5,350 |
| 24 | 8,280 | 27,000 | 5,190 | 3,300 | 8,990 | 9,950 | 60,300 | 18,300 | 4,710 | 4,540 | 3,280 | 9,400 |
| 25 | 7,630 | 25,800 | 4,930 | 3,300 | 7,600 | 9,510 | 61,600 | 21,900 | 4,510 | 3,880 | 3,160 | 11,200 |
| 26 | 7,290 | 24,900 | 4,920 | 3,800 | 6,890 | 13,100 | 53,100 | 24,300 | 4,710 | 3,780 | 2,900 | 10,900 |
| 27 | 7,650 | 22,400 | 4,830 | 5,000 | 6,900 | 20,100 | 45,400 | 19,500 | 4,390 | 3,620 | 2,710 | 9,460 |
| 28 | 8,310 | 20,500 | 4,900 | 6,350 | 6,790 | 24,000 | 41,500 | 15,300 | 4,120 | 3,330 | 2,600 | 7,480 |
| 29 | 7,470 | 19,700 | 4,970 | 12,500 | ------ | 24,800 | 37,700 | 11,900 | 4,220 | 3,520 | 2,460 | 7,390 |
| 30 | 6,080 | 19,900 | 4,950 | 14,900 | ------ | 22,600 | 33,700 | 10,400 | 4,780 | 4,960 | 2,240 | 7,140 |
| 31 | 5,460 | ------ | 4,830 | 19,700 | ------ | 17,900 | ------ | 9,390 | ------ | 8,580 | 2,110 | ------ |
| TOTAL | 305,250 | 433,290 | 251,270 | 155,380 | 304,280 | 342,900 | 797,510 | 660,190 | 200,030 | 133,480 | 140,910 | 131,240 |
| MEAN | 9,847 | 14,440 | 8,105 | 5,012 | 10,870 | 11,060 | 26,580 | 21,300 | 6,668 | 4,306 | 4,545 | 4,375 |
| MAX | 26,900 | 28,200 | 17,300 | 19,700 | 19,900 | 24,800 | 61,600 | 35,100 | 9,210 | 8,580 | 10,800 | 11,200 |
| MIN | 2,930 | 5,390 | 4,830 | 2,600 | 6,180 | 5,800 | 9,450 | 9,390 | 4,120 | 3,220 | 2,110 | 1,820 |
| CFSM | .89 | 1.30 | .73 | .45 | .98 | 1.00 | 2.39 | 1.92 | .60 | .39 | .41 | .39 |
| IN. | 1.02 | 1.45 | .84 | .52 | 1.02 | 1.15 | 2.67 | 2.21 | .67 | .45 | .47 | .44 |

CAL YR 1969 TOTAL 4,385,240 MEAN 12,010 MAX 99,800 MIN 2,070 CFSM 1.08 IN 14.70
WAT YR 1970 TOTAL 3,855,730 MEAN 10,560 MAX 61,600 MIN 1,820 CFSM .95 IN 12.92

## 03340800 Big Raccoon Creek near Fincastle, Ind.

LOCATION.--Lat 39°48'45", long 86°57'14", in NW¼SW¼ sec.22, T.16 N., R.5 W., Putnam County, on left bank at downstream side of county road bridge, 1.6 miles upstream from Ramp Creek, and 3.1 miles west of Fincastle.

DRAINAGE AREA.--132 sq mi.

PERIOD OF RECORD.--August 1957 to current year. Prior to October 1963, published as Raccoon Creek near Fincastle.

GAGE.--Water-stage recorder. Datum of gage is 686.03 ft above mean sea level.

AVERAGE DISCHARGE.--13 years, 126 cfs (12.96 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,930 cfs Oct. 13 (gage height, 11.73 ft); minimum, 5.0 cfs Sept. 11, 12, 13 (gage height, 1.80 ft).
Period of record: Maximum discharge, 15,100 cfs Jan. 26, 1962; maximum gage height, 15.68 ft Jan. 26, 1962 (ice jam); minimum discharge, 1.6 cfs Oct. 5, 1964.
Flood of June 28, 1957 reached a stage of 19.10 ft, discharge, 39,900 cfs from slope-area measurement.

REMARKS.--Records fair. Records of water temperature and suspended sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1909: 1958.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 31 | 820 | 134 | 62 | 252 | 88 | 120 | 218 | 71 | 19 | 58 | 5.5 |
| 2 | 32 | 631 | 115 | 58 | 340 | 97 | 164 | 192 | 90 | 17 | 33 | 5.4 |
| 3 | 34 | 388 | 112 | 55 | 353 | 212 | 246 | 157 | 252 | 18 | 26 | 5.6 |
| 4 | 33 | 302 | 101 | 50 | 260 | 652 | 204 | 136 | 138 | 17 | 19 | 6.0 |
| 5 | 30 | 264 | 90 | 43 | 202 | 574 | 164 | 120 | 109 | 19 | 16 | 6.3 |
| 6 | 28 | 224 | 87 | 38 | 138 | 340 | 149 | 105 | 98 | 17 | 14 | 5.9 |
| 7 | 30 | 188 | 126 | 35 | 128 | 254 | 123 | 95 | 78 | 15 | 12 | 5.9 |
| 8 | 31 | 160 | 212 | 32 | 153 | 206 | 106 | 92 | 67 | 15 | 11 | 5.8 |
| 9 | 30 | 142 | 171 | 30 | 169 | 171 | 104 | 84 | 58 | 14 | 11 | 5.5 |
| 10 | 68 | 130 | 149 | 28 | 144 | 142 | 92 | 78 | 54 | 13 | 10 | 5.5 |
| 11 | 652 | 122 | 141 | 27 | 134 | 122 | 87 | 78 | 50 | 13 | 9.8 | 5.2 |
| 12 | 2,210 | 115 | 120 | 26 | 118 | 111 | 83 | 88 | 47 | 12 | 9.1 | 5.0 |
| 13 | 2,490 | 104 | 106 | 28 | 109 | 102 | 95 | 82 | 43 | 12 | 8.7 | 5.1 |
| 14 | 980 | 97 | 111 | 35 | 95 | 95 | 98 | 90 | 40 | 11 | 8.4 | 6.6 |
| 15 | 586 | 90 | 98 | 43 | 102 | 90 | 83 | 378 | 56 | 10 | 8.0 | 8.2 |
| 16 | 420 | 83 | 87 | 44 | 85 | 79 | 76 | 420 | 51 | 9.8 | 7.7 | 7.5 |
| 17 | 304 | 84 | 83 | 43 | 102 | 78 | 73 | 274 | 44 | 9.4 | 7.4 | 6.4 |
| 18 | 240 | 254 | 82 | 38 | 141 | 84 | 69 | 182 | 39 | 9.1 | 7.1 | 7.0 |
| 19 | 196 | 1,830 | 83 | 31 | 513 | 97 | 475 | 138 | 34 | 17 | 7.5 | 8.5 |
| 20 | 171 | 980 | 73 | 29 | 266 | 139 | 1,300 | 112 | 31 | 28 | 12 | 11 |
| 21 | 155 | 526 | 73 | 29 | 180 | 164 | 706 | 97 | 29 | 27 | 12 | 11 |
| 22 | 133 | 418 | 77 | 29 | 162 | 142 | 440 | 84 | 28 | 19 | 16 | 8.7 |
| 23 | 112 | 465 | 71 | 32 | 144 | 128 | 318 | 80 | 27 | 15 | 11 | 7.5 |
| 24 | 99 | 345 | 73 | 35 | 133 | 114 | 1,580 | 102 | 25 | 14 | 9.0 | 6.9 |
| 25 | 95 | 278 | 70 | 45 | 138 | 106 | 980 | 104 | 26 | 12 | 7.9 | 6.9 |
| 26 | 91 | 232 | 67 | 200 | 115 | 493 | 478 | 83 | 40 | 11 | 7.3 | 9.3 |
| 27 | 84 | 200 | 62 | 284 | 118 | 383 | 343 | 70 | 33 | 11 | 6.9 | 14 |
| 28 | 77 | 171 | 60 | 348 | 97 | 252 | 338 | 62 | 28 | 10 | 6.7 | 19 |
| 29 | 72 | 155 | 59 | 1,200 | ------ | 194 | 268 | 57 | 24 | 9.8 | 6.3 | 16 |
| 30 | 69 | 141 | 61 | 553 | ------ | 157 | 224 | 56 | 21 | 18 | 6.1 | 12 |
| 31 | 84 | ------ | 62 | 330 | ------ | 134 | ------ | 54 | ------ | 114 | 6.0 | ------ |
| TOTAL | 9,667 | 9,939 | 3,016 | 3,860 | 4,891 | 6,000 | 9,586 | 3,968 | 1,731 | 556.1 | 390.9 | 239.2 |
| MEAN | 312 | 331 | 97.3 | 125 | 175 | 194 | 320 | 128 | 57.7 | 17.9 | 12.6 | 7.97 |
| MAX | 2,490 | 1,830 | 212 | 1,200 | 513 | 652 | 1,580 | 420 | 252 | 114 | 58 | 19 |
| MIN | 28 | 83 | 59 | 26 | 85 | 78 | 69 | 54 | 21 | 9.1 | 6.0 | 5.0 |
| CFSM | 2.36 | 2.51 | .74 | .95 | 1.33 | 1.47 | 2.42 | .97 | .44 | .14 | .096 | .060 |
| IN. | 2.72 | 2.80 | .85 | 1.09 | 1.38 | 1.69 | 2.70 | 1.12 | .49 | .16 | .11 | .07 |

CAL YR 1969 TOTAL 70,139.9 MEAN 192 MAX 3,410 MIN 8.2 CFSM 1.45 IN 19.77
WAT YR 1970 TOTAL 53,844.2 MEAN 148 MAX 2,490 MIN 5.0 CFSM 1.12 IN 15.17

PEAK DISCHARGE (BASE, 1,900 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-13 | 0100 | 11.73 | 3,930 | 04-24 | 1800 | 9.37 | 2,360 |
| 11-19 | 1415 | 8.83 | 2,100 | | | | |

03340870 Mansfield Reservoir at Ferndale, Ind.

LOCATION.--Lat 39°43'02", long 87°04'20", in SE¼NE¼ sec.28, T.15 N., R.6 W., Parke County, in discharge tower of reservoir on Big Raccoon Creek at Ferndale, 4.4 miles upstream from Rocky Fork Creek, and 6.1 miles northeast of Mansfield.

DRAINAGE AREA.--208 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 600.00 ft above mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents, 52,820 acre-ft May 20 (elevation, 662.70 ft); minimum, 16,200 acre-ft Dec. 24 (elevation, 640.01 ft).
Period of record: Maximum contents, 87,510 acre-ft May 4, 1964 (elevation, 676.52 ft); minimum, 16,080 acre-ft many times (elevation, 639.9 ft).

REMARKS.--Reservoir is formed by earth fill dam. Releases normally controlled by three gates, 4 ft wide and 8 ft high, in semi-elliptical concrete conduit through dam. Minimum design capacity is 16,180 acre-ft (elevation, 640 ft). Seasonal pool capacity is 49,300 acre-ft (elevation, 661 ft). Capacity at uncontrolled spillway elevation (690 ft) is 133,000 acre-ft. Reservoir is used for flood control and recreation. Reservoir put in operation on Dec. 6, 1960.

COOPERATION.--Records furnished by Corps of Engineers.

Month-end elevation and contents, water year October 1969 to September 1970

| Date | Elevation (feet) | Contents (acre-feet) | Change in contents (acre-feet) |
|---|---|---|---|
| Sept. 30 | - | 38,210 | - |
| Oct. 31 | 655.36 | 38,410 | +200 |
| Nov. 30 | 648.50 | 27,170 | -11,240 |
| Dec. 31 | 640.15 | 16,350 | +10,820 |
| Calendar year 1969 | - | - | -10,640 |
| Jan. 31 | 642.95 | 19,610 | +3,260 |
| Feb. 28 | 640.13 | 16,330 | -3,280 |
| Mar. 31 | 643.25 | 19,970 | +3,640 |
| Apr. 30 | 660.52 | 48,270 | +28,300 |
| May 31 | 661.05 | 49,350 | +1,080 |
| June 30 | 660.96 | 49,160 | -190 |
| July 31 | 660.67 | 48,570 | -590 |
| Aug. 31 | 660.17 | 47,570 | -1,000 |
| Sept. 30 | 655.62 | 38,870 | -8,700 |
| Water year 1969-70 | - | - | +660 |

## 03340900 Big Raccoon Creek at Ferndale, Ind.

LOCATION.--Lat 39°41'44", long 87°05'01", in SE¼SW¼ sec.33, T.15 N., R.6 W., Parke County, on right bank 1.1 miles southwest of Ferndale, 1.8 miles northeast of Mansfield, 2.0 miles upstream from Rocky Fork Creek, and 2.1 miles downstream from Mansfield Reservoir dam.

DRAINAGE AREA.--215 sq mi.

PERIOD OF RECORD.--October 1956 to current year. Prior to October 1963, published as Raccoon Creek at Ferndale.

GAGE.--Water-stage recorder. Datum of gage is 582.36 ft above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--14 years, 211 cfs (13.33 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,270 cfs Dec. 4 (gage height, 6.17 ft); minimum, 16 cfs Oct. 1 (gage height, 1.29 ft). Period of record: Maximum discharge, 40,500 cfs June 28, 1957 (gage height, 19.87 ft) from rating curve extended above 5,000 cfs on basis of records for station at Mansfield; minimum daily, 2.7 cfs Oct. 11, 1956.

REMARKS.--Records good. Flow regulated since October 1960 by Mansfield Reservoir (see sta 03340870).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 182 | 137 | 940 | 100 | 919 | 149 | 83 | 31 | 83 | 30 | 32 | 28 |
| 2 | 235 | 569 | 928 | 100 | 922 | 152 | 88 | 64 | 120 | 30 | 30 | 28 |
| 3 | 233 | 888 | 912 | 100 | 899 | 173 | 69 | 172 | 266 | 33 | 31 | 29 |
| 4 | 233 | 968 | 1,080 | 80 | 553 | 371 | 49 | 238 | 445 | 31 | 30 | 29 |
| 5 | 233 | 1,040 | 1,250 | 74 | 229 | 683 | 48 | 239 | 384 | 31 | 30 | 29 |
| 6 | 233 | 1,030 | 1,110 | 74 | 230 | 759 | 35 | 210 | 153 | 31 | 30 | 28 |
| 7 | 272 | 1,020 | 596 | 74 | 256 | 666 | 26 | 148 | 137 | 31 | 29 | 28 |
| 8 | 292 | 1,000 | 320 | 74 | 285 | 435 | 26 | 129 | 103 | 32 | 30 | 75 |
| 9 | 290 | 992 | 360 | 63 | 286 | 273 | 23 | 130 | 96 | 31 | 30 | 181 |
| 10 | 296 | 980 | 290 | 60 | 283 | 230 | 19 | 130 | 80 | 31 | 30 | 234 |
| 11 | 237 | 964 | 217 | 50 | 255 | 224 | 18 | 138 | 79 | 31 | 30 | 285 |
| 12 | 282 | 952 | 164 | 44 | 233 | 195 | 18 | 147 | 79 | 31 | 29 | 285 |
| 13 | 123 | 800 | 144 | 54 | 196 | 163 | 22 | 153 | 79 | 31 | 29 | 286 |
| 14 | 115 | 509 | 144 | 69 | 157 | 146 | 19 | 167 | 69 | 31 | 29 | 270 |
| 15 | 107 | 506 | 142 | 76 | 148 | 145 | 19 | 172 | 45 | 30 | 29 | 242 |
| 16 | 106 | 500 | 152 | 77 | 162 | 129 | 19 | 165 | 44 | 30 | 29 | 241 |
| 17 | 464 | 500 | 152 | 77 | 124 | 101 | 19 | 160 | 44 | 30 | 29 | 240 |
| 18 | 912 | 482 | 147 | 78 | 165 | 117 | 19 | 157 | 44 | 31 | 29 | 243 |
| 19 | 956 | 164 | 136 | 78 | 414 | 194 | 63 | 156 | 43 | 32 | 32 | 240 |
| 20 | 952 | 128 | 120 | 77 | 539 | 233 | 105 | 549 | 43 | 31 | 33 | 239 |
| 21 | 800 | 125 | 117 | 77 | 365 | 238 | 41 | 877 | 43 | 31 | 29 | 218 |
| 22 | 453 | 123 | 118 | 67 | 247 | 238 | 30 | 600 | 43 | 31 | 28 | 208 |
| 23 | 453 | 123 | 118 | 55 | 241 | 237 | 29 | 142 | 43 | 31 | 28 | 207 |
| 24 | 453 | 120 | 82 | 47 | 224 | 214 | 119 | 140 | 43 | 31 | 28 | 206 |
| 25 | 450 | 548 | 69 | 48 | 198 | 162 | 40 | 139 | 44 | 31 | 28 | 205 |
| 26 | 629 | 1,000 | 89 | 224 | 185 | 366 | 33 | 139 | 44 | 32 | 28 | 210 |
| 27 | 916 | 992 | 100 | 332 | 161 | 87 | 33 | 139 | 44 | 31 | 28 | 205 |
| 28 | 908 | 980 | 100 | 365 | 149 | 84 | 32 | 125 | 36 | 31 | 28 | 204 |
| 29 | 896 | 968 | 100 | 220 | ------ | 83 | 29 | 95 | 31 | 31 | 28 | 202 |
| 30 | 884 | 952 | 100 | 596 | ------ | 82 | 28 | 91 | 30 | 33 | 28 | 202 |
| 31 | 578 | ------ | 100 | 934 | ------ | 82 | ------ | 81 | ------ | 32 | 28 | ------ |
| TOTAL | 14,173 | 20,060 | 10,397 | 4,444 | 9,025 | 7,411 | 1,201 | 6,023 | 2,837 | 964 | 909 | 5,327 |
| MEAN | 457 | 669 | 335 | 143 | 322 | 239 | 40.0 | 194 | 94.6 | 31.1 | 29.3 | 178 |
| MAX | 956 | 1,040 | 1,250 | 934 | 922 | 759 | 119 | 877 | 445 | 33 | 33 | 286 |
| MIN | 106 | 120 | 69 | 44 | 124 | 82 | 18 | 31 | 30 | 30 | 28 | 28 |
| CFSM | 2.13 | 3.11 | 1.56 | .67 | 1.50 | 1.11 | .19 | .90 | .44 | .14 | .14 | .83 |
| IN. | 2.45 | 3.47 | 1.80 | .77 | 1.56 | 1.28 | .21 | 1.04 | .49 | .17 | .16 | .92 |

CAL YR 1969 TOTAL 113,279 MEAN 310 MAX 1,860 MIN 23 CFSM 1.44 IN 19.60
WAT YR 1970 TOTAL 82,771 MEAN 227 MAX 1,250 MIN 18 CFSM 1.06 IN 14.32

03341200 Little Raccoon Creek near Catlin, Ind.

LOCATION.--Lat 39°40'38", long 87°13'38", in NE¼NW¼ sec.7, T.14 N., R.7 W., Parke County, on left bank at downstream side of county road bridge, 300 ft downstream from small left-bank tributary, 0.4 mile upstream from Sunderland Branch, 1.2 miles southeast of Catlin, 2.4 miles upstream from Weisner Creek, and 3.8 miles upstream from mouth.

DRAINAGE AREA.--133 sq mi.

PERIOD OF RECORD.--December 1956 to current year (fragmentary prior to October 1957).

GAGE.--Water-stage recorder. Datum of gage is 515.56 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission).

AVERAGE DISCHARGE.--13 years (1957-70), 119 cfs (12.15 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,740 cfs Oct. 13 (gage height, 11.70 ft); minimum, 6.8 cfs Sept. 11, 12, 13, 14 (gage height, 1.28 ft).
Period of record: Maximum discharge, 53,400 cfs June 28, 1957 (gage height, 18.27 ft), from rating curve extended above 6,000 cfs on basis of combination contracted-opening, culvert, and flow-over-road measurement of peak flow, at site 8.5 miles upstream, adjusted to drainage area at gage; minimum daily, 4.1 cfs Dec. 22, 1963.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 30 | 573 | 126 | 67 | 200 | 91 | 119 | 262 | 94 | 22 | 15 | 7.2 |
| 2 | 28 | 352 | 116 | 62 | 253 | 105 | 163 | 222 | 122 | 21 | 14 | 7.2 |
| 3 | 30 | 253 | 116 | 58 | 220 | 169 | 230 | 188 | 130 | 23 | 34 | 7.7 |
| 4 | 29 | 209 | 109 | 53 | 324 | 426 | 190 | 184 | 115 | 22 | 35 | 9.4 |
| 5 | 28 | 187 | 102 | 47 | 364 | 354 | 161 | 177 | 108 | 20 | 20 | 9.8 |
| 6 | 27 | 164 | 101 | 41 | 136 | 250 | 147 | 156 | 97 | 18 | 17 | 8.6 |
| 7 | 30 | 146 | 130 | 36 | 128 | 211 | 130 | 140 | 84 | 18 | 14 | 8.4 |
| 8 | 29 | 133 | 176 | 34 | 147 | 182 | 118 | 132 | 75 | 19 | 15 | 8.4 |
| 9 | 28 | 123 | 144 | 32 | 176 | 158 | 111 | 121 | 70 | 19 | 14 | 7.8 |
| 10 | 73 | 118 | 132 | 30 | 152 | 137 | 101 | 109 | 66 | 17 | 12 | 7.3 |
| 11 | 393 | 115 | 128 | 29 | 147 | 123 | 95 | 122 | 61 | 17 | 12 | 7.2 |
| 12 | 1,760 | 111 | 116 | 28 | 133 | 114 | 93 | 166 | 56 | 16 | 11 | 6.9 |
| 13 | 890 | 105 | 109 | 31 | 122 | 105 | 142 | 128 | 53 | 15 | 11 | 6.8 |
| 14 | 658 | 101 | 109 | 40 | 107 | 98 | 130 | 129 | 50 | 15 | 11 | 9.1 |
| 15 | 508 | 98 | 104 | 45 | 115 | 94 | 109 | 174 | 72 | 14 | 10 | 19 |
| 16 | 378 | 95 | 100 | 49 | 100 | 86 | 101 | 155 | 69 | 14 | 9.4 | 11 |
| 17 | 309 | 98 | 97 | 48 | 101 | 86 | 95 | 139 | 43 | 14 | 9.4 | 8.6 |
| 18 | 201 | 394 | 95 | 41 | 130 | 98 | 88 | 115 | 40 | 14 | 8.8 | 12 |
| 19 | 155 | 1,010 | 94 | 34 | 293 | 119 | 750 | 104 | 36 | 17 | 23 | 15 |
| 20 | 137 | 518 | 88 | 33 | 192 | 184 | 1,080 | 95 | 33 | 25 | 34 | 10 |
| 21 | 128 | 336 | 88 | 31 | 153 | 184 | 568 | 90 | 32 | 19 | 15 | 8.6 |
| 22 | 115 | 291 | 90 | 31 | 143 | 160 | 370 | 86 | 31 | 15 | 12 | 7.7 |
| 23 | 101 | 309 | 86 | 33 | 129 | 142 | 304 | 83 | 30 | 15 | 11 | 8.8 |
| 24 | 95 | 252 | 83 | 38 | 121 | 126 | 1,560 | 142 | 29 | 15 | 10 | 9.2 |
| 25 | 93 | 212 | 78 | 45 | 121 | 118 | 710 | 135 | 42 | 14 | 9.4 | 12 |
| 26 | 91 | 185 | 73 | 100 | 102 | 313 | 430 | 125 | 31 | 14 | 9.4 | 8.5 |
| 27 | 87 | 164 | 70 | 196 | 107 | 241 | 386 | 100 | 28 | 14 | 9.2 | 83 |
| 28 | 81 | 146 | 66 | 320 | 95 | 192 | 440 | 88 | 26 | 14 | 8.8 | 40 |
| 29 | 78 | 137 | 66 | 843 | ------ | 163 | 334 | 84 | 24 | 14 | 8.6 | 27 |
| 30 | 76 | 130 | 68 | 346 | ------ | 142 | 288 | 83 | 23 | 18 | 8.2 | 19 |
| 31 | 102 | ------ | 69 | 243 | ------ | 128 | ------ | 83 | ------ | 17 | 7.5 | ------ |
| TOTAL | 6,768 | 7,065 | 3,129 | 3,064 | 4,511 | 5,099 | 9,543 | 4,117 | 1,770 | 529 | 438.7 | 411.2 |
| MEAN | 218 | 236 | 101 | 98.8 | 161 | 164 | 318 | 133 | 59.0 | 17.1 | 14.2 | 13.7 |
| MAX | 1,760 | 1,010 | 176 | 843 | 364 | 426 | 1,560 | 262 | 130 | 25 | 35 | 83 |
| MIN | 27 | 95 | 66 | 28 | 95 | 86 | 88 | 83 | 23 | 14 | 7.5 | 6.8 |
| CFSM | 1.64 | 1.77 | .76 | .74 | 1.21 | 1.23 | 2.39 | 1.00 | .44 | .13 | .11 | .10 |
| IN. | 1.89 | 1.98 | .88 | .86 | 1.26 | 1.43 | 2.67 | 1.15 | .50 | .15 | .12 | .12 |

CAL YR 1969 TOTAL 57,730.0 MEAN 158 MAX 3,210 MIN 11 CFSM 1.19 IN 16.15
WAT YR 1970 TOTAL 46,444.9 MEAN 127 MAX 1,760 MIN 6.8 CFSM .95 IN 12.99

PEAK DISCHARGE (BASE, 1,900 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-13 | 0115 | 11.70 | 2,740 | 04-24 | 1345 | 11.11 | 2,490 |

## 03341300 Big Raccoon Creek at Coxville, Ind.

LOCATION.--Lat 39°39'09", long 87°17'37", in SW¼SW¼ sec.15, T.14 N., R.8 W., Parke County, on right bank at downstream side of covered bridge on county road at Coxville, 0.8 mile upstream from Rock Run, 1.5 miles downstream from Little Raccoon Creek, and 2.1 miles northwest of Rosedale.

DRAINAGE AREA.--440 sq mi.

PERIOD OF RECORD.--October 1956 to current year. Prior to October 1963, published as Raccoon Creek at Coxville.

GAGE.--Water-stage recorder. Datum of gage is 494.00 ft above mean sea level (Indiana Flood Control and Water Resources Commission bench mark).

AVERAGE DISCHARGE.--14 years, 444 cfs (13.70 inches per year).

EXTREMES.--Current year: Maximum discharge, 5,400 cfs Apr. 24 (gage height, 12.58 ft); minimum, 58 cfs Sept. 1, 2 (gage height, 2.13 ft).
Period of record: Maximum discharge, 108,000 cfs June 28, 1957 (gage height, 21.23 ft) from rating curve extended above 35,000 cfs on basis of an estimate made by a slope-area study; minimum daily, 6.5 cfs Oct. 10, 1956.

REMARKS.--Records good. Flow regulated by Mansfield Reservoir (see sta 03340870).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 302 | 1,480 | 1,110 | 238 | 1,190 | 333 | 334 | 542 | 231 | 93 | 73 | 59 |
| 2 | 300 | 914 | 1,080 | 230 | 1,400 | 364 | 432 | 481 | 258 | 90 | 70 | 59 |
| 3 | 308 | 1,220 | 1,070 | 225 | 1,270 | 522 | 532 | 469 | 704 | 96 | 81 | 62 |
| 4 | 302 | 1,200 | 1,070 | 190 | 1,040 | 1,040 | 403 | 548 | 599 | 92 | 108 | 65 |
| 5 | 298 | 1,280 | 1,320 | 180 | 590 | 1,220 | 354 | 535 | 669 | 88 | 77 | 64 |
| 6 | 294 | 1,240 | 1,300 | 170 | 536 | 1,140 | 334 | 503 | 393 | 86 | 72 | 62 |
| 7 | 312 | 1,210 | 1,090 | 170 | 522 | 1,060 | 293 | 430 | 331 | 84 | 69 | 61 |
| 8 | 346 | 1,180 | 706 | 160 | 614 | 823 | 269 | 379 | 278 | 86 | 74 | 61 |
| 9 | 344 | 1,150 | 675 | 150 | 720 | 664 | 258 | 361 | 253 | 85 | 74 | 115 |
| 10 | 415 | 1,140 | 621 | 140 | 624 | 513 | 237 | 347 | 227 | 82 | 69 | 182 |
| 11 | 980 | 1,120 | 530 | 130 | 600 | 495 | 223 | 413 | 210 | 80 | 68 | 253 |
| 12 | 2,430 | 1,100 | 441 | 130 | 527 | 439 | 215 | 529 | 201 | 79 | 66 | 275 |
| 13 | 2,120 | 1,070 | 376 | 140 | 481 | 404 | 309 | 418 | 196 | 77 | 65 | 283 |
| 14 | 1,160 | 764 | 367 | 150 | 406 | 358 | 284 | 468 | 204 | 75 | 64 | 313 |
| 15 | 872 | 718 | 350 | 160 | 377 | 345 | 240 | 845 | 241 | 74 | 62 | 279 |
| 16 | 693 | 700 | 343 | 160 | 377 | 328 | 221 | 704 | 170 | 73 | 62 | 266 |
| 17 | 653 | 705 | 336 | 160 | 346 | 302 | 210 | 550 | 157 | 72 | 61 | 265 |
| 18 | 1,030 | 1,160 | 331 | 160 | 396 | 314 | 198 | 452 | 149 | 71 | 61 | 297 |
| 19 | 1,100 | 2,450 | 316 | 160 | 779 | 395 | 1,260 | 406 | 137 | 76 | 63 | 282 |
| 20 | 1,100 | 1,100 | 287 | 150 | 818 | 575 | 2,350 | 468 | 130 | 88 | 246 | 273 |
| 21 | 1,090 | 728 | 284 | 140 | 726 | 555 | 1,090 | 944 | 126 | 79 | 86 | 266 |
| 22 | 752 | 649 | 281 | 135 | 526 | 519 | 705 | 946 | 123 | 74 | 75 | 244 |
| 23 | 683 | 683 | 275 | 130 | 505 | 493 | 572 | 414 | 119 | 74 | 78 | 252 |
| 24 | 663 | 579 | 258 | 130 | 462 | 474 | 3,300 | 399 | 115 | 74 | 69 | 250 |
| 25 | 648 | 583 | 232 | 150 | 448 | 407 | 1,470 | 369 | 142 | 72 | 66 | 244 |
| 26 | 650 | 1,150 | 231 | 331 | 380 | 1,030 | 839 | 352 | 120 | 73 | 65 | 320 |
| 27 | 962 | 1,190 | 234 | 545 | 381 | 675 | 718 | 312 | 112 | 92 | 64 | 324 |
| 28 | 989 | 1,160 | 232 | 813 | 341 | 468 | 855 | 291 | 108 | 73 | 63 | 271 |
| 29 | 989 | 1,140 | 231 | 2,100 | ------ | 408 | 636 | 249 | 100 | 69 | 61 | 258 |
| 30 | 986 | 1,130 | 232 | 914 | ------ | 370 | 563 | 231 | 96 | 81 | 60 | 252 |
| 31 | 1,000 | ------ | 233 | 1,240 | ------ | 347 | ------ | 215 | ------ | 81 | 59 | ------ |
| TOTAL | 24,771 | 31,893 | 16,442 | 9,981 | 17,382 | 17,380 | 19,704 | 14,570 | 6,859 | 2,489 | 2,331 | 6,257 |
| MEAN | 799 | 1,063 | 530 | 322 | 621 | 561 | 657 | 470 | 230 | 80.3 | 75.2 | 209 |
| MAX | 2,430 | 2,450 | 1,320 | 2,100 | 1,400 | 1,220 | 3,300 | 946 | 704 | 96 | 246 | 324 |
| MIN | 294 | 579 | 231 | 130 | 341 | 302 | 198 | 215 | 96 | 69 | 59 | 59 |
| CFSM | 1.82 | 2.42 | 1.20 | .73 | 1.41 | 1.28 | 1.49 | 1.07 | .52 | .18 | .17 | .48 |
| IN. | 2.09 | 2.70 | 1.39 | .84 | 1.47 | 1.47 | 1.67 | 1.23 | .58 | .21 | .20 | .53 |

CAL YR 1969 TOTAL 224,639 MEAN 615 MAX 7,020 MIN 80 CFSM 1.40 IN 18.99
WAT YR 1970 TOTAL 170,099 MEAN 466 MAX 3,300 MIN 59 CFSM 1.06 IN 14.38

03341420 Brouilletts Creek near Universal, Ind.

LOCATION.--Lat 39°37'09", long 87°26'08", in NW¼NE¼ sec.32, T.14 N., R.9 W., Vermillion County, on downstream side of bridge on State Highway 63, 0.1 mile downstream from Gin Creek, and 0.7 mile east of Universal.

DRAINAGE AREA.--231 sq mi.

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

GAGE.--Nonrecording gage. Datum of gage is 466.78 ft above mean sea level. Auxiliary nonrecording gage 2.0 miles downstream at datum 11.16 ft lower.

EXTREMES.--Current year: Maximum discharge, 6,200 cfs Apr. 20 (gage height, 13.31 ft); minimum, 2.6 cfs Sept. 11-13 (gage height, 1.18 ft).
Period of record: Maximum discharge, 13,600 cfs Dec. 8, 1966 (gage height, 17.08 ft, from floodmark); minimum observed, 1.0 cfs Sept. 7, 1966; minimum gage height, 1.18 ft Sept. 11-13, 1970.

REMARKS.--Records fair except those for parts of December, January, February and periods of backwater from the Wabash River, which are poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 68 | 879 | 264 | 89 | 668 | 159 | 254 | 742 | 104 | 49 | 25 | 4.3 |
| 2 | 68 | 700 | 222 | 84 | 720 | 180 | 398 | 578 | 165 | 44 | 19 | 4.3 |
| 3 | 66 | 542 | 218 | 79 | 580 | 274 | 568 | 465 | 187 | 47 | 34 | 4.7 |
| 4 | 62 | 434 | 193 | 74 | 570 | 408 | 462 | 396 | 149 | 85 | 51 | 4.7 |
| 5 | 58 | 374 | 167 | 68 | 480 | 398 | 370 | 300 | 138 | 72 | 28 | 3.6 |
| 6 | 56 | 336 | 168 | 62 | 330 | 328 | 346 | 302 | 177 | 54 | 20 | 4.0 |
| 7 | 129 | 302 | 220 | 59 | 260 | 284 | 288 | 278 | 155 | 44 | 16 | 3.6 |
| 8 | 238 | 268 | 244 | 56 | 270 | 268 | 250 | 264 | 130 | 40 | 16 | 4.0 |
| 9 | 192 | 248 | 216 | 56 | 270 | 254 | 242 | 242 | 112 | 36 | 20 | 3.6 |
| 10 | 145 | 230 | 200 | 55 | 260 | 222 | 212 | 222 | 102 | 33 | 14 | 3.2 |
| 11 | 368 | 220 | 204 | 56 | 250 | 198 | 196 | 228 | 142 | 30 | 12 | 2.6 |
| 12 | 1,060 | 212 | 172 | 59 | 230 | 184 | 193 | 280 | 93 | 26 | 10 | 2.6 |
| 13 | 1,760 | 196 | 160 | 64 | 210 | 174 | 342 | 242 | 87 | 23 | 9.0 | 2.6 |
| 14 | 1,240 | 185 | 172 | 68 | 200 | 160 | 332 | 236 | 80 | 22 | 7.6 | 14 |
| 15 | 849 | 175 | 152 | 71 | 190 | 155 | 250 | 226 | 138 | 19 | 6.8 | 26 |
| 16 | 642 | 163 | 132 | 72 | 192 | 142 | 224 | 212 | 102 | 17 | 5.9 | 17 |
| 17 | 502 | 180 | 131 | 71 | 198 | 137 | 202 | 196 | 92 | 16 | 5.1 | 10 |
| 18 | 402 | 455 | 137 | 69 | 244 | 155 | 236 | 186 | 86 | 14 | 4.7 | 216 |
| 19 | 360 | 1,490 | 138 | 66 | 442 | 189 | 2,120 | 165 | 74 | 17 | 10 | 80 |
| 20 | 322 | 1,190 | 124 | 62 | 308 | 340 | 5,400 | 151 | 69 | 19 | 328 | 22 |
| 21 | 298 | 819 | 120 | 58 | 292 | 318 | 2,650 | 142 | 65 | 28 | 67 | 16 |
| 22 | 268 | 665 | 131 | 56 | 246 | 274 | 1,480 | 134 | 64 | 20 | 31 | 10 |
| 23 | 222 | 682 | 108 | 56 | 226 | 246 | 1,130 | 128 | 59 | 16 | 23 | 9.0 |
| 24 | 202 | 582 | 109 | 56 | 208 | 220 | 3,680 | 125 | 54 | 14 | 17 | 8.1 |
| 25 | 193 | 485 | 110 | 66 | 216 | 246 | 2,720 | 124 | 96 | 13 | 13 | 7.6 |
| 26 | 189 | 412 | 110 | 120 | 179 | 910 | 1,320 | 155 | 134 | 12 | 11 | 53 |
| 27 | 177 | 360 | 105 | 250 | 198 | 732 | 1,120 | 128 | 91 | 43 | 9.5 | 60 |
| 28 | 165 | 320 | 95 | 470 | 168 | 510 | 1,500 | 112 | 67 | 43 | 7.6 | 36 |
| 29 | 155 | 302 | 92 | 1,870 | ------ | 402 | 1,020 | 104 | 62 | 25 | 6.8 | 23 |
| 30 | 152 | 282 | 91 | 1,120 | ------ | 338 | 814 | 102 | 54 | 23 | 6.3 | 17 |
| 31 | 246 | ------ | 90 | 635 | ------ | 294 | ------ | 100 | ------ | 30 | 5.1 | ------ |
| TOTAL | 10,854 | 13,688 | 4,795 | 6,097 | 8,605 | 9,099 | 30,319 | 7,265 | 3,128 | 974 | 839.4 | 672.5 |
| MEAN | 350 | 456 | 155 | 197 | 307 | 294 | 1,011 | 234 | 104 | 31.4 | 27.1 | 22.4 |
| MAX | 1,760 | 1,490 | 264 | 1,870 | 720 | 910 | 5,400 | 742 | 187 | 85 | 328 | 216 |
| MIN | 56 | 163 | 90 | 55 | 168 | 137 | 193 | 100 | 54 | 12 | 4.7 | 2.6 |
| CFSM | 1.06 | 1.38 | .47 | .60 | .93 | .89 | 3.05 | .71 | .31 | .095 | .082 | .068 |
| IN. | 1.22 | 1.54 | .54 | .69 | .97 | 1.02 | 3.41 | .82 | .35 | .11 | .09 | .08 |

CAL YR 1969 TOTAL 119,495.0 MEAN 327 MAX 7,910 MIN 37 CFSM .99 IN 13.43
WTR YR 1970 TOTAL 96,335.9 MEAN 264 MAX 5,400 MIN 2.6 CFSM .80 IN 10.83

## 03341500 Wabash River at Terre Haute, Ind.

LOCATION.--Lat 39°28'00", long 87°25'08", in NE¼SW¼ sec.21, T.12 N., R.9 W., Vigo County, on left bank at upstream side of Wabash Avenue Bridge at Terre Haute, 2.2 miles upstream from Sugar Creek, 4 miles downstream from Lost Creek, and at mile 214.4.

DRAINAGE AREA.--12,200 sq mi, approximately.

PERIOD OF RECORD.--August 1902 to December 1903 (gage height only), February 1905 to July 1906, October 1927 to current year. Gage-height records collected at site 3,300 ft upstream June 1891 to June 1897 and since December 1904 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 442.90 ft above mean sea level. See WSP 1725 for history of changes prior to Oct. 27, 1928.

AVERAGE DISCHARGE.--43 years, 10,268 cfs (11.43 inches per year).

EXTREMES.--Current year: Maximum discharge, 71,200 cfs Apr. 25 (gage height, 23.45 ft); minimum, 2,740 cfs Jan. 7 (gage height, 3.88 ft).
Period of record: Maximum discharge, 189,000 cfs May 20, 1943 (gage height, 30.50 ft); minimum, 690 cfs Aug. 10, 1934 (gage height, 2.40 ft).
Flood of Mar. 27, 1913, reached a stage of 31.1 ft (present site and datum), discharge, 245,000 cfs, estimated.

REMARKS.--Records good. Natural flow affected by upstream reservoirs.

REVISIONS (WATER YEARS).--WSP 205: 1905. WSP 1335: 1944.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 7,400 | 7,720 | 19,500 | 5,610 | 21,100 | 7,460 | 17,300 | 38,900 | 10,700 | 5,590 | 9,820 | 2,940 |
| 2 | 7,130 | 10,800 | 17,600 | 5,630 | 21,000 | 7,160 | 15,500 | 35,800 | 10,600 | 5,510 | 10,600 | 2,850 |
| 3 | 5,900 | 12,400 | 15,200 | 5,500 | 20,200 | 7,180 | 17,900 | 32,900 | 11,000 | 5,430 | 9,140 | 2,800 |
| 4 | 4,540 | 13,200 | 12,400 | 5,160 | 17,900 | 8,260 | 22,400 | 30,500 | 10,900 | 5,270 | 8,630 | 2,840 |
| 5 | 3,540 | 12,200 | 11,000 | 4,750 | 18,700 | 10,000 | 24,700 | 28,000 | 10,300 | 5,370 | 8,150 | 2,810 |
| 6 | 3,280 | 11,200 | 11,800 | 4,420 | 19,300 | 12,100 | 25,000 | 25,400 | 9,800 | 5,590 | 8,040 | 3,220 |
| 7 | 3,390 | 10,700 | 11,800 | 2,940 | 17,900 | 14,900 | 22,800 | 22,900 | 9,550 | 5,270 | 7,680 | 3,180 |
| 8 | 4,050 | 9,900 | 11,500 | 3,170 | 16,300 | 16,300 | 19,800 | 21,500 | 9,350 | 4,660 | 7,110 | 3,210 |
| 9 | 4,080 | 9,260 | 10,700 | 3,180 | 15,200 | 16,100 | 16,500 | 18,800 | 8,870 | 4,360 | 6,590 | 3,250 |
| 10 | 4,000 | 8,510 | 10,300 | 3,420 | 13,800 | 14,300 | 14,200 | 15,200 | 8,850 | 4,150 | 5,910 | 3,350 |
| 11 | 4,450 | 8,030 | 10,400 | 3,680 | 12,500 | 12,400 | 12,400 | 13,000 | 8,630 | 4,120 | 5,070 | 3,210 |
| 12 | 6,860 | 8,030 | 10,500 | 3,840 | 10,500 | 11,200 | 11,100 | 14,100 | 8,000 | 4,090 | 4,300 | 3,150 |
| 13 | 18,500 | 7,580 | 10,300 | 4,050 | 9,570 | 9,750 | 10,700 | 17,300 | 7,590 | 4,190 | 3,910 | 3,100 |
| 14 | 25,100 | 7,110 | 9,460 | 4,190 | 9,260 | 8,630 | 11,600 | 18,500 | 7,040 | 4,330 | 3,700 | 3,250 |
| 15 | 27,700 | 6,640 | 9,620 | 4,300 | 8,710 | 7,820 | 11,800 | 27,200 | 7,210 | 4,150 | 3,500 | 3,400 |
| 16 | 27,400 | 6,100 | 9,370 | 4,270 | 7,770 | 7,360 | 11,500 | 30,800 | 7,720 | 3,980 | 3,390 | 3,630 |
| 17 | 24,000 | 5,880 | 9,070 | 4,360 | 7,420 | 7,080 | 11,000 | 34,400 | 8,420 | 3,980 | 3,380 | 3,920 |
| 18 | 19,400 | 6,600 | 7,660 | 4,400 | 7,450 | 6,850 | 10,600 | 36,900 | 8,180 | 3,640 | 3,180 | 4,620 |
| 19 | 16,000 | 14,000 | 7,310 | 4,380 | 8,220 | 6,920 | 13,500 | 36,400 | 8,260 | 3,700 | 3,120 | 5,310 |
| 20 | 14,200 | 22,300 | 7,040 | 4,200 | 9,120 | 7,400 | 31,600 | 32,400 | 8,640 | 4,240 | 3,980 | 5,530 |
| 21 | 13,500 | 27,500 | 6,790 | 4,150 | 9,170 | 8,090 | 42,400 | 26,500 | 7,680 | 5,740 | 4,230 | 5,630 |
| 22 | 12,200 | 29,400 | 6,650 | 4,050 | 10,100 | 8,900 | 49,700 | 21,800 | 6,540 | 6,390 | 5,530 | 5,420 |
| 23 | 10,200 | 30,300 | 6,510 | 3,900 | 10,700 | 10,300 | 58,100 | 19,200 | 6,030 | 6,390 | 4,880 | 5,470 |
| 24 | 9,060 | 30,100 | 6,200 | 3,800 | 10,500 | 10,900 | 65,500 | 18,400 | 5,670 | 5,500 | 4,020 | 7,020 |
| 25 | 8,300 | 28,800 | 5,870 | 3,750 | 9,250 | 10,600 | 70,500 | 22,000 | 5,510 | 4,560 | 3,850 | 9,800 |
| 26 | 7,850 | 27,600 | 5,750 | 4,090 | 8,150 | 12,500 | 65,100 | 25,800 | 5,590 | 4,310 | 3,700 | 11,400 |
| 27 | 7,720 | 26,100 | 5,660 | 4,850 | 7,860 | 18,500 | 57,800 | 23,800 | 5,410 | 4,170 | 3,530 | 10,900 |
| 28 | 8,400 | 23,000 | 5,640 | 5,950 | 7,810 | 22,900 | 53,900 | 19,500 | 4,930 | 4,100 | 3,380 | 8,810 |
| 29 | 8,300 | 21,700 | 5,750 | 13,100 | ------ | 25,600 | 48,400 | 15,600 | 4,940 | 3,780 | 3,290 | 7,860 |
| 30 | 7,130 | 20,800 | 5,770 | 16,800 | ------ | 25,600 | 43,400 | 13,100 | 5,340 | 4,590 | 3,150 | 7,810 |
| 31 | 6,410 | ------ | 5,720 | 18,700 | ------ | 21,500 | ------ | 11,600 | ------ | 6,540 | 3,030 | ------ |
| TOTAL | 329,990 | 463,460 | 288,840 | 168,590 | 345,460 | 374,560 | 886,700 | 748,200 | 237,250 | 147,690 | 161,790 | 149,690 |
| MEAN | 10,640 | 15,450 | 9,317 | 5,438 | 12,340 | 12,080 | 29,560 | 24,140 | 7,908 | 4,764 | 5,219 | 4,990 |
| MAX | 27,700 | 30,300 | 19,500 | 18,700 | 21,100 | 25,600 | 70,500 | 38,900 | 11,000 | 6,540 | 10,600 | 11,400 |
| MIN | 3,280 | 5,880 | 5,640 | 2,940 | 7,420 | 6,850 | 10,600 | 11,600 | 4,930 | 3,640 | 3,030 | 2,800 |
| CFSM | .87 | 1.27 | .76 | .45 | 1.01 | .99 | 2.42 | 1.98 | .65 | .39 | .43 | .41 |
| IN. | 1.01 | 1.41 | .88 | .51 | 1.05 | 1.14 | 2.70 | 2.28 | .72 | .45 | .49 | .46 |

CAL YR 1969 TOTAL 4,809,330 MEAN 13,180 MAX 91,000 MIN 2,120 CFSM 1.08 IN 14.66
WAT YR 1970 TOTAL 4,302,220 MEAN 11,790 MAX 70,500 MIN 2,800 CFSM .97 IN 13.12

03342000 Wabash River at Riverton, Ind.

LOCATION.--Lat 39°01'13", long 87°34'07", in NE¼SW¼ sec.30, T.7 N., R.10 W., Sullivan County, on left bank at downstream side of Illinois Central Railroad bridge at Riverton, 0.6 mile downstream from Turtle Creek, and at mile 162.0.

DRAINAGE AREA.--13,100 sq mi, approximately.

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.

GAGE.--Water-stage recorder. Datum of gage is 414.65 ft above mean sea level. Prior to July 17, 1951, nonrecording gage at same site and datum, read twice daily.

AVERAGE DISCHARGE.--32 years, 11,080 cfs (11.49 inches per year).

EXTREMES.--Current year: Maximum discharge, 73,100 cfs Apr. 28 (gage height, 21.34 ft); minimum, 2,080 cfs Sept. 6 (gage height, 2.05 ft).
Period of record: Maximum discharge, 201,000 cfs May 21, 1943 (gage height, 29.36 ft); minimum observed, 858 cfs Sept. 27 to Oct. 1, 1941 (gage height, 0.02 ft).
Flood of Mar. 28, 1913, reached a stage of 26.4 ft, from graph based on once-daily readings by Illinois Central Railroad Co. (discharge, 250,000 cfs, estimated).

REMARKS.--Records excellent. Natural flow of stream affected by storage reservoirs and power development. Records of water temperature for current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1335: 1939, 1950.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 7,590 | 9,270 | 20,700 | 5,740 | 19,800 | 7,930 | 21,400 | 55,300 | 12,100 | 5,590 | 7,110 | 2,500 |
| 2 | 7,700 | 10,900 | 19,200 | 5,700 | 21,800 | 7,670 | 18,700 | 50,000 | 11,300 | 5,800 | 9,670 | 2,390 |
| 3 | 7,350 | 11,900 | 17,300 | 5,670 | 22,500 | 7,750 | 16,800 | 45,100 | 11,600 | 5,770 | 10,000 | 2,380 |
| 4 | 6,230 | 12,800 | 14,800 | 5,480 | 20,000 | 9,240 | 19,000 | 40,600 | 11,700 | 5,720 | 9,130 | 2,330 |
| 5 | 4,980 | 13,000 | 12,300 | 5,140 | 18,200 | 10,600 | 22,700 | 36,700 | 11,300 | 5,580 | 8,580 | 2,180 |
| 6 | 4,120 | 12,200 | 11,400 | 4,850 | 19,100 | 11,300 | 24,100 | 33,400 | 10,800 | 5,690 | 8,150 | 2,100 |
| 7 | 3,800 | 11,400 | 12,200 | 4,240 | 19,000 | 12,900 | 24,600 | 30,500 | 10,200 | 5,770 | 7,960 | 2,470 |
| 8 | 3,890 | 10,800 | 12,800 | 2,930 | 18,200 | 15,100 | 22,900 | 27,900 | 9,920 | 5,350 | 7,800 | 2,420 |
| 9 | 4,430 | 10,100 | 11,800 | 4,160 | 17,900 | 16,000 | 19,600 | 25,100 | 9,530 | 4,880 | 7,610 | 2,360 |
| 10 | 4,440 | 9,530 | 10,900 | 4,160 | 16,000 | 15,600 | 16,400 | 21,000 | 9,190 | 4,520 | 6,790 | 2,440 |
| 11 | 4,820 | 8,740 | 10,600 | 4,080 | 14,600 | 13,900 | 14,100 | 16,900 | 9,160 | 4,340 | 6,010 | 2,520 |
| 12 | 6,950 | 8,380 | 10,500 | 3,980 | 12,800 | 12,300 | 12,500 | 14,800 | 8,840 | 4,280 | 5,130 | 2,440 |
| 13 | 11,100 | 8,300 | 10,500 | 3,820 | 10,900 | 11,000 | 11,500 | 15,700 | 8,950 | 4,200 | 4,310 | 2,380 |
| 14 | 19,200 | 7,830 | 10,100 | 3,940 | 9,950 | 9,610 | 11,300 | 18,100 | 8,410 | 4,320 | 3,880 | 2,440 |
| 15 | 22,700 | 7,350 | 9,450 | 4,100 | 9,500 | 8,680 | 11,800 | 23,300 | 8,310 | 4,380 | 3,540 | 2,540 |
| 16 | 24,600 | 6,890 | 9,590 | 4,160 | 8,740 | 7,980 | 11,900 | 27,400 | 8,070 | 4,190 | 3,320 | 2,780 |
| 17 | 25,200 | 6,620 | 9,220 | 4,190 | 7,960 | 7,610 | 11,500 | 28,600 | 8,440 | 4,000 | 3,100 | 2,960 |
| 18 | 23,200 | 7,060 | 8,140 | 4,300 | 7,830 | 7,380 | 11,200 | 30,100 | 8,740 | 4,000 | 2,930 | 3,400 |
| 19 | 19,100 | 12,000 | 7,690 | 4,360 | 8,390 | 7,370 | 11,700 | 31,900 | 8,500 | 3,920 | 2,800 | 4,380 |
| 20 | 15,700 | 18,400 | 7,340 | 4,340 | 8,840 | 7,830 | 21,300 | 33,300 | 8,650 | 3,740 | 2,810 | 4,860 |
| 21 | 14,100 | 22,900 | 7,080 | 4,160 | 9,300 | 8,360 | 28,600 | 33,700 | 8,760 | 4,420 | 3,860 | 5,080 |
| 22 | 13,200 | 25,900 | 6,840 | 3,840 | 9,530 | 8,630 | 30,900 | 31,800 | 7,850 | 5,750 | 4,200 | 5,080 |
| 23 | 11,800 | 27,300 | 6,740 | 3,740 | 10,200 | 9,290 | 35,000 | 27,900 | 6,900 | 6,410 | 5,240 | 5,100 |
| 24 | 10,300 | 28,000 | 6,500 | 3,660 | 10,800 | 10,400 | 48,200 | 23,300 | 6,420 | 6,250 | 4,620 | 5,240 |
| 25 | 9,300 | 28,300 | 6,220 | 3,590 | 10,300 | 10,900 | 62,100 | 21,100 | 6,330 | 5,420 | 3,860 | 7,720 |
| 26 | 8,570 | 28,300 | 5,940 | 4,070 | 9,290 | 11,600 | 68,900 | 22,700 | 6,120 | 4,610 | 3,700 | 10,200 |
| 27 | 8,150 | 28,000 | 5,780 | 4,780 | 8,250 | 14,800 | 71,400 | 24,500 | 5,960 | 5,460 | 3,410 | 11,100 |
| 28 | 8,200 | 26,900 | 5,700 | 6,330 | 8,040 | 19,300 | 71,900 | 23,600 | 5,720 | 4,550 | 3,170 | 10,100 |
| 29 | 8,700 | 24,500 | 5,690 | 14,700 | ------ | 22,500 | 66,600 | 19,800 | 5,290 | 4,020 | 3,000 | 8,170 |
| 30 | 8,390 | 22,200 | 5,820 | 19,500 | ------ | 24,700 | 60,500 | 16,000 | 5,260 | 3,720 | 2,870 | 7,510 |
| 31 | 7,590 | ------ | 5,860 | 18,200 | ------ | 24,500 | ------ | 13,500 | ------ | 4,740 | 2,660 | ------ |
| TOTAL | 335,400 | 465,770 | 304,700 | 175,910 | 367,720 | 372,730 | 879,100 | 863,600 | 258,320 | 151,390 | 161,220 | 129,570 |
| MEAN | 10,820 | 15,530 | 9,829 | 5,675 | 13,130 | 12,020 | 29,300 | 27,860 | 8,611 | 4,884 | 5,201 | 4,319 |
| MAX | 25,200 | 28,300 | 20,700 | 19,500 | 22,500 | 24,700 | 71,900 | 55,300 | 12,100 | 6,410 | 10,000 | 11,100 |
| MIN | 3,800 | 6,620 | 5,690 | 2,930 | 7,830 | 7,370 | 11,200 | 13,500 | 5,260 | 3,720 | 2,660 | 2,100 |
| CFSM | .83 | 1.19 | .75 | .43 | 1.00 | .92 | 2.24 | 2.13 | .66 | .37 | .40 | .33 |
| IN. | .95 | 1.32 | .87 | .50 | 1.04 | 1.06 | 2.50 | 2.45 | .73 | .43 | .46 | .37 |

CAL YR 1969 TOTAL 5,271,350 MEAN 14,440 MAX 96,600 MIN 2,540 CFSM 1.10 IN 14.97
WAT YR 1970 TOTAL 4,465,430 MEAN 12,230 MAX 71,900 MIN 2,100 CFSM .93 IN 12.68

03342100 Busseron Creek near Hymera, Ind.

LOCATION.--Lat 39°12'54", long 87°18'41", in NW¼NW¼ sec.21, T.9 N., R.8 W., Sullivan County, on right bank at downstream side of bridge on County Road 900 North, 1.9 miles northwest of Hymera, and 3.9 miles upstream from West Fork Busseron Creek.

DRAINAGE AREA.--16.7 sq mi.

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

GAGE.--Water-stage recorder. Concrete control since Sept. 12, 1969. Datum of gage is 480.00 ft above mean sea level (U.S. Soil Conservation Service bench mark).

EXTREMES.--Current year: Maximum discharge, 924 cfs Jan. 29 (gage height, 15.88 ft); no flow July 18, Aug. 2.
Period of record: Maximum discharge, 1,450 cfs Dec. 8, 1966, Jan. 29, 1969; maximum gage height, 17.44 ft Jan. 29, 1969; no flow at times most years.

REMARKS.--Records fair except those for parts of December and January, which are poor. Flow affected at times by Soil Conservation Service flood water retarding structures.

REVISIONS (WATER YEARS).--WRD Ind. 1968: 1967(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .06 | 126 | 9.8 | 5.0 | 55 | 6.1 | 13 | 69 | .77 | .10 | .08 | .02 |
| 2 | .10 | 53 | 8.5 | 6.0 | 130 | 12 | 28 | 46 | .96 | .08 | 0 | .02 |
| 3 | .06 | 39 | 7.5 | 6.2 | 58 | 71 | 19 | 36 | 1.2 | .13 | 28 | .20 |
| 4 | .06 | 27 | 6.4 | 5.8 | 45 | 89 | 15 | 28 | .96 | .28 | 4.0 | .20 |
| 5 | .04 | 20 | 6.1 | 5.6 | 35 | 60 | 12 | 22 | 1.1 | .16 | 2.4 | .13 |
| 6 | .04 | 15 | 5.3 | 5.0 | 29 | 41 | 9.8 | 16 | .86 | .13 | 1.2 | .10 |
| 7 | .13 | 11 | 43 | 3.5 | 33 | 31 | 7.8 | 12 | .77 | .08 | 1.9 | .13 |
| 8 | .06 | 9.4 | 32 | 2.5 | 58 | 24 | 6.6 | 8.8 | .60 | .08 | 1.2 | .10 |
| 9 | .06 | 7.5 | 21 | 2.4 | 55 | 19 | 5.5 | 5.8 | .53 | .08 | .86 | .08 |
| 10 | 3.0 | 6.1 | 16 | 2.3 | 48 | 16 | 4.8 | 4.5 | .47 | .08 | .53 | .13 |
| 11 | 52 | 5.3 | 14 | 2.4 | 40 | 14 | 4.5 | 57 | .42 | .06 | .42 | .06 |
| 12 | 120 | 4.5 | 11 | 2.5 | 30 | 12 | 4.0 | 33 | .42 | .04 | .28 | .04 |
| 13 | 62 | 3.8 | 10 | 2.9 | 23 | 9.8 | 5.5 | 20 | 1.6 | .04 | .86 | .13 |
| 14 | 46 | 3.3 | 8.8 | 3.0 | 20 | 8.5 | 5.0 | 23 | .68 | .02 | .96 | .20 |
| 15 | 32 | 4.3 | 7.5 | 3.5 | 16 | 9.1 | 4.3 | 43 | 1.8 | .02 | .37 | .10 |
| 16 | 22 | 3.1 | 7.2 | 4.0 | 14 | 10 | 3.8 | 47 | 1.5 | .02 | .20 | .06 |
| 17 | 15 | 14 | 6.4 | 3.9 | 14 | 9.8 | 3.3 | 31 | .96 | .02 | .16 | .04 |
| 18 | 11 | 115 | 6.4 | 3.6 | 23 | 13 | 3.1 | 22 | .96 | 0 | .13 | .16 |
| 19 | 8.5 | 159 | 5.8 | 3.3 | 24 | 17 | 36 | 15 | .60 | .16 | .10 | .10 |
| 20 | 6.9 | 71 | 5.2 | 3.0 | 18 | 16 | 71 | 11 | .47 | .13 | .13 | .10 |
| 21 | 6.6 | 57 | 4.9 | 3.0 | 15 | 14 | 40 | 8.5 | .37 | .08 | .08 | .06 |
| 22 | 5.0 | 52 | 4.5 | 3.0 | 12 | 12 | 29 | 5.8 | .28 | .02 | 1.6 | .02 |
| 23 | 3.6 | 41 | 4.3 | 3.0 | 11 | 11 | 27 | 4.3 | .24 | .04 | .32 | .02 |
| 24 | 2.9 | 33 | 4.2 | 3.2 | 9.8 | 9.4 | 349 | 2.9 | .20 | .08 | .16 | .08 |
| 25 | 2.6 | 29 | 4.1 | 3.5 | 9.4 | 13 | 84 | 2.1 | .53 | .06 | .10 | .08 |
| 26 | 2.2 | 23 | 4.0 | 35 | 9.1 | 69 | 68 | 1.5 | .37 | .06 | .08 | .28 |
| 27 | 1.9 | 19 | 3.9 | 135 | 7.2 | 30 | 167 | 1.2 | .24 | 3.8 | .06 | .13 |
| 28 | 1.6 | 16 | 4.0 | 332 | 6.6 | 22 | 116 | 1.1 | .13 | .47 | .04 | .06 |
| 29 | 1.6 | 13 | 4.1 | 328 | ------ | 17 | 73 | .96 | .10 | .32 | .04 | .02 |
| 30 | 1.6 | 11 | 4.2 | 80 | ------ | 13 | 60 | .86 | .08 | .42 | .04 | .02 |
| 31 | 46 | ------ | 4.5 | 64 | ------ | 10 | ------ | .86 | ------ | .32 | .04 | ------ |
| TOTAL | 454.61 | 991.3 | 284.6 | 1,066.1 | 848.1 | 708.7 | 1,275.0 | 580.18 | 20.17 | 7.38 | 46.34 | 2.87 |
| MEAN | 14.7 | 33.0 | 9.18 | 34.4 | 30.3 | 22.9 | 42.5 | 18.7 | .67 | .24 | 1.49 | .096 |
| MAX | 120 | 159 | 43 | 332 | 130 | 89 | 349 | 69 | 1.8 | 3.8 | 28 | .28 |
| MIN | .04 | 3.1 | 3.9 | 2.3 | 6.6 | 6.1 | 3.1 | .86 | .08 | 0 | 0 | .02 |
| CFSM | .88 | 1.98 | .55 | 2.06 | 1.81 | 1.37 | 2.54 | 1.12 | .040 | .014 | .089 | .006 |
| IN. | 1.01 | 2.21 | .63 | 2.37 | 1.89 | 1.58 | 2.84 | 1.29 | .04 | .02 | .10 | .006 |

CAL YR 1969 TOTAL 8,840.77 MEAN 24.2 MAX 828 MIN .04 CFSM 1.45 IN 19.69
WTR YR 1970 TOTAL 6,285.35 MEAN 17.2 MAX 349 MIN 0 CFSM 1.03 IN 14.00

03342150 West Fork Busseron Creek near Hymera, Ind.

LOCATION.--Lat 39°11'10", long 87°19'44", in NW¼NW¼ sec. 32, T.9 N., R.8 W., Sullivan County, on right bank at downstream side of bridge on State Highway 48, 1.4 miles upstream from mouth, 1.5 miles west of Hymera, and 3.7 miles east of U.S. Highway 41.

DRAINAGE AREA.--14.4 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 476.00 ft above mean sea level (Indiana State Highway Commission bench mark).

EXTREMES.--Current year: Maximum discharge, 736 cfs Apr. 24 (gage height, 11.43 ft); no flow at times during year.
Period of record: Maximum discharge, 1,230 cfs about Jan. 29, 1969 (gage height, 12.28 ft); no flow at times each year.

REMARKS.--Records poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .18 | 130 | 4.9 | 3.0 | 14 | 5.5 | 12 | 25 | 1.1 | .06 | .54 | .08 |
| 2 | .68 | 40 | 4.2 | 3.7 | 46 | 12 | 27 | 13 | 1.3 | .06 | .37 | .03 |
| 3 | .61 | 20 | 4.6 | 3.6 | 18 | 47 | 12 | 10 | 6.1 | .21 | 55 | .29 |
| 4 | .23 | 13 | 3.4 | 3.3 | 12 | 48 | 10 | 8.8 | 1.6 | .37 | 5.3 | .29 |
| 5 | .18 | 8.5 | 2.7 | 3.1 | 12 | 27 | 9.1 | 7.5 | 1.8 | .29 | 2.3 | .21 |
| 6 | .14 | 7.0 | 2.8 | 2.8 | 12 | 13 | 8.2 | 6.3 | 1.1 | .14 | 1.7 | .08 |
| 7 | .55 | 6.2 | 20 | 2.1 | 18 | 11 | 6.6 | 5.8 | .45 | .08 | .73 | .08 |
| 8 | .38 | 5.2 | 19 | 1.6 | 39 | 9.3 | 6.1 | 5.3 | .21 | .05 | 1.3 | .08 |
| 9 | .03 | 4.2 | 12 | 1.4 | 36 | 8.6 | 5.8 | 4.6 | .21 | .03 | 1.9 | .08 |
| 10 | 2.5 | 3.8 | 9.4 | 1.4 | 26 | 7.5 | 5.2 | 4.4 | .21 | .03 | .73 | .08 |
| 11 | 48 | 3.2 | 8.6 | 1.4 | 24 | 6.5 | 5.0 | 20 | .21 | .03 | .45 | .08 |
| 12 | 115 | 2.7 | 7.9 | 1.4 | 14 | 6.1 | 4.7 | 14 | .21 | .03 | .29 | .03 |
| 13 | 33 | 2.3 | 6.0 | 1.6 | 9.0 | 5.6 | 7.0 | 8.2 | 7.5 | .03 | .21 | .14 |
| 14 | 25 | 2.0 | 6.0 | 1.9 | 7.2 | 5.2 | 5.9 | 12 | 1.8 | .03 | .21 | .63 |
| 15 | 13 | 1.8 | 4.6 | 2.0 | 7.0 | 5.0 | 5.2 | 50 | 1.5 | .03 | .21 | .21 |
| 16 | 7.1 | 1.7 | 3.7 | 2.5 | 7.2 | 4.6 | 4.9 | 38 | 2.0 | .03 | .21 | .08 |
| 17 | 4.6 | 10 | 3.7 | 2.3 | 9.7 | 5.0 | 4.6 | 13 | 1.4 | .03 | .14 | .08 |
| 18 | 3.7 | 50 | 3.9 | 2.1 | 20 | 10 | 4.3 | 7.2 | .83 | .03 | .14 | .45 |
| 19 | 3.4 | 145 | 4.2 | 2.0 | 20 | 15 | 31 | 4.7 | .63 | .21 | .14 | .29 |
| 20 | 3.2 | 36 | 2.8 | 1.8 | 9.1 | 13 | 39 | 3.5 | .29 | .14 | .21 | .21 |
| 21 | 5.0 | 33 | 2.6 | 1.7 | 7.9 | 10 | 14 | 2.8 | .29 | .08 | .21 | .21 |
| 22 | 5.3 | 29 | 2.5 | 1.7 | 7.5 | 8.8 | 10 | 2.4 | .08 | .08 | 6.1 | .21 |
| 23 | 3.0 | 22 | 2.4 | 1.7 | 6.6 | 7.7 | 12 | 1.9 | .08 | .08 | 1.3 | .29 |
| 24 | 2.1 | 13 | 2.4 | 2.0 | 7.4 | 6.8 | 340 | 1.8 | .08 | .08 | .45 | .54 |
| 25 | 1.5 | 9.9 | 2.3 | 2.5 | 5.8 | 11 | 30 | 1.6 | .45 | .08 | .29 | .37 |
| 26 | 1.3 | 8.3 | 2.3 | 5.0 | 5.8 | 42 | 17 | 1.5 | .37 | .08 | .21 | .54 |
| 27 | 1.1 | 7.9 | 2.3 | 20 | 5.9 | 13 | 142 | 1.1 | .37 | 31 | .03 | .63 |
| 28 | 1.0 | 6.4 | 2.3 | 196 | 5.6 | 9.8 | 53 | 1.0 | .21 | 2.4 | .08 | .45 |
| 29 | .90 | 5.6 | 2.4 | 51 | ------ | 8.4 | 18 | .93 | .21 | 1.1 | .08 | .29 |
| 30 | .90 | 5.1 | 2.5 | 27 | ------ | 7.4 | 13 | .93 | .06 | 1.0 | .08 | .29 |
| 31 | 45 | ------ | 2.6 | 18 | ------ | 6.8 | ------ | .93 | ------ | .93 | .08 | ------ |
| TOTAL | 328.58 | 632.8 | 161.0 | 371.6 | 412.7 | 396.6 | 862.6 | 278.19 | 32.65 | 38.82 | 80.99 | 7.32 |
| MEAN | 10.6 | 21.1 | 5.19 | 12.0 | 14.7 | 12.8 | 28.8 | 8.97 | 1.09 | 1.25 | 2.61 | .24 |
| MAX | 115 | 145 | 20 | 196 | 46 | 48 | 340 | 50 | 7.5 | 31 | 55 | .63 |
| MIN | .03 | 1.7 | 2.3 | 1.4 | 5.6 | 4.6 | 4.3 | .93 | .06 | .03 | .03 | .03 |
| CFSM | .74 | 1.47 | .36 | .83 | 1.02 | .89 | 2.00 | .62 | .076 | .087 | .18 | .017 |
| IN. | .85 | 1.63 | .42 | .96 | 1.07 | 1.02 | 2.23 | .72 | .08 | .10 | .21 | .02 |

CAL YR 1969 TOTAL 5,727.81 MEAN 15.7 MAX 425 MIN .03 CFSM 1.09 IN 14.80
WTR YR 1970 TOTAL 3,603.85 MEAN 9.87 MAX 340 MIN .03 CFSM .69 IN 9.31

PEAK DISCHARGE (BASE, 500 CFS).--Apr. 24 (1030) 736 cfs (11.43 ft).

## 03342250 Mud Creek near Dugger, Ind.

LOCATION.--Lat 39°06'28", long 87°16'42", in SE¼NE¼ sec.27, T.8 N., R.8 W., Sullivan County, on right bank at downstream side of bridge on County Road 700 East, 0.6 mile north of County Road 100 North, 1.7 miles upstream from mouth, and 2.5 miles northwest of Dugger.

DRAINAGE AREA.--11.9 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 466.41 ft above mean sea level (U.S. Soil Conservation Service bench mark).

EXTREMES.--Current year: Maximum discharge, 629 cfs Apr. 24 (gage height, 11.96 ft); minimum daily, 1.6 cfs Oct. 1.
Period of record: Maximum discharge, 866 cfs May 24, 1968 (gage height, 13.42 ft); minimum, 0.34 cfs Nov. 22, 23, 1968; minimum gage height, 5.99 ft Aug. 25-30, Sept. 3, 11-16, 1968.

REMARKS.--Records fair except those for parts of December, January and February, which are poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.6 | 77 | 13 | 10 | 23 | 9.1 | 30 | 59 | 18 | 3.4 | 9.4 | 1.9 |
| 2 | 3.3 | 26 | 11 | 8.0 | 78 | 17 | 69 | 30 | 18 | 3.2 | 7.7 | 5.7 |
| 3 | 1.8 | 18 | 11 | 7.4 | 43 | 35 | 27 | 20 | 25 | 4.3 | 19 | 12 |
| 4 | 1.7 | 15 | 10 | 6.0 | 62 | 33 | 20 | 17 | 10 | 6.3 | 24 | 9.3 |
| 5 | 1.7 | 12 | 10 | 5.2 | 35 | 30 | 16 | 14 | 8.9 | 4.5 | 18 | 6.2 |
| 6 | 1.7 | 10 | 10 | 4.2 | 20 | 19 | 14 | 12 | 50 | 3.5 | 15 | 3.1 |
| 7 | 5.9 | 8.6 | 57 | 3.5 | 27 | 16 | 11 | 12 | 14 | 2.7 | 13 | 2.7 |
| 8 | 1.9 | 7.3 | 29 | 3.3 | 48 | 14 | 10 | 11 | 9.3 | 2.6 | 11 | 2.2 |
| 9 | 1.8 | 6.8 | 21 | 3.2 | 40 | 13 | 9.2 | 10 | 7.4 | 2.5 | 11 | 1.9 |
| 10 | 2.1 | 6.4 | 18 | 3.2 | 30 | 11 | 8.2 | 10 | 6.5 | 2.4 | 10 | 2.2 |
| 11 | 52 | 6.8 | 16 | 3.2 | 25 | 10 | 7.6 | 11 | 5.7 | 2.4 | 9.3 | 1.8 |
| 12 | 67 | 5.9 | 14 | 3.3 | 20 | 10 | 7.3 | 11 | 5.1 | 2.2 | 8.0 | 1.7 |
| 13 | 19 | 5.5 | 12 | 3.6 | 15 | 9.5 | 19 | 9.8 | 60 | 2.2 | 7.1 | 2.1 |
| 14 | 16 | 4.6 | 12 | 4.2 | 12 | 9.1 | 13 | 11 | 20 | 2.1 | 6.5 | 2.3 |
| 15 | 11 | 14 | 11 | 4.7 | 11 | 8.6 | 11 | 20 | 16 | 2.1 | 5.4 | 2.0 |
| 16 | 9.5 | 4.1 | 11 | 5.6 | 12 | 8.2 | 8.8 | 29 | 14 | 2.0 | 4.9 | 1.8 |
| 17 | 7.7 | 42 | 10 | 5.0 | 17 | 9.1 | 8.0 | 15 | 11 | 2.0 | 4.5 | 1.8 |
| 18 | 6.4 | 58 | 11 | 4.4 | 21 | 14 | 7.3 | 11 | 9.0 | 1.9 | 3.7 | 20 |
| 19 | 5.9 | 92 | 10 | 4.0 | 10 | 18 | 38 | 9.3 | 7.4 | 3.5 | 9.1 | 5.8 |
| 20 | 8.6 | 39 | 9.5 | 3.7 | 7.0 | 15 | 57 | 8.1 | 7.1 | 2.4 | 50 | 3.3 |
| 21 | 9.1 | 32 | 4.6 | 3.5 | 9.0 | 12 | 34 | 7.2 | 7.1 | 2.0 | 12 | 2.5 |
| 22 | 5.5 | 30 | 4.4 | 3.7 | 12 | 12 | 17 | 6.4 | 6.2 | 1.8 | 8.6 | 3.3 |
| 23 | 3.7 | 27 | 4.2 | 4.2 | 12 | 11 | 16 | 5.9 | 5.5 | 2.0 | 7.3 | 5.8 |
| 24 | 3.3 | 21 | 4.0 | 6.0 | 11 | 10 | 262 | 5.4 | 5.2 | 2.0 | 4.7 | 4.3 |
| 25 | 3.3 | 19 | 4.0 | 11 | 11 | 18 | 48 | 7.1 | 8.2 | 1.9 | 3.4 | 3.1 |
| 26 | 3.3 | 17 | 4.0 | 35 | 12 | 95 | 33 | 5.4 | 6.2 | 7.4 | 2.8 | 2.5 |
| 27 | 2.9 | 16 | 4.2 | 94 | 9.5 | 29 | 51 | 4.6 | 4.7 | 91 | 2.5 | 2.2 |
| 28 | 2.5 | 14 | 4.6 | 159 | 9.1 | 19 | 75 | 4.0 | 4.0 | 15 | 2.3 | 1.8 |
| 29 | 2.5 | 13 | 5.4 | 102 | ------ | 16 | 39 | 4.3 | 3.6 | 11 | 2.2 | 1.7 |
| 30 | 2.5 | 13 | 6.0 | 36 | ------ | 13 | 27 | 4.7 | 3.4 | 13 | 2.1 | 1.7 |
| 31 | 43 | ------ | 8.0 | 27 | ------ | 11 | ------ | 9.2 | ------ | 13 | 2.0 | ------ |
| TOTAL | 308.2 | 661.0 | 359.9 | 577.1 | 641.6 | 554.6 | 993.4 | 394.4 | 376.5 | 218.3 | 296.5 | 118.7 |
| MEAN | 9.94 | 22.0 | 11.6 | 18.6 | 22.9 | 17.9 | 33.1 | 12.7 | 12.6 | 7.04 | 9.56 | 3.96 |
| MAX | 67 | 92 | 57 | 159 | 78 | 95 | 262 | 59 | 60 | 91 | 50 | 20 |
| MIN | 1.6 | 4.1 | 4.0 | 3.2 | 7.0 | 8.2 | 7.3 | 4.0 | 3.4 | 1.8 | 2.0 | 1.7 |
| CFSM | .84 | 1.85 | .97 | 1.56 | 1.92 | 1.50 | 2.78 | 1.07 | 1.06 | .59 | .80 | .33 |
| IN. | .96 | 2.07 | 1.13 | 1.80 | 2.01 | 1.73 | 3.11 | 1.23 | 1.18 | .68 | .93 | .37 |

CAL YR 1969 TOTAL 7,069.5 MEAN 19.4 MAX 440 MIN 1.5 CFSM 1.63 IN 22.10
WTR YR 1970 TOTAL 5,500.2 MEAN 15.1 MAX 262 MIN 1.6 CFSM 1.27 IN 17.19

03342300 Busseron Creek near Sullivan, Ind.

LOCATION.--Lat 39°04'33", long 87°23'11", in SE¼NW¼ sec.2, T.7 N., R.9 W., Sullivan County, on left bank at upstream side of bridge on State Road 54, 1.5 miles southeast of Sullivan, 1.6 miles east of intersections of State Roads 41 and 54, and 1.7 miles upstream from Buttermilk Creek.

DRAINAGE AREA.--138 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 440.00 ft above mean sea level (Indiana State Highway Commission bench mark).

EXTREMES.--Current year: Maximum discharge, 2,510 cfs Apr. 25 (gage height, 13.82 ft); minimum, 3.5 cfs July 22, 23, Aug. 31, Sept. 1, 2; minimum gage height, 1.77 ft July 22, 23.
Period of record: Maximum discharge, 5,480 cfs Jan. 30, 1969 (gage height, 15.83 ft); minimum, 0.8 cfs Sept. 8, 9, 1966; minimum gage height, 1.77 ft July 22, 23, 1970.

REMARKS.--Records fair. Flow affected by surface-mined areas and Soil Conservation Service flood-water retarding structures.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 12 | 892 | 85 | 62 | 260 | 56 | 250 | 431 | 33 | 16 | 21 | 3.9 |
| 2 | 73 | 442 | 87 | 62 | 663 | 82 | 700 | 368 | 37 | 14 | 17 | 8.4 |
| 3 | 70 | 165 | 47 | 60 | 680 | 279 | 400 | 223 | 45 | 13 | 126 | 14 |
| 4 | 68 | 114 | 42 | 50 | 350 | 514 | 170 | 176 | 38 | 18 | 192 | 21 |
| 5 | 50 | 88 | 38 | 42 | 180 | 456 | 130 | 144 | 35 | 13 | 46 | 16 |
| 6 | 4.7 | 71 | 36 | 36 | 156 | 240 | 100 | 114 | 74 | 12 | 28 | 9.8 |
| 7 | 11 | 59 | 241 | 32 | 169 | 175 | 90 | 95 | 50 | 11 | 21 | 8.4 |
| 8 | 7.5 | 50 | 377 | 28 | 360 | 142 | 85 | 87 | 32 | 11 | 25 | 7.1 |
| 9 | 5.5 | 44 | 152 | 27 | 568 | 118 | 78 | 75 | 25 | 11 | 35 | 5.9 |
| 10 | 5.9 | 74 | 106 | 26 | 336 | 97 | 66 | 66 | 16 | 11 | 24 | 6.7 |
| 11 | 162 | 98 | 90 | 26 | 332 | 82 | 60 | 66 | 18 | 11 | 17 | 5.1 |
| 12 | 544 | 94 | 74 | 27 | 224 | 71 | 55 | 253 | 18 | 10 | 15 | 6.3 |
| 13 | 368 | 90 | 61 | 30 | 170 | 63 | 107 | 110 | 320 | 8.4 | 14 | 8.4 |
| 14 | 228 | 55 | 61 | 33 | 125 | 90 | 147 | 87 | 150 | 9.8 | 15 | 9.8 |
| 15 | 161 | 26 | 55 | 37 | 120 | 790 | 123 | 182 | 130 | 7.1 | 12 | 5.9 |
| 16 | 126 | 24 | 47 | 44 | 100 | 315 | 82 | 438 | 70 | 8.9 | 8.9 | 6.3 |
| 17 | 108 | 125 | 44 | 40 | 97 | 187 | 53 | 245 | 45 | 8.0 | 8.0 | 16 |
| 18 | 98 | 517 | 44 | 35 | 192 | 143 | 48 | 127 | 35 | 8.0 | 9.8 | 37 |
| 19 | 77 | 1,160 | 45 | 32 | 291 | 115 | 139 | 93 | 29 | 13 | 8.0 | 21 |
| 20 | 33 | 1,100 | 43 | 30 | 132 | 98 | 645 | 74 | 28 | 9.8 | 86 | 11 |
| 21 | 40 | 378 | 42 | 30 | 90 | 223 | 348 | 66 | 27 | 8.0 | 22 | 7.5 |
| 22 | 31 | 337 | 41 | 31 | 92 | 538 | 193 | 54 | 25 | 4.7 | 21 | 6.3 |
| 23 | 23 | 291 | 40 | 33 | 86 | 273 | 150 | 44 | 22 | 8.0 | 51 | 6.3 |
| 24 | 18 | 229 | 40 | 45 | 81 | 178 | 1,350 | 37 | 28 | 8.9 | 20 | 8.4 |
| 25 | 18 | 195 | 45 | 70 | 79 | 142 | 2,440 | 34 | 42 | 8.4 | 15 | 10 |
| 26 | 17 | 136 | 50 | 150 | 61 | 120 | 1,120 | 28 | 22 | 7.5 | 15 | 11 |
| 27 | 16 | 91 | 40 | 382 | 61 | 105 | 572 | 25 | 18 | 617 | 8.0 | 10 |
| 28 | 15 | 76 | 42 | 664 | 56 | 95 | 1,280 | 23 | 15 | 234 | 5.9 | 7.5 |
| 29 | 15 | 66 | 45 | 1,340 | ------ | 83 | 686 | 24 | 15 | 39 | 5.1 | 8.9 |
| 30 | 14 | 58 | 58 | 1,660 | ------ | 83 | 300 | 23 | 15 | 29 | 4.7 | 8.0 |
| 31 | 61 | ------ | 61 | 575 | ------ | 93 | ------ | 30 | ------ | 28 | 3.9 | ------ |
| TOTAL | 2,480.6 | 7,145 | 2,279 | 5,739 | 6,111 | 6,046 | 11,967 | 3,842 | 1,457 | 1,216.5 | 900.3 | 311.9 |
| MEAN | 80.0 | 238 | 73.5 | 185 | 218 | 195 | 399 | 124 | 48.6 | 39.2 | 29.0 | 10.4 |
| MAX | 544 | 1,160 | 377 | 1,660 | 680 | 790 | 2,440 | 438 | 320 | 617 | 192 | 37 |
| MIN | 4.7 | 24 | 36 | 26 | 56 | 56 | 48 | 23 | 15 | 4.7 | 3.9 | 3.9 |
| CFSM | .58 | 1.72 | .53 | 1.34 | 1.58 | 1.41 | 2.89 | .90 | .35 | .28 | .21 | .075 |
| IN. | .67 | 1.93 | .61 | 1.55 | 1.65 | 1.63 | 3.23 | 1.04 | .39 | .33 | .24 | .08 |

CAL YR 1969 TOTAL 61,625.7 MEAN 169 MAX 4,170 MIN 4.7 CFSM 1.22 IN 16.61
WTR YR 1970 TOTAL 49,495.3 MEAN 136 MAX 2,440 MIN 3.9 CFSM .99 IN 13.34

## 03342350 Buttermilk Creek near Paxton, Ind.

LOCATION.--Lat 39°03'43", long 87°20'37", in SE¼NW¼ sec.7, T.7 N., R.8 W., Sullivan County, on left bank at downstream side of bridge, 3 miles northeast of Paxton, and 3 miles upstream from mouth.

DRAINAGE AREA.--16.5 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 450.08 ft above mean sea level (U.S. Soil Conservation Service bench mark).

EXTREMES.--Current year: Maximum discharge, 439 cfs Apr. 24 (gage height, 12.99 ft); minimum daily, 0.14 cfs Oct. 1.
Period of record: Maximum discharge, 442 cfs Apr. 4, 1968 (gage height, 13.02 ft); no flow at times most years.

REMARKS.--Records poor. Natural flow of stream affected by surface-mined areas.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .14 | 114 | 7.2 | 8.5 | 20 | 6.8 | 57 | 67 | 4.7 | 2.6 | 2.4 | .47 |
| 2 | .96 | 29 | 6.8 | 7.4 | 110 | 15 | 88 | 29 | 5.4 | 2.3 | 1.9 | .45 |
| 3 | .57 | 18 | 7.3 | 6.5 | 36 | 45 | 32 | 18 | 7.2 | 1.6 | 8.0 | 11 |
| 4 | .44 | 13 | 6.5 | 5.4 | 44 | 47 | 20 | 15 | 5.2 | 1.6 | 6.0 | 6.8 |
| 5 | .39 | 11 | 6.6 | 4.7 | 26 | 43 | 15 | 12 | 4.5 | 1.2 | 5.0 | 4.0 |
| 6 | .46 | 9.3 | 5.0 | 4.0 | 16 | 22 | 13 | 9.6 | 15 | 1.1 | 4.4 | 4.1 |
| 7 | 2.4 | 8.8 | 61 | 3.5 | 29 | 17 | 12 | 9.5 | 6.4 | 1.3 | 4.0 | 3.8 |
| 8 | 1.1 | 7.4 | 34 | 3.2 | 59 | 14 | 9.7 | 8.4 | 4.7 | .83 | 3.1 | 3.6 |
| 9 | .88 | 6.8 | 19 | 3.0 | 47 | 13 | 8.4 | 7.6 | 3.8 | .32 | 2.9 | 3.4 |
| 10 | 1.3 | 6.4 | 14 | 3.1 | 34 | 12 | 7.1 | 6.5 | 3.3 | 4.1 | 2.6 | 1.9 |
| 11 | 36 | 6.2 | 13 | 3.3 | 29 | 9.6 | 6.3 | 6.9 | 2.8 | 3.6 | 2.3 | 1.3 |
| 12 | 103 | 6.1 | 9.1 | 3.5 | 21 | 9.1 | 5.7 | 8.3 | 4.0 | 1.3 | 2.0 | .95 |
| 13 | 21 | 6.8 | 8.4 | 3.8 | 15 | 9.2 | 28 | 11 | 57 | .70 | 1.3 | 1.8 |
| 14 | 14 | 6.4 | 7.9 | 4.3 | 14 | 8.0 | 16 | 9.4 | 13 | .55 | 1.2 | 1.8 |
| 15 | 9.5 | 5.4 | 6.2 | 4.8 | 14 | 8.8 | 12 | 29 | 13 | .47 | .88 | 1.4 |
| 16 | 7.4 | 4.7 | 8.6 | 5.6 | 15 | 10 | 9.2 | 39 | 13 | .44 | .77 | .95 |
| 17 | 5.5 | 53 | 6.9 | 5.0 | 22 | 8.1 | 7.7 | 13 | 9.3 | .44 | .71 | 1.1 |
| 18 | 4.7 | 129 | 6.4 | 4.5 | 30 | 16 | 6.5 | 8.7 | 7.7 | .42 | .59 | 6.8 |
| 19 | 4.3 | 197 | 6.6 | 4.2 | 17 | 22 | 58 | 7.3 | 6.4 | .83 | 1.4 | 1.4 |
| 20 | 5.7 | 53 | 6.0 | 3.8 | 9.0 | 18 | 109 | 6.1 | 5.4 | .57 | 18 | 1.1 |
| 21 | 7.0 | 34 | 5.0 | 3.7 | 10 | 14 | 43 | 5.1 | 4.3 | .47 | 5.0 | 1.2 |
| 22 | 5.4 | 32 | 4.6 | 3.9 | 11 | 13 | 21 | 4.1 | 4.5 | .42 | 3.3 | 2.2 |
| 23 | 4.0 | 25 | 4.4 | 4.3 | 11 | 12 | 20 | 3.6 | 4.0 | .47 | 1.5 | 2.0 |
| 24 | 4.5 | 19 | 4.3 | 5.5 | 9.6 | 11 | 282 | 2.6 | 2.8 | .48 | 1.3 | 2.0 |
| 25 | 4.0 | 16 | 4.3 | 9.0 | 9.7 | 20 | 56 | 2.7 | 4.3 | .45 | .82 | 2.6 |
| 26 | 4.1 | 13 | 4.4 | 17 | 14 | 147 | 35 | 2.3 | 4.0 | 1.7 | .75 | 1.8 |
| 27 | 5.4 | 11 | 4.6 | 73 | 8.5 | 30 | 69 | 1.9 | 3.4 | 70 | .65 | 1.8 |
| 28 | 4.8 | 11 | 5.4 | 202 | 6.8 | 19 | 89 | 1.9 | 3.1 | 6.0 | .56 | 1.6 |
| 29 | 5.7 | 8.5 | 6.0 | 153 | ------ | 14 | 38 | 2.0 | 3.1 | 2.7 | .54 | 1.2 |
| 30 | 5.4 | 7.5 | 6.4 | 39 | ------ | 12 | 26 | 1.9 | 2.9 | 3.2 | .52 | 2.3 |
| 31 | 35 | ------ | 7.2 | 26 | ------ | 10 | ------ | 2.6 | ------ | 3.1 | .50 | ------ |
| TOTAL | 305.04 | 868.3 | 303.1 | 628.5 | 687.6 | 655.6 | 1,199.6 | 352.0 | 228.2 | 115.26 | 84.89 | 76.82 |
| MEAN | 9.84 | 28.9 | 9.78 | 20.3 | 24.6 | 21.1 | 40.0 | 11.4 | 7.61 | 3.72 | 2.74 | 2.56 |
| MAX | 103 | 197 | 61 | 202 | 110 | 147 | 282 | 67 | 57 | 70 | 18 | 11 |
| MIN | .14 | 4.7 | 4.3 | 3.0 | 6.8 | 6.8 | 5.7 | 1.9 | 2.8 | .32 | .50 | .45 |
| CFSM | .60 | 1.75 | .59 | 1.23 | 1.49 | 1.28 | 2.42 | .69 | .46 | .23 | .17 | .16 |
| IN. | .69 | 1.96 | .68 | 1.42 | 1.55 | 1.48 | 2.70 | .79 | .51 | .26 | .19 | .17 |

CAL YR 1969 TOTAL 6,946.90 MEAN 19.0 MAX 350 MIN .14 CFSM 1.15 IN 15.66
WTR YR 1970 TOTAL 5,504.91 MEAN 15.1 MAX 282 MIN .14 CFSM .92 IN 12.41

03342500 Busseron Creek near Carlisle, Ind.

LOCATION (revised).--Lat 38°58'26", long 87°25'33", in NW¼ survey 17, Vincennes Tract, Sullivan County, on left bank 10 ft downstream from bridge on State Highway 58, 1.5 miles northwest of Carlisle, and 6.8 miles upstream from mouth.

DRAINAGE AREA.--228 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 425.36 ft above mean sea level (Indiana State Highway Department bench mark). Prior to Nov. 8, 1950, nonrecording gage at same site and datum. Nov. 8, 1950, to Oct. 31, 1969, at site 200 ft upstream at same datum.

AVERAGE DISCHARGE.--27 years, 210 cfs (12.52 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,650 cfs Apr. 24 (gage height, 14.60 ft); minimum daily, 6.0 cfs July 23.
Period of record: Maximum discharge, 8,800 cfs Jan. 5, 1950 (gage height, 20.05 ft); maximum gage height, 20.30 ft May 9, 1961; no flow many days in 1954.

REMARKS.--Records fair except those for part of January, which are poor. Natural flow of stream affected by temporary storage retention reservoirs and surface-mined areas.

REVISIONS.--WSP 1335: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 34 | 1,220 | 96 | 133 | 780 | 80 | 650 | 724 | 43 | 23 | 67 | 7.7 |
| 2 | 39 | 1,170 | 120 | 127 | 1,080 | 106 | 1,170 | 663 | 45 | 20 | 46 | 7.5 |
| 3 | 70 | 370 | 77 | 119 | 1,110 | 300 | 610 | 315 | 65 | 19 | 100 | 12 |
| 4 | 67 | 200 | 67 | 90 | 506 | 800 | 272 | 224 | 56 | 27 | 241 | 37 |
| 5 | 66 | 151 | 58 | 70 | 316 | 740 | 200 | 172 | 49 | 21 | 63 | 17 |
| 6 | 20 | 122 | 59 | 60 | 244 | 450 | 163 | 136 | 107 | 18 | 42 | 14 |
| 7 | 10 | 104 | 398 | 52 | 267 | 280 | 132 | 115 | 66 | 17 | 33 | 13 |
| 8 | 16 | 89 | 708 | 47 | 533 | 220 | 114 | 103 | 42 | 13 | 45 | 12 |
| 9 | 10 | 79 | 278 | 43 | 945 | 190 | 103 | 91 | 34 | 11 | 58 | 11 |
| 10 | 9.6 | 83 | 174 | 41 | 578 | 150 | 91 | 83 | 30 | 11 | 35 | 10 |
| 11 | 206 | 126 | 142 | 42 | 501 | 120 | 84 | 79 | 26 | 10 | 27 | 9.4 |
| 12 | 992 | 123 | 119 | 44 | 343 | 100 | 77 | 199 | 26 | 9.8 | 23 | 8.8 |
| 13 | 783 | 117 | 100 | 47 | 262 | 95 | 131 | 145 | 501 | 8.6 | 20 | 9.9 |
| 14 | 292 | 104 | 96 | 52 | 209 | 200 | 164 | 111 | 206 | 8.1 | 19 | 16 |
| 15 | 209 | 50 | 87 | 56 | 197 | 1,290 | 135 | 208 | 182 | 8.3 | 18 | 9.7 |
| 16 | 148 | 46 | 75 | 64 | 167 | 600 | 111 | 731 | 103 | 7.2 | 15 | 9.9 |
| 17 | 123 | 238 | 72 | 60 | 161 | 300 | 77 | 333 | 77 | 8.1 | 13 | 12 |
| 18 | 108 | 1,080 | 72 | 54 | 268 | 215 | 71 | 152 | 56 | 7.5 | 13 | 29 |
| 19 | 99 | 1,670 | 73 | 49 | 418 | 175 | 182 | 107 | 45 | 11 | 13 | 36 |
| 20 | 55 | 1,630 | 67 | 47 | 199 | 170 | 1,020 | 87 | 40 | 13 | 71 | 17 |
| 21 | 72 | 1,390 | 65 | 46 | 126 | 245 | 711 | 78 | 41 | 7.5 | 28 | 13 |
| 22 | 56 | 688 | 66 | 48 | 126 | 780 | 275 | 68 | 38 | 7.6 | 18 | 11 |
| 23 | 42 | 480 | 59 | 50 | 117 | 450 | 189 | 59 | 33 | 6.0 | 34 | 11 |
| 24 | 34 | 355 | 65 | 56 | 111 | 300 | 2,200 | 51 | 31 | 8.2 | 23 | 12 |
| 25 | 32 | 277 | 71 | 72 | 110 | 235 | 2,150 | 46 | 59 | 8.2 | 14 | 13 |
| 26 | 31 | 215 | 72 | 297 | 92 | 195 | 2,090 | 42 | 32 | 7.5 | 15 | 14 |
| 27 | 30 | 139 | 61 | 577 | 89 | 165 | 1,870 | 36 | 27 | 1,830 | 9.8 | 14 |
| 28 | 28 | 119 | 67 | 1,140 | 84 | 145 | 1,570 | 33 | 22 | 1,490 | 9.3 | 12 |
| 29 | 27 | 105 | 69 | 1,890 | ------ | 130 | 1,520 | 31 | 20 | 216 | 9.1 | 11 |
| 30 | 27 | 93 | 99 | 1,620 | ------ | 125 | 948 | 32 | 21 | 107 | 8.2 | 11 |
| 31 | 110 | ------ | 102 | 1,550 | ------ | 345 | ------ | 32 | ------ | 123 | 7.7 | ------ |
| TOTAL | 3,845.6 | 12,633 | 3,734 | 8,643 | 9,939 | 9,696 | 19,080 | 5,286 | 2,123 | 4,082.6 | 1,138.1 | 420.9 |
| MEAN | 124 | 421 | 120 | 279 | 355 | 313 | 636 | 171 | 70.8 | 132 | 36.7 | 14.0 |
| MAX | 992 | 1,670 | 708 | 1,890 | 1,110 | 1,290 | 2,200 | 731 | 501 | 1,830 | 241 | 37 |
| MIN | 9.6 | 46 | 58 | 41 | 84 | 80 | 71 | 31 | 20 | 6.0 | 7.7 | 7.5 |
| CFSM | .54 | 1.85 | .53 | 1.22 | 1.56 | 1.37 | 2.79 | .75 | .31 | .58 | .16 | .061 |
| IN. | .63 | 2.06 | .61 | 1.41 | 1.62 | 1.58 | 3.11 | .86 | .35 | .67 | .19 | .07 |

CAL YR 1969 TOTAL 111,649.2 MEAN 306 MAX 5,710 MIN 8.9 CFSM 1.34 IN 18.22
WAT YR 1970 TOTAL 80,621.2 MEAN 221 MAX 2,200 MIN 6.0 CFSM .97 IN 13.15

PEAK DISCHARGE (BASE, 2,200 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-24 | 1245 | 14.60 | 2,650 | 07-27 | 2245 | 13.87 | 2,220 |

## 03343000 Wabash River at Vincennes, Ind.

LOCATION (revised).--Lat 38°42'26", long 87°31'10", in NW¼SW¼ sec.10, T.3 N., R.10 W., Knox County, near center of span on downstream side of bridge on U.S. Highway 50 at the Indiana-Illinois State line, 4.9 miles downstream from Maria Creek, 7.7 miles upstream from Embarras River, and at mile 129.8.

DRAINAGE AREA.--13,700 sq mi, approximately.

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 2.1 miles downstream, are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 394.43 ft above mean sea level. Oct. 1, 1960, to Sept. 30, 1968, nonrecording gage at site 2.1 miles downstream at same datum (now used as an auxiliary gage). Oct. 1, 1960, to Sept. 30, 1968, water-stage recorder at site 2.6 miles upstream from base gage at datum 0.80 ft lower. See WSP 1725 for history of changes prior to Oct. 1, 1960.

AVERAGE DISCHARGE.--41 years, 11,330 cfs (11.23 inches per year).

EXTREMES.--Current year: Maximum discharge, 67,700 cfs Apr. 28 (gage height, 24.28 ft); minimum discharge, 2,320 cfs Sept. 6, 7 (gage height, 4.26 ft).
Period of record: Maximum discharge, 189,000 cfs May 22, 23, 1943 (gage height, 29.33 ft, present datum); minimum observed, 770 cfs Aug. 4, 5, 1934 (gage height, 1.40 ft, present datum).
Flood of Mar. 29, 1913, reached a stage of 26.3 ft, present datum, from floodmarks, determined by Corps of Engineers (discharge, 255,000 cfs, estimated).

REMARKS.--Records good. Natural flow of stream affected by storage reservoirs and power development.

REVISIONS (WATER YEARS).--WSP 803: Drainage area. WSP 1173: 1943 (maximum gage height only). WSP 1335: 1930-31, 1933, 1936. WSP 1909: 1955.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 7,200 | 10,600 | 22,800 | 6,370 | 23,200 | 8,470 | 23,800 | 56,100 | 13,800 | 5,410 | 5,720 | 2,680 |
| 2 | 7,750 | 12,700 | 21,100 | 6,280 | 25,500 | 8,300 | 22,500 | 52,500 | 12,700 | 5,720 | 8,620 | 2,560 |
| 3 | 7,680 | 13,500 | 19,300 | 6,230 | 27,400 | 8,470 | 19,500 | 48,100 | 12,500 | 5,870 | 10,200 | 2,520 |
| 4 | 6,950 | 13,600 | 17,000 | 6,070 | 25,900 | 10,100 | 19,000 | 43,700 | 12,700 | 5,770 | 10,100 | 2,500 |
| 5 | 5,810 | 14,000 | 14,400 | 5,850 | 22,700 | 12,000 | 21,100 | 39,600 | 12,600 | 5,680 | 9,050 | 2,480 |
| 6 | 4,750 | 13,400 | 12,500 | 5,450 | 20,400 | 12,700 | 23,300 | 36,200 | 12,700 | 5,570 | 8,450 | 2,340 |
| 7 | 4,200 | 12,600 | 13,000 | 5,150 | 20,300 | 13,200 | 24,300 | 33,500 | 11,700 | 5,720 | 8,110 | 2,380 |
| 8 | 3,980 | 11,800 | 14,500 | 4,470 | 20,200 | 14,900 | 24,100 | 30,800 | 10,900 | 5,650 | 8,020 | 2,600 |
| 9 | 4,310 | 11,100 | 13,800 | 4,690 | 20,400 | 16,300 | 22,200 | 28,000 | 10,600 | 5,150 | 8,020 | 2,520 |
| 10 | 4,660 | 10,200 | 12,500 | 5,610 | 19,600 | 16,500 | 18,900 | 24,800 | 10,100 | 4,750 | 7,270 | 2,560 |
| 11 | 5,130 | 9,860 | 11,700 | 6,050 | 17,500 | 15,400 | 16,100 | 20,600 | 9,840 | 4,470 | 6,460 | 2,700 |
| 12 | 7,540 | 9,240 | 11,500 | 6,490 | 15,500 | 13,800 | 14,100 | 17,400 | 9,530 | 4,290 | 5,700 | 2,860 |
| 13 | 10,900 | 9,070 | 11,400 | 6,510 | 13,200 | 12,400 | 12,800 | 16,600 | 9,650 | 4,250 | 4,880 | 2,760 |
| 14 | 17,300 | 8,740 | 11,200 | 6,580 | 11,500 | 11,000 | 12,300 | 18,000 | 10,400 | 4,200 | 4,250 | 2,800 |
| 15 | 22,000 | 8,160 | 10,500 | 5,790 | 10,700 | 9,770 | 12,400 | 20,700 | 11,600 | 4,360 | 3,850 | 2,780 |
| 16 | 24,300 | 7,630 | 10,200 | 4,490 | 10,000 | 8,810 | 12,700 | 25,600 | 10,300 | 4,270 | 3,580 | 2,970 |
| 17 | 25,400 | 7,320 | 10,200 | 4,490 | 9,100 | 8,230 | 12,500 | 28,000 | 10,000 | 4,050 | 3,350 | 3,090 |
| 18 | 25,300 | 8,520 | 9,260 | 4,620 | 8,690 | 8,020 | 12,000 | 28,700 | 10,300 | 3,940 | 3,090 | 3,350 |
| 19 | 22,900 | 13,100 | 8,540 | 4,730 | 9,260 | 8,090 | 11,900 | 29,200 | 9,620 | 4,030 | 2,900 | 3,960 |
| 20 | 19,100 | 18,900 | 8,110 | 4,730 | 9,840 | 8,470 | 17,800 | 30,200 | 9,000 | 3,850 | 2,840 | 4,800 |
| 21 | 16,400 | 23,600 | 7,750 | 4,600 | 10,100 | 8,930 | 26,400 | 31,000 | 9,260 | 3,850 | 3,220 | 3,920 |
| 22 | 14,700 | 26,400 | 7,490 | 4,730 | 10,200 | 9,220 | 29,300 | 31,300 | 8,710 | 4,910 | 3,810 | 5,240 |
| 23 | 13,400 | 27,400 | 7,300 | 6,670 | 10,700 | 9,620 | 31,300 | 30,000 | 7,630 | 5,790 | 4,620 | 5,150 |
| 24 | 11,800 | 27,800 | 7,060 | 7,850 | 11,400 | 10,700 | 35,700 | 26,700 | 6,830 | 6,260 | 4,910 | 5,210 |
| 25 | 10,400 | 28,000 | 6,830 | 5,450 | 11,300 | 11,200 | 47,000 | 22,800 | 6,860 | 5,830 | 4,160 | 6,230 |
| 26 | 9,620 | 28,000 | 6,510 | 4,590 | 10,400 | 13,100 | 56,200 | 22,400 | 6,560 | 4,990 | 3,660 | 9,070 |
| 27 | 8,980 | 27,800 | 6,260 | 5,430 | 9,310 | 15,100 | 63,100 | 23,600 | 6,160 | 6,350 | 3,550 | 10,800 |
| 28 | 8,620 | 27,400 | 6,120 | 7,050 | 8,620 | 18,500 | 67,100 | 24,300 | 5,980 | 7,900 | 3,240 | 10,700 |
| 29 | 8,980 | 26,400 | 6,100 | 15,200 | ------ | 21,200 | 66,500 | 22,900 | 5,570 | 6,140 | 3,070 | 9,170 |
| 30 | 9,120 | 24,700 | 6,230 | 22,500 | ------ | 23,300 | 62,200 | 19,100 | 5,350 | 4,250 | 3,180 | 7,850 |
| 31 | 8,580 | ------ | 6,370 | 23,200 | ------ | 24,200 | ------ | 15,800 | ------ | 4,380 | 2,760 | ------ |
| TOTAL | 357,760 | 491,540 | 337,530 | 217,920 | 422,920 | 390,000 | 838,100 | 898,200 | 289,450 | 157,650 | 164,640 | 130,550 |
| MEAN | 11,540 | 16,380 | 10,890 | 7,030 | 15,100 | 12,580 | 27,940 | 28,970 | 9,648 | 5,085 | 5,311 | 4,352 |
| MAX | 25,400 | 28,000 | 22,800 | 23,200 | 27,400 | 24,200 | 67,100 | 56,100 | 13,800 | 7,900 | 10,200 | 10,800 |
| MIN | 3,980 | 7,320 | 6,100 | 4,470 | 8,620 | 8,020 | 11,900 | 15,800 | 5,350 | 3,850 | 2,760 | 2,340 |
| CFSM | .84 | 1.20 | .79 | .51 | 1.10 | .92 | 2.04 | 2.11 | .70 | .37 | .39 | .32 |
| IN. | .97 | 1.33 | .92 | .59 | 1.15 | 1.06 | 2.28 | 2.44 | .79 | .43 | .45 | .35 |

CAL YR 1969 TOTAL 5,883,090 MEAN 16,120 MAX 80,900 MIN 2,800 CFSM 1.18 IN 15.97
WAT YR 1970 TOTAL 4,696,260 MEAN 12,870 MAX 67,100 MIN 2,340 CFSM .94 IN 12.75

03345500 Embarras River at Ste. Marie, Ill.

LOCATION.--Lat 38°56'10", long 88°01'10", in NW¼NW¼ sec.30, T.6 N., R.14 W., Jasper County, on left bank at downstream side of highway bridge at Ste. Marie.

DRAINAGE AREA.--1,51[illegible] sq mi.

PERIOD OF RECORD.--October 1909 to December 1912, August 1914 to current year. Prior to October 1963, published as Embarrass River at Ste. Marie.

GAGE.--Water-stage recorder. Datum of gage is 445.75 ft above mean sea level (levels by Corps of Engineers). Prior to June 29, 1940, nonrecording gage and June 29, 1940, to Jan. 24, 1967, water-stage recorder at same site at datum 1.00 ft higher.

AVERAGE DISCHARGE.--59 years, 1,183 cfs (10.62 inches per year).

EXTREMES.--Current year: Maximum discharge, 19,800 cfs Apr. 25 (gage height, 21.50 ft); minimum, 46 cfs Sept. 11, 12.
Period of record: Maximum discharge, 44,800 cfs Jan. 4, 1950 (gage height, 25.95 ft, present datum), from rating curve extended above 29,000 cfs; maximum gage height, 26.54 ft, present datum, June 30, 1957; minimum discharge, 1 cfs Oct. 5-9, 1914.

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

REVISIONS (WATER YEARS).--WSP 1083: 1934. WSP 1113: 1910-31, 1933, 1939-40, 1945(M). WSP 1725: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 393 | 735 | 963 | 300 | 3,890 | 702 | 700 | 6,590 | 483 | 357 | 196 | 61 |
| 2 | 358 | 674 | 896 | 300 | 3,450 | 677 | 1,000 | 4,760 | 507 | 334 | 164 | 62 |
| 3 | 324 | 721 | 827 | 320 | 3,950 | 935 | 1,400 | 3,450 | 534 | 313 | 138 | 67 |
| 4 | 306 | 1,400 | 762 | 300 | 2,360 | 2,310 | 1,580 | 2,630 | 514 | 295 | 127 | 63 |
| 5 | 281 | 1,280 | 706 | 280 | 1,710 | 2,400 | 1,580 | 2,220 | 499 | 290 | 129 | 55 |
| 6 | 259 | 1,160 | 657 | 281 | 1,480 | 1,670 | 1,520 | 1,920 | 513 | 284 | 136 | 53 |
| 7 | 268 | 1,030 | 761 | 511 | 1,530 | 1,470 | 1,430 | 1,670 | 514 | 322 | 171 | 53 |
| 8 | 279 | 927 | 865 | 468 | 1,700 | 1,330 | 1,280 | 1,470 | 589 | 299 | 191 | 50 |
| 9 | 479 | 837 | 848 | 350 | 2,230 | 1,210 | 1,110 | 1,330 | 631 | 268 | 176 | 48 |
| 10 | 545 | 757 | 737 | 300 | 1,710 | 1,090 | 988 | 1,230 | 576 | 245 | 243 | 48 |
| 11 | 883 | 701 | 708 | 250 | 1,630 | 986 | 888 | 1,160 | 516 | 227 | 178 | 46 |
| 12 | 1,720 | 665 | 668 | 200 | 1,460 | 888 | 814 | 1,080 | 447 | 212 | 135 | 48 |
| 13 | 2,890 | 630 | 629 | 200 | 1,220 | 806 | 943 | 1,040 | 619 | 199 | 117 | 48 |
| 14 | 3,700 | 597 | 586 | 200 | 1,040 | 740 | 1,070 | 1,120 | 781 | 187 | 108 | 53 |
| 15 | 3,860 | 563 | 567 | 200 | 908 | 692 | 989 | 1,550 | 2,430 | 175 | 102 | 51 |
| 16 | 4,020 | 530 | 534 | 250 | 816 | 654 | 951 | 1,790 | 5,080 | 165 | 95 | 71 |
| 17 | 4,200 | 557 | 501 | 350 | 752 | 626 | 919 | 1,300 | 3,810 | 162 | 90 | 81 |
| 18 | 4,380 | 825 | 485 | 446 | 836 | 632 | 862 | 1,090 | 1,320 | 156 | 85 | 67 |
| 19 | 4,370 | 2,840 | 465 | 449 | 1,500 | 752 | 2,080 | 960 | 1,100 | 153 | 81 | 59 |
| 20 | 3,260 | 3,910 | 456 | 440 | 1,820 | 1,110 | 6,940 | 865 | 972 | 150 | 79 | 53 |
| 21 | 2,150 | 3,020 | 439 | 409 | 1,490 | 1,290 | 12,500 | 791 | 861 | 157 | 75 | 52 |
| 22 | 1,770 | 2,490 | 429 | 386 | 1,360 | 935 | 12,800 | 726 | 754 | 159 | 77 | 53 |
| 23 | 1,500 | 2,440 | 437 | 350 | 1,160 | 795 | 9,040 | 685 | 635 | 139 | 75 | 51 |
| 24 | 1,400 | 2,310 | 411 | 300 | 1,040 | 726 | 10,700 | 641 | 550 | 137 | 71 | 50 |
| 25 | 1,300 | 1,970 | 406 | 300 | 986 | 702 | 16,400 | 607 | 944 | 136 | 69 | 57 |
| 26 | 1,200 | 1,690 | 398 | 487 | 951 | 1,740 | 16,100 | 577 | 816 | 131 | 68 | 92 |
| 27 | 1,500 | 1,490 | 372 | 693 | 802 | 2,780 | 10,100 | 574 | 550 | 126 | 70 | 84 |
| 28 | 1,300 | 1,320 | 350 | 1,860 | 761 | 1,850 | 9,900 | 603 | 463 | 263 | 68 | 206 |
| 29 | 1,110 | 1,170 | 330 | 6,040 | ------ | 1,400 | 8,980 | 586 | 421 | 163 | 65 | 173 |
| 30 | 942 | 1,050 | 310 | 7,190 | ------ | 1,100 | 8,050 | 545 | 387 | 131 | 66 | 127 |
| 31 | 818 | ------ | 300 | 6,660 | ------ | 900 | ------ | 503 | ------ | 213 | 64 | ------ |
| TOTAL | 51,765 | 40,289 | 17,803 | 31,070 | 44,542 | 35,898 | 143,614 | 46,063 | 28,816 | 6,548 | 3,509 | 2,082 |
| MEAN | 1,670 | 1,343 | 574 | 1,002 | 1,591 | 1,158 | 4,787 | 1,486 | 961 | 211 | 113 | 69.4 |
| MAX | 4,380 | 3,910 | 963 | 7,190 | 3,950 | 2,780 | 16,400 | 6,590 | 5,080 | 357 | 243 | 206 |
| MIN | 259 | 530 | 300 | 200 | 752 | 626 | 700 | 503 | 387 | 126 | 64 | 46 |
| CFSM | 1.10 | .89 | .38 | .66 | 1.05 | .77 | 3.16 | .98 | .64 | .14 | .075 | .046 |
| IN. | 1.27 | .99 | .44 | .76 | 1.10 | .88 | 3.53 | 1.13 | .71 | .16 | .09 | .05 |

CAL YR 1969 TOTAL 546,790 MEAN 1,498 MAX 22,700 MIN 62 CFSM .99 IN 13.44
WTR YR 1970 TOTAL 451,999 MEAN 1,238 MAX 16,400 MIN 46 CFSM .82 IN 11.11

PEAK DISCHARGE (BASE, 6,500 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 01-30 | 0215 | 17.81 | 7,320 | 04-25 | 2245 | 21.50 | 19,800 |
| 04-21 | 2000 | 20.73 | 16,100 | | | | |

## 03346000 North Fork Embarras River near Oblong, Ill.

LOCATION.--Lat 39°00'35", long 87°56'45", in extreme northwest corner of sec.35, T.7 N., R.14 W., Crawford County, on left bank at downstream side of pier of bridge on State Highway 33, 0.8 mile upstream from Illinois Central Railroad bridge, 2 miles west of Oblong, and 8.5 miles upstream from mouth.

DRAINAGE AREA.--319 sq mi.

PERIOD OF RECORD.--October 1940 to current year. Prior to October 1963, published as North Fork Embarrass River near Oblong.

GAGE.--Water-stage recorder. Datum of gage is 456.19 ft above mean sea level. Prior to Dec.11, 1940, nonrecording gage and Dec. 11, 1940, to Sept. 30, 1964, water-stage recorder at same site at datum 2.00 ft higher.

AVERAGE DSSCHARGE.--30 years, 242 cfs (10.30 inches per year).

EXTREMES.--Current year: Maximum discharge, 7,640 cfs Apr. 21 (gage height, 19.23 ft); minimum, 6.2 cfs Sept. 2, 13.
Period of record: Maximum discharge, 27,100 cfs Jan. 4, 1950 (gage height, 24.38 ft, present datum), from rating curve extended above 16,000 cfs; no flow for many days in 1953-54, 1964-65.

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

REVISIONS.--WSP 1725: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECCND, WATER YEAR CCTCBER 1969 TO SEPTEMBER 1970

| DAY | CCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 17 | 815 | 87 | 45 | 705 | 84 | 122 | 352 | 34 | 22 | 62 | 6.4 |
| 2 | 17 | 1,380 | 80 | 49 | 869 | 83 | 240 | 327 | 32 | 20 | 27 | 7.0 |
| 3 | 16 | 498 | 72 | 40 | 1,430 | 252 | 402 | 225 | 37 | 19 | 26 | 25 |
| 4 | 15 | 243 | 65 | 30 | 1,050 | 963 | 284 | 168 | 41 | 18 | 30 | 63 |
| 5 | 14 | 170 | 61 | 25 | 272 | 1,180 | 179 | 137 | 42 | 21 | 42 | 23 |
| 6 | 13 | 158 | 57 | 24 | 212 | 538 | 142 | 117 | 44 | 18 | 21 | 12 |
| 7 | 14 | 122 | 88 | 24 | 213 | 260 | 124 | 100 | 48 | 16 | 16 | 9.4 |
| 8 | 59 | 99 | 348 | 24 | 463 | 185 | 103 | 90 | 45 | 15 | 20 | 7.8 |
| 9 | 78 | 84 | 286 | 25 | 1,290 | 151 | 90 | 82 | 36 | 14 | 393 | 7.2 |
| 10 | 40 | 73 | 144 | 25 | 822 | 126 | 83 | 74 | 31 | 14 | 167 | 7.0 |
| 11 | 147 | 66 | 104 | 25 | 615 | 106 | 75 | 69 | 32 | 13 | 53 | 6.8 |
| 12 | 844 | 63 | 88 | 25 | 488 | 91 | 70 | 64 | 30 | 13 | 31 | 6.4 |
| 13 | 1,090 | 57 | 75 | 25 | 295 | 81 | 198 | 80 | 736 | 12 | 21 | 6.6 |
| 14 | 610 | 51 | 65 | 25 | 197 | 74 | 344 | 66 | 697 | 12 | 17 | 8.2 |
| 15 | 279 | 47 | 62 | 28 | 153 | 68 | 180 | 718 | 851 | 11 | 15 | 8.8 |
| 16 | 156 | 44 | 55 | 34 | 143 | 62 | 122 | 1,760 | 1,070 | 11 | 13 | 15 |
| 17 | 104 | 50 | 49 | 37 | 122 | 60 | 100 | 538 | 285 | 11 | 12 | 15 |
| 18 | 77 | 293 | 44 | 40 | 150 | 67 | 84 | 207 | 109 | 11 | 11 | 12 |
| 19 | 63 | 1,560 | 44 | 47 | 386 | 137 | 635 | 134 | 58 | 13 | 10 | 29 |
| 20 | 57 | 1,940 | 45 | 51 | 461 | 395 | 4,170 | 101 | 43 | 18 | 9.8 | 39 |
| 21 | 52 | 1,020 | 42 | 51 | 199 | 580 | 6,110 | 81 | 37 | 23 | 9.4 | 18 |
| 22 | 48 | 482 | 39 | 51 | 142 | 308 | 2,840 | 67 | 32 | 16 | 14 | 14 |
| 23 | 44 | 503 | 40 | 51 | 136 | 193 | 835 | 62 | 30 | 12 | 13 | 12 |
| 24 | 39 | 423 | 33 | 51 | 125 | 147 | 3,630 | 55 | 30 | 11 | 9.8 | 13 |
| 25 | 36 | 249 | 30 | 46 | 125 | 125 | 5,230 | 52 | 121 | 10 | 10 | 11 |
| 26 | 36 | 182 | 28 | 38 | 137 | 470 | 3,110 | 45 | 306 | 10 | 9.2 | 13 |
| 27 | 34 | 149 | 26 | 186 | 112 | 914 | 1,290 | 42 | 116 | 173 | 8.2 | 17 |
| 28 | 33 | 124 | 25 | 975 | 95 | 354 | 2,770 | 39 | 50 | 418 | 7.8 | 57 |
| 29 | 32 | 107 | 25 | 3,670 | ------ | 216 | 2,200 | 35 | 32 | 76 | 7.4 | 24 |
| 30 | 30 | 95 | 30 | 4,670 | ------ | 165 | 530 | 36 | 26 | 33 | 7.0 | 17 |
| 31 | 40 | ------ | 35 | 2,640 | ------ | 135 | ------ | 36 | ------ | 48 | 6.6 | ------ |
| TOTAL | 4,134 | 11,147 | 2,272 | 13,077 | 11,407 | 8,570 | 36,292 | 5,959 | 5,081 | 1,132 | 1,099.2 | 510.6 |
| MEAN | 133 | 372 | 73.3 | 422 | 407 | 276 | 1,210 | 192 | 169 | 36.5 | 35.5 | 17.0 |
| MAX | 1,090 | 1,940 | 348 | 4,670 | 1,430 | 1,180 | 6,110 | 1,760 | 1,070 | 418 | 393 | 63 |
| MIN | 13 | 44 | 25 | 24 | 95 | 60 | 70 | 35 | 26 | 10 | 6.6 | 6.4 |
| CFSM | .42 | 1.17 | .23 | 1.32 | 1.28 | .87 | 3.79 | .60 | .53 | .11 | .11 | .053 |
| IN. | .48 | 1.30 | .26 | 1.52 | 1.33 | 1.00 | 4.23 | .69 | .59 | .13 | .13 | .06 |

CAL YR 1969 TOTAL 133,346.3 MEAN 365 MAX 9,860 MIN 9.3 CFSM 1.14 IN 15.55
WTR YR 1970 TOTAL 100,680.8 MEAN 276 MAX 6,110 MIN 6.4 CFSM .87 IN 11.74

PEAK DISCHARGE (BASE, 4,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 01-29 | 2245 | 18.43 | 5,660 | 04-25 | 1530 | 18.42 | 5,640 |
| 04-21 | 0230 | 19.23 | 7,640 | | | | |

03346900 Prairie Creek Reservoir near Muncie, Ind.,

LOCATION.--Lat 40°08'46", long 85°17'35", in NE¼NE¼ sec.32, T.20 N., R.11 E., Deleware County, at intake tower of reservoir on Prairie Creek, 0.3 mile above mouth, and 5.8 miles southeast of Muncie.

DRAINAGE AREA.--16.8 sq mi.

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 valves. Capacity at uncontrolled spillway elevation (990 ft) is 22,100 acre-ft. Reservoir is used for low-flow augmentation and recreation. Reservoir was filled for the first time in the spring of 1963.

COOPERATION.--Records furnished by Muncie Water Works Company.

Month-end elevation and contents, water year October 1969 to September 1970

| Date | Elevation (feet) | Contents (acre-feet) | Change in contents (acre-feet) |
|---|---|---|---|
| Sept. 30 | 990.0 | 21,850 | - |
| Oct. 31 | 990.2 | 22,100 | +250 |
| Nov. 30 | 990.4 | 22,360 | +260 |
| Dec. 31 | - | - | - |
| Calendar year 1969 | - | - | - |
| Jan. 31 | - | - | - |
| Feb. 28 | 990.2 | 22,100 | - |
| Mar. 31 | 990.3 | 22,300 | +200 |
| Apr. 30 | 990.4 | 22,360 | +60 |
| May 31 | 990.0 | 22,100 | -260 |
| June 30 | 989.9 | 21,780 | -320 |
| July 31 | 990.0 | 22,100 | -320 |
| Aug. 31 | 989.1 | 20,730 | -370 |
| Sept. 30 | 988.3 | 19,760 | -970 |
| Water year 1969-70 | - | - | -2,090 |

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 upstream from White River at Muncie (03347000) and returned at sewage disposal plant 3.9 miles downstream from station.

Diversion, monthly and yearly means in cfs

| 1969 Oct. | Nov. | Dec. | Cal. year | 1970 Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Water year |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21.4 | 19.3 | 18.0 | 20.6 | 19.9 | 20.5 | 19.1 | 19.7 | 20.3 | 20.8 | 21.3 | 21.5 | 19.6 | 20.1 |

## 03347000 White River at Muncie, Ind.

LOCATION.--Lat 40°12'15", long 85°23'14", SE¼NW¼ Hackley Reserve, Delaware County, on right bank 200 ft downstream from Walnut Street Bridge in Muncie and 6 miles upstream from Bell Creek.

DRAINAGE AREA.--241 sq mi.

PERIOD OF RECORD.--November 1930 to current year. Prior to October 1948, published as West Fork White River at Muncie. Daily gage heights from October 1924 to December 1929 are available in the district office.

GAGE.--Water-stage recorder. Datum of gage is 917.10 ft above mean sea level (city of Muncie bench mark). See WSP 1705 for history of changes prior to Jan. 28, 1942. Jan. 28, 1942, to Apr. 27, 1964, water-stage recorder at present site at datum 3.00 ft higher.

AVERAGE DISCHARGE.--39 years (1931-70), 205 cfs (11.54 inches per year) (unadjusted).

EXTREMES.--Current year: Maximum discharge, 4,080 cfs Jan. 30 (gage height, 8.45 ft); minimum daily, 12 cfs Aug. 18, Sept. 11.
Period of record: Maximum discharge, 14,300 cfs Apr. 21, 1964; maximum gage height, 21.07 ft Jan. 15, 1937, present datum; minimum discharge, 0.6 cfs Sept. 16, 1937; minimum daily, 1.1 cfs Sept. 16, 17, 23-25, 1954 and Oct. 10, 1956.
Maximum stage known, about 22.6 ft in March 1913, present datum (discharge, about 20,000 cfs).

REMARKS.--Records good except those for winter periods, which are fair. Records of diversion available since October 1937. Natural flow affected by regulation of Prairie Creek Reservoir (see sta 03346900) and by diversion of municipal water supply by Muncie Water Works Co. (See p. 111).

REVISIONS (WATER YEARS).--WSP 1335: 1931-32(M), 1936(M), 1938, 1948. WSP 1435: 1955. WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | 58 | 160 | 64 | 580 | 158 | 185 | 266 | 65 | 45 | 67 | 13 |
| 2 | 31 | 66 | 141 | 62 | 605 | 155 | 760 | 221 | 70 | 37 | 56 | 13 |
| 3 | 27 | 61 | 131 | 60 | 690 | 228 | 1,080 | 194 | 192 | 48 | 35 | 14 |
| 4 | 29 | 62 | 121 | 58 | 450 | 812 | 615 | 169 | 214 | 49 | 23 | 16 |
| 5 | 31 | 62 | 109 | 54 | 350 | 1,910 | 422 | 152 | 321 | 45 | 20 | 21 |
| 6 | 29 | 59 | 104 | 50 | 280 | 1,080 | 338 | 133 | 385 | 32 | 19 | 25 |
| 7 | 27 | 56 | 188 | 45 | 250 | 605 | 278 | 125 | 256 | 25 | 21 | 27 |
| 8 | 31 | 58 | 534 | 42 | 258 | 426 | 231 | 121 | 169 | 30 | 24 | 21 |
| 9 | 31 | 58 | 366 | 42 | 521 | 318 | 207 | 120 | 127 | 45 | 24 | 16 |
| 10 | 34 | 52 | 266 | 42 | 507 | 241 | 185 | 113 | 109 | 74 | 24 | 16 |
| 11 | 53 | 50 | 224 | 43 | 413 | 194 | 169 | 116 | 98 | 76 | 19 | 12 |
| 12 | 166 | 47 | 191 | 45 | 334 | 167 | 160 | 144 | 84 | 54 | 15 | 14 |
| 13 | 254 | 46 | 166 | 46 | 278 | 145 | 160 | 323 | 120 | 39 | 16 | 15 |
| 14 | 270 | 43 | 155 | 47 | 235 | 130 | 163 | 296 | 278 | 35 | 14 | 22 |
| 15 | 204 | 48 | 136 | 48 | 180 | 120 | 141 | 226 | 147 | 34 | 13 | 20 |
| 16 | 146 | 46 | 118 | 49 | 160 | 114 | 131 | 212 | 105 | 26 | 18 | 21 |
| 17 | 113 | 51 | 109 | 51 | 172 | 107 | 126 | 177 | 85 | 25 | 21 | 20 |
| 18 | 91 | 121 | 106 | 52 | 214 | 113 | 123 | 142 | 71 | 24 | 12 | 25 |
| 19 | 82 | 1,310 | 104 | 50 | 794 | 141 | 408 | 122 | 56 | 36 | 16 | 32 |
| 20 | 70 | 1,420 | 98 | 46 | 552 | 305 | 944 | 109 | 53 | 37 | 40 | 34 |
| 21 | 61 | 740 | 93 | 45 | 382 | 319 | 745 | 97 | 52 | 28 | 43 | 30 |
| 22 | 56 | 498 | 88 | 44 | 302 | 261 | 462 | 92 | 44 | 23 | 41 | 19 |
| 23 | 48 | 566 | 80 | 44 | 250 | 280 | 346 | 88 | 39 | 35 | 29 | 16 |
| 24 | 43 | 525 | 76 | 44 | 250 | 264 | 1,410 | 82 | 42 | 31 | 21 | 15 |
| 25 | 44 | 413 | 70 | 46 | 230 | 221 | 2,100 | 81 | 103 | 26 | 18 | 15 |
| 26 | 47 | 326 | 68 | 60 | 200 | 859 | 938 | 71 | 191 | 21 | 23 | 37 |
| 27 | 42 | 274 | 64 | 130 | 170 | 743 | 570 | 62 | 277 | 22 | 56 | 29 |
| 28 | 38 | 228 | 62 | 298 | 178 | 451 | 440 | 56 | 160 | 23 | 48 | 24 |
| 29 | 36 | 200 | 72 | 2,880 | ------ | 327 | 354 | 56 | 96 | 19 | 21 | 21 |
| 30 | 35 | 182 | 74 | 2,820 | ------ | 251 | 298 | 59 | 61 | 18 | 18 | 21 |
| 31 | 42 | ------ | 66 | 1,000 | ------ | 207 | ------ | 75 | ------ | 17 | 15 | ------ |
| TOTAL | 2,247 | 7,726 | 4,340 | 8,407 | 9,785 | 11,652 | 14,489 | 4,300 | 4,070 | 1,079 | 830 | 624 |
| MEAN | 72.5 | 258 | 140 | 271 | 349 | 376 | 483 | 139 | 136 | 34.8 | 26.8 | 20.8 |
| MAX | 270 | 1,420 | 534 | 2,880 | 794 | 1,910 | 2,100 | 323 | 385 | 76 | 67 | 37 |
| MIN | 27 | 43 | 62 | 42 | 160 | 107 | 123 | 56 | 39 | 17 | 12 | 12 |
| CFSM | .30 | 1.07 | .58 | 1.12 | 1.45 | 1.56 | 2.00 | .58 | .56 | .14 | .11 | .086 |
| IN. | .35 | 1.19 | .67 | 1.30 | 1.51 | 1.80 | 2.24 | .66 | .63 | .17 | .13 | .10 |

CAL YR 1969 TOTAL 91,151 MEAN 250 MAX 3,150 MIN 17 CFSM 1.04 IN 14.07
WAT YR 1970 TOTAL 69,549 MEAN 191 MAX 2,880 MIN 12 CFSM .79 IN 10.74

PEAK DISCHARGE (BASE, 2,500 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 01-30 | 0100 | 8.45 | 4,080 | 04-25 | 0445 | 7.39 | 2,710 |

## 03347500 Buck Creek near Muncie, Ind.



LOCATION.--Lat 40°08'05", long 85°22'25", in SE¼ sec.34, T.20 N., R.10 E., Delaware County, on left bank at downstream side of highway bridge, 1 mile upstream from Muncie Water Works Co. pumping station, and 4.2 miles southeast of courthouse in Muncie.

DRAINAGE AREA.--35.5 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 944.67 ft above mean sea level. Prior to May 5, 1955, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--16 years, 33.3 cfs (12.74 inches per year).

EXTREMES.--Curent year: Maximum discharge, 729 cfs Jan. 29 (gage height, 9.44 ft); minimum, 12 cfs Aug. 17-19 (gage height, 2.27 ft).
Period of record: Maximum discharge, 1,780 cfs Apr. 21, 1964 (gage height, 13.96 ft); minimum, 2.8 cfs June 23, 1965 (gage height, 1.94 ft).
Maximum stage known about 15 ft, from information by local residents. Date unknown.

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

REVISIONS (WATER YEARS).--WSP 1909: 1955, 1957, 1961(m). WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 17 | 25 | 30 | 20 | 57 | 28 | 37 | 41 | 27 | 19 | 18 | 15 |
| 2 | 19 | 22 | 29 | 19 | 80 | 31 | 109 | 38 | 27 | 19 | 16 | 15 |
| 3 | 18 | 21 | 28 | 18 | 70 | 45 | 75 | 37 | 68 | 22 | 16 | 15 |
| 4 | 18 | 22 | 26 | 17 | 51 | 130 | 54 | 36 | 43 | 19 | 15 | 16 |
| 5 | 18 | 22 | 26 | 16 | 40 | 178 | 45 | 35 | 75 | 19 | 28 | 15 |
| 6 | 18 | 21 | 25 | 15 | 36 | 75 | 43 | 34 | 50 | 18 | 69 | 15 |
| 7 | 19 | 20 | 53 | 13 | 36 | 57 | 39 | 33 | 38 | 18 | 18 | 16 |
| 8 | 18 | 20 | 55 | 12 | 41 | 47 | 37 | 33 | 33 | 21 | 14 | 15 |
| 9 | 17 | 19 | 40 | 12 | 76 | 42 | 36 | 31 | 31 | 22 | 14 | 15 |
| 10 | 17 | 19 | 36 | 12 | 60 | 38 | 34 | 30 | 30 | 23 | 14 | 15 |
| 11 | 26 | 19 | 34 | 12 | 49 | 35 | 33 | 32 | 29 | 19 | 14 | 14 |
| 12 | 46 | 19 | 31 | 13 | 42 | 33 | 33 | 47 | 27 | 18 | 13 | 14 |
| 13 | 41 | 19 | 29 | 15 | 38 | 31 | 35 | 56 | 38 | 17 | 13 | 14 |
| 14 | 47 | 19 | 29 | 16 | 35 | 30 | 33 | 41 | 32 | 17 | 13 | 15 |
| 15 | 33 | 18 | 27 | 17 | 31 | 29 | 32 | 41 | 28 | 17 | 13 | 14 |
| 16 | 28 | 18 | 26 | 17 | 29 | 29 | 31 | 44 | 27 | 16 | 13 | 14 |
| 17 | 25 | 19 | 25 | 16 | 31 | 29 | 31 | 37 | 26 | 16 | 13 | 14 |
| 18 | 23 | 47 | 25 | 15 | 61 | 31 | 30 | 34 | 25 | 16 | 12 | 17 |
| 19 | 22 | 293 | 24 | 14 | 97 | 42 | 76 | 32 | 23 | 20 | 14 | 15 |
| 20 | 21 | 115 | 23 | 13 | 51 | 52 | 96 | 31 | 23 | 18 | 92 | 14 |
| 21 | 21 | 69 | 22 | 12 | 40 | 43 | 68 | 30 | 23 | 16 | 24 | 14 |
| 22 | 20 | 60 | 22 | 12 | 39 | 41 | 51 | 30 | 22 | 16 | 19 | 14 |
| 23 | 19 | 75 | 21 | 12 | 38 | 41 | 45 | 29 | 21 | 20 | 18 | 14 |
| 24 | 19 | 60 | 21 | 12 | 37 | 38 | 304 | 29 | 21 | 18 | 17 | 14 |
| 25 | 19 | 49 | 20 | 13 | 33 | 42 | 137 | 29 | 31 | 17 | 16 | 15 |
| 26 | 19 | 42 | 20 | 15 | 29 | 116 | 82 | 28 | 24 | 17 | 15 | 16 |
| 27 | 19 | 39 | 20 | 29 | 27 | 63 | 62 | 27 | 22 | 17 | 15 | 16 |
| 28 | 18 | 36 | 19 | 97 | 26 | 49 | 53 | 26 | 20 | 17 | 15 | 15 |
| 29 | 18 | 34 | 19 | 454 | ------ | 43 | 47 | 26 | 20 | 16 | 15 | 14 |
| 30 | 18 | 32 | 20 | 121 | ------ | 38 | 44 | 25 | 19 | 17 | 15 | 14 |
| 31 | 20 | ------ | 20 | 73 | ------ | 36 | ------ | 26 | ------ | 16 | 15 | ------ |
| TOTAL | 701 | 1,293 | 845 | 1,152 | 1,280 | 1,562 | 1,832 | 1,048 | 923 | 561 | 616 | 443 |
| MEAN | 22.6 | 43.1 | 27.3 | 37.2 | 45.7 | 50.4 | 61.1 | 33.8 | 30.8 | 18.1 | 19.9 | 14.8 |
| MAX | 47 | 293 | 55 | 454 | 97 | 178 | 304 | 56 | 75 | 23 | 92 | 17 |
| MIN | 17 | 18 | 19 | 12 | 26 | 28 | 30 | 25 | 19 | 16 | 12 | 14 |
| CFSM | .64 | 1.21 | .77 | 1.05 | 1.29 | 1.42 | 1.72 | .95 | .87 | .51 | .56 | .42 |
| IN. | .73 | 1.35 | .89 | 1.21 | 1.34 | 1.64 | 1.92 | 1.10 | .97 | .59 | .65 | .46 |

CAL YR 1969 TOTAL 14,741 MEAN 40.4 MAX 443 MIN 16 CFSM 1.14 IN 15.45
WAT YR 1970 TOTAL 12,256 MEAN 33.6 MAX 454 MIN 12 CFSM .95 IN 12.84

PEAK DISCHARGE (BASE, 400 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-19 | 1000 | 7.15 | 433 | 04-24 | 1345 | 7.93 | 528 |
| 01-29 | 0515 | 9.44 | 729 | | | | |

## 03348000 White River at Anderson, Ind.

LOCATION.--Lat 40°06'22", long 85°40'20", in SW¼ sec.7, T.19 N., R.8 E., Madison County, on left bank at municipal water-supply plant in Anderson, 1 mile upstream from Killbuck Creek.

DRAINAGE AREA.--406 sq mi.

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 700 ft downstream December 1910 to February 1918 and at present site since February 1918 are contained in reports of U.S. Weather Bureau. Prior to October 1948, published as West Fork White River at Anderson.

GAGE.--Nonrecording gage and concrete dam. Gage read twice daily. Datum of gage is 825.02 ft above mean sea level. Prior to May 12, 1934, nonrecording gage at site 250 ft upstream at same datum.

AVERAGE DISCHARGE.--40 years, 369 cfs (12.34 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,570 cfs Jan. 30 (gage height, 11.70 ft); minimum, 82 cfs Aug. 16, Sept. 13, 14, 16, 17, 18 (gage height, 7.48 ft).
Period of record: Maximum discharge, 18,700 cfs Apr. 21, 1964 (gage height, 19.41 ft); maximum gage height, 19.96 ft June 14, 1958; minimum discharge observed, 8.8 cfs Sept. 24, 1940 (gage height, 6.92 ft).
Maximum stage known, 23.6 ft Mar. 25, 1913, present site and datum, based on determination of U.S. Weather Bureau at site then in use (discharge, 28,000 cfs, estimated).

REMARKS.--Records fair except those for winter periods, which are poor. The City of Anderson diverts water for its municipal supply above the gage.

COOPERATION.--Gage readings furnished by City of Anderson.

REVISIONS (WATER YEARS).--WSP 1335: 1932, 1934-35, 1936(M), 1938-40. WSP 1385: 1950(P). WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 190 | 269 | 308 | 150 | 1,260 | 290 | 466 | 557 | 208 | 172 | 102 | 95 |
| 2 | 190 | 230 | 269 | 160 | 1,090 | 280 | 1,140 | 480 | 199 | 147 | 147 | 95 |
| 3 | 190 | 208 | 264 | 150 | 1,500 | 355 | 1,830 | 412 | 402 | 194 | 131 | 95 |
| 4 | 190 | 208 | 243 | 150 | 900 | 1,120 | 1,110 | 412 | 432 | 163 | 116 | 95 |
| 5 | 172 | 208 | 228 | 140 | 600 | 2,750 | 778 | 367 | 564 | 147 | 102 | 98 |
| 6 | 163 | 204 | 223 | 130 | 500 | 2,090 | 650 | 343 | 706 | 139 | 102 | 92 |
| 7 | 190 | 190 | 337 | 120 | 459 | 1,170 | 564 | 319 | 487 | 123 | 102 | 120 |
| 8 | 199 | 168 | 698 | 110 | 494 | 846 | 508 | 302 | 373 | 116 | 98 | 92 |
| 9 | 199 | 163 | 614 | 100 | 754 | 674 | 480 | 286 | 313 | 223 | 98 | 92 |
| 10 | 190 | 159 | 487 | 100 | 990 | 578 | 438 | 264 | 258 | 228 | 98 | 98 |
| 11 | 313 | 155 | 425 | 100 | 770 | 508 | 399 | 253 | 258 | 186 | 106 | 92 |
| 12 | 515 | 143 | 390 | 110 | 600 | 452 | 392 | 418 | 248 | 159 | 98 | 88 |
| 13 | 730 | 131 | 340 | 110 | 500 | 412 | 395 | 501 | 258 | 135 | 112 | 82 |
| 14 | 690 | 127 | 310 | 110 | 430 | 373 | 400 | 564 | 331 | 127 | 98 | 82 |
| 15 | 600 | 123 | 290 | 120 | 380 | 340 | 361 | 473 | 343 | 131 | 95 | 85 |
| 16 | 432 | 120 | 258 | 120 | 350 | 320 | 319 | 452 | 269 | 123 | 92 | 82 |
| 17 | 373 | 102 | 248 | 130 | 313 | 310 | 313 | 392 | 233 | 116 | 88 | 82 |
| 18 | 313 | 298 | 218 | 130 | 480 | 313 | 296 | 343 | 208 | 109 | 102 | 92 |
| 19 | 296 | 1,640 | 199 | 130 | 1,180 | 412 | 753 | 313 | 186 | 120 | 143 | 112 |
| 20 | 248 | 2,310 | 228 | 120 | 1,010 | 536 | 1,660 | 291 | 163 | 127 | 296 | 109 |
| 21 | 228 | 1,300 | 194 | 110 | 698 | 650 | 1,540 | 276 | 155 | 120 | 199 | 95 |
| 22 | 218 | 855 | 181 | 110 | 529 | 578 | 1,020 | 258 | 147 | 112 | 143 | 109 |
| 23 | 204 | 855 | 170 | 110 | 522 | 543 | 794 | 243 | 147 | 106 | 127 | 109 |
| 24 | 194 | 819 | 170 | 110 | 500 | 578 | 1,520 | 243 | 147 | 143 | 120 | 92 |
| 25 | 181 | 658 | 160 | 110 | 500 | 508 | 3,360 | 233 | 172 | 116 | 116 | 98 |
| 26 | 170 | 536 | 160 | 120 | 450 | 990 | 1,950 | 223 | 313 | 102 | 112 | 98 |
| 27 | 170 | 466 | 160 | 140 | 400 | 1,440 | 1,160 | 218 | 361 | 95 | 120 | 147 |
| 28 | 160 | 420 | 150 | 200 | 350 | 927 | 846 | 208 | 331 | 127 | 159 | 92 |
| 29 | 150 | 370 | 150 | 3,130 | ------ | 690 | 706 | 204 | 223 | 109 | 127 | 92 |
| 30 | 150 | 330 | 150 | 4,400 | ------ | 564 | 607 | 176 | 199 | 109 | 95 | 85 |
| 31 | 172 | ------ | 160 | 2,270 | ------ | 522 | ------ | 163 | ------ | 123 | 95 | ------ |
| TOTAL | 8,380 | 13,765 | 8,382 | 13,300 | 18,509 | 22,119 | 26,755 | 10,187 | 8,634 | 4,247 | 3,729 | 2,885 |
| MEAN | 270 | 459 | 270 | 429 | 661 | 714 | 892 | 329 | 288 | 137 | 120 | 96.2 |
| MAX | 730 | 2,310 | 698 | 4,400 | 1,500 | 2,750 | 3,360 | 564 | 706 | 228 | 296 | 147 |
| MIN | 150 | 102 | 150 | 100 | 313 | 280 | 296 | 163 | 147 | 95 | 82 | 82 |
| CFSM | .67 | 1.13 | .67 | 1.06 | 1.63 | 1.76 | 2.20 | .81 | .71 | .34 | .30 | .24 |
| IN. | .77 | 1.26 | .77 | 1.22 | 1.70 | 2.03 | 2.45 | .93 | .79 | .39 | .34 | .26 |

CAL YR 1969 TOTAL 163,908 MEAN 449 MAX 4,500 MIN 95 CFSM 1.11 IN 15.02
WAT YR 1970 TOTAL 140,892 MEAN 386 MAX 4,400 MIN 82 CFSM .95 IN 12.91

PEAK DISCHARGE (BASE, 2,700 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 01-30 | 0700 | 11.70 | 4,570 | 04-25 | 1300 | 11.10 | 3,710 |
| 03-05 | 1600 | 10.50 | 2,920 | | | | |

03348020 Killbuck Creek near Gaston, Ind.

LOCATION.--Lat 40°15'45", long 85°30'53", in SW¼SE¼SW¼ sec.16, T.21 N., R.9 E., Delaware County, on right bank 30 ft upstream from bridge on County Road 500 North, and 15 ft east of County Road 675 West, 3.6 miles southwest of Gaston.

DRAINAGE AREA.--25.5 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage 837.00 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 259 cfs Jan. 29 (gage height, 9.99 ft); minimum, 3.2 cfs Sept. 30; minimum gage height, 3.57 ft Sept. 12.
Period of record: Maximum discharge, 378 cfs Jan. 18, 1969; maximum gage height, 10.65 ft Jan. 30, 1969; minimum discharge, 3.1 cfs Oct. 22-24, 1968; minimum gage height, 3.57 ft Sept. 12, 1970.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.6 | 15 | 23 | 9.5 | 44 | 15 | 20 | 29 | 12 | 7.4 | 94 | 4.3 |
| 2 | 6.0 | 19 | 20 | 8.7 | 68 | 15 | 42 | 26 | 12 | 7.2 | 93 | 4.2 |
| 3 | 6.4 | 16 | 20 | 8.5 | 50 | 18 | 49 | 23 | 25 | 7.7 | 43 | 4.3 |
| 4 | 5.9 | 17 | 16 | 8.3 | 38 | 45 | 36 | 20 | 32 | 8.1 | 30 | 4.3 |
| 5 | 5.7 | 20 | 15 | 8.0 | 28 | 62 | 29 | 18 | 30 | 7.4 | 21 | 4.3 |
| 6 | 5.7 | 17 | 14 | 7.6 | 23 | 40 | 27 | 16 | 32 | 6.9 | 15 | 4.1 |
| 7 | 6.1 | 15 | 26 | 7.2 | 21 | 31 | 22 | 15 | 21 | 6.8 | 12 | 4.0 |
| 8 | 7.2 | 14 | 50 | 6.6 | 20 | 26 | 20 | 14 | 16 | 7.3 | 10 | 4.0 |
| 9 | 7.5 | 12 | 34 | 6.2 | 23 | 23 | 20 | 13 | 13 | 12 | 9.4 | 3.9 |
| 10 | 7.5 | 12 | 29 | 6.0 | 42 | 19 | 18 | 12 | 13 | 13 | 8.5 | 3.9 |
| 11 | 11 | 12 | 25 | 6.2 | 35 | 17 | 17 | 13 | 12 | 9.9 | 7.8 | 3.8 |
| 12 | 69 | 12 | 21 | 6.6 | 29 | 15 | 16 | 15 | 11 | 7.9 | 7.2 | 3.7 |
| 13 | 105 | 11 | 18 | 7.2 | 25 | 14 | 18 | 26 | 35 | 7.1 | 6.7 | 3.6 |
| 14 | 84 | 11 | 18 | 7.3 | 20 | 13 | 18 | 24 | 60 | 6.9 | 6.2 | 3.7 |
| 15 | 50 | 10 | 16 | 7.2 | 18 | 12 | 16 | 20 | 32 | 6.8 | 6.0 | 3.7 |
| 16 | 36 | 9.8 | 14 | 7.3 | 17 | 12 | 15 | 20 | 21 | 6.7 | 5.8 | 3.6 |
| 17 | 28 | 9.7 | 13 | 7.5 | 17 | 12 | 14 | 20 | 16 | 6.6 | 5.6 | 3.4 |
| 18 | 22 | 35 | 13 | 7.7 | 23 | 13 | 13 | 17 | 13 | 6.5 | 5.5 | 3.5 |
| 19 | 19 | 225 | 13 | 7.6 | 69 | 14 | 82 | 15 | 11 | 7.1 | 5.5 | 3.7 |
| 20 | 19 | 202 | 11 | 7.0 | 41 | 25 | 145 | 14 | 10 | 8.5 | 8.3 | 3.5 |
| 21 | 19 | 112 | 11 | 6.6 | 28 | 24 | 93 | 13 | 9.8 | 9.1 | 6.9 | 3.3 |
| 22 | 16 | 66 | 11 | 6.2 | 26 | 22 | 67 | 13 | 9.4 | 7.1 | 5.9 | 3.3 |
| 23 | 13 | 78 | 10 | 6.2 | 24 | 24 | 50 | 13 | 8.6 | 7.0 | 5.9 | 3.3 |
| 24 | 12 | 64 | 10 | 6.2 | 22 | 21 | 170 | 13 | 8.3 | 9.4 | 5.5 | 3.4 |
| 25 | 12 | 51 | 9.9 | 6.4 | 20 | 19 | 167 | 13 | 8.2 | 7.7 | 5.2 | 3.3 |
| 26 | 12 | 41 | 10 | 7.0 | 18 | 58 | 80 | 13 | 8.3 | 7.0 | 5.0 | 3.7 |
| 27 | 11 | 35 | 9.8 | 11 | 17 | 49 | 57 | 12 | 15 | 7.0 | 4.9 | 4.6 |
| 28 | 11 | 30 | 9.7 | 34 | 15 | 36 | 45 | 11 | 10 | 7.9 | 4.7 | 3.8 |
| 29 | 10 | 27 | 9.6 | 250 | ------ | 29 | 36 | 11 | 8.2 | 7.4 | 4.6 | 3.4 |
| 30 | 10 | 25 | 9.7 | 182 | ------ | 24 | 32 | 10 | 7.7 | 8.4 | 4.6 | 3.3 |
| 31 | 10 | ------ | 9.5 | 76 | ------ | 22 | ------ | 11 | ------ | 9.4 | 4.4 | ------ |
| TOTAL | 642.6 | 1,223.5 | 519.2 | 739.8 | 821 | 769 | 1,434 | 503 | 520.5 | 245.2 | 458.1 | 112.9 |
| MEAN | 20.7 | 40.8 | 16.7 | 23.9 | 29.3 | 24.8 | 47.8 | 16.2 | 17.4 | 7.91 | 14.8 | 3.76 |
| MAX | 105 | 225 | 50 | 250 | 69 | 62 | 170 | 29 | 60 | 13 | 94 | 4.6 |
| MIN | 5.6 | 9.7 | 9.5 | 6.0 | 15 | 12 | 13 | 10 | 7.7 | 6.5 | 4.4 | 3.3 |
| CFSM | .81 | 1.60 | .65 | .94 | 1.15 | .97 | 1.87 | .64 | .68 | .31 | .58 | .15 |
| IN. | .94 | 1.78 | .76 | 1.08 | 1.20 | 1.12 | 2.09 | .73 | .76 | .36 | .67 | .16 |

CAL YR 1969 TOTAL 9,776.8 MEAN 26.8 MAX 355 MIN 3.3 CFSM 1.05 IN 14.26
WAT YR 1970 TOTAL 7,988.8 MEAN 21.9 MAX 250 MIN 3.3 CFSM .86 IN 11.65

PEAK DISCHARGE (BASE, 250 CFS).--Jan. 29 (2400) 259 cfs (9.99 ft).

## 03348350 Pipe Creek at Frankton, Ind.

LOCATION.--Lat 40°13'38", long 85°45'58", in SE¼SE¼NE¼ sec.31, T.21 N., R.7 E., Madison County, on right bank 20 ft downstream from bridge on county road 500 West at northeast edge of Frankton.

DRAINAGE AREA.--113 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 810.00 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 1,210 cfs Jan. 29 (gage height, 9.06 ft); minimum, 6.1 cfs Sept. 21, 22, 29, 30; minimum gage height, 3.19 ft Sept. 11.
Period of record: Maximum discharge, 1,700 cfs Jan. 18, 1969 (gage height, 10.41 ft); minimum, 6.1 cfs Sept. 21, 22, 29, 30, 1970; minimum gage height, 3.19 ft Sept. 11, 1970.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 21 | 53 | 91 | 35 | 231 | 48 | 80 | 122 | 46 | 15 | 57 | 11 |
| 2 | 23 | 72 | 77 | 32 | 298 | 51 | 188 | 106 | 46 | 14 | 160 | 10 |
| 3 | 29 | 61 | 74 | 31 | 363 | 63 | 241 | 90 | 67 | 23 | 99 | 11 |
| 4 | 27 | 56 | 63 | 30 | 170 | 188 | 161 | 79 | 90 | 19 | 56 | 11 |
| 5 | 23 | 58 | 55 | 29 | 100 | 280 | 126 | 71 | 96 | 16 | 38 | 11 |
| 6 | 21 | 58 | 54 | 27 | 88 | 178 | 112 | 62 | 99 | 15 | 29 | 10 |
| 7 | 22 | 53 | 100 | 26 | 89 | 135 | 92 | 57 | 67 | 13 | 25 | 11 |
| 8 | 22 | 47 | 226 | 25 | 91 | 112 | 79 | 56 | 50 | 19 | 22 | 10 |
| 9 | 22 | 43 | 157 | 23 | 96 | 94 | 77 | 53 | 42 | 47 | 20 | 9.4 |
| 10 | 21 | 41 | 122 | 23 | 93 | 78 | 66 | 50 | 39 | 51 | 19 | 8.9 |
| 11 | 32 | 39 | 110 | 23 | 86 | 66 | 60 | 51 | 35 | 26 | 17 | 7.2 |
| 12 | 259 | 39 | 91 | 24 | 75 | 60 | 57 | 61 | 32 | 18 | 16 | 7.2 |
| 13 | 829 | 37 | 79 | 25 | 67 | 52 | 61 | 178 | 29 | 15 | 15 | 7.8 |
| 14 | 620 | 35 | 79 | 26 | 59 | 48 | 67 | 142 | 33 | 15 | 14 | 11 |
| 15 | 375 | 33 | 67 | 27 | 52 | 45 | 57 | 108 | 29 | 14 | 13 | 9.4 |
| 16 | 228 | 30 | 57 | 27 | 49 | 44 | 53 | 272 | 27 | 13 | 12 | 7.8 |
| 17 | 153 | 29 | 54 | 28 | 48 | 42 | 50 | 177 | 26 | 12 | 12 | 7.2 |
| 18 | 110 | 78 | 53 | 28 | 73 | 45 | 47 | 121 | 23 | 12 | 12 | 11 |
| 19 | 86 | 841 | 52 | 27 | 262 | 56 | 299 | 92 | 21 | 19 | 26 | 10 |
| 20 | 75 | 949 | 46 | 26 | 166 | 121 | 928 | 75 | 19 | 29 | 32 | 7.8 |
| 21 | 68 | 517 | 43 | 24 | 108 | 120 | 653 | 64 | 18 | 27 | 17 | 6.5 |
| 22 | 58 | 307 | 41 | 23 | 96 | 103 | 398 | 57 | 18 | 18 | 15 | 7.2 |
| 23 | 48 | 328 | 40 | 22 | 86 | 102 | 246 | 51 | 17 | 20 | 15 | 10 |
| 24 | 43 | 278 | 38 | 22 | 78 | 91 | 628 | 78 | 16 | 26 | 13 | 7.8 |
| 25 | 42 | 216 | 37 | 23 | 72 | 80 | 829 | 102 | 16 | 22 | 13 | 7.8 |
| 26 | 40 | 173 | 36 | 25 | 64 | 287 | 383 | 84 | 19 | 17 | 13 | 15 |
| 27 | 38 | 147 | 36 | 34 | 56 | 257 | 229 | 57 | 29 | 17 | 12 | 15 |
| 28 | 35 | 125 | 34 | 149 | 49 | 164 | 173 | 45 | 22 | 25 | 12 | 9.4 |
| 29 | 33 | 111 | 33 | 1,000 | ------ | 126 | 144 | 40 | 17 | 20 | 12 | 6.5 |
| 30 | 31 | 97 | 34 | 787 | ------ | 102 | 133 | 38 | 16 | 23 | 11 | 6.5 |
| 31 | 31 | ------ | 35 | 361 | ------ | 89 | ------ | 40 | ------ | 43 | 11 | ------ |
| TOTAL | 3,465 | 4,951 | 2,114 | 3,012 | 3,165 | 3,327 | 6,717 | 2,679 | 1,104 | 663 | 838 | 281.4 |
| MEAN | 112 | 165 | 68.2 | 97.2 | 113 | 107 | 224 | 86.4 | 36.8 | 21.4 | 27.0 | 9.38 |
| MAX | 829 | 949 | 226 | 1,000 | 363 | 287 | 928 | 272 | 99 | 51 | 160 | 15 |
| MIN | 21 | 29 | 33 | 22 | 48 | 42 | 47 | 38 | 16 | 12 | 11 | 6.5 |
| CFSM | .99 | 1.46 | .60 | .86 | 1.00 | .95 | 1.98 | .76 | .33 | .19 | .24 | .083 |
| IN. | 1.14 | 1.63 | .70 | .99 | 1.04 | 1.10 | 2.21 | .88 | .36 | .22 | .28 | .09 |

CAL YR 1969 TOTAL 39,718.0 MEAN 109 MAX 1,430 MIN 11 CFSM .96 IN 13.08
WAT YR 1970 TOTAL 32,316.4 MEAN 88.5 MAX 1,000 MIN 6.5 CFSM .78 IN 10.64

PEAK DISCHARGE (BASE, 500 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-13 | 0930 | 8.19 | 907 | 04-20 | 1015 | 8.44 | 994 |
| 11-19 | 2245 | 9.03 | 1,200 | 04-24 | 2400 | 8.70 | 1,080 |
| 01-29 | 1730 | 9.06 | 1,210 | | | | |

03348500 White River near Noblesville, Ind.

LOCATION.--Lat 40°07'46", long 85°57'46", in sec.4, T.19 N., R.5 E., Hamilton County, near center of span on downstream side of highway bridge, 1 mile west of Strawtown, 7 miles northeast of Noblesville, 9.5 miles upstream from Cicero Creek, and at mile 277.4.

DRAINAGE AREA.--828 sq mi.

PERIOD OF RECORD.--May 1915 to September 1926, October 1928 to current year. Monthly discharge only for some periods, published in WSP 1305. Published as "West Branch of White River" prior to October 1922 and as "West Fork of White River" October 1922 to September 1948. Records of daily discharge for the water year 1928, published in WSP 663, have been found to be unreliable and should not be used.

GAGE.--Water-stage recorder. Datum of gage is 763.08 ft above mean sea level (levels by Corps of Engineers). Prior to July 1, 1922, nonrecording gage at bridge 2 miles downstream at different datum. July 1, 1922, to Nov. 21, 1933, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--53 years, 785 cfs (12.87 inches per year).

EXTREMES.--Current year: Maximum discharge, 6,820 cfs Jan. 30 (gage height, 11.92 ft); minimum, 97 cfs Sept. 13 (gage height, 3.92 ft).
Period of record: Maximum discharge, 27,200 cfs Mar. 21, 1927 (gage height, 16.3 ft, from graph based on gage readings); maximum gage height, 16.35 ft June 14, 1958, Apr. 22, 1964; minimum discharge, 36 cfs Sept. 25, 1941.

REMARKS.--Records good except those for winter periods, which are fair. Records of water temperatures and suspended sediment loads for the current year are published in Part 2 of this report. See also period of record.

REVISIONS (WATER YEARS).--WSP 1335: 1915-16, 1918, 1920, 1921(M), 1922, 1927-28(M), 1929-30, 1933(M), 1936, 1941(M). WSP 1725: 1959(M). WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 277 | 440 | 804 | 340 | 2,320 | 453 | 829 | 1,340 | 419 | 242 | 256 | 143 |
| 2 | 306 | 547 | 712 | 357 | 2,210 | 438 | 1,200 | 1,190 | 396 | 216 | 386 | 143 |
| 3 | 306 | 482 | 664 | 339 | 2,700 | 493 | 2,460 | 985 | 559 | 288 | 427 | 141 |
| 4 | 295 | 463 | 598 | 321 | 1,600 | 1,100 | 1,940 | 874 | 804 | 285 | 317 | 164 |
| 5 | 270 | 463 | 537 | 300 | 1,300 | 2,960 | 1,390 | 798 | 755 | 234 | 249 | 150 |
| 6 | 259 | 472 | 504 | 270 | 1,000 | 3,040 | 1,170 | 712 | 1,040 | 216 | 216 | 141 |
| 7 | 284 | 436 | 652 | 240 | 881 | 1,860 | 1,000 | 652 | 810 | 206 | 192 | 154 |
| 8 | 284 | 397 | 1,430 | 220 | 874 | 1,380 | 855 | 628 | 598 | 202 | 185 | 154 |
| 9 | 262 | 368 | 1,440 | 220 | 1,070 | 1,110 | 792 | 592 | 473 | 306 | 174 | 150 |
| 10 | 262 | 352 | 1,110 | 230 | 1,380 | 926 | 724 | 542 | 415 | 353 | 168 | 148 |
| 11 | 388 | 352 | 959 | 240 | 1,220 | 792 | 664 | 520 | 382 | 342 | 171 | 136 |
| 12 | 1,490 | 340 | 829 | 250 | 1,020 | 694 | 622 | 652 | 360 | 299 | 168 | 136 |
| 13 | 2,860 | 325 | 718 | 260 | 874 | 640 | 634 | 920 | 346 | 249 | 174 | 132 |
| 14 | 2,650 | 310 | 682 | 270 | 748 | 587 | 658 | 1,150 | 411 | 234 | 160 | 150 |
| 15 | 2,020 | 295 | 610 | 270 | 660 | 548 | 610 | 953 | 510 | 216 | 150 | 174 |
| 16 | 1,370 | 277 | 548 | 280 | 600 | 504 | 553 | 1,100 | 386 | 210 | 143 | 148 |
| 17 | 1,030 | 277 | 504 | 290 | 564 | 478 | 537 | 1,020 | 335 | 196 | 138 | 141 |
| 18 | 814 | 518 | 483 | 290 | 628 | 483 | 515 | 779 | 306 | 182 | 143 | 154 |
| 19 | 672 | 3,480 | 478 | 280 | 914 | 542 | 1,330 | 658 | 278 | 256 | 228 | 182 |
| 20 | 597 | 5,600 | 443 | 250 | 1,760 | 817 | 3,760 | 581 | 256 | 250 | 862 | 160 |
| 21 | 552 | 4,020 | 423 | 240 | 1,080 | 1,100 | 3,720 | 531 | 238 | 240 | 576 | 145 |
| 22 | 492 | 2,520 | 410 | 240 | 848 | 992 | 2,620 | 488 | 242 | 220 | 328 | 148 |
| 23 | 422 | 2,220 | 390 | 240 | 792 | 920 | 1,840 | 448 | 242 | 210 | 278 | 154 |
| 24 | 376 | 2,190 | 370 | 240 | 798 | 907 | 3,030 | 443 | 227 | 240 | 220 | 143 |
| 25 | 360 | 1,820 | 360 | 250 | 773 | 829 | 5,630 | 478 | 231 | 230 | 192 | 138 |
| 26 | 344 | 1,500 | 360 | 290 | 718 | 1,570 | 4,280 | 504 | 288 | 210 | 178 | 160 |
| 27 | 329 | 1,260 | 350 | 380 | 628 | 2,570 | 2,480 | 423 | 389 | 200 | 164 | 263 |
| 28 | 318 | 1,080 | 346 | 600 | 526 | 1,730 | 1,760 | 386 | 430 | 234 | 188 | 202 |
| 29 | 292 | 972 | 342 | 3,500 | ------ | 1,310 | 1,520 | 364 | 332 | 224 | 192 | 157 |
| 30 | 277 | 868 | 346 | 6,460 | ------ | 1,070 | 1,460 | 350 | 281 | 263 | 164 | 150 |
| 31 | 277 | ------ | 360 | 4,860 | ------ | 926 | ------ | 360 | ------ | 292 | 141 | ------ |
| TOTAL | 20,735 | 34,644 | 18,762 | 22,817 | 30,486 | 33,769 | 50,583 | 21,421 | 12,739 | 7,545 | 7,528 | 4,661 |
| MEAN | 669 | 1,155 | 605 | 736 | 1,089 | 1,089 | 1,686 | 691 | 425 | 243 | 243 | 155 |
| MAX | 2,860 | 5,600 | 1,440 | 6,460 | 2,700 | 3,040 | 5,630 | 1,340 | 1,040 | 353 | 862 | 263 |
| MIN | 259 | 277 | 342 | 220 | 526 | 438 | 515 | 350 | 227 | 182 | 138 | 132 |
| CFSM | .81 | 1.39 | .73 | .89 | 1.32 | 1.32 | 2.04 | .83 | .51 | .29 | .29 | .19 |
| IN. | .93 | 1.56 | .84 | 1.03 | 1.37 | 1.52 | 2.27 | .96 | .57 | .34 | .34 | .21 |

CAL YR 1969 TOTAL 327,434 MEAN 897 MAX 10,100 MIN 172 CFSM 1.08 IN 14.71
WAT YR 1970 TOTAL 265,690 MEAN 728 MAX 6,460 MIN 132 CFSM .88 IN 11.94

PEAK DISCHARGE (BASE, 5,500 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-20 | 1330 | 11.35 | 5,940 | 04-25 | 1600 | 11.42 | 6,030 |
| 01-30 | 1900 | 11.92 | 6,820 | | | | |

## 03349000 White River at Noblesville, Ind.

LOCATION.--Lat 40°02'50", long 86°01'00", in SE¼ sec.36, T.19 N., R.4 E., Hamilton County, on right bank at downstream side of Logan Street Bridge in Noblesville, 1.5 miles upstream from Cicero Creek, 3.5 miles downstream from dam at Clare, and at mile 269.0.

DRAINAGE AREA.--858 sq mi.

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 a site 400 ft downstream January 1936 to May 1951, are contained in reports of U.S. Weather Bureau (revised). Prior to October 1948, published as West Fork White River at Noblesville.

GAGE.--Water-stage recorder. Datum of gage is 738.16 ft above mean sea level.

AVERAGE DISCHARGE.--24 years, 801 cfs (12.68 inches per year).

EXTREMES.--Current year: Maximum discharge, 6,910 cfs Jan. 30 (gage height, 12.63 ft); minimum, 114 cfs July 22 (gage height, 3.73 ft).
Period of record: Maximum discharge, 26,800 cfs Apr. 22, 1964 (gage height, 21.31 ft); minimum, 0.9 cfs Sept. 24, 1964 (gage height, 3.45 ft); minimum daily discharge, 44 cfs Sept. 28, 1954.
Maximum stage known, 23.8 ft Mar. 25, 1913, present site and datum, from U.S. Weather Bureau records.

REMARKS.--Records good except those for winter periods, which are fair. Flow slightly regulated by powerplant above station. Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1335: 1949. WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 279 | 449 | 835 | 356 | 2,700 | 610 | 849 | 1,480 | 446 | 258 | 282 | 164 |
| 2 | 293 | 580 | 744 | 374 | 2,330 | 580 | 1,130 | 1,370 | 441 | 234 | 348 | 165 |
| 3 | 296 | 520 | 688 | 356 | 2,940 | 628 | 2,360 | 1,140 | 550 | 270 | 470 | 165 |
| 4 | 293 | 500 | 634 | 340 | 1,900 | 1,050 | 2,110 | 1,020 | 793 | 296 | 340 | 177 |
| 5 | 272 | 495 | 568 | 317 | 1,400 | 2,860 | 1,460 | 940 | 758 | 246 | 261 | 171 |
| 6 | 260 | 500 | 535 | 270 | 1,100 | 3,340 | 1,210 | 849 | 989 | 225 | 223 | 161 |
| 7 | 275 | 467 | 634 | 230 | 982 | 2,090 | 1,050 | 779 | 877 | 220 | 196 | 162 |
| 8 | 293 | 436 | 1,370 | 220 | 947 | 1,490 | 891 | 744 | 652 | 215 | 190 | 180 |
| 9 | 269 | 404 | 1,490 | 220 | 1,030 | 1,220 | 821 | 706 | 525 | 267 | 180 | 165 |
| 10 | 269 | 377 | 1,060 | 230 | 1,480 | 1,030 | 744 | 664 | 460 | 340 | 174 | 164 |
| 11 | 350 | 373 | 954 | 240 | 1,360 | 884 | 676 | 634 | 419 | 352 | 176 | 158 |
| 12 | 1,320 | 364 | 828 | 260 | 1,000 | 772 | 628 | 744 | 387 | 306 | 176 | 155 |
| 13 | 3,200 | 346 | 706 | 270 | 900 | 712 | 628 | 982 | 369 | 255 | 174 | 149 |
| 14 | 3,120 | 334 | 658 | 280 | 800 | 664 | 658 | 1,300 | 401 | 234 | 173 | 162 |
| 15 | 2,200 | 322 | 598 | 280 | 720 | 616 | 610 | 1,120 | 574 | 220 | 167 | 177 |
| 16 | 1,460 | 300 | 535 | 290 | 660 | 574 | 556 | 1,190 | 450 | 215 | 162 | 165 |
| 17 | 1,070 | 296 | 495 | 290 | 670 | 540 | 535 | 1,160 | 378 | 210 | 155 | 152 |
| 18 | 832 | 449 | 480 | 290 | 688 | 535 | 510 | 891 | 340 | 203 | 161 | 158 |
| 19 | 682 | 3,620 | 470 | 270 | 1,490 | 586 | 1,160 | 744 | 310 | 258 | 182 | 174 |
| 20 | 596 | 6,220 | 450 | 250 | 2,010 | 828 | 4,120 | 652 | 282 | 258 | 718 | 165 |
| 21 | 560 | 4,860 | 423 | 240 | 1,350 | 1,160 | 4,440 | 586 | 267 | 276 | 634 | 150 |
| 22 | 510 | 2,880 | 390 | 230 | 1,050 | 1,070 | 3,040 | 535 | 258 | 252 | 332 | 149 |
| 23 | 449 | 2,420 | 370 | 240 | 989 | 989 | 2,020 | 495 | 261 | 220 | 276 | 150 |
| 24 | 404 | 2,410 | 360 | 250 | 982 | 968 | 3,430 | 480 | 252 | 285 | 220 | 147 |
| 25 | 382 | 1,980 | 360 | 280 | 947 | 898 | 6,050 | 495 | 246 | 258 | 198 | 137 |
| 26 | 368 | 1,590 | 350 | 344 | 912 | 1,470 | 5,050 | 520 | 276 | 231 | 192 | 143 |
| 27 | 355 | 1,340 | 350 | 437 | 814 | 2,690 | 2,920 | 446 | 401 | 223 | 184 | 200 |
| 28 | 342 | 1,140 | 356 | 652 | 700 | 1,880 | 2,100 | 401 | 437 | 243 | 188 | 190 |
| 29 | 326 | 1,010 | 332 | 4,160 | ------ | 1,360 | 1,700 | 369 | 365 | 258 | 200 | 156 |
| 30 | 310 | 912 | 356 | 6,560 | ------ | 1,120 | 1,580 | 356 | 296 | 276 | 188 | 147 |
| 31 | 322 | ------ | 378 | 5,730 | ------ | 940 | ------ | 365 | ------ | 332 | 165 | ------ |
| TOTAL | 21,957 | 37,894 | 18,757 | 24,756 | 34,851 | 36,154 | 55,036 | 24,157 | 13,460 | 7,936 | 7,685 | 4,858 |
| MEAN | 708 | 1,263 | 605 | 799 | 1,245 | 1,166 | 1,835 | 779 | 449 | 256 | 248 | 162 |
| MAX | 3,200 | 6,220 | 1,490 | 6,560 | 2,940 | 3,340 | 6,050 | 1,480 | 989 | 352 | 718 | 200 |
| MIN | 260 | 296 | 332 | 220 | 660 | 535 | 510 | 356 | 246 | 203 | 155 | 137 |
| CFSM | .83 | 1.47 | .71 | .93 | 1.45 | 1.36 | 2.14 | .91 | .52 | .30 | .29 | .19 |
| IN. | .95 | 1.64 | .81 | 1.07 | 1.51 | 1.57 | 2.39 | 1.05 | .58 | .34 | .33 | .21 |

CAL YR 1969 TOTAL 336,309 MEAN 921 MAX 10,600 MIN 186 CFSM 1.07 IN 14.58
WAT YR 1970 TOTAL 287,501 MEAN 788 MAX 6,560 MIN 137 CFSM .92 IN 12.47

PEAK DISCHARGE (BASE, 6,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-20 | 1500 | 12.18 | 6,400 | 04-25 | 2200 | 12.05 | 6,450 |
| 01-30 | 2215 | 12.63 | 6,910 | | | | |

03349500 Cicero Creek near Arcadia, Ind.

LOCATION.--Lat 40°10'34", long 85°59'43", in NW¼ sec.20, T.20 N., R.5 E., Hamilton County, on left bank on downstream side of bridge, 1.5 miles east of Arcadia and 10 miles upstream from Morse Dam.

DRAINAGE AREA.--131 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 815.12 ft above mean sea level. Prior to Dec. 7, 1955, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--16 years, 115 cfs (11.93 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,620 cfs Nov. 19 (gage height, 8.90 ft); minimum, 4.2 cfs Sept. 13 (gage height, 1.83 ft).
Period of record: Maximum discharge, 6,720 cfs June 29, 1957 (gage height, 11.86 ft); minimum, 0.4 cfs Oct. 10, 1956. Maximum stage known, 15.6 ft (probably the flood in January 1937), from information by local residents.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 38 | 357 | 141 | 42 | 247 | 64 | 111 | 325 | 41 | 7.1 | 204 | 8.1 |
| 2 | 39 | 470 | 115 | 33 | 317 | 66 | 174 | 291 | 40 | 6.8 | 115 | 7.6 |
| 3 | 40 | 311 | 113 | 29 | 318 | 74 | 237 | 208 | 52 | 18 | 70 | 7.6 |
| 4 | 32 | 246 | 92 | 28 | 190 | 194 | 201 | 162 | 43 | 17 | 45 | 7.6 |
| 5 | 26 | 225 | 81 | 26 | 120 | 319 | 159 | 133 | 40 | 11 | 31 | 7.1 |
| 6 | 24 | 199 | 78 | 24 | 94 | 221 | 146 | 106 | 38 | 8.1 | 23 | 6.3 |
| 7 | 30 | 169 | 122 | 23 | 86 | 173 | 112 | 92 | 33 | 7.4 | 17 | 5.8 |
| 8 | 30 | 146 | 207 | 22 | 95 | 145 | 98 | 87 | 29 | 7.1 | 14 | 5.6 |
| 9 | 29 | 130 | 167 | 21 | 93 | 122 | 94 | 78 | 26 | 20 | 13 | 5.3 |
| 10 | 30 | 116 | 145 | 20 | 91 | 100 | 83 | 69 | 25 | 37 | 11 | 5.1 |
| 11 | 351 | 111 | 133 | 20 | 83 | 81 | 75 | 67 | 25 | 30 | 10 | 4.9 |
| 12 | 1,010 | 105 | 106 | 21 | 70 | 72 | 72 | 101 | 24 | 15 | 8.7 | 4.6 |
| 13 | 1,540 | 91 | 94 | 22 | 58 | 66 | 79 | 309 | 20 | 10 | 7.9 | 4.4 |
| 14 | 1,300 | 85 | 98 | 23 | 50 | 60 | 72 | 277 | 20 | 8.4 | 7.1 | 14 |
| 15 | 822 | 75 | 81 | 24 | 44 | 56 | 61 | 197 | 20 | 7.6 | 6.6 | 9.7 |
| 16 | 590 | 63 | 68 | 24 | 41 | 53 | 57 | 282 | 21 | 6.8 | 5.8 | 7.1 |
| 17 | 430 | 62 | 65 | 24 | 40 | 54 | 55 | 227 | 20 | 6.1 | 5.1 | 6.1 |
| 18 | 327 | 373 | 66 | 24 | 83 | 57 | 51 | 158 | 17 | 5.3 | 5.1 | 14 |
| 19 | 257 | 1,510 | 65 | 23 | 328 | 64 | 555 | 123 | 15 | 154 | 231 | 21 |
| 20 | 219 | 1,380 | 54 | 22 | 176 | 135 | 1,260 | 102 | 13 | 113 | 808 | 12 |
| 21 | 192 | 762 | 48 | 20 | 131 | 193 | 951 | 87 | 13 | 45 | 317 | 9.1 |
| 22 | 161 | 560 | 45 | 20 | 120 | 171 | 638 | 75 | 13 | 25 | 192 | 7.9 |
| 23 | 125 | 580 | 43 | 20 | 100 | 157 | 441 | 67 | 12 | 16 | 136 | 10 |
| 24 | 106 | 465 | 41 | 20 | 96 | 137 | 951 | 61 | 11 | 16 | 85 | 12 |
| 25 | 101 | 371 | 40 | 20 | 88 | 120 | 963 | 64 | 11 | 12 | 50 | 10 |
| 26 | 92 | 301 | 39 | 22 | 80 | 413 | 542 | 72 | 11 | 9.7 | 35 | 45 |
| 27 | 84 | 246 | 38 | 82 | 70 | 404 | 373 | 54 | 10 | 9.1 | 25 | 194 |
| 28 | 73 | 199 | 37 | 176 | 64 | 259 | 293 | 45 | 9.4 | 168 | 19 | 105 |
| 29 | 65 | 176 | 36 | 989 | ------ | 196 | 244 | 41 | 8.1 | 111 | 15 | 56 |
| 30 | 62 | 154 | 38 | 589 | ------ | 151 | 319 | 40 | 7.9 | 178 | 12 | 38 |
| 31 | 67 | ------ | 34 | 341 | ------ | 125 | ------ | 39 | ------ | 418 | 9.4 | ------ |
| TOTAL | 8,292 | 10,038 | 2,530 | 2,794 | 3,373 | 4,502 | 9,467 | 4,039 | 668.4 | 1,503.5 | 2,533.7 | 650.9 |
| MEAN | 267 | 335 | 81.6 | 90.1 | 120 | 145 | 316 | 130 | 22.3 | 48.5 | 81.7 | 21.7 |
| MAX | 1,540 | 1,510 | 207 | 989 | 328 | 413 | 1,260 | 325 | 52 | 418 | 808 | 194 |
| MIN | 24 | 62 | 34 | 20 | 40 | 53 | 51 | 39 | 7.9 | 5.3 | 5.1 | 4.4 |
| CFSM | 2.04 | 2.56 | .62 | .69 | .92 | 1.11 | 2.41 | .99 | .17 | .37 | .62 | .17 |
| IN. | 2.35 | 2.85 | .72 | .79 | .96 | 1.28 | 2.69 | 1.15 | .19 | .43 | .72 | .18 |

CAL YR 1969 TOTAL 57,707.2 MEAN 158 MAX 1,960 MIN 4.3 CFSM 1.21 IN 16.39
WAT YR 1970 TOTAL 50,391.5 MEAN 138 MAX 1,540 MIN 4.4 CFSM 1.05 IN 14.31

PEAK DISCHARGE (BASE, 1,100 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-13 | 0645 | 8.80 | 1,570 | 04-20 | 1100 | 8.15 | 1,320 |
| 11-19 | 1815 | 8.90 | 1,620 | 04-24 | 2100 | 8.10 | 1,300 |
| 01-29 | 0915 | 8.37 | 1,400 | 08-20 | 0115 | 7.94 | 1,250 |

## 03349700 Little Cicero Creek near Arcadia, Ind.

LOCATION.--Lat 40°10'32", long 86°02'45", on line between secs.14 and 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.

DRAINAGE AREA.--40.4 sq mi.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 840 ft (by barometer).

AVERAGE DISCHARGE.--15 years, 38.0 cfs (12.77 inches per year).

EXTREMES.--Current year: Maximum discharge, 766 cfs Nov. 19 (gage height, 5.53 ft); minimum, 0.07 cfs Sept. 12, 13 (gage height, 0.39 ft).
Period of record: Maximum discharge, 3,980 cfs June 28, 1957 (gage height, 8.69 ft); no flow at times during 1957, 1963, 1964, 1966-68.

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

REVISIONS.--WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 8.8 | 159 | 39 | 9.6 | 81 | 19 | 43 | 107 | 13 | 1.2 | 20 | .51 |
| 2 | 9.1 | 145 | 32 | 9.0 | 115 | 19 | 73 | 91 | 12 | 1.1 | 9.0 | .38 |
| 3 | 9.4 | 95 | 31 | 8.4 | 80 | 30 | 101 | 66 | 14 | 3.3 | 5.3 | .32 |
| 4 | 7.6 | 77 | 23 | 8.0 | 56 | 124 | 79 | 52 | 13 | 3.7 | 3.7 | .35 |
| 5 | 7.0 | 76 | 21 | 7.4 | 35 | 143 | 62 | 43 | 12 | 2.4 | 2.7 | .41 |
| 6 | 7.0 | 62 | 20 | 7.0 | 32 | 96 | 55 | 34 | 11 | 1.2 | 1.7 | .35 |
| 7 | 7.6 | 48 | 40 | 6.6 | 30 | 73 | 42 | 29 | 9.4 | .75 | 1.2 | .35 |
| 8 | 8.8 | 38 | 74 | 6.4 | 31 | 58 | 37 | 28 | 8.3 | 1.2 | 1.0 | .35 |
| 9 | 8.1 | 34 | 55 | 6.0 | 29 | 47 | 35 | 25 | 7.6 | 4.9 | 1.0 | .28 |
| 10 | 7.9 | 30 | 45 | 5.8 | 25 | 39 | 31 | 21 | 7.6 | 4.7 | .88 | .20 |
| 11 | 83 | 27 | 40 | 5.8 | 23 | 31 | 29 | 20 | 7.6 | 3.2 | .75 | .13 |
| 12 | 386 | 25 | 29 | 6.0 | 20 | 29 | 26 | 22 | 6.7 | 3.0 | .63 | .08 |
| 13 | 438 | 22 | 26 | 6.2 | 18 | 25 | 30 | 35 | 6.2 | 1.6 | .59 | .11 |
| 14 | 316 | 20 | 26 | 6.6 | 16 | 21 | 26 | 33 | 6.2 | 1.2 | .44 | .71 |
| 15 | 210 | 17 | 21 | 6.8 | 15 | 19 | 22 | 38 | 6.9 | .83 | .38 | 1.6 |
| 16 | 146 | 14 | 18 | 7.0 | 14 | 18 | 22 | 58 | 6.7 | .67 | .35 | 1.4 |
| 17 | 104 | 14 | 17 | 7.2 | 13 | 18 | 21 | 47 | 6.0 | .55 | .30 | .71 |
| 18 | 74 | 179 | 18 | 7.2 | 49 | 19 | 20 | 33 | 5.1 | 2.0 | .22 | .83 |
| 19 | 58 | 730 | 16 | 7.0 | 136 | 23 | 250 | 26 | 4.1 | 10 | 66 | 1.1 |
| 20 | 48 | 363 | 14 | 6.6 | 58 | 59 | 454 | 22 | 3.5 | 6.9 | 87 | 1.6 |
| 21 | 41 | 214 | 13 | 6.4 | 42 | 61 | 298 | 20 | 3.3 | 2.7 | 26 | .83 |
| 22 | 34 | 168 | 13 | 6.2 | 35 | 54 | 202 | 18 | 3.3 | 1.4 | 11 | .55 |
| 23 | 25 | 180 | 12 | 6.0 | 30 | 47 | 143 | 17 | 3.0 | 1.2 | 6.9 | .51 |
| 24 | 22 | 138 | 11 | 5.8 | 27 | 42 | 490 | 17 | 2.2 | 1.3 | 3.3 | .35 |
| 25 | 21 | 110 | 11 | 6.2 | 24 | 43 | 330 | 16 | 2.1 | 1.2 | 1.8 | .28 |
| 26 | 19 | 87 | 10 | 16 | 22 | 204 | 190 | 15 | 2.1 | 1.0 | 1.4 | 2.8 |
| 27 | 16 | 71 | 11 | 30 | 21 | 140 | 126 | 13 | 2.2 | 1.2 | 1.0 | 11 |
| 28 | 14 | 58 | 10 | 80 | 20 | 97 | 99 | 12 | 2.2 | 2.4 | .83 | 4.7 |
| 29 | 13 | 51 | 11 | 348 | ------ | 73 | 79 | 11 | 1.7 | 2.6 | .71 | 2.6 |
| 30 | 12 | 44 | 11 | 180 | ------ | 58 | 81 | 11 | 1.5 | 49 | .59 | 2.6 |
| 31 | 16 | ------ | 10 | 104 | ------ | 47 | ------ | 12 | ------ | 44 | .63 | ------ |
| TOTAL | 2,177.3 | 3,296 | 728 | 929.2 | 1,097 | 1,776 | 3,496 | 992 | 190.5 | 162.40 | 257.30 | 37.99 |
| MEAN | 70.2 | 110 | 23.5 | 30.0 | 39.2 | 57.3 | 117 | 32.0 | 6.35 | 5.24 | 8.30 | 1.27 |
| MAX | 438 | 730 | 74 | 348 | 136 | 204 | 490 | 107 | 14 | 49 | 87 | 11 |
| MIN | 7.0 | 14 | 10 | 5.8 | 13 | 18 | 20 | 11 | 1.5 | .55 | .22 | .08 |
| CFSM | 1.74 | 2.72 | .58 | .74 | .97 | 1.42 | 2.90 | .79 | .16 | .13 | .21 | .031 |
| IN. | 2.00 | 3.03 | .67 | .86 | 1.01 | 1.64 | 3.22 | .91 | .18 | .15 | .24 | .03 |

CAL YR 1969 TOTAL 19,100.56 MEAN 52.3 MAX 830 MIN .55 CFSM 1.29 IN 17.59
WAT YR 1970 TOTAL 15,139.69 MEAN 41.5 MAX 730 MIN .08 CFSM 1.03 IN 13.94

PEAK DISCHARGE (BASE, 500 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-12 | 2015 | 4.89 | 575 | 04-24 | 1830 | 4.97 | 596 |
| 11-19 | 0700 | 5.53 | 766 | | | | |

## 03350100 Hinkle Creek near Cicero, Ind.

LOCATION.--Lat 40°06'05", long 86°05'10", on line between secs.9 and 16, T.19 N., R.4 E., Hamilton County, on left bank on downstream side of county road bridge, 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.

DRAINAGE AREA.--18.5 sq mi.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 820 ft (from topographic map).

AVERAGE DISCHARGE.--15 years, 18.5 cfs (13.58 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,280 cfs Jan. 29 (gage height, 5.37 ft); minimum, 0.44 cfs Aug. 30, 31, Sept. 1, 2; minimum gage height, 0.89 ft July 17, 18.
Period of record: Maximum discharge, 4,920 cfs June 28, 1957 (gage height, 8.45 ft); minimum, 0.04 cfs Sept. 7, 8, 1967 (gage height, 0.90 ft).

REMARKS.--Records good except those for winter periods and those below 5 cfs, which are fair.

REVISIONS.--WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .88 | 59 | 17 | 6.2 | 29 | 11 | 16 | 51 | 7.1 | 1.2 | 4.1 | .49 |
| 2 | 1.1 | 42 | 15 | 5.2 | 56 | 12 | 30 | 37 | 6.2 | 1.1 | 2.4 | .49 |
| 3 | 1.2 | 29 | 15 | 4.7 | 44 | 19 | 30 | 25 | 11 | 1.7 | 1.9 | .58 |
| 4 | 1.2 | 27 | 12 | 4.4 | 30 | 42 | 22 | 21 | 7.1 | 1.4 | 1.4 | .68 |
| 5 | 1.2 | 27 | 12 | 4.0 | 20 | 40 | 19 | 18 | 7.1 | 1.2 | 1.3 | .68 |
| 6 | 1.3 | 26 | 12 | 3.8 | 15 | 27 | 18 | 15 | 6.2 | 1.1 | 1.2 | .68 |
| 7 | 2.4 | 23 | 25 | 3.6 | 15 | 23 | 13 | 14 | 5.2 | 1.1 | 1.1 | .73 |
| 8 | 3.0 | 18 | 30 | 3.5 | 16 | 20 | 13 | 13 | 4.1 | 1.4 | 1.1 | .68 |
| 9 | 2.7 | 16 | 23 | 3.3 | 15 | 17 | 12 | 12 | 3.7 | 2.0 | 1.1 | .63 |
| 10 | 2.7 | 15 | 22 | 3.2 | 14 | 15 | 11 | 10 | 3.7 | 1.6 | 1.0 | .58 |
| 11 | 27 | 14 | 19 | 3.2 | 13 | 13 | 11 | 11 | 3.4 | 1.4 | 1.1 | .54 |
| 12 | 222 | 13 | 15 | 3.4 | 11 | 9.0 | 10 | 12 | 3.0 | 1.2 | 1.0 | .54 |
| 13 | 133 | 10 | 14 | 3.5 | 9.6 | 8.0 | 13 | 13 | 2.8 | 1.1 | .98 | .63 |
| 14 | 96 | 10 | 14 | 3.7 | 8.4 | 7.4 | 10 | 12 | 2.8 | 1.1 | .98 | 1.1 |
| 15 | 59 | 11 | 12 | 3.8 | 7.4 | 6.8 | 9.1 | 18 | 3.4 | 1.0 | .98 | .83 |
| 16 | 42 | 9.1 | 11 | 3.9 | 7.0 | 9.1 | 9.5 | 20 | 2.8 | 1.0 | 1.0 | .68 |
| 17 | 30 | 12 | 11 | 3.9 | 11 | 9.1 | 9.1 | 16 | 2.8 | .93 | 1.0 | .68 |
| 18 | 24 | 142 | 11 | 3.8 | 30 | 10 | 9.1 | 13 | 2.5 | .93 | .98 | 1.0 |
| 19 | 24 | 538 | 10 | 3.7 | 51 | 14 | 175 | 11 | 2.2 | 3.4 | 8.1 | 1.1 |
| 20 | 22 | 121 | 9.1 | 3.6 | 25 | 26 | 154 | 10 | 2.0 | 2.4 | 9.5 | .78 |
| 21 | 20 | 70 | 7.6 | 3.4 | 21 | 22 | 84 | 9.1 | 2.0 | 1.4 | 1.2 | .78 |
| 22 | 17 | 56 | 7.0 | 3.3 | 17 | 20 | 48 | 8.1 | 2.0 | 1.2 | .93 | .88 |
| 23 | 13 | 61 | 6.6 | 3.3 | 14 | 18 | 44 | 7.6 | 1.7 | 1.3 | .98 | .98 |
| 24 | 12 | 45 | 6.4 | 3.3 | 13 | 16 | 324 | 8.1 | 1.7 | 1.4 | .78 | .93 |
| 25 | 12 | 35 | 6.0 | 3.3 | 12 | 17 | 87 | 8.1 | 1.7 | 1.2 | .63 | .88 |
| 26 | 12 | 30 | 6.0 | 11 | 11 | 72 | 48 | 7.1 | 1.6 | 1.1 | .58 | 1.2 |
| 27 | 11 | 26 | 5.8 | 42 | 9.2 | 37 | 33 | 6.2 | 1.4 | 1.2 | .58 | 1.6 |
| 28 | 10 | 22 | 5.9 | 100 | 11 | 25 | 29 | 5.5 | 1.4 | 1.2 | .54 | 1.0 |
| 29 | 9.5 | 20 | 5.9 | 284 | ------ | 20 | 27 | 5.5 | 1.3 | 1.2 | .54 | .93 |
| 30 | 9.5 | 18 | 6.6 | 64 | ------ | 17 | 32 | 5.5 | 1.2 | 14 | .54 | .88 |
| 31 | 13 | ------ | 8.1 | 37 | ------ | 15 | ------ | 6.2 | ------ | 7.6 | .58 | ------ |
| TOTAL | 835.68 | 1,545.1 | 381.0 | 633.0 | 535.6 | 617.4 | 1,349.8 | 429.0 | 105.1 | 61.06 | 50.10 | 24.16 |
| MEAN | 27.0 | 51.5 | 12.3 | 20.4 | 19.1 | 19.9 | 45.0 | 13.8 | 3.50 | 1.97 | 1.62 | .81 |
| MAX | 222 | 538 | 30 | 284 | 56 | 72 | 324 | 51 | 11 | 14 | 9.5 | 1.6 |
| MIN | .88 | 9.1 | 5.8 | 3.2 | 7.0 | 6.8 | 9.1 | 5.5 | 1.2 | .93 | .54 | .49 |
| CFSM | 1.46 | 2.78 | .66 | 1.10 | 1.03 | 1.08 | 2.43 | .75 | .19 | .11 | .088 | .044 |
| IN. | 1.68 | 3.11 | .77 | 1.27 | 1.08 | 1.24 | 2.71 | .86 | .21 | .12 | .10 | .05 |

CAL YR 1969 TOTAL 8,589.06 MEAN 23.5 MAX 538 MIN .31 CFSM 1.27 IN 17.27
WAT YR 1970 TOTAL 6,567.00 MEAN 18.0 MAX 538 MIN .49 CFSM .97 IN 13.20

PEAK DISCHARGE (BASE, 400 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-12 | 1300 | 3.29 | 447 | 01-29 | 0200 | 5.37 | 1,280 |
| 11-19 | 0715 | 4.61 | 934 | 04-24 | 0630 | 3.80 | 622 |

## 03350300 Morse Reservoir near Noblesville, Ind.

LOCATION.--Lat 40°04'21", long 86°02'47", in SE¼SW¼ sec.23, T.19 N., R.4 E., Hamilton County, in intake structure of reservoir on Cicero Creek, 2.5 miles northwest of courthouse in Noblesville, and 4.7 miles above mouth.

DRAINAGE AREA.--214 sq mi.

PERIOD OF RECORD.--December 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 760.00 ft above mean sea level.

EXTREMES.--Current year: Maximum contents, 22,900 acre-ft Nov. 20 (elevation, 811.25 ft); minimum, 20,500 acre-ft Sept. 30. (elevation, 809.48 ft).
Period of record: Maximum contents, 25,310 acre-ft June 28, 1957 (elevation, 812.95 ft); minimum, 14,120 acre-ft Jan. 5, 1964 (elevation, 804.26 ft).

REMARKS.--Reservoir is formed by earth fill dam. Releases normally controlled by two 36-inch valves or one 16-inch valve. Minimum design capacity is essentially empty at invert of outlet conduit at elevation of 763.50 ft. Capacity at uncontrolled spillway elevation (810 ft) is 21,180 acre-ft. Reservoir is used for low-flow augmentation and recreation. Reservoir put in operation on Dec. 9, 1955 and was filled for the first time on Feb. 3, 1957.

COOPERATION.--Record furnished by Indianapolis Water Company.

Month-end elevation and contents, water year October 1969 to September 1970

| Date | Elevation (feet) | Contents (acre-feet) | Change in contents (acre-feet) |
|---|---|---|---|
| Sept. 30 | 810.09 | 21,300 | - |
| Oct. 31 | 810.11 | 21,320 | +20 |
| Nov. 30 | 810.28 | 21,560 | +240 |
| Dec. 31 | 810.16 | 21,390 | -170 |
| Calendar year 1969 | - | - | -410 |
| Jan. 31 | 810.56 | 21,950 | +560 |
| Feb. 28 | 810.16 | 21,390 | -560 |
| Mar. 31 | 810.26 | 21,530 | +140 |
| Apr. 30 | 810.41 | 21,740 | +210 |
| May 31 | 810.08 | 21,280 | -460 |
| June 30 | 809.97 | 21,140 | -140 |
| July 31 | 810.42 | 21,750 | +610 |
| Aug. 31 | 810.03 | 21,220 | -530 |
| Sept. 30 | 809.97 | 21,140 | -80 |
| Water year 1969-70 | - | - | -160 |

## 03350500 Cicero Creek at Noblesville, Ind.

LOCATION.--Lat 40°03'20", long 86°02'30", in sec.35, T.19 N., R.4 E., Hamilton County, on right bank 150 ft downstream from bridge on State Highway 38, 1 mile northwest of Noblesville, 1.5 miles downstream from Hinkle Creek, and 2.5 miles upstream from mouth.

DRAINAGE AREA.--216 sq mi.

PERIOD OF RECORD.--July 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 750.00 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission).

AVERAGE DISCHARGE.--20 years, 183 cfs (11.51 inches per year) (unadjusted).

EXTREMES.--Current year: Maximum discharge, 2,840 cfs Nov. 20 (gage height, 12.02 ft); minimum, 2.4 cfs Sept. 29, 30.(gage height, 3.62 ft).
Period of record: Maximum discharge, 9,800 cfs June 28, 1957 (gage height, 15.26 ft); minimum, 0.5 cfs Sept. 25, 1954.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Morse Reservoir (see sta 03350300).

REVISIONS.--WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 45 | 282 | 210 | 80 | 424 | 99 | 196 | 484 | 80 | 5.4 | 340 | 6.2 |
| 2 | 54 | 615 | 163 | 70 | 465 | 102 | 262 | 496 | 78 | 5.8 | 106 | 3.7 |
| 3 | 49 | 471 | 172 | 62 | 540 | 119 | 340 | 361 | 114 | 11 | 109 | 3.5 |
| 4 | 45 | 348 | 136 | 56 | 290 | 231 | 332 | 277 | 79 | 21 | 73 | 5.1 |
| 5 | 37 | 286 | 116 | 50 | 220 | 456 | 263 | 241 | 74 | 15 | 49 | 5.1 |
| 6 | 30 | 256 | 111 | 46 | 190 | 381 | 243 | 185 | 69 | 4.4 | 36 | 4.8 |
| 7 | 42 | 220 | 156 | 43 | 175 | 286 | 198 | 156 | 55 | 3.2 | 25 | 4.8 |
| 8 | 39 | 188 | 256 | 40 | 169 | 239 | 164 | 151 | 46 | 6.2 | 20 | 7.6 |
| 9 | 29 | 163 | 254 | 39 | 174 | 207 | 169 | 143 | 43 | 21 | 19 | 5.1 |
| 10 | 29 | 145 | 222 | 38 | 152 | 169 | 140 | 137 | 39 | 26 | 14 | 27 |
| 11 | 134 | 134 | 199 | 38 | 212 | 142 | 123 | 143 | 36 | 35 | 10 | 46 |
| 12 | 1,100 | 133 | 168 | 38 | 237 | 120 | 120 | 161 | 34 | 24 | 6.2 | 46 |
| 13 | 2,100 | 116 | 141 | 39 | 233 | 100 | 136 | 241 | 30 | 19 | 6.2 | 48 |
| 14 | 1,850 | 103 | 154 | 40 | 170 | 96 | 135 | 381 | 31 | 14 | 5.4 | 49 |
| 15 | 1,260 | 87 | 131 | 41 | 110 | 90 | 116 | 354 | 27 | 10 | 4.8 | 48 |
| 16 | 841 | 85 | 105 | 42 | 74 | 84 | 106 | 375 | 24 | 12 | 5.4 | 48 |
| 17 | 585 | 85 | 99 | 42 | 3.8 | 86 | 106 | 379 | 26 | 4.0 | 4.8 | 48 |
| 18 | 423 | 286 | 108 | 42 | 4.2 | 102 | 96 | 265 | 38 | 3.7 | 3.2 | 48 |
| 19 | 318 | 2,420 | 99 | 41 | 173 | 105 | 520 | 208 | 22 | 90 | 51 | 50 |
| 20 | 262 | 2,390 | 85 | 39 | 309 | 152 | 1,860 | 176 | 5.9 | 143 | 707 | 53 |
| 21 | 222 | 1,370 | 86 | 36 | 212 | 234 | 1,620 | 147 | 13 | 65 | 534 | 41 |
| 22 | 199 | 892 | 92 | 34 | 160 | 233 | 1,100 | 126 | 4.5 | 38 | 282 | 19 |
| 23 | 143 | 844 | 99 | 33 | 140 | 205 | 763 | 113 | 5.8 | 33 | 188 | 19 |
| 24 | 119 | 732 | 71 | 33 | 130 | 185 | 1,410 | 114 | 8.1 | 31 | 117 | 20 |
| 25 | 111 | 561 | 75 | 36 | 120 | 181 | 1,790 | 111 | 12 | 25 | 80 | 20 |
| 26 | 108 | 448 | 74 | 61 | 110 | 485 | 1,030 | 102 | 21 | 20 | 57 | 20 |
| 27 | 97 | 371 | 69 | 100 | 131 | 678 | 658 | 81 | 18 | 22 | 42 | 20 |
| 28 | 84 | 278 | 65 | 147 | 113 | 468 | 491 | 74 | 4.0 | 82 | 30 | 19 |
| 29 | 75 | 246 | 63 | 1,130 | ------ | 332 | 408 | 66 | 3.0 | 117 | 24 | 3.6 |
| 30 | 70 | 210 | 67 | 1,180 | ------ | 252 | 434 | 61 | 4.0 | 183 | 19 | 11 |
| 31 | 85 | ------ | 79 | 633 | ------ | 213 | ------ | 68 | ------ | 433 | 22 | ------ |
| TOTAL | 10,585 | 14,765 | 3,925 | 4,349 | 5,441.0 | 6,832 | 15,329 | 6,377 | 1,044.3 | 1,522.7 | 2,990.0 | 749.5 |
| MEAN | 341 | 492 | 127 | 140 | 194 | 220 | 511 | 206 | 34.8 | 49.1 | 96.5 | 25.0 |
| MAX | 2,100 | 2,420 | 256 | 1,180 | 540 | 678 | 1,860 | 496 | 114 | 433 | 707 | 53 |
| MIN | 29 | 85 | 63 | 33 | 3.8 | 84 | 96 | 61 | 3.0 | 3.2 | 3.2 | 3.5 |

CAL YR 1969 TOTAL 84,269.8 MEAN 231 MAX 3,530 MIN 1.2
WAT YR 1970 TOTAL 73,909.5 MEAN 202 MAX 2,420 MIN 3.0

## 03350700 Stony Creek near Noblesville, Ind.

LOCATION.--Lat 40°01'44", long 85°59'42", in NE¼ sec.7, T.18 N., R.5 E., Hamilton County, on left bank at downstream side of county road bridge, 1.4 miles upstream from mouth, and 1.4 miles southeast of Noblesville.

DRAINAGE AREA.--50.8 sq mi.

PERIOD OF RECORD.--July 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 749.00 ft above mean sea level (State Highway Commission bench mark).

EXTREMES.--Current year: Maximum discharge, 665 cfs Jan. 29 (gage height, 5.19 ft); minimum, 5.8 cfs Sept. 11, 12 (gage height, 1.91 ft).
Period of record: Maximum discharge, 1,010 cfs Feb. 2, 1968 (gage height, 6.64 ft); maximum gage height, 6.91 ft Jan. 18, 1969 (backwater from ice); minimum discharge, 3.8 cfs Sept. 1, 1967 (gage height, 1.62 ft).

REMARKS.--Records fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 12 | 48 | 49 | 20 | 126 | 34 | 42 | 64 | 23 | 8.4 | 20 | 7.4 |
| 2 | 12 | 54 | 42 | 19 | 162 | 35 | 70 | 55 | 24 | 8.0 | 13 | 7.0 |
| 3 | 13 | 44 | 39 | 18 | 120 | 46 | 85 | 50 | 46 | 9.8 | 12 | 6.8 |
| 4 | 13 | 41 | 36 | 17 | 90 | 88 | 65 | 45 | 49 | 10 | 10 | 6.8 |
| 5 | 12 | 39 | 32 | 16 | 72 | 119 | 55 | 42 | 41 | 8.7 | 10 | 6.4 |
| 6 | 12 | 38 | 31 | 15 | 60 | 88 | 52 | 38 | 38 | 8.2 | 9.0 | 6.2 |
| 7 | 12 | 36 | 57 | 14 | 56 | 73 | 44 | 36 | 32 | 7.8 | 8.4 | 6.2 |
| 8 | 14 | 33 | 92 | 13 | 63 | 64 | 40 | 36 | 27 | 8.0 | 8.7 | 6.2 |
| 9 | 14 | 30 | 71 | 13 | 77 | 55 | 39 | 34 | 25 | 9.4 | 8.4 | 6.2 |
| 10 | 13 | 29 | 63 | 12 | 77 | 48 | 35 | 32 | 23 | 9.0 | 8.2 | 6.0 |
| 11 | 38 | 26 | 56 | 13 | 72 | 41 | 33 | 32 | 23 | 9.0 | 7.6 | 5.9 |
| 12 | 180 | 25 | 47 | 13 | 62 | 39 | 33 | 34 | 21 | 8.2 | 7.6 | 5.9 |
| 13 | 249 | 23 | 42 | 14 | 57 | 35 | 34 | 36 | 20 | 7.6 | 7.4 | 5.9 |
| 14 | 182 | 22 | 41 | 14 | 47 | 33 | 33 | 40 | 20 | 7.0 | 7.0 | 6.4 |
| 15 | 141 | 21 | 36 | 14 | 41 | 31 | 31 | 50 | 19 | 6.8 | 7.0 | 6.6 |
| 16 | 111 | 20 | 32 | 14 | 38 | 29 | 29 | 55 | 17 | 6.6 | 6.8 | 6.0 |
| 17 | 86 | 20 | 32 | 14 | 38 | 29 | 29 | 53 | 17 | 6.4 | 6.6 | 5.9 |
| 18 | 72 | 37 | 31 | 15 | 53 | 31 | 28 | 44 | 15 | 6.4 | 6.2 | 6.6 |
| 19 | 61 | 250 | 30 | 14 | 129 | 35 | 88 | 39 | 13 | 15 | 8.4 | 7.2 |
| 20 | 54 | 220 | 27 | 13 | 84 | 48 | 192 | 36 | 12 | 9.8 | 23 | 6.6 |
| 21 | 50 | 160 | 25 | 13 | 62 | 48 | 146 | 33 | 12 | 8.2 | 23 | 6.8 |
| 22 | 43 | 120 | 24 | 12 | 52 | 46 | 111 | 32 | 12 | 7.4 | 17 | 6.4 |
| 23 | 37 | 130 | 23 | 12 | 50 | 43 | 87 | 31 | 11 | 7.6 | 17 | 6.4 |
| 24 | 31 | 106 | 22 | 12 | 48 | 40 | 287 | 31 | 11 | 9.4 | 15 | 6.6 |
| 25 | 31 | 95 | 21 | 13 | 45 | 38 | 246 | 32 | 11 | 8.2 | 14 | 7.0 |
| 26 | 32 | 83 | 20 | 20 | 41 | 91 | 154 | 30 | 11 | 8.4 | 11 | 8.2 |
| 27 | 31 | 72 | 20 | 43 | 36 | 80 | 114 | 27 | 11 | 17 | 10 | 9.0 |
| 28 | 28 | 63 | 19 | 95 | 34 | 62 | 96 | 23 | 9.8 | 28 | 9.8 | 7.4 |
| 29 | 25 | 56 | 19 | 513 | ------ | 53 | 78 | 22 | 9.4 | 12 | 9.0 | 6.8 |
| 30 | 25 | 53 | 19 | 256 | ------ | 48 | 70 | 21 | 8.4 | 55 | 8.4 | 6.6 |
| 31 | 27 | ------ | 20 | 156 | ------ | 43 | ------ | 22 | ------ | 42 | 7.8 | ------ |
| TOTAL | 1,661 | 1,994 | 1,118 | 1,440 | 1,892 | 1,593 | 2,446 | 1,155 | 611.6 | 373.3 | 337.3 | 199.4 |
| MEAN | 53.6 | 66.5 | 36.1 | 46.5 | 67.6 | 51.4 | 81.5 | 37.3 | 20.4 | 12.0 | 10.9 | 6.65 |
| MAX | 249 | 250 | 92 | 513 | 162 | 119 | 287 | 64 | 49 | 55 | 23 | 9.0 |
| MIN | 12 | 20 | 19 | 12 | 34 | 29 | 28 | 21 | 8.4 | 6.4 | 6.2 | 5.9 |
| CFSM | 1.06 | 1.31 | .71 | .92 | 1.33 | 1.01 | 1.60 | .73 | .40 | .24 | .21 | .13 |
| IN. | 1.22 | 1.46 | .82 | 1.05 | 1.39 | 1.17 | 1.79 | .85 | .45 | .27 | .25 | .15 |

CAL YR 1969 TOTAL 19,825.0 MEAN 54.3 MAX 808 MIN 8.3 CFSM 1.07 IN 14.52
WAT YR 1970 TOTAL 14,820.6 MEAN 40.6 MAX 513 MIN 5.9 CFSM .80 IN 10.85

PEAK DISCHARGE (BASE, 200 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-13 | 0400 | 3.95 | 295 | 04-20 | 0200 | 3.52 | 205 |
| 11-19 | Unknown | 4.14 | 337 | 04-24 | 1830 | 4.29 | 410 |
| 01-29 | 1500 | 5.19 | 665 | | | | |

## 03351000 White River near Nora, Ind.

LOCATION.--Lat 39°54'35", long 86°06'20", in sec.20, T.17 N., R.4 E., Marion County, on downstream side of center pier of bridge on State Highway 100, 2 miles east of Nora, 14 miles upstream from Fall Creek and at mile 253.4.

DRAINAGE AREA.--1,219 sq mi.

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.

GAGE.--Water-stage recorder. Datum of gage is 710.94 ft above mean sea level (levels by Corps of Engineers). Oct. 26, 1929, to July 29, 1942, at site 200 ft downstream at same datum. Supplemental water-stage recorder 4.5 miles downstream.

AVERAGE DISCHARGE.--41 years, 1,059 cfs (11.80 inches per year).

EXTREMES.--Current year: Maximum discharge, 7,960 cfs Apr. 26 (gage height, 10.40 ft); minimum, 167 cfs Aug. 18, Sept. 10 (gage height, 1.97 ft).
Period of record: Maximum discharge, 32,400 cfs May 19, 1943, maximum gage height, 18.65 ft Apr. 23, 1964; minimum discharge, 40 cfs Sept. 2, 1934; minimum daily, 49 cfs Sept. 17, 1941.
Flood of Mar. 26, 1913, reached a stage of 22.4 ft, from floodmark, determined by State Highway Department of Indiana (discharge, 58,500 cfs, estimated).

REMARKS.--Records good except those for winter periods, which are poor. Flow slightly regulated by Morse Reservoir. (See sta 03350300.) Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1335: 1930-31, 1934(m), 1936, 1941, 1943, 1945, 1947-48. WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 382 | 690 | 1,180 | 525 | 4,140 | 880 | 1,240 | 2,200 | 636 | 348 | 794 | 198 |
| 2 | 382 | 1,250 | 1,030 | 512 | 3,190 | 836 | 1,480 | 2,160 | 663 | 315 | 585 | 190 |
| 3 | 420 | 1,210 | 942 | 502 | 3,820 | 906 | 2,580 | 1,770 | 951 | 360 | 690 | 190 |
| 4 | 393 | 1,020 | 876 | 472 | 2,700 | 1,310 | 2,970 | 1,500 | 997 | 401 | 565 | 192 |
| 5 | 372 | 928 | 768 | 440 | 2,000 | 2,970 | 2,120 | 1,340 | 1,040 | 364 | 446 | 198 |
| 6 | 348 | 982 | 715 | 380 | 1,600 | 4,250 | 1,730 | 1,190 | 1,080 | 315 | 376 | 187 |
| 7 | 354 | 822 | 786 | 360 | 1,450 | 3,020 | 1,500 | 1,050 | 1,160 | 298 | 323 | 178 |
| 8 | 376 | 739 | 1,480 | 340 | 1,370 | 2,160 | 1,270 | 990 | 886 | 298 | 294 | 190 |
| 9 | 358 | 685 | 2,030 | 340 | 1,460 | 1,740 | 1,160 | 938 | 734 | 327 | 282 | 184 |
| 10 | 340 | 640 | 1,620 | 350 | 1,800 | 1,460 | 1,070 | 873 | 652 | 405 | 258 | 172 |
| 11 | 428 | 610 | 1,350 | 360 | 1,820 | 1,240 | 977 | 836 | 590 | 455 | 237 | 201 |
| 12 | 1,920 | 605 | 1,160 | 370 | 1,600 | 1,100 | 912 | 925 | 540 | 422 | 234 | 204 |
| 13 | 4,880 | 570 | 991 | 380 | 1,400 | 997 | 906 | 1,080 | 512 | 360 | 224 | 204 |
| 14 | 5,190 | 556 | 928 | 390 | 1,200 | 912 | 944 | 1,720 | 512 | 315 | 227 | 211 |
| 15 | 4,160 | 512 | 858 | 400 | 1,050 | 854 | 892 | 1,780 | 652 | 282 | 211 | 230 |
| 16 | 2,950 | 484 | 762 | 420 | 900 | 800 | 824 | 1,750 | 620 | 274 | 198 | 234 |
| 17 | 2,110 | 472 | 700 | 440 | 830 | 752 | 782 | 1,830 | 530 | 262 | 178 | 214 |
| 18 | 1,590 | 710 | 675 | 450 | 842 | 770 | 764 | 1,420 | 484 | 245 | 169 | 224 |
| 19 | 1,260 | 4,750 | 670 | 400 | 1,670 | 812 | 1,130 | 1,160 | 450 | 372 | 192 | 230 |
| 20 | 1,040 | 7,440 | 640 | 370 | 2,690 | 997 | 5,300 | 997 | 409 | 459 | 961 | 237 |
| 21 | 942 | 7,020 | 605 | 360 | 1,960 | 1,480 | 6,450 | 892 | 376 | 422 | 1,430 | 237 |
| 22 | 846 | 4,450 | 580 | 360 | 1,520 | 1,520 | 4,910 | 800 | 368 | 376 | 848 | 204 |
| 23 | 720 | 3,490 | 560 | 360 | 1,380 | 1,380 | 3,400 | 740 | 344 | 290 | 630 | 192 |
| 24 | 640 | 3,440 | 540 | 380 | 1,320 | 1,310 | 4,620 | 729 | 344 | 348 | 471 | 201 |
| 25 | 595 | 2,940 | 520 | 430 | 1,310 | 1,230 | 7,400 | 758 | 340 | 356 | 385 | 195 |
| 26 | 580 | 2,390 | 520 | 520 | 1,230 | 1,820 | 7,230 | 770 | 356 | 340 | 331 | 201 |
| 27 | 556 | 1,960 | 500 | 700 | 1,140 | 3,450 | 4,350 | 696 | 434 | 348 | 294 | 245 |
| 28 | 516 | 1,660 | 500 | 1,070 | 1,010 | 2,840 | 3,130 | 605 | 493 | 372 | 266 | 290 |
| 29 | 494 | 1,440 | 489 | 4,460 | ------ | 2,070 | 2,410 | 570 | 493 | 438 | 274 | 227 |
| 30 | 468 | 1,270 | 494 | 7,540 | ------ | 1,630 | 2,290 | 555 | 389 | 625 | 270 | 190 |
| 31 | 472 | ------ | 516 | 7,470 | ------ | 1,370 | ------ | 550 | ------ | 886 | 224 | ------ |
| TOTAL | 36,082 | 55,634 | 25,985 | 31,851 | 48,402 | 48,866 | 76,741 | 35,174 | 18,035 | 11,678 | 12,867 | 6,250 |
| MEAN | 1,164 | 1,854 | 838 | 1,027 | 1,729 | 1,576 | 2,558 | 1,135 | 601 | 377 | 415 | 208 |
| MAX | 5,190 | 7,440 | 2,030 | 7,540 | 4,140 | 4,250 | 7,400 | 2,200 | 1,160 | 886 | 1,430 | 290 |
| MIN | 340 | 472 | 489 | 340 | 830 | 752 | 764 | 550 | 340 | 245 | 169 | 172 |
| CFSM | .95 | 1.52 | .69 | .84 | 1.42 | 1.29 | 2.10 | .93 | .49 | .31 | .34 | .17 |
| IN. | 1.10 | 1.70 | .79 | .97 | 1.48 | 1.49 | 2.34 | 1.07 | .55 | .36 | .39 | .19 |

CAL YR 1969 TOTAL 472,962 MEAN 1,296 MAX 13,300 MIN 225 CFSM 1.06 IN 14.43
WAT YR 1970 TOTAL 407,565 MEAN 1,117 MAX 7,540 MIN 169 CFSM .92 IN 12.44

PEAK DISCHARGE (BASE, 7,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-20 | 2300 | 10.30 | 7,840 | 04-26 | 0100 | 10.40 | 7,960 |
| 01-31 | 0145 | 10.33 | 7,880 | | | | |

## 03351310 Crooked Creek at Indianapolis, Ind.

LOCATION.--Lat 39°49'47", long 86°12'22", in NW¼NW¼SE¼ sec.16, T.16 N., R.3 E., Marion County, on left bank 150 ft downstream from 42nd Street Bridge in Indianapolis.

DRAINAGE AREA.--17.9 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 711.00 ft above mean sea level (Indiana State Highway Commission bench mark).

EXTREMES.--Current year: Maximum discharge, 858 cfs Nov. 19 (gage height, 5.58 ft); minimum, 1.3 cfs Sept. 1, 2, 12, 13 (gage height, 2.35 ft).
Period of record: Maximum discharge, 858 cfs Nov. 19, 1970 (gage height, 5.58 ft); minimum, 1.3 cfs Sept. 1, 2, 12, 13, 1970 (gage height, 2.35 ft).

REMARKS.--Records poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.5 | 46 | 12 | 6.8 | 27 | 8.2 | 13 | 32 | 12 | 2.3 | 3.9 | 1.4 |
| 2 | 8.2 | 23 | 12 | 6.9 | 85 | 20 | 38 | 26 | 10 | 2.2 | 3.0 | 1.5 |
| 3 | 4.5 | 17 | 11 | 6.7 | 45 | 31 | 27 | 17 | 42 | 5.4 | 2.8 | 1.7 |
| 4 | 2.7 | 15 | 9.5 | 6.5 | 27 | 49 | 22 | 20 | 18 | 3.1 | 2.5 | 2.3 |
| 5 | 2.3 | 14 | 8.7 | 5.8 | 18 | 45 | 21 | 17 | 14 | 2.4 | 2.3 | 2.1 |
| 6 | 2.5 | 12 | 8.7 | 5.4 | 15 | 28 | 18 | 12 | 10 | 2.2 | 2.2 | 1.9 |
| 7 | 10 | 9.9 | 36 | 5.0 | 20 | 21 | 13 | 12 | 8.1 | 2.1 | 2.0 | 1.8 |
| 8 | 5.0 | 8.7 | 31 | 4.7 | 25 | 18 | 12 | 9.9 | 6.6 | 5.8 | 2.0 | 1.6 |
| 9 | 3.1 | 8.1 | 21 | 4.5 | 30 | 15 | 13 | 10 | 6.0 | 4.4 | 2.1 | 1.5 |
| 10 | 2.8 | 7.8 | 17 | 4.3 | 27 | 13 | 14 | 10 | 5.6 | 2.8 | 2.0 | 1.4 |
| 11 | 40 | 7.8 | 17 | 4.2 | 20 | 11 | 9.0 | 13 | 5.2 | 2.3 | 1.8 | 1.4 |
| 12 | 180 | 7.8 | 14 | 4.2 | 18 | 10 | 9.9 | 15 | 4.8 | 2.2 | 1.7 | 1.3 |
| 13 | 45 | 7.2 | 12 | 4.3 | 16 | 9.0 | 19 | 13 | 5.6 | 2.0 | 1.7 | 1.4 |
| 14 | 25 | 6.9 | 13 | 4.4 | 14 | 8.0 | 15 | 51 | 4.4 | 1.9 | 1.7 | 2.0 |
| 15 | 16 | 6.6 | 11 | 4.7 | 13 | 7.4 | 12 | 96 | 4.4 | 1.9 | 1.7 | 1.8 |
| 16 | 11 | 6.0 | 10 | 5.2 | 13 | 8.0 | 10 | 72 | 4.0 | 1.8 | 1.6 | 1.6 |
| 17 | 9.0 | 9.5 | 9.2 | 6.0 | 15 | 9.5 | 8.4 | 36 | 4.0 | 1.8 | 1.6 | 1.5 |
| 18 | 7.8 | 145 | 8.8 | 6.6 | 39 | 12 | 8.5 | 25 | 3.9 | 1.8 | 1.5 | 3.7 |
| 19 | 6.8 | 442 | 8.0 | 7.0 | 49 | 17 | 108 | 16 | 3.4 | 8.1 | 2.2 | 2.7 |
| 20 | 6.6 | 84 | 7.6 | 6.6 | 26 | 23 | 131 | 13 | 3.4 | 14 | 7.8 | 2.4 |
| 21 | 6.0 | 45 | 7.0 | 5.2 | 18 | 20 | 74 | 10 | 3.3 | 3.1 | 2.8 | 2.3 |
| 22 | 5.2 | 36 | 6.6 | 4.5 | 14 | 21 | 35 | 9.5 | 3.3 | 2.4 | 2.3 | 2.0 |
| 23 | 4.6 | 38 | 6.4 | 4.2 | 13 | 17 | 28 | 9.0 | 3.1 | 3.3 | 2.5 | 2.0 |
| 24 | 4.6 | 30 | 6.2 | 4.0 | 13 | 13 | 337 | 10 | 2.8 | 3.1 | 2.1 | 2.1 |
| 25 | 4.6 | 25 | 6.0 | 4.0 | 12 | 15 | 77 | 11 | 3.6 | 2.5 | 1.9 | 2.2 |
| 26 | 4.9 | 20 | 5.8 | 9.0 | 10 | 58 | 40 | 11 | 3.1 | 2.4 | 1.8 | 5.0 |
| 27 | 4.7 | 17 | 5.6 | 15 | 9.6 | 28 | 35 | 8.1 | 2.8 | 3.9 | 1.7 | 3.1 |
| 28 | 4.4 | 16 | 5.8 | 52 | 8.6 | 22 | 40 | 6.6 | 2.8 | 3.7 | 1.7 | 1.8 |
| 29 | 4.2 | 15 | 6.1 | 228 | ------ | 19 | 32 | 6.6 | 2.5 | 2.4 | 1.6 | 1.5 |
| 30 | 4.2 | 15 | 6.6 | 56 | ------ | 16 | 29 | 6.6 | 2.4 | 25 | 1.5 | 1.5 |
| 31 | 13 | ------ | 6.8 | 34 | ------ | 14 | ------ | 8.1 | ------ | 8.1 | 1.4 | ------ |
| TOTAL | 451.2 | 1,141.3 | 346.4 | 525.7 | 640.2 | 606.1 | 1,248.8 | 612.4 | 205.1 | 130.4 | 69.4 | 60.5 |
| MEAN | 14.6 | 38.0 | 11.2 | 17.0 | 22.9 | 19.6 | 41.6 | 19.8 | 6.84 | 4.21 | 2.24 | 2.02 |
| MAX | 180 | 442 | 36 | 228 | 85 | 58 | 337 | 96 | 42 | 25 | 7.8 | 5.0 |
| MIN | 2.3 | 6.0 | 5.6 | 4.0 | 8.6 | 7.4 | 8.4 | 6.6 | 2.4 | 1.8 | 1.4 | 1.3 |
| CFSM | .82 | 2.12 | .63 | .95 | 1.28 | 1.10 | 2.32 | 1.11 | .38 | .24 | .13 | .11 |
| IN. | .94 | 2.37 | .72 | 1.09 | 1.33 | 1.26 | 2.60 | 1.27 | .43 | .27 | .14 | .13 |

WAT YR 1970 TOTAL 6,037.5 MEAN 16.5 MAX 442 MIN 1.3 CFSM .92 IN 12.55

PEAK DISCHARGE (BASE, 200 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-19 | 0445 | 5.58 | 858 | 04-24 | 0830 | 5.41 | 765 |
| 01-29 | 0630 | 4.64 | 406 | 05-14 | 2315 | 4.51 | 370 |
| 04-20 | 0200 | 4.05 | 214 | | | | |

03351400 Sugar Creek near Middletown, Ind.

LOCATION.--Lat 40°02'27", long 85°31'30", in NE¼NW¼SE¼ sec.5, T.18 N., R.9 E., Henry County, on right bank 90 ft upstream from bridge on county road 750 N., 1 mile southeast of Middletown.

DRAINAGE AREA.--5.80 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 950.00 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 131 cfs Mar. 4 (gage height, 4.62 ft); minimum, 0.06 cfs Aug. 31, Sept. 1, 2 (gage height, 2.50 ft).
Period of record: Maximum discharge, 211 cfs Jan. 29, 1969 (gage height, 5.21 ft); minimum, 0.06 cfs Aug. 31, Sept. 1, 2, 1970 (gage height, 2.50 ft).

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .50 | .68 | 2.9 | 1.2 | 12 | 3.3 | 5.7 | 4.5 | .90 | .48 | .22 | .08 |
| 2 | .54 | .68 | 2.6 | 1.1 | 18 | 4.7 | 22 | 3.7 | .84 | .48 | .22 | .10 |
| 3 | .58 | .60 | 2.6 | 1.0 | 11 | 12 | 14 | 3.3 | 4.7 | .68 | .22 | .16 |
| 4 | .54 | .64 | 2.1 | 1.0 | 8.0 | 59 | 9.2 | 3.1 | 2.2 | .58 | .20 | .16 |
| 5 | .52 | .72 | 2.0 | .94 | 5.4 | 48 | 7.3 | 2.6 | 16 | .63 | .22 | .12 |
| 6 | .56 | .60 | 2.2 | .88 | 5.2 | 23 | 6.2 | 2.2 | 7.6 | .58 | .20 | .12 |
| 7 | .62 | .54 | 15 | .82 | 5.0 | 14 | 4.5 | 2.1 | 3.9 | .53 | .18 | .20 |
| 8 | .70 | .50 | 14 | .78 | 5.2 | 9.9 | 4.3 | 2.1 | 2.4 | .63 | .16 | .14 |
| 9 | .68 | .44 | 8.5 | .74 | 6.2 | 7.3 | 3.7 | 1.8 | 2.0 | .63 | .16 | .12 |
| 10 | .68 | .44 | 7.0 | .70 | 9.8 | 5.2 | 3.5 | 1.6 | 1.6 | .58 | .16 | .12 |
| 11 | 5.5 | .44 | 6.0 | .68 | 8.0 | 4.5 | 3.1 | 1.6 | 1.3 | .53 | .16 | .12 |
| 12 | 14 | .44 | 4.5 | .68 | 6.8 | 4.1 | 2.9 | 1.8 | 1.2 | .48 | .16 | .12 |
| 13 | 8.2 | .40 | 4.7 | .70 | 6.0 | 3.5 | 2.9 | 1.6 | 6.7 | .44 | .16 | .16 |
| 14 | 11 | .40 | 4.5 | .74 | 5.2 | 3.0 | 2.6 | 1.5 | 3.3 | .44 | .16 | .22 |
| 15 | 5.0 | .37 | 3.5 | .78 | 4.5 | 2.7 | 2.1 | 2.2 | 2.0 | .36 | .14 | .16 |
| 16 | 3.3 | .36 | 2.9 | .80 | 4.1 | 2.5 | 2.1 | 3.1 | 1.2 | .33 | .14 | .16 |
| 17 | 1.8 | .35 | 2.9 | .84 | 4.2 | 2.4 | 2.0 | 2.2 | 1.2 | .24 | .14 | .16 |
| 18 | 1.2 | 17 | 2.7 | .84 | 16 | 2.6 | 1.8 | 1.5 | .96 | .24 | .14 | .24 |
| 19 | 1.2 | 73 | 2.4 | .84 | 20 | 5.0 | 15 | 1.3 | .73 | .30 | .24 | .16 |
| 20 | 1.0 | 27 | 2.1 | .82 | 10 | 7.3 | 22 | 1.2 | .68 | .40 | .33 | .16 |
| 21 | .90 | 15 | 1.9 | .78 | 7.0 | 5.7 | 12 | 1.2 | .68 | .40 | .20 | .14 |
| 22 | .68 | 13 | 1.8 | .74 | 6.8 | 5.7 | 8.2 | 1.1 | .63 | .33 | .18 | .14 |
| 23 | .48 | 17 | 1.6 | .72 | 6.6 | 5.4 | 6.2 | 1.1 | .58 | .40 | .16 | .14 |
| 24 | .40 | 12 | 1.4 | .70 | 6.2 | 5.0 | 66 | 1.0 | .53 | .36 | .14 | .14 |
| 25 | .48 | 8.2 | 1.3 | .70 | 5.6 | 8.4 | 35 | .96 | .53 | .30 | .12 | .14 |
| 26 | .44 | 5.7 | 1.2 | .86 | 5.0 | 28 | 20 | .90 | .53 | .24 | .12 | .18 |
| 27 | .40 | 4.7 | 1.2 | 1.9 | 4.2 | 14 | 12 | .84 | .58 | .27 | .12 | .14 |
| 28 | .33 | 3.9 | 1.2 | 4.0 | 3.3 | 9.2 | 8.8 | .73 | .48 | .36 | .10 | .12 |
| 29 | .30 | 3.5 | 1.2 | 11 | ------ | 7.0 | 6.4 | .68 | .48 | .24 | .10 | .12 |
| 30 | .27 | 3.5 | 1.4 | 40 | ------ | 5.7 | 5.4 | .68 | .44 | .36 | .10 | .10 |
| 31 | .40 | ------ | 2.2 | 22 | ------ | 4.7 | ------ | .90 | ------ | .36 | .08 | ------ |
| TOTAL | 63.20 | 212.10 | 111.5 | 100.28 | 215.3 | 322.8 | 316.9 | 55.09 | 66.87 | 13.18 | 5.13 | 4.34 |
| MEAN | 2.04 | 7.07 | 3.60 | 3.23 | 7.69 | 10.4 | 10.6 | 1.78 | 2.23 | .43 | .17 | .14 |
| MAX | 14 | 73 | 15 | 40 | 20 | 59 | 66 | 4.5 | 16 | .68 | .33 | .24 |
| MIN | .27 | .35 | 1.2 | .68 | 3.3 | 2.4 | 1.8 | .68 | .44 | .24 | .08 | .08 |
| CFSM | .35 | 1.22 | .62 | .56 | 1.33 | 1.79 | 1.83 | .31 | .38 | .074 | .029 | .024 |
| IN. | .41 | 1.36 | .72 | .64 | 1.38 | 2.07 | 2.03 | .35 | .43 | .08 | .03 | .03 |

CAL YR 1969 TOTAL 2,598.54 MEAN 7.12 MAX 123 MIN .27 CFSM 1.23 IN 16.67
WAT YR 1970 TOTAL 1,486.69 MEAN 4.07 MAX 73 MIN .08 CFSM .70 IN 9.54

PEAK DISCHARGE (BASE, 120 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-19 | unknown | 4.60 | 129 | 03-04 | 1900 | 4.62 | 131 |

Note.--No gage-height record Jan. 8 to Feb. 12.

## 03351500 Fall Creek near Fortville, Ind.

LOCATION.--Lat 39°57'15", long 85°52'05", in sec.5, T.17 N., R.6 E., Hamilton County, on right bank at downstream side of bridge on State Highway 238, 1 mile downstream from Lick Creek and 2 miles northwest of Fortville.

DRAINAGE AREA.--169 sq mi.

PERIOD OF RECORD.--July 1941 to current year.

GAGE.--Water-stage recorder. Datum of gage is 787.43 ft above mean sea level (levels by Indianapolis Water Co.). Prior to June 27, 1942, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--29 years, 162 cfs (13.02 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,010 cfs Jan. 30 (gage height, 6.86 ft); minimum, 24 cfs Sept. 2 (gage height, 1.34 ft).
Period of record: Maximum discharge, 8,750 cfs Apr. 21, 1964 (gage height, 9.88 ft); minimum observed, 5.0 cfs Sept. 23, 24, 1941 (gage height, 1.04 ft).
Maximum stage known, about 12 ft March 1913, (information by local resident).

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

REVISIONS (WATER YEARS).--WSP 1435: 1949(P). WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 51 | 87 | 158 | 99 | 427 | 129 | 163 | 221 | 99 | 47 | 73 | 26 |
| 2 | 61 | 92 | 140 | 94 | 540 | 133 | 293 | 195 | 95 | 45 | 60 | 25 |
| 3 | 61 | 84 | 135 | 91 | 611 | 169 | 354 | 177 | 149 | 60 | 54 | 27 |
| 4 | 56 | 86 | 124 | 80 | 469 | 362 | 258 | 165 | 167 | 54 | 52 | 32 |
| 5 | 52 | 89 | 113 | 76 | 312 | 963 | 215 | 156 | 147 | 49 | 49 | 33 |
| 6 | 51 | 89 | 111 | 70 | 219 | 552 | 199 | 145 | 199 | 47 | 46 | 31 |
| 7 | 56 | 83 | 162 | 66 | 203 | 351 | 177 | 138 | 160 | 45 | 42 | 30 |
| 8 | 57 | 77 | 315 | 62 | 211 | 273 | 160 | 135 | 127 | 45 | 41 | 33 |
| 9 | 53 | 74 | 242 | 60 | 346 | 227 | 154 | 127 | 107 | 54 | 41 | 31 |
| 10 | 52 | 73 | 203 | 60 | 341 | 195 | 144 | 122 | 99 | 67 | 40 | 28 |
| 11 | 95 | 71 | 189 | 62 | 284 | 175 | 136 | 122 | 92 | 53 | 39 | 26 |
| 12 | 273 | 70 | 167 | 64 | 238 | 163 | 133 | 135 | 86 | 47 | 37 | 26 |
| 13 | 327 | 67 | 153 | 66 | 200 | 153 | 135 | 129 | 86 | 43 | 36 | 25 |
| 14 | 289 | 63 | 153 | 70 | 180 | 144 | 133 | 136 | 107 | 41 | 36 | 29 |
| 15 | 219 | 61 | 140 | 72 | 160 | 136 | 122 | 167 | 97 | 40 | 34 | 34 |
| 16 | 163 | 59 | 127 | 74 | 150 | 126 | 118 | 158 | 84 | 39 | 34 | 30 |
| 17 | 131 | 61 | 122 | 76 | 153 | 126 | 115 | 153 | 80 | 37 | 32 | 28 |
| 18 | 108 | 138 | 120 | 78 | 171 | 131 | 111 | 133 | 75 | 36 | 31 | 30 |
| 19 | 97 | 561 | 118 | 72 | 383 | 145 | 227 | 122 | 68 | 60 | 38 | 39 |
| 20 | 91 | 570 | 111 | 68 | 273 | 175 | 587 | 115 | 66 | 53 | 64 | 33 |
| 21 | 87 | 513 | 110 | 64 | 203 | 169 | 463 | 110 | 63 | 48 | 54 | 31 |
| 22 | 81 | 396 | 96 | 64 | 191 | 162 | 319 | 103 | 64 | 41 | 41 | 29 |
| 23 | 74 | 441 | 94 | 64 | 185 | 158 | 260 | 100 | 61 | 49 | 40 | 28 |
| 24 | 71 | 390 | 92 | 66 | 175 | 149 | 907 | 100 | 59 | 57 | 37 | 28 |
| 25 | 71 | 312 | 90 | 70 | 175 | 145 | 1,260 | 102 | 59 | 48 | 36 | 28 |
| 26 | 70 | 262 | 86 | 80 | 156 | 364 | 632 | 97 | 60 | 51 | 33 | 31 |
| 27 | 68 | 229 | 84 | 120 | 153 | 336 | 421 | 84 | 60 | 105 | 32 | 45 |
| 28 | 66 | 201 | 80 | 230 | 135 | 256 | 341 | 87 | 54 | 205 | 30 | 36 |
| 29 | 64 | 181 | 84 | 1,490 | ------ | 217 | 284 | 86 | 59 | 100 | 29 | 29 |
| 30 | 61 | 167 | 90 | 1,520 | ------ | 189 | 247 | 84 | 49 | 100 | 29 | 29 |
| 31 | 66 | ------ | 103 | 570 | ------ | 171 | ------ | 87 | ------ | 100 | 28 | ------ |
| TOTAL | 3,122 | 5,647 | 4,112 | 5,798 | 7,244 | 7,144 | 9,068 | 3,991 | 2,778 | 1,866 | 1,268 | 910 |
| MEAN | 101 | 188 | 133 | 187 | 259 | 230 | 302 | 129 | 92.6 | 60.2 | 40.9 | 30.3 |
| MAX | 327 | 570 | 315 | 1,520 | 611 | 963 | 1,260 | 221 | 199 | 205 | 73 | 45 |
| MIN | 51 | 59 | 80 | 60 | 135 | 126 | 111 | 84 | 49 | 36 | 28 | 25 |
| CFSM | .60 | 1.11 | .79 | 1.11 | 1.53 | 1.36 | 1.79 | .76 | .55 | .36 | .24 | .18 |
| IN. | .69 | 1.24 | .91 | 1.28 | 1.59 | 1.57 | 2.00 | .88 | .61 | .41 | .28 | .20 |

CAL YR 1969 TOTAL 69,331 MEAN 190 MAX 2,260 MIN 41 CFSM 1.12 IN 15.26
WAT YR 1970 TOTAL 52,948 MEAN 145 MAX 1,520 MIN 25 CFSM .86 IN 11.65

PEAK DISCHARGE (BASE, 1,300 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 01-30 | 0330 | 6.86 | 2,010 | 04-25 | 0600 | 6.15 | 1,530 |

## 03351700 Geist Reservoir near Oaklandon, Ind.

LOCATION.--Lat 39°54'26", long 85°59'07", in SW¼NE¼ sec.20, T.17 N., R.5 E., Marion County, in intake structure of reservoir on Fall Creek, 2.6 miles northwest of Oaklandon, 17 miles above mouth.

DRAINAGE AREA.--215 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 755.00 ft above mean sea level.

EXTREMES.--Current year: Maximum contents, 23,680 acre-ft Jan. 30 (elevation, 786.26 ft); minimum, 18,360 acre-ft Sept. 22-30 (elevation, 783.39 ft).
Period of record: Maximum contents, 27,360 acre-ft May 18, 1943 (elevation, 788.02 ft); minimum contents, 11,230 acre-ft Jan. 5, 1964 (elevation, 778.42 ft).

REMARKS.--Reservoir is formed by earth fill dam. Releases normally controlled by a 36-inch valve. Minimum design capacity is essentially empty at invert on outlet conduit at elevation of 756.75 ft. Capacity at uncontrolled spillway elevation (785 ft) is 21,180 acre-ft. Reservoir is used for low-flow augmentation and recreation. Reservoir filled for first time on March 17, 1943.

COOPERATION.--Record furnished by Indianapolis Water Company.

Month-end elevation and contents, water year October 1969 to September 1970

| Date | Elevation (feet) | Contents (acre-feet) | Change in contents (acre-feet) |
|---|---|---|---|
| Sept. 30 | 785.15 | 21,460 | - |
| Oct. 31 | 785.18 | 21,520 | +60 |
| Nov. 30 | 785.30 | 21,740 | +220 |
| Dec. 31 | 785.25 | 21,650 | -90 |
| Calendar year 1969 | - | - | -640 |
| Jan. 31 | 785.88 | 22,900 | +1,250 |
| Feb. 28 | 785.32 | 21,780 | -1,120 |
| Mar. 31 | 785.32 | 21,780 | 0 |
| Apr. 30 | 785.42 | 21,970 | +190 |
| May 31 | 785.17 | 21,500 | -470 |
| June 30 | 785.09 | 21,350 | -150 |
| July 31 | 785.37 | 21,880 | +530 |
| Aug. 31 | 784.59 | 20,450 | -1,430 |
| Sept. 30 | 783.39 | 18,360 | -2,090 |
| Water year 1969-70 | - | - | -3,100 |

Diversion for municipal supply for city of Indianapolis

Water supply for the city of Indianapolis is from both White River and Fall 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. 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 cfs-days

| Oct. | Nov. | Dec. | 1969 Cal. year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | 1970 Water year |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 135 | 128 | 123 | 129 | 126 | 122 | 121 | 131 | 143 | 161 | 161 | 157 | 153 | 138 |

## 03352200 Mud Creek at Indianapolis, Ind.

LOCATION.--Lat 39°53'30", long 86°00'57", in NE¼ 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.

DRAINAGE AREA.--42.4 sq mi.

PERIOD OF RECORD.--May 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 752.99 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission).

AVERAGE DISCHARGE.--12 years, 34.2 cfs (10.95 inches per year).

EXTREMES.--Current year: Maximum discharge, 522 cfs Apr. 24 (gage height, 6.14 ft); maximum gage height, 6.41 ft Jan. 29; minimum discharge 1.3 cfs Oct. 30, 31; minimum gage height, 1.61 ft Sept. 19.
Period of record: Maximum discharge, 2,010 cfs Apr. 21, 1964 (gage height, 8.37 ft); minimum, 0.2 cfs in 1962-64, 1966; minimum gage height, 1.48 ft Sept. 13, 14, 1966.

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

REVISIONS.--WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 11 | 9.3 | 43 | 13 | 127 | 15 | 22 | 65 | 25 | 8.0 | 45 | 5.6 |
| 2 | 5.0 | 12 | 35 | 13 | 201 | 17 | 56 | 52 | 25 | 8.3 | 16 | 5.6 |
| 3 | 11 | 14 | 37 | 12 | 45 | 29 | 69 | 46 | 40 | 13 | 15 | 6.4 |
| 4 | 11 | 24 | 33 | 12 | 30 | 99 | 40 | 43 | 53 | 11 | 14 | 5.4 |
| 5 | 11 | 25 | 30 | 11 | 25 | 169 | 31 | 39 | 40 | 7.3 | 11 | 4.9 |
| 6 | 11 | 24 | 29 | 11 | 24 | 71 | 30 | 38 | 36 | 6.4 | 8.8 | 5.6 |
| 7 | 11 | 21 | 56 | 11 | 31 | 56 | 21 | 37 | 31 | 6.4 | 8.3 | 5.6 |
| 8 | 11 | 18 | 124 | 11 | 37 | 43 | 17 | 34 | 27 | 7.3 | 9.6 | 5.4 |
| 9 | 11 | 15 | 68 | 10 | 56 | 37 | 19 | 33 | 25 | 9.1 | 7.8 | 5.4 |
| 10 | 11 | 3.7 | 59 | 10 | 60 | 28 | 14 | 31 | 24 | 6.6 | 7.0 | 5.4 |
| 11 | 33 | 8.3 | 44 | 10 | 50 | 22 | 13 | 31 | 23 | 7.0 | 6.4 | 5.4 |
| 12 | 188 | 2.8 | 42 | 10 | 38 | 20 | 12 | 32 | 21 | 6.6 | 6.2 | 5.4 |
| 13 | 254 | 2.3 | 37 | 10 | 28 | 18 | 15 | 32 | 20 | 5.2 | 5.8 | 5.6 |
| 14 | 188 | 9.1 | 29 | 11 | 23 | 15 | 13 | 34 | 19 | 5.4 | 6.0 | 5.6 |
| 15 | 102 | 9.1 | 31 | 11 | 21 | 13 | 11 | 58 | 17 | 5.8 | 5.2 | 5.4 |
| 16 | 49 | 7.5 | 27 | 11 | 20 | 12 | 10 | 50 | 17 | 4.7 | 4.7 | 5.4 |
| 17 | 41 | 5.8 | 24 | 10 | 20 | 12 | 8.3 | 44 | 15 | 4.6 | 5.2 | 5.4 |
| 18 | 32 | 57 | 23 | 10 | 36 | 13 | 7.8 | 38 | 16 | 5.4 | 5.8 | 4.7 |
| 19 | 25 | 432 | 22 | 9.6 | 162 | 17 | 73 | 35 | 13 | 8.8 | 6.8 | 4.1 |
| 20 | 23 | 384 | 20 | 9.6 | 76 | 25 | 218 | 32 | 11 | 7.5 | 15 | 5.0 |
| 21 | 22 | 232 | 20 | 9.4 | 45 | 25 | 177 | 31 | 13 | 7.5 | 11 | 5.0 |
| 22 | 19 | 178 | 19 | 9.2 | 33 | 23 | 98 | 29 | 12 | 5.8 | 6.2 | 5.6 |
| 23 | 15 | 186 | 18 | 9.2 | 29 | 21 | 61 | 28 | 10 | 5.0 | 5.6 | 6.0 |
| 24 | 14 | 147 | 17 | 9.2 | 26 | 18 | 396 | 27 | 11 | 6.4 | 6.6 | 5.2 |
| 25 | 14 | 105 | 16 | 9.8 | 22 | 18 | 404 | 28 | 12 | 6.4 | 7.8 | 4.4 |
| 26 | 11 | 90 | 15 | 14 | 20 | 93 | 224 | 28 | 12 | 17 | 5.4 | 6.0 |
| 27 | 2.4 | 70 | 14 | 30 | 18 | 65 | 156 | 27 | 9.9 | 24 | 7.3 | 5.2 |
| 28 | 8.6 | 56 | 14 | 73 | 17 | 40 | 123 | 25 | 10 | 43 | 6.0 | 4.2 |
| 29 | 8.8 | 50 | 14 | 460 | ------ | 32 | 97 | 22 | 8.6 | 17 | 9.3 | 3.5 |
| 30 | 2.8 | 45 | 14 | 356 | ------ | 28 | 75 | 23 | 8.0 | 56 | 3.7 | 4.0 |
| 31 | 1.8 | ------ | 14 | 181 | ------ | 24 | ------ | 22 | ------ | 46 | 5.4 | ------ |
| TOTAL | 1,158.4 | 2,242.9 | 988 | 1,377.0 | 1,320 | 1,118 | 2,511.1 | 1,094 | 604.5 | 378.5 | 283.9 | 156.4 |
| MEAN | 37.4 | 74.8 | 31.9 | 44.4 | 47.1 | 36.1 | 83.7 | 35.3 | 20.2 | 12.2 | 9.16 | 5.21 |
| MAX | 254 | 432 | 124 | 460 | 201 | 169 | 404 | 65 | 53 | 56 | 45 | 6.4 |
| MIN | 1.8 | 2.3 | 14 | 9.2 | 17 | 12 | 7.8 | 22 | 8.0 | 4.6 | 3.7 | 3.5 |
| CFSM | .88 | 1.76 | .75 | 1.05 | 1.11 | .85 | 1.97 | .83 | .48 | .29 | .22 | .12 |
| IN. | 1.02 | 1.97 | .87 | 1.21 | 1.16 | .98 | 2.20 | .96 | .53 | .33 | .25 | .14 |

CAL YR 1969 TOTAL 18,259.8 MEAN 50.0 MAX 973 MIN 1.8 CFSM 1.18 IN 16.02
WAT YR 1970 TOTAL 13,232.7 MEAN 36.3 MAX 460 MIN 1.8 CFSM .86 IN 11.61

PEAK DISCHARGE (BASE, 450 CFS)

| DATE | TIME | G.HT. | DISCHARGE | DATE | TIME | G.HT. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-19 | 1230 | 6.17 | 458 | 04-24 | 1900 | 6.14 | 522 |
| 01-29 | 1315 | 6.41 | 476 | | | | |

03352500 Fall Creek at Millersville, Ind.

LOCATION.--Lat 39°51'07", long 86°05'15", in NE¼ sec.9, T.16 N., R.4E., Marion County, on right bank at downstream side of Emerson Way Bridge at Millersville, 8.6 miles upstream from mouth.

DRAINAGE AREA.--298 sq mi.

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 and datum from July 1925 to September 1926 are available in the district office.

GAGE.--Water-stage recorder. Datum of gage is 722.16 ft above mean sea level. Prior to Oct. 21, 1961, water-stage recorder at site 500 ft downstream at same datum.

AVERAGE DISCHARGE.--41 years, 271 cfs (12.36 inches per year) (unadjusted).

EXTREMES.--Current year: Maximum discharge, 2,550 cfs Jan. 30 (gage height, 7.69 ft); minimum, 55 cfs Aug. 11 (gage height, 1.76 ft).
Period of record: Maximum discharge, 12,900 cfs May 28, 1956 (gage height, 13.53 ft); minimum, 7.0 cfs Sept. 28, 1941 (gage height, 0.84 ft).
Maximum stage known, 16.3 ft Mar. 26, 1913, from floodmarks (discharge, 22,000 cfs by slope-area measurement).

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Geist Reservoir (see sta 03351700).

REVISIONS (WATER YEARS).--WSP 1335: 1930-31, 1933, 1936-38, 1942-43. WSP 1909: 1963. WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 75 | 170 | 298 | 144 | 994 | 243 | 319 | 479 | 168 | 72 | 353 | 66 |
| 2 | 87 | 176 | 245 | 135 | 1,050 | 255 | 458 | 416 | 205 | 83 | 233 | 67 |
| 3 | 94 | 174 | 235 | 131 | 1,220 | 316 | 632 | 346 | 388 | 129 | 171 | 71 |
| 4 | 90 | 178 | 223 | 123 | 844 | 616 | 556 | 292 | 385 | 119 | 149 | 74 |
| 5 | 83 | 184 | 195 | 115 | 660 | 1,370 | 451 | 268 | 339 | 99 | 105 | 69 |
| 6 | 72 | 178 | 180 | 110 | 516 | 1,210 | 388 | 260 | 350 | 89 | 91 | 66 |
| 7 | 94 | 170 | 260 | 107 | 448 | 848 | 350 | 225 | 304 | 90 | 77 | 67 |
| 8 | 90 | 154 | 467 | 105 | 451 | 656 | 292 | 205 | 253 | 105 | 77 | 67 |
| 9 | 82 | 143 | 457 | 105 | 620 | 560 | 274 | 200 | 208 | 102 | 76 | 67 |
| 10 | 75 | 129 | 387 | 113 | 716 | 441 | 260 | 193 | 180 | 96 | 91 | 74 |
| 11 | 255 | 129 | 325 | 130 | 644 | 360 | 240 | 205 | 165 | 96 | 71 | 73 |
| 12 | 779 | 121 | 280 | 136 | 544 | 353 | 230 | 245 | 149 | 92 | 69 | 71 |
| 13 | 990 | 117 | 248 | 140 | 465 | 260 | 228 | 238 | 143 | 89 | 69 | 73 |
| 14 | 851 | 111 | 225 | 135 | 409 | 250 | 225 | 240 | 143 | 88 | 66 | 80 |
| 15 | 662 | 107 | 220 | 125 | 367 | 255 | 213 | 378 | 149 | 88 | 66 | 75 |
| 16 | 478 | 109 | 198 | 115 | 322 | 233 | 195 | 371 | 133 | 85 | 65 | 73 |
| 17 | 369 | 115 | 176 | 110 | 295 | 228 | 183 | 313 | 117 | 84 | 71 | 73 |
| 18 | 286 | 366 | 168 | 107 | 332 | 260 | 185 | 271 | 101 | 86 | 71 | 81 |
| 19 | 233 | 1,780 | 164 | 103 | 656 | 280 | 420 | 228 | 90 | 139 | 96 | 74 |
| 20 | 203 | 1,890 | 156 | 101 | 652 | 313 | 900 | 210 | 82 | 125 | 151 | 71 |
| 21 | 188 | 1,320 | 152 | 100 | 497 | 343 | 1,020 | 193 | 72 | 89 | 97 | 73 |
| 22 | 168 | 883 | 152 | 100 | 420 | 325 | 788 | 193 | 84 | 77 | 83 | 73 |
| 23 | 154 | 802 | 160 | 100 | 385 | 310 | 596 | 170 | 73 | 82 | 77 | 80 |
| 24 | 135 | 754 | 146 | 100 | 360 | 283 | 1,560 | 178 | 65 | 79 | 75 | 80 |
| 25 | 129 | 638 | 140 | 110 | 364 | 295 | 2,000 | 178 | 93 | 88 | 75 | 75 |
| 26 | 125 | 534 | 137 | 140 | 325 | 636 | 1,430 | 161 | 86 | 286 | 73 | 87 |
| 27 | 116 | 457 | 131 | 180 | 295 | 752 | 954 | 137 | 105 | 336 | 69 | 79 |
| 28 | 117 | 394 | 127 | 325 | 268 | 592 | 776 | 121 | 78 | 748 | 71 | 75 |
| 29 | 116 | 340 | 126 | 2,100 | ------ | 479 | 656 | 104 | 66 | 458 | 67 | 73 |
| 30 | 105 | 304 | 137 | 2,490 | ------ | 371 | 552 | 98 | 66 | 504 | 74 | 73 |
| 31 | 110 | ------ | 150 | 1,640 | ------ | 325 | ------ | 107 | ------ | 552 | 67 | ------ |
| TOTAL | 7,411 | 12,927 | 6,665 | 9,775 | 15,119 | 14,018 | 17,331 | 7,223 | 4,840 | 5,255 | 3,046 | 2,200 |
| MEAN | 239 | 431 | 215 | 315 | 540 | 452 | 578 | 233 | 161 | 170 | 98.3 | 73.3 |
| MAX | 990 | 1,890 | 467 | 2,490 | 1,220 | 1,370 | 2,000 | 479 | 388 | 748 | 353 | 87 |
| MIN | 72 | 107 | 126 | 100 | 268 | 228 | 183 | 98 | 65 | 72 | 65 | 66 |

CAL YR 1969 TOTAL 136,282 MEAN 373 MAX 4,700 MIN 64
WAT YR 1970 TOTAL 105,810 MEAN 290 MAX 2,490 MIN 65

## 03353000 White River at Indianapolis, Ind.

LOCATION.--Lat 39°45'05", long 86°10'30", in NW¼ sec.14, T.15 N., R.3 E., Marion County, on downstream side of second pier from right bank of Morris Street Bridge in Indianapolis, 2.5 miles downstream from Fall Creek, and at mile 235.8.
DRAINAGE AREA.--1,635 sq mi.
PERIOD OF RECORD.--March 1904 to July 1906 and April 1930 to current year. Gage-height record published in reports of U.S. Weather Bureau for site 1.1 miles upstream Feb. 8, 1911, to Mar. 25, 1913, and at site 2.3 miles upstream since Oct. 16, 1913. Prior to October 1948, published as West Fork White River at Indianapolis.
GAGE.--Water-stage recorder. Datum of gage is 662.26 ft above mean sea level. March 1904 to July 1906, nonrecording gage at railroad bridge 0.8 mile upstream at datum approximately 2.9 ft higher. April 1930 to July 20, 1931, nonrecording gage at Indianapolis sanitation plant 2.5 miles downstream at datum 660 ft lower. July 21, 1931, to Mar. 2, 1932, nonrecording gage at present site at datum 660 ft lower.
AVERAGE DISCHARGE.--41 years (1904-5, 1930-70), 1,349 cfs (11.20 inches per year) (unadjusted).
EXTREMES.--Current year: Maximum discharge, 10,900 cfs Nov. 20 (gage height, 11.10 ft); minimum, 103 cfs Sept. 9 (gage height, 2.46 ft).
Period of record: Maximum discharge, 37,200 cfs May 18, 1943; maximum gage height, 21.57 ft Jan. 16, 1937; minimum discharge, 6.8 cfs Sept. 21, 1941.
Flood of Mar. 26, 1913, reached a stage of 30.0 ft, from floodmarks determined by Indianapolis Water Co. (discharge, 70,000 cfs, estimated).
REMARKS.--Records good except those for winter periods, which are fair. Natural flow affected by regulation of Morse Reservoir (see sta 03350300) and Geist Reservoir (see sta 03351700), and by diversion of municipal water supply by the Indianapolis Water Co. (see pg. 129).
REVISIONS (WATER YEARS).--WSP 1335: 1932-33, 1937, 1939-41. WSP 1505: 1938. WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 450 | 852 | 1,450 | 638 | 6,070 | 1,030 | 1,620 | 2,860 | 804 | 252 | 864 | 141 |
| 2 | 565 | 1,150 | 1,300 | 612 | 4,660 | 1,040 | 1,870 | 2,640 | 915 | 225 | 735 | 139 |
| 3 | 515 | 1,350 | 1,150 | 600 | 5,140 | 1,200 | 2,700 | 2,210 | 1,490 | 960 | 679 | 170 |
| 4 | 490 | 1,250 | 1,160 | 564 | 4,000 | 2,140 | 3,500 | 1,830 | 1,410 | 521 | 637 | 172 |
| 5 | 480 | 1,140 | 1,010 | 513 | 2,900 | 3,960 | 2,660 | 1,580 | 1,540 | 365 | 493 | 177 |
| 6 | 440 | 1,080 | 824 | 461 | 2,200 | 5,360 | 2,050 | 1,390 | 1,420 | 325 | 388 | 136 |
| 7 | 535 | 1,020 | 1,150 | 416 | 1,800 | 4,140 | 1,770 | 1,220 | 1,560 | 280 | 329 | 141 |
| 8 | 406 | 929 | 1,660 | 389 | 1,780 | 2,840 | 1,480 | 1,120 | 1,160 | 311 | 276 | 127 |
| 9 | 392 | 852 | 2,290 | 386 | 2,040 | 2,160 | 1,230 | 1,060 | 805 | 349 | 266 | 118 |
| 10 | 374 | 637 | 2,010 | 390 | 2,400 | 1,750 | 1,190 | 985 | 693 | 353 | 266 | 132 |
| 11 | 866 | 587 | 1,650 | 400 | 2,440 | 1,420 | 1,120 | 1,050 | 618 | 406 | 245 | 116 |
| 12 | 2,510 | 576 | 1,430 | 410 | 2,240 | 1,220 | 1,020 | 1,130 | 570 | 397 | 222 | 130 |
| 13 | 5,420 | 545 | 1,340 | 420 | 1,820 | 1,040 | 1,090 | 1,160 | 651 | 349 | 216 | 134 |
| 14 | 6,190 | 515 | 1,230 | 440 | 1,580 | 929 | 1,020 | 1,740 | 543 | 290 | 216 | 190 |
| 15 | 5,050 | 490 | 1,120 | 450 | 1,400 | 908 | 999 | 2,640 | 618 | 273 | 202 | 180 |
| 16 | 3,590 | 465 | 996 | 470 | 1,220 | 866 | 915 | 2,320 | 665 | 242 | 180 | 159 |
| 17 | 2,580 | 576 | 903 | 521 | 1,100 | 880 | 824 | 2,190 | 570 | 242 | 193 | 160 |
| 18 | 1,890 | 1,520 | 851 | 528 | 1,120 | 964 | 758 | 1,800 | 510 | 219 | 170 | 301 |
| 19 | 1,520 | 7,370 | 817 | 510 | 1,890 | 978 | 1,790 | 1,390 | 445 | 644 | 216 | 232 |
| 20 | 1,230 | 10,300 | 786 | 442 | 3,090 | 1,140 | 5,790 | 1,160 | 401 | 992 | 777 | 196 |
| 21 | 1,020 | 9,360 | 776 | 390 | 2,600 | 1,520 | 8,040 | 992 | 345 | 477 | 1,420 | 229 |
| 22 | 978 | 6,030 | 753 | 386 | 1,930 | 1,700 | 6,310 | 915 | 341 | 374 | 992 | 205 |
| 23 | 1,020 | 4,440 | 747 | 380 | 1,680 | 1,560 | 4,270 | 831 | 308 | 415 | 612 | 216 |
| 24 | 880 | 4,200 | 727 | 380 | 1,550 | 1,440 | 7,410 | 845 | 304 | 325 | 466 | 216 |
| 25 | 614 | 3,630 | 656 | 420 | 1,540 | 1,510 | 10,000 | 852 | 308 | 325 | 341 | 219 |
| 26 | 603 | 2,940 | 630 | 673 | 1,460 | 2,300 | 9,920 | 831 | 318 | 455 | 280 | 239 |
| 27 | 576 | 2,370 | 600 | 688 | 1,350 | 3,740 | 6,220 | 771 | 315 | 665 | 225 | 245 |
| 28 | 540 | 2,090 | 594 | 937 | 1,200 | 3,580 | 4,300 | 655 | 383 | 912 | 205 | 239 |
| 29 | 525 | 1,680 | 584 | 6,180 | ------ | 2,580 | 3,810 | 637 | 388 | 707 | 177 | 232 |
| 30 | 485 | 1,580 | 581 | 10,200 | ------ | 1,990 | 3,050 | 592 | 294 | 880 | 190 | 193 |
| 31 | 614 | ------ | 622 | 10,000 | ------ | 1,730 | ------ | 649 | ------ | 888 | 175 | ------ |
| TOTAL | 43,348 | 71,524 | 32,397 | 40,194 | 64,200 | 59,615 | 98,726 | 42,045 | 20,692 | 14,418 | 12,653 | 5,484 |
| MEAN | 1,398 | 2,384 | 1,045 | 1,297 | 2,293 | 1,923 | 3,291 | 1,356 | 690 | 465 | 408 | 183 |
| MAX | 6,190 | 10,300 | 2,290 | 10,200 | 6,070 | 5,360 | 10,000 | 2,860 | 1,560 | 992 | 1,420 | 301 |
| MIN | 374 | 465 | 581 | 380 | 1,100 | 866 | 758 | 592 | 294 | 219 | 170 | 116 |
| CFSM | .86 | 1.46 | .64 | .79 | 1.40 | 1.18 | 2.01 | .83 | .42 | .28 | .25 | .11 |
| IN. | .99 | 1.63 | .74 | .91 | 1.46 | 1.36 | 2.25 | .96 | .47 | .33 | .29 | .12 |

CAL YR 1969 TOTAL 625,209 MEAN 1,713 MAX 20,200 MIN 191 CFSM 1.05 IN 14.22
WAT YR 1970 TOTAL 505,296 MEAN 1,384 MAX 10,300 MIN 116 CFSM .85 IN 11.50

PEAK DISCHARGE (BASE, 8,500 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-20 | 2045 | 11.10 | 10,900 | 04-25 | 2345 | 11.00 | 10,700 |
| 01-30 | 2300 | 11.02 | 10,700 | | | | |

03353120 Pleasant Run at Arlington Avenue at Indianapolis, Ind.

LOCATION.--Lat 39°46'33", long 86°03'50", in NW¼ sec.2, T.15 N., R.4 E., Marion County, on right bank 46 ft upstream from Arlington Avenue Bridge in Indianapolis, and 0.5 mile downstream from small left-bank tributary.

DRAINAGE AREA.--7.58 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 780.00 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission).

AVERAGE DISCHARGE.--10 years (1960-70), 6.40 cfs (11.47 inches per year).

EXTREMES.--Current year: Maximum discharge, 645 cfs Apr. 24 (gage height, 6.58 ft); minimum, 0.10 cfs Aug. 10 (gage height, 3.01 ft).
Period of record: Maximum discharge, 1,610 cfs Mar. 4, 1963 (gage height, 10.32 ft); no flow at times some years. Flood in May 1956 reached a stage of 16.0 ft, from information by local resident.

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

REVISIONS.--WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .43 | 8.0 | 1.4 | .84 | 2.0 | .61 | 5.3 | 6.2 | 9.8 | .43 | 1.3 | .34 |
| 2 | 4.6 | 2.5 | 1.3 | .78 | 34 | 5.6 | 13 | 2.0 | 39 | .43 | .61 | .38 |
| 3 | .90 | 3.2 | 1.3 | .74 | 5.0 | 11 | 3.4 | 1.5 | 17 | 37 | .70 | .45 |
| 4 | .52 | 3.8 | 1.1 | .68 | 2.2 | 87 | 1.7 | 1.4 | 2.5 | 3.4 | .35 | .78 |
| 5 | .43 | 2.7 | 1.1 | .64 | 1.9 | 21 | 1.4 | 1.3 | 8.0 | .61 | .22 | .54 |
| 6 | .43 | 2.0 | 1.0 | .60 | 1.7 | 5.3 | 1.3 | 1.1 | 3.8 | .35 | .28 | .35 |
| 7 | 8.9 | 1.7 | 19 | .56 | 4.9 | 2.9 | .90 | 1.0 | 1.1 | .35 | .22 | .25 |
| 8 | 1.4 | 1.6 | 4.9 | .54 | 12 | 2.0 | .90 | 1.0 | 1.0 | 1.1 | .17 | .27 |
| 9 | .90 | 1.6 | 2.5 | .52 | 13 | 1.5 | .80 | .80 | .80 | 2.2 | .13 | .45 |
| 10 | .70 | 1.6 | 2.0 | .49 | 5.9 | 1.3 | .70 | .90 | .70 | 1.0 | .13 | .30 |
| 11 | 47 | 1.7 | 1.7 | .49 | 3.6 | 1.0 | .61 | 8.4 | .61 | .43 | .17 | .27 |
| 12 | 77 | 1.9 | 1.5 | .49 | 2.2 | .90 | .70 | 2.9 | .52 | .35 | .17 | .29 |
| 13 | 15 | 1.7 | 1.4 | .50 | 1.6 | .80 | 3.2 | 1.7 | 4.6 | .90 | .17 | .14 |
| 14 | 6.9 | 1.7 | 1.4 | .52 | 1.3 | .72 | 1.0 | 7.5 | 1.0 | .52 | .22 | .90 |
| 15 | 3.2 | 1.6 | 1.3 | .54 | 1.1 | .68 | .90 | 12 | .90 | .35 | .35 | .50 |
| 16 | 2.2 | 1.6 | 1.1 | .54 | 1.1 | .66 | .80 | 6.2 | .80 | .35 | .28 | .32 |
| 17 | 1.7 | 14 | 1.0 | .54 | 1.6 | .80 | .80 | 1.9 | .80 | .43 | .28 | .30 |
| 18 | 1.4 | 94 | 1.1 | .54 | 8.4 | 6.2 | .80 | 1.1 | .90 | .52 | .28 | 3.8 |
| 19 | 1.3 | 124 | 1.0 | .54 | 3.8 | 6.5 | 28 | .90 | .61 | 6.9 | 6.5 | .58 |
| 20 | 1.3 | 12 | .90 | .52 | 1.5 | 4.1 | 17 | .80 | .61 | 50 | 17 | .35 |
| 21 | 1.3 | 5.6 | .82 | .50 | 1.0 | 2.2 | 15 | .90 | .61 | 1.5 | 1.2 | .35 |
| 22 | 1.1 | 5.6 | .78 | .49 | 1.0 | 1.7 | 3.2 | .61 | .61 | .90 | 1.4 | .87 |
| 23 | 1.1 | 4.9 | .74 | .47 | .96 | 1.5 | 3.6 | .52 | .61 | 6.2 | .83 | .99 |
| 24 | 1.1 | 3.2 | .70 | .46 | .92 | 1.3 | 213 | 6.2 | .61 | 1.4 | .46 | .66 |
| 25 | 1.1 | 2.5 | .66 | .46 | .80 | 20 | 8.0 | 1.3 | .90 | 1.4 | .46 | .77 |
| 26 | 1.0 | 1.9 | .66 | .50 | .70 | 29 | 3.6 | .70 | .61 | 14 | .43 | 3.5 |
| 27 | 1.0 | 1.6 | .66 | 2.5 | .60 | 4.1 | 4.6 | .43 | .43 | 63 | .43 | .94 |
| 28 | 1.0 | 1.5 | .68 | 15 | .52 | 2.5 | 4.6 | .43 | .35 | 5.9 | .46 | .57 |
| 29 | 1.0 | 1.6 | .72 | 71 | ------ | 1.6 | 25 | .80 | .35 | 2.5 | .33 | .52 |
| 30 | 1.1 | 1.3 | .76 | 5.3 | ------ | 1.3 | 7.2 | .70 | .52 | 63 | .38 | .52 |
| 31 | 7.5 | ------ | .84 | 2.9 | ------ | 1.0 | ------ | 4.6 | ------ | 3.4 | .35 | ------ |
| TOTAL | 194.51 | 312.6 | 56.02 | 111.19 | 115.30 | 226.77 | 371.01 | 77.79 | 100.65 | 270.82 | 36.26 | 21.25 |
| MEAN | 6.27 | 10.4 | 1.81 | 3.59 | 4.12 | 7.32 | 12.4 | 2.51 | 3.36 | 8.74 | 1.17 | .71 |
| MAX | 77 | 124 | 19 | 71 | 34 | 87 | 213 | 12 | 39 | 63 | 17 | 3.8 |
| MIN | .43 | 1.3 | .66 | .46 | .52 | .61 | .61 | .43 | .35 | .35 | .13 | .14 |
| CFSM | .83 | 1.37 | .24 | .47 | .54 | .97 | 1.64 | .33 | .44 | 1.15 | .15 | .094 |
| IN. | .95 | 1.53 | .27 | .55 | .57 | 1.11 | 1.82 | .38 | .49 | 1.33 | .18 | .10 |

CAL YR 1969 TOTAL 3,265.68 MEAN 8.95 MAX 420 MIN .22 CFSM 1.18 IN 16.03
WAT YR 1970 TOTAL 1,894.17 MEAN 5.19 MAX 213 MIN .13 CFSM .68 IN 9.30

PEAK DISCHARGE (BASE, 450 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-18 | 2330 | 5.84 | 460 | 07-20 | 0245 | 5.91 | 478 |
| 01-29 | 0015 | 6.11 | 528 | 07-27 | 1500 | 6.27 | 568 |
| 04-24 | 0645 | 6.58 | 645 | | | | |

## 03353160 Pleasant Run at Brookville Road at Indianapolis, Ind.

LOCATION.--Lat 39°45'52", long 86°05'43", in NW¼ sec.9, T.15 N., R.4 E., Marion County, on right bank at downstream side of Brookville Road Bridge in Indianapolis, 2.2 miles downstream from Arlington Avenue.

DRAINAGE AREA.--10.1 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 752.00 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission).

AVERAGE DISCHARGE.--10 years (1960-70), 9.09 cfs (12.23 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,240 cfs Jan. 28 (gage height, 7.27 ft); minimum, 0.27 cfs Sept. 13 (gage height, 2.06 ft).
Period of record: Maximum discharge, 2,010 cfs Mar. 4, 1963 (gage height, 9.22 ft); no flow at times during most years.

REMARKS.--Records fair.

REVISIONS (WATER YEARS).--WSP 1909: 1960. WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.2 | 14 | 2.9 | 2.1 | 4.8 | 2.2 | 8.4 | 8.8 | 13 | .79 | 2.7 | .89 |
| 2 | 9.7 | 4.2 | 2.5 | 1.9 | 47 | 10 | 17 | 3.4 | 50 | .79 | 1.7 | 1.0 |
| 3 | 2.4 | 4.5 | 2.5 | 1.7 | 14 | 17 | 6.0 | 2.5 | 28 | 68 | 2.2 | 1.1 |
| 4 | 1.7 | 6.6 | 2.4 | 1.5 | 5.4 | 104 | 3.2 | 2.2 | 3.6 | 4.5 | 1.4 | 2.1 |
| 5 | 1.4 | 4.2 | 2.4 | 1.4 | 2.7 | 28 | 2.9 | 2.2 | 9.7 | .89 | 1.0 | 1.1 |
| 6 | 1.4 | 3.4 | 2.5 | 1.3 | 1.2 | 12 | 2.9 | 2.1 | 7.0 | .89 | 1.0 | .89 |
| 7 | 16 | 3.0 | 28 | 1.2 | 4.0 | 5.4 | 2.2 | 1.7 | 2.2 | .79 | .79 | .70 |
| 8 | 3.0 | 2.7 | 9.7 | 1.1 | 9.0 | 3.8 | 2.1 | 1.7 | 1.7 | 2.1 | .62 | .79 |
| 9 | 2.4 | 2.7 | 4.5 | .97 | 20 | 3.2 | 1.9 | 1.6 | 1.6 | 4.0 | .62 | 1.2 |
| 10 | 1.7 | 3.0 | 3.8 | .90 | 15 | 2.9 | 1.6 | 1.6 | 1.5 | 1.7 | .70 | .70 |
| 11 | 60 | 4.2 | 3.4 | .83 | 11 | 2.4 | 1.5 | 12 | 1.4 | 1.1 | 1.4 | .79 |
| 12 | 95 | 4.5 | 2.9 | .78 | 5.8 | 2.1 | 1.5 | 4.0 | 1.2 | 1.1 | 1.4 | .79 |
| 13 | 21 | 4.0 | 2.7 | .76 | 3.7 | 1.9 | 4.8 | 2.5 | 8.0 | 1.4 | 1.4 | .39 |
| 14 | 14 | 4.2 | 3.0 | .75 | 3.3 | 1.9 | 2.1 | 12 | 1.5 | 1.1 | 1.4 | 2.4 |
| 15 | 5.7 | 4.0 | 2.7 | .77 | 2.8 | 1.8 | 1.7 | 17 | 1.5 | 1.1 | 1.1 | 1.4 |
| 16 | 4.0 | 4.2 | 2.7 | .80 | 2.9 | 1.8 | 1.7 | 7.7 | 1.2 | .89 | .89 | .89 |
| 17 | 3.4 | 19 | 2.5 | .94 | 4.8 | 1.7 | 1.9 | 2.9 | 1.4 | 1.0 | 1.0 | .79 |
| 18 | 2.9 | 143 | 2.9 | 1.1 | 14 | 10 | 1.9 | 2.1 | 1.2 | .89 | 1.1 | 6.3 |
| 19 | 2.5 | 158 | 2.7 | 1.0 | 12 | 12 | 29 | 1.7 | 1.0 | 12 | 23 | 1.4 |
| 20 | 2.4 | 21 | 2.5 | .94 | 5.7 | 7.3 | 19 | 1.6 | .89 | 64 | 20 | .62 |
| 21 | 2.7 | 13 | 2.2 | .86 | 4.0 | 3.4 | 16 | 1.7 | .89 | 3.2 | 2.4 | .89 |
| 22 | 2.4 | 11 | 2.0 | .80 | 2.7 | 3.4 | 4.5 | 1.4 | 1.0 | 1.9 | 2.5 | 1.7 |
| 23 | 2.5 | 11 | 1.9 | .76 | 2.6 | 2.9 | 4.5 | 1.2 | 1.1 | 8.4 | 2.1 | 2.1 |
| 24 | 2.7 | 7.0 | 1.8 | .75 | 2.5 | 2.2 | 253 | 7.7 | 1.1 | 2.7 | 1.2 | 1.0 |
| 25 | 2.5 | 4.8 | 1.7 | .75 | 2.4 | 24 | 10 | 2.2 | 1.4 | 2.4 | 1.2 | 1.1 |
| 26 | 2.4 | 3.6 | 1.7 | .88 | 2.3 | 33 | 4.8 | 1.5 | 1.0 | 16 | 1.1 | 4.8 |
| 27 | 2.4 | 3.2 | 1.7 | 1.4 | 2.2 | 7.7 | 6.6 | 1.0 | .79 | 78 | 1.1 | 1.6 |
| 28 | 2.4 | 3.0 | 1.7 | 158 | 2.2 | 4.0 | 6.3 | 1.0 | .62 | 11 | 1.2 | .62 |
| 29 | 2.2 | 3.0 | 1.8 | 97 | ------ | 3.0 | 36 | 1.4 | .62 | 3.8 | .79 | .46 |
| 30 | 2.5 | 2.7 | 2.0 | 14 | ------ | 2.5 | 10 | 1.2 | .79 | 86 | 1.1 | .54 |
| 31 | 13 | ------ | 2.2 | 7.3 | ------ | 2.2 | ------ | 5.4 | ------ | 6.3 | .89 | ------ |
| TOTAL | 290.5 | 476.7 | 109.9 | 305.24 | 210.0 | 319.7 | 465.0 | 117.0 | 146.90 | 388.73 | 81.00 | 41.05 |
| MEAN | 9.37 | 15.9 | 3.55 | 9.85 | 7.50 | 10.3 | 15.5 | 3.77 | 4.90 | 12.5 | 2.61 | 1.37 |
| MAX | 95 | 158 | 28 | 158 | 47 | 104 | 253 | 17 | 50 | 86 | 23 | 6.3 |
| MIN | 1.4 | 2.7 | 1.7 | .75 | 1.2 | 1.7 | 1.5 | 1.0 | .62 | .79 | .62 | .39 |
| CFSM | .93 | 1.57 | .35 | .98 | .74 | 1.02 | 1.53 | .37 | .49 | 1.24 | .26 | .14 |
| IN. | 1.07 | 1.76 | .40 | 1.12 | .77 | 1.18 | 1.71 | .43 | .54 | 1.43 | .30 | .15 |

CAL YR 1969 TOTAL 5,626.70 MEAN 15.4 MAX 646 MIN .52 CFSM 1.52 IN 20.72
WAT YR 1970 TOTAL 2,951.72 MEAN 8.09 MAX 253 MIN .39 CFSM .80 IN 10.87

PEAK DISCHARGE (BASE, 520 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-18 | 2300 | 5.06 | 523 | 07-03 | 0415 | 5.60 | 567 |
| 01-28 | 2345 | 7.27 | 1,240 | 07-27 | 1730 | 5.46 | 637 |
| 04-24 | 0630 | 5.82 | 730 | 07-30 | 1000 | 5.30 | 589 |
| 06-02 | 2300 | 5.28 | 571 | | | | |

03353200 Eagle Creek at Zionsville, Ind.

LOCATION.--Lat 39°56'56", long 86°15'22", in NW¼ sec.1, T.17 N., R.2 E., Boone County, on downstream side of second pier from right bank of bridge on State Highway 334 at Zionsville, and 200 ft upstream from Long Branch.

DRAINAGE AREA.--103 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 816.85 ft above mean sea level. Prior to Oct. 9, 1957, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--13 years, 92.3 cfs (12.17 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,420 cfs Nov. 19 (gage height, 9.60 ft); no flow part of Sept. 13, 14.
Period of record: Maximum discharge, 12,400 cfs Apr. 20, 1964 (gage height, 14.64 ft); no flow at times during 1959, 1963-68, 1970.
Flood of June 28, 1957, reached a stage of 19.20 ft, from floodmark.

REMARKS.--Records fair except those for winter periods, which are poor. Records of suspended sediment loads for the current year are published in Part 2 of this report.

REVISIONS.--WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9.2 | 431 | 91 | 34 | 165 | 38 | 58 | 174 | 29 | 2.6 | 20 | .47 |
| 2 | 9.9 | 304 | 77 | 32 | 325 | 38 | 113 | 152 | 32 | 2.4 | 9.2 | .34 |
| 3 | 11 | 189 | 77 | 30 | 220 | 78 | 155 | 104 | 52 | 5.0 | 6.1 | .40 |
| 4 | 9.2 | 155 | 66 | 28 | 140 | 258 | 106 | 82 | 39 | 9.9 | 5.3 | .52 |
| 5 | 7.5 | 149 | 59 | 26 | 90 | 237 | 84 | 69 | 35 | 5.3 | 4.3 | .69 |
| 6 | 7.0 | 118 | 58 | 25 | 74 | 129 | 78 | 59 | 33 | 3.7 | 3.7 | .63 |
| 7 | 9.2 | 95 | 100 | 23 | 70 | 91 | 62 | 55 | 25 | 3.2 | 3.0 | .57 |
| 8 | 12 | 82 | 192 | 22 | 86 | 72 | 56 | 52 | 20 | 2.8 | 2.6 | .52 |
| 9 | 12 | 73 | 139 | 21 | 150 | 60 | 56 | 50 | 16 | 2.8 | 2.4 | .43 |
| 10 | 10 | 66 | 113 | 20 | 130 | 51 | 50 | 46 | 14 | 3.2 | 2.3 | .28 |
| 11 | 76 | 63 | 102 | 20 | 110 | 42 | 47 | 47 | 13 | 3.5 | 2.1 | .16 |
| 12 | 892 | 60 | 80 | 20 | 96 | 37 | 47 | 52 | 11 | 3.0 | 2.0 | .06 |
| 13 | 806 | 55 | 72 | 19 | 82 | 33 | 50 | 51 | 10 | 2.4 | 1.9 | .01 |
| 14 | 622 | 51 | 72 | 19 | 72 | 30 | 48 | 56 | 9.9 | 2.0 | 1.8 | .01 |
| 15 | 332 | 47 | 60 | 19 | 64 | 28 | 42 | 113 | 11 | 1.6 | 1.6 | .22 |
| 16 | 234 | 42 | 55 | 20 | 60 | 27 | 40 | 165 | 11 | 1.6 | 1.4 | .25 |
| 17 | 155 | 46 | 52 | 20 | 62 | 26 | 40 | 118 | 9.9 | 1.4 | 1.3 | .16 |
| 18 | 113 | 634 | 52 | 21 | 100 | 32 | 38 | 82 | 8.6 | 1.4 | 1.0 | .54 |
| 19 | 91 | 2,460 | 51 | 21 | 190 | 39 | 653 | 65 | 6.1 | 2.3 | 1.4 | 1.2 |
| 20 | 82 | 839 | 46 | 21 | 140 | 86 | 1,230 | 56 | 5.0 | 5.3 | 4.0 | 1.2 |
| 21 | 75 | 458 | 42 | 21 | 100 | 86 | 566 | 48 | 5.0 | 4.0 | 5.3 | 1.1 |
| 22 | 66 | 350 | 39 | 21 | 72 | 73 | 311 | 45 | 5.3 | 2.8 | 4.0 | .92 |
| 23 | 56 | 412 | 37 | 20 | 68 | 63 | 213 | 42 | 5.0 | 2.6 | 4.3 | .76 |
| 24 | 51 | 297 | 35 | 20 | 66 | 57 | 1,470 | 41 | 4.0 | 2.8 | 2.8 | .63 |
| 25 | 51 | 231 | 34 | 20 | 62 | 54 | 586 | 40 | 4.0 | 3.0 | 2.1 | .57 |
| 26 | 49 | 180 | 34 | 25 | 56 | 332 | 311 | 36 | 4.3 | 2.4 | 1.8 | .76 |
| 27 | 47 | 152 | 32 | 60 | 50 | 210 | 204 | 29 | 4.6 | 2.1 | 1.6 | 1.0 |
| 28 | 42 | 123 | 32 | 201 | 45 | 129 | 160 | 25 | 4.0 | 2.1 | 1.3 | .92 |
| 29 | 39 | 111 | 32 | 1,170 | ------ | 95 | 129 | 22 | 3.2 | 2.0 | 1.1 | 1.3 |
| 30 | 38 | 100 | 34 | 406 | ------ | 72 | 149 | 24 | 2.8 | 46 | .84 | 1.2 |
| 31 | 48 | ------ | 36 | 228 | ------ | 62 | ------ | 24 | ------ | 50 | .63 | ------ |
| TOTAL | 4,062.0 | 8,373 | 2,001 | 2,653 | 2,945 | 2,665 | 7,152 | 2,024 | 432.7 | 185.2 | 103.17 | 17.82 |
| MEAN | 131 | 279 | 64.5 | 85.6 | 105 | 86.0 | 238 | 65.3 | 14.4 | 5.97 | 3.33 | .59 |
| MAX | 892 | 2,460 | 192 | 1,170 | 325 | 332 | 1,470 | 174 | 52 | 50 | 20 | 1.3 |
| MIN | 7.0 | 42 | 32 | 19 | 45 | 26 | 38 | 22 | 2.8 | 1.4 | .63 | .01 |
| CFSM | 1.27 | 2.71 | .63 | .83 | 1.02 | .84 | 2.31 | .63 | .14 | .058 | .032 | .006 |
| IN. | 1.47 | 3.02 | .72 | .96 | 1.06 | .96 | 2.58 | .73 | .16 | .07 | .04 | .006 |

CAL YR 1969 TOTAL 47,072.60 MEAN 129 MAX 2,620 MIN 1.4 CFSM 1.25 IN 17.00
WAT YR 1970 TOTAL 32,613.89 MEAN 89.4 MAX 2,460 MIN .01 CFSM .87 IN 11.78

PEAK DISCHARGE (BASE, 1,500 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-12 | 1815 | 7.15 | 1,620 | 04-20 | 0515 | 7.61 | 1,870 |
| 11-19 | 0700 | 9.60 | 3,420 | 04-24 | 1200 | 8.37 | 2,300 |
| 01-29 | 0400 | 7.76 | 1,960 | | | | |

03353450 Eagle Creek Reservoir near Indianapolis, Ind.

LOCATION.--Lat 39°49'20", long 86°18'11", in NW¼NW¼ sec.22, T.16 N., R.2 E., Marion County, in outlet structure of reservoir on Eagle Creek, 800 ft upstream from Interstate Highway 74, 0.5 mile downstream from School Branch, 1.0 mile northeast of Clermont,,and 2 miles west of Indianapolis.

DRAINAGE AREA.--162 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 780.00 ft above mean sea level.

EXTREMES.--Current year: Maximum contents, 22,170 acre-ft Mar. 7 (elevation, 788.59 ft); minimum, 15,110 acre-ft Sept. 30 (elevation, 782.61 ft).
Period of record: Maximum contents, 22,170 acre-ft Mar. 7, 1970 (elevation, 788.59 ft); minimum, 15,110 acre-ft Sept. 30, 1970 (elevation, 782.61 ft).

REMARKS.--Reservoir is formed by earth fill dam. Low flow is controlled through a 48-inch diameter conduit. Spillway (elevation, 783 ft) is an ogee section with 6 taintor gates, each 40 ft wide and 25 ft high. Permanent pool capacity is 24,000 acre-ft (elevation, 811.5 ft). Reservoir is used for flood control, pollution abatement and recreation. Reservoir put into operation Nov. 27, 1968.

COOPERATION.--Records furnished by Indianapolis Flood Control District.

Month-end elevation and contents, water year October 1969 to September 1970

| Date | Elevation (feet) | Contents (acre-feet) | Change in contents (acre-feet) |
|---|---|---|---|
| Sept. 30 | - | - | - |
| Oct. 31 | - | - | - |
| Nov. 30 | - | - | - |
| Dec. 31 | - | - | - |
| Calendar year 1969 | - | - | - |
| Jan. 31 | | | |
| Feb. 28 | 788.47 | 22,010 | |
| Mar. 31 | 784.41 | 17,050 | -4,960 |
| Apr. 30 | 783.57 | 16,130 | -920 |
| May 31 | 783.30 | 15,830 | -300 |
| June 30 | 783.82 | 16,400 | +570 |
| July 31 | 783.89 | 16,480 | +80 |
| Aug. 31 | 783.34 | 15,870 | -610 |
| Sept. 30 | 782.61 | 15,110 | -760 |
| Water year 1969-70 | - | - | - |

## 03353500 Eagle Creek at Indianapolis, Ind.

LOCATION.--Lat 39°46'33", long 86°15'01", in NE¼ sec.1, T.15 N., R.2 E., Marion County, on right bank at downstream side of bridge on Lynhurst Drvie, approximately 600 ft south of intersection of West 10th Street and Lynhurst Drive, 0.5 mile downstream from West 10th Street Bridge, 1.0 mile upstream from Vermont Street Bridge, 2.9 miles upstream from mouth of Little Eagle Creek, and 6.9 miles from mouth.

DRAINAGE AREA.--174 sq mi.

PERIOD OF RECORD.--November 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 699.00 ft above mean sea level. Aug. 8, 1957, to June 30, 1958, temporary site during reconstruction of bridge on Lynhurst Drive, a nonrecording gage on downstream side of 10th Street Bridge. Mar. 10, 1966, to Aug. 16, 1967, during channelization of Eagle Creek, a nonrecording gage on downstream side of Lynhurst Drive Bridge. Prior to Oct. 1, 1967, at datum 7.21 ft higher.

AVERAGE DISCHARGE.--31 years (1939-70) 147 cfs (11.47 inches per year).

EXTREMES.--Current year: Maximum discharge, 6,150 cfs Nov. 19 (gage height, 8.58 ft); minimum, 7.9 cfs Aug. 11, 12 (gage height, 1.99 ft).
Period of record: Maximum discharge, 28,800 cfs June 28, 1957 (gage height, 23.59 ft), from rating curve extended above 9,000 cfs on basis of a combined current-meter measurement and slope-area measurement; no flow for several days in August 1941. Flood in March 1913 reached a stage of 23.2 ft, from information by local residents.

REMARKS.--Records poor. Regulated by Eagle Creek Reservoir, 4.7 miles upstream (see sta 03353450).

REVISIONS (WATER YEARS).--WSP 953: 1939. WSP 1625: 1958. WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 223 | 60 | 360 | 102 | 528 | 152 | 317 | 340 | 45 | 26 | 15 | 13 |
| 2 | 255 | 46 | 171 | 102 | 558 | 111 | 235 | 365 | 40 | 26 | 15 | 15 |
| 3 | 289 | 175 | 283 | 100 | 528 | 219 | 207 | 296 | 50 | 51 | 16 | 14 |
| 4 | 255 | 359 | 390 | 102 | 510 | 430 | 223 | 259 | 39 | 29 | 14 | 13 |
| 5 | 250 | 362 | 193 | 84 | 486 | 395 | 203 | 207 | 39 | 26 | 13 | 13 |
| 6 | 161 | 353 | 45 | 57 | 400 | 375 | 219 | 155 | 39 | 25 | 13 | 12 |
| 7 | 81 | 344 | 109 | 77 | 51 | 370 | 255 | 122 | 36 | 25 | 12 | 12 |
| 8 | 68 | 330 | 149 | 73 | 65 | 235 | 171 | 109 | 34 | 25 | 12 | 12 |
| 9 | 66 | 274 | 48 | 84 | 175 | 133 | 66 | 104 | 36 | 24 | 12 | 12 |
| 10 | 61 | 38 | 44 | 93 | 259 | 131 | 158 | 95 | 40 | 18 | 12 | 13 |
| 11 | 101 | 35 | 42 | 95 | 255 | 125 | 178 | 100 | 41 | 18 | 11 | 11 |
| 12 | 161 | 32 | 80 | 97 | 203 | 119 | 128 | 131 | 39 | 19 | 10 | 11 |
| 13 | 225 | 31 | 231 | 109 | 41 | 109 | 131 | 117 | 45 | 18 | 12 | 12 |
| 14 | 412 | 32 | 231 | 97 | 39 | 152 | 109 | 131 | 41 | 18 | 12 | 13 |
| 15 | 438 | 31 | 56 | 109 | 39 | 220 | 111 | 350 | 41 | 18 | 12 | 12 |
| 16 | 482 | 30 | 38 | 106 | 37 | 320 | 155 | 410 | 41 | 16 | 12 | 11 |
| 17 | 425 | 66 | 37 | 77 | 37 | 450 | 102 | 370 | 42 | 16 | 12 | 11 |
| 18 | 325 | 344 | 38 | 38 | 45 | 420 | 75 | 275 | 40 | 16 | 12 | 13 |
| 19 | 335 | 2,750 | 38 | 39 | 161 | 410 | 251 | 182 | 39 | 27 | 14 | 11 |
| 20 | 172 | 2,650 | 71 | 60 | 247 | 390 | 1,240 | 152 | 37 | 77 | 13 | 11 |
| 21 | 55 | 317 | 131 | 79 | 247 | 380 | 1,080 | 158 | 36 | 26 | 14 | 10 |
| 22 | 314 | 744 | 125 | 69 | 247 | 370 | 700 | 86 | 32 | 21 | 14 | 12 |
| 23 | 494 | 465 | 115 | 71 | 235 | 330 | 510 | 82 | 33 | 19 | 13 | 12 |
| 24 | 309 | 455 | 115 | 71 | 211 | 304 | 1,320 | 90 | 30 | 15 | 19 | 12 |
| 25 | 36 | 326 | 115 | 90 | 207 | 309 | 1,580 | 90 | 29 | 14 | 13 | 11 |
| 26 | 33 | 125 | 104 | 71 | 189 | 317 | 875 | 80 | 27 | 17 | 13 | 13 |
| 27 | 34 | 63 | 104 | 38 | 203 | 330 | 516 | 66 | 27 | 21 | 14 | 12 |
| 28 | 36 | 62 | 102 | 65 | 203 | 304 | 430 | 57 | 26 | 17 | 14 | 10 |
| 29 | 36 | 114 | 102 | 395 | ------ | 304 | 385 | 51 | 27 | 16 | 13 | 10 |
| 30 | 34 | 275 | 102 | 720 | ------ | 287 | 317 | 38 | 26 | 38 | 13 | 10 |
| 31 | 50 | ------ | 104 | 528 | ------ | 317 | ------ | 42 | ------ | 21 | 13 | ------ |
| TOTAL | 6,216 | 11,288 | 3,873 | 3,898 | 6,406 | 8,818 | 12,247 | 5,110 | 1,097 | 743 | 407 | 357 |
| MEAN | 201 | 376 | 125 | 126 | 229 | 284 | 408 | 165 | 36.6 | 24.0 | 13.1 | 11.9 |
| MAX | 494 | 2,750 | 390 | 720 | 558 | 450 | 1,580 | 410 | 50 | 77 | 19 | 15 |
| MIN | 33 | 30 | 37 | 38 | 37 | 109 | 66 | 38 | 26 | 14 | 10 | 10 |

CAL YR 1969 TOTAL 48,519 MEAN 133 MAX 2,750 MIN 10
WAT YR 1970 TOTAL 60,460 MEAN 166 MAX 2,750 MIN 10

## 03353600 Little Eagle Creek at Speedway, Ind.

LOCATION.--Lat 39°47'15", long 86°13'41", in NW¼ sec.32, T.16 N., R.3 E., Marion County, on right bank at downstream side of 16th Street Bridge in Speedway, 0.5 mile east of 500-Mile Track, 0.6 mile upstream from Dry Run, and 2.4 miles upstream from mouth.

DRAINAGE AREA.--23.9 sq mi. (Includes 5.57 sq mi from Dry Run Basin. Since June 1964 part of the flow from the 5.57 sq mi of Dry Run basin has been diverted into Little Eagle Creek above gage).

PERIOD OF RECORD.--October 1959 to current year. Figures of runoff 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 710.82 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission).

AVERAGE DISCHARGE.--11 years, 16.9 cfs.

EXTREMES.--Current year: Maximum discharge, 893 cfs Nov. 19 (gage height, 4.71 ft); minimum, 0.19 cfs July 25 (gage height, 0.12 ft).
Period of record: Maximum discharge, 1,940 cfs Apr. 25, 1961 (gage height, 7.44 ft); no flow at times most years.

REMARKS.--Records fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.8 | 61 | 15 | 9.6 | 40 | 11 | 18 | 35 | 17 | 4.0 | 12 | 1.8 |
| 2 | 9.6 | 31 | 12 | 9.0 | 80 | 19 | 44 | 24 | 13 | 4.0 | 8.0 | 4.7 |
| 3 | 4.3 | 21 | 12 | 8.4 | 40 | 34 | 33 | 19 | 62 | 20 | 7.6 | 11 |
| 4 | 3.1 | 19 | 11 | 7.8 | 25 | 74 | 23 | 16 | 27 | 5.6 | 6.8 | 10 |
| 5 | 2.6 | 16 | 9.0 | 7.4 | 22 | 69 | 19 | 14 | 19 | 2.4 | 6.0 | 6.0 |
| 6 | 2.8 | 13 | 8.5 | 7.0 | 20 | 38 | 19 | 12 | 14 | 2.4 | 5.6 | 3.1 |
| 7 | 12 | 10 | 43 | 6.6 | 26 | 28 | 15 | 11 | 11 | 2.2 | 5.6 | 3.1 |
| 8 | 5.2 | 9.0 | 37 | 6.2 | 30 | 24 | 14 | 11 | 9.0 | 4.8 | 5.2 | 2.8 |
| 9 | 3.4 | 8.5 | 24 | 5.8 | 41 | 19 | 14 | 11 | 8.5 | 6.4 | 6.0 | 2.4 |
| 10 | 3.1 | 8.5 | 20 | 5.6 | 36 | 17 | 12 | 11 | 9.0 | 2.8 | 6.8 | 5.2 |
| 11 | 53 | 7.6 | 17 | 5.6 | 29 | 16 | 11 | 19 | 9.5 | 2.0 | 8.0 | 2.8 |
| 12 | 212 | 7.6 | 13 | 5.6 | 25 | 14 | 11 | 19 | 10 | 1.4 | 5.8 | 1.8 |
| 13 | 68 | 7.2 | 11 | 5.8 | 18 | 12 | 16 | 18 | 16 | 1.3 | 2.0 | 1.6 |
| 14 | 40 | 6.8 | 13 | 5.8 | 16 | 11 | 11 | 50 | 9.0 | 1.1 | 3.4 | 10 |
| 15 | 23 | 6.0 | 11 | 6.0 | 15 | 11 | 10 | 158 | 8.5 | .98 | 2.4 | 8.5 |
| 16 | 17 | 5.6 | 10 | 6.4 | 16 | 9.5 | 9.0 | 86 | 7.6 | .98 | 2.2 | 3.1 |
| 17 | 12 | 15 | 11 | 6.4 | 17 | 9.0 | 8.5 | 43 | 7.2 | .84 | 2.4 | 2.2 |
| 18 | 10 | 205 | 11 | 6.4 | 34 | 17 | 9.8 | 28 | 5.6 | 1.1 | 2.4 | 7.6 |
| 19 | 8.5 | 520 | 10 | 6.4 | 53 | 22 | 121 | 20 | 4.6 | 10 | 2.8 | 8.0 |
| 20 | 7.6 | 94 | 9.6 | 6.2 | 27 | 26 | 131 | 16 | 4.6 | 103 | 19 | 2.2 |
| 21 | 7.6 | 54 | 9.0 | 6.0 | 19 | 20 | 79 | 13 | 5.2 | 4.0 | 5.6 | 3.4 |
| 22 | 6.4 | 49 | 8.6 | 6.0 | 18 | 19 | 42 | 12 | 4.9 | 2.4 | 3.4 | 2.2 |
| 23 | 5.6 | 48 | 8.0 | 5.6 | 17 | 16 | 33 | 12 | 5.2 | 6.7 | 4.0 | 5.2 |
| 24 | 5.2 | 37 | 7.8 | 5.4 | 17 | 15 | 346 | 19 | 4.9 | 2.2 | 2.8 | 3.7 |
| 25 | 5.2 | 30 | 7.6 | 5.4 | 15 | 18 | 79 | 18 | 5.6 | .29 | 4.3 | 3.4 |
| 26 | 5.2 | 24 | 7.2 | 5.2 | 14 | 72 | 51 | 18 | 5.6 | .62 | 1.8 | 4.9 |
| 27 | 5.6 | 20 | 7.2 | 5.2 | 13 | 36 | 41 | 13 | 4.3 | .84 | 1.8 | 8.5 |
| 28 | 5.2 | 19 | 7.6 | 80 | 12 | 27 | 41 | 11 | 4.0 | 3.1 | 1.6 | 1.8 |
| 29 | 4.9 | 17 | 8.0 | 390 | ------ | 22 | 37 | 12 | 3.7 | 1.3 | 1.3 | 1.4 |
| 30 | 4.6 | 16 | 8.5 | 76 | ------ | 18 | 27 | 13 | 4.0 | 23 | 1.6 | 1.1 |
| 31 | 21 | ------ | 10 | 49 | ------ | 16 | ------ | 13 | ------ | 27 | 1.4 | ------ |
| TOTAL | 576.5 | 1,385.8 | 397.6 | 767.8 | 735 | 759.5 | 1,325.3 | 775 | 319.5 | 248.75 | 149.6 | 133.5 |
| MEAN | 18.6 | 46.2 | 12.8 | 24.8 | 26.3 | 24.5 | 44.2 | 25.0 | 10.7 | 8.02 | 4.83 | 4.45 |
| MAX | 212 | 520 | 43 | 390 | 80 | 74 | 346 | 158 | 62 | 103 | 19 | 11 |
| MIN | 2.6 | 5.6 | 7.2 | 5.2 | 12 | 9.0 | 8.5 | 11 | 3.7 | .29 | 1.3 | 1.1 |

CAL YR 1969 TOTAL 9,460.10 MEAN 25.9 MAX 638 MIN 1.1
WAT YR 1970 TOTAL 7,573.85 MEAN 20.8 MAX 520 MIN .29

PEAK DISCHARGE (BASE, 450 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-19 | 0345 | 4.71 | 893 | 04-24 | 0930 | 3.87 | 642 |
| 01-29 | 0230 | 4.35 | 785 | 07-20 | 0430 | 4.20 | 740 |

03353700 West Fork White Lick Creek at Danville, Ind.

LOCATION.--Lat 39°45'36", long 86°30'47", in NW¼NE¼ sec.10, T.15 N., R.1 W., Hendricks County, on upstream side of bridge on U.S. Highway 36, 0.1 mile east of city limits of Danville, 0.5 mile upstream from small left-bank tributary, and 7 miles west of Avon.

DRAINAGE AREA.--28.8 sq mi.

PERIOD OF RECORD.--May 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 828.83 ft above mean sea level. Prior to Oct. 23, 1968, nonrecording gage and crest-stage gage at same site and datum.

AVERAGE DISCHARGE.--12 years, 25.1 cfs (11.83 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,080 cfs Apr. 24 (gage height, 7.18 ft); no flow Sept. 9, 10, 12.
Period of record: Maximum discharge, 3,330 cfs July 14, 1962 (gage height, 11.32 ft); no flow at times some years.
Flood of June 28, 1957, reached a stage of 16.0 ft, from floodmark (discharge, 6,660 cfs, from contracted-opening measurement).

REMARKS.--Records poor.

REVISIONS.--WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.2 | 110 | 16 | 9.2 | 60 | 17 | 27 | 67 | 25 | 2.2 | 2.5 | .16 |
| 2 | 4.4 | 80 | 15 | 8.6 | 153 | 25 | 66 | 52 | 24 | 1.8 | 1.5 | .08 |
| 3 | 3.3 | 40 | 14 | 8.0 | 99 | 60 | 59 | 40 | 36 | 2.7 | 1.1 | .04 |
| 4 | 1.6 | 32 | 22 | 7.8 | 44 | 110 | 41 | 32 | 26 | 2.2 | .90 | .18 |
| 5 | 1.2 | 31 | 20 | 7.2 | 36 | 120 | 34 | 28 | 23 | 1.7 | .70 | .02 |
| 6 | 1.0 | 27 | 20 | 6.8 | 32 | 60 | 32 | 24 | 19 | 1.4 | .60 | .01 |
| 7 | 7.1 | 23 | 22 | 6.6 | 34 | 45 | 26 | 22 | 16 | 1.3 | .54 | .02 |
| 8 | 6.2 | 20 | 50 | 6.2 | 48 | 40 | 25 | 20 | 14 | 2.1 | .51 | .13 |
| 9 | 5.2 | 18 | 40 | 6.0 | 58 | 34 | 24 | 18 | 13 | 2.1 | .49 | 0 |
| 10 | 4.5 | 17 | 33 | 5.8 | 45 | 31 | 22 | 16 | 12 | 1.7 | .41 | 0 |
| 11 | 21 | 16 | 27 | 5.8 | 39 | 28 | 21 | 20 | 11 | 1.3 | .48 | .10 |
| 12 | 170 | 16 | 24 | 5.8 | 32 | 26 | 21 | 22 | 9.6 | .97 | .24 | 0 |
| 13 | 160 | 15 | 20 | 5.6 | 26 | 25 | 30 | 22 | 9.8 | .66 | .19 | .05 |
| 14 | 160 | 14 | 19 | 5.6 | 24 | 23 | 24 | 91 | 11 | .65 | .21 | .32 |
| 15 | 80 | 12 | 18 | 5.6 | 21 | 22 | 21 | 379 | 43 | .40 | .09 | .14 |
| 16 | 52 | 11 | 16 | 5.8 | 21 | 21 | 20 | 174 | 19 | .36 | .07 | .01 |
| 17 | 38 | 29 | 14 | 6.0 | 21 | 21 | 19 | 95 | 14 | .40 | .05 | .01 |
| 18 | 30 | 372 | 14 | 6.2 | 60 | 24 | 18 | 60 | 11 | .37 | .12 | 1.2 |
| 19 | 26 | 586 | 14 | 6.2 | 88 | 29 | 159 | 45 | 8.6 | .60 | 1.4 | .02 |
| 20 | 23 | 204 | 13 | 6.2 | 41 | 45 | 314 | 34 | 7.3 | 1.1 | 1.3 | .01 |
| 21 | 22 | 124 | 12 | 6.2 | 28 | 40 | 159 | 29 | 6.8 | 1.5 | .46 | .01 |
| 22 | 20 | 106 | 11 | 6.2 | 25 | 35 | 90 | 25 | 6.4 | 1.0 | .37 | .49 |
| 23 | 18 | 101 | 10 | 6.0 | 24 | 32 | 62 | 24 | 5.3 | .80 | .47 | .10 |
| 24 | 16 | 70 | 9.6 | 5.8 | 23 | 29 | 546 | 38 | 5.1 | .72 | .34 | .01 |
| 25 | 16 | 57 | 9.0 | 5.8 | 22 | 30 | 195 | 29 | 5.5 | .66 | .20 | .16 |
| 26 | 15 | 33 | 8.8 | 6.0 | 21 | 120 | 105 | 23 | 5.3 | .60 | .03 | 1.2 |
| 27 | 14 | 29 | 8.6 | 145 | 20 | 70 | 79 | 19 | 4.3 | .60 | .02 | .04 |
| 28 | 13 | 23 | 8.4 | 233 | 18 | 50 | 88 | 16 | 3.3 | .80 | .15 | .01 |
| 29 | 12 | 20 | 8.6 | 422 | ------ | 40 | 61 | 15 | 2.8 | .80 | .03 | .13 |
| 30 | 13 | 18 | 9.2 | 150 | ------ | 34 | 57 | 15 | 2.8 | .76 | .04 | .01 |
| 31 | 16 | ------ | 9.8 | 87 | ------ | 30 | ------ | 20 | ------ | 4.0 | .05 | ------ |
| TOTAL | 970.7 | 2,254 | 536.0 | 1,204.0 | 1,163 | 1,316 | 2,445 | 1,514 | 399.9 | 38.25 | 15.56 | 4.66 |
| MEAN | 31.3 | 75.1 | 17.3 | 38.8 | 41.5 | 42.5 | 81.5 | 48.8 | 13.3 | 1.23 | .50 | .16 |
| MAX | 170 | 586 | 50 | 422 | 153 | 120 | 546 | 379 | 43 | 4.0 | 2.5 | 1.2 |
| MIN | 1.0 | 11 | 8.4 | 5.6 | 18 | 17 | 18 | 15 | 2.8 | .36 | .02 | 0 |
| CFSM | 1.09 | 2.61 | .60 | 1.35 | 1.44 | 1.48 | 2.83 | 1.69 | .46 | .043 | .017 | .006 |
| IN. | 1.25 | 2.91 | .69 | 1.56 | 1.50 | 1.70 | 3.16 | 1.96 | .52 | .05 | .02 | .006 |

CAL YR 1969 TOTAL 13,619.05 MEAN 37.3 MAX 730 MIN .42 CFSM 1.30 IN 17.59
WAT YR 1970 TOTAL 11,861.07 MEAN 32.5 MAX 586 MIN 0 CFSM 1.13 IN 15.32

PEAK DISCHARGE (BASE, 700 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-18 | 2030 | 6.86 | 988 | 04-24 | 0715 | 7.18 | 1,080 |
| 01-29 | 0045 | 6.10 | 785 | 05-14 | 2330 | 6.24 | 820 |

## 03353800 White Lick Creek at Mooresville, Ind.

LOCATION.--Lat 39°36'28", long 86°22'56", in SE¼ sec.35, T.14 N., R.1 E., Morgan County, on right bank at downstream side of bridge on State Highway 42 at Mooresville, 1.0 mile downstream from McCracken Creek, and 2.0 miles upstream from East Fork White Lick Creek.

DRAINAGE AREA.--212 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 644.64 ft above mean sea level. Dec. 10, 1963, to Sept. 30 1964, nonrecording gage at bridge 1,950 ft upstream at datum 1.39 ft higher.

AVERAGE DISCHARGE.--13 years, 196 cfs (12.56 inches per year).

EXTREMES.--Current year: Maximum discharge, 6,590 cfs Apr. 24 (gage height, 19.58 ft); minimum, 7.5 cfs Sept. 13 (gage height, 7.25 ft).
Period of record: Maximum discharge, 18,000 cfs Mar. 4, 1963 (gage height, 22.95 ft); minimum, 1.8 cfs Sept. 3, 1966; minimum gage height, 7.25 ft Sept. 13, 1970.
Flood of June 28, 1957, reached a stage of 22.5 ft, from levels to high-water mark by Indiana Flood Control and Water Resources Commission.

REMARKS.--Records fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 26 | 800 | 234 | 84 | 444 | 150 | 204 | 640 | 134 | 29 | 94 | 8.0 |
| 2 | 29 | 588 | 205 | 88 | 928 | 171 | 322 | 832 | 169 | 28 | 51 | 8.0 |
| 3 | 33 | 360 | 196 | 82 | 600 | 381 | 370 | 332 | 408 | 31 | 49 | 9.4 |
| 4 | 29 | 294 | 176 | 77 | 340 | 1,010 | 288 | 276 | 228 | 37 | 38 | 12 |
| 5 | 25 | 276 | 153 | 70 | 290 | 1,090 | 242 | 240 | 178 | 31 | 29 | 14 |
| 6 | 24 | 244 | 148 | 66 | 260 | 519 | 224 | 207 | 146 | 29 | 24 | 11 |
| 7 | 37 | 205 | 378 | 64 | 274 | 370 | 196 | 187 | 119 | 26 | 21 | 9.9 |
| 8 | 42 | 180 | 552 | 60 | 385 | 310 | 176 | 180 | 102 | 28 | 20 | 9.4 |
| 9 | 36 | 163 | 350 | 58 | 552 | 276 | 169 | 162 | 90 | 33 | 18 | 8.9 |
| 10 | 31 | 155 | 282 | 56 | 423 | 242 | 155 | 144 | 80 | 29 | 17 | 8.0 |
| 11 | 150 | 146 | 254 | 54 | 340 | 215 | 146 | 141 | 74 | 25 | 16 | 8.0 |
| 12 | 1,220 | 143 | 205 | 52 | 280 | 200 | 141 | 189 | 67 | 25 | 15 | 8.0 |
| 13 | 1,110 | 132 | 174 | 52 | 240 | 187 | 176 | 158 | 82 | 23 | 14 | 7.5 |
| 14 | 1,120 | 127 | 174 | 52 | 210 | 170 | 162 | 167 | 70 | 21 | 13 | 9.4 |
| 15 | 465 | 121 | 150 | 52 | 200 | 160 | 138 | 1,260 | 100 | 20 | 12 | 10 |
| 16 | 340 | 113 | 132 | 52 | 180 | 150 | 127 | 1,130 | 86 | 19 | 11 | 9.4 |
| 17 | 254 | 121 | 124 | 52 | 170 | 151 | 121 | 552 | 70 | 17 | 9.9 | 8.5 |
| 18 | 202 | 1,150 | 122 | 52 | 255 | 171 | 114 | 360 | 61 | 15 | 9.4 | 13 |
| 19 | 174 | 4,670 | 121 | 54 | 605 | 219 | 752 | 272 | 53 | 26 | 10 | 16 |
| 20 | 160 | 1,490 | 108 | 56 | 342 | 335 | 2,590 | 224 | 49 | 50 | 36 | 12 |
| 21 | 155 | 848 | 105 | 56 | 238 | 284 | 1,140 | 192 | 47 | 67 | 30 | 12 |
| 22 | 141 | 650 | 96 | 56 | 220 | 254 | 640 | 169 | 44 | 38 | 21 | 9.9 |
| 23 | 126 | 689 | 88 | 56 | 200 | 226 | 456 | 153 | 41 | 33 | 19 | 10 |
| 24 | 116 | 513 | 82 | 58 | 190 | 202 | 3,900 | 176 | 39 | 33 | 15 | 12 |
| 25 | 113 | 432 | 78 | 70 | 180 | 204 | 1,550 | 171 | 47 | 29 | 14 | 11 |
| 26 | 113 | 365 | 76 | 480 | 170 | 966 | 808 | 151 | 41 | 25 | 13 | 12 |
| 27 | 108 | 306 | 72 | 360 | 160 | 561 | 580 | 124 | 37 | 25 | 11 | 14 |
| 28 | 105 | 280 | 70 | 561 | 150 | 350 | 608 | 111 | 34 | 36 | 11 | 12 |
| 29 | 100 | 252 | 70 | 3,370 | ------ | 280 | 523 | 105 | 32 | 34 | 10 | 10 |
| 30 | 94 | 234 | 74 | 1,040 | ------ | 240 | 516 | 100 | 30 | 32 | 9.4 | 9.4 |
| 31 | 108 | ------ | 78 | 584 | ------ | 217 | ------ | 106 | ------ | 171 | 8.5 | ------ |
| TOTAL | 6,786 | 16,047 | 5,127 | 7,924 | 8,826 | 10,261 | 17,534 | 9,211 | 2,758 | 1,065 | 669.2 | 312.7 |
| MEAN | 219 | 535 | 165 | 256 | 315 | 331 | 584 | 297 | 91.9 | 34.4 | 21.6 | 10.4 |
| MAX | 1,220 | 4,670 | 552 | 3,370 | 928 | 1,090 | 3,900 | 1,260 | 408 | 171 | 94 | 16 |
| MIN | 24 | 113 | 70 | 52 | 150 | 150 | 114 | 100 | 30 | 15 | 8.5 | 7.5 |
| CFSM | 1.03 | 2.52 | .78 | 1.21 | 1.49 | 1.56 | 2.75 | 1.40 | .43 | .16 | .10 | .049 |
| IN. | 1.19 | 2.82 | .90 | 1.39 | 1.55 | 1.80 | 3.08 | 1.62 | .48 | .19 | .12 | .05 |

CAL YR 1969 TOTAL 106,790.0 MEAN 293 MAX 6,650 MIN 24 CFSM 1.38 IN 18.74
WAT YR 1970 TOTAL 86,520.9 MEAN 237 MAX 4,670 MIN 7.5 CFSM 1.12 IN 15.18

PEAK DISCHARGE (BASE, 3,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-19 | 0730 | 19.06 | 6,060 | 04-20 | 0900 | 15.93 | 3,550 |
| 01-29 | 0530 | 18.61 | 5,650 | 04-24 | 1330 | 19.58 | 6,590 |

03354000 White River near Centerton, Ind.

LOCATION.--Lat 39°30'02", long 86°24'24", in SW¼SE¼ sec.3, T.12 N., R.1 E., Morgan County, on right bank 0.4 mile downstream from bridge on Blue Bluff Road, 1 mile south of Centerton, 1.1 miles downstream from White Lick Creek, and at mile 202.6.

DRAINAGE AREA.--2,444 sq mi.

PERIOD OF RECORD.--July 1925 to September 1930 (gage height 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.

GAGE.--Water-stage recorder. Datum of gage is 595.44 ft above mean sea level (Corps of Engineers bench mark), levels by Indianapolis Power and Light Co. See WSP 1725 for history of changes prior to July 1953.

AVERAGE DISCHARGE.--25 years (1930-31, 1946-70), 2,293 cfs (12.74 inches per year).

EXTREMES.--Current year: Maximum discharge, 16,900 cfs Apr. 25 (gage height, 12.88 ft); minimum daily, 300 cfs Sept. 10, 12.
Period of record: Maximum discharge, 50,500 cfs Apr. 22, 1964 (gage height, 17.57 ft); minimum, 131 cfs Nov. 15, 1930; minimum gage height, 0.42 ft Sept. 14, 15, 1969.
Flood in March 1913 reached a stage of 22.8 ft at Martinsville site (from information by State Highway Department of Indiana) and 21.9 ft at present site (from information by Corps of Engineers), discharge, 90,000 cfs, estimated.

REMARKS.--Records good. Flow slightly regulated by Morse Reservoir (see sta 03350300) and Geist Reservoir (see sta 03351700). Records of water temperature for current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1335: 1948-49. WSP 1909: 1931(M). WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 814 | 2,020 | 2,710 | 1,320 | 10,600 | 2,030 | 2,950 | 5,180 | 1,420 | 688 | 1,710 | 460 |
| 2 | 974 | 2,200 | 2,610 | 1,290 | 8,250 | 1,980 | 3,720 | 4,810 | 1,580 | 636 | 1,370 | 390 |
| 3 | 1,090 | 2,240 | 2,280 | 1,270 | 8,330 | 2,540 | 3,940 | 4,210 | 2,340 | 1,110 | 1,130 | 370 |
| 4 | 998 | 2,300 | 2,240 | 1,200 | 6,830 | 3,890 | 4,730 | 3,550 | 2,150 | 1,230 | 1,210 | 460 |
| 5 | 926 | 2,190 | 2,140 | 1,130 | 5,490 | 6,670 | 4,450 | 3,120 | 2,160 | 862 | 1,010 | 460 |
| 6 | 894 | 2,040 | 1,750 | 1,070 | 4,600 | 6,740 | 3,600 | 2,740 | 1,990 | 734 | 854 | 460 |
| 7 | 934 | 1,930 | 2,280 | 925 | 3,740 | 6,730 | 3,110 | 2,440 | 1,930 | 678 | 734 | 360 |
| 8 | 950 | 1,800 | 3,290 | 840 | 3,640 | 5,240 | 2,760 | 2,200 | 1,860 | 638 | 662 | 370 |
| 9 | 806 | 1,680 | 3,420 | 820 | 4,670 | 4,000 | 2,350 | 2,030 | 1,580 | 758 | 590 | 330 |
| 10 | 750 | 1,480 | 3,420 | 800 | 4,320 | 3,370 | 2,140 | 1,910 | 1,370 | 734 | 566 | 300 |
| 11 | 1,170 | 1,300 | 2,940 | 804 | 4,460 | 2,880 | 2,070 | 1,840 | 1,260 | 742 | 606 | 320 |
| 12 | 3,390 | 1,260 | 2,520 | 854 | 4,060 | 2,540 | 1,920 | 2,240 | 1,170 | 758 | 566 | 300 |
| 13 | 6,110 | 1,210 | 2,350 | 880 | 3,520 | 2,290 | 1,990 | 2,060 | 1,210 | 718 | 534 | 320 |
| 14 | 7,140 | 1,140 | 2,240 | 903 | 2,970 | 2,050 | 1,940 | 2,230 | 1,170 | 670 | 550 | 340 |
| 15 | 7,070 | 1,080 | 2,050 | 919 | 2,710 | 2,010 | 1,820 | 4,460 | 1,110 | 590 | 510 | 480 |
| 16 | 5,890 | 1,030 | 1,800 | 916 | 2,360 | 1,900 | 1,750 | 4,890 | 1,220 | 550 | 489 | 482 |
| 17 | 4,570 | 1,020 | 1,650 | 1,030 | 2,170 | 1,940 | 1,660 | 4,130 | 1,180 | 518 | 489 | 440 |
| 18 | 3,490 | 2,210 | 1,560 | 1,150 | 2,080 | 2,090 | 1,540 | 3,530 | 1,070 | 518 | 482 | 454 |
| 19 | 2,800 | 10,900 | 1,490 | 1,140 | 3,030 | 2,320 | 2,430 | 2,880 | 978 | 822 | 482 | 620 |
| 20 | 2,390 | 12,500 | 1,440 | 1,030 | 3,900 | 2,630 | 7,180 | 2,390 | 897 | 1,360 | 822 | 461 |
| 21 | 1,980 | 12,900 | 1,430 | 936 | 4,280 | 2,690 | 9,660 | 2,080 | 807 | 1,230 | 1,340 | 422 |
| 22 | 1,750 | 10,900 | 1,430 | 824 | 3,510 | 3,000 | 9,560 | 1,850 | 735 | 886 | 1,590 | 468 |
| 23 | 1,890 | 8,070 | 1,440 | 841 | 2,990 | 2,900 | 7,270 | 1,710 | 734 | 766 | 1,220 | 496 |
| 24 | 1,800 | 6,630 | 1,410 | 873 | 2,780 | 2,710 | 12,000 | 1,660 | 694 | 838 | 942 | 496 |
| 25 | 1,440 | 6,050 | 1,350 | 952 | 2,680 | 2,660 | 14,400 | 1,670 | 765 | 686 | 822 | 526 |
| 26 | 1,230 | 5,150 | 1,280 | 2,260 | 2,550 | 4,920 | 12,800 | 1,660 | 707 | 670 | 710 | 468 |
| 27 | 1,170 | 4,230 | 1,280 | 2,010 | 2,410 | 5,120 | 11,100 | 1,570 | 720 | 934 | 630 | 534 |
| 28 | 1,130 | 3,550 | 1,250 | 2,170 | 2,240 | 5,630 | 7,850 | 1,430 | 733 | 1,330 | 566 | 461 |
| 29 | 1,090 | 3,090 | 1,210 | 8,710 | ------ | 4,680 | 6,080 | 1,340 | 766 | 1,290 | 510 | 496 |
| 30 | 1,030 | 2,870 | 1,280 | 9,890 | ------ | 3,770 | 6,430 | 1,290 | 806 | 1,230 | 468 | 489 |
| 31 | 1,010 | ------ | 1,280 | 11,200 | ------ | 3,200 | ------ | 1,210 | ------ | 1,960 | 468 | ------ |
| TOTAL | 68,676 | 116,970 | 60,820 | 60,957 | 115,170 | 107,120 | 155,200 | 80,310 | 37,112 | 27,134 | 24,632 | 13,033 |
| MEAN | 2,215 | 3,899 | 1,962 | 1,966 | 4,113 | 3,455 | 5,173 | 2,591 | 1,237 | 875 | 795 | 434 |
| MAX | 7,140 | 12,900 | 3,420 | 11,200 | 10,600 | 6,740 | 14,400 | 5,180 | 2,340 | 1,960 | 1,710 | 620 |
| MIN | 750 | 1,020 | 1,210 | 800 | 2,080 | 1,900 | 1,540 | 1,210 | 694 | 518 | 468 | 300 |
| CFSM | .91 | 1.60 | .80 | .80 | 1.68 | 1.41 | 2.12 | 1.06 | .51 | .36 | .33 | .18 |
| IN. | 1.05 | 1.78 | .93 | .93 | 1.75 | 1.63 | 2.36 | 1.22 | .56 | .41 | .37 | .20 |

CAL YR 1969 TOTAL 1,102,602 MEAN 3,021 MAX 33,100 MIN 461 CFSM 1.24 IN 16.78
WAT YR 1970 TOTAL 867,134 MEAN 2,376 MAX 14,400 MIN 300 CFSM .97 IN 13.20

PEAK DISCHARGE (BASE, 9,500 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-21 | 1145 | 11.07 | 13,100 | 04-25 | 0145 | 12.88 | 16,900 |
| 01-31 | 2015 | 9.91 | 11,400 | | | | |

## 03354500 Beanblossom Creek at Beanblossom, Ind.

LOCATION.--Lat 39°15'45", long 86°14'55", in SW¼NW¼ sec.31, T.10 N., R.3 E., Brown County, on right bank 15 ft downstream from bridge on State Highway 135, 0.3 mile south of Beanblossom, and 2.5 miles upstream from North Fork Beanblossom Creek.

DRAINAGE AREA.--14.6 sq mi.

PERIOD OF RECORD.--October 1951 to current year. Prior to October 1965, published as Bean Blossom Creek at Bean Blossom.

GAGE.--Water-stage recorder. Datum of gage is 673.65 ft above mean sea level.

AVERAGE DISCHARGE.--19 years, 15.6 cfs (14.51 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,700 cfs Apr. 24 (gage height, 8.43 ft); minimum, 0.02 cfs Aug. 30, 31.
Period of record: Maximum discharge, 8,140 cfs June 23, 1960 (gage height, 11.78 ft), from curve extended above 2,000 cfs on basis of contracted-opening measurement; no flow for many days in most years.

REMARKS.--Records good except those below 10 cfs, which are poor.

REVISIONS (WATER YEARS).--WSP 1555: 1952, 1953(M), 1956-57. WSP 1705: 1952(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .40 | 5.6 | 5.1 | 9.7 | 23 | 5.3 | 29 | 24 | 6.1 | .24 | .32 | .03 |
| 2 | 1.4 | 4.4 | 4.4 | 9.0 | 76 | 12 | 126 | 19 | 4.6 | .20 | .12 | .03 |
| 3 | 1.1 | 3.6 | 4.1 | 6.4 | 51 | 35 | 46 | 15 | 9.7 | .32 | .75 | .07 |
| 4 | .85 | 3.4 | 3.4 | 5.6 | 44 | 49 | 32 | 12 | 5.6 | .55 | .50 | .75 |
| 5 | .85 | 3.2 | 3.0 | 4.8 | 23 | 56 | 25 | 11 | 5.8 | .28 | .32 | 2.5 |
| 6 | .75 | 2.9 | 3.0 | 3.7 | 17 | 33 | 21 | 8.7 | 73 | .20 | .20 | .40 |
| 7 | 1.4 | 2.3 | 55 | 3.0 | 24 | 25 | 16 | 7.5 | 16 | .12 | .10 | .28 |
| 8 | 1.4 | 2.1 | 35 | 2.6 | 35 | 20 | 15 | 7.0 | 8.7 | .75 | .10 | .16 |
| 9 | 1.2 | 2.0 | 21 | 2.5 | 41 | 16 | 12 | 5.8 | 5.8 | .85 | .55 | .10 |
| 10 | 1.2 | 1.8 | 15 | 2.6 | 30 | 14 | 11 | 6.1 | 4.4 | .40 | .50 | .08 |
| 11 | 9.4 | 1.5 | 12 | 2.9 | 26 | 12 | 9.7 | 7.8 | 3.4 | .28 | .45 | .05 |
| 12 | 16 | 1.4 | 9.4 | 3.6 | 21 | 12 | 9.0 | 11 | 2.7 | .20 | .24 | .04 |
| 13 | 5.6 | 1.4 | 8.1 | 4.5 | 16 | 12 | 10 | 11 | 2.3 | .16 | .16 | .04 |
| 14 | 4.6 | 1.5 | 7.5 | 5.0 | 14 | 12 | 9.7 | 58 | 1.8 | .10 | .10 | .08 |
| 15 | 2.9 | 1.3 | 6.1 | 5.2 | 14 | 11 | 8.4 | 28 | 1.8 | .08 | .08 | .08 |
| 16 | 2.1 | 1.2 | 5.6 | 5.3 | 12 | 10 | 7.8 | 45 | 1.5 | .06 | .06 | .07 |
| 17 | 1.6 | 2.1 | 5.1 | 5.3 | 13 | 11 | 7.5 | 30 | 1.4 | .08 | .05 | .06 |
| 18 | 1.4 | 112 | 4.8 | 5.2 | 12 | 14 | 7.0 | 19 | 1.1 | .05 | .05 | .28 |
| 19 | 1.3 | 318 | 4.6 | 4.8 | 12 | 27 | 35 | 13 | .75 | .10 | .08 | .24 |
| 20 | 1.6 | 46 | 3.6 | 4.1 | 9.0 | 37 | 64 | 9.0 | .65 | .24 | 2.9 | .08 |
| 21 | 3.6 | 27 | 3.4 | 3.5 | 8.4 | 26 | 50 | 7.0 | .65 | .10 | .55 | .06 |
| 22 | 2.1 | 24 | 3.2 | 3.4 | 8.4 | 23 | 32 | 5.6 | .55 | .06 | .36 | .06 |
| 23 | 1.6 | 25 | 3.1 | 3.5 | 7.8 | 20 | 31 | 4.6 | .45 | .24 | .50 | .05 |
| 24 | 1.4 | 18 | 3.0 | 3.8 | 7.5 | 17 | 531 | 3.6 | .40 | .32 | .24 | .04 |
| 25 | 1.4 | 15 | 2.9 | 7.0 | 7.5 | 19 | 64 | 3.4 | 2.5 | .12 | .12 | .04 |
| 26 | 1.5 | 11 | 2.9 | 14 | 5.8 | 44 | 38 | 2.7 | .85 | .40 | .08 | .10 |
| 27 | 1.3 | 9.4 | 3.0 | 28 | 5.8 | 28 | 38 | 2.1 | .55 | 1.6 | .07 | .24 |
| 28 | 1.1 | 7.8 | 3.1 | 65 | 5.3 | 22 | 45 | 1.8 | .40 | .95 | .06 | .08 |
| 29 | 1.1 | 6.7 | 4.0 | 210 | ------ | 21 | 32 | 2.5 | .32 | .32 | .03 | .06 |
| 30 | .95 | 5.8 | 7.8 | 48 | ------ | 19 | 26 | 2.5 | .28 | .85 | .02 | .06 |
| 31 | 1.5 | ------ | 10 | 30 | ------ | 16 | ------ | 3.4 | ------ | .95 | .02 | ------ |
| TOTAL | 74.60 | 667.4 | 262.2 | 512.0 | 569.5 | 678.3 | 1,388.1 | 387.1 | 164.05 | 11.17 | 9.68 | 6.21 |
| MEAN | 2.41 | 22.2 | 8.46 | 16.5 | 20.3 | 21.9 | 46.3 | 12.5 | 5.47 | .36 | .31 | .21 |
| MAX | 16 | 318 | 55 | 210 | 76 | 56 | 531 | 58 | 73 | 1.6 | 2.9 | 2.5 |
| MIN | .40 | 1.2 | 2.9 | 2.5 | 5.3 | 5.3 | 7.0 | 1.8 | .28 | .05 | .02 | .03 |
| CFSM | .17 | 1.52 | .58 | 1.13 | 1.39 | 1.50 | 3.17 | .86 | .37 | .025 | .021 | .014 |
| IN. | .19 | 1.70 | .67 | 1.30 | 1.45 | 1.73 | 3.54 | .99 | .42 | .03 | .02 | .02 |

CAL YR 1969 TOTAL 7,369.65 MEAN 20.2 MAX 669 MIN .25 CFSM 1.38 IN 18.78
WAT YR 1970 TOTAL 4,730.31 MEAN 13.0 MAX 531 MIN .02 CFSM .89 IN 12.05

PEAK DISCHARGE (BASE, 700 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-19 | 0615 | 6.08 | 766 | 04-24 | 0600 | 8.43 | 1,700 |

## 03355000 Bear Creek near Trevlac, Ind.

LOCATION (revised).--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.

DRAINAGE AREA.--6.94 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 640 ft (from topographic map).

AVERAGE DISCHARGE.--18 years, 6.60 cfs (12.91 inches per year).

EXTREMES.--Current year: Maximum discharge, 314 cfs Apr. 24 (gage height, 4.41 ft); no flow July 16-19, Aug. 16-18, Aug. 29 to Sept. 2.
Period of record: Maximum discharge, 1,830 cfs June 12, 1957 (gage height, 7.62 ft), from rating curve extended above 290 cfs on basis of slope-area measurement of peak flow at gage height, 6.43 ft; no flow at times most years.

REMARKS.--Records fair.

REVISIONS (WATER YEARS).--WSP 1555: 1952(M), 1955(M), 1956-57. WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .10 | 1.4 | 1.8 | 2.6 | 12 | 2.6 | 31 | 14 | .53 | .05 | .12 | 0 |
| 2 | .37 | 1.2 | 1.5 | 2.6 | 46 | 4.5 | 80 | 8.0 | 1.0 | .04 | .06 | 0 |
| 3 | .19 | 1.1 | 1.3 | 2.5 | 34 | 15 | 40 | 6.2 | 2.0 | .09 | .17 | .24 |
| 4 | .15 | .92 | 1.2 | 2.3 | 19 | 23 | 29 | 5.0 | 1.2 | .09 | .12 | 2.5 |
| 5 | .10 | .92 | 1.1 | 2.4 | 12 | 29 | 22 | 4.3 | 2.6 | .06 | .07 | 1.5 |
| 6 | .10 | .86 | 1.1 | 1.5 | 9.8 | 21 | 15 | 3.2 | 8.7 | .05 | .05 | .27 |
| 7 | .69 | .74 | 23 | 1.1 | 16 | 13 | 8.7 | 2.6 | 2.8 | .02 | .04 | .15 |
| 8 | .34 | .68 | 20 | 1.0 | 30 | 9.0 | 7.4 | 2.3 | 1.5 | .50 | .04 | .10 |
| 9 | .19 | .63 | 10 | .93 | 32 | 7.4 | 6.5 | 1.8 | 1.0 | .19 | .12 | .06 |
| 10 | .17 | .63 | 7.4 | .96 | 24 | 6.2 | 5.0 | 1.5 | .80 | .10 | .12 | .06 |
| 11 | 6.0 | .58 | 5.6 | 1.0 | 16 | 5.3 | 4.3 | 2.4 | .63 | .07 | .09 | .05 |
| 12 | 3.2 | .53 | 4.3 | 1.2 | 10 | 5.0 | 4.0 | 2.8 | .56 | .05 | .05 | .04 |
| 13 | 1.6 | .53 | 3.6 | 1.4 | 8.0 | 4.5 | 7.4 | 3.0 | .40 | .04 | .04 | .14 |
| 14 | 1.5 | .48 | 3.2 | 1.7 | 6.2 | 4.3 | 7.1 | 3.6 | .44 | .02 | .02 | .34 |
| 15 | 1.1 | .48 | 2.6 | 1.8 | 5.5 | 4.0 | 5.9 | 3.4 | .74 | .01 | .01 | .12 |
| 16 | .86 | .44 | 2.3 | 1.9 | 5.3 | 3.5 | 5.0 | 6.5 | .44 | 0 | 0 | .09 |
| 17 | .68 | 1.0 | 1.9 | 1.9 | 6.2 | 3.6 | 4.8 | 5.6 | .37 | 0 | 0 | .07 |
| 18 | .58 | 50 | 1.9 | 1.9 | 6.2 | 5.9 | 4.5 | 3.8 | .22 | 0 | 0 | .61 |
| 19 | .53 | 113 | 1.6 | 1.8 | 6.2 | 12 | 43 | 2.6 | .15 | 0 | .10 | .30 |
| 20 | .69 | 24 | 1.3 | 1.6 | 4.4 | 25 | 61 | 2.1 | .15 | .06 | .70 | .15 |
| 21 | .86 | 10 | 1.2 | 1.3 | 4.8 | 16 | 38 | 1.4 | .15 | .03 | .10 | .10 |
| 22 | .63 | 7.1 | 1.1 | 1.2 | 4.3 | 12 | 23 | 1.2 | .13 | .01 | .12 | .07 |
| 23 | .53 | 8.4 | 1.1 | 1.3 | 4.0 | 9.8 | 20 | 1.0 | .09 | .08 | .17 | .06 |
| 24 | .44 | 6.5 | 1.1 | 1.5 | 3.8 | 8.0 | 140 | .80 | .09 | .07 | .07 | .06 |
| 25 | .44 | 5.0 | 1.0 | 2.5 | 3.2 | 9.1 | 37 | .68 | .84 | .05 | .02 | .07 |
| 26 | .40 | 3.8 | 1.0 | 5.0 | 3.2 | 32 | 22 | .53 | .22 | .14 | .02 | .41 |
| 27 | .37 | 3.4 | 1.1 | 10 | 2.8 | 22 | 21 | .37 | .13 | .53 | .01 | .19 |
| 28 | .34 | 2.6 | 1.1 | 20 | 2.6 | 14 | 23 | .30 | .10 | .17 | .01 | .10 |
| 29 | .30 | 2.1 | 1.4 | 92 | ------ | 11 | 20 | .48 | .07 | .09 | 0 | .09 |
| 30 | .30 | 1.9 | 1.9 | 32 | ------ | 10 | 20 | .44 | .05 | .44 | 0 | .07 |
| 31 | .63 | ------ | 2.5 | 18 | ------ | 8.4 | ------ | .48 | ------ | .22 | 0 | ------ |
| TOTAL | 24.38 | 250.92 | 111.2 | 218.89 | 337.5 | 356.1 | 755.6 | 92.38 | 28.10 | 3.27 | 2.44 | 8.01 |
| MEAN | .79 | 8.36 | 3.59 | 7.06 | 12.1 | 11.5 | 25.2 | 2.98 | .94 | .11 | .079 | .27 |
| MAX | 6.0 | 113 | 23 | 92 | 46 | 32 | 140 | 14 | 8.7 | .53 | .70 | 2.5 |
| MIN | .10 | .44 | 1.0 | .93 | 2.6 | 2.6 | 4.0 | .30 | .05 | 0 | 0 | 0 |
| CFSM | .11 | 1.20 | .52 | 1.02 | 1.74 | 1.66 | 3.63 | .43 | .14 | .016 | .011 | .039 |
| IN. | .13 | 1.34 | .60 | 1.17 | 1.81 | 1.91 | 4.05 | .50 | .15 | .02 | .01 | .04 |

CAL YR 1969 TOTAL 2,865.05 MEAN 7.85 MAX 238 MIN .04 CFSM 1.13 IN 15.36
WTR YR 1970 TOTAL 2,188.79 MEAN 6.00 MAX 140 MIN 0 CFSM .86 IN 11.73

PEAK DISCHARGE (BASE, 200 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-18 | 2200 | 3.64 | 218 | 04-24 | 0400 | 4.41 | 314 |

03355400 Lake Lemon near Bloomington, Ind.

LOCATION.--Lat 39°16'20", long 86°25'37", in NW¼SE¼ sec.28, T.10 N., R.1 E., Monroe County, on left side of dam on Beanblossom Creek, 5 miles downstream from Bear Creek, 5.5 miles West of Trevlac, and 9.2 miles northeast of Bloomington.

DRAINAGE AREA.--70.9 sq mi.

PERIOD OF RECORD.--April 1953 to March 1958, October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 620.10 ft above mean sea level.

EXTREMES.--Current year: Maximum contents, 17,480 acre-ft Apr. 24 (gage height, 11.66 ft); minimum contents, 11,830 acre-ft Sept. 30 (gage height, 8.20 ft).
Period of record: Maximum contents, 20,470 acre-ft May 24, 1968 (gage height, 13.32 ft); minimum contents, 5,390 acre-ft Mar. 3, 1964 (gage height, 2.50 ft).

REMARKS.--Reservoir is formed by earth fill dam. Releases normally controlled by 42-inch diameter gate in 42-inch conduit. Capacity at uncontrolled spillway elevation (9.87 ft) is 14,420 acre-ft. Reservoir is used for flood control, low-flow augmentation, and recreation. Reservoir put in operation on April 15, 1953.

COOPERATION.--Capacity tables furnished by Indiana Department of Natural Resources.

REVISIONS.--WRD Ind. 1968: Drainage area.

Month-end gage-height and contents, water year October 1969 to September 1970

| Date | Gage-height (feet) | Contents (acre-feet) | Change in contents (acre-feet) |
|---|---|---|---|
| Sept. 30 | 8.80 | 12,700 | - |
| Oct. 31 | 8.86 | 12,790 | +90 |
| Nov. 30 | 10.16 | 14,910 | +2,120 |
| Dec. 31 | 10.20 | 14,980 | +70 |
| Calendar year 1969 | - | - | -260 |
| Jan. 31 | 10.42 | 15,350 | +370 |
| Feb. 28 | 10.14 | 14,880 | -470 |
| Mar. 31 | 10.26 | 15,080 | +200 |
| Apr. 30 | 10.35 | 15,240 | +160 |
| May 31 | 9.90 | 14,470 | -770 |
| June 30 | 9.67 | 14,080 | -390 |
| July 31 | 9.13 | 13,210 | -870 |
| Aug. 31 | 8.53 | 12,300 | -910 |
| Sept. 30 | 8.20 | 11,830 | -470 |
| Water year 1969-70 | - | - | -870 |

## 03356000 Beanblossom Creek at Dolan, Ind.

LOCATION. --Lat 39°14'30", long 86°29'57", in NW¼SW¼ sec.2, T.9 N., R.1 W., Brown County, on downstream side of pier of highway bridge at Dolan, 5.8 miles northeast of Bloomington, and 17.5 miles upstream from mouth.

DRAINAGE AREA. --100 sq mi.

PERIOD OF RECORD. --April 1946 to current year. Prior to October 1965, published as Bean Blossom Creek at Dolan.

GAGE. --Water-stage recorder. Datum of gage is 576.41 ft above mean sea level, unadjusted. Prior to Sept. 28, 1951, nonrecording gage at same site and datum.

AVERAGE DISCHARGE. --24 years, 112 cfs (15.21 inches per year).

EXTREMES. --Current year: Maximum discharge, 1,250 cfs Apr. 25 (gage height, 11.06 ft); minimum, 12 cfs Aug. 12 (gage height, 1.53 ft).
Period of record: Maximum discharge, 9,420 cfs June 2, 1947; maximum gage height, 17.9 ft Jan. 5, 1949; no flow at times during 1946-49, 1953.

REMARKS. --Records good. Flow regulated by Lake Lemon 8.1 miles upstream. (See sta 03355400).

REVISIONS (WATER YEARS). --WSP 1113: 1947. WSP 1275: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 16 | 26 | 50 | 60 | 230 | 37 | 126 | 179 | 18 | 15 | 13 | 13 |
| 2 | 16 | 24 | 40 | 61 | 382 | 45 | 639 | 118 | 19 | 15 | 13 | 13 |
| 3 | 16 | 22 | 35 | 58 | 504 | 97 | 562 | 88 | 22 | 15 | 14 | 13 |
| 4 | 16 | 23 | 30 | 52 | 289 | 220 | 338 | 69 | 22 | 15 | 13 | 14 |
| 5 | 16 | 22 | 29 | 42 | 195 | 349 | 233 | 57 | 22 | 15 | 13 | 21 |
| 6 | 16 | 21 | 33 | 32 | 151 | 283 | 164 | 42 | 46 | 14 | 13 | 13 |
| 7 | 17 | 20 | 107 | 26 | 142 | 200 | 132 | 37 | 95 | 14 | 13 | 13 |
| 8 | 16 | 18 | 302 | 24 | 233 | 151 | 105 | 30 | 64 | 15 | 13 | 13 |
| 9 | 16 | 17 | 236 | 23 | 359 | 118 | 81 | 30 | 44 | 15 | 13 | 13 |
| 10 | 16 | 17 | 163 | 24 | 297 | 96 | 70 | 29 | 33 | 14 | 13 | 13 |
| 11 | 39 | 17 | 121 | 29 | 236 | 71 | 68 | 26 | 27 | 14 | 13 | 13 |
| 12 | 33 | 17 | 88 | 35 | 186 | 64 | 57 | 37 | 24 | 14 | 13 | 13 |
| 13 | 23 | 17 | 76 | 42 | 144 | 61 | 68 | 37 | 24 | 14 | 13 | 13 |
| 14 | 23 | 17 | 60 | 45 | 114 | 46 | 62 | 60 | 22 | 14 | 13 | 14 |
| 15 | 19 | 17 | 55 | 47 | 102 | 41 | 59 | 97 | 22 | 14 | 13 | 13 |
| 16 | 18 | 17 | 48 | 47 | 83 | 47 | 54 | 127 | 21 | 13 | 13 | 13 |
| 17 | 17 | 30 | 44 | 47 | 68 | 46 | 48 | 137 | 20 | 13 | 13 | 13 |
| 18 | 16 | 400 | 41 | 46 | 79 | 65 | 47 | 101 | 18 | 13 | 13 | 14 |
| 19 | 16 | 800 | 37 | 43 | 83 | 82 | 152 | 71 | 17 | 14 | 13 | 14 |
| 20 | 17 | 500 | 35 | 37 | 69 | 156 | 535 | 51 | 17 | 14 | 15 | 14 |
| 21 | 18 | 280 | 34 | 33 | 57 | 174 | 487 | 40 | 17 | 13 | 13 | 13 |
| 22 | 17 | 230 | 31 | 32 | 55 | 154 | 364 | 32 | 16 | 13 | 13 | 13 |
| 23 | 16 | 220 | 29 | 31 | 54 | 134 | 241 | 28 | 16 | 14 | 13 | 13 |
| 24 | 18 | 260 | 28 | 36 | 42 | 111 | 935 | 26 | 16 | 14 | 13 | 13 |
| 25 | 17 | 200 | 27 | 60 | 45 | 105 | 1,230 | 23 | 21 | 13 | 13 | 13 |
| 26 | 17 | 150 | 27 | 95 | 45 | 229 | 683 | 20 | 16 | 14 | 13 | 14 |
| 27 | 17 | 120 | 28 | 150 | 39 | 253 | 361 | 18 | 16 | 14 | 13 | 14 |
| 28 | 17 | 92 | 29 | 255 | 38 | 196 | 458 | 19 | 15 | 14 | 13 | 13 |
| 29 | 17 | 72 | 32 | 881 | ------ | 160 | 345 | 19 | 15 | 13 | 13 | 13 |
| 30 | 17 | 60 | 39 | 721 | ------ | 132 | 250 | 23 | 15 | 14 | 12 | 13 |
| 31 | 18 | ------ | 53 | 362 | ------ | 110 | ------ | 21 | ------ | 14 | 13 | ------ |
| TOTAL | 571 | 3,726 | 1,987 | 3,476 | 4,321 | 4,033 | 8,954 | 1,692 | 760 | 434 | 405 | 405 |
| MEAN | 18.4 | 124 | 64.1 | 112 | 154 | 130 | 298 | 54.6 | 25.3 | 14.0 | 13.1 | 13.5 |
| MAX | 39 | 800 | 302 | 881 | 504 | 349 | 1,230 | 179 | 95 | 15 | 15 | 21 |
| MIN | 16 | 17 | 27 | 23 | 38 | 37 | 47 | 18 | 15 | 13 | 12 | 13 |
| CFSM | .18 | 1.24 | .64 | 1.12 | 1.54 | 1.30 | 2.98 | .55 | .25 | .14 | .13 | .14 |
| IN. | .21 | 1.39 | .74 | 1.29 | 1.61 | 1.50 | 3.33 | .63 | .28 | .16 | .15 | .15 |

CAL YR 1969 TOTAL 47,654 MEAN 131 MAX 3,490 MIN 15 CFSM 1.31 IN 17.73
WAT YR 1970 TOTAL 30,764 MEAN 84.3 MAX 1,230 MIN 12 CFSM .84 IN 11.44

PEAK DISCHARGE (BASE, 1,500 CFS). --No peaks above base.

## 03357000 White River at Spencer, Ind.

LOCATION.--Lat 39°16'49", long 86°45'42", in NE¼NE¼ sec.29, T.10 N., R.3 W., Owen County, on right bank at downstream side of highway bridge at Spencer, 3.3 miles upstream from McBrides Creek, and at mile 165.9.

DRAINAGE AREA.--2,988 sq mi.

PERIOD OF RECORD.--July 1925 to current year. Monthly discharge only for some periods, published in WSP 1305. Prior to October 1948, published as West Fork White River at Spencer. Gage-height records collected since July 1925 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 526.04 ft above mean sea level. Prior to Dec. 26, 1940, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--45 years, 2,979 cfs, (unadjusted) (13.54 inches per year).

EXTREMES.--Current year: Maximum discharge, 21,000 cfs Apr. 26 (gage height, 18.25 ft); minimum, 476 cfs Sept. 12, 13 (gage height, 1.99 ft).
Period of record: Maximum discharge, 59,400 cfs May 15, 1933, Jan. 16, 1937 (gage height, 23.2 ft); minimum, 133 cfs Sept. 25, 30, 1941; minimum gage height, 0.88 ft Sept. 25, 30, Oct. 1, 1941.
Maximum stage known, 28.5 ft Mar. 26, 1913, from floodmarks (discharge, 100,000 cfs, estimated).

REMARKS.--Records good. Natural flow of stream affected by storage reservoirs.

REVISIONS (WATER YEARS).--WSP 823: 1933. WSP 873: 1938. WSP 1335: 1930-31(M), 1933(M), 1937, 1938(M), 1943. WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,090 | 1,610 | 3,310 | 1,680 | 12,200 | 2,510 | 3,660 | 7,280 | 1,460 | 920 | 1,750 | 575 |
| 2 | 1,130 | 2,410 | 3,150 | 1,700 | 12,300 | 2,390 | 4,700 | 6,270 | 1,670 | 850 | 1,540 | 570 |
| 3 | 1,250 | 2,360 | 2,940 | 1,670 | 11,100 | 2,740 | 5,710 | 5,450 | 2,140 | 835 | 1,340 | 561 |
| 4 | 1,240 | 2,430 | 2,710 | 1,610 | 11,100 | 3,770 | 5,460 | 4,680 | 2,540 | 1,250 | 1,210 | 593 |
| 5 | 1,180 | 2,470 | 2,640 | 1,540 | 9,620 | 6,240 | 5,620 | 4,090 | 2,250 | 1,170 | 1,170 | 725 |
| 6 | 1,140 | 2,350 | 2,470 | 1,400 | 6,210 | 7,590 | 4,810 | 3,600 | 2,430 | 965 | 1,040 | 651 |
| 7 | 1,140 | 2,230 | 2,390 | 1,300 | 5,240 | 7,740 | 4,040 | 3,200 | 2,170 | 885 | 935 | 570 |
| 8 | 1,190 | 2,130 | 3,770 | 1,250 | 4,880 | 6,990 | 3,560 | 2,920 | 2,150 | 860 | 860 | 525 |
| 9 | 1,130 | 2,010 | 3,980 | 1,100 | 6,150 | 5,360 | 3,190 | 2,690 | 1,980 | 835 | 810 | 507 |
| 10 | 1,060 | 1,900 | 4,040 | 1,100 | 6,270 | 4,310 | 2,830 | 2,480 | 1,710 | 890 | 765 | 512 |
| 11 | 1,190 | 1,700 | 3,720 | 1,100 | 5,730 | 3,710 | 2,670 | 2,350 | 1,520 | 870 | 745 | 507 |
| 12 | 2,200 | 1,570 | 3,230 | 1,100 | 5,370 | 3,240 | 2,540 | 2,510 | 1,400 | 870 | 750 | 494 |
| 13 | 4,500 | 1,510 | 2,880 | 1,130 | 4,750 | 2,960 | 2,440 | 2,680 | 1,340 | 880 | 715 | 480 |
| 14 | 5,990 | 1,460 | 2,760 | 1,150 | 4,060 | 2,700 | 2,600 | 2,550 | 1,380 | 850 | 690 | 489 |
| 15 | 7,000 | 1,390 | 2,600 | 1,200 | 3,590 | 2,510 | 2,390 | 3,110 | 1,290 | 815 | 690 | 525 |
| 16 | 6,660 | 1,340 | 2,390 | 1,210 | 3,240 | 2,420 | 2,260 | 5,420 | 1,290 | 775 | 647 | 570 |
| 17 | 5,370 | 1,340 | 2,190 | 1,300 | 2,960 | 2,330 | 2,190 | 5,030 | 1,330 | 735 | 593 | 539 |
| 18 | 4,190 | 1,980 | 2,050 | 1,380 | 2,820 | 2,430 | 2,070 | 4,250 | 1,270 | 710 | 570 | 539 |
| 19 | 3,300 | 8,080 | 1,970 | 1,510 | 2,960 | 2,630 | 2,130 | 3,590 | 1,180 | 710 | 588 | 593 |
| 20 | 2,840 | 12,600 | 1,880 | 1,460 | 3,720 | 2,960 | 5,290 | 3,000 | 1,110 | 940 | 665 | 647 |
| 21 | 2,520 | 14,600 | 1,810 | 1,340 | 4,350 | 3,220 | 9,210 | 2,610 | 1,040 | 1,340 | 925 | 552 |
| 22 | 2,190 | 14,900 | 1,810 | 1,230 | 4,160 | 3,300 | 10,800 | 2,300 | 990 | 1,110 | 1,370 | 525 |
| 23 | 2,030 | 13,400 | 1,810 | 1,150 | 3,550 | 3,440 | 10,700 | 2,090 | 950 | 950 | 1,390 | 543 |
| 24 | 2,110 | 9,600 | 1,770 | 1,110 | 3,240 | 3,270 | 12,100 | 1,930 | 925 | 915 | 1,110 | 561 |
| 25 | 1,970 | 7,540 | 1,750 | 1,210 | 3,070 | 3,130 | 17,400 | 1,890 | 915 | 895 | 945 | 561 |
| 26 | 1,630 | 6,590 | 1,680 | 2,140 | 2,950 | 4,740 | 20,400 | 1,870 | 950 | 825 | 850 | 579 |
| 27 | 1,490 | 5,480 | 1,620 | 2,930 | 2,830 | 6,240 | 17,700 | 1,790 | 905 | 850 | 770 | 557 |
| 28 | 1,420 | 4,550 | 1,600 | 2,850 | 2,690 | 6,150 | 14,800 | 1,680 | 895 | 1,020 | 710 | 606 |
| 29 | 1,370 | 3,950 | 1,560 | 5,960 | ------ | 6,010 | 10,500 | 1,550 | 900 | 1,280 | 656 | 552 |
| 30 | 1,330 | 3,510 | 1,580 | 10,800 | ------ | 4,900 | 8,080 | 1,490 | 925 | 1,220 | 615 | 570 |
| 31 | 1,320 | ------ | 1,660 | 11,700 | ------ | 4,120 | ------ | 1,430 | ------ | 1,390 | 584 | ------ |
| TOTAL | 74,170 | 138,990 | 75,720 | 69,310 | 151,110 | 126,050 | 201,850 | 97,780 | 43,005 | 29,410 | 27,998 | 16,778 |
| MEAN | 2,393 | 4,633 | 2,443 | 2,236 | 5,397 | 4,066 | 6,728 | 3,154 | 1,434 | 949 | 903 | 559 |
| MAX | 7,000 | 14,900 | 4,040 | 11,700 | 12,300 | 7,740 | 20,400 | 7,280 | 2,540 | 1,390 | 1,750 | 725 |
| MIN | 1,060 | 1,340 | 1,560 | 1,100 | 2,690 | 2,330 | 2,070 | 1,430 | 895 | 710 | 570 | 480 |
| CFSM | .80 | 1.55 | .82 | .75 | 1.81 | 1.36 | 2.25 | 1.06 | .48 | .32 | .30 | .19 |
| IN. | .92 | 1.73 | .94 | .86 | 1.88 | 1.57 | 2.51 | 1.22 | .54 | .37 | .35 | .21 |

CAL YR 1969 TOTAL 1,366,162 MEAN 3,743 MAX 38,600 MIN 670 CFSM 1.25 IN 17.01
WAT YR 1970 TOTAL 1,052,171 MEAN 2,883 MAX 20,400 MIN 480 CFSM .96 IN 13.10

PEAK DISCHARGE (BASE, 11,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-22 | 0900 | 16.07 | 15,000 | 04-26 | 0400 | 18.25 | 21,000 |
| 02-02 | 0645 | 14.67 | 12,500 | | | | |

03357350 Plum Creek near Bainbridge, Ind.

LOCATION.--Lat 39°45'42", long 86°43'46", in SW¼SE¼ sec.3, T.15 N., R.3 W., Putnam County, on right upstream wingwall of bridge on U.S. Highway 36, 0.5 mile west of Groveland, and 4.5 miles east of Bainbridge.

DRAINAGE AREA.--3.00 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 828.44 ft above mean sea level (Indiana State Highway Commission benchmark).

EXTREMES.--Current year: Maximum discharge, 235 cfs Apr. 24 (gage height, 3.34 ft); no flow Aug. 18, Aug. 26 to Sept. 2, Sept. 5-17, 19-25, 28-30.
Period of record: Maximum discharge, 270 cfs Sept. 17, 1969 (gage height, 3.44 ft), no flow during August and September 1970.

REMARKS.--Records fair except those for part of January, which are poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .56 | 39 | 2.4 | 1.2 | 5.5 | 1.8 | 5.6 | 9.7 | 2.7 | .05 | .06 | 0 |
| 2 | .92 | 11 | 2.1 | 1.1 | 18 | 4.0 | 7.2 | 7.5 | 1.9 | .04 | .04 | 0 |
| 3 | .73 | 7.2 | 2.1 | 1.0 | 7.2 | 13 | 5.8 | 6.3 | 2.8 | .05 | .09 | .01 |
| 4 | .52 | 6.9 | 1.7 | .87 | 4.2 | 17 | 4.3 | 5.6 | 1.8 | .04 | .05 | .02 |
| 5 | .46 | 5.9 | 1.7 | .71 | 3.1 | 11 | 3.7 | 4.5 | 1.7 | .03 | .04 | 0 |
| 6 | .43 | 4.9 | 1.7 | .60 | 2.9 | 6.8 | 3.3 | 3.3 | 1.4 | .03 | .04 | 0 |
| 7 | 1.0 | 4.2 | 6.0 | .50 | 3.8 | 5.5 | 2.4 | 3.0 | 1.0 | .03 | .02 | 0 |
| 8 | .80 | 3.5 | 4.7 | .45 | 6.1 | 4.6 | 2.3 | 3.1 | .88 | .04 | .02 | 0 |
| 9 | .61 | 2.9 | 3.6 | .45 | 6.6 | 3.7 | 2.0 | 2.6 | .79 | .03 | .02 | 0 |
| 10 | .63 | 2.6 | 3.4 | .45 | 5.2 | 3.0 | 1.8 | 2.3 | .72 | .03 | .02 | 0 |
| 11 | 11 | 2.4 | 3.0 | .47 | 4.3 | 2.4 | 1.7 | 3.7 | .54 | .05 | .02 | 0 |
| 12 | 64 | 2.2 | 2.2 | .50 | 3.5 | 3.0 | 1.7 | 5.8 | .42 | .05 | .02 | 0 |
| 13 | 27 | 2.0 | 2.2 | .60 | 2.7 | 3.9 | 3.0 | 4.5 | .36 | .05 | .02 | 0 |
| 14 | 15 | 1.8 | 2.2 | .70 | 2.3 | 1.9 | 1.9 | 14 | .33 | .05 | .01 | 0 |
| 15 | 8.3 | 1.7 | 1.9 | .78 | 2.2 | 1.8 | 1.6 | 19 | .85 | .04 | .01 | 0 |
| 16 | 5.9 | 1.5 | 1.7 | .80 | 1.8 | 1.5 | 1.5 | 11 | .46 | .04 | .01 | 0 |
| 17 | 4.3 | 2.5 | 1.7 | .79 | 2.0 | 1.6 | 1.4 | 7.1 | .37 | .03 | .01 | 0 |
| 18 | 3.5 | 33 | 1.8 | .75 | 8.1 | 2.2 | 1.4 | 7.1 | .28 | .04 | 0 | .01 |
| 19 | 3.0 | 50 | 1.6 | .67 | 8.2 | 4.2 | 21 | 6.1 | .19 | .07 | .01 | 0 |
| 20 | 2.6 | 12 | 1.4 | .56 | 4.2 | 6.4 | 26 | 5.3 | .16 | .04 | .08 | 0 |
| 21 | 2.3 | 8.0 | 1.5 | .53 | 3.4 | 5.4 | 13 | 4.5 | .17 | .02 | .01 | 0 |
| 22 | 1.9 | 8.4 | 1.5 | .54 | 3.5 | 5.1 | 7.3 | 4.1 | .15 | .01 | .11 | 0 |
| 23 | 1.6 | 7.8 | 1.4 | .56 | 2.7 | 4.5 | 5.9 | 5.6 | .10 | .03 | .05 | 0 |
| 24 | 1.5 | 5.7 | 1.2 | .63 | 2.7 | 4.2 | 89 | 13 | .10 | .02 | .02 | 0 |
| 25 | 1.5 | 5.0 | 1.3 | .80 | 2.6 | 5.5 | 17 | 6.5 | .18 | .01 | .01 | 0 |
| 26 | 1.5 | 4.2 | 1.4 | 6.2 | 2.0 | 26 | 12 | 5.2 | .15 | .13 | 0 | .01 |
| 27 | 1.3 | 3.8 | 1.2 | 5.9 | 2.0 | 10 | 15 | 4.4 | .08 | .13 | 0 | .01 |
| 28 | 1.1 | 3.2 | 1.2 | 31 | 1.7 | 7.9 | 14 | 3.9 | .06 | .06 | 0 | 0 |
| 29 | 1.1 | 2.9 | 1.3 | 36 | ------ | 6.4 | 10 | 2.7 | .05 | .03 | 0 | 0 |
| 30 | 1.1 | 2.7 | 1.3 | 10 | ------ | 5.8 | 8.6 | 1.3 | .05 | 1.1 | 0 | 0 |
| 31 | 10 | ------ | 1.3 | 6.8 | ------ | 5.3 | ------ | 1.5 | ------ | .19 | 0 | ------ |
| TOTAL | 176.16 | 248.9 | 63.7 | 112.91 | 122.5 | 185.4 | 291.4 | 184.2 | 20.74 | 2.56 | .79 | .06 |
| MEAN | 5.68 | 8.30 | 2.05 | 3.64 | 4.38 | 5.98 | 9.71 | 5.94 | .69 | .083 | .026 | .002 |
| MAX | 64 | 50 | 6.0 | 36 | 18 | 26 | 89 | 19 | 2.8 | 1.1 | .11 | .02 |
| MIN | .43 | 1.5 | 1.2 | .45 | 1.7 | 1.5 | 1.4 | 1.3 | .05 | .01 | 0 | 0 |
| CFSM | 1.89 | 2.77 | .68 | 1.21 | 1.46 | 1.99 | 3.24 | 1.98 | .23 | .028 | .009 | .0007 |
| IN. | 2.18 | 3.09 | .79 | 1.40 | 1.52 | 2.30 | 3.61 | 2.28 | .26 | .03 | .009 | 0 |

WAT YR 1970 TOTAL 1,409.32 MEAN 3.86 MAX 89 MIN 0 CFSM 1.29 IN 17.48

PEAK DISCHARGE (BASE, 150 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-12 | 1045 | 3.24 | 200 | 04-24 | 0600 | 3.34 | 235 |
| 01-28 | 2245 | 3.16 | 162 | | | | |

## 03357500 Big Walnut Creek near Reelsville, Ind.

LOCATION.--Lat 39°32'11", long 86°58'35", in NW¼SW¼ sec.28, T.13 N., R.5 W., Putnam County, on left bank at highway bridge, 1.5 miles southwest of Reelsville, and 3 miles upstream from Mill Creek.

DRAINAGE AREA.--326 sq mi.

PERIOD OF RECORD.--July 1949 to current year. Published as Eel River near Reelsville, October 1952 to September 1956.

GAGE.--Water-stage recorder. Datum of gage is 588.24 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission). Prior to Dec. 10, 1949, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--21 years, 326 cfs (13.58 inches per year).

EXTREMES.--Current year: Maximum discharge, 6,340 cfs Apr. 24 (gage height, 13.92 ft); minimum, 9.7 cfs Sept. 13 (gage height, 2.61 ft).
Period of record: Maximum discharge, 27,400 cfs June 28, 1957 (gage height, 18.63 ft), from rating curve extended above 18,000 cfs on basis of slope-conveyance method; minimum, 1.2 cfs Sept. 8, 1954 (gage height, 1.56 ft).

REMARKS.--Records good except those for parts of January, which are poor. Analysis of suspended sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1335: 1950. WRD Ind. 1968: 1957(M), drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 72 | 2,080 | 310 | 160 | 700 | 235 | 343 | 794 | 238 | 58 | 104 | 16 |
| 2 | 72 | 1,260 | 277 | 150 | 1,080 | 292 | 518 | 689 | 271 | 54 | 73 | 17 |
| 3 | 76 | 780 | 262 | 135 | 1,090 | 609 | 616 | 560 | 658 | 56 | 59 | 18 |
| 4 | 72 | 644 | 244 | 120 | 672 | 1,290 | 511 | 479 | 288 | 59 | 60 | 17 |
| 5 | 64 | 577 | 223 | 95 | 532 | 1,260 | 415 | 418 | 267 | 53 | 46 | 17 |
| 6 | 60 | 479 | 218 | 80 | 444 | 766 | 379 | 370 | 223 | 52 | 40 | 16 |
| 7 | 64 | 406 | 394 | 70 | 430 | 591 | 340 | 337 | 190 | 47 | 37 | 15 |
| 8 | 68 | 352 | 570 | 60 | 556 | 497 | 298 | 316 | 173 | 45 | 35 | 14 |
| 9 | 68 | 310 | 434 | 60 | 756 | 427 | 280 | 295 | 160 | 49 | 33 | 12 |
| 10 | 64 | 283 | 364 | 60 | 602 | 373 | 259 | 274 | 150 | 50 | 32 | 12 |
| 11 | 229 | 262 | 331 | 62 | 539 | 334 | 241 | 310 | 140 | 48 | 31 | 11 |
| 12 | 2,680 | 247 | 292 | 68 | 451 | 304 | 232 | 391 | 131 | 45 | 29 | 10 |
| 13 | 2,430 | 226 | 256 | 80 | 397 | 280 | 298 | 319 | 127 | 42 | 27 | 10 |
| 14 | 1,770 | 210 | 253 | 103 | 340 | 262 | 292 | 472 | 121 | 39 | 27 | 15 |
| 15 | 1,030 | 198 | 235 | 105 | 337 | 250 | 244 | 2,100 | 127 | 37 | 26 | 18 |
| 16 | 696 | 188 | 213 | 105 | 289 | 229 | 223 | 1,370 | 148 | 36 | 25 | 13 |
| 17 | 518 | 210 | 205 | 105 | 280 | 226 | 213 | 829 | 124 | 34 | 23 | 11 |
| 18 | 388 | 630 | 200 | 100 | 352 | 247 | 203 | 574 | 114 | 33 | 22 | 22 |
| 19 | 319 | 3,530 | 200 | 90 | 798 | 334 | 964 | 444 | 103 | 37 | 24 | 26 |
| 20 | 271 | 2,150 | 188 | 78 | 584 | 455 | 2,450 | 367 | 96 | 44 | 58 | 19 |
| 21 | 244 | 1,180 | 178 | 72 | 394 | 412 | 1,540 | 316 | 92 | 91 | 45 | 20 |
| 22 | 213 | 913 | 188 | 72 | 379 | 364 | 996 | 277 | 89 | 60 | 41 | 18 |
| 23 | 185 | 928 | 178 | 76 | 340 | 334 | 752 | 250 | 86 | 45 | 63 | 22 |
| 24 | 163 | 766 | 213 | 85 | 316 | 301 | 4,340 | 310 | 83 | 41 | 38 | 21 |
| 25 | 153 | 623 | 250 | 100 | 316 | 298 | 2,470 | 313 | 95 | 39 | 27 | 19 |
| 26 | 145 | 525 | 173 | 563 | 277 | 1,400 | 1,280 | 268 | 87 | 39 | 23 | 33 |
| 27 | 138 | 448 | 165 | 780 | 274 | 956 | 984 | 223 | 82 | 65 | 22 | 50 |
| 28 | 128 | 394 | 158 | 1,140 | 253 | 640 | 1,160 | 203 | 73 | 41 | 23 | 32 |
| 29 | 118 | 355 | 155 | 4,060 | ------ | 507 | 847 | 190 | 67 | 37 | 20 | 28 |
| 30 | 113 | 328 | 158 | 1,550 | ------ | 421 | 780 | 183 | 62 | 39 | 19 | 24 |
| 31 | 190 | ------ | 155 | 917 | ------ | 373 | ------ | 178 | ------ | 67 | 17 | ------ |
| TOTAL | 12,801 | 21,482 | 7,640 | 11,301 | 13,778 | 15,267 | 24,468 | 14,419 | 4,665 | 1,482 | 1,149 | 576 |
| MEAN | 413 | 716 | 246 | 365 | 492 | 492 | 816 | 465 | 156 | 47.8 | 37.1 | 19.2 |
| MAX | 2,680 | 3,530 | 570 | 4,060 | 1,090 | 1,400 | 4,340 | 2,100 | 658 | 91 | 104 | 50 |
| MIN | 60 | 188 | 155 | 60 | 253 | 226 | 203 | 178 | 62 | 33 | 17 | 10 |
| CFSM | 1.27 | 2.20 | .75 | 1.12 | 1.51 | 1.51 | 2.50 | 1.43 | .48 | .15 | .11 | .059 |
| IN. | 1.46 | 2.45 | .87 | 1.29 | 1.57 | 1.74 | 2.79 | 1.65 | .53 | .17 | .13 | .07 |

CAL YR 1969 TOTAL 157,151 MEAN 431 MAX 9,070 MIN 28 CFSM 1.32 IN 17.93
WAT YR 1970 TOTAL 129,028 MEAN 354 MAX 4,340 MIN 10 CFSM 1.09 IN 14.72

PEAK DISCHARGE (BASE, 2,800 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-12 | 1745 | 12.86 | 5,260 | 04-24 | 1415 | 13.92 | 6,340 |
| 11-19 | 0945 | 11.51 | 4,130 | 05-15 | 0330 | 9.67 | 2,810 |
| 01-29 | 0500 | 13.14 | 5,540 | | | | |

## 03358000 Mill Creek near Cataract, Ind.

LOCATION.--Lat 39°26'00", long 86°45'48", in NE¼SE¼ sec.32, T.12 N., R.3 W., Owen County, on right bank at downstream side of bridge on State Highway 43, 3 miles east of Cataract.

DRAINAGE AREA.--245 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 706.40 ft above mean sea level. Prior to Nov. 8, 1949, nonrecording gage, and Nov. 8, 1949, to Sept. 22, 1968, water-stage recorder at site 100 ft upstream at same datum.

AVERAGE DISCHARGE.--21 years, 245 cfs (13.58 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,690 cfs Apr. 25 (gage height, 14.57 ft); minimum, 5.8 cfs Sept. 12 (gage height, 3.33 ft).
Period of record: Maximum discharge, 11,400 cfs June 24, 1960 (gage height, 22.58 ft); minimum, 0.1 cfs Sept. 3, 6, 7, 28, 29, 1954.

REMARKS.--Records good except those for part of January, which are fair.

REVISIONS (WATER YEARS).--WSP 1505: 1956(P). WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 13 | 715 | 151 | 90 | 464 | 115 | 194 | 670 | 154 | 19 | 15 | 6.6 |
| 2 | 17 | 509 | 127 | 80 | 1,190 | 191 | 534 | 587 | 157 | 18 | 12 | 6.9 |
| 3 | 21 | 258 | 126 | 70 | 1,340 | 689 | 475 | 337 | 233 | 22 | 12 | 7.7 |
| 4 | 23 | 206 | 110 | 60 | 485 | 1,240 | 304 | 259 | 186 | 29 | 34 | 9.4 |
| 5 | 18 | 193 | 98 | 50 | 312 | 1,730 | 240 | 209 | 152 | 29 | 18 | 17 |
| 6 | 15 | 162 | 97 | 42 | 236 | 676 | 218 | 170 | 131 | 20 | 11 | 13 |
| 7 | 24 | 139 | 363 | 36 | 244 | 438 | 179 | 148 | 101 | 18 | 9.4 | 8.1 |
| 8 | 32 | 121 | 637 | 34 | 420 | 347 | 157 | 140 | 82 | 17 | 8.8 | 7.1 |
| 9 | 31 | 109 | 319 | 33 | 996 | 288 | 150 | 126 | 68 | 20 | 8.8 | 6.4 |
| 10 | 25 | 102 | 242 | 33 | 548 | 234 | 134 | 113 | 63 | 23 | 8.8 | 6.4 |
| 11 | 54 | 98 | 213 | 34 | 461 | 201 | 124 | 127 | 59 | 19 | 8.6 | 6.3 |
| 12 | 594 | 96 | 168 | 37 | 374 | 184 | 121 | 255 | 52 | 16 | 8.4 | 6.0 |
| 13 | 648 | 88 | 145 | 50 | 296 | 168 | 158 | 201 | 51 | 15 | 8.0 | 6.2 |
| 14 | 305 | 83 | 149 | 57 | 217 | 153 | 167 | 186 | 68 | 14 | 13 | 6.4 |
| 15 | 191 | 75 | 127 | 58 | 209 | 146 | 129 | 1,270 | 71 | 13 | 11 | 6.9 |
| 16 | 139 | 71 | 111 | 58 | 163 | 127 | 117 | 2,290 | 74 | 12 | 7.8 | 7.2 |
| 17 | 108 | 83 | 106 | 58 | 162 | 130 | 110 | 1,130 | 56 | 12 | 7.4 | 6.9 |
| 18 | 87 | 680 | 105 | 53 | 216 | 152 | 104 | 475 | 48 | 11 | 7.2 | 7.0 |
| 19 | 76 | 2,540 | 105 | 47 | 586 | 234 | 370 | 317 | 39 | 12 | 7.4 | 7.8 |
| 20 | 72 | 2,610 | 92 | 42 | 279 | 459 | 1,650 | 228 | 33 | 21 | 24 | 9.3 |
| 21 | 74 | 995 | 93 | 39 | 194 | 330 | 932 | 179 | 32 | 19 | 27 | 8.4 |
| 22 | 67 | 573 | 95 | 39 | 190 | 268 | 479 | 147 | 32 | 15 | 12 | 8.3 |
| 23 | 57 | 570 | 83 | 42 | 169 | 235 | 345 | 128 | 30 | 12 | 9.2 | 10 |
| 24 | 50 | 397 | 81 | 47 | 160 | 201 | 2,390 | 139 | 27 | 14 | 8.8 | 10 |
| 25 | 48 | 314 | 87 | 100 | 171 | 201 | 3,510 | 129 | 29 | 15 | 7.9 | 8.1 |
| 26 | 50 | 257 | 92 | 1,430 | 138 | 1,330 | 1,690 | 112 | 32 | 13 | 6.6 | 8.1 |
| 27 | 49 | 219 | 78 | 1,040 | 145 | 657 | 671 | 95 | 28 | 13 | 6.8 | 8.2 |
| 28 | 46 | 186 | 78 | 1,190 | 121 | 391 | 1,010 | 80 | 24 | 16 | 6.7 | 9.2 |
| 29 | 44 | 170 | 79 | 2,560 | ------ | 306 | 546 | 75 | 21 | 13 | 6.6 | 8.6 |
| 30 | 42 | 156 | 90 | 2,480 | ------ | 242 | 428 | 74 | 20 | 12 | 6.6 | 7.5 |
| 31 | 52 | ------ | 83 | 772 | ------ | 205 | ------ | 94 | ------ | 16 | 6.5 | ------ |
| TOTAL | 3,072 | 12,775 | 4,530 | 10,761 | 10,486 | 12,268 | 17,636 | 10,490 | 2,153 | 518 | 345.3 | 245.0 |
| MEAN | 99.1 | 426 | 146 | 347 | 375 | 396 | 588 | 338 | 71.8 | 16.7 | 11.1 | 8.17 |
| MAX | 648 | 2,610 | 637 | 2,560 | 1,340 | 1,730 | 3,510 | 2,290 | 233 | 29 | 34 | 17 |
| MIN | 13 | 71 | 78 | 33 | 121 | 115 | 104 | 74 | 20 | 11 | 6.5 | 6.0 |
| CFSM | .40 | 1.74 | .60 | 1.42 | 1.53 | 1.62 | 2.40 | 1.38 | .29 | .068 | .045 | .033 |
| IN. | .47 | 1.94 | .69 | 1.63 | 1.59 | 1.86 | 2.68 | 1.59 | .33 | .08 | .05 | .04 |

CAL YR 1969 TOTAL 107,083.0 MEAN 293 MAX 6,720 MIN 10 CFSM 1.20 IN 16.26
WAT YR 1970 TOTAL 85,279.3 MEAN 234 MAX 3,510 MIN 6.0 CFSM .96 IN 12.95

PEAK DISCHARGE (BASE, 2,500 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-20 | 0400 | 13.15 | 2,840 | 04-25 | 1030 | 14.57 | 3,690 |
| 01-30 | 0430 | 12.91 | 2,800 | | | | |

03358900 Cagles Mill Reservoir near Manhattan, Ind.

LOCATION.--Lat 39°29'14", long 86°55'02", in NE¼NW¼ sec.13, T.12 N., R.5 W., Putnam County, in discharge tower of reservoir on Mill Creek, 1.5 miles upstream from Deer Creek, 2.8 miles above mouth, and 5.8 miles south of Manhattan.

DRAINAGE AREA.--293 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 581.83 ft above mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents, 60,040 acre-ft May 5 (elevation, 654.31 ft); minimum, 26,960 acre-ft Feb. 11 (elevation, 635.89 ft). Pool lowered to elevation, 629.89 ft Mar. 16-21 (capacity, 19,300 acre-ft) during period of inspection of Cunot Docks.

Period of record: Maximum contents, 127,760 acre-ft May 15, 1961 (elevation, 679.30 ft, revised); minimum, 26,370 acre-ft Dec. 5, 1968 (elevation, 635.46 ft). Pool lowered to elevation, 629.70 ft Jan. 5, 1955 (capacity, 19,090 acre-ft) during period of construction of recreational facilities.

REMARKS.--Reservoir is formed by earth and rock fill dam. Releases normally controlled by three gates, 5 ft wide and 10 ft high, in 12 ft by 12 ft concrete lined tunnel 496 ft long through right abutment. Minimum design capacity is 27,110 acre-ft (elevation, 636 ft). Capacity at uncontrolled spillway elevation (704 ft) is 228,000 acre-ft. Reservoir is used for flood control and recreation. Reservoir put in operation on July 6, 1953.

COOPERATION.--Records furnished by Corps of Engineers.

Month-end elevation and contents, water year October 1969 to September 1970

| | Elevation (feet) | Contents (acre-feet) | Change in contents (acre-feet) |
|---|---|---|---|
| Sept. 30 | 636.26 | 27,480 | - |
| Oct. 31 | 636.21 | 27,410 | -70 |
| Nov. 30 | 637.33 | 29,010 | +1,600 |
| Dec. 31 | 636.07 | 27,210 | -1,800 |
| Calendar year 1969 | - | - | -20,750 |
| Jan. 31 | 645.25 | 41,930 | +14,720 |
| Feb. 28 | 633.80 | 24,130 | -17,800 |
| Mar. 31 | 636.10 | 27,250 | +3,120 |
| Apr. 30 | 652.90 | 57,020 | +29,770 |
| May 31 | 636.24 | 27,520 | -29,500 |
| June 30 | 636.10 | 27,250 | -270 |
| July 31 | 636.23 | 27,440 | +190 |
| Aug. 31 | 636.18 | 27,370 | -70 |
| Sept. 30 | 630.04 | 19,470 | -7,900 |
| Water year 1969-70 | - | - | -8,010 |

## 03359000 Mill Creek near Manhattan, Ind.

LOCATION.--Lat 39°29'22", long 86°55'50", in SW¼SE¼ sec.11, T.12 N., R.5 W., Putnam County, on left bank 200 ft downstream from Cagles Mill, 0.8 mile downstream from Cagles Mill Reservoir, 0.8 mile upstream from Deer Creek, and 5.8 miles south of Manhattan.

DRAINAGE AREA.--294 sq mi.

PERIOD OF RECORD.--May to September 1931 (fragmentary), October 1938 to current year. Monthly discharge only for some periods, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage 581.83 ft above mean sea level. See WSP 1725 for history of changes prior to May 12, 1941.

AVERAGE DISCHARGE.--32 years (1938 to current year), 285 cfs (13.15 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,730 cfs Mar. 5 (gage height, 8.12 ft); maximum gage height, 11.00 ft Apr. 24 (backwater from Deer Creek); minimum daily discharge, 0.33 cfs Aug. 24.
Period of record: Maximum discharge, 8,960 cfs Jan. 5, 1950 (gage height, 18.38 ft); no flow Aug. 7, 1953.

REMARKS.--Records fair. Flow regulated by Cagles Mill Reservoir (see sta 03358900).

REVISIONS (WATER YEARS).--WSP 1335: 1940-41. WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 22 | 90 | 545 | 104 | 123 | 1,260 | 249 | 95 | 85 | 27 | 38 | .68 |
| 2 | 22 | 109 | 119 | 104 | 112 | 1,170 | 159 | 95 | 351 | 27 | 38 | 1.2 |
| 3 | 22 | 166 | 80 | 138 | 101 | 1,460 | 109 | 949 | 215 | 27 | 39 | 1.2 |
| 4 | 23 | 407 | 95 | 150 | 975 | 1,840 | 109 | 2,000 | 321 | 27 | 38 | .90 |
| 5 | 23 | 481 | 105 | 86 | 2,030 | 1,880 | 109 | 1,760 | 348 | 27 | 29 | 1.7 |
| 6 | 23 | 478 | 105 | 37 | 2,410 | 1,060 | 109 | 1,510 | 146 | 27 | 14 | 2.5 |
| 7 | 28 | 424 | 107 | 72 | 2,330 | 317 | 110 | 1,480 | 146 | 27 | 14 | 9.7 |
| 8 | 36 | 294 | 360 | 73 | 2,290 | 228 | 521 | 1,590 | 124 | 27 | 14 | 13 |
| 9 | 36 | 293 | 802 | 72 | 1,770 | 350 | 963 | 1,670 | 68 | 27 | 14 | 14 |
| 10 | 36 | 239 | 652 | 72 | 1,620 | 376 | 604 | 1,630 | 52 | 24 | 14 | 14 |
| 11 | 38 | 45 | 105 | 67 | 1,280 | 240 | 201 | 1,600 | 52 | 15 | 14 | 14 |
| 12 | 100 | 16 | 195 | 52 | 330 | 185 | 177 | 1,590 | 52 | 15 | 6.6 | 14 |
| 13 | 115 | 24 | 248 | 55 | 380 | 180 | 105 | 1,540 | 53 | 15 | 2.7 | 14 |
| 14 | 116 | 76 | 202 | 62 | 317 | 180 | 132 | 1,450 | 65 | 15 | 2.4 | 14 |
| 15 | 115 | 104 | 105 | 72 | 263 | 180 | 203 | 125 | 71 | 15 | 2.1 | 14 |
| 16 | 115 | 104 | 105 | 78 | 213 | 153 | 203 | 125 | 81 | 8.4 | 2.7 | 14 |
| 17 | 559 | 170 | 106 | 78 | 213 | 135 | 203 | 126 | 100 | 4.1 | .84 | 14 |
| 18 | 693 | 306 | 173 | 85 | 214 | 68 | 177 | 607 | 77 | 4.1 | .47 | 14 |
| 19 | 415 | 180 | 208 | 174 | 267 | 3.8 | 219 | 1,180 | 27 | 3.9 | .36 | 14 |
| 20 | 339 | 120 | 143 | 177 | 523 | 4.0 | 559 | 1,400 | 27 | 3.8 | .59 | 15 |
| 21 | 42 | 122 | 120 | 104 | 540 | 3.7 | 217 | 1,370 | 28 | 3.7 | .65 | 15 |
| 22 | 9.2 | 123 | 106 | 96 | 97 | 3.6 | 114 | 1,340 | 28 | 3.7 | .41 | 15 |
| 23 | 14 | 124 | 106 | 79 | 164 | 3.6 | 115 | 1,310 | 28 | 3.6 | .39 | 15 |
| 24 | 29 | 771 | 105 | 77 | 237 | 3.7 | 100 | 899 | 28 | 3.4 | .33 | 386 |
| 25 | 68 | 1,540 | 104 | 77 | 295 | 4.0 | 110 | 166 | 28 | 3.4 | .74 | 312 |
| 26 | 81 | 1,760 | 102 | 325 | 235 | 4.0 | 108 | 137 | 27 | 3.4 | .77 | 272 |
| 27 | 63 | 1,930 | 104 | 469 | 475 | 29 | 113 | 141 | 35 | 5.2 | .63 | 289 |
| 28 | 36 | 1,870 | 103 | 771 | 1,310 | 301 | 108 | 116 | 40 | 15 | .53 | 940 |
| 29 | 28 | 1,470 | 103 | 120 | ------ | 398 | 94 | 63 | 40 | 15 | 1.9 | 1,050 |
| 30 | 23 | 734 | 103 | 120 | ------ | 224 | 94 | 34 | 31 | 16 | .70 | 1,020 |
| 31 | 26 | ------ | 104 | 121 | ------ | 290 | ------ | 38 | ------ | 31 | 18 | ------ |
| TOTAL | 3,295.2 | 14,570 | 5,720 | 4,167 | 21,114 | 12,534.4 | 6,394 | 28,136 | 2,774 | 469.7 | 309.81 | 4,513.88 |
| MEAN | 106 | 486 | 185 | 134 | 754 | 404 | 213 | 908 | 92.5 | 15.2 | 9.99 | 150 |
| MAX | 693 | 1,930 | 802 | 771 | 2,410 | 1,880 | 963 | 2,000 | 351 | 31 | 39 | 1,050 |
| MIN | 9.2 | 16 | 80 | 37 | 97 | 3.6 | 94 | 34 | 27 | 3.4 | .33 | .68 |
| CFSM | .36 | 1.65 | .63 | .46 | 2.56 | 1.37 | .72 | 3.09 | .31 | .052 | .034 | .51 |
| IN. | .42 | 1.84 | .72 | .53 | 2.67 | 1.59 | .81 | 3.56 | .35 | .06 | .04 | .57 |

CAL YR 1969 TOTAL 140,118.70 MEAN 384 MAX 2,700 MIN 3.4 CFSM 1.31 IN 17.73
WAT YR 1970 TOTAL 103,997.99 MEAN 285 MAX 2,410 MIN .33 CFSM .97 IN 13.16

03359500 Deer Creek near Putnamville, Ind.

LOCATION.--Lat 39°34'04", long 86°52'00", in SW¼NW¼ sec.16, T.13 N., R.4 W., Putnam County, on right bank at downstream side of bridge on State Highway 243, 0.4 mile southwest of Putnamville, 0.4 mile downstream from small left-bank tributary, and 0.8 mile downstream from Limestone Creek.

DRAINAGE AREA.--59.0 sq mi.

PERIOD OF RECORD.--October 1954 to September 1965, October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 628.00 ft above mean sea level. Prior to July 3, 1957, nonrecording gage, July 4, 1957, to May 10, 1965, water-stage recorder (January 1959 to July 1963 nonrecording gage used below 1.7 ft gage height), May 11, to Sept. 30, 1965, water-stage recorder at site 100 ft upstream at datum 2.73 ft higher.

AVERAGE DISCHARGE.--14 years (1954-65, 1967-70), 62.4 cfs (14.36 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,410 cfs Apr. 24 (gage height, 12.04 ft); minimum, 0.30 cfs Sept. 13 (gage height, 3.07 ft).
Period of record: Maximum discharge, 10,700 cfs Mar. 4, 1963 (gage height, 12.95 ft, datum then in use); no flow Oct. 1-10, 1954.

REMARKS.--Records good except those for parts of December, January, and February, which are poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.2 | 318 | 35 | 21 | 88 | 29 | 47 | 126 | 73 | 5.3 | 3.6 | .57 |
| 2 | 3.2 | 106 | 29 | 20 | 306 | 69 | 127 | 93 | 55 | 4.8 | 2.4 | .69 |
| 3 | 4.9 | 71 | 29 | 17 | 322 | 224 | 104 | 70 | 89 | 5.9 | 2.4 | 1.2 |
| 4 | 4.9 | 61 | 24 | 14 | 290 | 419 | 74 | 59 | 51 | 9.1 | 6.3 | 1.9 |
| 5 | 4.6 | 57 | 22 | 12 | 139 | 248 | 60 | 53 | 52 | 5.7 | 5.4 | 26 |
| 6 | 3.6 | 46 | 22 | 10 | 53 | 130 | 56 | 46 | 40 | 4.8 | 3.3 | 4.0 |
| 7 | 4.5 | 37 | 106 | 9.0 | 70 | 101 | 46 | 44 | 29 | 4.4 | 2.3 | 2.2 |
| 8 | 5.9 | 32 | 101 | 8.0 | 114 | 81 | 41 | 42 | 23 | 4.2 | 1.9 | 1.4 |
| 9 | 5.9 | 29 | 64 | 7.8 | 135 | 66 | 38 | 39 | 20 | 4.6 | 1.9 | .84 |
| 10 | 5.9 | 26 | 53 | 7.8 | 97 | 55 | 34 | 36 | 18 | 4.1 | 1.6 | .69 |
| 11 | 35 | 24 | 50 | 8.0 | 88 | 48 | 32 | 54 | 16 | 3.8 | 1.6 | .57 |
| 12 | 184 | 24 | 38 | 9.0 | 73 | 44 | 30 | 76 | 14 | 3.5 | 1.4 | .47 |
| 13 | 109 | 22 | 34 | 12 | 50 | 40 | 46 | 50 | 16 | 3.2 | 1.3 | .38 |
| 14 | 104 | 21 | 35 | 13 | 45 | 36 | 39 | 276 | 17 | 2.7 | 1.6 | .84 |
| 15 | 51 | 20 | 29 | 14 | 42 | 34 | 32 | 831 | 18 | 2.6 | 1.4 | 1.9 |
| 16 | 37 | 19 | 26 | 14 | 42 | 28 | 30 | 419 | 16 | 2.3 | 1.1 | 1.9 |
| 17 | 27 | 27 | 26 | 14 | 53 | 30 | 28 | 196 | 13 | 2.0 | .81 | 1.2 |
| 18 | 21 | 365 | 24 | 13 | 94 | 41 | 26 | 122 | 12 | 1.9 | .64 | 5.9 |
| 19 | 19 | 647 | 24 | 11 | 126 | 80 | 135 | 90 | 9.9 | 2.5 | .89 | 8.2 |
| 20 | 16 | 167 | 21 | 10 | 65 | 117 | 307 | 70 | 8.9 | 3.8 | 18 | 3.6 |
| 21 | 17 | 114 | 21 | 9.2 | 63 | 77 | 155 | 56 | 8.2 | 3.0 | 7.0 | 2.2 |
| 22 | 16 | 104 | 25 | 9.4 | 47 | 65 | 97 | 46 | 8.9 | 2.3 | 4.0 | 1.9 |
| 23 | 14 | 104 | 24 | 10 | 43 | 55 | 82 | 43 | 8.4 | 2.0 | 4.9 | 4.0 |
| 24 | 13 | 76 | 23 | 11 | 41 | 50 | 1,330 | 109 | 7.6 | 2.4 | 4.0 | 2.5 |
| 25 | 13 | 64 | 23 | 20 | 43 | 52 | 222 | 47 | 19 | 2.4 | 2.5 | 1.9 |
| 26 | 13 | 55 | 22 | 619 | 33 | 307 | 129 | 41 | 11 | 3.2 | 1.6 | 2.8 |
| 27 | 12 | 50 | 21 | 326 | 35 | 112 | 160 | 32 | 8.4 | 12 | 1.2 | 5.4 |
| 28 | 11 | 42 | 20 | 646 | 30 | 83 | 162 | 26 | 7.3 | 5.0 | .69 | 4.0 |
| 29 | 11 | 40 | 21 | 939 | ------ | 67 | 110 | 23 | 6.3 | 3.2 | .57 | 2.2 |
| 30 | 11 | 35 | 22 | 153 | ------ | 55 | 88 | 23 | 5.8 | 3.2 | .57 | 1.6 |
| 31 | 29 | ------ | 22 | 107 | ------ | 49 | ------ | 31 | ------ | 6.5 | .57 | ------ |
| TOTAL | 809.0 | 2,803 | 1,036 | 3,094.2 | 2,627 | 2,892 | 3,867 | 3,269 | 681.7 | 126.4 | 87.44 | 92.95 |
| MEAN | 26.1 | 93.4 | 33.4 | 99.8 | 93.8 | 93.3 | 129 | 105 | 22.7 | 4.08 | 2.82 | 3.10 |
| MAX | 184 | 647 | 106 | 939 | 322 | 419 | 1,330 | 831 | 89 | 12 | 18 | 26 |
| MIN | 3.2 | 19 | 20 | 7.8 | 30 | 28 | 26 | 23 | 5.8 | 1.9 | .57 | .38 |
| CFSM | .44 | 1.58 | .57 | 1.69 | 1.59 | 1.58 | 2.19 | 1.78 | .38 | .069 | .048 | .053 |
| IN. | .51 | 1.77 | .65 | 1.95 | 1.66 | 1.82 | 2.44 | 2.06 | .43 | .08 | .06 | .06 |

CAL YR 1969 TOTAL 23,880.88 MEAN 65.4 MAX 2,100 MIN .84 CFSM 1.11 IN 15.06
WAT YR 1970 TOTAL 21,385.69 MEAN 58.6 MAX 1,330 MIN .38 CFSM .99 IN 13.48

PEAK DISCHARGE (BASE, 2,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 01-29 | 0145 | 11.55 | 3,130 | 05-15 | 0030 | 10.91 | 2,750 |
| 04-24 | 0900 | 12.04 | 3,410 | | | | |

03360000 Eel River at Bowling Green, Ind.

LOCATION.--Lat 39°23'02", long 87°01'12", in NE¼NE¼ sec.24, T.11 N., R.6 W., Clay County, on left bank 500 ft downstream from bridge on State Highway 46 at Bowling Green and 0.5 mile downstream from Jordan Creek.

DRAINAGE AREA.--830 sq mi.

PERIOD OF RECORD.--January 1931 to current year. Prior to October 1934, published as "near Centerpoint."

GAGE.--Water-stage recorder. Datum of gage is 548.02 ft above mean sea level (levels by Corps of Engineers). See WSP 1725 for history of changes prior to Dec. 1, 1949.

AVERAGE DISCHARGE.--39 years, 830 cfs (13.58 inches per year).

EXTREMES.--Current year: Maximum discharge, 8,680 cfs Apr. 25 (gage height, 18.32 ft); minimum, 33 cfs Aug. 31 (gage height, 1.30 ft).
Period of record: Maximum discharge, 34,000 cfs Jan. 4, 1950 (gage height, 23.53 ft); minimum, 11 cfs Oct. 7, 8, 1954 (gage height, 0.32 ft).
Maximum stage known, about 30.0 ft in 1875, present datum, from information by Corps of Engineers.

REMARKS.--Records good except those for January, which are fair. Flow regulated by Cagles Mill Reservoir (see sta 03358900).

REVISIONS (WATER YEARS).--WSP 893: 1935, 1937-39. WSP 973: 1937-38, 1939(M). WSP 1335: 1931(M). WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 111 | 2,460 | 1,270 | 320 | 1,210 | 1,710 | 848 | 1,520 | 487 | 132 | 146 | 45 |
| 2 | 109 | 2,170 | 701 | 320 | 2,040 | 1,830 | 1,170 | 1,380 | 792 | 126 | 133 | 39 |
| 3 | 111 | 1,180 | 572 | 320 | 2,050 | 2,640 | 1,120 | 1,410 | 2,030 | 125 | 121 | 66 |
| 4 | 111 | 1,170 | 539 | 300 | 1,530 | 4,000 | 895 | 2,600 | 856 | 138 | 121 | 54 |
| 5 | 104 | 1,260 | 512 | 250 | 2,640 | 4,430 | 770 | 2,540 | 1,010 | 127 | 106 | 45 |
| 6 | 99 | 1,140 | 485 | 170 | 3,190 | 3,050 | 716 | 2,130 | 635 | 121 | 84 | 41 |
| 7 | 104 | 1,040 | 695 | 155 | 3,160 | 1,530 | 665 | 2,040 | 521 | 114 | 71 | 41 |
| 8 | 115 | 800 | 1,260 | 150 | 3,270 | 1,080 | 797 | 2,000 | 453 | 112 | 68 | 47 |
| 9 | 115 | 731 | 1,340 | 150 | 3,650 | 1,070 | 1,470 | 2,130 | 376 | 112 | 68 | 46 |
| 10 | 113 | 692 | 1,560 | 150 | 2,820 | 1,060 | 1,180 | 2,060 | 321 | 111 | 64 | 47 |
| 11 | 223 | 488 | 686 | 155 | 2,800 | 878 | 634 | 2,060 | 300 | 100 | 61 | 45 |
| 12 | 1,440 | 386 | 638 | 160 | 1,230 | 734 | 586 | 2,400 | 283 | 93 | 59 | 44 |
| 13 | 3,720 | 370 | 671 | 175 | 1,210 | 683 | 582 | 2,250 | 284 | 90 | 48 | 44 |
| 14 | 2,440 | 365 | 650 | 210 | 930 | 647 | 617 | 2,080 | 272 | 86 | 45 | 48 |
| 15 | 1,510 | 398 | 518 | 220 | 930 | 617 | 610 | 4,080 | 298 | 82 | 43 | 56 |
| 16 | 1,020 | 378 | 470 | 225 | 770 | 572 | 579 | 4,510 | 303 | 79 | 41 | 54 |
| 17 | 955 | 416 | 449 | 225 | 752 | 533 | 555 | 2,010 | 303 | 70 | 41 | 48 |
| 18 | 1,420 | 1,120 | 440 | 225 | 800 | 545 | 535 | 1,480 | 282 | 67 | 38 | 49 |
| 19 | 842 | 4,740 | 569 | 220 | 1,220 | 599 | 1,150 | 1,930 | 215 | 75 | 39 | 85 |
| 20 | 857 | 4,260 | 455 | 220 | 1,320 | 812 | 3,720 | 2,080 | 192 | 79 | 165 | 63 |
| 21 | 494 | 1,940 | 413 | 210 | 1,320 | 752 | 2,780 | 1,970 | 182 | 90 | 96 | 56 |
| 22 | 370 | 1,460 | 395 | 200 | 749 | 647 | 1,600 | 1,870 | 176 | 103 | 68 | 55 |
| 23 | 335 | 1,400 | 398 | 195 | 695 | 593 | 1,270 | 1,790 | 171 | 79 | 90 | 61 |
| 24 | 308 | 1,460 | 355 | 195 | 719 | 539 | 5,660 | 1,820 | 168 | 73 | 77 | 169 |
| 25 | 313 | 2,370 | 360 | 200 | 794 | 566 | 6,770 | 865 | 177 | 70 | 58 | 433 |
| 26 | 325 | 2,340 | 365 | 944 | 746 | 2,360 | 2,450 | 678 | 180 | 68 | 50 | 341 |
| 27 | 313 | 2,530 | 350 | 1,980 | 599 | 1,580 | 1,930 | 605 | 166 | 95 | 45 | 391 |
| 28 | 268 | 2,420 | 350 | 1,780 | 1,690 | 1,250 | 2,480 | 535 | 162 | 85 | 43 | 592 |
| 29 | 250 | 2,260 | 345 | 5,950 | ------ | 1,200 | 1,620 | 463 | 155 | 75 | 42 | 1,110 |
| 30 | 228 | 1,390 | 355 | 4,110 | ------ | 874 | 1,310 | 387 | 146 | 78 | 42 | 1,090 |
| 31 | 265 | ------ | 358 | 1,590 | ------ | 864 | ------ | 371 | ------ | 89 | 48 | ------ |
| TOTAL | 18,988 | 45,134 | 18,524 | 21,674 | 44,834 | 40,245 | 47,069 | 56,044 | 11,896 | 2,944 | 2,221 | 5,305 |
| MEAN | 613 | 1,504 | 598 | 699 | 1,601 | 1,298 | 1,569 | 1,808 | 397 | 95.0 | 71.6 | 177 |
| MAX | 3,720 | 4,740 | 1,560 | 5,950 | 3,650 | 4,430 | 6,770 | 4,510 | 2,030 | 138 | 165 | 1,110 |
| MIN | 99 | 365 | 345 | 150 | 599 | 533 | 535 | 371 | 146 | 67 | 38 | 39 |
| CFSM | .74 | 1.81 | .72 | .84 | 1.93 | 1.56 | 1.89 | 2.18 | .48 | .11 | .086 | .21 |
| IN. | .85 | 2.02 | .83 | .97 | 2.01 | 1.80 | 2.11 | 2.51 | .53 | .13 | .10 | .24 |

CAL YR 1969 TOTAL 397,157 MEAN 1,088 MAX 16,000 MIN 45 CFSM 1.31 IN 17.80
WAT YR 1970 TOTAL 314,878 MEAN 863 MAX 6,770 MIN 38 CFSM 1.04 IN 14.11

## 03360500 White River at Newberry, Ind.

LOCATION.--Lat 38°55'42", long 87°01'00", in NE¼NE¼ sec.25, T.6 N., R.6 W., Greene County, on right bank 500 ft upstream from bridge on State Highway 57 at Newberry, 2.3 miles downstream from Doans Creek, and at mile 118.0.

DRAINAGE AREA.--4,688 sq mi.

PERIOD OF RECORD.--September 1928 to current year. Prior to October 1948, published as West Fork White River at Newberry.

GAGE.--Water-stage recorder. Datum of gage is 465.59 ft above mean sea level. Prior to Oct. 21, 1928 nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--42 years, 4,520 cfs (unadjusted) (13.09 inches per year).

EXTREMES.--Current year: Maximum discharge, 27,100 cfs Apr. 28 (gage height, 17.76 ft); minimum,671 cfs part of each day Sept. 12, 13, 15 (gage height, 1.18 ft).
Period of record: Maximum discharge, 76,900 cfs May 21, 1943 (gage height, 24.19 ft); minimum, 193 cfs Oct. 1, 1941; minimum gage height, 0.29 ft Sept. 30, Oct. 7, 8, 1954.
Maximum stage since at least 1875, 27.5 ft Mar. 27, 1913, from floodmarks by State Highway Department of Indiana (discharge, 130,000 cfs, estimated).

REMARKS.--Records good except those for part of January, which are fair. Flow slightly regulated by four reservoirs above station.

REVISIONS (WATER YEARS).--WSP 873: 1937(M). WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,400 | 2,910 | 5,570 | 2,630 | 16,500 | 4,460 | 5,850 | 14,000 | 2,360 | 1,270 | 1,620 | 834 |
| 2 | 1,370 | 5,170 | 4,990 | 2,630 | 16,300 | 4,700 | 8,670 | 12,000 | 2,510 | 1,250 | 1,960 | 807 |
| 3 | 1,370 | 5,270 | 4,420 | 2,620 | 17,100 | 5,830 | 9,140 | 9,930 | 3,890 | 1,190 | 1,900 | 801 |
| 4 | 1,440 | 4,000 | 3,900 | 2,510 | 17,200 | 8,520 | 8,320 | 8,140 | 5,310 | 1,180 | 1,810 | 973 |
| 5 | 1,440 | 3,770 | 3,600 | 2,430 | 17,200 | 10,700 | 7,580 | 8,030 | 4,540 | 1,520 | 1,630 | 1,050 |
| 6 | 1,380 | 3,800 | 3,470 | 2,200 | 14,300 | 12,300 | 7,260 | 7,570 | 5,450 | 1,460 | 1,480 | 1,150 |
| 7 | 1,370 | 3,590 | 3,780 | 2,000 | 10,800 | 12,800 | 6,290 | 6,610 | 4,680 | 1,280 | 1,340 | 920 |
| 8 | 1,350 | 3,380 | 5,600 | 1,800 | 10,800 | 11,100 | 5,390 | 5,990 | 3,470 | 1,200 | 1,220 | 816 |
| 9 | 1,370 | 3,100 | 6,060 | 1,760 | 11,900 | 9,010 | 4,910 | 5,540 | 3,160 | 1,200 | 1,240 | 746 |
| 10 | 1,330 | 2,870 | 5,870 | 1,730 | 12,700 | 7,170 | 5,040 | 5,290 | 2,850 | 1,200 | 1,680 | 720 |
| 11 | 1,620 | 2,720 | 5,990 | 1,720 | 12,000 | 6,070 | 4,550 | 5,040 | 2,510 | 1,180 | 1,310 | 695 |
| 12 | 2,280 | 2,460 | 5,000 | 1,730 | 10,700 | 5,270 | 4,010 | 5,540 | 2,280 | 1,150 | 970 | 680 |
| 13 | 4,120 | 2,200 | 4,280 | 1,800 | 8,440 | 4,650 | 3,780 | 6,180 | 2,860 | 1,130 | 867 | 673 |
| 14 | 7,140 | 2,090 | 3,970 | 1,850 | 7,010 | 4,270 | 3,810 | 6,220 | 3,050 | 1,120 | 832 | 692 |
| 15 | 8,080 | 1,980 | 3,780 | 1,900 | 5,980 | 3,950 | 3,840 | 5,910 | 2,340 | 1,090 | 853 | 676 |
| 16 | 7,960 | 1,910 | 3,500 | 1,930 | 5,360 | 3,690 | 3,590 | 9,320 | 2,280 | 1,060 | 940 | 704 |
| 17 | 7,110 | 1,900 | 3,220 | 2,020 | 4,790 | 3,540 | 3,420 | 11,500 | 2,320 | 1,010 | 874 | 738 |
| 18 | 5,890 | 3,170 | 3,000 | 2,200 | 4,670 | 3,520 | 3,260 | 11,500 | 2,090 | 967 | 978 | 763 |
| 19 | 5,230 | 10,900 | 2,850 | 2,380 | 5,040 | 3,890 | 3,240 | 7,930 | 1,920 | 949 | 804 | 867 |
| 20 | 4,250 | 15,400 | 2,800 | 2,330 | 5,240 | 4,400 | 5,920 | 6,400 | 1,780 | 951 | 867 | 826 |
| 21 | 3,800 | 16,200 | 2,670 | 2,150 | 5,690 | 4,740 | 10,700 | 5,790 | 1,670 | 1,110 | 2,090 | 857 |
| 22 | 3,320 | 17,200 | 2,570 | 1,980 | 6,190 | 4,750 | 13,100 | 5,200 | 1,560 | 1,420 | 1,470 | 754 |
| 23 | 2,790 | 17,200 | 2,540 | 1,850 | 5,530 | 4,690 | 13,400 | 4,760 | 1,490 | 1,320 | 2,030 | 694 |
| 24 | 2,560 | 16,400 | 2,490 | 1,800 | 4,810 | 4,580 | 18,700 | 4,410 | 1,410 | 1,190 | 1,680 | 703 |
| 25 | 2,530 | 13,700 | 2,440 | 2,000 | 4,570 | 4,390 | 24,000 | 4,180 | 1,490 | 1,130 | 1,480 | 735 |
| 26 | 2,390 | 11,000 | 2,410 | 3,500 | 4,400 | 7,060 | 23,800 | 3,500 | 1,580 | 1,100 | 1,280 | 890 |
| 27 | 2,130 | 9,690 | 2,340 | 4,430 | 4,210 | 10,100 | 25,600 | 3,040 | 1,410 | 1,240 | 1,150 | 1,020 |
| 28 | 1,960 | 8,530 | 2,280 | 5,560 | 3,920 | 9,660 | 26,800 | 2,840 | 1,330 | 1,150 | 1,060 | 1,020 |
| 29 | 1,840 | 7,520 | 2,280 | 12,100 | ------ | 8,480 | 25,200 | 2,650 | 1,280 | 1,230 | 989 | 1,040 |
| 30 | 1,760 | 6,710 | 2,440 | 14,400 | ------ | 7,980 | 20,100 | 2,490 | 1,270 | 1,420 | 926 | 1,420 |
| 31 | 1,730 | ------ | 2,580 | 15,800 | ------ | 7,300 | ------ | 2,380 | ------ | 1,530 | 879 | ------ |
| TOTAL | 94,310 | 206,730 | 112,690 | 107,740 | 253,350 | 203,570 | 309,310 | 199,880 | 76,140 | 37,197 | 40,199 | 25,264 |
| MEAN | 3,042 | 6,891 | 3,635 | 3,475 | 9,048 | 6,567 | 10,310 | 6,448 | 2,538 | 1,200 | 1,297 | 842 |
| MAX | 8,080 | 17,200 | 6,060 | 15,800 | 17,200 | 12,800 | 26,800 | 14,000 | 5,450 | 1,530 | 2,080 | 1,420 |
| MIN | 1,330 | 1,900 | 2,280 | 1,720 | 3,920 | 3,520 | 3,240 | 2,380 | 1,270 | 949 | 804 | 673 |
| CFSM | .65 | 1.47 | .78 | .74 | 1.93 | 1.40 | 2.20 | 1.38 | .54 | .26 | .28 | .18 |
| IN. | .75 | 1.64 | .89 | .85 | 2.01 | 1.62 | 2.45 | 1.59 | .60 | .30 | .32 | .20 |

CAL YR 1969 TOTAL 2,269,430 MEAN 6,218 MAX 65,600 MIN 1,050 CFSM 1.33 IN 18.01
WAT YR 1970 TOTAL 1,666,380 MEAN 4,565 MAX 26,800 MIN 673 CFSM .97 IN 13.22

03361000 Big Blue River at Carthage, Ind.

LOCATION.--Lat 39°44'38", long 85°34'33", in SW¼ sec.18, T.15 N., R.9E., Rush County, on right bank 300 ft upstream from highway bridge, 0.5 mile northwest of Carthage, and 2.2 miles downstream from Three Mile Creek.

DRAINAGE AREA.--184 sq mi.

PERIOD OF RECORD.--October 1950 to current year. Prior to October 1961, published as Blue River at Carthage, Ind.

GAGE.--Water-stage recorder. Datum of gage is 859.33 ft above mean sea level. Prior to July 19, 1951, nonrecording gage at site 300 ft downstream at same datum.

AVERAGE DISCHARGE.--20 years, 190 cfs (14.02 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,560 cfs Jan. 29 (gage height, 9.13 ft); minimum, 44 cfs Aug. 30, 31, Sept. 1 (gage height, 1.34 ft).
Period of record: Maximum discharge, 12,900 cfs Mar. 4, 1963 (gage height, 14.62 ft, from floodmarks), from rating curve extended above 6,200 cfs; minimum, 16 cfs Sept. 18-20, 1955; minimum gage height, 1.19 ft Aug. 9, 1966.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 72 | 115 | 144 | 100 | 428 | 153 | 184 | 223 | 113 | 82 | 75 | 45 |
| 2 | 88 | 103 | 134 | 97 | 552 | 169 | 669 | 197 | 113 | 79 | 67 | 45 |
| 3 | 82 | 95 | 133 | 95 | 410 | 221 | 571 | 183 | 211 | 88 | 68 | 52 |
| 4 | 75 | 95 | 123 | 88 | 300 | 572 | 351 | 174 | 166 | 80 | 68 | 73 |
| 5 | 71 | 93 | 117 | 84 | 230 | 997 | 269 | 167 | 245 | 75 | 66 | 56 |
| 6 | 71 | 90 | 115 | 80 | 210 | 515 | 242 | 158 | 248 | 73 | 63 | 49 |
| 7 | 84 | 88 | 274 | 78 | 210 | 352 | 212 | 153 | 185 | 72 | 60 | 69 |
| 8 | 81 | 85 | 393 | 76 | 225 | 278 | 194 | 151 | 147 | 74 | 59 | 59 |
| 9 | 76 | 83 | 244 | 74 | 388 | 237 | 186 | 145 | 128 | 83 | 60 | 53 |
| 10 | 75 | 82 | 197 | 74 | 324 | 209 | 172 | 141 | 121 | 98 | 61 | 51 |
| 11 | 109 | 85 | 180 | 76 | 272 | 189 | 167 | 144 | 117 | 82 | 60 | 49 |
| 12 | 153 | 94 | 158 | 78 | 235 | 180 | 160 | 175 | 110 | 74 | 57 | 48 |
| 13 | 160 | 86 | 146 | 80 | 200 | 170 | 168 | 155 | 146 | 71 | 56 | 47 |
| 14 | 178 | 84 | 144 | 82 | 180 | 150 | 160 | 145 | 145 | 70 | 56 | 56 |
| 15 | 147 | 81 | 134 | 84 | 170 | 140 | 151 | 149 | 118 | 68 | 54 | 70 |
| 16 | 126 | 78 | 126 | 86 | 160 | 140 | 147 | 144 | 109 | 65 | 51 | 54 |
| 17 | 111 | 83 | 122 | 86 | 167 | 140 | 143 | 138 | 105 | 63 | 51 | 52 |
| 18 | 101 | 237 | 121 | 84 | 234 | 160 | 138 | 129 | 98 | 62 | 51 | 62 |
| 19 | 94 | 1,370 | 118 | 82 | 566 | 177 | 220 | 126 | 92 | 88 | 54 | 60 |
| 20 | 93 | 919 | 111 | 78 | 312 | 212 | 349 | 121 | 90 | 99 | 94 | 53 |
| 21 | 95 | 494 | 109 | 76 | 225 | 199 | 272 | 118 | 99 | 78 | 73 | 52 |
| 22 | 89 | 363 | 110 | 76 | 210 | 192 | 208 | 114 | 90 | 69 | 61 | 56 |
| 23 | 84 | 414 | 107 | 76 | 200 | 192 | 192 | 111 | 87 | 81 | 59 | 52 |
| 24 | 83 | 335 | 101 | 78 | 190 | 181 | 1,360 | 130 | 85 | 79 | 54 | 51 |
| 25 | 82 | 269 | 96 | 80 | 180 | 179 | 1,130 | 122 | 93 | 70 | 53 | 52 |
| 26 | 81 | 224 | 92 | 84 | 170 | 514 | 571 | 112 | 104 | 70 | 52 | 53 |
| 27 | 79 | 195 | 90 | 120 | 160 | 362 | 400 | 106 | 110 | 105 | 51 | 57 |
| 28 | 79 | 173 | 86 | 303 | 150 | 265 | 333 | 102 | 90 | 121 | 49 | 51 |
| 29 | 78 | 160 | 92 | 2,550 | ——— | 227 | 284 | 100 | 85 | 83 | 49 | 51 |
| 30 | 77 | 149 | 103 | 1,410 | ——— | 201 | 249 | 98 | 84 | 103 | 47 | 51 |
| 31 | 81 | ——— | 104 | 598 | ——— | 187 | ------ | 102 | ------ | 89 | 45 | ------ |
| TOTAL | 2,955 | 6,822 | 4,324 | 7,113 | 7,258 | 8,060 | 9,851 | 4,333 | 3,724 | 2,494 | 1,824 | 1,628 |
| MEAN | 95.3 | 227 | 139 | 229 | 259 | 260 | 328 | 140 | 124 | 80.5 | 58.8 | 54.3 |
| MAX | 178 | 1,370 | 393 | 2,550 | 566 | 997 | 1,360 | 223 | 248 | 121 | 94 | 73 |
| MIN | 71 | 78 | 86 | 74 | 150 | 140 | 138 | 98 | 84 | 62 | 45 | 45 |
| CFSM | .52 | 1.23 | .76 | 1.24 | 1.41 | 1.41 | 1.78 | .76 | .67 | .44 | .32 | .30 |
| IN. | .60 | 1.38 | .87 | 1.44 | 1.47 | 1.63 | 1.99 | .88 | .75 | .50 | .37 | .33 |

CAL YR 1969 TOTAL 81,494 MEAN 223 MAX 3,200 MIN 66 CFSM 1.21 IN 16.48
WAT YR 1970 TOTAL 60,386 MEAN 165 MAX 2,550 MIN 45 CFSM .90 IN 12.21

PEAK DISCHARGE (BASE, 2,000 CFS).--Jan. 29 (1445) 3,560 cfs (9.13 ft).

## 03361500 Big Blue River at Shelbyville, Ind.

LOCATION.--Lat 39°31'45", long 85°46'55", in SE¼ sec.31, T.13 N., R.7 E., Shelby County, on left bank 0.2 mile downstream from bridge on U.S. Highway 421 at Shelbyville and 0.6 mile downstream from Little Blue River.

DRAINAGE AREA.--421 sq mi.

PERIOD OF RECORD.--September 1943 to current year. Prior to October 1961, published as Blue River at Shelbyville.

GAGE.--Water-stage recorder. Datum of gage is 737.67 ft above mean sea level. Prior to Oct. 1, 1953, nonrecording gage at bridge 0.2 mile upstream at datum 3.5 ft higher.

AVERAGE DISCHARGE.--27 years, 453 cfs (14.63 inches per year).

EXTREMES.--Current year: Maximum discharge, 5,450 cfs Jan. 30 (gage height, 12.44 ft); minimum, 67 cfs Sept. 1, 2, 13 (gage height, 2.71 ft).
Period of record: Maximum discharge, 15,800 cfs Mar. 5, 1963 (gage height, 17.70 ft); minimum, 23 cfs Oct. 2, 1953.
Flood in March 1913 reached a stage of about 20.2 ft, from floodmarks.

REMARKS.--Records good except those for winter periods, which are fair. Records of suspended sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1505: 1944. WSP 1909: 1959(M). WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 131 | 157 | 353 | 210 | 1,350 | 290 | 440 | 696 | 208 | 116 | 141 | 68 |
| 2 | 134 | 200 | 320 | 202 | 1,420 | 319 | 1,420 | 576 | 222 | 112 | 117 | 68 |
| 3 | 148 | 203 | 303 | 198 | 1,700 | 503 | 1,880 | 498 | 325 | 115 | 141 | 76 |
| 4 | 139 | 189 | 283 | 180 | 860 | 1,040 | 1,200 | 452 | 373 | 125 | 116 | 103 |
| 5 | 129 | 184 | 258 | 170 | 600 | 2,320 | 853 | 423 | 378 | 113 | 106 | 102 |
| 6 | 124 | 179 | 247 | 170 | 500 | 1,740 | 688 | 392 | 474 | 107 | 102 | 85 |
| 7 | 130 | 173 | 357 | 160 | 495 | 1,090 | 578 | 366 | 366 | 103 | 97 | 79 |
| 8 | 140 | 167 | 992 | 160 | 525 | 804 | 500 | 357 | 286 | 102 | 93 | 88 |
| 9 | 138 | 161 | 734 | 160 | 858 | 650 | 467 | 343 | 239 | 108 | 93 | 81 |
| 10 | 132 | 157 | 550 | 160 | 849 | 555 | 426 | 330 | 215 | 130 | 95 | 75 |
| 11 | 147 | 154 | 471 | 170 | 699 | 486 | 400 | 325 | 200 | 131 | 93 | 71 |
| 12 | 230 | 158 | 404 | 180 | 585 | 444 | 381 | 359 | 186 | 114 | 91 | 69 |
| 13 | 335 | 166 | 354 | 180 | 480 | 410 | 377 | 364 | 239 | 104 | 89 | 70 |
| 14 | 333 | 158 | 341 | 180 | 420 | 370 | 380 | 343 | 320 | 99 | 88 | 90 |
| 15 | 337 | 153 | 315 | 180 | 370 | 350 | 352 | 327 | 248 | 96 | 86 | 86 |
| 16 | 281 | 147 | 283 | 180 | 350 | 330 | 336 | 327 | 207 | 92 | 83 | 91 |
| 17 | 243 | 149 | 265 | 170 | 352 | 339 | 327 | 323 | 188 | 89 | 79 | 81 |
| 18 | 214 | 228 | 258 | 170 | 371 | 350 | 318 | 300 | 174 | 87 | 77 | 89 |
| 19 | 194 | 2,010 | 255 | 160 | 836 | 382 | 385 | 281 | 157 | 92 | 84 | 89 |
| 20 | 188 | 3,140 | 240 | 160 | 693 | 455 | 710 | 268 | 146 | 160 | 103 | 85 |
| 21 | 186 | 1,740 | 231 | 150 | 496 | 462 | 713 | 260 | 141 | 166 | 122 | 79 |
| 22 | 189 | 1,120 | 220 | 150 | 433 | 439 | 546 | 250 | 140 | 117 | 108 | 76 |
| 23 | 177 | 1,040 | 210 | 150 | 402 | 434 | 480 | 242 | 135 | 113 | 100 | 75 |
| 24 | 163 | 939 | 200 | 150 | 380 | 418 | 2,050 | 238 | 129 | 121 | 93 | 71 |
| 25 | 157 | 760 | 200 | 160 | 360 | 400 | 3,970 | 264 | 139 | 111 | 87 | 70 |
| 26 | 156 | 624 | 190 | 260 | 340 | 798 | 2,080 | 246 | 153 | 109 | 85 | 73 |
| 27 | 152 | 529 | 190 | 390 | 320 | 989 | 1,320 | 228 | 158 | 108 | 81 | 73 |
| 28 | 146 | 457 | 180 | 507 | 300 | 679 | 975 | 218 | 151 | 193 | 80 | 74 |
| 29 | 142 | 410 | 192 | 3,100 | ------ | 570 | 913 | 210 | 129 | 177 | 78 | 69 |
| 30 | 139 | 375 | 204 | 5,030 | ------ | 495 | 898 | 206 | 121 | 141 | 76 | 70 |
| 31 | 141 | ------ | 215 | 3,050 | ------ | 448 | ------ | 204 | ------ | 157 | 71 | ------ |
| TOTAL | 5,595 | 16,227 | 9,815 | 16,597 | 17,344 | 19,359 | 26,363 | 10,216 | 6,547 | 3,708 | 2,955 | 2,376 |
| MEAN | 180 | 541 | 317 | 535 | 619 | 624 | 879 | 330 | 218 | 120 | 95.3 | 79.2 |
| MAX | 337 | 3,140 | 992 | 5,030 | 1,700 | 2,320 | 3,970 | 696 | 474 | 193 | 141 | 103 |
| MIN | 124 | 147 | 180 | 150 | 300 | 290 | 318 | 204 | 121 | 87 | 71 | 68 |
| CFSM | .43 | 1.29 | .75 | 1.27 | 1.47 | 1.48 | 2.09 | .78 | .52 | .29 | .23 | .19 |
| IN. | .49 | 1.43 | .87 | 1.47 | 1.53 | 1.71 | 2.33 | .90 | .58 | .33 | .26 | .21 |

CAL YR 1969 TOTAL 195,383 MEAN 535 MAX 7,710 MIN 114 CFSM 1.27 IN 17.26
WAT YR 1970 TOTAL 137,102 MEAN 376 MAX 5,030 MIN 68 CFSM .89 IN 12.11

PEAK DISCHARGE (BASE, 3,400 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-20 | 0700 | 10.00 | 3,400 | 04-25 | 1100 | 10.94 | 4,150 |
| 01-30 | 2215 | 12.44 | 5,450 | | | | |

03361650 Sugar Creek at New Palestine, Ind.

LOCATION.--Lat 39°42'51", long 85°53'08", in SE¼SW¼ sec.29, T.15 N., R.6 E., Hancock County, on left bank 10 ft downstream from bridge on county road 450 West, 0.5 mile south of New Palestine, 3 miles upstream from Little Sugar Creek, and 37.3 miles upstream from mouth.

DRAINAGE AREA.--93.9 sq mi.

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 786.00 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 951 cfs Jan. 29 (gage height, 6.96 ft); minimum, 4.4 cfs Sept. 30; minimum gage height, 2.22 ft Sept. 13.
Period of record: Maximum discharge, 1,740 cfs Feb. 2, 1968 (gage height, 9.34 ft), minimum daily, 4.2 cfs Oct. 5, 1967.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 18 | 54 | 96 | 44 | 313 | 65 | 87 | 151 | 30 | 13 | 102 | 8.9 |
| 2 | 22 | 61 | 84 | 42 | 380 | 76 | 177 | 119 | 31 | 12 | 61 | 8.5 |
| 3 | 24 | 51 | 77 | 39 | 429 | 111 | 231 | 98 | 37 | 22 | 40 | 8.5 |
| 4 | 21 | 51 | 72 | 38 | 250 | 285 | 171 | 87 | 39 | 22 | 33 | 11 |
| 5 | 18 | 53 | 79 | 36 | 160 | 596 | 129 | 78 | 58 | 18 | 27 | 11 |
| 6 | 17 | 51 | 63 | 34 | 130 | 494 | 112 | 69 | 83 | 15 | 23 | 9.5 |
| 7 | 20 | 46 | 115 | 33 | 120 | 289 | 96 | 64 | 91 | 12 | 19 | 9.5 |
| 8 | 20 | 42 | 208 | 32 | 133 | 208 | 83 | 61 | 69 | 12 | 17 | 8.9 |
| 9 | 20 | 39 | 197 | 31 | 224 | 159 | 77 | 58 | 52 | 15 | 15 | 8.0 |
| 10 | 18 | 36 | 144 | 32 | 242 | 126 | 70 | 54 | 44 | 36 | 14 | 8.5 |
| 11 | 51 | 35 | 122 | 32 | 199 | 102 | 65 | 52 | 40 | 40 | 14 | 7.0 |
| 12 | 226 | 34 | 102 | 33 | 160 | 90 | 62 | 56 | 36 | 23 | 13 | 6.5 |
| 13 | 268 | 31 | 87 | 34 | 132 | 81 | 61 | 56 | 38 | 16 | 12 | 6.5 |
| 14 | 233 | 30 | 84 | 35 | 111 | 74 | 59 | 53 | 33 | 13 | 11 | 7.5 |
| 15 | 182 | 28 | 77 | 38 | 96 | 68 | 54 | 54 | 37 | 11 | 10 | 8.0 |
| 16 | 126 | 26 | 68 | 41 | 82 | 62 | 50 | 77 | 34 | 9.5 | 9.5 | 7.0 |
| 17 | 90 | 30 | 62 | 43 | 76 | 58 | 48 | 75 | 29 | 8.6 | 9.5 | 6.5 |
| 18 | 70 | 160 | 60 | 44 | 84 | 62 | 47 | 62 | 26 | 8.1 | 8.9 | 8.0 |
| 19 | 58 | 735 | 59 | 44 | 204 | 76 | 64 | 53 | 23 | 16 | 13 | 8.5 |
| 20 | 52 | 700 | 55 | 43 | 212 | 92 | 195 | 47 | 21 | 40 | 46 | 7.0 |
| 21 | 48 | 599 | 53 | 41 | 141 | 93 | 231 | 43 | 21 | 29 | 41 | 7.0 |
| 22 | 43 | 355 | 50 | 38 | 110 | 86 | 159 | 39 | 19 | 22 | 29 | 6.1 |
| 23 | 37 | 365 | 48 | 35 | 100 | 80 | 122 | 39 | 18 | 24 | 25 | 5.6 |
| 24 | 34 | 330 | 46 | 35 | 96 | 75 | 604 | 40 | 17 | 29 | 20 | 5.6 |
| 25 | 32 | 253 | 44 | 37 | 92 | 80 | 672 | 39 | 19 | 22 | 16 | 5.2 |
| 26 | 31 | 190 | 42 | 45 | 86 | 244 | 537 | 39 | 18 | 19 | 14 | 5.2 |
| 27 | 30 | 156 | 41 | 90 | 78 | 267 | 293 | 33 | 20 | 79 | 14 | 6.1 |
| 28 | 28 | 132 | 41 | 206 | 72 | 177 | 222 | 29 | 20 | 267 | 13 | 6.5 |
| 29 | 29 | 115 | 40 | 853 | ------ | 135 | 228 | 27 | 17 | 201 | 12 | 5.2 |
| 30 | 26 | 103 | 42 | 856 | ------ | 110 | 212 | 26 | 14 | 127 | 11 | 4.4 |
| 31 | 28 | ------ | 44 | 661 | ------ | 95 | ------ | 27 | ------ | 169 | 10 | ------ |
| TOTAL | 1,920 | 4,891 | 2,402 | 3,645 | 4,512 | 4,616 | 5,218 | 1,805 | 1,034 | 1,350.2 | 702.9 | 221.7 |
| MEAN | 61.9 | 163 | 77.5 | 118 | 161 | 149 | 174 | 58.2 | 34.5 | 43.6 | 22.7 | 7.39 |
| MAX | 268 | 735 | 208 | 856 | 429 | 596 | 672 | 151 | 91 | 267 | 102 | 11 |
| MIN | 17 | 26 | 40 | 31 | 72 | 58 | 47 | 26 | 14 | 8.1 | 8.9 | 4.4 |
| CFSM | .66 | 1.74 | .83 | 1.26 | 1.71 | 1.59 | 1.85 | .62 | .37 | .46 | .24 | .079 |
| IN. | .76 | 1.94 | .95 | 1.44 | 1.79 | 1.83 | 2.07 | .72 | .41 | .53 | .28 | .09 |

CAL YR 1969 TOTAL 49,321.0 MEAN 135 MAX 1,560 MIN 12 CFSM 1.44 IN 19.54
WAT YR 1970 TOTAL 32,317.8 MEAN 88.5 MAX 856 MIN 4.4 CFSM .94 IN 12.80

PEAK DISCHARGE (BASE, 950 CFS).--Jan. 29 (0500) 951 cfs (6.96 ft).

## 03361850 Buck Creek at Acton, Ind.

LOCATION.--Lat 39°39'25", long 85°57'27", in SE¼ sec.15, T.14 N., R.5 E., Marion County, on left bank 30 ft downstream from McGregor Road Bridge, 0.5 mile east of Acton, and 4.2 miles upstream from mouth.

DRAINAGE AREA.--78.8 sq mi.

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 757.00 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 1,840 cfs Nov. 19 (gage height, 9.68 ft); minimum, 3.0 cfs Sept. 1-3; minimum gage height, 1.60 ft Sept. 1, 2.
Period of record: Maximum discharge, 5,300 cfs July 20, 1969 (gage height, 14.99 ft); minimum daily discharge, 0.60 cfs Oct. 1, 4, 1967; minimum gage height, 1.57 ft Oct. 4, 5, 1967.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 8.9 | 59 | 68 | 22 | 166 | 37 | 61 | 196 | 17 | 5.5 | 44 | 3.0 |
| 2 | 11 | 73 | 54 | 21 | 400 | 63 | 181 | 122 | 19 | 5.5 | 25 | 3.0 |
| 3 | 17 | 53 | 54 | 20 | 372 | 147 | 159 | 90 | 57 | 70 | 18 | 3.8 |
| 4 | 13 | 55 | 45 | 19 | 130 | 364 | 106 | 73 | 40 | 52 | 14 | 5.1 |
| 5 | 11 | 61 | 38 | 18 | 84 | 743 | 83 | 61 | 42 | 23 | 11 | 6.3 |
| 6 | 10 | 54 | 36 | 17 | 64 | 310 | 76 | 52 | 44 | 14 | 13 | 4.6 |
| 7 | 14 | 44 | 141 | 17 | 62 | 187 | 59 | 47 | 29 | 10 | 9.6 | 4.2 |
| 8 | 21 | 38 | 225 | 16 | 103 | 131 | 52 | 44 | 21 | 9.2 | 7.1 | 3.8 |
| 9 | 16 | 36 | 130 | 16 | 244 | 101 | 49 | 40 | 17 | 10 | 6.3 | 3.8 |
| 10 | 15 | 30 | 101 | 16 | 166 | 79 | 43 | 37 | 16 | 11 | 7.5 | 3.8 |
| 11 | 113 | 29 | 88 | 16 | 128 | 64 | 39 | 34 | 14 | 9.2 | 6.7 | 3.8 |
| 12 | 452 | 32 | 67 | 17 | 96 | 52 | 39 | 40 | 13 | 7.9 | 6.3 | 3.4 |
| 13 | 362 | 28 | 58 | 17 | 74 | 46 | 40 | 34 | 19 | 6.7 | 5.5 | 3.4 |
| 14 | 282 | 26 | 59 | 17 | 57 | 41 | 30 | 33 | 18 | 6.3 | 5.5 | 5.1 |
| 15 | 175 | 24 | 48 | 18 | 42 | 38 | 30 | 39 | 14 | 5.9 | 5.1 | 5.5 |
| 16 | 118 | 21 | 41 | 18 | 37 | 35 | 28 | 73 | 13 | 5.5 | 4.6 | 5.9 |
| 17 | 83 | 24 | 38 | 21 | 37 | 33 | 26 | 57 | 12 | 5.1 | 4.6 | 6.3 |
| 18 | 60 | 394 | 38 | 32 | 68 | 41 | 25 | 40 | 10 | 5.5 | 4.2 | 7.5 |
| 19 | 47 | 1,620 | 36 | 40 | 195 | 80 | 61 | 31 | 9.2 | 7.5 | 4.6 | 9.2 |
| 20 | 42 | 808 | 32 | 33 | 110 | 107 | 190 | 27 | 8.4 | 35 | 22 | 8.8 |
| 21 | 39 | 370 | 30 | 28 | 78 | 82 | 159 | 24 | 7.9 | 23 | 14 | 8.4 |
| 22 | 33 | 267 | 28 | 23 | 70 | 72 | 98 | 21 | 7.9 | 10 | 9.6 | 8.4 |
| 23 | 26 | 286 | 26 | 18 | 63 | 63 | 77 | 20 | 7.5 | 9.6 | 8.4 | 9.2 |
| 24 | 23 | 208 | 24 | 17 | 56 | 54 | 1,200 | 26 | 7.1 | 14 | 6.3 | 8.8 |
| 25 | 21 | 162 | 23 | 18 | 56 | 60 | 715 | 21 | 9.6 | 9.6 | 5.1 | 8.8 |
| 26 | 20 | 128 | 22 | 170 | 48 | 456 | 326 | 19 | 10 | 7.1 | 4.2 | 8.8 |
| 27 | 20 | 108 | 21 | 159 | 43 | 229 | 202 | 16 | 11 | 14 | 3.8 | 8.8 |
| 28 | 17 | 89 | 20 | 246 | 40 | 141 | 166 | 14 | 7.5 | 61 | 3.8 | 9.6 |
| 29 | 16 | 82 | 19 | 1,280 | ------ | 105 | 283 | 13 | 6.3 | 42 | 3.8 | 8.4 |
| 30 | 15 | 72 | 21 | 510 | ------ | 81 | 457 | 13 | 5.9 | 49 | 3.8 | 7.9 |
| 31 | 16 | ------ | 22 | 238 | ------ | 68 | ------ | 13 | ------ | 87 | 3.4 | ------ |
| TOTAL | 2,116.9 | 5,281 | 1,653 | 3,118 | 3,089 | 4,110 | 5,060 | 1,370 | 513.3 | 631.1 | 290.8 | 187.4 |
| MEAN | 68.3 | 176 | 53.3 | 101 | 110 | 133 | 169 | 44.2 | 17.1 | 20.4 | 9.38 | 6.25 |
| MAX | 452 | 1,620 | 225 | 1,280 | 400 | 743 | 1,200 | 196 | 57 | 87 | 44 | 9.6 |
| MIN | 8.9 | 21 | 19 | 16 | 37 | 33 | 25 | 13 | 5.9 | 5.1 | 3.4 | 3.0 |
| CFSM | .87 | 2.23 | .68 | 1.28 | 1.40 | 1.69 | 2.14 | .56 | .22 | .26 | .12 | .079 |
| IN. | 1.00 | 2.49 | .78 | 1.47 | 1.46 | 1.94 | 2.39 | .65 | .24 | .30 | .14 | .09 |

CAL YR 1969 TOTAL 45,274.1 MEAN 124 MAX 3,490 MIN 5.4 CFSM 1.57 IN 21.37
WAT YR 1970 TOTAL 27,420.5 MEAN 75.1 MAX 1,620 MIN 3.0 CFSM .95 IN 12.94

PEAK DISCHARGE (BASE, 1,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-19 | 1315 | 9.68 | 1,840 | 04-24 | 1700 | 9.50 | 1,750 |
| 01-29 | 1215 | 9.01 | 1,560 | | | | |

03362000 Youngs Creek near Edinburg, Ind.

LOCATION.--Lat 39°25'08", long 86°00'18", in SW¼ sec.5, T.11 N., R.5 E., Johnson County, on left bank on upstream side of highway bridge, 0.5 mile southwest of Amity, 2 miles upstream from mouth, and 5 miles northwest of Edinburg.

DRAINAGE AREA.--107 sq mi.

PERIOD OF RECORD.--October 1942 to current year. Prior to December 1942 monthly discharge only, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 670.20 ft above mean sea level. Prior to June 30, 1955, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--28 years, 107 cfs (13.58 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,450 cfs Apr. 24 (gage height, 6.84 ft); minimum, 2.7 cfs Aug. 17, 31, Sept. 1 (gage height, 0.82 ft).
Period of record: Maximum discharge, 10,700 cfs Jan. 27, 1952 (gage height, 13.4 ft); minimum, 0.4 cfs Sept. 14, 1954.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1335: 1944. WSP 1909: 1958. WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 8.9 | 55 | 78 | 50 | 237 | 58 | 100 | 160 | 27 | 12 | 8.5 | 4.0 |
| 2 | 15 | 65 | 65 | 44 | 451 | 88 | 418 | 118 | 27 | 12 | 6.3 | 4.0 |
| 3 | 16 | 53 | 64 | 40 | 520 | 190 | 256 | 98 | 52 | 14 | 7.9 | 4.2 |
| 4 | 14 | 53 | 56 | 37 | 470 | 302 | 164 | 87 | 54 | 11 | 8.7 | 8.8 |
| 5 | 11 | 52 | 51 | 35 | 200 | 348 | 128 | 79 | 58 | 11 | 6.6 | 8.3 |
| 6 | 10 | 48 | 50 | 33 | 110 | 218 | 117 | 69 | 81 | 12 | 5.9 | 6.6 |
| 7 | 15 | 44 | 156 | 32 | 122 | 158 | 95 | 65 | 51 | 15 | 5.2 | 5.7 |
| 8 | 25 | 39 | 254 | 31 | 175 | 129 | 87 | 63 | 38 | 13 | 4.9 | 5.0 |
| 9 | 24 | 36 | 152 | 31 | 327 | 111 | 84 | 58 | 34 | 17 | 4.7 | 4.6 |
| 10 | 19 | 34 | 120 | 31 | 242 | 95 | 75 | 55 | 30 | 14 | 4.6 | 4.2 |
| 11 | 53 | 33 | 100 | 31 | 190 | 84 | 70 | 54 | 28 | 13 | 4.5 | 4.1 |
| 12 | 237 | 33 | 80 | 31 | 150 | 72 | 68 | 63 | 26 | 9.0 | 4.2 | 3.9 |
| 13 | 197 | 31 | 71 | 32 | 130 | 64 | 72 | 54 | 24 | 11 | 4.0 | 4.0 |
| 14 | 127 | 30 | 71 | 32 | 100 | 56 | 67 | 52 | 24 | 9.8 | 4.1 | 6.7 |
| 15 | 95 | 28 | 61 | 33 | 84 | 52 | 60 | 51 | 25 | 8.7 | 4.0 | 7.7 |
| 16 | 74 | 27 | 54 | 35 | 80 | 49 | 57 | 56 | 23 | 9.2 | 3.8 | 5.5 |
| 17 | 59 | 26 | 53 | 39 | 83 | 59 | 56 | 56 | 21 | 7.7 | 3.2 | 5.2 |
| 18 | 47 | 117 | 54 | 50 | 95 | 68 | 54 | 49 | 20 | 5.6 | 3.6 | 6.4 |
| 19 | 39 | 1,150 | 52 | 60 | 123 | 88 | 90 | 43 | 18 | 5.8 | 3.6 | 6.8 |
| 20 | 38 | 820 | 46 | 52 | 96 | 132 | 160 | 40 | 17 | 8.1 | 7.9 | 5.2 |
| 21 | 49 | 391 | 44 | 42 | 83 | 109 | 118 | 38 | 14 | 6.5 | 5.6 | 5.0 |
| 22 | 42 | 292 | 42 | 36 | 76 | 100 | 90 | 36 | 16 | 6.1 | 5.9 | 5.3 |
| 23 | 33 | 304 | 39 | 33 | 66 | 92 | 83 | 33 | 15 | 6.7 | 6.6 | 4.9 |
| 24 | 29 | 232 | 37 | 32 | 66 | 84 | 1,070 | 32 | 15 | 6.8 | 4.6 | 4.9 |
| 25 | 28 | 183 | 36 | 80 | 62 | 82 | 706 | 35 | 27 | 5.8 | 5.2 | 5.0 |
| 26 | 26 | 145 | 35 | 520 | 56 | 280 | 370 | 31 | 30 | 6.8 | 4.5 | 5.2 |
| 27 | 25 | 123 | 35 | 280 | 50 | 200 | 253 | 27 | 20 | 17 | 4.1 | 5.1 |
| 28 | 23 | 101 | 35 | 260 | 48 | 141 | 220 | 25 | 15 | 14 | 4.0 | 4.5 |
| 29 | 21 | 91 | 37 | 1,060 | ------ | 118 | 173 | 24 | 14 | 7.5 | 3.8 | 4.3 |
| 30 | 21 | 82 | 43 | 555 | ------ | 102 | 219 | 24 | 13 | 11 | 3.8 | 4.5 |
| 31 | 22 | ------ | 45 | 316 | ------ | 92 | ------ | 24 | ------ | 12 | 3.2 | ------ |
| TOTAL | 1,442.9 | 4,718 | 2,116 | 3,973 | 4,492 | 3,821 | 5,580 | 1,699 | 857 | 319.1 | 157.5 | 159.6 |
| MEAN | 46.5 | 157 | 68.3 | 128 | 160 | 123 | 186 | 54.8 | 28.6 | 10.3 | 5.08 | 5.32 |
| MAX | 237 | 1,150 | 254 | 1,060 | 520 | 348 | 1,070 | 160 | 81 | 17 | 8.7 | 8.8 |
| MIN | 8.9 | 26 | 35 | 31 | 48 | 49 | 54 | 24 | 13 | 5.6 | 3.2 | 3.9 |
| CFSM | .43 | 1.47 | .64 | 1.20 | 1.50 | 1.15 | 1.74 | .51 | .27 | .096 | .048 | .050 |
| IN. | .50 | 1.64 | .74 | 1.38 | 1.56 | 1.33 | 1.94 | .59 | .30 | .11 | .05 | .06 |

CAL YR 1969 TOTAL 47,324.8 MEAN 130 MAX 3,490 MIN 8.3 CFSM 1.22 IN 16.45
WAT YR 1970 TOTAL 29,335.1 MEAN 80.4 MAX 1,150 MIN 3.2 CFSM .75 IN 10.20

PEAK DISCHARGE (BASE, 1,300 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-19 | 2145 | 6.69 | 1,380 | 04-24 | 2030 | 6.84 | 1,450 |

## 03362500 Sugar Creek near Edinburg, Ind.

LOCATION.--Lat 39°21'39", long 85°59'51", on line between secs.29 and 32, T.11 N., R.5 E., Johnson County, on left bank 50 ft upstream from highway bridge in Camp Atterbury, 1.2 miles upstream from confluence with Blue River, and 1.5 miles northwest of Edinburg.

DRAINAGE AREA.--474 sq mi.

PERIOD OF RECORD.--October 1942 to current year. Prior to February 1943 monthly discharge only, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 646.23 ft above mean sea level. Prior to Oct. 1, 1952, nonrecording gage on downstream side of old highway bridge, 100 ft downstream at same datum.

AVERAGE DISCHARGE.--28 years, 478 cfs (13.67 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,620 cfs Apr. 25 (gage height, 10.55 ft); minimum, 41 cfs Sept. 12, 13 (gage height, 3.57 ft).
Period of record: Maximum discharge, 27,600 cfs May 29, 1956 (gage height, 18.38 ft); minimum, 8.0 cfs Sept. 18, 1954 (gage height, 3.04 ft).

REMARKS.--Records good except those for winter periods and periods of no gage-height record, which are fair. Records of suspended sediment loads for current year are published in Part 2 of this report.

REVISIONS.--WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 50 | 181 | 429 | 211 | 1,640 | 296 | 400 | 1,330 | 147 | 78 | 283 | 46 |
| 2 | 54 | 339 | 376 | 205 | 1,570 | 336 | 1,280 | 878 | 147 | 74 | 204 | 46 |
| 3 | 84 | 328 | 335 | 203 | 2,310 | 662 | 1,200 | 666 | 171 | 78 | 159 | 47 |
| 4 | 92 | 278 | 302 | 193 | 1,500 | 1,170 | 918 | 550 | 232 | 142 | 147 | 62 |
| 5 | 78 | 267 | 262 | 193 | 900 | 1,860 | 714 | 480 | 222 | 145 | 120 | 78 |
| 6 | 60 | 262 | 251 | 180 | 700 | 1,810 | 621 | 419 | 286 | 114 | 104 | 76 |
| 7 | 70 | 239 | 400 | 170 | 645 | 1,050 | 541 | 378 | 250 | 95 | 93 | 65 |
| 8 | 100 | 224 | 1,030 | 170 | 718 | 811 | 462 | 354 | 218 | 87 | 87 | 57 |
| 9 | 140 | 192 | 906 | 160 | 1,140 | 580 | 429 | 334 | 183 | 89 | 82 | 50 |
| 10 | 130 | 177 | 708 | 160 | 1,210 | 385 | 393 | 310 | 162 | 87 | 76 | 47 |
| 11 | 150 | 171 | 605 | 160 | 1,050 | 344 | 362 | 298 | 145 | 89 | 73 | 44 |
| 12 | 380 | 171 | 505 | 160 | 879 | 330 | 344 | 314 | 133 | 104 | 69 | 43 |
| 13 | 1,000 | 170 | 427 | 160 | 732 | 320 | 348 | 302 | 125 | 89 | 71 | 43 |
| 14 | 860 | 159 | 406 | 170 | 610 | 300 | 342 | 286 | 145 | 78 | 67 | 49 |
| 15 | 737 | 141 | 370 | 170 | 546 | 300 | 309 | 275 | 142 | 69 | 63 | 71 |
| 16 | 585 | 127 | 322 | 180 | 477 | 290 | 285 | 286 | 125 | 65 | 58 | 58 |
| 17 | 437 | 123 | 290 | 200 | 430 | 320 | 271 | 338 | 123 | 63 | 55 | 54 |
| 18 | 329 | 271 | 277 | 250 | 438 | 360 | 260 | 294 | 114 | 57 | 52 | 58 |
| 19 | 258 | 2,450 | 269 | 310 | 644 | 440 | 334 | 257 | 104 | 55 | 54 | 63 |
| 20 | 223 | 3,890 | 250 | 260 | 735 | 470 | 630 | 239 | 100 | 67 | 63 | 58 |
| 21 | 233 | 3,060 | 240 | 230 | 588 | 440 | 807 | 218 | 98 | 111 | 78 | 57 |
| 22 | 214 | 1,730 | 220 | 200 | 502 | 410 | 674 | 208 | 93 | 114 | 107 | 55 |
| 23 | 184 | 1,460 | 210 | 180 | 455 | 390 | 543 | 194 | 89 | 89 | 98 | 52 |
| 24 | 158 | 1,330 | 200 | 170 | 418 | 370 | 2,180 | 183 | 84 | 89 | 82 | 52 |
| 25 | 167 | 1,080 | 190 | 310 | 416 | 410 | 3,990 | 197 | 100 | 87 | 74 | 54 |
| 26 | 153 | 878 | 180 | 800 | 390 | 660 | 2,890 | 180 | 118 | 84 | 67 | 54 |
| 27 | 132 | 718 | 180 | 960 | 370 | 1,000 | 1,680 | 168 | 100 | 114 | 62 | 55 |
| 28 | 123 | 606 | 179 | 900 | 333 | 760 | 1,250 | 153 | 95 | 125 | 57 | 50 |
| 29 | 116 | 529 | 179 | 2,560 | ------ | 600 | 996 | 145 | 89 | 306 | 55 | 50 |
| 30 | 113 | 473 | 195 | 3,730 | ------ | 470 | 1,720 | 139 | 82 | 264 | 54 | 47 |
| 31 | 113 | ------ | 209 | 2,700 | ------ | 430 | ------ | 136 | ------ | 250 | 49 | ------ |
| TOTAL | 7,523 | 22,024 | 10,902 | 16,605 | 22,346 | 18,374 | 27,173 | 10,509 | 4,222 | 3,358 | 2,763 | 1,641 |
| MEAN | 243 | 734 | 352 | 536 | 798 | 593 | 906 | 339 | 141 | 108 | 89.1 | 54.7 |
| MAX | 1,000 | 3,890 | 1,030 | 3,730 | 2,310 | 1,860 | 3,990 | 1,330 | 286 | 306 | 283 | 78 |
| MIN | 50 | 123 | 179 | 160 | 333 | 290 | 260 | 136 | 82 | 55 | 49 | 43 |
| CFSM | .51 | 1.55 | .74 | 1.13 | 1.68 | 1.25 | 1.91 | .72 | .30 | .23 | .19 | .12 |
| IN. | .59 | 1.73 | .86 | 1.30 | 1.75 | 1.44 | 2.13 | .82 | .33 | .26 | .22 | .13 |

CAL YR 1969 TOTAL 232,945 MEAN 638 MAX 12,800 MIN 50 CFSM 1.35 IN 18.28
WAT YR 1970 TOTAL 147,440 MEAN 404 MAX 3,990 MIN 43 CFSM .85 IN 11.57

PEAK DISCHARGE (BASE, 4,200 CFS).--Apr. 25 (2015) 4,620 cfs (10.55 ft).

03363000 Driftwood River near Edinburg, Ind.

LOCATION.--Lat 39°20'21", long 85°59'11", in SW¼ sec.4, T.10 N., R.5 E., Bartholomew County, on left bank just downstream from highway bridge, 0.8 mile downstream from confluence of Blue River and Sugar Creek, and 1.5 miles southwest of Edinburg.

DRAINAGE AREA.--1,060 sq mi.

PERIOD OF RECORD.--October 1940 to current year. Prior to July 1941 monthly discharge only, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 636.99 ft above mean sea level. Prior to Oct. 7, 1941, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--30 years, 1,116 cfs (14.28 inches per year).

EXTREMES.--Current year: Maximum discharge, 8,420 cfs Jan. 30 (gage height, 11.89 ft); minimum, 134 cfs Sept. 30 (gage height, 1.92 ft).
Period of record: Maximum discharge, 40,500 cfs Mar. 6, 1963 (gage height, 16.97 ft); minimum observed, 36 cfs Sept. 23, 1941.
Flood in March 1913 reached a stage of 20.3 ft.

REMARKS.--Records good.

REVISIONS.--WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 267 | 412 | 974 | 528 | 5,230 | 726 | 1,100 | 2,810 | 460 | 280 | 547 | 157 |
| 2 | 279 | 575 | 874 | 517 | 3,780 | 750 | 2,200 | 2,030 | 469 | 270 | 442 | 154 |
| 3 | 287 | 615 | 794 | 460 | 5,050 | 1,180 | 3,270 | 1,650 | 519 | 273 | 358 | 157 |
| 4 | 298 | 572 | 741 | 440 | 5,800 | 2,120 | 2,830 | 1,410 | 730 | 312 | 375 | 181 |
| 5 | 283 | 552 | 676 | 410 | 4,000 | 3,810 | 2,090 | 1,240 | 725 | 338 | 308 | 219 |
| 6 | 267 | 543 | 640 | 380 | 2,500 | 4,850 | 1,710 | 1,120 | 877 | 298 | 277 | 209 |
| 7 | 278 | 515 | 765 | 350 | 1,390 | 3,410 | 1,470 | 1,010 | 872 | 277 | 256 | 184 |
| 8 | 292 | 482 | 1,890 | 340 | 1,420 | 2,380 | 1,260 | 954 | 750 | 263 | 242 | 173 |
| 9 | 313 | 454 | 2,100 | 330 | 2,060 | 1,890 | 1,150 | 910 | 630 | 263 | 235 | 173 |
| 10 | 302 | 432 | 1,620 | 330 | 2,490 | 1,560 | 1,060 | 855 | 552 | 263 | 225 | 162 |
| 11 | 344 | 417 | 1,350 | 320 | 2,170 | 1,330 | 982 | 817 | 505 | 319 | 222 | 157 |
| 12 | 815 | 407 | 1,140 | 320 | 1,780 | 1,160 | 916 | 822 | 474 | 319 | 212 | 149 |
| 13 | 1,670 | 408 | 980 | 320 | 1,470 | 1,080 | 905 | 855 | 447 | 287 | 212 | 147 |
| 14 | 1,460 | 402 | 902 | 330 | 1,220 | 998 | 883 | 833 | 547 | 259 | 203 | 152 |
| 15 | 1,310 | 384 | 842 | 330 | 1,070 | 943 | 833 | 806 | 571 | 242 | 193 | 193 |
| 16 | 1,050 | 371 | 755 | 350 | 961 | 877 | 780 | 795 | 496 | 228 | 187 | 179 |
| 17 | 840 | 367 | 700 | 370 | 853 | 833 | 750 | 839 | 456 | 219 | 181 | 173 |
| 18 | 692 | 508 | 668 | 440 | 890 | 844 | 725 | 806 | 420 | 209 | 176 | 176 |
| 19 | 597 | 3,640 | 650 | 500 | 1,280 | 916 | 811 | 740 | 388 | 206 | 176 | 181 |
| 20 | 545 | 6,790 | 622 | 480 | 1,840 | 1,150 | 1,260 | 690 | 362 | 225 | 206 | 176 |
| 21 | 544 | 6,920 | 598 | 440 | 1,440 | 1,200 | 1,740 | 640 | 346 | 316 | 215 | 167 |
| 22 | 520 | 4,360 | 560 | 400 | 1,160 | 1,140 | 1,520 | 605 | 334 | 323 | 259 | 159 |
| 23 | 484 | 3,310 | 540 | 360 | 1,050 | 1,090 | 1,240 | 576 | 326 | 273 | 249 | 154 |
| 24 | 442 | 3,020 | 510 | 350 | 975 | 1,040 | 3,450 | 557 | 319 | 263 | 219 | 154 |
| 25 | 416 | 2,510 | 490 | 450 | 947 | 987 | 6,840 | 566 | 326 | 266 | 203 | 152 |
| 26 | 402 | 2,020 | 470 | 800 | 912 | 1,610 | 6,940 | 562 | 350 | 252 | 190 | 152 |
| 27 | 389 | 1,640 | 460 | 1,200 | 852 | 2,580 | 4,340 | 524 | 338 | 284 | 184 | 154 |
| 28 | 374 | 1,390 | 450 | 1,300 | 792 | 2,050 | 3,030 | 496 | 330 | 287 | 176 | 149 |
| 29 | 359 | 1,190 | 440 | 4,270 | ------ | 1,650 | 2,410 | 469 | 312 | 586 | 173 | 149 |
| 30 | 352 | 1,070 | 497 | 7,380 | ------ | 1,380 | 3,190 | 456 | 294 | 557 | 167 | 144 |
| 31 | 353 | ------ | 531 | 7,870 | ------ | 1,200 | ------ | 447 | ------ | 487 | 162 | ------ |
| TOTAL | 16,824 | 46,276 | 25,229 | 32,665 | 55,382 | 48,734 | 61,685 | 27,890 | 14,525 | 9,244 | 7,430 | 4,986 |
| MEAN | 543 | 1,543 | 814 | 1,054 | 1,978 | 1,572 | 2,056 | 900 | 484 | 298 | 240 | 166 |
| MAX | 1,670 | 6,920 | 2,100 | 7,870 | 5,800 | 4,850 | 6,940 | 2,810 | 877 | 586 | 547 | 219 |
| MIN | 267 | 367 | 440 | 320 | 792 | 726 | 725 | 447 | 294 | 206 | 162 | 144 |
| CFSM | .51 | 1.46 | .77 | .99 | 1.87 | 1.48 | 1.94 | .85 | .46 | .28 | .23 | .16 |
| IN. | .59 | 1.62 | .89 | 1.15 | 1.94 | 1.71 | 2.16 | .98 | .51 | .32 | .26 | .17 |

CAL YR 1969 TOTAL 533,957 MEAN 1,463 MAX 23,200 MIN 243 CFSM 1.38 IN 18.74
WAT YR 1970 TOTAL 350,870 MEAN 961 MAX 7,870 MIN 144 CFSM .91 IN 12.31

PEAK DISCHARGE (BASE, 7,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-21 | 0445 | 11.42 | 7,690 | 04-25 | 2400 | 11.54 | 7,860 |
| 01-30 | 2400 | 11.89 | 8,420 | | | | |

## 03363500 Flatrock River at St. Paul, Ind.

LOCATION.--Lat 39°25'03", long 85°38'03", in NE¼ sec.9, T.11 N., R.8 E., Shelby County, on right bank 500 ft downstream from highway bridge, 0.8 mile southwest of St. Paul, and 1.5 miles downstream from Mill Creek.

DRAINAGE AREA.--303 sq mi.

PERIOD OF RECORD.--October 1930 to current year. Prior to October 1958, published as Flatrock Creek at St. Paul.

GAGE.--Water-stage recorder. Datum of gage is 764.84 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission). Prior to Oct. 21, 1938, nonrecording gage at site 500 ft upstream at same datum.

AVERAGE DISCHARGE.--40 years, 311 cfs (13.93 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,740 cfs Apr. 29 (gage height, 5.96 ft); minimum, 13 cfs Sept. 2, 3 (gage height, 0.41 ft).
Period of record: Maximum discharge, 18,500 cfs Jan. 5, 1949; maximum recorded gage height, 12.37 ft May 24, 1968; minimum discharge, 0.5 cfs Aug. 7, 9, 1931.
Flood in March 1913 reached a stage of approximately 20.5 ft, from information by local residents.

REMARKS.--Records good except those for winter periods, which are fair. Slight diversion occasionally by quarry above gage.

REVISIONS (WATER YEARS).--WSP 853: 1934-36. WSP 973: 1942. WSP 1335: 1933, 1936. WSP 1725: 1957(M). WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 63 | 69 | 223 | 125 | 918 | 168 | 378 | 744 | 92 | 40 | 56 | 16 |
| 2 | 63 | 81 | 192 | 122 | 942 | 223 | 3,310 | 534 | 92 | 37 | 42 | 14 |
| 3 | 61 | 92 | 176 | 122 | 800 | 406 | 1,870 | 430 | 100 | 36 | 63 | 13 |
| 4 | 58 | 87 | 160 | 115 | 500 | 1,270 | 1,300 | 373 | 119 | 39 | 100 | 15 |
| 5 | 52 | 79 | 143 | 110 | 400 | 1,680 | 807 | 330 | 132 | 39 | 52 | 17 |
| 6 | 48 | 76 | 132 | 100 | 380 | 1,310 | 632 | 285 | 168 | 34 | 39 | 17 |
| 7 | 48 | 74 | 320 | 98 | 367 | 870 | 502 | 255 | 168 | 30 | 33 | 54 |
| 8 | 48 | 71 | 758 | 96 | 418 | 660 | 418 | 241 | 132 | 28 | 29 | 214 |
| 9 | 48 | 67 | 688 | 94 | 508 | 520 | 378 | 223 | 111 | 30 | 28 | 108 |
| 10 | 47 | 65 | 490 | 94 | 527 | 430 | 335 | 214 | 97 | 34 | 29 | 58 |
| 11 | 61 | 65 | 406 | 94 | 466 | 362 | 300 | 205 | 92 | 39 | 28 | 37 |
| 12 | 74 | 63 | 330 | 96 | 406 | 320 | 275 | 245 | 89 | 34 | 25 | 28 |
| 13 | 105 | 65 | 270 | 100 | 351 | 290 | 265 | 335 | 125 | 30 | 22 | 22 |
| 14 | 114 | 69 | 255 | 100 | 290 | 255 | 250 | 265 | 340 | 26 | 20 | 22 |
| 15 | 105 | 67 | 227 | 110 | 260 | 236 | 223 | 218 | 188 | 25 | 19 | 56 |
| 16 | 103 | 63 | 196 | 110 | 240 | 205 | 205 | 214 | 129 | 22 | 17 | 89 |
| 17 | 97 | 61 | 172 | 110 | 227 | 192 | 196 | 200 | 108 | 20 | 17 | 54 |
| 18 | 87 | 79 | 164 | 110 | 250 | 205 | 184 | 180 | 94 | 19 | 16 | 42 |
| 19 | 81 | 886 | 160 | 105 | 430 | 255 | 310 | 164 | 81 | 18 | 17 | 37 |
| 20 | 76 | 1,250 | 146 | 100 | 534 | 335 | 660 | 150 | 74 | 63 | 28 | 33 |
| 21 | 94 | 1,170 | 139 | 100 | 367 | 356 | 674 | 139 | 69 | 132 | 63 | 29 |
| 22 | 92 | 716 | 130 | 96 | 300 | 340 | 478 | 125 | 67 | 61 | 65 | 25 |
| 23 | 84 | 611 | 130 | 94 | 260 | 335 | 400 | 128 | 63 | 44 | 150 | 22 |
| 24 | 74 | 569 | 120 | 94 | 250 | 315 | 2,740 | 122 | 56 | 42 | 89 | 21 |
| 25 | 69 | 496 | 120 | 100 | 230 | 290 | 2,060 | 119 | 56 | 39 | 52 | 22 |
| 26 | 69 | 424 | 115 | 150 | 220 | 424 | 1,730 | 122 | 56 | 34 | 37 | 25 |
| 27 | 65 | 362 | 115 | 250 | 214 | 604 | 1,010 | 114 | 56 | 67 | 29 | 34 |
| 28 | 63 | 310 | 114 | 500 | 192 | 484 | 765 | 114 | 63 | 157 | 25 | 40 |
| 29 | 58 | 270 | 111 | 1,100 | ------ | 406 | 1,400 | 97 | 52 | 92 | 21 | 34 |
| 30 | 56 | 241 | 122 | 2,110 | ------ | 356 | 1,480 | 94 | 44 | 63 | 19 | 29 |
| 31 | 56 | ------ | 129 | 1,820 | ------ | 310 | ------ | 92 | ------ | 58 | 17 | ------ |
| TOTAL | 2,219 | 8,598 | 6,953 | 8,525 | 11,247 | 14,412 | 25,535 | 7,071 | 3,113 | 1,432 | 1,247 | 1,227 |
| MEAN | 71.6 | 287 | 224 | 275 | 402 | 465 | 851 | 228 | 104 | 46.2 | 40.2 | 40.9 |
| MAX | 114 | 1,250 | 758 | 2,110 | 942 | 1,680 | 3,310 | 744 | 340 | 157 | 150 | 214 |
| MIN | 47 | 61 | 111 | 94 | 192 | 168 | 184 | 92 | 44 | 18 | 16 | 13 |
| CFSM | .24 | .95 | .74 | .91 | 1.33 | 1.53 | 2.81 | .75 | .34 | .15 | .13 | .14 |
| IN. | .27 | 1.06 | .85 | 1.05 | 1.38 | 1.77 | 3.13 | .87 | .38 | .18 | .15 | .15 |

CAL YR 1969 TOTAL 148,348 MEAN 406 MAX 5,660 MIN 47 CFSM 1.34 IN 18.21
WAT YR 1970 TOTAL 91,579 MEAN 251 MAX 3,310 MIN 13 CFSM .83 IN 11.24

PEAK DISCHARGE (BASE, 2,500 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-02 | 0645 | 5.32 | 3,860 | 04-29 | 2045 | 5.96 | 4,740 |
| 04-24 | 1015 | 5.27 | 3,790 | | | | |

03363900 Flatrock River at Columbus, Ind.

LOCATION.--Lat 39°14'06", long 85°55'36", in SW¼ sec.12, T.9 N., R.5 E., Bartholomew County, on left bank at downstream side of U.S. Highway 31 (bypass) bridge, 0.2 mile northwest of Columbus city limits, and 2.6 miles upstream from mouth.

DRAINAGE AREA.--534 sq mi.

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 610.14 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 6,060 cfs Apr. 25 (gage height, 10.81 ft); minimum, 44 cfs July 14 (due to construction downstream); minimum gage-height, 2.65 ft Sept. 25, 26.
Period of record: Maximum discharge, 20,000 cfs May 25, 1968 (gage height, 15.87 ft, from inside high-water mark); minimum daily, 22 cfs Oct. 5, 1967.

REMARKS.--Records fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 136 | 110 | 390 | 255 | 2,090 | 338 | 532 | 2,190 | 181 | 104 | 140 | 58 |
| 2 | 136 | 118 | 365 | 250 | 1,580 | 337 | 2,510 | 1,280 | 179 | 97 | 100 | 55 |
| 3 | 134 | 135 | 334 | 246 | 2,050 | 522 | 4,410 | 909 | 210 | 96 | 150 | 58 |
| 4 | 129 | 148 | 316 | 235 | 1,300 | 1,110 | 2,710 | 729 | 218 | 93 | 210 | 57 |
| 5 | 124 | 143 | 290 | 217 | 900 | 2,600 | 1,750 | 617 | 247 | 92 | 170 | 55 |
| 6 | 119 | 137 | 269 | 200 | 700 | 2,390 | 1,270 | 542 | 271 | 91 | 116 | 58 |
| 7 | 116 | 132 | 285 | 190 | 620 | 1,740 | 1,020 | 491 | 271 | 87 | 94 | 56 |
| 8 | 113 | 128 | 850 | 180 | 675 | 1,220 | 825 | 461 | 247 | 88 | 83 | 73 |
| 9 | 109 | 124 | 1,070 | 170 | 830 | 950 | 730 | 438 | 216 | 87 | 84 | 223 |
| 10 | 110 | 120 | 811 | 170 | 929 | 785 | 655 | 417 | 195 | 81 | 76 | 175 |
| 11 | 120 | 118 | 639 | 160 | 848 | 660 | 592 | 403 | 181 | 83 | 72 | 126 |
| 12 | 135 | 117 | 539 | 160 | 740 | 584 | 556 | 404 | 173 | 86 | 72 | 100 |
| 13 | 148 | 118 | 457 | 160 | 643 | 544 | 536 | 429 | 167 | 82 | 68 | 85 |
| 14 | 174 | 116 | 418 | 160 | 566 | 504 | 516 | 444 | 220 | 77 | 65 | 74 |
| 15 | 180 | 117 | 396 | 170 | 500 | 479 | 490 | 397 | 344 | 73 | 62 | 60 |
| 16 | 177 | 118 | 361 | 180 | 440 | 451 | 462 | 375 | 246 | 67 | 59 | 61 |
| 17 | 172 | 115 | 329 | 180 | 410 | 420 | 444 | 362 | 207 | 64 | 57 | 99 |
| 18 | 160 | 135 | 308 | 190 | 425 | 423 | 430 | 344 | 184 | 60 | 54 | 90 |
| 19 | 150 | 535 | 299 | 190 | 468 | 458 | 455 | 323 | 168 | 60 | 53 | 80 |
| 20 | 139 | 1,920 | 286 | 180 | 651 | 560 | 740 | 302 | 155 | 60 | 68 | 72 |
| 21 | 139 | 1,870 | 269 | 180 | 573 | 592 | 1,010 | 285 | 143 | 76 | 61 | 69 |
| 22 | 149 | 1,390 | 260 | 170 | 489 | 580 | 830 | 270 | 137 | 170 | 87 | 65 |
| 23 | 150 | 1,000 | 250 | 170 | 451 | 568 | 680 | 258 | 130 | 127 | 135 | 62 |
| 24 | 140 | 902 | 236 | 170 | 410 | 552 | 2,180 | 246 | 126 | 105 | 195 | 60 |
| 25 | 130 | 797 | 236 | 230 | 390 | 528 | 5,120 | 235 | 133 | 92 | 158 | 58 |
| 26 | 122 | 688 | 230 | 520 | 380 | 580 | 3,340 | 230 | 125 | 80 | 120 | 58 |
| 27 | 118 | 586 | 220 | 640 | 360 | 825 | 2,290 | 226 | 122 | 150 | 97 | 61 |
| 28 | 114 | 508 | 220 | 695 | 340 | 810 | 1,580 | 213 | 118 | 220 | 84 | 63 |
| 29 | 110 | 456 | 222 | 2,200 | ------ | 685 | 1,280 | 201 | 118 | 190 | 76 | 67 |
| 30 | 108 | 419 | 229 | 3,840 | ------ | 608 | 3,680 | 192 | 112 | 150 | 68 | 69 |
| 31 | 108 | ------ | 249 | 3,220 | ------ | 556 | ------ | 186 | ------ | 150 | 62 | ------ |
| TOTAL | 4,169 | 13,320 | 11,633 | 15,878 | 20,758 | 23,959 | 43,623 | 14,399 | 5,544 | 3,138 | 2,996 | 2,347 |
| MEAN | 134 | 444 | 375 | 512 | 741 | 773 | 1,454 | 464 | 185 | 101 | 96.6 | 78.2 |
| MAX | 180 | 1,920 | 1,070 | 3,840 | 2,090 | 2,600 | 5,120 | 2,190 | 344 | 220 | 210 | 223 |
| MIN | 108 | 110 | 220 | 160 | 340 | 337 | 430 | 186 | 112 | 60 | 53 | 55 |
| CFSM | .25 | .83 | .70 | .96 | 1.39 | 1.45 | 2.72 | .87 | .35 | .19 | .18 | .15 |
| IN. | .29 | .93 | .81 | 1.11 | 1.45 | 1.67 | 3.04 | 1.00 | .39 | .22 | .21 | .16 |

CAL YR 1969 TOTAL 247,660 MEAN 679 MAX 10,300 MIN 108 CFSM 1.27 IN 17.25
WAT YR 1970 TOTAL 161,764 MEAN 443 MAX 5,120 MIN 53 CFSM .83 IN 11.27

PEAK DISCHARGE (BASE, 3,500 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 01-30 | 0400 | 9.75 | 4,300 | 04-25 | 0700 | 10.81 | 6,060 |
| 04-03 | 0715 | 10.34 | 5,270 | 04-30 | 1800 | 10.55 | 5,520 |

## 03364000 East Fork White River at Columbus, Ind.

LOCATION.--Lat 39°12'00", long 85°55'32", in NW¼ sec.25, T.9 N., R.5 E., Bartholomew County, on left bank at abutment of abandoned bridge at west end of Second Street in Columbus, 0.6 mile downstream from confluence of Driftwood River and Flatrock River, and 1.3 miles upstream from Haw Creek.

DRAINAGE AREA.--1,707 sq mi.

PERIOD OF RECORD.--October 1947 to current year. Prior to January 1948 monthly discharge only, published in WSP 1305.

GAGE.--Water-stage recorder above concrete control. Datum of gage is 603.12 ft above mean sea level. Prior to Oct. 22, 1952, non-recording gage 600 ft upstream at same datum.

AVERAGE DISCHARGE.--23 years, 1,802 cfs (14.34 inches per year).

EXTREMES.--Current year: Maximum discharge, 10,700 cfs Apr. 25 (gage height, 5.67 ft); minimum, 224 cfs Sept. 2, 3 (gage height, 1.19 ft).
Period of record: Maximum discharge, 52,300 cfs Mar. 6, 1963 (gage height, 16.23 ft); minimum, 87 cfs Sept. 29, Oct. 7, 1954.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1335: 1948-49. WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 414 | 547 | 1,500 | 904 | 7,860 | 1,320 | 2,070 | 4,880 | 668 | 412 | 638 | 235 |
| 2 | 418 | 650 | 1,400 | 889 | 5,110 | 1,340 | 5,980 | 3,320 | 679 | 396 | 572 | 229 |
| 3 | 422 | 734 | 1,270 | 864 | 5,720 | 1,960 | 7,180 | 2,550 | 753 | 401 | 497 | 246 |
| 4 | 423 | 714 | 1,200 | 832 | 5,810 | 3,310 | 5,570 | 2,120 | 914 | 407 | 485 | 259 |
| 5 | 417 | 682 | 1,110 | 780 | 4,650 | 5,460 | 4,120 | 1,870 | 984 | 455 | 493 | 309 |
| 6 | 401 | 666 | 1,040 | 700 | 2,920 | 6,430 | 3,230 | 1,660 | 1,140 | 418 | 423 | 315 |
| 7 | 398 | 645 | 1,290 | 640 | 2,280 | 5,390 | 2,730 | 1,510 | 1,160 | 393 | 383 | 278 |
| 8 | 406 | 614 | 2,440 | 600 | 2,290 | 3,980 | 2,280 | 1,420 | 1,020 | 405 | 361 | 265 |
| 9 | 415 | 599 | 3,100 | 580 | 2,830 | 3,230 | 2,050 | 1,350 | 876 | 388 | 364 | 370 |
| 10 | 420 | 572 | 2,540 | 560 | 3,410 | 2,700 | 1,890 | 1,290 | 777 | 370 | 344 | 339 |
| 11 | 465 | 541 | 2,090 | 540 | 3,180 | 2,280 | 1,770 | 1,250 | 714 | 403 | 331 | 291 |
| 12 | 672 | 532 | 1,800 | 540 | 2,780 | 2,020 | 1,670 | 1,270 | 670 | 425 | 320 | 265 |
| 13 | 1,420 | 552 | 1,560 | 540 | 2,390 | 1,870 | 1,620 | 1,310 | 639 | 397 | 329 | 250 |
| 14 | 1,470 | 569 | 1,430 | 540 | 2,060 | 1,770 | 1,580 | 1,380 | 753 | 367 | 322 | 254 |
| 15 | 1,380 | 556 | 1,350 | 540 | 1,850 | 1,670 | 1,510 | 1,240 | 950 | 346 | 310 | 281 |
| 16 | 1,190 | 506 | 1,240 | 560 | 1,700 | 1,560 | 1,400 | 1,200 | 780 | 329 | 316 | 291 |
| 17 | 997 | 494 | 1,130 | 580 | 1,580 | 1,470 | 1,340 | 1,220 | 695 | 317 | 296 | 321 |
| 18 | 845 | 696 | 1,070 | 620 | 1,560 | 1,490 | 1,300 | 1,150 | 632 | 305 | 272 | 317 |
| 19 | 745 | 3,910 | 1,040 | 640 | 1,850 | 1,650 | 1,580 | 1,060 | 581 | 301 | 262 | 313 |
| 20 | 683 | 6,580 | 1,000 | 620 | 2,660 | 2,100 | 2,370 | 989 | 541 | 308 | 338 | 291 |
| 21 | 670 | 7,900 | 956 | 620 | 2,370 | 2,130 | 3,030 | 933 | 513 | 378 | 303 | 286 |
| 22 | 662 | 5,590 | 944 | 600 | 1,970 | 2,020 | 2,730 | 891 | 491 | 515 | 363 | 272 |
| 23 | 634 | 4,170 | 942 | 600 | 1,790 | 1,940 | 2,310 | 848 | 476 | 434 | 409 | 259 |
| 24 | 586 | 3,820 | 874 | 600 | 1,670 | 1,870 | 6,930 | 814 | 464 | 399 | 411 | 255 |
| 25 | 549 | 3,330 | 849 | 640 | 1,620 | 1,790 | 10,300 | 800 | 479 | 388 | 370 | 251 |
| 26 | 529 | 2,830 | 852 | 1,250 | 1,560 | 2,160 | 9,980 | 799 | 492 | 381 | 329 | 259 |
| 27 | 513 | 2,400 | 816 | 1,870 | 1,480 | 3,470 | 6,660 | 767 | 479 | 392 | 304 | 258 |
| 28 | 497 | 2,080 | 792 | 2,250 | 1,420 | 3,200 | 4,650 | 727 | 467 | 398 | 287 | 258 |
| 29 | 482 | 1,830 | 791 | 5,320 | ------ | 2,630 | 3,720 | 696 | 456 | 658 | 273 | 259 |
| 30 | 471 | 1,670 | 830 | 9,250 | ------ | 2,280 | 5,820 | 677 | 431 | 713 | 262 | 259 |
| 31 | 473 | ------ | 895 | 10,300 | ------ | 2,000 | ------ | 660 | ------ | 608 | 248 | ------ |
| TOTAL | 20,067 | 56,979 | 40,141 | 46,369 | 78,370 | 78,490 | 109,370 | 42,651 | 20,674 | 12,807 | 11,215 | 8,335 |
| MEAN | 647 | 1,899 | 1,295 | 1,496 | 2,799 | 2,532 | 3,646 | 1,376 | 689 | 413 | 362 | 278 |
| MAX | 1,470 | 7,900 | 3,100 | 10,300 | 7,860 | 6,430 | 10,300 | 4,880 | 1,160 | 713 | 638 | 370 |
| MIN | 398 | 494 | 791 | 540 | 1,420 | 1,320 | 1,300 | 660 | 431 | 301 | 248 | 229 |
| CFSM | .38 | 1.11 | .76 | .88 | 1.64 | 1.48 | 2.14 | .81 | .40 | .24 | .21 | .16 |
| IN. | .44 | 1.24 | .87 | 1.01 | 1.71 | 1.71 | 2.38 | .93 | .45 | .28 | .24 | .18 |

CAL YR 1969 TOTAL 775,949 MEAN 2,126 MAX 26,400 MIN 387 CFSM 1.25 IN 16.91
WAT YR 1970 TOTAL 525,468 MEAN 1,440 MAX 10,300 MIN 229 CFSM .84 IN 11.45

PEAK DISCHARGE (BASE, 10,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 01-31 | 1030 | 5.60 | 10,500 | 04-25 | 1130 | 5.67 | 10,700 |

03364200 Haw Creek near Clifford, Ind.

LOCATION.--Lat 39°16'04", long 85°51'22", in NW¼SW¼ sec.34, T.10 N., R.6 E., Bartholomew County, on left bank 20 ft downstream from bridge on County Road 450 North, 1.2 miles southeast of Clifford, 5.8 miles northeast of Columbus, and 7.4 miles upstream from mouth.

DRAINAGE AREA.--47.5 sq mi.

PERIOD OF RECORD.--August 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 643.00 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 2,480 cfs Apr. 2 (gage height, 13.56 ft); minimum, 0.76 cfs Sept. 12 (gage height, 1.35 ft).
Period of record: Maximum discharge, 2,560 cfs May 24, 1968 (gage height, 13.9 ft, from floodmark); no flow for part or all of each day Sept. 15, 22-30, Oct. 1, 6-15, 17-31, 1967, diversion of stream flow to ground water resulting from irrigation pumpage.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.1 | 6.6 | 20 | 31 | 75 | 21 | 179 | 86 | 13 | 2.9 | 1.6 | 1.0 |
| 2 | 4.0 | 8.4 | 17 | 30 | 227 | 42 | 1,740 | 69 | 13 | 2.6 | 1.6 | 1.0 |
| 3 | 4.4 | 7.1 | 17 | 31 | 120 | 93 | 278 | 60 | 15 | 3.2 | 1.5 | 1.6 |
| 4 | 4.0 | 8.4 | 15 | 32 | 70 | 277 | 167 | 55 | 15 | 2.9 | 1.3 | 2.8 |
| 5 | 4.0 | 9.5 | 16 | 30 | 48 | 242 | 123 | 49 | 17 | 2.7 | 1.3 | 1.6 |
| 6 | 4.0 | 9.5 | 13 | 27 | 46 | 116 | 102 | 45 | 16 | 2.6 | 1.2 | 1.0 |
| 7 | 4.4 | 8.0 | 65 | 22 | 48 | R2 | 84 | 42 | 11 | 2.7 | 1.2 | 1.0 |
| 8 | 5.0 | 6.6 | 79 | 18 | 69 | 66 | 72 | 42 | 9.0 | 3.4 | 1.1 | 1.0 |
| 9 | 5.1 | 6.6 | 48 | 16 | 96 | 55 | 68 | 39 | 8.4 | 4.2 | 1.3 | 1.0 |
| 10 | 4.7 | 6.2 | 37 | 15 | 83 | 45 | 58 | 39 | 7.9 | 3.6 | 1.3 | .97 |
| 11 | 10 | 6.6 | 33 | 14 | 75 | 39 | 53 | 40 | 6.6 | 3.2 | 1.2 | .97 |
| 12 | 17 | 6.6 | 29 | 13 | 62 | 35 | 48 | 45 | 5.8 | 2.9 | 1.1 | .86 |
| 13 | 12 | 6.2 | 23 | 13 | 50 | 34 | 48 | 39 | 5.5 | 2.7 | 1.1 | 1.0 |
| 14 | 9.5 | 5.4 | 23 | 13 | 43 | 33 | 42 | 37 | 5.8 | 2.9 | 1.2 | 1.2 |
| 15 | 8.9 | 5.4 | 20 | 13 | 37 | 32 | 37 | 34 | 5.2 | 2.6 | 1.1 | 1.0 |
| 16 | 7.1 | 5.8 | 17 | 9.6 | 33 | 31 | 36 | 33 | 4.9 | 2.4 | 1.1 | .86 |
| 17 | 5.8 | 6.2 | 17 | 11 | 33 | 32 | 33 | 31 | 4.7 | 2.4 | 1.2 | .91 |
| 18 | 5.1 | 13 | 16 | 20 | 36 | 37 | 30 | 29 | 4.2 | 2.3 | 1.1 | 1.1 |
| 19 | 4.7 | 272 | 16 | 24 | 40 | 75 | 73 | 28 | 3.8 | 2.1 | 1.0 | .97 |
| 20 | 4.7 | 121 | 14 | 24 | 33 | 74 | 112 | 25 | 3.8 | 2.3 | 1.1 | .97 |
| 21 | 6.6 | 69 | 16 | 22 | 28 | 57 | 74 | 23 | 3.6 | 2.3 | 1.2 | 1.1 |
| 22 | 5.8 | 57 | 15 | 18 | 27 | 54 | 56 | 22 | 3.4 | 2.0 | .91 | 1.0 |
| 23 | 4.7 | 58 | 15 | 15 | 26 | 55 | 54 | 21 | 3.6 | 2.7 | 4.0 | .97 |
| 24 | 4.4 | 45 | 14 | 14 | 25 | 50 | 1,180 | 19 | 3.4 | 2.4 | 12 | 1.2 |
| 25 | 4.4 | 40 | 14 | 13 | 25 | 46 | 286 | 18 | 9.0 | 2.1 | 8.0 | 1.2 |
| 26 | 4.7 | 34 | 14 | 90 | 24 | 75 | 165 | 17 | 6.2 | 2.1 | 4.0 | 1.3 |
| 27 | 5.1 | 29 | 11 | 70 | 23 | 60 | 119 | 16 | 4.4 | 2.1 | 2.0 | 1.4 |
| 28 | 4.7 | 26 | 12 | 80 | 22 | 49 | 104 | 13 | 3.6 | 2.3 | 1.5 | 1.4 |
| 29 | 4.4 | 23 | 16 | 466 | ------ | 46 | 100 | 13 | 3.2 | 1.9 | 1.0 | 1.6 |
| 30 | 4.4 | 22 | 24 | 157 | ------ | 43 | 122 | 12 | 3.2 | 1.8 | 1.0 | 1.5 |
| 31 | 5.8 | ------ | 32 | 95 | ------ | 41 | ------ | 13 | ------ | 1.8 | 1.0 | ------ |
| TOTAL | 182.5 | 928.1 | 718 | 1,446.6 | 1,524 | 2,037 | 5,643 | 1,054 | 219.2 | 80.1 | 61.21 | 35.48 |
| MEAN | 5.89 | 30.9 | 23.2 | 46.7 | 54.4 | 65.7 | 188 | 34.0 | 7.31 | 2.58 | 1.97 | 1.18 |
| MAX | 17 | 272 | 79 | 466 | 227 | 277 | 1,740 | 86 | 17 | 4.2 | 12 | 2.8 |
| MIN | 3.1 | 5.4 | 11 | 9.6 | 22 | 21 | 30 | 12 | 3.2 | 1.8 | .91 | .86 |
| CFSM | .12 | .65 | .49 | .98 | 1.15 | 1.38 | 3.96 | .72 | .15 | .054 | .042 | .025 |
| IN. | .14 | .73 | .56 | 1.13 | 1.19 | 1.60 | 4.42 | .83 | .17 | .06 | .05 | .03 |

CAL YR 1969 TOTAL 17,751.00 MEAN 48.6 MAX 1,400 MIN 3.1 CFSM 1.02 IN 13.90
WAT YR 1970 TOTAL 13,929.19 MEAN 38.2 MAX 1,740 MIN .86 CFSM .80 IN 10.91

PEAK DISCHARGE (BASE, 600 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 01-29 | 0845 | 8.34 | 915 | 04-24 | 0900 | 12.45 | 2,010 |
| 04-02 | 0445 | 13.56 | 2,480 | | | | |

## 03364500 Clifty Creek at Hartsville, Ind.

LOCATION.--Lat 39°16'25", long 85°42'10", in NW¼ sec.36, T.10 N., R.7 E., Bartholomew County, at downstream side of left abutment of highway bridge, 0.2 mile north of Hartsville, and 5 miles upstream from Duck Creek.

DRAINAGE AREA.--91.4 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 677.34 ft above mean sea level. Prior to Sept. 24, 1952, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--22 years, 97.2 cfs (14.44 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,960 cfs Apr. 2 (gage height, 10.29 ft); minimum, no flow for part of July 22, Sept. 11.
Period of record: Maximum discharge, 11,300 cfs Jan. 21, 1959 (gage height, 14.29 ft); no flow at times most years. Flood in 1913 reached a stage of 25.1 ft, from floodmarks.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1335: 1950. WSP 1725: 1949(M). WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.6 | 6.1 | 34 | 46 | 172 | 41 | 326 | 289 | 13 | 2.6 | 4.4 | 1.4 |
| 2 | 5.5 | 7.8 | 31 | 44 | 293 | 76 | 3,670 | 185 | 14 | 1.9 | 3.3 | .67 |
| 3 | 5.9 | 7.0 | 28 | 40 | 290 | 201 | 573 | 136 | 19 | 1.7 | 2.5 | 1.1 |
| 4 | 5.7 | 7.1 | 27 | 36 | 150 | 801 | 306 | 110 | 23 | 1.5 | 14 | 1.7 |
| 5 | 6.0 | 6.8 | 24 | 33 | 110 | 748 | 220 | 92 | 26 | 1.2 | 24 | 1.0 |
| 6 | 5.8 | 6.1 | 23 | 30 | 99 | 326 | 177 | 76 | 34 | .98 | 11 | .67 |
| 7 | 6.4 | 4.8 | 80 | 28 | 97 | 220 | 136 | 67 | 27 | 1.3 | 5.1 | .45 |
| 8 | 6.6 | 4.2 | 221 | 26 | 138 | 169 | 114 | 63 | 20 | 2.0 | 3.3 | .27 |
| 9 | 6.2 | 4.1 | 130 | 25 | 174 | 135 | 102 | 55 | 15 | 1.9 | 2.7 | .13 |
| 10 | 5.6 | 3.6 | 96 | 24 | 153 | 110 | 86 | 52 | 12 | 1.6 | 1.8 | .10 |
| 11 | 10 | 3.6 | 80 | 23 | 136 | 92 | 77 | 51 | 11 | 1.5 | 1.5 | .06 |
| 12 | 16 | 3.3 | 63 | 22 | 116 | 84 | 72 | 59 | 10 | 1.3 | 1.1 | 1.0 |
| 13 | 12 | 3.4 | 52 | 22 | 100 | 79 | 69 | 106 | 21 | 1.1 | 1.1 | .55 |
| 14 | 15 | 3.6 | 51 | 23 | 83 | 70 | 65 | 85 | 96 | 1.1 | 1.1 | 2.1 |
| 15 | 11 | 3.6 | 46 | 24 | 70 | 62 | 57 | 61 | 37 | 1.1 | .70 | 2.7 |
| 16 | 8.3 | 3.2 | 39 | 27 | 62 | 60 | 53 | 57 | 23 | .72 | .56 | .67 |
| 17 | 6.5 | 3.1 | 36 | 30 | 60 | 60 | 51 | 50 | 16 | .54 | .55 | .21 |
| 18 | 5.3 | 18 | 35 | 54 | 69 | 71 | 48 | 41 | 13 | .35 | .45 | .16 |
| 19 | 4.7 | 295 | 34 | 60 | 87 | 115 | 65 | 36 | 9.8 | .17 | .37 | .27 |
| 20 | 5.1 | 216 | 31 | 50 | 62 | 179 | 128 | 33 | 8.2 | .14 | 4.2 | .45 |
| 21 | 6.7 | 116 | 29 | 40 | 54 | 144 | 107 | 29 | 6.9 | .11 | 9.8 | 1.0 |
| 22 | 5.4 | 85 | 27 | 32 | 56 | 126 | 80 | 26 | 6.4 | 4.8 | 32 | .67 |
| 23 | 8.3 | 84 | 26 | 28 | 54 | 122 | 84 | 24 | 5.9 | 6.2 | 24 | .27 |
| 24 | 9.0 | 75 | 25 | 25 | 50 | 110 | 1,700 | 23 | 5.1 | 3.5 | 21 | .21 |
| 25 | 6.8 | 64 | 25 | 31 | 50 | 101 | 588 | 21 | 6.8 | 2.0 | 17 | .27 |
| 26 | 5.3 | 56 | 25 | 210 | 47 | 158 | 301 | 18 | 4.9 | 1.6 | 11 | 4.9 |
| 27 | 4.6 | 48 | 26 | 200 | 44 | 150 | 212 | 17 | 4.4 | 1.6 | 6.8 | 4.1 |
| 28 | 3.9 | 43 | 25 | 180 | 44 | 120 | 172 | 15 | 3.6 | 39 | 5.1 | 1.8 |
| 29 | 3.3 | 38 | 27 | 1,280 | ------ | 106 | 281 | 14 | 3.1 | 27 | 3.2 | .77 |
| 30 | 3.2 | 35 | 38 | 422 | ------ | 94 | 834 | 13 | 3.1 | 12 | 2.0 | .55 |
| 31 | 3.5 | ------ | 48 | 225 | ------ | 84 | ------ | 13 | ------ | 7.2 | 1.7 | ------ |
| TOTAL | 211.2 | 1,254.4 | 1,482 | 3,340 | 2,920 | 5,014 | 10,754 | 1,917 | 498.2 | 129.71 | 217.33 | 30.20 |
| MEAN | 6.81 | 41.8 | 47.8 | 108 | 104 | 162 | 358 | 61.8 | 16.6 | 4.18 | 7.01 | 1.01 |
| MAX | 16 | 295 | 221 | 1,280 | 293 | 801 | 3,670 | 289 | 96 | 39 | 32 | 4.9 |
| MIN | 3.2 | 3.1 | 23 | 22 | 44 | 41 | 48 | 13 | 3.1 | .11 | .37 | .06 |
| CFSM | .075 | .46 | .52 | 1.18 | 1.14 | 1.77 | 3.92 | .68 | .18 | .046 | .077 | .011 |
| IN. | .09 | .51 | .60 | 1.36 | 1.19 | 2.04 | 4.38 | .78 | .20 | .05 | .09 | .01 |

CAL YR 1969 TOTAL 31,909.50 MEAN 87.4 MAX 2,490 MIN 1.2 CFSM .96 IN 12.99
WAT YR 1970 TOTAL 27,768.04 MEAN 76.1 MAX 3,670 MIN .06 CFSM .83 IN 11.30

PEAK DISCHARGE (BASE, 1,300 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 01-29 | 0545 | 5.99 | 1,820 | 04-24 | 1700 | 6.80 | 2,280 |
| 04-02 | 1430 | 10.29 | 4,960 | 04-30 | 0430 | 5.30 | 1,440 |

## 03365000 Sand Creek near Brewersville, Ind.

LOCATION.--Lat 39°05'03", long 85°39'32", in NW¼ sec.5, T.7 N., R.8 E., Jennings County, on left bank at downstream side of county highway bridge, 2.5 miles west of Brewersville, 5.7 miles upstream from Wyaloosing Creek, and 16 miles upstream from mouth.

DRAINAGE AREA.--155 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 630 ft (by barometer). Prior to Oct. 6, 1952, nonrecording gage at site 1.7 miles upstream at datum approximately 8 ft higher.

AVERAGE DISCHARGE.--22 years, 165 cfs (14.45 inches per year).

EXTREMES.--Current year: Maximum discharge, 9,410 cfs Apr. 2 (gage height, 15.74 ft); minimum, 0.78 cfs Sept. 3, 13, 18; minimum gage height, 0.63 ft Aug. 15.
Period of record: Maximum discharge, 19,900 cfs Jan. 21, 1959 (gage height, 21.70 ft inside, 22.20 ft outside), from rating curve extended above 6,500 cfs on basis of contracted-opening measurement of peak flow; no flow at times most years.

REMARKS.--Records good except those for winter periods, which are fair. Records for suspended sediment loads for current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1335: 1949. WRD Ind. 1968: Drainage area. WRD Ind. 1969: 1968.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.6 | 9.7 | 30 | 173 | 223 | 57 | 191 | 518 | 13 | 4.3 | 6.2 | 1.5 |
| 2 | 3.0 | 16 | 28 | 133 | 729 | 263 | 6,640 | 293 | 13 | 3.5 | 4.0 | 1.0 |
| 3 | 3.5 | 25 | 26 | 94 | 540 | 733 | 971 | 197 | 55 | 3.3 | 3.8 | 1.0 |
| 4 | 3.3 | 26 | 22 | 78 | 220 | 2,380 | 452 | 151 | 97 | 3.3 | 3.1 | 1.6 |
| 5 | 3.1 | 18 | 22 | 62 | 160 | 1,230 | 318 | 124 | 71 | 2.9 | 2.6 | 1.8 |
| 6 | 3.3 | 16 | 20 | 52 | 145 | 527 | 248 | 100 | 126 | 2.8 | 1.8 | 1.5 |
| 7 | 4.3 | 14 | 294 | 41 | 145 | 340 | 199 | 82 | 69 | 2.8 | 1.7 | 1.3 |
| 8 | 4.7 | 11 | 488 | 33 | 355 | 250 | 157 | 75 | 43 | 3.8 | 1.9 | 1.0 |
| 9 | 4.7 | 11 | 199 | 30 | 470 | 197 | 137 | 69 | 28 | 12 | 3.5 | 1.0 |
| 10 | 5.3 | 10 | 126 | 28 | 340 | 161 | 115 | 63 | 24 | 7.4 | 3.1 | 1.5 |
| 11 | 29 | 8.8 | 100 | 28 | 278 | 133 | 102 | 60 | 19 | 7.9 | 2.6 | 1.3 |
| 12 | 31 | 7.7 | 86 | 28 | 215 | 117 | 90 | 67 | 17 | 6.6 | 1.9 | 1.0 |
| 13 | 39 | 7.6 | 69 | 29 | 150 | 110 | 85 | 72 | 16 | 5.2 | 1.6 | .85 |
| 14 | 19 | 8.2 | 60 | 30 | 120 | 100 | 86 | 60 | 14 | 3.8 | 1.4 | 1.0 |
| 15 | 9.5 | 9.8 | 61 | 33 | 100 | 100 | 77 | 55 | 13 | 2.9 | 1.4 | 1.5 |
| 16 | 6.4 | 9.4 | 54 | 38 | 86 | 105 | 70 | 49 | 12 | 2.5 | 1.5 | 1.3 |
| 17 | 5.1 | 9.6 | 49 | 45 | 80 | 109 | 65 | 47 | 12 | 2.2 | 1.9 | .92 |
| 18 | 4.3 | 26 | 46 | 75 | 141 | 141 | 60 | 43 | 12 | 2.1 | 1.6 | 1.1 |
| 19 | 5.0 | 696 | 43 | 95 | 260 | 617 | 65 | 35 | 10 | 1.8 | 11 | 2.1 |
| 20 | 7.5 | 324 | 41 | 66 | 143 | 775 | 233 | 33 | 8.8 | 1.9 | 11 | 1.7 |
| 21 | 37 | 143 | 37 | 47 | 88 | 373 | 179 | 30 | 7.9 | 2.1 | 3.8 | 1.5 |
| 22 | 28 | 97 | 34 | 40 | 80 | 308 | 119 | 28 | 6.6 | 1.7 | 2.9 | 1.5 |
| 23 | 21 | 83 | 32 | 33 | 74 | 343 | 126 | 24 | 5.5 | 1.8 | 11 | 1.5 |
| 24 | 15 | 77 | 30 | 28 | 70 | 238 | 5,030 | 21 | 5.5 | 2.1 | 29 | 1.8 |
| 25 | 9.6 | 66 | 29 | 50 | 66 | 250 | 974 | 19 | 13 | 1.9 | 20 | 2.1 |
| 26 | 6.7 | 56 | 28 | 350 | 64 | 581 | 443 | 18 | 7.4 | 1.9 | 10 | 2.1 |
| 27 | 5.8 | 49 | 27 | 310 | 60 | 335 | 305 | 16 | 5.9 | 2.9 | 5.9 | 2.2 |
| 28 | 5.5 | 43 | 27 | 280 | 58 | 223 | 323 | 15 | 6.6 | 5.2 | 3.8 | 21 |
| 29 | 4.8 | 37 | 29 | 1,730 | ------ | 187 | 350 | 14 | 8.8 | 11 | 2.5 | 9.2 |
| 30 | 4.3 | 34 | 56 | 596 | ------ | 179 | 2,520 | 13 | 5.5 | 17 | 1.8 | 4.5 |
| 31 | 4.4 | ------ | 167 | 303 | ------ | 157 | ------ | 13 | ------ | 10 | 2.1 | ------ |
| TOTAL | 335.7 | 1,948.8 | 2,360 | 4,958 | 5,460 | 11,619 | 20,730 | 2,404 | 745.5 | 140.6 | 160.4 | 73.37 |
| MEAN | 10.8 | 65.0 | 76.1 | 160 | 195 | 375 | 691 | 77.5 | 24.9 | 4.54 | 5.17 | 2.45 |
| MAX | 39 | 696 | 488 | 1,730 | 729 | 2,380 | 6,640 | 518 | 126 | 17 | 29 | 21 |
| MIN | 2.6 | 7.6 | 20 | 28 | 58 | 57 | 60 | 13 | 5.5 | 1.7 | 1.4 | .85 |
| CFSM | .070 | .42 | .49 | 1.03 | 1.26 | 2.42 | 4.46 | .50 | .16 | .029 | .033 | .016 |
| IN. | .08 | .47 | .57 | 1.19 | 1.31 | 2.79 | 4.98 | .58 | .18 | .03 | .04 | .02 |

CAL YR 1969 TOTAL 61,094.50 MEAN 167 MAX 2,260 MIN 2.6 CFSM 1.08 IN 14.66
WAT YR 1970 TOTAL 50,935.37 MEAN 140 MAX 6,640 MIN .85 CFSM .90 IN 12.22

PEAK DISCHARGE (BASE, 2,900 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 01-29 | 1000 | 8.91 | 2,900 | 04-24 | 1330 | 15.62 | 9,230 |
| 03-04 | 1015 | 9.12 | 3,020 | 04-30 | 0530 | 11.71 | 4,870 |
| 04-02 | 1030 | 15.74 | 9,410 | | | | |

## 03365500 East Fork White River at Seymour, Ind.

LOCATION.--Lat 38°58'57", long 85°53'57", in NW¼ sec.7, T.6N., R.6 E., Jackson County, on left bank 1,700 ft downstream from highway bridge, 1 mile north of Seymour, 9.6 miles downstream from Sand Creek, and at mile 219.2.

DRAINAGE AREA.--2,341 sq mi.

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.

GAGE.--Water-stage recorder. Datum of gage is 550.67 ft above mean sea level. Oct. 1, 1927, to July 2, 1931, nonrecording gage 1,700 ft upstream at datum 7.61 ft higher. July 3, 1931, to July 16, 1934, nonrecording gage at site 100 ft downstream at present datum.

AVERAGE DISCHARGE.--43 years, 2,371 cfs (13.75 inches per year).

EXTREMES.--Current year: Maximum discharge, 26,300 cfs Apr. 3 (gage height, 16.71 ft); minimum, 308 cfs Sept. 17 (gage height, 1.19 ft).
Period of record: Maximum discharge, 78,500 cfs Jan. 5, 1949 (gage height, 19.67 ft); minimum, 84 cfs Sept. 15, 1941.
Flood of Mar. 26, 1913 reached a stage of 21.0 ft, from information by Corps of Engineers and State Highway Department of Indiana (discharge, 120,000 cfs).

REMARKS.--Records good. Some regulation of low flow by Seymour Water Co. at dam 500 ft upstream from station. Records of water temperatures and suspended sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--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. WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 651 | 691 | 1,990 | 1,470 | 11,700 | 1,850 | 2,650 | 10,300 | 971 | 593 | 662 | 334 |
| 2 | 647 | 722 | 1,860 | 1,430 | 9,580 | 1,860 | 11,100 | 6,570 | 972 | 568 | 667 | 326 |
| 3 | 643 | 830 | 1,710 | 1,360 | 9,000 | 3,050 | 22,600 | 4,490 | 1,010 | 556 | 608 | 323 |
| 4 | 639 | 884 | 1,590 | 1,280 | 8,500 | 6,480 | 11,400 | 3,590 | 1,120 | 553 | 558 | 346 |
| 5 | 637 | 873 | 1,500 | 1,150 | 7,500 | 9,730 | 7,470 | 3,060 | 1,310 | 562 | 559 | 373 |
| 6 | 624 | 852 | 1,400 | 1,000 | 6,200 | 9,410 | 5,260 | 2,710 | 1,440 | 573 | 538 | 377 |
| 7 | 617 | 839 | 1,470 | 950 | 5,500 | 8,570 | 4,130 | 2,420 | 1,500 | 546 | 500 | 362 |
| 8 | 610 | 812 | 2,850 | 910 | 4,900 | 6,630 | 3,420 | 2,240 | 1,360 | 545 | 470 | 339 |
| 9 | 609 | 783 | 3,740 | 900 | 4,670 | 4,970 | 2,970 | 2,100 | 1,220 | 592 | 474 | 354 |
| 10 | 623 | 758 | 3,480 | 870 | 5,220 | 4,030 | 2,680 | 2,000 | 1,110 | 544 | 448 | 408 |
| 11 | 666 | 741 | 2,880 | 850 | 5,190 | 3,390 | 2,410 | 1,900 | 1,030 | 526 | 430 | 373 |
| 12 | 719 | 728 | 2,490 | 840 | 4,620 | 2,980 | 2,210 | 1,900 | 963 | 549 | 416 | 343 |
| 13 | 1,040 | 716 | 2,160 | 840 | 3,980 | 2,750 | 2,090 | 1,890 | 918 | 543 | 404 | 327 |
| 14 | 1,480 | 719 | 1,930 | 840 | 3,450 | 2,580 | 2,010 | 1,970 | 882 | 518 | 397 | 328 |
| 15 | 1,450 | 708 | 1,800 | 840 | 3,050 | 2,440 | 1,910 | 1,920 | 1,080 | 493 | 389 | 326 |
| 16 | 1,370 | 692 | 1,670 | 850 | 2,790 | 2,270 | 1,780 | 1,740 | 1,060 | 471 | 382 | 342 |
| 17 | 1,230 | 684 | 1,540 | 870 | 2,550 | 2,150 | 1,680 | 1,710 | 948 | 453 | 386 | 341 |
| 18 | 1,100 | 719 | 1,460 | 900 | 2,440 | 2,160 | 1,600 | 1,650 | 880 | 439 | 364 | 368 |
| 19 | 993 | 1,970 | 1,400 | 950 | 2,770 | 2,730 | 1,610 | 1,550 | 819 | 427 | 366 | 362 |
| 20 | 926 | 5,470 | 1,350 | 950 | 3,080 | 4,270 | 2,270 | 1,450 | 773 | 422 | 428 | 353 |
| 21 | 889 | 7,080 | 1,310 | 922 | 3,250 | 3,760 | 3,110 | 1,380 | 737 | 425 | 426 | 342 |
| 22 | 884 | 7,870 | 1,280 | 890 | 2,810 | 3,200 | 3,110 | 1,320 | 706 | 508 | 396 | 339 |
| 23 | 865 | 5,920 | 1,270 | 880 | 2,550 | 3,120 | 2,670 | 1,260 | 686 | 557 | 470 | 327 |
| 24 | 827 | 4,650 | 1,230 | 900 | 2,370 | 2,890 | 7,870 | 1,220 | 672 | 513 | 482 | 320 |
| 25 | 789 | 4,190 | 1,180 | 950 | 2,260 | 2,670 | 20,300 | 1,180 | 666 | 484 | 485 | 323 |
| 26 | 758 | 3,640 | 1,160 | 1,500 | 2,190 | 3,200 | 14,400 | 1,160 | 670 | 476 | 450 | 321 |
| 27 | 736 | 3,160 | 1,150 | 2,500 | 2,080 | 4,140 | 12,100 | 1,130 | 666 | 469 | 413 | 333 |
| 28 | 716 | 2,730 | 1,110 | 3,000 | 1,970 | 4,360 | 8,660 | 1,080 | 640 | 477 | 388 | 316 |
| 29 | 699 | 2,410 | 1,100 | 5,440 | ------ | 3,730 | 6,260 | 1,040 | 627 | 521 | 370 | 319 |
| 30 | 684 | 2,170 | 1,140 | 10,100 | ------ | 3,230 | 7,380 | 1,010 | 613 | 724 | 357 | 331 |
| 31 | 675 | ------ | 1,330 | 11,300 | ------ | 2,900 | ------ | 984 | ------ | 713 | 343 | ------ |
| TOTAL | 25,796 | 65,011 | 53,530 | 58,432 | 126,170 | 121,500 | 179,110 | 69,924 | 28,049 | 16,340 | 14,026 | 10,276 |
| MEAN | 832 | 2,167 | 1,727 | 1,885 | 4,506 | 3,919 | 5,970 | 2,256 | 935 | 527 | 452 | 343 |
| MAX | 1,480 | 7,870 | 3,740 | 11,300 | 11,700 | 9,730 | 22,600 | 10,300 | 1,500 | 724 | 667 | 408 |
| MIN | 609 | 684 | 1,100 | 840 | 1,970 | 1,850 | 1,600 | 984 | 613 | 422 | 343 | 316 |
| CFSM | .36 | .93 | .74 | .81 | 1.92 | 1.67 | 2.55 | .96 | .40 | .23 | .19 | .15 |
| IN. | .41 | 1.03 | .85 | .93 | 2.00 | 1.93 | 2.85 | 1.11 | .45 | .26 | .22 | .16 |

CAL YR 1969 TOTAL 1,063,042 MEAN 2,912 MAX 35,000 MIN 609 CFSM 1.24 IN 16.89
WAT YR 1970 TOTAL 768,164 MEAN 2,105 MAX 22,600 MIN 316 CFSM .90 IN 12.21

PEAK DISCHARGE (BASE, 12,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-03 | 0530 | 16.71 | 26,300 | 04-25 | 0615 | 16.28 | 23,700 |

03366000 Graham Creek near Vernon, Ind.

LOCATION.--Lat 38°55'47", long 85°33'45", in SE¼ sec.30, T.6 N., R.9 E., Jennings County, on right bank 10 ft upstream from State Highway 7, 4.7 miles southeast of Vernon, and 8.0 miles downstream from Little Graham Creek.

DRAINAGE AREA.--77.2 sq mi.

PERIOD OF RECORD.--June 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 677.47 ft above mean sea level (unadjusted). Prior to June 10, 1955, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--15 years, 89.2 cfs (15.69 inches per year).

EXTREMES.--Current year: Maximum discharge, 5,020 cfs Apr. 2 (gage height, 11.60 ft); no flow Oct. 1, 4-10.
Period of record: Maximum discharge, 18,600 cfs June 23, 1960 (gage height, 21.37 ft) from rating curve extended above 6,000 cfs on basis of contracted-opening measurements of peak flow; no flow at times most years.

REMARKS.--Records good except those for winter periods and those less than 0.5 cfs, which are fair.

REVISIONS.--WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0 | 2.6 | 9.5 | 205 | 89 | 24 | 68 | 203 | 2.9 | .54 | .34 | .34 |
| 2 | .01 | 3.2 | 9.0 | 110 | 546 | 167 | 2,870 | 97 | 9.5 | .44 | .34 | .20 |
| 3 | .01 | 2.9 | 8.0 | 79 | 610 | 806 | 395 | 67 | 67 | .44 | 3.2 | .20 |
| 4 | 0 | 3.2 | 7.0 | 50 | 110 | 1,460 | 153 | 49 | 50 | .54 | 29 | .34 |
| 5 | 0 | 4.3 | 6.5 | 31 | 60 | 850 | 100 | 39 | 139 | .44 | 9.5 | 1.1 |
| 6 | 0 | 4.7 | 6.0 | 21 | 50 | 213 | 79 | 31 | 110 | .20 | 4.7 | .87 |
| 7 | 0 | 3.9 | 316 | 14 | 49 | 115 | 64 | 25 | 52 | .12 | 2.0 | 1.1 |
| 8 | 0 | 3.9 | 499 | 10 | 147 | 83 | 50 | 22 | 30 | .44 | 1.5 | .87 |
| 9 | 0 | 4.3 | 107 | 8.2 | 280 | 67 | 43 | 20 | 20 | .99 | 3.2 | .44 |
| 10 | 0 | 3.9 | 61 | 8.0 | 167 | 53 | 37 | 19 | 14 | 1.1 | 2.6 | .20 |
| 11 | .11 | 3.5 | 45 | 7.8 | 119 | 43 | 32 | 20 | 11 | .76 | 2.0 | .12 |
| 12 | .32 | 3.5 | 37 | 8.0 | 91 | 40 | 29 | 48 | 8.5 | .65 | 1.4 | .08 |
| 13 | .42 | 3.5 | 30 | 8.4 | 60 | 38 | 27 | 31 | 8.0 | .44 | 1.1 | .05 |
| 14 | .42 | 4.3 | 25 | 9.2 | 45 | 38 | 25 | 26 | 7.0 | .34 | .87 | .08 |
| 15 | .42 | 4.3 | 22 | 10 | 36 | 38 | 24 | 25 | 6.5 | .34 | .87 | .10 |
| 16 | .32 | 4.3 | 19 | 11 | 32 | 42 | 22 | 31 | 5.1 | .25 | .99 | .12 |
| 17 | .32 | 4.7 | 16 | 15 | 30 | 60 | 20 | 34 | 4.3 | .34 | .54 | .15 |
| 18 | .17 | 7.5 | 14 | 41 | 73 | 85 | 19 | 26 | 3.9 | .25 | .44 | .34 |
| 19 | .17 | 377 | 12 | 58 | 155 | 412 | 21 | 20 | 2.9 | .25 | .34 | .44 |
| 20 | .42 | 210 | 11 | 30 | 86 | 1,030 | 79 | 15 | 2.3 | .44 | .54 | .34 |
| 21 | 1.0 | 64 | 10 | 17 | 47 | 245 | 88 | 11 | 1.7 | .34 | .34 | .25 |
| 22 | 1.0 | 39 | 9.2 | 12 | 37 | 155 | 50 | 9.5 | 1.4 | .34 | 16 | .20 |
| 23 | .68 | 34 | 8.6 | 9.0 | 35 | 210 | 53 | 8.0 | 1.1 | .65 | 80 | .87 |
| 24 | .42 | 33 | 8.2 | 8.2 | 32 | 117 | 1,810 | 6.5 | .99 | .87 | 22 | .76 |
| 25 | .42 | 29 | 7.9 | 15 | 35 | 230 | 496 | 5.5 | .87 | .76 | 20 | .54 |
| 26 | .68 | 23 | 7.4 | 100 | 38 | 1,040 | 153 | 4.7 | 1.1 | .65 | 7.5 | .65 |
| 27 | 1.0 | 19 | 7.4 | 84 | 28 | 268 | 143 | 3.5 | 1.4 | .65 | 4.3 | .87 |
| 28 | 1.0 | 16 | 7.5 | 45 | 25 | 125 | 507 | 2.6 | 1.3 | .54 | 2.3 | .65 |
| 29 | 1.0 | 13 | 9.0 | 1,370 | ------ | 91 | 218 | 2.6 | 1.1 | .65 | 1.4 | .54 |
| 30 | 1.0 | 11 | 20 | 377 | ------ | 86 | 1,460 | 2.6 | .87 | .54 | .87 | .44 |
| 31 | 1.0 | ------ | 238 | 129 | ------ | 76 | ------ | 2.9 | ------ | .44 | .54 | ------ |
| TOTAL | 12.31 | 940.5 | 1,583.1 | 2,900.8 | 3,112 | 8,307 | 9,135 | 907.4 | 565.73 | 15.74 | 220.72 | 13.25 |
| MEAN | .40 | 31.4 | 51.1 | 93.6 | 111 | 268 | 305 | 29.3 | 18.9 | .51 | 7.12 | .44 |
| MAX | 1.0 | 377 | 489 | 1,370 | 610 | 1,460 | 2,870 | 203 | 139 | 1.1 | 80 | 1.1 |
| MIN | 0 | 2.6 | 6.0 | 7.8 | 25 | 24 | 19 | 2.6 | .87 | .12 | .34 | .05 |
| CFSM | .005 | .41 | .66 | 1.21 | 1.44 | 3.47 | 3.95 | .38 | .24 | .007 | .092 | .006 |
| IN. | .005 | .45 | .76 | 1.40 | 1.50 | 4.00 | 4.40 | .44 | .27 | .007 | .11 | .006 |

CAL YR 1969 TOTAL 32,732.62 MEAN 89.7 MAX 3,790 MIN 0 CFSM 1.16 IN 15.77
WAT YR 1970 TOTAL 27,713.55 MEAN 75.9 MAX 2,870 MIN 0 CFSM .98 IN 13.35

PEAK DISCHARGE (BASE, 2,300 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 01-29 | 1030 | 8.49 | 2,990 | 04-24 | 1245 | 8.97 | 3,280 |
| 04-02 | 1115 | 11.60 | 5,020 | 04-30 | 0645 | 9.99 | 3,940 |

## 03366200 Harberts Creek near Madison, Ind.

LOCATION.--Lat 38°46'55", long 85°29'08", in SW¼SE¼ sec.14, T.4 N., R.9 E., Jefferson County, attached to left downstream wingwall of bridge on County Road 533 West, 0.2 mile west of Smyrna, 3.7 miles upstream from Big Creek, and 4 miles northwest of Madison.

DRAINAGE AREA.--9.31 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 725.75 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 1,540 cfs Apr. 2 (gage height, 7.89 ft); no flow on many days.
Period of record: Maximum discharge, 1,540 cfs Apr. 2, 1970 (gage height, 7.89 ft); no flow at times each year.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0 | 1.9 | .08 | 9.1 | 7.5 | 3.1 | 64 | 13 | .91 | .13 | 0 | 0 |
| 2 | 0 | .63 | .08 | 6.5 | 87 | 41 | 506 | 8.9 | 1.8 | .11 | .48 | 0 |
| 3 | 0 | .19 | .08 | 3.5 | 25 | 63 | 30 | 6.8 | 13 | .06 | .81 | 0 |
| 4 | 0 | .07 | .07 | 2.2 | 10 | 210 | 17 | 5.6 | 4.0 | .07 | .33 | .11 |
| 5 | 0 | .07 | .07 | 1.3 | 5.2 | 69 | 13 | 4.3 | 5.9 | .04 | .04 | 1.5 |
| 6 | 0 | .04 | .07 | .90 | 4.6 | 22 | 11 | 3.2 | 17 | .01 | 0 | .22 |
| 7 | 0 | .03 | 30 | .66 | 8.0 | 14 | 8.5 | 2.5 | 5.2 | 0 | 0 | .13 |
| 8 | 0 | .04 | 9.4 | .56 | 40 | 10 | 7.2 | 2.2 | 3.0 | 4.0 | 0 | .06 |
| 9 | .06 | .02 | 3.6 | .47 | 33 | 8.3 | 5.9 | 1.8 | 1.8 | 4.3 | .63 | .33 |
| 10 | .02 | 0 | 3.3 | .46 | 19 | 7.0 | 4.9 | 2.7 | 1.5 | .42 | .16 | .13 |
| 11 | .68 | 0 | 2.2 | .46 | 11 | 5.8 | 4.0 | 6.2 | 1.0 | .25 | .04 | .04 |
| 12 | .27 | .03 | 1.3 | .49 | 7.5 | 5.2 | 3.7 | 13 | .81 | .09 | .02 | .01 |
| 13 | .03 | .34 | .99 | .52 | 5.6 | 4.9 | 3.7 | 7.8 | 1.5 | .04 | 0 | 0 |
| 14 | .02 | 3.4 | .99 | .58 | 4.6 | 4.8 | 3.2 | 8.5 | 1.2 | 0 | .02 | .37 |
| 15 | .13 | 1.4 | .80 | .64 | 4.1 | 5.4 | 2.7 | 4.6 | .71 | .01 | .02 | 4.0 |
| 16 | .02 | .74 | .74 | .80 | 5.0 | 7.5 | 2.5 | 4.0 | .55 | .01 | 0 | 1.3 |
| 17 | 0 | .53 | .66 | 1.3 | 12 | 9.7 | 2.2 | 3.7 | .55 | 0 | 0 | .30 |
| 18 | 0 | 3.6 | .60 | 2.2 | 30 | 28 | 2.0 | 2.5 | .42 | 0 | 0 | .07 |
| 19 | 0 | 23 | .54 | 3.0 | 22 | 70 | 2.7 | 1.8 | .37 | 0 | 13 | .02 |
| 20 | 0 | 2.5 | .50 | 1.3 | 8.8 | 34 | 9.2 | 1.5 | .37 | .06 | 6.5 | .01 |
| 21 | 1.1 | .68 | .47 | .70 | 5.6 | 16 | 5.2 | 1.3 | .42 | .11 | .71 | .01 |
| 22 | .10 | .48 | .45 | .54 | 4.7 | 22 | 3.2 | 1.0 | .42 | 0 | .29 | 0 |
| 23 | .04 | .38 | .42 | .45 | 4.5 | 18 | 3.2 | .91 | .33 | 1.3 | .22 | .02 |
| 24 | .02 | .34 | .40 | .60 | 4.3 | 12 | 94 | .81 | .37 | .33 | .11 | .02 |
| 25 | .01 | .27 | .40 | 5.8 | 4.5 | 111 | 23 | 1.6 | .42 | .11 | .04 | 24 |
| 26 | .02 | .21 | .40 | 5.4 | 3.7 | 101 | 13 | 3.5 | .63 | .07 | .03 | 8.0 |
| 27 | 0 | .17 | .42 | 3.4 | 3.2 | 24 | 64 | .91 | .55 | .06 | .02 | 2.7 |
| 28 | 0 | .13 | .54 | 2.5 | 3.0 | 14 | 56 | .71 | .25 | .09 | .01 | 1.3 |
| 29 | 0 | .11 | 2.3 | 87 | ------ | 12 | 23 | .63 | .16 | .06 | 0 | .70 |
| 30 | 0 | .10 | 9.1 | 15 | ------ | 14 | 25 | .63 | .11 | .01 | 0 | .25 |
| 31 | 0 | ------ | 23 | 8.6 | ------ | 10 | ------ | .81 | ------ | 0 | 0 | ------ |
| TOTAL | 2.52 | 41.40 | 93.97 | 166.93 | 383.4 | 976.7 | 1,013.0 | 117.41 | 65.25 | 11.74 | 23.48 | 45.60 |
| MEAN | .081 | 1.38 | 3.03 | 5.38 | 13.7 | 31.5 | 33.8 | 3.79 | 2.18 | .38 | .76 | 1.52 |
| MAX | 1.1 | 23 | 30 | 87 | 87 | 210 | 506 | 13 | 17 | 4.3 | 13 | 24 |
| MIN | 0 | 0 | .07 | .45 | 3.0 | 3.1 | 2.0 | .63 | .11 | 0 | 0 | 0 |
| CFSM | .009 | .15 | .33 | .58 | 1.47 | 3.38 | 3.63 | .41 | .23 | .041 | .082 | .16 |
| IN. | .01 | .17 | .38 | .67 | 1.53 | 3.90 | 4.05 | .47 | .26 | .05 | .09 | .18 |

CAL YR 1969 TOTAL 3,002.32 MEAN 8.23 MAX 298 MIN 0 CFSM .88 IN 12.00
WAT YR 1970 TOTAL 2,941.40 MEAN 8.06 MAX 506 MIN 0 CFSM .87 IN 11.75

PEAK DISCHARGE (BASE, 200 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 01-29 | 0530 | 5.42 | 436 | 04-02 | 0245 | 7.89 | 1,540 |
| 03-04 | 1930 | 5.56 | 481 | 04-24 | 0845 | 4.84 | 283 |
| 03-25 | 1730 | 5.34 | 412 | 04-27 | 1945 | 4.82 | 280 |

03366500 Muscatatuck River near Deputy, Ind.

LOCATION.--Lat 38°48'15", long 85°40'26", in NE¼ sec.7, T.4 N., R.8 E., Jefferson County, on left bank at downstream side of highway bridge, 1.4 miles northwest of Deputy, 1.9 miles upstream from Coffee Creek, and 2.4 miles downstream from confluence of Graham Creek and Big Creek.

DRAINAGE AREA.--293 sq mi.

PERIOD OF RECORD.--November 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 541.17 ft above mean sea level. Prior to June 22, 1955, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--22 years (1948-70), 332 cfs (15.37 inches per year).

EXTREMES.--Current year: Maximum discharge, 14,600 cfs Apr. 2 (gage height, 22.54 ft); minimum, 0.82 cfs Oct. 10; minimum gage height, 0.42 ft Oct. 1.
Period of record: Maximum discharge, 52,200 cfs Jan. 21, 1959 (gage height, 33.1 ft, from floodmarks), from rating curve extended above 25,000 cfs on basis of contracted-opening measurement of peak flow; no flow at times most years.

REMARKS.--Records good except those for winter periods, which are fair. Records of suspended sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1335: 1948. WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.4 | 5.7 | 36 | 512 | 304 | 95 | 245 | 581 | 22 | 8.1 | 3.3 | 6.0 |
| 2 | 1.5 | 9.5 | 32 | 319 | 749 | 212 | 10,400 | 323 | 23 | 7.2 | 3.3 | 5.6 |
| 3 | 1.4 | 8.6 | 30 | 200 | 1,590 | 1,600 | 2,340 | 233 | 469 | 6.4 | 3.9 | 5.2 |
| 4 | 1.3 | 11 | 28 | 130 | 614 | 2,840 | 675 | 183 | 323 | 6.0 | 5.6 | 4.9 |
| 5 | 1.3 | 9.0 | 26 | 84 | 350 | 2,490 | 442 | 152 | 406 | 5.6 | 6.0 | 31 |
| 6 | 1.2 | 8.1 | 24 | 60 | 180 | 771 | 350 | 126 | 561 | 5.2 | 12 | 22 |
| 7 | 1.0 | 8.1 | 66 | 40 | 197 | 433 | 287 | 106 | 319 | 5.6 | 9.5 | 12 |
| 8 | 1.1 | 7.2 | 751 | 30 | 328 | 320 | 235 | 95 | 172 | 9.0 | 6.8 | 13 |
| 9 | 1.0 | 6.8 | 362 | 26 | 782 | 252 | 200 | 84 | 113 | 171 | 7.6 | 10 |
| 10 | .90 | 6.5 | 191 | 25 | 579 | 202 | 172 | 80 | 82 | 61 | 8.1 | 8.1 |
| 11 | 1.3 | 6.8 | 136 | 25 | 421 | 168 | 149 | 83 | 65 | 31 | 8.5 | 6.4 |
| 12 | 2.3 | 6.8 | 106 | 26 | 335 | 150 | 133 | 236 | 56 | 18 | 7.2 | 5.6 |
| 13 | 2.1 | 7.2 | 86 | 27 | 240 | 140 | 126 | 161 | 49 | 13 | 6.0 | 4.9 |
| 14 | 2.0 | 11 | 73 | 29 | 170 | 140 | 120 | 177 | 46 | 9.0 | 4.9 | 4.9 |
| 15 | 1.6 | 11 | 62 | 31 | 130 | 140 | 107 | 151 | 45 | 6.8 | 4.2 | 12 |
| 16 | 1.5 | 9.0 | 53 | 46 | 120 | 160 | 98 | 151 | 38 | 5.6 | 3.6 | 6.8 |
| 17 | 1.5 | 11 | 47 | 53 | 192 | 208 | 91 | 140 | 33 | 5.2 | 3.0 | 7.6 |
| 18 | 1.4 | 13 | 41 | 102 | 326 | 307 | 83 | 117 | 28 | 4.5 | 2.8 | 9.5 |
| 19 | 1.4 | 74 | 37 | 141 | 492 | 968 | 84 | 92 | 23 | 4.2 | 4.9 | 7.2 |
| 20 | 1.6 | 525 | 34 | 90 | 359 | 1,600 | 125 | 76 | 19 | 3.9 | 56 | 6.0 |
| 21 | 2.2 | 217 | 32 | 64 | 208 | 733 | 230 | 65 | 17 | 3.9 | 34 | 5.6 |
| 22 | 2.8 | 119 | 30 | 45 | 140 | 470 | 175 | 57 | 16 | 3.6 | 14 | 4.9 |
| 23 | 2.5 | 87 | 28 | 35 | 120 | 552 | 135 | 50 | 15 | 4.2 | 30 | 5.2 |
| 24 | 2.5 | 79 | 27 | 28 | 110 | 410 | 1,300 | 45 | 13 | 5.2 | 61 | 6.8 |
| 25 | 2.5 | 73 | 26 | 30 | 110 | 656 | 1,680 | 40 | 12 | 5.6 | 33 | 7.2 |
| 26 | 2.6 | 64 | 26 | 90 | 110 | 2,770 | 489 | 37 | 23 | 6.0 | 23 | 78 |
| 27 | 3.2 | 56 | 25 | 190 | 100 | 1,080 | 467 | 43 | 17 | 5.6 | 20 | 22 |
| 28 | 3.5 | 49 | 26 | 130 | 94 | 486 | 2,030 | 32 | 14 | 4.9 | 14 | 17 |
| 29 | 3.5 | 44 | 28 | 1,450 | ------ | 360 | 914 | 27 | 11 | 4.2 | 11 | 13 |
| 30 | 3.5 | 40 | 53 | 2,160 | ------ | 322 | 1,120 | 22 | 9.0 | 3.9 | 8.5 | 8.5 |
| 31 | 3.7 | ------ | 265 | 617 | ------ | 288 | ------ | 21 | ------ | 3.6 | 7.2 | ------ |
| TOTAL | 61.30 | 1,583.3 | 2,787 | 6,835 | 9,450 | 21,323 | 25,002 | 3,786 | 3,039.0 | 437.0 | 422.9 | 356.9 |
| MEAN | 1.98 | 52.8 | 89.9 | 220 | 338 | 688 | 833 | 122 | 101 | 14.1 | 13.6 | 11.9 |
| MAX | 3.7 | 525 | 751 | 2,160 | 1,590 | 2,840 | 10,400 | 581 | 561 | 171 | 61 | 78 |
| MIN | .90 | 5.7 | 24 | 25 | 94 | 95 | 83 | 21 | 9.0 | 3.6 | 2.8 | 4.9 |
| CFSM | .007 | .18 | .31 | .75 | 1.15 | 2.35 | 2.84 | .42 | .34 | .048 | .046 | .041 |
| IN. | .007 | .20 | .35 | .87 | 1.20 | 2.71 | 3.17 | .48 | .39 | .06 | .05 | .05 |

CAL YR 1969 TOTAL 95,117.70 MEAN 261 MAX 12,300 MIN .90 CFSM .89 IN 12.08
WAT YR 1970 TOTAL 75,083.40 MEAN 206 MAX 10,400 MIN .90 CFSM .70 IN 9.53

PEAK DISCHARGE (BASE, 7,500 CFS).--Apr. 2 (1100) 14,600 cfs (22.54 ft).

## 03366800 Quick Creek Reservoir near Austin, Ind.

LOCATION.--Lat 38°47'29", long 85°42'36", in SE¼NW¼NE¼ sec.14, T.4 N., R7 E., Scott County, in intake tower of reservoir on Quick Creek, 4.1 miles upstream from White Oak Branch, and 5.7 miles northeast of Austin.

DRAINAGE AREA.--12.0 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 575.05 ft above mean sea level (levels by Indiana Department of Natural Resources).

EXTREMES.--Current year: Maximum contents, 3,600 acre-ft Aug. 22 (gage height, 9.85 ft); minimum, 3,380 acre-ft July 8 (gage-height, 9.11 ft).
Period of record: Maximum contents, 3,600 acre-ft Aug. 22, 1970 (gage height, 9.85 ft); minimum, 3,380 acre-ft July 8, 1970 (gage height, 9.11 ft).

REMARKS.--Reservoir is formed by earth fill dam. Releases normally controlled by a 42-inch diameter pipe. Minimum design capacity is 770 acre-ft (gage height, -5.05 ft). Normal pool capacity is 11,960 acre-ft (gage height, 24.95 ft). Capacity at emergency spillway, 14,760 acre-ft (gage height, 28.45 ft), flood control pool capacity is 20,460 acre-ft (gage height, 34.95 ft). Reservoir used for flood control, recreation, and low flow augmentation. Reservoir put in operation on June 4, 1970.

Month-end gage-height and contents, water year October 1969 to September 1970

| Date | Gage height (feet) | Contents (acre-feet) | Change in contents (acre-feet) |
|---|---|---|---|
| Sept. 30 | - | - | - |
| Oct. 31 | - | - | - |
| Nov. 30 | - | - | - |
| Dec. 31 | - | - | - |
| Calendar year 1969 | - | - | - |
| Jan. 31 | - | - | - |
| Feb. 28 | - | - | - |
| Mar. 31 | - | - | - |
| Apr. 30 | - | - | - |
| May 31 | - | - | - |
| June 30 | 9.23 | 3,420 | - |
| July 31 | 9.41 | 3,470 | +50 |
| Aug. 31 | 9.75 | 3,580 | +110 |
| Sept. 30 | 9.62 | 3,540 | -40 |
| Water year 1969-70 | - | - | - |

03367000 Muscatatuck River near Austin, Ind.

LOCATION.--Lat 38°46'13", long 85°49'21", in SW¼ sec.23, T.4 N., R.6 E., Scott County, on right bank 15 ft downstream from bridge on U.S. Highway 31, 2 miles northwest of Austin, and 5.5 miles upstream from W. L. McClain ditch.

DRAINAGE AREA.--359 sq mi.

PERIOD OF RECORD.--August 1932 to current year (high-water records only since October 1943).

AVERAGE DISCHARGE.--10 years (1932-35, 1936-43), 387 cfs (14.64 inches per year).

GAGE.--Water-stage recorder. Datum of gage is 513.96 ft above mean sea level. Prior to June 22, 1934, nonrecording gage at same site and datum. Nov. 8 to Dec. 30, 1939, nonrecording gage approximately 0.5 mile upstream at different datum. Aug. 1, 1940, to Sept. 30, 1943, auxiliary gage (for low flows) at Slate-Ford Bridge 2.2 miles upstream at different datum.

EXTREMES.--Current year: Maximum discharge, 10,900 cfs Apr. 3 (gage height, 22.96 ft).
Period of record: Maximum discharge, 53,900 cfs Jan. 22, 1959 (gage height, 29.20 ft).

REMARKS.--Records poor. Daily discharge not computed when gage height is below 13.0 ft.

REVISIONS (WATER YEARS).--WSP 1385: 1933(M). WSP 1505: 1956. WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | 1,050 | | | | |
| 2 | | | | | | | 1,720 | | | | | |
| 3 | | | | | 1,410 | 1,070 | 3,780 | | | | | |
| 4 | | | | | 1,700 | 2,320 | 3,840 | | | | | |
| 5 | | | | | 700 | 3,630 | 1,070 | | | | | |
| 6 | | | | | | 3,270 | | | | | | |
| 7 | | | | | | 1,130 | | | | | | |
| 8 | | | | | | | | | | | | |
| 9 | | | | | 704 | | | | | | | |
| 10 | | | | | 696 | | | | | | | |
| 11 | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | |
| 19 | | | | | | 796 | | | | | | |
| 20 | | | | | | 1,480 | | | | | | |
| 21 | | | | | | 1,350 | | | | | | |
| 22 | | | | | | 702 | | | | | | |
| 23 | | | | | | 655 | | | | | | |
| 24 | | | | | | | | | | | | |
| 25 | | | | | | 655 | 1,940 | | | | | |
| 26 | | | | | | 2,000 | 1,120 | | | | | |
| 27 | | | | | | 2,970 | | | | | | |
| 28 | | | | | | 1,230 | 1,540 | | | | | |
| 29 | | | | | | | 2,020 | | | | | |
| 30 | | | | 1,400 | ------ | | 1,240 | | | | | |
| 31 | | ------ | | 841 | ------ | | ------ | | ------ | | | ------ |

## 03368000 Brush Creek near Nebraska, Ind.

LOCATION.--Lat 39°04'13", long 85°29'10", in NE¼ sec.11, T.7 N., R.9 E., Jennings County, on right bank at downstream side of county road bridge, 1.5 miles northwest of Nebraska, 2.9 miles northeast of Butlerville, and 3.6 miles upstream from Brush Creek Dam.

DRAINAGE AREA.--11.4 sq mi.

PERIOD OF RECORD.--May 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 717.17 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission).

AVERAGE DISCHARGE.--15 years, 12.3 cfs (14.65 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,500 cfs Apr. 2 (gage height, 8.08 ft); no flow for many days.
Period of record: Maximum discharge, 3,440 cfs May 24, 1968 (gage height, 11.40 ft), from rating curve extended above 440 cfs on basis of contracted-opening measurement of peak flow at gage height, 9.70 ft; no flow at times most years.

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

REVISIONS.--WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0 | .75 | .91 | 19 | 9.6 | 3.2 | 35 | 14 | .31 | .01 | 0 | 0 |
| 2 | 0 | 1.1 | .91 | 14 | 90 | 83 | 376 | 7.0 | 9.4 | 0 | 0 | 0 |
| 3 | 0 | .91 | .83 | 9.0 | 20 | 78 | 28 | 4.9 | 18 | 0 | 0 | 0 |
| 4 | 0 | .91 | .75 | 6.4 | 8.0 | 232 | 14 | 3.6 | 1.9 | 0 | 0 | 0 |
| 5 | 0 | 1.1 | .75 | 4.2 | 6.8 | 63 | 9.6 | 3.0 | 7.7 | 0 | 0 | 0 |
| 6 | 0 | .91 | .68 | 3.0 | 6.0 | 23 | 7.3 | 2.4 | 2.4 | 0 | 0 | 0 |
| 7 | 0 | .83 | 53 | 2.0 | 15 | 13 | 5.8 | 2.2 | 1.3 | 0 | 0 | 0 |
| 8 | 0 | .68 | 19 | 1.7 | 41 | 9.1 | 4.9 | 1.9 | .91 | .10 | 0 | 0 |
| 9 | 0 | .68 | 8.6 | 1.5 | 35 | 6.7 | 4.1 | 1.5 | .68 | .36 | 0 | 0 |
| 10 | 0 | .68 | 6.7 | 1.4 | 22 | 5.5 | 3.4 | 1.5 | .48 | .12 | 0 | .04 |
| 11 | 0 | .68 | 5.8 | 1.3 | 17 | 4.6 | 3.2 | 1.4 | .42 | .04 | 0 | .06 |
| 12 | 0 | .68 | 4.9 | 1.3 | 12 | 4.3 | 2.6 | 1.3 | .36 | .01 | 0 | .09 |
| 13 | 0 | .75 | 4.1 | 1.3 | 7.0 | 4.2 | 2.8 | 1.4 | .31 | 0 | 0 | .09 |
| 14 | 0 | 1.3 | 3.5 | 1.2 | 5.6 | 4.2 | 2.6 | 1.8 | .36 | 0 | 0 | .12 |
| 15 | 0 | 1.1 | 3.0 | 1.2 | 4.9 | 4.3 | 2.5 | 1.2 | .31 | 0 | 0 | .09 |
| 16 | 0 | 1.1 | 2.6 | 2.5 | 4.5 | 4.8 | 2.2 | 1.5 | .31 | 0 | 0 | .09 |
| 17 | 0 | 1.1 | 2.4 | 7.4 | 6.4 | 6.7 | 2.0 | 1.5 | .36 | 0 | 0 | .09 |
| 18 | 0 | 2.7 | 2.2 | 13 | 18 | 14 | 1.8 | 1.0 | .31 | 0 | 0 | .12 |
| 19 | 0 | 48 | 2.0 | 6.7 | 20 | 140 | 4.8 | .75 | .26 | 0 | 0 | .09 |
| 20 | .01 | 5.5 | 1.9 | 4.4 | 6.7 | 71 | 18 | .61 | .21 | 0 | .86 | .09 |
| 21 | .36 | 2.6 | 1.8 | 2.8 | 4.6 | 25 | 7.3 | .48 | .21 | 0 | .17 | .06 |
| 22 | .26 | 2.2 | 1.6 | 2.0 | 4.4 | 31 | 4.6 | .48 | .21 | 0 | 5.5 | .09 |
| 23 | .09 | 2.2 | 1.5 | 1.6 | 4.2 | 23 | 49 | .36 | .17 | 0 | 1.2 | .06 |
| 24 | .06 | 1.7 | 1.4 | 1.3 | 4.4 | 13 | 376 | .42 | .12 | .09 | .21 | .06 |
| 25 | .04 | 1.5 | 1.3 | 30 | 4.8 | 55 | 34 | .36 | .21 | .02 | .04 | .09 |
| 26 | .06 | 1.3 | 1.2 | 31 | 3.9 | 75 | 15 | .36 | .26 | 0 | 0 | 2.1 |
| 27 | .06 | 1.1 | 1.2 | 12 | 3.3 | 21 | 24 | .21 | .21 | 0 | 0 | 2.0 |
| 28 | .04 | 1.0 | 1.2 | 14 | 3.2 | 12 | 34 | .17 | .12 | 0 | 0 | .31 |
| 29 | .04 | .91 | 3.4 | 156 | ------ | 11 | 38 | .12 | .04 | 0 | 0 | .26 |
| 30 | .04 | .91 | 8.6 | 25 | ------ | 11 | 51 | .21 | .01 | .01 | 0 | .21 |
| 31 | .06 | ------ | 29 | 13 | ------ | 7.3 | ------ | .21 | ------ | 0 | 0 | ------ |
| TOTAL | 1.12 | 86.88 | 176.73 | 391.2 | 388.3 | 1,058.9 | 1,163.5 | 57.84 | 47.85 | .76 | 7.98 | 6.21 |
| MEAN | .036 | 2.90 | 5.70 | 12.6 | 13.9 | 34.2 | 38.8 | 1.87 | 1.60 | .025 | .26 | .21 |
| MAX | .36 | 48 | 53 | 156 | 90 | 232 | 376 | 14 | 18 | .36 | 5.5 | 2.1 |
| MIN | 0 | .68 | .68 | 1.2 | 3.2 | 3.2 | 1.8 | .12 | .01 | 0 | 0 | 0 |
| CFSM | .003 | .25 | .50 | 1.11 | 1.22 | 3.00 | 3.40 | .16 | .14 | .002 | .023 | .018 |
| IN. | .003 | .28 | .58 | 1.28 | 1.27 | 3.46 | 3.80 | .19 | .16 | .002 | .03 | .02 |

CAL YR 1969 TOTAL 3,876.06 MEAN 10.6 MAX 590 MIN 0 CFSM .93 IN 12.65
WAT YR 1970 TOTAL 3,387.27 MEAN 9.28 MAX 376 MIN 0 CFSM .81 IN 11.05

PEAK DISCHARGE (BASE, 950 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-02 | 0200 | 8.08 | 1,500 | 04-24 | 0500 | 7.40 | 1,190 |

03368400 Brush Creek Reservoir near Butlerville, Ind.

LOCATION.--Lat 39°03'23", long 85°31'29", in NW¼ sec.16, T.7 N., R.9 E., Jennings County, at dam at Muscatatuck State School, 1.5 miles northwest of Butlerville.

DRAINAGE AREA.--14.3 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 680.00 ft above mean sea level.

EXTREMES.--Current year: Maximum contents, 2,551 acre-ft Apr. 2 (gage height, 37.49 ft); minimum contents, 1,218 acre-ft Oct. 30 (gage height, 29.76 ft).
Period of record: Maximum contents, 3,830 acre-ft Jan. 21, 1959 (gage height, 42.66 ft); minimum contents since reaching minimum pool elevation of 714.66 ft, 1,193 acre-ft Nov. 24, 1964 (gage height, 29.58 ft).

REMARKS.--Reservoir is formed by earth fill dam. Releases normally controlled by a 24-inch diameter gate in gate well of 24-inch concrete pipe. Capacity at uncontrolled spillway elevation (35.0 ft) is 2,080 acre-ft. Reservoir is used for recreation and low-flow augmentation for Muscatatuck State School and city of North Vernon. Reservoir was put in operation on Nov. 13, 1953.

COOPERATION.--Capacity tables furnished by Indiana Department of Natural Resources.

Month-end elevation and contents, water year October 1969 to September 1970

| Date | Gage height (feet) | Contents (acre-feet) | Change in contents (acre-feet) |
|---|---|---|---|
| Sept. 30 | 30.95 | 1,394 | - |
| Oct. 31 | 29.78 | 1,221 | -173 |
| Nov. 30 | 31.48 | 1,479 | +258 |
| Dec. 31 | 33.72 | 1,860 | +401 |
| Calendar year 1969 | - | - | -292 |
| Jan. 31 | 35.33 | 2,139 | +279 |
| Feb. 28 | 35.17 | 2,111 | -28 |
| Mar. 31 | 35.32 | 2,138 | +27 |
| Apr. 30 | 35.62 | 2,193 | +55 |
| May 31 | 34.88 | 2,058 | -135 |
| June 30 | 34.69 | 2,024 | -34 |
| July 31 | 34.27 | 1,949 | -75 |
| Aug. 31 | 34.01 | 1,902 | -47 |
| Sept. 30 | 33.27 | 1,771 | -131 |
| Water year 1969-70 | - | - | +377 |

## 03369000 Vernon Fork near Butlerville, Ind.

LOCATION.--Lat 39°02'55", long 85°32'40", in SE¼ sec.17, T.7 N., R.9 E., Jennings County, on left bank 0.3 mile downstream from Muscatatuck State School dam, 1.2 miles downstream from Brush Creek, and 2 miles northwest of Butlerville.

DRAINAGE AREA.--85.9 sq mi.

PERIOD OF RECORD.--February 1942 to current year. Prior to October 1960, published as North Fork of Vernon Fork near Butlerville.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 669.40 ft above mean sea level. Prior to Aug. 19, 1942, non-recording gage at same site and datum.

AVERAGE DISCHARGE.--28 years, 92.1 cfs (14.56 inches per year).

EXTREMES.--Current year: Maximum discharge, 6,880 cfs Apr. 2 (gage height, 14.54 ft); minimum, 0.30 cfs Sept. 26; minimum gage height, 1.22 ft Oct. 20.
Period of record: Maximum discharge, 26,200 cfs Jan. 21, 1959 (gage height, 25.41 ft), from rating curve extended above 10,000 cfs on basis of slope-area measurement of peak flow; no flow at times most years.

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. (See sta 03368400.)

REVISIONS.--WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 18 | 3.6 | 9.6 | 89 | 86 | 27 | 83 | 265 | 3.6 | 1.5 | 2.1 | 1.6 |
| 2 | 20 | 3.8 | 9.1 | 66 | 437 | 261 | 3,380 | 172 | 5.9 | 1.6 | 2.1 | 1.5 |
| 3 | 20 | 4.8 | 8.6 | 45 | 210 | 457 | 385 | 125 | 117 | 1.6 | 2.0 | 1.9 |
| 4 | 20 | 4.8 | 8.0 | 33 | 90 | 1,710 | 235 | 96 | 50 | 1.2 | 1.7 | 2.1 |
| 5 | 20 | 4.9 | 7.3 | 23 | 62 | 649 | 181 | 81 | 104 | 1.1 | 1.5 | 1.9 |
| 6 | 15 | 4.0 | 6.8 | 15 | 54 | 241 | 148 | 66 | 54 | 1.1 | 1.5 | 1.6 |
| 7 | 1.8 | 3.2 | 169 | 12 | 56 | 154 | 122 | 55 | 32 | 1.0 | 1.4 | 1.5 |
| 8 | .96 | 3.1 | 171 | 11 | 188 | 111 | 98 | 50 | 23 | 1.7 | 1.5 | 1.5 |
| 9 | .80 | 3.0 | 63 | 10 | 264 | 86 | 86 | 44 | 17 | 2.4 | 1.7 | 1.6 |
| 10 | .72 | 3.1 | 43 | 10 | 174 | 68 | 76 | 40 | 14 | 2.9 | 1.5 | 1.5 |
| 11 | 1.4 | 3.0 | 36 | 10 | 135 | 55 | 66 | 38 | 11 | 2.2 | 1.7 | 1.6 |
| 12 | 1.5 | 3.3 | 32 | 10 | 99 | 49 | 61 | 37 | 9.7 | .95 | 1.7 | 1.8 |
| 13 | 1.8 | 3.1 | 27 | 11 | 66 | 45 | 58 | 37 | 9.7 | .98 | 1.5 | 1.6 |
| 14 | 1.7 | 3.6 | 23 | 11 | 52 | 44 | 55 | 35 | 8.0 | 1.0 | 1.5 | 1.8 |
| 15 | 1.1 | 3.1 | 21 | 11 | 46 | 45 | 52 | 31 | 6.8 | 1.1 | 1.4 | 1.6 |
| 16 | .92 | 3.2 | 18 | 14 | 39 | 47 | 48 | 33 | 6.6 | 1.1 | 1.3 | 1.5 |
| 17 | .81 | 3.9 | 23 | 18 | 36 | 62 | 44 | 31 | 5.9 | .99 | 1.4 | 11 |
| 18 | .70 | 8.5 | 15 | 40 | 62 | 83 | 42 | 26 | 5.2 | .92 | 1.3 | 32 |
| 19 | .54 | 236 | 15 | 41 | 170 | 525 | 66 | 22 | 4.6 | .55 | 1.6 | 16 |
| 20 | .69 | 81 | 14 | 29 | 73 | 610 | 199 | 19 | 3.9 | .99 | 1.7 | .78 |
| 21 | 1.5 | 34 | 13 | 18 | 44 | 230 | 139 | 17 | 3.6 | 1.4 | 1.3 | .82 |
| 22 | 7.5 | 25 | 12 | 13 | 40 | 189 | 98 | 14 | 3.2 | 1.5 | 6.8 | .86 |
| 23 | 3.9 | 23 | 12 | 11 | 38 | 214 | 145 | 12 | 2.6 | 1.9 | 14 | .88 |
| 24 | 2.5 | 21 | 11 | 10 | 36 | 133 | 3,480 | 12 | 2.2 | 1.5 | 15 | .76 |
| 25 | 2.5 | 17 | 10 | 17 | 45 | 164 | 421 | 12 | 3.9 | 1.4 | 8.9 | .55 |
| 26 | 2.0 | 15 | 10 | 204 | 40 | 466 | 202 | 8.7 | 3.2 | 1.3 | 4.8 | .70 |
| 27 | 1.6 | 13 | 11 | 96 | 33 | 206 | 133 | 4.8 | 2.6 | 1.5 | 3.1 | .85 |
| 28 | .97 | 12 | 12 | 125 | 29 | 128 | 196 | 4.3 | 1.8 | 1.5 | 2.2 | 4.4 |
| 29 | .79 | 11 | 14 | 1,290 | ------ | 101 | 438 | 3.6 | 1.6 | 1.6 | 1.5 | 1.8 |
| 30 | .89 | 10 | 29 | 269 | ------ | 98 | 1,980 | 3.6 | 1.6 | 1.6 | 1.4 | 1.2 |
| 31 | .86 | ------ | 92 | 120 | ------ | 81 | ------ | 3.2 | ------ | 1.6 | 1.4 | ------ |
| TOTAL | 153.45 | 568.0 | 945.4 | 2,682 | 2,704 | 7,339 | 12,717 | 1,398.2 | 518.2 | 43.68 | 92.5 | 99.20 |
| MEAN | 4.95 | 18.9 | 30.5 | 86.5 | 96.6 | 237 | 424 | 45.1 | 17.3 | 1.41 | 2.98 | 3.31 |
| MAX | 20 | 236 | 171 | 1,290 | 437 | 1,710 | 3,480 | 265 | 117 | 2.9 | 15 | 32 |
| MIN | .54 | 3.0 | 6.8 | 10 | 29 | 27 | 42 | 3.2 | 1.6 | .55 | 1.3 | .55 |
| CFSM | .058 | .22 | .36 | 1.01 | 1.12 | 2.76 | 4.94 | .53 | .20 | .016 | .035 | .039 |
| IN. | .07 | .25 | .41 | 1.16 | 1.17 | 3.18 | 5.51 | .61 | .22 | .02 | .04 | .04 |

CAL YR 1969 TOTAL 28,238.55 MEAN 77.4 MAX 3,480 MIN .22 CFSM .90 IN 12.23
WAT YR 1970 TOTAL 29,260.63 MEAN 80.2 MAX 3,480 MIN .54 CFSM .93 IN 12.67

PEAK DISCHARGE (BASE, 4,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-02 | 0715 | 14.54 | 6,880 | 04-30 | 0245 | 14.30 | 6,690 |
| 04-24 | 1045 | 14.08 | 6,510 | | | | |

03369500 Vernon Fork at Vernon, Ind.

LOCATION.--Lat 38°58'34", long 85°37'13", in SE¼ sec.10, T.6 N., R.8 E., Jennings County, at downstream end of left bank bridge pier, 1 mile southwest of Vernon, and 3.1 miles downstream from South Fork Vernon Fork.

DRAINAGE AREA.--198 sq mi.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 587.30 ft above mean sea level, supplementary adjustment of 1944 (levels by Indiana Flood Control and Water Resources Commission). 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.

AVERAGE DISCHARGE.--31 years, 214 cfs (14.68 inches per year).

EXTREMES.--Current year: Maximum discharge, 11,800 cfs Apr. 2 (gage height, 16.83 ft); minimum, 0.94 cfs Oct. 11 (gage height, 0.14 ft).
Period of record: Maximum discharge, 56,800 cfs Jan. 21, 1959 from rating curve extended above 24,000 cfs on basis of slope-area measurement of peak flow (gage height, 32.83 ft from high-water mark). No flow at times in 1940, 1943-44.

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.

REVISIONS (WATER YEARS).--WSP 1335: 1940, 1953. WSP 1909: 1952-53. WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 14 | 10 | 22 | 275 | 189 | 57 | 159 | 508 | 11 | 4.1 | 5.7 | 2.1 |
| 2 | 15 | 12 | 20 | 191 | 865 | 354 | 6,140 | 278 | 13 | 3.7 | 37 | 2.3 |
| 3 | 16 | 9.8 | 19 | 130 | 200 | 1,230 | 905 | 196 | 226 | 3.3 | 34 | 2.6 |
| 4 | 15 | 11 | 17 | 84 | 150 | 3,060 | 399 | 151 | 168 | 3.1 | 22 | 5.7 |
| 5 | 15 | 13 | 17 | 60 | 120 | 2,000 | 265 | 126 | 173 | 2.8 | 14 | 8.8 |
| 6 | 15 | 12 | 15 | 41 | 123 | 553 | 209 | 103 | 187 | 2.3 | 8.8 | 6.4 |
| 7 | 16 | 11 | 267 | 29 | 111 | 308 | 169 | 84 | 98 | 2.0 | 4.5 | 5.2 |
| 8 | 10 | 9.8 | 732 | 23 | 339 | 222 | 136 | 74 | 59 | 2.8 | 3.9 | 6.0 |
| 9 | 4.9 | 8.4 | 200 | 21 | 620 | 174 | 118 | 65 | 39 | 6.8 | 8.0 | 4.6 |
| 10 | 2.6 | 7.7 | 118 | 21 | 372 | 138 | 99 | 60 | 28 | 7.7 | 8.6 | 3.7 |
| 11 | 4.8 | 7.5 | 92 | 20 | 278 | 115 | 84 | 60 | 22 | 8.3 | 7.2 | 2.9 |
| 12 | 10 | 7.1 | 75 | 21 | 213 | 100 | 75 | 74 | 17 | 6.8 | 6.2 | 3.2 |
| 13 | 4.8 | 7.1 | 65 | 22 | 140 | 92 | 71 | 58 | 16 | 5.2 | 4.7 | 3.6 |
| 14 | 5.8 | 8.8 | 54 | 24 | 110 | 92 | 68 | 62 | 15 | 4.4 | 4.1 | 4.6 |
| 15 | 4.6 | 8.6 | 48 | 27 | 90 | 92 | 62 | 56 | 14 | 3.5 | 6.8 | 6.6 |
| 16 | 3.6 | 8.0 | 41 | 31 | 80 | 98 | 56 | 51 | 12 | 3.0 | 5.5 | 4.5 |
| 17 | 3.2 | 8.0 | 35 | 40 | 72 | 115 | 51 | 50 | 11 | 2.5 | 6.3 | 3.2 |
| 18 | 2.7 | 11 | 40 | 103 | 124 | 163 | 47 | 46 | 11 | 2.2 | 5.0 | 2.7 |
| 19 | 3.2 | 583 | 33 | 124 | 310 | 711 | 60 | 39 | 8.9 | 2.2 | 4.4 | 17 |
| 20 | 2.7 | 388 | 29 | 86 | 196 | 1,840 | 251 | 32 | 7.7 | 3.2 | 7.2 | 26 |
| 21 | 4.3 | 124 | 27 | 50 | 116 | 560 | 222 | 27 | 6.5 | 3.6 | 5.6 | 8.2 |
| 22 | 6.4 | 74 | 24 | 34 | 90 | 381 | 143 | 23 | 5.4 | 2.6 | 4.2 | 4.0 |
| 23 | 4.6 | 63 | 23 | 26 | 82 | 473 | 207 | 20 | 5.3 | 3.5 | 26 | 2.2 |
| 24 | 4.3 | 61 | 22 | 21 | 76 | 280 | 5,790 | 18 | 5.6 | 4.7 | 52 | 1.7 |
| 25 | 4.8 | 51 | 21 | 35 | 82 | 381 | 1,110 | 17 | 18 | 5.0 | 36 | 2.1 |
| 26 | 5.5 | 42 | 24 | 366 | 96 | 1,370 | 434 | 17 | 34 | 4.5 | 17 | 4.2 |
| 27 | 7.1 | 35 | 23 | 293 | 70 | 522 | 308 | 15 | 12 | 5.4 | 11 | 8.5 |
| 28 | 7.3 | 30 | 22 | 193 | 60 | 280 | 536 | 12 | 7.9 | 15 | 7.6 | 7.7 |
| 29 | 7.5 | 27 | 25 | 2,460 | ------ | 218 | 348 | 11 | 5.6 | 12 | 5.2 | 15 |
| 30 | 6.9 | 24 | 44 | 697 | ------ | 213 | 3,380 | 10 | 4.8 | 10 | 4.0 | 9.4 |
| 31 | 6.6 | ------ | 215 | 263 | ------ | 185 | ------ | 10 | ------ | 6.7 | 3.2 | ------ |
| TOTAL | 234.2 | 1,672.8 | 2,409 | 5,811 | 5,374 | 16,377 | 21,902 | 2,353 | 1,241.7 | 152.9 | 375.7 | 184.7 |
| MEAN | 7.55 | 55.8 | 77.7 | 187 | 192 | 528 | 730 | 75.9 | 41.4 | 4.93 | 12.1 | 6.16 |
| MAX | 16 | 583 | 732 | 2,460 | 865 | 3,060 | 6,140 | 508 | 226 | 15 | 52 | 26 |
| MIN | 2.6 | 7.1 | 15 | 20 | 60 | 57 | 47 | 10 | 4.8 | 2.0 | 3.2 | 1.7 |
| CFSM | .038 | .28 | .39 | .94 | .97 | 2.67 | 3.69 | .38 | .21 | .025 | .061 | .031 |
| IN. | .04 | .31 | .45 | 1.09 | 1.01 | 3.08 | 4.11 | .44 | .23 | .03 | .07 | .03 |

CAL YR 1969 TOTAL 62,865.2 MEAN 172 MAX 8,380 MIN .61 CFSM .87 IN 11.81
WAT YR 1970 TOTAL 58,088.0 MEAN 159 MAX 6,140 MIN 1.7 CFSM .80 IN 10.91

PEAK DISCHARGE (BASE, 6,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-02 | 1115 | 16.83 | 11,800 | 04-30 | 0545 | 15.44 | 10,000 |
| 04-24 | 1415 | 16.04 | 10,800 | | | | |

## 03371500 East Fork White River near Bedford, Ind.

LOCATION.--Lat 38°46'10", long 86°24'30", in NE¼ sec.21, T.4 N., R.1 E., Lawrence County, on downstream side of center pier of bridge on county road, 0.4 mile upstream from Mill Creek, 2.9 miles downstream from Sugar Creek, 3.9 miles northeast of Mitchell, and 7.8 miles southeast of Bedford.

DRAINAGE AREA.--3,861 sq mi.

PERIOD OF RECORD.--May 1939 to current year (high-water records only October 1943 to September 1957).

GAGE.--Water-stage recorder. Datum of gage is 473.59 ft above mean sea level. Prior to Feb. 6, 1940, nonrecording gage, and Feb. 6, 1940, to Sept. 24, 1957, water-stage recorder, at site 9.7 miles downstream at datum 4.39 ft lower (now used as an auxiliary gage).

AVERAGE DISCHARGE.--17 years (1939-43, 1957-70), 3,566 cfs (12.56 inches per year).

EXTREMES.--Current year: Maximum discharge, 23,700 cfs Apr. 6 (gage height, 22.66 ft); minimum discharge, 404 cfs Sept. 23, 24, 26 (gage height, 2.81 ft).
Period of record: Maximum discharge, 75,700 cfs Mar. 12, 1964; maximum gage height, 35.97 ft May 11, 1961; minimum daily discharge, 220 cfs Dec. 18, 19, 1963; minimum gage height, 2.40 ft Oct. 14, 18, 1964.
Flood in March 1913 reached a stage of 47.5 ft, from floodmark determined by Corps of Engineers (discharge, 155,000 cfs) at former site.

REMARKS.--Records good.

REVISIONS.--WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 695 | 706 | 2,530 | 1,930 | 9,340 | 2,650 | 6,480 | 13,600 | 1,450 | 855 | 816 | 475 |
| 2 | 700 | 700 | 2,310 | 2,550 | 10,900 | 2,650 | 8,430 | 13,300 | 1,400 | 822 | 811 | 460 |
| 3 | 675 | 704 | 2,150 | 2,790 | 11,700 | 4,520 | 10,500 | 13,900 | 1,480 | 789 | 844 | 670 |
| 4 | 655 | 739 | 2,000 | 2,400 | 11,000 | 7,650 | 14,200 | 11,400 | 1,910 | 761 | 1,060 | 833 |
| 5 | 645 | 808 | 1,870 | 2,100 | 11,000 | 9,450 | 22,000 | 9,010 | 2,350 | 734 | 938 | 630 |
| 6 | 635 | 849 | 1,750 | 1,800 | 10,600 | 10,700 | 22,300 | 6,110 | 3,190 | 712 | 800 | 600 |
| 7 | 630 | 846 | 1,770 | 1,500 | 8,700 | 12,200 | 18,400 | 4,590 | 3,740 | 717 | 756 | 565 |
| 8 | 620 | 834 | 2,160 | 1,400 | 6,890 | 14,100 | 14,400 | 3,930 | 3,690 | 723 | 712 | 550 |
| 9 | 610 | 821 | 3,200 | 1,300 | 6,670 | 14,000 | 10,800 | 3,500 | 2,910 | 728 | 680 | 505 |
| 10 | 605 | 802 | 4,610 | 1,200 | 7,210 | 12,100 | 8,180 | 3,250 | 2,310 | 783 | 650 | 460 |
| 11 | 635 | 779 | 4,580 | 1,200 | 7,760 | 10,100 | 5,620 | 3,090 | 1,970 | 926 | 640 | 455 |
| 12 | 665 | 758 | 3,900 | 1,200 | 7,730 | 7,680 | 4,410 | 3,160 | 1,760 | 866 | 625 | 470 |
| 13 | 685 | 747 | 3,290 | 1,200 | 7,060 | 5,360 | 3,890 | 3,300 | 1,620 | 778 | 595 | 450 |
| 14 | 725 | 742 | 2,880 | 1,200 | 6,100 | 4,500 | 3,560 | 4,090 | 1,540 | 745 | 575 | 436 |
| 15 | 998 | 738 | 2,550 | 1,200 | 5,200 | 4,250 | 3,340 | 4,300 | 2,040 | 706 | 555 | 460 |
| 16 | 1,230 | 732 | 2,330 | 1,200 | 4,510 | 4,030 | 3,140 | 4,110 | 2,870 | 670 | 540 | 470 |
| 17 | 1,270 | 727 | 2,170 | 1,200 | 4,040 | 3,800 | 2,940 | 3,680 | 3,270 | 640 | 530 | 432 |
| 18 | 1,230 | 751 | 2,030 | 1,300 | 3,840 | 3,710 | 2,750 | 3,270 | 2,280 | 615 | 510 | 432 |
| 19 | 1,140 | 1,340 | 1,890 | 1,300 | 4,080 | 4,250 | 2,640 | 2,980 | 1,790 | 595 | 510 | 427 |
| 20 | 1,060 | 1,950 | 1,790 | 1,300 | 4,630 | 6,830 | 2,710 | 2,740 | 1,510 | 580 | 560 | 436 |
| 21 | 1,010 | 3,670 | 1,710 | 1,200 | 4,750 | 8,190 | 3,260 | 2,540 | 1,520 | 565 | 560 | 427 |
| 22 | 943 | 5,370 | 1,650 | 1,200 | 4,530 | 8,540 | 4,160 | 2,340 | 1,320 | 555 | 620 | 418 |
| 23 | 899 | 6,100 | 1,570 | 1,200 | 4,060 | 8,340 | 4,580 | 2,180 | 1,160 | 570 | 625 | 409 |
| 24 | 882 | 6,430 | 1,510 | 1,200 | 3,620 | 7,730 | 6,190 | 2,050 | 1,060 | 630 | 595 | 409 |
| 25 | 860 | 5,830 | 1,470 | 1,300 | 3,340 | 7,010 | 8,530 | 1,920 | 1,080 | 660 | 630 | 414 |
| 26 | 827 | 4,920 | 1,420 | 1,400 | 3,120 | 7,690 | 10,800 | 1,800 | 1,070 | 650 | 630 | 418 |
| 27 | 795 | 4,280 | 1,370 | 2,000 | 2,950 | 8,170 | 17,500 | 1,710 | 1,020 | 655 | 625 | 423 |
| 28 | 765 | 3,720 | 1,330 | 3,200 | 2,800 | 8,370 | 19,100 | 1,660 | 1,020 | 620 | 605 | 436 |
| 29 | 745 | 3,220 | 1,310 | 5,340 | ------ | 8,810 | 18,200 | 1,610 | 968 | 600 | 565 | 441 |
| 30 | 730 | 2,810 | 1,330 | 6,230 | ------ | 8,860 | 15,700 | 1,540 | 914 | 600 | 530 | 436 |
| 31 | 709 | ------ | 1,490 | 7,720 | ------ | 8,080 | ------ | 1,500 | ------ | 670 | 500 | ------ |
| TOTAL | 25,273 | 63,423 | 67,920 | 63,260 | 178,130 | 234,320 | 278,710 | 138,160 | 56,212 | 21,520 | 20,192 | 14,447 |
| MEAN | 815 | 2,114 | 2,191 | 2,041 | 6,362 | 7,559 | 9,290 | 4,457 | 1,874 | 694 | 651 | 482 |
| MAX | 1,270 | 6,430 | 4,610 | 7,720 | 11,700 | 14,100 | 22,300 | 13,900 | 3,740 | 926 | 1,060 | 833 |
| MIN | 605 | 700 | 1,310 | 1,200 | 2,800 | 2,650 | 2,640 | 1,500 | 914 | 555 | 500 | 409 |
| CFSM | .21 | .55 | .57 | .53 | 1.65 | 1.96 | 2.41 | 1.15 | .49 | .18 | .17 | .12 |
| IN. | .24 | .61 | .65 | .61 | 1.72 | 2.26 | 2.69 | 1.33 | .54 | .21 | .19 | .14 |

CAL YR 1969 TOTAL 1,568,416 MEAN 4,297 MAX 52,000 MIN 605 CFSM 1.11 IN 15.11
WAT YR 1970 TOTAL 1,161,567 MEAN 3,182 MAX 22,300 MIN 409 CFSM .82 IN 11.19

PEAK DISCHARGE (BASE, 13,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 03-09 | 0415 | 17.69 | 14,300 | 04-28 | 1445 | 20.90 | 19,400 |
| 04-06 | 0130 | 22.66 | 23,700 | | | | |

## 03371600 South Fork Salt Creek at Kurtz, Ind.

LOCATION.--Lat 38°57'46", long 86°12'12", in SW¼ sec.9, T.6 N., R.3 E., Jackson County, on right bank at downstream side of county road bridge, at north edge of Kurtz, 0.8 mile upstream from right-bank tributary, and 6.1 miles upstream from Little Salt Creek.

DRAINAGE AREA.--38.2 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 568.00 ft above mean sea level (unadjusted).

AVERAGE DISCHARGE.--10 years, 40.4 cfs (14.36 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,860 cfs Apr. 24 (gage height, 12.24 ft); no flow for many days.
Period of record: Maximum discharge, 6,400 cfs May 24, 1968 (gage height, 13.84 ft); no flow at times most years.
Flood in January 1959 reached a stage of approximately 15 ft, from floodmarks.

REMARKS.--Records good except those for winter periods and those for discharges below 10 cfs, which are fair.

REVISIONS (WATER YEARS).--WSP 1909: 1961-62. WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0 | 3.2 | 8.3 | 60 | 60 | 14 | 223 | 51 | 2.8 | .34 | .05 | 0 |
| 2 | 0 | 6.4 | 7.2 | 49 | 275 | 230 | 1,260 | 37 | 3.5 | .30 | .03 | 0 |
| 3 | 0 | 4.5 | 7.2 | 35 | 60 | 382 | 152 | 28 | 6.4 | .23 | 6.3 | 0 |
| 4 | 0 | 3.8 | 6.0 | 31 | 40 | 421 | 88 | 21 | 6.0 | .17 | 3.4 | .05 |
| 5 | 0 | 3.8 | 5.3 | 26 | 32 | 152 | 65 | 18 | 9.1 | .14 | .72 | 17 |
| 6 | 0 | 3.8 | 5.3 | 17 | 33 | 86 | 53 | 13 | 34 | .11 | .30 | 2.4 |
| 7 | 0 | 4.1 | 328 | 11 | 45 | 63 | 39 | 11 | 9.6 | .10 | .14 | .81 |
| 8 | 0 | 4.5 | 100 | 8.0 | 120 | 49 | 32 | 10 | 6.0 | .14 | .10 | .30 |
| 9 | 0 | 4.5 | 49 | 7.0 | 124 | 39 | 26 | 8.3 | 4.5 | 7.5 | .09 | .14 |
| 10 | 0 | 4.5 | 36 | 6.8 | 86 | 31 | 21 | 12 | 3.5 | 1.8 | .07 | .09 |
| 11 | 33 | 4.5 | 28 | 6.4 | 72 | 24 | 18 | 22 | 3.0 | .90 | .06 | .04 |
| 12 | 13 | 4.9 | 21 | 6.2 | 53 | 22 | 17 | 40 | 2.6 | .49 | .04 | .02 |
| 13 | 2.6 | 4.9 | 17 | 6.0 | 42 | 21 | 17 | 19 | 3.2 | .30 | .02 | .01 |
| 14 | 1.1 | 6.0 | 16 | 5.8 | 27 | 20 | 15 | 46 | 4.1 | .17 | .02 | .02 |
| 15 | .49 | 6.0 | 13 | 5.8 | 22 | 19 | 13 | 27 | 4.9 | .11 | 0 | .08 |
| 16 | .30 | 4.9 | 11 | 6.6 | 19 | 19 | 12 | 28 | 6.8 | .09 | 0 | .11 |
| 17 | .30 | 5.3 | 9.6 | 14 | 18 | 31 | 11 | 23 | 7.5 | .06 | 0 | .30 |
| 18 | .26 | 80 | 9.1 | 60 | 80 | 47 | 9.6 | 15 | 5.3 | .03 | 0 | .17 |
| 19 | .20 | 550 | 8.7 | 30 | 96 | 243 | 33 | 12 | 3.5 | .03 | 0 | .10 |
| 20 | 4.0 | 73 | 7.2 | 20 | 40 | 346 | 105 | 9.6 | 2.4 | .03 | 2.4 | .08 |
| 21 | 23 | 41 | 6.8 | 11 | 32 | 130 | 74 | 7.9 | 3.2 | .02 | 1.8 | .05 |
| 22 | 4.5 | 36 | 6.4 | 8.0 | 26 | 93 | 51 | 6.8 | 2.4 | .02 | .63 | .03 |
| 23 | 2.0 | 37 | 6.2 | 7.0 | 23 | 70 | 42 | 5.6 | 1.8 | .02 | .34 | .02 |
| 24 | 1.6 | 27 | 5.8 | 6.8 | 22 | 54 | 1,600 | 5.3 | 1.5 | .04 | .20 | .02 |
| 25 | 1.4 | 21 | 5.6 | 17 | 20 | 69 | 190 | 4.9 | 1.4 | .04 | .10 | .02 |
| 26 | 1.5 | 16 | 5.6 | 40 | 16 | 130 | 96 | 7.5 | 1.2 | .04 | .06 | .30 |
| 27 | 1.4 | 13 | 5.6 | 83 | 15 | 74 | 136 | 3.8 | 1.0 | .07 | .03 | 4.1 |
| 28 | 1.0 | 11 | 6.0 | 126 | 14 | 57 | 173 | 2.2 | .81 | .07 | .02 | 1.2 |
| 29 | .90 | 10 | 13 | 746 | ------ | 53 | 98 | 2.2 | .55 | .05 | 0 | .39 |
| 30 | .90 | 8.7 | 62 | 132 | ------ | 57 | 70 | 2.0 | .44 | .02 | 0 | .23 |
| 31 | .63 | ------ | 82 | 79 | ------ | 46 | ------ | 2.2 | ------ | .06 | 0 | ------ |
| TOTAL | 94.08 | 1,003.3 | 897.9 | 1,667.4 | 1,512 | 3,092 | 4,739.6 | 501.3 | 143.00 | 13.49 | 16.92 | 28.08 |
| MEAN | 3.03 | 33.4 | 29.0 | 53.8 | 54.0 | 99.7 | 158 | 16.2 | 4.77 | .44 | .55 | .94 |
| MAX | 33 | 550 | 328 | 746 | 275 | 421 | 1,600 | 51 | 34 | 7.5 | 6.3 | 17 |
| MIN | 0 | 3.2 | 5.3 | 5.8 | 14 | 14 | 9.6 | 2.0 | .44 | .02 | 0 | 0 |
| CFSM | .079 | .87 | .76 | 1.41 | 1.41 | 2.61 | 4.14 | .42 | .12 | .012 | .014 | .025 |
| IN. | .09 | .98 | .87 | 1.62 | 1.47 | 3.01 | 4.62 | .49 | .14 | .01 | .02 | .03 |

CAL YR 1969 TOTAL 19,980.28 MEAN 54.7 MAX 1,570 MIN 0 CFSM 1.43 IN 19.46
WAT YR 1970 TOTAL 13,709.07 MEAN 37.6 MAX 1,600 MIN 0 CFSM .98 IN 13.35

PEAK DISCHARGE (BASE, 1,500 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 01-29 | 0600 | 9.77 | 2,140 | 04-24 | 0715 | 12.24 | 3,860 |
| 04-02 | 0315 | 11.72 | 3,350 | | | | |

## 03371650 North Fork Salt Creek at Nashville, Ind.

LOCATION.--Lat 39°12'06", long 86°14'51", in SW¼ 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 0.4 mile south of center of Nashville.

DRAINAGE AREA.--76.1 sq mi.

PERIOD OF RECORD.--July 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 579.58 ft above mean sea level. Prior to Sept. 16, 1964, nonrecording gage at site 90 ft upstream at same datum.

AVERAGE DISCHARGE.--8 years, 73.5 cfs (13.11 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,820 cfs Apr. 24 (gage height, 13.62 ft); minimum, 0.85 cfs July 22 (gage height, 1.58 ft).
Period of record: Maximum discharge, 7,500 cfs Mar. 4, 1963; maximum gage height, 16.00 ft May 24, 1968; no flow at times most years.

REMARKS.--Records good.

REVISIONS.--WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.3 | 19 | 32 | 58 | 152 | 29 | 139 | 166 | 17 | 2.1 | 3.2 | 1.4 |
| 2 | 5.1 | 25 | 28 | 59 | 358 | 58 | 1,700 | 131 | 18 | 2.0 | 1.7 | 1.3 |
| 3 | 6.1 | 22 | 26 | 54 | 200 | 222 | 378 | 106 | 26 | 2.0 | 2.0 | 1.8 |
| 4 | 4.9 | 20 | 22 | 49 | 140 | 341 | 219 | 87 | 22 | 2.0 | 2.0 | 6.8 |
| 5 | 5.1 | 19 | 19 | 43 | 120 | 364 | 165 | 74 | 22 | 2.0 | 1.7 | 32 |
| 6 | 4.5 | 18 | 18 | 39 | 100 | 207 | 138 | 60 | 187 | 2.1 | 1.4 | 10 |
| 7 | 4.9 | 16 | 242 | 34 | 115 | 147 | 106 | 50 | 71 | 1.8 | 1.1 | 6.4 |
| 8 | 4.7 | 15 | 238 | 31 | 174 | 117 | 87 | 44 | 39 | 3.0 | 1.1 | 5.1 |
| 9 | 4.7 | 19 | 140 | 27 | 212 | 97 | 75 | 37 | 26 | 11 | 1.4 | 3.6 |
| 10 | 4.9 | 17 | 104 | 25 | 171 | 80 | 63 | 35 | 20 | 4.3 | 1.5 | 3.0 |
| 11 | 43 | 14 | 83 | 23 | 143 | 67 | 55 | 38 | 15 | 3.0 | 1.6 | 2.1 |
| 12 | 54 | 12 | 62 | 22 | 117 | 62 | 51 | 73 | 12 | 2.4 | 2.0 | 1.7 |
| 13 | 32 | 11 | 52 | 20 | 94 | 56 | 56 | 53 | 11 | 2.0 | 1.7 | 1.6 |
| 14 | 23 | 11 | 47 | 19 | 80 | 52 | 55 | 261 | 9.2 | 1.7 | 1.5 | 1.6 |
| 15 | 18 | 9.9 | 39 | 19 | 66 | 48 | 47 | 152 | 9.2 | 1.5 | 1.4 | 1.5 |
| 16 | 15 | 9.0 | 34 | 20 | 58 | 47 | 43 | 193 | 9.2 | 1.3 | 1.6 | 1.3 |
| 17 | 13 | 11 | 30 | 32 | 56 | 52 | 39 | 178 | 10 | 1.2 | 1.7 | 1.2 |
| 18 | 11 | 365 | 28 | 98 | 71 | 64 | 36 | 119 | 6.8 | 1.2 | 1.4 | 2.1 |
| 19 | 10 | 1,700 | 26 | 99 | 77 | 117 | 196 | 86 | 5.1 | 1.1 | 3.2 | 2.0 |
| 20 | 11 | 316 | 22 | 64 | 54 | 257 | 383 | 65 | 4.6 | 1.1 | 14 | 1.8 |
| 21 | 13 | 169 | 21 | 35 | 47 | 175 | 316 | 50 | 4.1 | 1.0 | 13 | 1.7 |
| 22 | 12 | 130 | 19 | 24 | 43 | 142 | 199 | 39 | 3.6 | .92 | 7.2 | 1.6 |
| 23 | 10 | 137 | 18 | 21 | 40 | 120 | 165 | 31 | 3.2 | 1.5 | 22 | 1.4 |
| 24 | 9.3 | 110 | 17 | 19 | 39 | 101 | 2,670 | 26 | 3.0 | 1.5 | 12 | 1.3 |
| 25 | 9.3 | 88 | 16 | 29 | 37 | 94 | 494 | 20 | 8.4 | 1.4 | 6.4 | 1.5 |
| 26 | 9.2 | 71 | 15 | 70 | 33 | 170 | 270 | 16 | 6.4 | 1.4 | 4.3 | 2.3 |
| 27 | 8.1 | 59 | 15 | 188 | 31 | 148 | 225 | 13 | 4.1 | 2.1 | 3.2 | 3.2 |
| 28 | 7.5 | 52 | 16 | 277 | 29 | 122 | 284 | 10 | 3.2 | 2.0 | 2.4 | 2.4 |
| 29 | 7.0 | 42 | 20 | 1,190 | ------ | 112 | 227 | 11 | 2.8 | 1.6 | 2.1 | 1.7 |
| 30 | 6.8 | 36 | 36 | 353 | ------ | 106 | 211 | 13 | 2.4 | 1.6 | 1.8 | 1.5 |
| 31 | 8.1 | ------ | 52 | 204 | ------ | 94 | ------ | 11 | ------ | 5.7 | 1.6 | ------ |
| TOTAL | 378.5 | 3,542.9 | 1,537 | 3,245 | 2,857 | 3,868 | 9,092 | 2,248 | 581.3 | 69.52 | 123.2 | 106.9 |
| MEAN | 12.2 | 118 | 49.6 | 105 | 102 | 125 | 303 | 72.5 | 19.4 | 2.24 | 3.97 | 3.56 |
| MAX | 54 | 1,700 | 242 | 1,190 | 358 | 364 | 2,670 | 261 | 187 | 11 | 22 | 32 |
| MIN | 3.3 | 9.0 | 15 | 19 | 29 | 29 | 36 | 10 | 2.4 | .92 | 1.1 | 1.2 |
| CFSM | .16 | 1.55 | .65 | 1.38 | 1.34 | 1.64 | 3.98 | .95 | .25 | .029 | .052 | .047 |
| IN. | .19 | 1.73 | .75 | 1.59 | 1.40 | 1.89 | 4.44 | 1.10 | .28 | .03 | .06 | .05 |

CAL YR 1969 TOTAL 36,123.90 MEAN 99.0 MAX 3,240 MIN 2.9 CFSM 1.30 IN 17.66
WAT YR 1970 TOTAL 27,649.32 MEAN 75.8 MAX 2,670 MIN .92 CFSM 1.00 IN 13.52

PEAK DISCHARGE (BASE, 1,200 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-19 | 0515 | 11.37 | 2,960 | 04-02 | 0415 | 12.10 | 3,480 |
| 01-29 | 0645 | 10.46 | 2,380 | 04-24 | 0930 | 13.62 | 4,820 |

03372000 North Fork Salt Creek near Belmont, Ind.

LOCATION.--Lat 39°09'00", long 85°20'14", in NW¼ sec.5, T.8 N., R.2 E., Brown County, on right bank 15 ft downstream from bridge on State Highway 46, 100 ft upstream from Schooner Creek, 0.7 mile northeast of Belmont, 6.5 miles upstream from Brummett Creek, and 20 miles upstream from mouth. Records include flow of Schooner Creek.

DRAINAGE AREA.--120 sq mi, includes that of Schooner Creek.

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

GAGE.--Water-stage recorder. Datum of gage is 543.62 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission). Prior to Oct. 9, 1951, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--24 years, 131 cfs (14.83 inches per year).

EXTREMES.--Current year: Maximum discharge, 6,040 cfs Apr. 24 (gage height, 19.78 ft); minimum, 1.7 cfs July 22, 23 (gage height, 2.91 ft).
Period of record: Maximum discharge, 13,300 cfs June 23, 1960 (gage height, 23.10 ft); no flow at times most years. Flood in March 1913 reached a stage of 25.7 ft, from information by local residents.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1275: Drainage area. WSP 1335: 1948, 1950-51. WSP 1705: 1946-47(M), 1949-50(M), 1952(M), 1959.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.0 | 21 | 51 | 98 | 243 | 60 | 246 | 305 | 16 | 3.7 | 3.5 | 2.9 |
| 2 | 7.2 | 38 | 40 | 97 | 533 | 87 | 2,250 | 221 | 23 | 3.3 | 4.8 | 2.8 |
| 3 | 10 | 39 | 41 | 82 | 390 | 372 | 966 | 160 | 91 | 3.3 | 4.8 | 3.3 |
| 4 | 11 | 36 | 33 | 76 | 250 | 659 | 433 | 129 | 46 | 3.1 | 4.1 | 4.8 |
| 5 | 10 | 34 | 29 | 68 | 190 | 695 | 301 | 108 | 39 | 2.9 | 3.5 | 35 |
| 6 | 8.6 | 30 | 27 | 60 | 170 | 394 | 242 | 85 | 561 | 2.8 | 2.8 | 22 |
| 7 | 9.3 | 28 | 370 | 54 | 171 | 247 | 180 | 66 | 183 | 2.8 | 2.6 | 8.9 |
| 8 | 8.9 | 25 | 553 | 45 | 297 | 187 | 148 | 56 | 75 | 2.9 | 2.3 | 6.3 |
| 9 | 9.3 | 22 | 249 | 40 | 377 | 153 | 132 | 47 | 44 | 4.1 | 2.2 | 5.0 |
| 10 | 8.2 | 26 | 164 | 38 | 294 | 126 | 110 | 44 | 30 | 9.6 | 2.2 | 3.9 |
| 11 | 63 | 23 | 130 | 35 | 234 | 107 | 95 | 48 | 22 | 5.5 | 2.2 | 3.5 |
| 12 | 124 | 22 | 101 | 33 | 184 | 99 | 86 | 98 | 17 | 3.9 | 2.0 | 2.9 |
| 13 | 69 | 17 | 81 | 31 | 150 | 95 | 105 | 76 | 17 | 3.3 | 2.0 | 2.6 |
| 14 | 51 | 17 | 76 | 29 | 130 | 96 | 106 | 277 | 13 | 2.8 | 1.9 | 2.3 |
| 15 | 36 | 15 | 62 | 29 | 110 | 90 | 87 | 266 | 16 | 2.6 | 2.2 | 2.3 |
| 16 | 27 | 13 | 51 | 29 | 100 | 88 | 78 | 234 | 12 | 2.5 | 2.0 | 8.6 |
| 17 | 22 | 17 | 45 | 47 | 96 | 84 | 73 | 315 | 13 | 2.3 | 2.3 | 2.2 |
| 18 | 18 | 342 | 43 | 129 | 117 | 100 | 63 | 175 | 12 | 2.2 | 2.9 | 2.8 |
| 19 | 15 | 2,530 | 40 | 157 | 135 | 188 | 308 | 112 | 8.6 | 2.2 | 2.6 | 3.1 |
| 20 | 14 | 1,210 | 35 | 112 | 100 | 435 | 759 | 83 | 6.9 | 2.2 | 14 | 3.7 |
| 21 | 17 | 324 | 31 | 60 | 80 | 305 | 637 | 59 | 6.3 | 2.0 | 16 | 3.1 |
| 22 | 21 | 203 | 29 | 36 | 88 | 224 | 398 | 44 | 5.8 | 1.9 | 12 | 2.6 |
| 23 | 16 | 202 | 27 | 30 | 82 | 186 | 288 | 35 | 5.0 | 2.0 | 11 | 2.5 |
| 24 | 14 | 169 | 26 | 28 | 80 | 154 | 3,770 | 27 | 4.8 | 6.9 | 17 | 2.3 |
| 25 | 12 | 133 | 24 | 40 | 78 | 141 | 2,110 | 22 | 8.2 | 2.0 | 10 | 9.3 |
| 26 | 12 | 108 | 24 | 120 | 70 | 308 | 592 | 18 | 9.6 | 2.3 | 6.9 | 2.2 |
| 27 | 13 | 91 | 23 | 338 | 64 | 253 | 428 | 14 | 8.6 | 2.9 | 5.3 | 2.3 |
| 28 | 10 | 73 | 25 | 438 | 62 | 193 | 650 | 11 | 6.0 | 3.7 | 4.3 | 2.9 |
| 29 | 10 | 65 | 29 | 1,710 | ------ | 170 | 487 | 10 | 4.8 | 3.3 | 3.7 | 3.3 |
| 30 | 9.3 | 55 | 54 | 837 | ------ | 163 | 403 | 13 | 4.1 | 3.1 | 3.5 | 2.9 |
| 31 | 10 | ------ | 89 | 360 | ------ | 145 | ------ | 13 | ------ | 2.9 | 3.1 | ------ |
| TOTAL | 671.8 | 5,928 | 2,602 | 5,286 | 4,875 | 6,604 | 16,531 | 3,171 | 1,308.7 | 101.0 | 159.7 | 162.3 |
| MEAN | 21.7 | 198 | 83.9 | 171 | 174 | 213 | 551 | 102 | 43.6 | 3.26 | 5.15 | 5.41 |
| MAX | 124 | 2,530 | 553 | 1,710 | 533 | 695 | 3,770 | 315 | 561 | 9.6 | 17 | 35 |
| MIN | 6.0 | 13 | 23 | 28 | 62 | 60 | 63 | 10 | 4.1 | 1.9 | 1.9 | 2.2 |
| CFSM | .18 | 1.65 | .70 | 1.43 | 1.45 | 1.78 | 4.59 | .85 | .36 | .027 | .043 | .045 |
| IN. | .21 | 1.84 | .81 | 1.64 | 1.51 | 2.05 | 5.12 | .98 | .41 | .03 | .05 | .05 |

CAL YR 1969 TOTAL 61,376.5 MEAN 168 MAX 5,420 MIN 4.3 CFSM 1.40 IN 19.03
WAT YR 1970 TOTAL 47,400.5 MEAN 130 MAX 3,770 MIN 1.9 CFSM 1.08 IN 14.69

PEAK DISCHARGE (BASE, 2,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-19 | 1900 | 17.95 | 2,990 | 04-02 | 1500 | 17.57 | 2,660 |
| 01-29 | 1545 | 16.57 | 2,100 | 04-24 | 1930 | 19.78 | 6,040 |

03372400 Monroe Reservoir near Harrodsburg, Ind.

LOCATION.--Lat 39°00'26", long 86°30'45", in SW¼ sec.27, T.7 N., R.1 W., Monroe County, in discharge tower of reservoir on Salt Creek, 1.1 miles upstream from Clear Creek, 2.2 miles southeast of Harrodsburg, and 25.9 miles upstream from mouth.

DRAINAGE AREA.--432 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 500.00 ft above mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents, 251,200 acre-ft May 3 (elevation, 543.82 ft); minimum, 168,600 acre-ft Sept. 30 (elevation, 536.70 ft).
Period of record: Maximum contents, 318,200 acre-ft Feb. 10, 1969 (elevation, 548.62 ft); minimum, 149,500 acre-ft Nov. 7, 1966 (elevation, 534.77 ft).

REMARKS.--Reservoir is formed by earth and rock fill dam. Releases normally controlled by three gates, 3.75 ft wide and 12.0 ft high, in semi-elliptical concrete conduit through dam. Minimum design capacity is 22,300 acre-ft (elevation, 515 ft). Capacity at uncontrolled spillway elevation (556 ft) is 446,000 acre-ft. Reservoir is used for flood control and recreation. Reservoir put in operation on April 26, 1966.

COOPERATION.--Records furnished by Corps of Engineers.

Month-end elevation and contents, water year October 1969 to September 1970

| Date | Elevation (feet) | Contents (acre-feet) | Change in contents (acre-feet) |
|---|---|---|---|
| Sept. 30 | 537.48 | 176,700 | - |
| Oct. 31 | 537.56 | 177,600 | +900 |
| Nov. 30 | 540.17 | 206,500 | +28,900 |
| Dec. 31 | 538.18 | 184,200 | -22,300 |
| Calendar year 1969 | - | - | -24,200 |
| Jan. 31 | 539.26 | 196,100 | +11,900 |
| Feb. 28 | 538.06 | 182,900 | -13,200 |
| Mar. 31 | 538.07 | 183,000 | +100 |
| Apr. 30 | 543.67 | 249,300 | +66,300 |
| May 31 | 537.97 | 181,900 | -67,400 |
| June 30 | 537.83 | 180,400 | -1,500 |
| July 31 | 537.40 | 175,900 | -4,500 |
| Aug. 31 | 537.08 | 172,500 | -3,400 |
| Sept. 30 | 536.72 | 168,800 | -3,700 |
| Water year 1969-70 | - | - | -7,900 |

03372500 Salt Creek near Harrodsburg, Ind.

LOCATION.--Lat 39°00'16", long 86°30'31", in NW¼ sec.34, T.7 N., R.1 W., Monroe County, on right bank 1,300 ft downstream from Monroe Reservoir, 0.9 mile upstream from Clear Creek, 2.2 miles southeast of Harrodsburg, and 25.1 miles upstream from mouth.

DRAINAGE AREA.--432 sq mi.

PERIOD OF RECORD.--May 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 480.00 ft above mean sea level (levels by Corps of Engineers). Prior to Oct. 1, 1960, nonrecording gage at site 3,500 ft upstream at datum 2.41 ft higher.

AVERAGE DISCHARGE.--15 years, 472 cfs (14.82 inches per year).

EXTREMES.--Current year: Maximum daily discharge, 1,940 cfs May 5-7; maximum gage height, 22.65 ft Apr. 24 (backwater from Clear Creek); minimum daily discharge, 47 cfs Oct. 22-30.
Period of record: Maximum discharge, 22,000 cfs June 25, 1960 (gage height, 32.76 ft, from graph based on gage readings at site and datum then in use); maximum gage height at present site and datum, 35.35 ft May 9, 1961; no flow Sept. 29 to Dec. 2, 1964.

REMARKS.--Records fair. Flow regulated by Monroe Reservoir. (See sta 03372400). Records of water temperature for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1705: 1959. WSP 1725: 1956(M). WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 48 | 48 | 430 | 227 | 1,540 | 200 | 200 | 211 | 52 | 50 | 50 | 52 |
| 2 | 49 | 48 | 430 | 402 | 837 | 390 | 205 | 211 | 52 | 50 | 50 | 52 |
| 3 | 49 | 48 | 349 | 590 | 210 | 670 | 212 | 781 | 52 | 50 | 50 | 52 |
| 4 | 49 | 48 | 315 | 767 | 210 | 832 | 212 | 1,630 | 52 | 50 | 51 | 52 |
| 5 | 48 | 48 | 232 | 696 | 755 | 1,240 | 212 | 1,940 | 79 | 50 | 51 | 52 |
| 6 | 48 | 48 | 128 | 696 | 1,590 | 1,230 | 212 | 1,940 | 336 | 50 | 51 | 52 |
| 7 | 48 | 48 | 169 | 402 | 1,830 | 1,280 | 212 | 1,940 | 555 | 50 | 51 | 52 |
| 8 | 48 | 48 | 362 | 94 | 1,830 | 1,540 | 212 | 1,930 | 661 | 50 | 51 | 52 |
| 9 | 48 | 48 | 806 | 92 | 1,830 | 1,320 | 798 | 1,920 | 725 | 50 | 51 | 52 |
| 10 | 48 | 48 | 1,240 | 94 | 1,830 | 1,200 | 1,580 | 1,920 | 725 | 50 | 51 | 52 |
| 11 | 49 | 48 | 1,240 | 94 | 1,830 | 1,090 | 1,740 | 1,920 | 345 | 49 | 51 | 52 |
| 12 | 49 | 48 | 1,240 | 94 | 1,830 | 768 | 1,740 | 1,900 | 161 | 49 | 51 | 52 |
| 13 | 49 | 48 | 1,240 | 169 | 1,590 | 437 | 1,740 | 1,890 | 95 | 49 | 51 | 52 |
| 14 | 49 | 48 | 1,240 | 200 | 1,200 | 200 | 1,720 | 1,890 | 95 | 49 | 51 | 51 |
| 15 | 49 | 48 | 1,420 | 165 | 1,090 | 218 | 1,720 | 1,890 | 154 | 49 | 51 | 51 |
| 16 | 49 | 48 | 1,540 | 95 | 768 | 253 | 1,720 | 1,880 | 190 | 49 | 51 | 50 |
| 17 | 49 | 48 | 1,540 | 95 | 304 | 296 | 1,720 | 1,860 | 229 | 49 | 51 | 51 |
| 18 | 49 | 48 | 1,540 | 130 | 200 | 498 | 1,690 | 1,860 | 253 | 49 | 51 | 51 |
| 19 | 49 | 52 | 1,540 | 200 | 317 | 555 | 1,690 | 1,860 | 189 | 49 | 51 | 51 |
| 20 | 49 | 53 | 1,350 | 317 | 500 | 715 | 1,690 | 1,850 | 95 | 49 | 52 | 51 |
| 21 | 48 | 53 | 1,010 | 365 | 555 | 1,080 | 1,690 | 1,830 | 63 | 49 | 52 | 51 |
| 22 | 47 | 83 | 605 | 365 | 555 | 1,200 | 1,690 | 1,830 | 52 | 49 | 52 | 50 |
| 23 | 47 | 161 | 310 | 365 | 555 | 1,200 | 1,690 | 1,820 | 52 | 49 | 52 | 50 |
| 24 | 47 | 198 | 200 | 248 | 304 | 1,200 | 375 | 1,630 | 52 | 49 | 52 | 50 |
| 25 | 47 | 240 | 200 | 200 | 200 | 970 | 204 | 167 | 52 | 49 | 52 | 50 |
| 26 | 47 | 343 | 124 | 303 | 200 | 875 | 208 | 52 | 52 | 50 | 52 | 50 |
| 27 | 47 | 409 | 95 | 605 | 200 | 875 | 208 | 52 | 51 | 50 | 52 | 50 |
| 28 | 47 | 430 | 81 | 1,140 | 200 | 875 | 208 | 52 | 51 | 50 | 52 | 50 |
| 29 | 47 | 430 | 66 | 1,480 | ------ | 875 | 208 | 52 | 51 | 50 | 52 | 50 |
| 30 | 47 | 430 | 95 | 1,540 | ------ | 768 | 211 | 52 | 51 | 50 | 52 | 50 |
| 31 | 48 | ------ | 127 | 1,540 | ------ | 407 | ------ | 52 | ------ | 50 | 52 | ------ |
| TOTAL | 1,492 | 3,746 | 21,264 | 13,770 | 24,860 | 25,257 | 27,917 | 40,812 | 5,622 | 1,535 | 1,590 | 1,533 |
| MEAN | 48.1 | 125 | 686 | 444 | 888 | 815 | 931 | 1,317 | 187 | 49.5 | 51.3 | 51.1 |
| MAX | 49 | 430 | 1,540 | 1,540 | 1,830 | 1,540 | 1,740 | 1,940 | 725 | 50 | 52 | 52 |
| MIN | 47 | 48 | 66 | 92 | 200 | 200 | 200 | 52 | 51 | 49 | 50 | 50 |

CAL YR 1969 TOTAL 231,354 MEAN 634 MAX 2,840 MIN 46
WAT YR 1970 TOTAL 169,398 MEAN 464 MAX 1,940 MIN 47

03372700 Clear Creek near Harrodsburg, Ind.

LOCATION.--Lat 39°02'03", long 86°34'01", in NW¼ sec.19, T.7 N., R.1 W., Monroe County, on left bank at downstream side of county road bridge, 1.9 miles northwest of Harrodsburg, 3.9 miles upstream from Little Clear Creek, and 5.1 miles upstream from mouth.

DRAINAGE AREA.--55.2 sq mi, of which 6.4 sq mi does not contribute directly to surface runoff.

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

GAGE.--Water-stage recorder. Datum of gage is 517.00 ft above mean sea level.

AVERAGE DISCHARGE.--10 years, 72.4 cfs (17.81 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,190 cfs Apr. 24 (gage height, 10.93 ft); minimum, 9.0 cfs July 19; minimum gage height, 3.31 ft Aug. 31, Sept. 1.
Period of record: Maximum discharge, 8,280 cfs May 24, 1968 (gage height, 14.80 ft); minimum, 4.3 cfs Nov. 27, 1964; minimum gage height, 3.20 ft Oct. 3, 1960.
Flood in June 1960 reached a stage of 16.47 ft, from floodmarks (discharge, 10,200 cfs on basis of contracted-opening measurement).

REMARKS.--Records good. Flow regulated by effluent from the sewage treatment plant of the city of Bloomington and possibly by pumpage from several rock quarries.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 15 | 78 | 55 | 66 | 137 | 49 | 139 | 153 | 33 | 17 | 19 | 12 |
| 2 | 33 | 50 | 49 | 67 | 278 | 61 | 344 | 120 | 28 | 17 | 15 | 32 |
| 3 | 23 | 44 | 50 | 67 | 200 | 113 | 205 | 99 | 80 | 17 | 63 | 86 |
| 4 | 19 | 40 | 44 | 65 | 150 | 171 | 159 | 89 | 33 | 16 | 30 | 141 |
| 5 | 17 | 37 | 40 | 54 | 120 | 220 | 129 | 80 | 45 | 13 | 19 | 253 |
| 6 | 15 | 34 | 38 | 52 | 109 | 161 | 113 | 70 | 163 | 13 | 17 | 44 |
| 7 | 33 | 31 | 197 | 47 | 122 | 129 | 93 | 63 | 57 | 14 | 15 | 29 |
| 8 | 24 | 30 | 171 | 45 | 155 | 109 | 83 | 61 | 39 | 23 | 15 | 24 |
| 9 | 19 | 28 | 120 | 42 | 185 | 95 | 75 | 56 | 33 | 21 | 14 | 22 |
| 10 | 19 | 25 | 101 | 40 | 157 | 81 | 68 | 61 | 29 | 15 | 13 | 22 |
| 11 | 238 | 26 | 90 | 39 | 141 | 72 | 63 | 80 | 27 | 13 | 13 | 18 |
| 12 | 92 | 26 | 74 | 38 | 120 | 70 | 59 | 87 | 26 | 12 | 12 | 17 |
| 13 | 57 | 24 | 66 | 36 | 104 | 64 | 84 | 67 | 62 | 11 | 12 | 16 |
| 14 | 57 | 26 | 62 | 35 | 90 | 60 | 65 | 81 | 37 | 13 | 13 | 47 |
| 15 | 40 | 25 | 53 | 35 | 78 | 55 | 56 | 68 | 50 | 13 | 13 | 27 |
| 16 | 34 | 23 | 48 | 34 | 72 | 50 | 52 | 141 | 59 | 12 | 13 | 20 |
| 17 | 29 | 81 | 45 | 66 | 68 | 52 | 51 | 101 | 47 | 11 | 12 | 18 |
| 18 | 27 | 765 | 44 | 89 | 83 | 66 | 52 | 75 | 36 | 12 | 12 | 76 |
| 19 | 23 | 1,370 | 42 | 63 | 90 | 92 | 171 | 66 | 30 | 15 | 16 | 43 |
| 20 | 33 | 380 | 38 | 56 | 75 | 120 | 243 | 57 | 28 | 13 | 139 | 26 |
| 21 | 47 | 223 | 37 | 44 | 70 | 101 | 228 | 51 | 27 | 12 | 27 | 22 |
| 22 | 29 | 177 | 36 | 38 | 68 | 96 | 157 | 46 | 24 | 11 | 21 | 21 |
| 23 | 24 | 153 | 35 | 34 | 63 | 86 | 127 | 43 | 24 | 17 | 19 | 20 |
| 24 | 22 | 122 | 32 | 32 | 61 | 78 | 1,860 | 39 | 23 | 17 | 14 | 21 |
| 25 | 21 | 104 | 31 | 31 | 58 | 79 | 490 | 34 | 27 | 13 | 14 | 22 |
| 26 | 20 | 87 | 30 | 30 | 54 | 157 | 293 | 34 | 24 | 12 | 14 | 39 |
| 27 | 19 | 78 | 30 | 70 | 52 | 118 | 305 | 31 | 22 | 29 | 13 | 35 |
| 28 | 18 | 68 | 27 | 161 | 50 | 106 | 380 | 29 | 20 | 18 | 13 | 21 |
| 29 | 18 | 61 | 35 | 554 | ------ | 96 | 258 | 30 | 18 | 13 | 13 | 20 |
| 30 | 18 | 55 | 59 | 243 | ------ | 86 | 189 | 29 | 19 | 29 | 12 | 19 |
| 31 | 33 | ------ | 66 | 171 | ------ | 78 | ------ | 27 | ------ | 30 | 11 | ------ |
| TOTAL | 1,116 | 4,271 | 1,845 | 2,444 | 3,010 | 2,971 | 6,591 | 2,068 | 1,170 | 492 | 646 | 1,213 |
| MEAN | 36.0 | 142 | 59.5 | 78.8 | 108 | 95.8 | 220 | 66.7 | 39.0 | 15.9 | 20.8 | 40.4 |
| MAX | 238 | 1,370 | 197 | 554 | 278 | 220 | 1,860 | 153 | 163 | 30 | 139 | 253 |
| MIN | 15 | 23 | 27 | 30 | 50 | 49 | 51 | 27 | 18 | 11 | 11 | 12 |
| CFSM | .65 | 2.57 | 1.08 | 1.43 | 1.96 | 1.74 | 3.99 | 1.21 | .71 | .29 | .38 | .73 |
| IN. | .75 | 2.88 | 1.24 | 1.65 | 2.03 | 2.00 | 4.44 | 1.39 | .79 | .33 | .44 | .82 |

CAL YR 1969 TOTAL 38,046 MEAN 104 MAX 2,110 MIN 10 CFSM 1.88 IN 25.64
WAT YR 1970 TOTAL 27,837 MEAN 76.3 MAX 1,860 MIN 11 CFSM 1.38 IN 18.76

PEAK DISCHARGE (BASE, 1,200 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-18 | 2245 | 9.25 | 2,800 | 04-24 | 0645 | 10.93 | 4,190 |
| 01-29 | 0445 | 7.21 | 1,240 | 09-04 | 2345 | 7.53 | 1,460 |

03373000 Salt Creek near Peerless, Ind.

LOCATION.--Lat 38°56'36", long 86°30'36", in NW¼ sec.22, T.6 N., R.1 W., Lawrence County, on downstream side near center of county road bridge, 3,200 ft downstream from Little Salt Creek, 1.5 miles north of Peerless, 6.5 miles downstream from Monroe Reservoir, and 18.6 miles upstream from mouth.

DRAINAGE AREA.--573 sq mi.

PERIOD OF RECORD.--February 1939 to September 1950, February 1957 to current year.

GAGE.--Nonrecording gage and concrete control. Datum of gage is 476.02 ft above mean sea level. Feb. 1-10, 1939, nonrecording gage, Feb. 11, 1939, to Sept. 30, 1950, water-stage recorder, and Feb. 15, 1957, to Oct. 16, 1968, nonrecording gage at site 200 ft downstream at same datum.

AVERAGE DISCHARGE.--24 years, 653 cfs (15.48 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,780 cfs Nov. 18 (gage height, 19.2 ft); minimum, 62 cfs July 15, 16, Aug. 14, 15; minimum gage height, 2.27 ft Aug. 14, 15.
Period of record: Maximum discharge, 25,100 cfs May 10, 1961 (gage height, 35.33 ft, from graph based on gage readings); minimum, 0.7 cfs Aug. 18, 1940.
Flood in January 1937 reached a stage of 34.3 ft (information by Corps of Engineers).

REMARKS.--Records poor. Stage-discharge relation affected at times by backwater from East Fork White River or return flow from overbank storage. Flow regulated by Monroe Reservoir. (See sta 03372400.)

REVISIONS.--WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 75 | 78 | 530 | 667 | 2,170 | 250 | 400 | 430 | 90 | 78 | 90 | 68 |
| 2 | 75 | 78 | 520 | 972 | 1,500 | 250 | 600 | 380 | 94 | 77 | 80 | 69 |
| 3 | 75 | 115 | 500 | 986 | 500 | 960 | 520 | 350 | 100 | 77 | 74 | 130 |
| 4 | 75 | 96 | 470 | 979 | 430 | 1,200 | 420 | 900 | 140 | 75 | 120 | 210 |
| 5 | 74 | 100 | 400 | 911 | 380 | 1,700 | 380 | 1,840 | 110 | 72 | 80 | 300 |
| 6 | 75 | 98 | 300 | 623 | 1,100 | 1,600 | 350 | 1,920 | 645 | 74 | 74 | 350 |
| 7 | 77 | 96 | 240 | 480 | 1,900 | 1,800 | 320 | 2,240 | 850 | 75 | 72 | 120 |
| 8 | 74 | 93 | 400 | 300 | 2,200 | 1,900 | 310 | 2,270 | 856 | 73 | 69 | 94 |
| 9 | 74 | 92 | 900 | 150 | 2,300 | 1,600 | 300 | 2,260 | 832 | 72 | 68 | 78 |
| 10 | 75 | 92 | 1,400 | 140 | 2,300 | 1,400 | 1,600 | 2,260 | 826 | 71 | 68 | 77 |
| 11 | 157 | 90 | 1,500 | 140 | 2,280 | 1,200 | 1,770 | 2,200 | 676 | 71 | 68 | 76 |
| 12 | 280 | 87 | 1,480 | 140 | 2,200 | 677 | 1,870 | 2,200 | 356 | 68 | 68 | 74 |
| 13 | 105 | 79 | 1,440 | 200 | 2,160 | 415 | 1,890 | 2,200 | 195 | 66 | 68 | 73 |
| 14 | 102 | 75 | 1,400 | 240 | 1,710 | 360 | 2,010 | 2,200 | 150 | 65 | 62 | 78 |
| 15 | 97 | 73 | 1,500 | 274 | 1,560 | 300 | 1,990 | 2,100 | 140 | 62 | 62 | 109 |
| 16 | 96 | 69 | 1,600 | 201 | 1,270 | 290 | 1,960 | 2,100 | 210 | 62 | 70 | 81 |
| 17 | 85 | 239 | 1,700 | 174 | 708 | 560 | 1,970 | 2,200 | 270 | 65 | 67 | 77 |
| 18 | 80 | 3,390 | 1,700 | 222 | 426 | 735 | 1,980 | 2,210 | 310 | 63 | 68 | 74 |
| 19 | 82 | 3,100 | 1,680 | 350 | 399 | 1,280 | 1,920 | 2,150 | 330 | 65 | 70 | 130 |
| 20 | 102 | 1,450 | 1,700 | 419 | 475 | 1,480 | 2,100 | 2,160 | 220 | 64 | 72 | 90 |
| 21 | 133 | 997 | 1,630 | 434 | 681 | 1,720 | 2,100 | 2,160 | 157 | 63 | 200 | 78 |
| 22 | 101 | 876 | 1,320 | 436 | 780 | 1,600 | 2,000 | 2,090 | 104 | 63 | 141 | 66 |
| 23 | 73 | 632 | 887 | 409 | 760 | 1,440 | 2,000 | 2,090 | 94 | 65 | 96 | 66 |
| 24 | 74 | 362 | 565 | 228 | 609 | 1,410 | 2,000 | 2,000 | 92 | 65 | 73 | 66 |
| 25 | 77 | 353 | 374 | 290 | 420 | 1,400 | 2,500 | 1,800 | 90 | 65 | 70 | 74 |
| 26 | 70 | 500 | 220 | 842 | 280 | 1,100 | 600 | 236 | 88 | 65 | 68 | 79 |
| 27 | 70 | 530 | 172 | 1,160 | 270 | 1,100 | 540 | 94 | 85 | 65 | 68 | 90 |
| 28 | 70 | 540 | 140 | 1,540 | 260 | 1,000 | 540 | 90 | 84 | 80 | 68 | 90 |
| 29 | 70 | 540 | 128 | 3,300 | ------ | 1,000 | 640 | 90 | 83 | 70 | 67 | 78 |
| 30 | 68 | 540 | 131 | 3,440 | ------ | 960 | 480 | 92 | 80 | 70 | 68 | 76 |
| 31 | 69 | ------ | 168 | 2,950 | ------ | 700 | ------ | 94 | ------ | 94 | 68 | ------ |
| TOTAL | 2,809 | 15,460 | 27,095 | 23,597 | 32,028 | 33,387 | 38,060 | 47,406 | 8,357 | 2,160 | 2,457 | 3,121 |
| MEAN | 90.6 | 515 | 874 | 761 | 1,144 | 1,077 | 1,269 | 1,529 | 279 | 69.7 | 79.3 | 104 |
| MAX | 280 | 3,390 | 1,700 | 3,440 | 2,300 | 1,900 | 2,500 | 2,270 | 856 | 94 | 200 | 350 |
| MIN | 68 | 69 | 128 | 140 | 260 | 250 | 300 | 90 | 80 | 62 | 62 | 66 |
| CFSM | .16 | .90 | 1.53 | 1.33 | 2.00 | 1.88 | 2.21 | 2.67 | .49 | .12 | .14 | .18 |
| IN. | .18 | 1.00 | 1.76 | 1.53 | 2.08 | 2.17 | 2.47 | 3.08 | .54 | .14 | .16 | .20 |

CAL YR 1969 TOTAL 335,401 MEAN 919 MAX 5,090 MIN 64 CFSM 1.60 IN 21.77
WAT YR 1970 TOTAL 235,937 MEAN 646 MAX 3,440 MIN 62 CFSM 1.13 IN 15.32

## 03373200 Indian Creek near Springville, Ind.

LOCATION.--Lat 38°57'01", long 86°40'30", in SW¼ 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.

DRAINAGE AREA.--60.7 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 580.00 ft above mean sea level (unadjusted).

AVERAGE DISCHARGE.--9 years, 54.0 cfs (12.08 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,850 cfs Apr. 24 (gage height, 11.26 ft); minimum, 0.35 cfs Aug. 16 (gage height, 1.16 ft).
Period of record: Maximum discharge, 6,450 cfs Mar. 9, 1964 (gage height, 12.95 ft); no flow at times some years.
Flood in Spring 1950 or 1951 reached a stage of 18.4 ft, from information by local resident.

REMARKS.--Records good.

REVISIONS.--WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.6 | 36 | 22 | 53 | 86 | 23 | 287 | 66 | 8.3 | 3.6 | 3.0 | .85 |
| 2 | 3.9 | 25 | 18 | 47 | 285 | 38 | 460 | 50 | 7.7 | 3.2 | 1.6 | 1.2 |
| 3 | 4.5 | 16 | 17 | 40 | 150 | 134 | 162 | 41 | 13 | 3.0 | 5.7 | 2.2 |
| 4 | 4.1 | 14 | 15 | 36 | 80 | 166 | 98 | 35 | 12 | 3.0 | 10 | 7.4 |
| 5 | 3.5 | 13 | 13 | 31 | 64 | 188 | 75 | 31 | 10 | 2.8 | 4.2 | 44 |
| 6 | 3.1 | 11 | 13 | 27 | 58 | 99 | 62 | 28 | 154 | 2.4 | 2.6 | 7.2 |
| 7 | 4.3 | 9.7 | 156 | 24 | 78 | 73 | 48 | 24 | 40 | 2.2 | 1.6 | 3.8 |
| 8 | 5.3 | 8.4 | 117 | 21 | 135 | 58 | 41 | 22 | 21 | 2.8 | 1.3 | 2.8 |
| 9 | 5.8 | 7.6 | 68 | 19 | 148 | 49 | 37 | 20 | 14 | 6.7 | 1.4 | 2.0 |
| 10 | 5.3 | 6.9 | 52 | 17 | 103 | 40 | 32 | 21 | 11 | 4.2 | 1.6 | 1.4 |
| 11 | 123 | 6.7 | 44 | 16 | 91 | 34 | 28 | 77 | 9.4 | 3.0 | 1.3 | 1.2 |
| 12 | 40 | 6.6 | 34 | 15 | 71 | 32 | 26 | 82 | 8.0 | 2.4 | 1.0 | .85 |
| 13 | 18 | 6.4 | 29 | 15 | 59 | 30 | 33 | 43 | 20 | 2.0 | .75 | .85 |
| 14 | 16 | 6.9 | 27 | 14 | 49 | 29 | 37 | 83 | 16 | 1.6 | .55 | .85 |
| 15 | 13 | 6.6 | 23 | 15 | 40 | 28 | 31 | 54 | 10 | 1.3 | .45 | 1.0 |
| 16 | 9.4 | 5.9 | 20 | 16 | 37 | 28 | 27 | 102 | 280 | 1.2 | .35 | 2.4 |
| 17 | 7.6 | 26 | 18 | 28 | 40 | 31 | 25 | 68 | 75 | 1.0 | .45 | 1.3 |
| 18 | 6.1 | 552 | 17 | 75 | 64 | 37 | 22 | 43 | 32 | .85 | 2.2 | 1.3 |
| 19 | 5.3 | 1,300 | 16 | 51 | 91 | 101 | 102 | 32 | 19 | 1.2 | 1.3 | 3.2 |
| 20 | 5.3 | 215 | 15 | 35 | 56 | 142 | 249 | 25 | 15 | 1.3 | 64 | 2.8 |
| 21 | 6.4 | 121 | 14 | 24 | 43 | 85 | 167 | 20 | 14 | 1.3 | 9.7 | 1.8 |
| 22 | 6.8 | 101 | 13 | 17 | 39 | 71 | 94 | 17 | 11 | 1.3 | 4.5 | 1.4 |
| 23 | 5.7 | 95 | 13 | 15 | 35 | 61 | 99 | 15 | 9.0 | 1.6 | 3.2 | 1.2 |
| 24 | 4.4 | 67 | 12 | 14 | 34 | 50 | 2,460 | 13 | 7.8 | 1.4 | 2.4 | 1.2 |
| 25 | 4.3 | 52 | 12 | 60 | 33 | 50 | 285 | 11 | 8.3 | 1.3 | 1.6 | 1.4 |
| 26 | 4.4 | 42 | 11 | 193 | 28 | 185 | 139 | 10 | 7.1 | 1.3 | 1.2 | 2.0 |
| 27 | 4.6 | 36 | 11 | 109 | 26 | 98 | 194 | 8.8 | 6.0 | 2.0 | .85 | 5.3 |
| 28 | 4.2 | 30 | 11 | 160 | 24 | 73 | 228 | 7.8 | 5.0 | 2.0 | .65 | 2.6 |
| 29 | 4.0 | 27 | 17 | 800 | ------ | 62 | 124 | 9.2 | 4.3 | 1.8 | .55 | 1.3 |
| 30 | 3.9 | 23 | 47 | 179 | ------ | 56 | 89 | 10 | 3.8 | 1.6 | .65 | .85 |
| 31 | 6.0 | ------ | 57 | 111 | ------ | 48 | ------ | 8.1 | ------ | 4.7 | .75 | ------ |
| TOTAL | 339.8 | 2,873.7 | 952 | 2,277 | 2,047 | 2,199 | 5,761 | 1,076.9 | 851.7 | 70.05 | 131.40 | 107.65 |
| MEAN | 11.0 | 95.8 | 30.7 | 73.5 | 73.1 | 70.9 | 192 | 34.7 | 28.4 | 2.26 | 4.24 | 3.59 |
| MAX | 123 | 1,300 | 156 | 800 | 285 | 188 | 2,460 | 102 | 280 | 6.7 | 64 | 44 |
| MIN | 1.6 | 5.9 | 11 | 14 | 24 | 23 | 22 | 7.8 | 3.8 | .85 | .35 | .85 |
| CFSM | .18 | 1.58 | .51 | 1.21 | 1.20 | 1.17 | 3.16 | .57 | .47 | .037 | .070 | .059 |
| IN. | .21 | 1.76 | .58 | 1.40 | 1.25 | 1.35 | 3.53 | .66 | .52 | .04 | .08 | .07 |

CAL YR 1969 TOTAL 27,883.80 MEAN 76.4 MAX 2,250 MIN 1.3 CFSM 1.26 IN 17.09
WAT YR 1970 TOTAL 18,687.20 MEAN 51.2 MAX 2,460 MIN .35 CFSM .84 IN 11.45

PEAK DISCHARGE (BASE, 1,400 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-19 | 0430 | 8.04 | 2,520 | 04-01 | 2130 | 6.29 | 1,520 |
| 01-29 | 0330 | 7.02 | 1,940 | 04-24 | 0515 | 11.26 | 4,850 |

03373500 East Fork White River at Shoals, Ind.

LOCATION.--Lat 38°40'02", long 86°47'32", in sec.30, T.3 N., R.3 W., Martin County, in first pier from left bank of bridge on U.S. Highway 50 at Shoals, 400 ft upstream from Baltimore and Ohio Railroad bridge, 1 mile upstream from Beaver Creek, and at mile 107.6.

DRAINAGE AREA.--4,327 sq mi.

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 U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 442.25 ft above mean sea level. See WSP 1725 for history of changes prior to Oct. 26, 1932.

AVERAGE DISCHARGE.--56 years (1903-5, 1909-16, 1923-70), 5,311 cfs (14.64 inches per year).

EXTREMES.--Current year: Maximum discharge, 22,500 cfs Apr. 7 (gage height, 15.31 ft); minimum, 559 cfs Sept. 24, 25 (gage height, 2.47 ft).
Period of record: Maximum discharge, 160,000 cfs Mar. 28, 1913 (gage height, 42.2 ft), from rating curve extended above 100,000 cfs; minimum, 44 cfs Oct. 6, 1935, as a result of filling Williams Reservoir.

REMARKS.--Records good. Flow partially regulated by Monroe Reservoir. (See sta 03372400.)

REVISIONS (WATER YEARS).--WSP 353: 1912. WSP 1335: 1903-6. WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 934 | 980 | 3,840 | 2,850 | 11,400 | 3,560 | 9,200 | 18,300 | 1,910 | 1,250 | 1,220 | 683 |
| 2 | 967 | 1,040 | 3,540 | 3,500 | 13,300 | 3,690 | 13,500 | 15,600 | 1,860 | 1,180 | 1,200 | 658 |
| 3 | 934 | 1,070 | 3,270 | 4,090 | 15,000 | 5,500 | 17,000 | 15,000 | 1,910 | 1,130 | 1,150 | 649 |
| 4 | 890 | 1,040 | 3,020 | 4,260 | 14,400 | 9,840 | 15,200 | 15,000 | 2,090 | 1,080 | 1,540 | 880 |
| 5 | 960 | 1,050 | 2,900 | 4,090 | 13,500 | 12,500 | 17,400 | 13,700 | 2,600 | 1,050 | 1,650 | 1,130 |
| 6 | 840 | 1,110 | 2,600 | 3,710 | 13,500 | 13,600 | 21,100 | 10,900 | 3,610 | 1,000 | 1,350 | 1,120 |
| 7 | 840 | 1,150 | 2,620 | 2,800 | 12,900 | 14,500 | 22,200 | 8,320 | 4,690 | 978 | 1,120 | 978 |
| 8 | 830 | 1,150 | 3,880 | 2,200 | 11,500 | 15,700 | 20,000 | 7,220 | 5,150 | 978 | 1,050 | 840 |
| 9 | 820 | 1,120 | 4,480 | 1,800 | 10,800 | 16,700 | 15,800 | 6,520 | 5,040 | 989 | 1,000 | 772 |
| 10 | 810 | 1,100 | 5,620 | 1,600 | 10,500 | 16,300 | 12,500 | 6,260 | 4,350 | 1,000 | 934 | 718 |
| 11 | 834 | 1,060 | 6,900 | 1,400 | 10,800 | 14,400 | 9,900 | 6,130 | 3,690 | 1,060 | 890 | 649 |
| 12 | 1,500 | 1,040 | 6,520 | 1,400 | 10,900 | 11,600 | 7,950 | 6,660 | 3,100 | 1,180 | 870 | 624 |
| 13 | 1,460 | 1,010 | 5,690 | 1,400 | 10,400 | 8,500 | 7,110 | 6,860 | 2,800 | 1,150 | 830 | 649 |
| 14 | 1,120 | 990 | 5,110 | 1,400 | 9,300 | 6,360 | 6,640 | 7,880 | 2,570 | 1,060 | 800 | 632 |
| 15 | 1,070 | 980 | 4,710 | 1,400 | 7,990 | 5,430 | 6,230 | 8,280 | 3,120 | 989 | 781 | 624 |
| 16 | 1,330 | 960 | 4,470 | 1,400 | 6,980 | 5,110 | 5,950 | 7,700 | 3,860 | 945 | 754 | 666 |
| 17 | 1,590 | 970 | 4,370 | 1,500 | 5,950 | 4,910 | 5,670 | 7,440 | 7,260 | 912 | 745 | 666 |
| 18 | 1,660 | 1,150 | 4,220 | 1,500 | 5,220 | 4,840 | 5,450 | 6,760 | 5,040 | 880 | 736 | 607 |
| 19 | 1,600 | 5,380 | 4,070 | 1,600 | 5,190 | 5,260 | 5,380 | 6,160 | 3,690 | 850 | 718 | 599 |
| 20 | 1,520 | 8,540 | 3,920 | 1,600 | 5,720 | 7,950 | 6,210 | 5,640 | 2,930 | 830 | 745 | 615 |
| 21 | 1,500 | 5,820 | 3,740 | 1,600 | 6,100 | 10,500 | 7,000 | 5,260 | 2,640 | 800 | 912 | 615 |
| 22 | 1,420 | 6,000 | 3,380 | 1,500 | 6,100 | 11,200 | 7,350 | 4,930 | 2,470 | 781 | 934 | 599 |
| 23 | 1,310 | 6,990 | 2,890 | 1,500 | 5,740 | 11,200 | 7,730 | 4,670 | 2,020 | 763 | 890 | 583 |
| 24 | 1,200 | 7,530 | 2,260 | 1,500 | 5,190 | 10,600 | 11,800 | 4,490 | 1,780 | 790 | 870 | 559 |
| 25 | 1,160 | 7,420 | 2,190 | 1,500 | 4,560 | 9,900 | 17,500 | 4,070 | 1,650 | 840 | 810 | 567 |
| 26 | 1,120 | 6,590 | 2,070 | 2,300 | 4,120 | 10,200 | 16,900 | 3,100 | 1,620 | 923 | 820 | 591 |
| 27 | 1,080 | 5,720 | 1,970 | 3,300 | 3,900 | 11,000 | 17,000 | 2,350 | 1,540 | 1,110 | 830 | 591 |
| 28 | 1,020 | 5,150 | 1,850 | 4,160 | 3,760 | 10,800 | 20,300 | 2,130 | 1,460 | 989 | 820 | 591 |
| 29 | 980 | 4,640 | 1,820 | 7,740 | ------ | 10,800 | 21,900 | 2,040 | 1,420 | 890 | 800 | 591 |
| 30 | 940 | 4,200 | 1,990 | 11,800 | ------ | 11,200 | 20,900 | 2,010 | 1,330 | 850 | 772 | 591 |
| 31 | 940 | ------ | 2,420 | 10,900 | ------ | 10,600 | ------ | 1,940 | ------ | 1,120 | 718 | ------ |
| TOTAL | 35,179 | 92,950 | 112,230 | 93,300 | 244,720 | 304,250 | 378,770 | 223,320 | 89,200 | 30,347 | 29,259 | 20,637 |
| MEAN | 1,135 | 3,098 | 3,620 | 3,010 | 8,740 | 9,815 | 12,630 | 7,204 | 2,973 | 979 | 944 | 688 |
| MAX | 1,660 | 8,540 | 6,900 | 11,800 | 15,000 | 16,700 | 22,200 | 18,300 | 7,260 | 1,250 | 1,650 | 1,130 |
| MIN | 810 | 960 | 1,820 | 1,400 | 3,760 | 3,560 | 5,380 | 1,940 | 1,330 | 763 | 718 | 559 |
| CFSM | .23 | .63 | .73 | .61 | 1.77 | 1.99 | 2.56 | 1.46 | .60 | .20 | .19 | .14 |
| IN. | .27 | .70 | .85 | .70 | 1.85 | 2.30 | 2.86 | 1.69 | .67 | .23 | .22 | .16 |

CAL YR 1969 TOTAL 2,200,815 MEAN 6,030 MAX 46,800 MIN 810 CFSM 1.22 IN 16.62
WAT YR 1970 TOTAL 1,654,162 MEAN 4,532 MAX 22,200 MIN 559 CFSM .92 IN 12.49

PEAK DISCHARGE (BASE, 20,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-07 | 0645 | 15.31 | 22,500 | 04-29 | 1400 | 15.00 | 22,000 |

## 03373700 Lost River near West Baden Springs, Ind.

LOCATION.--Lat 38°35'10", long 86°38'03", in SE¼ sec.21, T.2 N., R.2 W., Orange County, on left bank 20 ft downstream from bridge on U.S. Highway 150, 1.7 miles northwest of West Baden Springs, and 3.8 miles downstream from Lick Creek.

DRAINAGE AREA.--287 sq mi.

PERIOD OF RECORD.--December 1964 to current year. Prior to October 1965, published as Lost River near West Baden.

GAGE.--Water-stage recorder. Datum of gage is 457.92 ft above mean sea level (levels by Indiana Department of Natural Resources).

AVERAGE DISCHARGE.--5 years, 302 cfs (14.29 inches per year).

EXTREMES.--Current year: Maximum discharge, about 5,100 cfs Apr. 28; minimum, 15 cfs Oct. 10; minimum gage height, 2.78 ft Sept. 19.
Period of record: Maximum discharge, 5,210 cfs Jan. 30, 1969 (gage height, 23.61 ft); minimum, 3.4 cfs July 20, 1965 (gage height, 2.47 ft) due to unusual regulation.
Flood in March 1964 reached a stage of 28.1 ft, from floodmarks.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 18 | 34 | 69 | 406 | 462 | 150 | 702 | 700 | 64 | 74 | 315 | 19 |
| 2 | 25 | 37 | 62 | 353 | 486 | 367 | 3,800 | 500 | 64 | 68 | 114 | 18 |
| 3 | 28 | 37 | 57 | 297 | 635 | 1,290 | 2,000 | 400 | 276 | 71 | 53 | 18 |
| 4 | 25 | 32 | 52 | 252 | 500 | 1,720 | 1,300 | 300 | 320 | 65 | 50 | 20 |
| 5 | 21 | 29 | 47 | 214 | 400 | 1,710 | 900 | 240 | 538 | 58 | 37 | 20 |
| 6 | 19 | 28 | 44 | 180 | 340 | 1,430 | 600 | 200 | 1,060 | 53 | 31 | 19 |
| 7 | 17 | 27 | 215 | 150 | 334 | 1,020 | 430 | 160 | 1,000 | 49 | 28 | 18 |
| 8 | 17 | 25 | 578 | 130 | 689 | 763 | 360 | 150 | 604 | 61 | 29 | 18 |
| 9 | 18 | 24 | 430 | 110 | 1,000 | 626 | 300 | 170 | 440 | 126 | 48 | 17 |
| 10 | 16 | 22 | 286 | 100 | 881 | 522 | 260 | 600 | 335 | 61 | 43 | 17 |
| 11 | 28 | 22 | 221 | 90 | 710 | 446 | 220 | 1,100 | 261 | 52 | 33 | 17 |
| 12 | 40 | 23 | 174 | 84 | 578 | 402 | 230 | 740 | 210 | 44 | 28 | 16 |
| 13 | 41 | 23 | 135 | 78 | 475 | 385 | 230 | 521 | 333 | 41 | 26 | 16 |
| 14 | 32 | 25 | 118 | 72 | 403 | 370 | 210 | 553 | 418 | 37 | 24 | 17 |
| 15 | 26 | 25 | 104 | 70 | 354 | 360 | 200 | 555 | 395 | 35 | 22 | 17 |
| 16 | 23 | 24 | 90 | 69 | 310 | 340 | 170 | 444 | 656 | 33 | 21 | 17 |
| 17 | 21 | 24 | 80 | 95 | 299 | 350 | 150 | 409 | 1,060 | 32 | 21 | 17 |
| 18 | 20 | 91 | 74 | 320 | 344 | 408 | 150 | 349 | 737 | 29 | 19 | 16 |
| 19 | 19 | 1,200 | 71 | 292 | 433 | 691 | 300 | 284 | 453 | 28 | 19 | 16 |
| 20 | 20 | 1,010 | 65 | 193 | 403 | 1,430 | 860 | 236 | 328 | 29 | 47 | 16 |
| 21 | 30 | 548 | 62 | 110 | 322 | 1,380 | 640 | 196 | 302 | 30 | 39 | 16 |
| 22 | 44 | 337 | 60 | 90 | 285 | 1,020 | 480 | 164 | 280 | 28 | 31 | 16 |
| 23 | 33 | 265 | 58 | 82 | 260 | 818 | 410 | 139 | 221 | 28 | 115 | 16 |
| 24 | 26 | 210 | 54 | 76 | 230 | 728 | 1,600 | 122 | 174 | 29 | 59 | 16 |
| 25 | 23 | 163 | 52 | 120 | 210 | 1,000 | 1,300 | 106 | 163 | 28 | 38 | 16 |
| 26 | 20 | 129 | 50 | 500 | 190 | 2,130 | 800 | 94 | 143 | 28 | 27 | 18 |
| 27 | 20 | 109 | 48 | 416 | 180 | 2,230 | 2,000 | 83 | 123 | 254 | 24 | 17 |
| 28 | 19 | 94 | 45 | 309 | 165 | 1,780 | 4,700 | 74 | 106 | 127 | 22 | 18 |
| 29 | 19 | 81 | 62 | 686 | ------ | 1,330 | 3,000 | 70 | 94 | 43 | 20 | 18 |
| 30 | 19 | 74 | 180 | 845 | ------ | 980 | 1,500 | 71 | 82 | 43 | 19 | 17 |
| 31 | 20 | ------ | 366 | 620 | ------ | 796 | ------ | 66 | ------ | 245 | 19 | ------ |
| TOTAL | 747 | 4,772 | 4,009 | 7,409 | 11,878 | 28,972 | 29,802 | 9,796 | 11,240 | 1,929 | 1,421 | 517 |
| MEAN | 24.1 | 159 | 129 | 239 | 424 | 935 | 993 | 316 | 375 | 62.2 | 45.8 | 17.2 |
| MAX | 44 | 1,200 | 578 | 845 | 1,000 | 2,230 | 4,700 | 1,100 | 1,060 | 254 | 315 | 20 |
| MIN | 16 | 22 | 44 | 69 | 165 | 150 | 150 | 66 | 64 | 28 | 19 | 16 |
| CFSM | .084 | .55 | .45 | .83 | 1.48 | 3.26 | 3.46 | 1.10 | 1.31 | .22 | .16 | .060 |
| IN. | .10 | .62 | .52 | .96 | 1.54 | 3.76 | 3.86 | 1.27 | 1.46 | .25 | .18 | .07 |

CAL YR 1969 TOTAL 124,347 MEAN 341 MAX 4,700 MIN 16 CFSM 1.19 IN 16.12
WAT YR 1970 TOTAL 112,492 MEAN 308 MAX 4,700 MIN 16 CFSM 1.07 IN 14.58

PEAK DISCHARGE (BASE, 2,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 03-26 | 2245 | 19.95 | 2,360 | 04-28 | Unknown | Unknown | a5,100 |
| 04-02 | Unknown | Unknown | a4,100 | | | | |

NOTE.--No gage-height record Apr. 2 to May 12.

a about

## 03374000 White River at Petersburg, Ind.

LOCATION.--Lat 38°30'39", long 87°17'22", in SE¼SW¼ sec.15, T.1 N., R.8 W., Pike County, on left bank 300 ft downstream from bridge on State Highway 61, 0.4 mile upstream from Prides Creek, 1 mile north of Petersburg, and at mile 47.7.

DRAINAGE AREA.--11,125 sq mi.

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only for October 1927, published in WSP 1305. Published as "at Hazelton" 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 U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 400.00 ft above mean sea level. See WSP 1725 for history of changes prior to Apr. 1, 1941.

AVERAGE DISCHARGE.--43 years, 11,270 cfs (13.76 inches per year).

EXTREMES.--Current year: Maximum discharge, 51,600 cfs Apr. 30 (gage height, 21.51 ft); minimum daily, 1,530 cfs Sept. 25.
Period of record: Maximum discharge, 183,000 cfs Jan. 22, 1937 (gage height, 28.3 ft, present datum, 31.58 ft site and datum then in use); minimum, 553 cfs Oct. 2, 1941 (gage height, 0.05 ft).
Flood in March 1913, reached a stage of 29.5 ft (present site and datum), from floodmarks by Corps of Engineers (discharge, 235,000 cfs, estimated).

REMARKS.--Records good. Natural flow of stream affected by reservoirs. Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1305: 1930(M). WRD Ind. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3,200 | 4,320 | 12,400 | 7,650 | 25,200 | 9,430 | 20,700 | 50,500 | 5,780 | 3,770 | 4,660 | 2,080 |
| 2 | 3,150 | 4,420 | 11,200 | 7,760 | 27,600 | 9,570 | 24,200 | 46,600 | 5,720 | 3,660 | 4,270 | 1,980 |
| 3 | 3,090 | 6,580 | 10,100 | 8,000 | 30,600 | 12,000 | 26,800 | 39,800 | 7,200 | 3,760 | 3,980 | 1,880 |
| 4 | 3,010 | 6,990 | 9,120 | 8,240 | 32,100 | 16,900 | 28,700 | 33,400 | 7,440 | 3,730 | 3,760 | 1,970 |
| 5 | 2,970 | 6,310 | 8,270 | 8,220 | 32,300 | 21,800 | 28,400 | 28,700 | 9,010 | 3,370 | 3,800 | 2,050 |
| 6 | 2,950 | 5,840 | 7,710 | 7,890 | 31,000 | 24,400 | 28,700 | 25,000 | 10,200 | 3,370 | 3,760 | 2,330 |
| 7 | 2,930 | 5,800 | 8,030 | 6,950 | 29,100 | 26,100 | 30,000 | 21,600 | 11,200 | 3,480 | 3,480 | 2,500 |
| 8 | 2,860 | 5,710 | 9,570 | 5,120 | 27,900 | 27,600 | 30,900 | 18,200 | 12,300 | 3,300 | 3,480 | 2,330 |
| 9 | 2,790 | 5,480 | 11,100 | 4,200 | 27,000 | 28,900 | 29,200 | 15,900 | 11,200 | 3,200 | 4,000 | 2,160 |
| 10 | 2,780 | 5,210 | 12,100 | 4,130 | 25,400 | 28,200 | 24,900 | 14,700 | 9,840 | 3,170 | 3,200 | 1,980 |
| 11 | 3,580 | 4,960 | 12,900 | 4,060 | 25,000 | 26,300 | 20,500 | 14,200 | 8,650 | 3,160 | 2,820 | 1,840 |
| 12 | 4,520 | 4,780 | 13,700 | 4,220 | 24,800 | 23,300 | 17,200 | 14,200 | 7,650 | 3,100 | 2,640 | 1,740 |
| 13 | 4,600 | 4,550 | 13,000 | 4,400 | 24,000 | 19,800 | 14,700 | 15,500 | 6,980 | 3,110 | 2,510 | 1,660 |
| 14 | 5,550 | 4,280 | 11,700 | 4,540 | 22,100 | 16,300 | 13,300 | 16,100 | 7,420 | 3,070 | 2,400 | 1,650 |
| 15 | 7,010 | 4,040 | 10,600 | 4,700 | 19,300 | 13,500 | 12,500 | 17,000 | 10,300 | 2,960 | 2,290 | 1,690 |
| 16 | 8,080 | 3,880 | 9,840 | 4,840 | 16,900 | 12,000 | 12,100 | 17,200 | 9,440 | 2,880 | 2,270 | 1,660 |
| 17 | 8,690 | 3,820 | 9,250 | 5,030 | 14,900 | 11,300 | 11,400 | 17,900 | 9,000 | 2,780 | 2,200 | 1,650 |
| 18 | 8,850 | 4,490 | 8,810 | 5,500 | 14,100 | 11,300 | 10,900 | 19,000 | 11,200 | 2,680 | 2,130 | 1,660 |
| 19 | 8,340 | 11,300 | 8,380 | 5,700 | 13,600 | 13,200 | 10,600 | 19,200 | 9,860 | 2,610 | 2,090 | 1,660 |
| 20 | 7,660 | 17,700 | 8,000 | 6,220 | 13,100 | 14,100 | 11,800 | 17,400 | 7,810 | 3,000 | 2,120 | 1,690 |
| 21 | 7,120 | 20,700 | 7,760 | 6,120 | 13,100 | 16,200 | 13,800 | 14,600 | 7,630 | 2,780 | 2,860 | 1,730 |
| 22 | 6,440 | 20,500 | 7,520 | 5,450 | 13,500 | 18,200 | 16,700 | 13,200 | 6,360 | 2,510 | 3,200 | 1,720 |
| 23 | 5,870 | 21,000 | 7,120 | 5,150 | 13,700 | 18,900 | 18,800 | 12,100 | 5,710 | 2,680 | 2,970 | 1,660 |
| 24 | 5,270 | 22,100 | 6,590 | 4,840 | 13,300 | 18,800 | 22,600 | 11,300 | 5,180 | 2,820 | 2,960 | 1,570 |
| 25 | 4,820 | 22,900 | 6,170 | 5,000 | 12,200 | 19,000 | 29,200 | 10,600 | 5,080 | 2,690 | 3,050 | 1,530 |
| 26 | 4,610 | 22,700 | 5,900 | 6,700 | 11,200 | 23,000 | 34,600 | 9,800 | 4,810 | 2,650 | 2,850 | 1,560 |
| 27 | 4,460 | 20,700 | 5,680 | 7,620 | 10,500 | 22,500 | 39,300 | 8,370 | 4,580 | 2,930 | 2,620 | 1,620 |
| 28 | 4,210 | 17,700 | 5,510 | 10,200 | 9,930 | 23,100 | 46,000 | 7,170 | 4,330 | 4,300 | 2,470 | 1,740 |
| 29 | 3,920 | 15,400 | 5,420 | 16,900 | ------ | 23,500 | 49,000 | 6,280 | 4,080 | 4,450 | 2,390 | 1,770 |
| 30 | 3,720 | 13,700 | 6,120 | 21,900 | ------ | 23,100 | 51,200 | 6,200 | 3,920 | 4,000 | 2,260 | 1,770 |
| 31 | 3,690 | ------ | 7,180 | 24,400 | ------ | 22,300 | ------ | 5,940 | ------ | 3,860 | 2,180 | ------ |
| TOTAL | 150,740 | 317,860 | 276,750 | 231,650 | 573,430 | 594,600 | 728,700 | 567,660 | 229,880 | 99,830 | 91,670 | 54,830 |
| MEAN | 4,863 | 10,600 | 8,927 | 7,473 | 20,480 | 19,180 | 24,290 | 18,310 | 7,663 | 3,220 | 2,957 | 1,828 |
| MAX | 8,850 | 22,900 | 13,700 | 24,400 | 32,300 | 28,900 | 51,200 | 50,500 | 12,300 | 4,450 | 4,660 | 2,500 |
| MIN | 2,780 | 3,820 | 5,420 | 4,060 | 9,930 | 9,430 | 10,600 | 5,940 | 3,920 | 2,510 | 2,090 | 1,530 |
| CFSM | .44 | .95 | .80 | .67 | 1.84 | 1.72 | 2.18 | 1.65 | .69 | .29 | .27 | .16 |
| IN. | .50 | 1.06 | .93 | .77 | 1.92 | 1.99 | 2.44 | 1.90 | .77 | .33 | .31 | .18 |

CAL YR 1969 TOTAL 5,084,900 MEAN 13,930 MAX 94,600 MIN 2,450 CFSM 1.25 IN 17.00
WAT YR 1970 TOTAL 3,917,600 MEAN 10,730 MAX 51,200 MIN 1,530 CFSM .96 IN 13.10

## 03374455 Patoka River near Hardinsburg, Ind.

LOCATION.--Lat 38°26'41", long 86°23'14", in NW¼SE¼ sec.10, T.1 S., R.1 E., Orange County, on downstream edge of center pier on county road bridge, 0.2 mile upstream from left-bank tributary, 0.7 mile northeast of Valeene, and 6.0 miles southwest of Hardinsburg.

DRAINAGE AREA.--12.8 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 606.89 ft above sea level.

EXTREMES.--Current year: Maximum discharge, 1,410 cfs Apr. 27 (gage height, 7.22 ft); minimum daily, 0.31 cfs Sept. 24.
Period of record: Maximum discharge, 1,410 cfs Apr. 27, 1970 (gage height, 7.22 ft); minimum daily, 0.31 cfs Sept. 24, 1970.

REMARKS.--Records good except those for parts of December and January, which are poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .44 | .75 | 2.7 | 27 | 21 | 5.8 | 67 | 44 | 2.3 | 1.8 | 2.0 | .32 |
| 2 | .78 | .58 | 2.4 | 19 | 61 | 248 | 351 | 30 | 98 | 1.7 | 1.0 | .39 |
| 3 | .54 | .57 | 2.3 | 14 | 47 | 259 | 91 | 22 | 135 | 2.1 | .95 | .67 |
| 4 | .47 | .52 | 2.0 | 11 | 31 | 277 | 53 | 17 | 151 | 1.7 | .92 | 2.5 |
| 5 | .42 | .49 | 1.7 | 9.0 | 19 | 127 | 39 | 14 | 266 | 1.5 | .67 | 1.0 |
| 6 | .41 | .43 | 1.7 | 7.4 | 14 | 62 | 31 | 11 | 244 | 1.4 | .70 | .63 |
| 7 | .46 | .43 | 52 | 6.0 | 23 | 41 | 23 | 8.9 | 63 | 1.3 | .93 | .51 |
| 8 | .43 | .43 | 37 | 5.0 | 93 | 31 | 19 | 7.5 | 29 | 1.8 | 1.8 | .42 |
| 9 | .42 | .43 | 19 | 4.3 | 77 | 24 | 16 | 6.3 | 17 | 1.7 | 5.0 | .38 |
| 10 | .40 | .43 | 14 | 3.7 | 45 | 18 | 14 | 31 | 12 | 1.3 | 4.0 | .35 |
| 11 | .76 | .43 | 11 | 3.4 | 32 | 14 | 12 | 71 | 8.6 | 1.2 | 2.8 | .43 |
| 12 | .83 | .43 | 7.7 | 3.2 | 23 | 14 | 11 | 97 | 6.3 | 1.0 | 1.7 | .38 |
| 13 | .67 | .47 | 5.7 | 3.0 | 18 | 16 | 12 | 45 | 11 | 1.0 | 1.4 | .75 |
| 14 | .65 | .52 | 5.0 | 2.8 | 15 | 22 | 11 | 41 | 8.1 | .90 | 1.0 | .94 |
| 15 | .51 | .43 | 4.1 | 2.8 | 15 | 21 | 10 | 25 | 23 | .91 | .80 | .60 |
| 16 | .61 | .42 | 3.3 | 3.5 | 14 | 17 | 9.3 | 23 | 97 | .93 | .75 | .51 |
| 17 | .60 | .47 | 3.1 | 15 | 22 | 19 | 8.4 | 20 | 45 | .78 | .70 | .48 |
| 18 | .58 | 5.1 | 2.9 | 12 | 34 | 27 | 7.3 | 14 | 20 | .73 | .80 | .52 |
| 19 | .55 | 99 | 2.7 | 9.6 | 35 | 100 | 9.1 | 11 | 12 | .79 | .70 | .50 |
| 20 | .62 | 26 | 2.4 | 8.3 | 21 | 125 | 49 | 8.4 | 8.3 | .96 | 4.1 | .42 |
| 21 | .78 | 14 | 2.2 | 7.1 | 15 | 60 | 33 | 6.4 | 6.8 | .72 | 4.2 | .40 |
| 22 | .61 | 12 | 2.0 | 6.4 | 14 | 49 | 23 | 5.1 | 5.4 | .71 | 3.5 | .40 |
| 23 | .53 | 11 | 1.9 | 5.5 | 12 | 42 | 23 | 4.5 | 4.9 | 1.1 | 5.8 | .38 |
| 24 | .51 | 8.0 | 1.8 | 5.2 | 11 | 36 | 135 | 3.9 | 4.3 | .96 | 1.5 | .31 |
| 25 | .53 | 6.1 | 1.7 | 9.0 | 10 | 244 | 72 | 3.4 | 3.8 | .81 | .93 | .41 |
| 26 | .58 | 4.9 | 1.6 | 13 | 8.4 | 247 | 45 | 2.9 | 3.4 | .78 | .66 | .50 |
| 27 | .51 | 4.2 | 1.6 | 11 | 7.7 | 85 | 392 | 2.5 | 2.9 | .78 | .57 | .49 |
| 28 | .47 | 3.6 | 2.0 | 16 | 6.0 | 51 | 504 | 2.2 | 2.6 | .72 | .48 | .47 |
| 29 | .49 | 3.2 | 5.2 | 104 | ------ | 40 | 161 | 2.3 | 2.2 | .65 | .42 | .36 |
| 30 | .49 | 2.8 | 23 | 47 | ------ | 37 | 74 | 1.9 | 2.0 | .61 | .39 | .32 |
| 31 | .51 | ------ | 39 | 28 | ------ | 32 | ------ | 2.3 | ------ | 2.1 | .32 | ------ |
| TOTAL | 17.26 | 208.14 | 264.7 | 422.2 | 744.1 | 2,390.8 | 2,305.1 | 584.5 | 1,294.9 | 35.44 | 51.39 | 16.74 |
| MEAN | .56 | 6.94 | 8.54 | 13.6 | 26.6 | 77.1 | 76.8 | 18.9 | 43.2 | 1.14 | 1.66 | .56 |
| MAX | .83 | 99 | 52 | 104 | 93 | 277 | 504 | 97 | 266 | 2.1 | 5.8 | 2.5 |
| MIN | .40 | .42 | 1.6 | 2.8 | 6.0 | 5.8 | 7.3 | 1.9 | 2.0 | .61 | .32 | .31 |
| CFSM | .044 | .54 | .67 | 1.06 | 2.08 | 6.02 | 6.00 | 1.48 | 3.38 | .089 | .13 | .044 |
| IN. | .05 | .60 | .77 | 1.23 | 2.16 | 6.95 | 6.70 | 1.70 | 3.76 | .10 | .15 | .05 |

CAL YR 1969 TOTAL 7,755.08 MEAN 21.2 MAX 574 MIN .40 CFSM 1.66 IN 22.54
WAT YR 1970 TOTAL 8,335.27 MEAN 22.8 MAX 504 MIN .31 CFSM 1.78 IN 24.22

PEAK DISCHARGE (BASE, 250 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 03-02 | 1830 | 4.54 | 610 | 05-11 | 2145 | 4.16 | 515 |
| 03-25 | 1645 | 5.04 | 742 | 06-02 | 2100 | 5.20 | 790 |
| 04-02 | 0045 | 5.43 | 859 | 06-04 | 2145 | 5.08 | 754 |
| 04-27 | 1815 | 7.22 | 1,410 | 06-16 | 1215 | 3.43 | 332 |

03374500 Patoka River near Ellsworth, Ind.

LOCATION.--Lat 38°26'29", long 86°43'31", in SW¼SE¼ sec.10, T.1 S., R.3 W., Dubois County, on right bank 200 ft upstream from county road bridge, 1.0 mile northwest of Ellsworth, 2.9 miles upstream from Dillon Creek, and 4 miles east of Dubois.

DRAINAGE AREA.--171 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 477.00 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission). Prior to Oct. 1, 1961, nonrecording gage on downstream side of bridge, 200 ft downstream at same datum.

AVERAGE DISCHARGE.--9 years, 193 cfs (15.33 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,180 cfs Apr. 29 (gage height, 14.57 ft); minimum daily, 2.7 cfs Sept. 18, 19.
Period of record: Maximum discharge, 14,700 cfs Mar. 10, 1964 (gage height, 20.02 ft); no flow Oct. 30, 1964.
Flood in March 1913 reached a stage of 19.1 ft (discharge about 12,300 cfs) according to information by local resident.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.5 | 21 | 66 | 569 | 312 | 133 | 387 | 1,810 | 30 | 20 | 8.1 | 3.3 |
| 2 | 11 | 25 | 62 | 387 | 452 | 432 | 1,510 | 776 | 32 | 18 | 8.7 | 3.1 |
| 3 | 16 | 23 | 57 | 266 | 589 | 1,230 | 1,650 | 255 | 130 | 19 | 6.8 | 4.2 |
| 4 | 15 | 23 | 51 | 205 | 411 | 1,510 | 1,490 | 190 | 655 | 22 | 6.1 | 20 |
| 5 | 11 | 24 | 45 | 172 | 270 | 1,630 | 986 | 157 | 1,260 | 20 | 7.8 | 13 |
| 6 | 10 | 20 | 41 | 140 | 221 | 1,510 | 396 | 128 | 1,590 | 19 | 6.3 | 6.6 |
| 7 | 9.6 | 19 | 314 | 110 | 251 | 980 | 262 | 106 | 1,830 | 17 | 4.9 | 4.8 |
| 8 | 10 | 17 | 734 | 90 | 706 | 420 | 210 | 92 | 1,650 | 14 | 5.7 | 5.4 |
| 9 | 9.6 | 19 | 482 | 75 | 891 | 287 | 183 | 81 | 634 | 13 | 12 | 5.6 |
| 10 | 10 | 31 | 242 | 62 | 714 | 233 | 162 | 198 | 159 | 12 | 15 | 4.5 |
| 11 | 15 | 19 | 183 | 57 | 472 | 197 | 142 | 335 | 115 | 17 | 15 | 4.2 |
| 12 | 22 | 13 | 147 | 62 | 326 | 185 | 128 | 484 | 89 | 18 | 14 | 4.1 |
| 13 | 19 | 10 | 119 | 62 | 258 | 224 | 138 | 976 | 126 | 13 | 16 | 3.9 |
| 14 | 16 | 13 | 108 | 57 | 224 | 282 | 150 | 1,030 | 142 | 10 | 13 | 7.8 |
| 15 | 16 | 15 | 94 | 54 | 226 | 275 | 138 | 448 | 211 | 8.1 | 9.4 | 4.4 |
| 16 | 16 | 14 | 82 | 55 | 225 | 236 | 126 | 247 | 418 | 6.9 | 7.4 | 4.4 |
| 17 | 14 | 14 | 72 | 92 | 277 | 223 | 117 | 255 | 615 | 6.5 | 7.2 | 3.4 |
| 18 | 13 | 100 | 67 | 195 | 405 | 288 | 106 | 205 | 355 | 6.4 | 6.2 | 2.7 |
| 19 | 11 | 1,220 | 65 | 193 | 458 | 695 | 113 | 154 | 170 | 5.8 | 11 | 3.1 |
| 20 | 11 | 1,360 | 61 | 166 | 346 | 1,170 | 205 | 119 | 119 | 32 | 269 | 4.1 |
| 21 | 13 | 927 | 56 | 113 | 249 | 1,030 | 314 | 94 | 104 | 23 | 88 | 4.7 |
| 22 | 14 | 378 | 51 | 81 | 217 | 676 | 255 | 77 | 90 | 14 | 30 | 4.9 |
| 23 | 13 | 239 | 48 | 70 | 214 | 512 | 218 | 63 | 73 | 10 | 29 | 5.4 |
| 24 | 11 | 186 | 46 | 66 | 202 | 414 | 635 | 57 | 53 | 9.6 | 25 | 5.3 |
| 25 | 11 | 150 | 44 | 92 | 191 | 726 | 1,010 | 49 | 58 | 9.2 | 17 | 5.5 |
| 26 | 11 | 124 | 44 | 162 | 169 | 1,950 | 805 | 42 | 44 | 12 | 13 | 6.5 |
| 27 | 14 | 106 | 46 | 157 | 154 | 1,930 | 687 | 36 | 36 | 12 | 9.5 | 8.0 |
| 28 | 13 | 92 | 49 | 164 | 143 | 1,760 | 2,310 | 31 | 30 | 9.4 | 7.8 | 7.4 |
| 29 | 11 | 81 | 81 | 692 | ------ | 1,070 | 3,050 | 27 | 25 | 7.7 | 5.7 | 6.7 |
| 30 | 11 | 72 | 340 | 808 | ------ | 565 | 2,760 | 27 | 22 | 6.6 | 4.4 | 6.4 |
| 31 | 12 | ------ | 659 | 520 | ------ | 426 | ------ | 27 | ------ | 6.4 | 4.2 | ------ |
| TOTAL | 392.7 | 5,355 | 4,556 | 5,994 | 9,573 | 23,199 | 20,643 | 8,576 | 10,865 | 417.6 | 683.2 | 173.4 |
| MEAN | 12.7 | 179 | 147 | 193 | 342 | 748 | 688 | 277 | 362 | 13.5 | 22.0 | 5.78 |
| MAX | 22 | 1,360 | 734 | 808 | 891 | 1,950 | 3,050 | 1,810 | 1,830 | 32 | 269 | 20 |
| MIN | 3.5 | 10 | 41 | 54 | 143 | 133 | 106 | 27 | 22 | 5.8 | 4.2 | 2.7 |
| CFSM | .074 | 1.05 | .86 | 1.13 | 2.00 | 4.37 | 4.02 | 1.62 | 2.12 | .079 | .13 | .034 |
| IN. | .09 | 1.16 | .99 | 1.30 | 2.08 | 5.05 | 4.49 | 1.87 | 2.36 | .09 | .15 | .04 |

CAL YR 1969 TOTAL 95,069.0 MEAN 260 MAX 4,220 MIN 3.5 CFSM 1.52 IN 20.68
WAT YR 1970 TOTAL 90,427.9 MEAN 248 MAX 3,050 MIN 2.7 CFSM 1.45 IN 19.67

PEAK DISCHARGE (BASE, 1,200 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-19 | 2345 | 12.32 | 1,560 | 04-02 | 1945 | 12.81 | 1,780 |
| 03-05 | 1030 | 12.48 | 1,640 | 04-29 | 1800 | 14.57 | 3,180 |
| 03-26 | 1615 | 13.41 | 2,120 | 06-07 | 1800 | 12.97 | 1,860 |

## 03375200 Beaver Creek Reservoir near Jasper, Ind.

LOCATION.--Lat 38°24'10", long 86°50'30", in SE¼NW¼ sec.27, T.1 S., R.4 W., Dubois County, in intake tower of reservoir on Beaver Creek, 2.5 miles above mouth, and 5.2 miles east of Jasper.

DRAINAGE AREA.--3.87 sq mi.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 471.00 ft above mean sea level.

EXTREMES.--Current year: Maximum contents, 2,853 acre-ft Mar. 26 (gage height, 29.42 ft); minimum contents, 1,677 acre-ft Dec. 22 (gage height, 22.38 ft).
Period of record: Maximum contents, 3,337 acre-ft May 8, 1961 (gage height, 31.67 ft); minimum contents, 1,388 acre-ft Dec. 31, 1963 (gage height, 21.22 ft).

REMARKS.--Reservoir is formed by earth and rock fill dam. Releases normally controlled by 18-inch sluice gate into 18-inch concrete conduit through dam. Capacity at uncontrolled spillway elevation (28.1 ft) is 2,588 acre-ft. Reservoir is used for low-flow augmentation and recreation. Reservoir was put in operation on October 11, 1955.

COOPERATION.--Capacity tables furnished by Indiana Department of Natural Resources.

Month-end gage-height and contents, water year October 1969 to September 1970

| Date | Gage height (feet) | Contents (acre-feet) | Change in contents (acre-feet) |
|---|---|---|---|
| Sept. 30 | 28.13 | 2,594 | |
| Oct. 31 | 28.27 | 2,622 | +28 |
| Nov. 30 | 28.34 | 2,636 | +14 |
| Dec. 31 | 23.86 | 1,789 | -847 |
| Calendar year 1969 | - | - | -61 |
| Jan. 31 | 25.37 | 2,056 | +267 |
| Feb. 28 | 27.49 | 2,469 | +413 |
| Mar. 31 | 28.58 | 2,683 | +214 |
| Apr. 30 | 28.77 | 2,722 | +39 |
| May 31 | 28.20 | 2,608 | -114 |
| June 30 | 28.19 | 2,606 | -2 |
| July 31 | 28.13 | 2,594 | -12 |
| Aug. 31 | 28.15 | 2,598 | +4 |
| Sept. 30 | 27.72 | 2,514 | -84 |
| Water year 1969-70 | - | - | -80 |

03375500 Patoka River at Jasper, Ind.

LOCATION.--Lat 38°24'49", long 86°52'36", in NW¼SE¼ sec.20, T.1 S., R.4 W., Dubois County, on left bank 0.3 mile upstream from unnamed outlet of Jasper Lake, 1.0 mile downstream from Coon Seitz Bridge, 1.2 miles downstream from Beaver Creek, and 3.3 miles northeast of Jasper.

DRAINAGE AREA.--262 sq mi (revised).

PERIOD OF RECORD.--November 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 446.19 ft above mean sea level. Nonrecording gage at bridge 5.6 miles downstream (used for high-water periods when flow exceeds 1,500 cfs) at datum 0.34 ft lower. Prior to Sept. 18, 1956, nonrecording gage at bridge 5.6 miles downstream at datum 0.34 ft lower.

AVERAGE DISCHARGE.--22 years, (1948 to current year), 348 cfs (18.04 inches per year).

EXTREMES.--Current year: Maximum discharge observed, 3,550 cfs May 2 (gage height, 10.47 ft at downstream gage); maximum gage height at upstream gage, 15.31 ft May 1; minimum discharge, 1.6 cfs Sept. 28, 29, 30 (gage height, 3.29 ft).
Period of record: Maximum discharge, 14,100 cfs Mar. 11, 1964 (gage height, 15.17 ft at downstream gage); maximum gage height at upstream gage, 21.20 ft Mar. 11, 1964, from floodmark; no flow at times during 1948, 1952-56, 1963-65.
Flood in March 1913 reached a stage of 15.9 ft (at downstream site) from floodmark, furnished by local residents (discharge, 16,000 cfs).

REMARKS.--Records good. Flow partially regulated by Beaver Creek Reservoir. (See sta 03375200).

REVISIONS (WATER YEARS).--WSP 1909: 1958.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 7.7 | 35 | 122 | 805 | 637 | 147 | 1,060 | 3,210 | 34 | 35 | 19 | 14 |
| 2 | 11 | 58 | 111 | 684 | 536 | 304 | 1,200 | 3,530 | 35 | 30 | 29 | 11 |
| 3 | 20 | 53 | 97 | 501 | 663 | 1,040 | 1,350 | 3,120 | 43 | 48 | 27 | 11 |
| 4 | 22 | 47 | 89 | 375 | 610 | 1,270 | 1,670 | 1,260 | 176 | 45 | 22 | 11 |
| 5 | 20 | 41 | 83 | 295 | 456 | 1,470 | 1,990 | 630 | 683 | 35 | 17 | 15 |
| 6 | 17 | 38 | 104 | 248 | 339 | 1,730 | 2,190 | 268 | 955 | 30 | 15 | 22 |
| 7 | 14 | 37 | 203 | 205 | 308 | 2,050 | 1,320 | 168 | 1,110 | 27 | 15 | 17 |
| 8 | 11 | 33 | 713 | 170 | 621 | 2,220 | 720 | 136 | 1,260 | 24 | 17 | 13 |
| 9 | 9.7 | 29 | 793 | 150 | 974 | 1,350 | 362 | 117 | 1,420 | 21 | 21 | 9.6 |
| 10 | 8.6 | 26 | 568 | 130 | 1,070 | 772 | 266 | 200 | 1,490 | 29 | 24 | 8.0 |
| 11 | 23 | 27 | 382 | 123 | 568 | 373 | 224 | 431 | 929 | 26 | 27 | 7.0 |
| 12 | 37 | 35 | 297 | 111 | 621 | 274 | 192 | 419 | 250 | 20 | 28 | 6.0 |
| 13 | 37 | 34 | 239 | 110 | 413 | 306 | 187 | 632 | 157 | 21 | 28 | 4.9 |
| 14 | 34 | 28 | 203 | 110 | 326 | 382 | 210 | 999 | 268 | 21 | 25 | 4.1 |
| 15 | 29 | 27 | 178 | 106 | 288 | 406 | 206 | 1,100 | 312 | 17 | 20 | 7.7 |
| 16 | 25 | 26 | 159 | 103 | 275 | 367 | 185 | 868 | 387 | 14 | 18 | 5.6 |
| 17 | 22 | 27 | 137 | 115 | 309 | 331 | 166 | 458 | 685 | 11 | 16 | 7.1 |
| 18 | 21 | 61 | 128 | 238 | 419 | 401 | 151 | 355 | 632 | 9.1 | 25 | 5.9 |
| 19 | 19 | 859 | 120 | 371 | 529 | 731 | 156 | 268 | 390 | 8.7 | 100 | 5.0 |
| 20 | 16 | 1,160 | 112 | 337 | 490 | 1,020 | 281 | 193 | 217 | 13 | 350 | 5.0 |
| 21 | 15 | 1,320 | 104 | 276 | 377 | 1,180 | 396 | 145 | 180 | 24 | 400 | 4.2 |
| 22 | 15 | 1,480 | 98 | 193 | 293 | 1,300 | 419 | 116 | 158 | 32 | 115 | 3.2 |
| 23 | 14 | 1,380 | 89 | 146 | 261 | 1,250 | 348 | 94 | 120 | 25 | 52 | 2.3 |
| 24 | 13 | 800 | 82 | 129 | 246 | 914 | 493 | 82 | 94 | 18 | 38 | 11 |
| 25 | 15 | 376 | 78 | 127 | 230 | 887 | 897 | 71 | 125 | 14 | 38 | 5.3 |
| 26 | 13 | 252 | 74 | 226 | 206 | 1,350 | 1,030 | 62 | 118 | 16 | 30 | 2.3 |
| 27 | 12 | 202 | 72 | 296 | 177 | 1,550 | 1,070 | 53 | 73 | 29 | 25 | 2.5 |
| 28 | 10 | 167 | 82 | 287 | 160 | 2,160 | 1,240 | 46 | 57 | 27 | 20 | 1.7 |
| 29 | 10 | 146 | 96 | 579 | ------ | 2,630 | 1,690 | 40 | 47 | 21 | 17 | 8.6 |
| 30 | 13 | 132 | 315 | 960 | ------ | 2,720 | 2,130 | 36 | 40 | 17 | 15 | 4.4 |
| 31 | 14 | ------ | 685 | 929 | ------ | 1,470 | ------ | 33 | ------ | 16 | 14 | ------ |
| TOTAL | 548.0 | 8,936 | 6,613 | 9,435 | 12,802 | 34,355 | 23,799 | 19,140 | 12,445 | 723.8 | 1,607 | 235.4 |
| MEAN | 17.7 | 298 | 213 | 304 | 457 | 1,108 | 793 | 617 | 415 | 23.3 | 51.8 | 7.85 |
| MAX | 37 | 1,480 | 793 | 960 | 1,070 | 2,720 | 2,190 | 3,530 | 1,490 | 48 | 400 | 22 |
| MIN | 7.7 | 26 | 72 | 103 | 160 | 147 | 151 | 33 | 34 | 8.7 | 14 | 1.7 |
| CFSM | .068 | 1.14 | .81 | 1.16 | 1.74 | 4.23 | 3.03 | 2.36 | 1.58 | .089 | .20 | .030 |
| IN. | .08 | 1.27 | .94 | 1.34 | 1.82 | 4.88 | 3.38 | 2.72 | 1.77 | .10 | .23 | .03 |

CAL YR 1969 TOTAL 150,961.6 MEAN 414 MAX 4,550 MIN 7.7 CFSM 1.58 IN 21.43
WAT YR 1970 TOTAL 130,639.2 MEAN 358 MAX 3,530 MIN 1.7 CFSM 1.37 IN 18.55

## 03376260 Flat Creek near Otwell, Ind.

LOCATION.--Lat 38°26'12", long 87°07'52", in SE¼SE¼ sec.12, T.1 S., R.7 W., Pike County, on right bank at upstream side of bridge on State Highway 56, 2.2 miles west of intersection of State Highways 56 and 257, 2.5 miles southeast of Otwell, and 6.2 miles east of junction of State Highways 56 and 61.

DRAINAGE AREA.--21.3 sq mi (revised).

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

GAGE.--Water-stage recorder. Datum of gage is 448.00 ft above mean sea level.

AVERAGE DISCHARGE.--6 years, 19.1 cfs (12.18 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,010 cfs Apr. 27 (gage height, 11.34 ft); no flow for many days.
Period of record: Maximum discharge, 1,320 cfs Feb. 9 or 10, 1965 (gage height, 11.89 ft, from recorded range in stage); no flow at times each year.
Flood in March 1964 reached a stage of 12.58 ft.

REMARKS.--Records fair except those below 1 cfs and those for parts of January and February, which are poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.9 | 21 | 3.3 | 53 | 26 | 10 | 105 | 23 | 2.8 | 3.6 | 13 | 5.6 |
| 2 | 2.4 | 14 | 2.7 | 43 | 171 | 76 | 263 | 18 | 3.1 | 2.6 | 4.9 | 5.2 |
| 3 | 3.3 | 3.8 | 2.5 | 37 | 45 | 188 | 32 | 12 | 4.2 | 42 | 4.5 | 17 |
| 4 | 2.0 | 2.5 | 2.2 | 33 | 31 | 88 | 22 | 8.8 | 4.7 | 9.5 | 4.0 | 13 |
| 5 | .91 | 2.5 | 1.6 | 24 | 29 | 55 | 17 | 7.2 | 42 | 2.5 | 3.8 | 1.6 |
| 6 | .24 | 2.1 | 1.6 | 9.4 | 25 | 28 | 14 | 6.7 | 34 | 1.6 | 3.8 | .70 |
| 7 | 1.1 | 2.0 | 39 | 5.2 | 35 | 20 | 9.8 | 5.2 | 7.2 | 1.3 | 3.7 | .40 |
| 8 | 4.7 | 1.6 | 68 | 3.4 | 50 | 17 | 7.6 | 4.2 | 2.4 | 1.5 | 47 | .35 |
| 9 | 2.7 | 1.2 | 31 | 2.8 | 76 | 13 | 6.3 | 3.7 | 1.2 | 4.2 | 18 | .40 |
| 10 | 1.9 | 3.9 | 24 | 2.5 | 51 | 9.5 | 5.3 | 28 | 1.0 | 2.4 | 6.2 | .26 |
| 11 | 49 | 3.7 | 21 | 2.3 | 41 | 6.8 | 4.7 | 17 | .80 | 1.6 | 5.2 | .70 |
| 12 | 22 | 1.9 | 18 | 2.1 | 24 | 12 | 4.7 | 7.8 | .45 | 1.1 | 4.7 | 2.6 |
| 13 | 3.7 | 1.2 | 12 | 2.0 | 18 | 28 | 25 | 29 | 3.7 | .71 | 4.5 | 2.6 |
| 14 | 2.6 | .55 | 9.0 | 2.0 | 15 | 37 | 14 | 42 | 15 | .50 | 4.5 | 2.7 |
| 15 | 2.1 | 2.2 | 6.5 | 2.6 | 16 | 22 | 9.5 | 22 | 87 | 1.4 | 4.5 | 2.2 |
| 16 | 1.6 | 3.3 | 3.4 | 4.0 | 16 | 16 | 6.5 | 45 | 19 | 2.0 | 4.7 | 1.5 |
| 17 | 1.8 | 2.5 | 2.8 | 8.5 | 38 | 20 | 5.2 | 22 | 8.3 | 1.1 | 5.8 | 1.7 |
| 18 | 5.3 | 55 | 2.5 | 6.0 | 57 | 88 | 4.5 | 8.8 | 3.1 | .51 | 6.8 | 1.3 |
| 19 | 4.5 | 390 | 2.3 | 4.0 | 39 | 174 | 36 | 4.5 | 1.7 | .53 | 7.8 | 1.4 |
| 20 | 2.8 | 55 | 2.1 | 3.2 | 18 | 86 | 65 | 3.5 | 2.5 | 5.4 | 105 | 1.1 |
| 21 | 1.7 | 33 | 2.0 | 2.6 | 12 | 37 | 26 | 2.8 | 16 | .62 | 13 | .70 |
| 22 | 1.2 | 36 | 1.8 | 2.2 | 15 | 38 | 13 | 2.2 | 2.9 | .17 | 6.2 | .60 |
| 23 | .92 | 28 | 1.7 | 2.1 | 23 | 30 | 10 | 2.0 | 1.0 | 3.0 | 6.5 | .80 |
| 24 | 4.2 | 22 | 1.7 | 2.1 | 18 | 26 | 77 | 2.6 | 3.8 | 1.0 | 5.6 | .60 |
| 25 | 3.6 | 19 | 1.6 | 12 | 18 | 496 | 26 | 2.2 | 71 | .72 | 3.9 | .50 |
| 26 | 2.1 | 17 | 1.6 | 9.4 | 13 | 388 | 14 | 2.2 | 9.4 | 15 | 4.7 | .04 |
| 27 | 1.3 | 14 | 1.8 | 30 | 13 | 46 | 393 | 2.3 | 5.7 | 10 | 5.8 | .01 |
| 28 | .76 | 11 | 2.3 | 76 | 12 | 32 | 664 | 2.2 | 4.4 | 6.1 | 5.2 | 0 |
| 29 | .34 | 6.3 | 22 | 207 | ------ | 36 | 54 | 1.9 | 4.0 | 4.4 | 5.3 | 0 |
| 30 | .37 | 3.7 | 86 | 39 | ------ | 40 | 29 | 1.6 | 3.9 | 4.4 | 5.6 | 0 |
| 31 | 3.0 | ------ | 83 | 27 | ------ | 27 | ------ | 1.8 | ------ | 37 | 5.2 | ------ |
| TOTAL | 136.98 | 759.95 | 461.0 | 659.4 | 945 | 2,190.3 | 1,963.1 | 342.2 | 366.25 | 168.46 | 329.4 | 65.56 |
| MEAN | 4.42 | 25.3 | 14.9 | 21.3 | 33.8 | 70.7 | 65.4 | 11.0 | 12.2 | 5.43 | 10.6 | 2.19 |
| MAX | 49 | 390 | 86 | 207 | 171 | 496 | 664 | 45 | 87 | 42 | 105 | 17 |
| MIN | .24 | .55 | 1.6 | 2.0 | 12 | 6.8 | 4.5 | 1.6 | .45 | .17 | 3.7 | 0 |
| CFSM | .21 | 1.19 | .70 | 1.00 | 1.59 | 3.32 | 3.07 | .52 | .57 | .25 | .50 | .10 |
| IN. | .24 | 1.33 | .81 | 1.15 | 1.65 | 3.83 | 3.43 | .60 | .64 | .29 | .58 | .11 |

CAL YR 1969 TOTAL 9,758.60 MEAN 26.7 MAX 856 MIN 0 CFSM 1.25 IN 17.04
WAT YR 1970 TOTAL 8,387.60 MEAN 23.0 MAX 664 MIN 0 CFSM 1.08 IN 14.65

PEAK DISCHARGE (BASE, 350 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-19 | 0615 | 10.47 | 628 | 04-01 | 2400 | 10.60 | 709 |
| 01-29 | 0515 | 9.68 | 369 | 04-27 | 1800 | 11.34 | 1,010 |
| 03-25 | 1630 | 11.11 | 902 | | | | |

03376300 Patoka River at Winslow, Ind.

LOCATION.--Lat 38°22'48", long 87°13'00", in SW¼SW¼ sec.32, T.1 S., R.7 W., Pike County, on right bank at abandoned bridge abutment, 65 ft upstream from bridge on State Highway 61, 100 ft downstream from dam of Winslow Water Company, and 41.3 miles above mouth.

DRAINAGE AREA.--603 sq mi.

PERIOD OF RECORD.--October 1963 to current year. Discharge measurements and gage readings June 1961 to Sept. 1963, obtained by Indiana Flood Control and Water Resources Commission, are available in the district office.

GAGE.--Water-stage recorder. Datum of gage is 400.00 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission). Prior to Nov. 21, 1963, nonrecording gage on downstream side of bridge 65 ft downstream at same datum.

AVERAGE DISCHARGE.--7 years, 649 cfs (14.62 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,120 cfs May 2 (gage height, 24.10 ft); minimum daily, 10 cfs Aug. 19, Sept. 29.
Period of record: Maximum discharge, 15,500 cfs Mar. 13, 1964 (gage height, 28.84 ft); minimum daily, 0.5 cfs Aug. 5, 1964.
Flood in January 1937 reached a stage of 28.9 ft, from floodmarks, information from Indiana Flood Control and Water Resources Commission.

REMARKS.--Records fair. An average of 0.13 cfs is diverted for municipal water supply 100 ft above gage.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 17 | 91 | 920 | 1,260 | 1,280 | 376 | 3,450 | 3,470 | 46 | 52 | 324 | 29 |
| 2 | 21 | 214 | 627 | 1,310 | 1,430 | 615 | 3,590 | 4,050 | 45 | 39 | 249 | 28 |
| 3 | 21 | 295 | 438 | 1,330 | 1,480 | 1,540 | 3,790 | 3,930 | 57 | 47 | 68 | 29 |
| 4 | 26 | 245 | 336 | 1,320 | 1,430 | 1,730 | 3,840 | 3,630 | 143 | 68 | 21 | 35 |
| 5 | 51 | 188 | 273 | 1,270 | 1,380 | 1,740 | 3,850 | 3,400 | 452 | 104 | 22 | 84 |
| 6 | 43 | 149 | 221 | 1,140 | 1,310 | 1,750 | 3,720 | 3,240 | 1,060 | 77 | 16 | 149 |
| 7 | 34 | 124 | 370 | 884 | 1,240 | 1,770 | 3,420 | 3,040 | 1,180 | 47 | 12 | 82 |
| 8 | 30 | 105 | 858 | 556 | 1,430 | 1,830 | 3,110 | 2,790 | 1,190 | 31 | 17 | 45 |
| 9 | 25 | 90 | 1,010 | 412 | 1,520 | 1,920 | 2,810 | 2,400 | 1,220 | 27 | 112 | 34 |
| 10 | 25 | 78 | 1,050 | 345 | 1,510 | 1,970 | 2,530 | 2,080 | 1,230 | 23 | 215 | 34 |
| 11 | 125 | 69 | 1,070 | 308 | 1,510 | 2,000 | 2,320 | 1,790 | 1,230 | 19 | 119 | 33 |
| 12 | 222 | 64 | 1,020 | 244 | 1,510 | 2,030 | 2,070 | 1,600 | 1,250 | 18 | 47 | 30 |
| 13 | 187 | 60 | 866 | 184 | 1,500 | 2,050 | 1,800 | 1,460 | 1,280 | 17 | 24 | 28 |
| 14 | 135 | 64 | 671 | 162 | 1,480 | 2,010 | 1,580 | 1,410 | 1,280 | 17 | 16 | 30 |
| 15 | 84 | 68 | 512 | 150 | 1,410 | 1,890 | 1,320 | 1,400 | 1,380 | 16 | 17 | 37 |
| 16 | 66 | 81 | 404 | 143 | 1,220 | 1,730 | 1,050 | 1,470 | 1,320 | 14 | 19 | 31 |
| 17 | 54 | 92 | 328 | 173 | 1,130 | 1,590 | 779 | 1,490 | 1,230 | 14 | 15 | 19 |
| 18 | 43 | 211 | 277 | 347 | 1,130 | 1,500 | 596 | 1,470 | 1,110 | 14 | 11 | 19 |
| 19 | 36 | 1,430 | 242 | 483 | 1,180 | 1,610 | 528 | 1,430 | 1,010 | 17 | 10 | 18 |
| 20 | 31 | 1,590 | 219 | 493 | 1,150 | 1,750 | 874 | 1,290 | 910 | 22 | 148 | 17 |
| 21 | 31 | 1,560 | 200 | 453 | 1,100 | 1,720 | 972 | 1,070 | 777 | 72 | 696 | 16 |
| 22 | 28 | 1,590 | 190 | 383 | 1,010 | 1,720 | 884 | 747 | 591 | 130 | 708 | 15 |
| 23 | 25 | 1,680 | 180 | 311 | 886 | 1,720 | 812 | 482 | 414 | 67 | 538 | 16 |
| 24 | 24 | 1,710 | 170 | 231 | 759 | 1,720 | 1,020 | 345 | 304 | 32 | 416 | 16 |
| 25 | 23 | 1,730 | 160 | 197 | 681 | 2,050 | 1,230 | 263 | 566 | 24 | 284 | 15 |
| 26 | 22 | 1,760 | 155 | 330 | 594 | 2,810 | 1,240 | 180 | 600 | 25 | 148 | 16 |
| 27 | 21 | 1,690 | 148 | 459 | 508 | 3,040 | 1,420 | 115 | 493 | 32 | 78 | 13 |
| 28 | 19 | 1,610 | 175 | 515 | 435 | 3,270 | 2,340 | 84 | 309 | 73 | 54 | 11 |
| 29 | 18 | 1,460 | 203 | 900 | ------ | 3,510 | 2,720 | 65 | 169 | 182 | 43 | 10 |
| 30 | 17 | 1,220 | 596 | 1,180 | ------ | 3,660 | 2,880 | 52 | 85 | 91 | 36 | 11 |
| 31 | 22 | ------ | 1,130 | 1,270 | ------ | 3,590 | ------ | 46 | ------ | 149 | 32 | ------ |
| TOTAL | 1,526 | 21,318 | 15,019 | 18,743 | 33,203 | 62,211 | 62,545 | 50,289 | 22,931 | 1,560 | 4,515 | 950 |
| MEAN | 49.2 | 711 | 484 | 605 | 1,186 | 2,007 | 2,085 | 1,622 | 764 | 50.3 | 146 | 31.7 |
| MAX | 222 | 1,760 | 1,130 | 1,330 | 1,520 | 3,660 | 3,850 | 4,050 | 1,380 | 182 | 708 | 149 |
| MIN | 17 | 60 | 148 | 143 | 435 | 376 | 528 | 46 | 45 | 14 | 10 | 10 |
| CFSM | .082 | 1.18 | .80 | 1.00 | 1.97 | 3.33 | 3.46 | 2.69 | 1.27 | .083 | .24 | .053 |
| IN. | .09 | 1.32 | .93 | 1.16 | 2.05 | 3.84 | 3.86 | 3.10 | 1.41 | .10 | .28 | .06 |

CAL YR 1969 TOTAL 352,414 MEAN 966 MAX 7,300 MIN 17 CFSM 1.60 IN 21.74
WAT YR 1970 TOTAL 294,810 MEAN 808 MAX 4,050 MIN 10 CFSM 1.34 IN 18.19

## 03376350 South Fork Patoka River near Spurgeon, Ind.

LOCATION.--Lat 38°17'50", long 87°15'39", in SE¼NE¼ sec.35, T.2 S., R.8 W., Pike County, on right bank at downstream side of bridge on State Highway 61, 0.5 mile north of Enos Corner, and 3.1 miles north of Spurgeon.

DRAINAGE AREA.--42.8 sq mi (revised).

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

GAGE.--Water-stage recorder. Datum of gage is 420.88 ft above mean sea level.

AVERAGE DISCHARGE.--6 years, 41.5 cfs (13.11 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,380 cfs Apr. 28 (gage height, 12.79 ft); minimum daily, 5.6 cfs Sept. 11; minimum gage height 1.25 ft Dec. 27, result of freezeup.
Period of record: Maximum discharge, 1,380 cfs Apr. 28, 1970 (gage height, 12.79 ft); minimum, 1.8 cfs Aug. 25, 1965; minimum gage height, 1.21 ft Aug. 25, 1965, Sept. 8, 1966, Oct. 5, 1968.
Flood in March 1964 reached a stage of 13.09 ft, from floodmarks.

REMARKS.--Records good except those for parts of December, January, and February, which are fair. Some slight regulation by coal-washing operation and strip-mining above gage.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 11 | 35 | 23 | 96 | 51 | 31 | 204 | 159 | 27 | 15 | 35 | 8.9 |
| 2 | 19 | 20 | 20 | 72 | 216 | 281 | 333 | 132 | 27 | 15 | 21 | 8.3 |
| 3 | 13 | 14 | 20 | 56 | 242 | 368 | 139 | 115 | 66 | 24 | 17 | 25 |
| 4 | 11 | 12 | 17 | 39 | 320 | 252 | 103 | 99 | 102 | 18 | 13 | 13 |
| 5 | 11 | 10 | 18 | 33 | 244 | 157 | 88 | 87 | 182 | 16 | 12 | 8.7 |
| 6 | 11 | 9.1 | 19 | 27 | 121 | 94 | 77 | 76 | 97 | 15 | 12 | 7.4 |
| 7 | 16 | 8.7 | 173 | 25 | 155 | 73 | 65 | 68 | 53 | 13 | 11 | 7.6 |
| 8 | 12 | 8.5 | 76 | 24 | 239 | 62 | 60 | 65 | 38 | 13 | 48 | 7.0 |
| 9 | 11 | 8.4 | 47 | 23 | 129 | 53 | 55 | 61 | 31 | 13 | 25 | 5.8 |
| 10 | 17 | 8.4 | 38 | 22 | 93 | 44 | 52 | 229 | 27 | 12 | 19 | 5.8 |
| 11 | 84 | 9.0 | 35 | 21 | 65 | 39 | 49 | 112 | 24 | 12 | 15 | 5.6 |
| 12 | 24 | 10 | 28 | 21 | 53 | 82 | 49 | 75 | 22 | 11 | 16 | 6.2 |
| 13 | 20 | 17 | 26 | 20 | 44 | 126 | 110 | 95 | 45 | 12 | 13 | 28 |
| 14 | 17 | 14 | 25 | 20 | 45 | 97 | 71 | 78 | 31 | 12 | 12 | 16 |
| 15 | 13 | 11 | 21 | 20 | 57 | 68 | 57 | 70 | 69 | 17 | 12 | 9.1 |
| 16 | 12 | 10 | 20 | 31 | 61 | 52 | 50 | 106 | 40 | 20 | 12 | 7.4 |
| 17 | 11 | 20 | 20 | 58 | 86 | 63 | 46 | 73 | 28 | 12 | 18 | 6.7 |
| 18 | 11 | 200 | 21 | 48 | 97 | 227 | 45 | 50 | 22 | 12 | 14 | 13 |
| 19 | 11 | 438 | 19 | 40 | 69 | 297 | 145 | 43 | 21 | 35 | 10 | 11 |
| 20 | 11 | 127 | 17 | 35 | 44 | 199 | 199 | 37 | 25 | 22 | 17 | 11 |
| 21 | 13 | 90 | 16 | 30 | 38 | 110 | 103 | 33 | 40 | 14 | 11 | 8.6 |
| 22 | 11 | 73 | 16 | 25 | 47 | 119 | 69 | 30 | 23 | 12 | 11 | 8.1 |
| 23 | 9.2 | 55 | 16 | 24 | 51 | 88 | 120 | 30 | 20 | 13 | 11 | 7.2 |
| 24 | 9.2 | 42 | 15 | 25 | 43 | 71 | 277 | 29 | 19 | 13 | 9.6 | 7.2 |
| 25 | 9.2 | 37 | 15 | 34 | 41 | 432 | 123 | 26 | 31 | 11 | 9.2 | 9.0 |
| 26 | 9.7 | 31 | 16 | 48 | 31 | 391 | 88 | 24 | 21 | 12 | 8.2 | 11 |
| 27 | 9.7 | 28 | 20 | 43 | 28 | 158 | 320 | 22 | 18 | 14 | 7.9 | 9.5 |
| 28 | 9.2 | 26 | 33 | 69 | 26 | 116 | 889 | 21 | 18 | 13 | 7.4 | 7.1 |
| 29 | 8.6 | 24 | 106 | 190 | ------ | 134 | 276 | 21 | 17 | 11 | 7.5 | 7.3 |
| 30 | 8.0 | 24 | 157 | 75 | ------ | 124 | 179 | 21 | 16 | 11 | 7.4 | 7.0 |
| 31 | 13 | ------ | 165 | 55 | ------ | 98 | ------ | 25 | ------ | 188 | 7.8 | ------ |
| TOTAL | 455.8 | 1,420.1 | 1,258 | 1,349 | 2,736 | 4,506 | 4,441 | 2,112 | 1,200 | 631 | 450.0 | 293.5 |
| MEAN | 14.7 | 47.3 | 40.6 | 43.5 | 97.7 | 145 | 148 | 68.1 | 40.0 | 20.4 | 14.5 | 9.78 |
| MAX | 84 | 438 | 173 | 190 | 320 | 432 | 889 | 229 | 182 | 188 | 48 | 28 |
| MIN | 8.0 | 8.4 | 15 | 20 | 26 | 31 | 45 | 21 | 16 | 11 | 7.4 | 5.6 |
| CFSM | .34 | 1.11 | .95 | 1.02 | 2.28 | 3.39 | 3.46 | 1.59 | .93 | .48 | .34 | .23 |
| IN. | .40 | 1.23 | 1.09 | 1.17 | 2.38 | 3.92 | 3.86 | 1.84 | 1.04 | .55 | .39 | .26 |

CAL YR 1969 TOTAL 19,263.9 MEAN 52.6 MAX 793 MIN 8.0 CFSM 1.23 IN 16.69
WAT YR 1970 TOTAL 20,852.4 MEAN 57.1 MAX 889 MIN 5.6 CFSM 1.33 IN 18.12

PEAK DISCHARGE (BASE, 500 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-19 | 0245 | 9.51 | 947 | 04-24 | 0745 | 5.88 | 520 |
| 03-02 | 1545 | 7.26 | 686 | 04-28 | 1015 | 12.79 | 1,380 |
| 03-25 | 1530 | 9.85 | 1,000 | 07-31 | 0830 | 7.09 | 656 |
| 04-01 | 2330 | 8.43 | 824 | | | | |

## 03376500 Patoka River near Princeton, Ind.

LOCATION.--Lat 38°23'30", long 87°32'55", in Location 107, T.1 S., R.10 W., Gibson County, on left bank 75 ft upstream from dam of Princeton Water and Lighting Co., 0.1 mile downstream from bridge on State Highway 65, 0.5 mile downstream from Indian Creek, and 2 miles northeast of Princeton.

DRAINAGE AREA.--822 sq mi (revised).

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).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 394.14 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission). See WSP 1725 for history of changes prior to Jan. 21, 1941.

AVERAGE DISCHARGE.--36 years, 973 cfs (16.07 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,350 cfs Apr. 5 (gage height, 15.29 ft); minimum, 30 cfs Sept. 30 (gage height, 0.90 ft).
Period of record: Maximum discharge, 18,700 cfs Jan. 26, 1937 (gage height, 26.80 ft, site and datum then in use); no flow Aug. 29 to Sept. 12, 1936.

REMARKS.--Records good except those for parts of December and January, which are poor.

REVISIONS (WATER YEARS).--WSP 1275: 1952. WSP 1335: 1935-36, 1938-39, 1940(M), 1949-50. WSP 1385: 1951-52.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 47 | 596 | 1,710 | 1,250 | 1,330 | 995 | 3,850 | 3,210 | 156 | 157 | 779 | 52 |
| 2 | 49 | 614 | 1,630 | 1,280 | 1,480 | 1,070 | 4,150 | 3,320 | 183 | 121 | 496 | 45 |
| 3 | 60 | 566 | 1,510 | 1,300 | 1,510 | 1,320 | 4,260 | 3,380 | 269 | 494 | 262 | 47 |
| 4 | 53 | 578 | 1,380 | 1,330 | 1,620 | 1,430 | 4,340 | 3,480 | 500 | 488 | 154 | 84 |
| 5 | 53 | 470 | 1,230 | 1,350 | 1,600 | 1,560 | 4,350 | 3,580 | 1,300 | 210 | 101 | 67 |
| 6 | 74 | 280 | 972 | 1,320 | 1,610 | 1,710 | 3,970 | 3,610 | 1,310 | 174 | 83 | 111 |
| 7 | 70 | 197 | 993 | 1,270 | 1,690 | 1,860 | 3,890 | 3,580 | 1,210 | 132 | 72 | 118 |
| 8 | 69 | 172 | 1,170 | 1,200 | 1,870 | 1,960 | 3,860 | 3,500 | 1,190 | 101 | 191 | 79 |
| 9 | 60 | 151 | 1,190 | 1,140 | 1,970 | 2,030 | 3,740 | 3,400 | 1,190 | 84 | 283 | 55 |
| 10 | 56 | 137 | 1,220 | 1,050 | 2,030 | 2,060 | 3,580 | 3,370 | 1,200 | 77 | 258 | 44 |
| 11 | 644 | 124 | 1,230 | 950 | 2,060 | 2,090 | 3,430 | 3,280 | 1,210 | 68 | 251 | 40 |
| 12 | 873 | 118 | 1,250 | 800 | 2,060 | 2,130 | 3,260 | 3,120 | 1,210 | 61 | 167 | 39 |
| 13 | 562 | 112 | 1,260 | 600 | 2,030 | 2,250 | 3,120 | 2,930 | 1,230 | 57 | 112 | 34 |
| 14 | 384 | 115 | 1,260 | 450 | 2,010 | 2,250 | 2,940 | 2,780 | 1,310 | 54 | 83 | 51 |
| 15 | 220 | 112 | 1,230 | 370 | 1,970 | 2,310 | 2,760 | 2,550 | 1,550 | 50 | 70 | 52 |
| 16 | 165 | 109 | 1,150 | 340 | 1,920 | 2,360 | 2,580 | 2,420 | 1,440 | 56 | 70 | 43 |
| 17 | 141 | 165 | 967 | 310 | 1,890 | 2,400 | 2,370 | 2,230 | 1,410 | 54 | 69 | 41 |
| 18 | 118 | 747 | 753 | 320 | 1,850 | 2,480 | 2,090 | 2,060 | 1,390 | 42 | 71 | 36 |
| 19 | 103 | 1,360 | 621 | 500 | 1,770 | 2,610 | 1,820 | 1,890 | 1,360 | 41 | 61 | 42 |
| 20 | 92 | 1,380 | 530 | 850 | 1,660 | 2,690 | 1,640 | 1,770 | 1,340 | 81 | 123 | 44 |
| 21 | 87 | 1,420 | 466 | 900 | 1,570 | 2,680 | 1,490 | 1,650 | 1,320 | 76 | 405 | 41 |
| 22 | 84 | 1,490 | 420 | 846 | 1,510 | 2,660 | 1,410 | 1,560 | 1,250 | 128 | 720 | 35 |
| 23 | 79 | 1,560 | 400 | 772 | 1,460 | 2,600 | 1,350 | 1,450 | 1,160 | 142 | 748 | 32 |
| 24 | 72 | 1,620 | 370 | 645 | 1,420 | 2,540 | 1,380 | 1,330 | 1,000 | 106 | 599 | 33 |
| 25 | 69 | 2,120 | 340 | 727 | 1,360 | 2,710 | 1,370 | 1,140 | 1,140 | 90 | 385 | 37 |
| 26 | 69 | 1,700 | 320 | 1,040 | 1,290 | 3,190 | 1,370 | 797 | 1,120 | 89 | 226 | 81 |
| 27 | 67 | 1,720 | 300 | 962 | 1,220 | 3,320 | 1,480 | 537 | 1,020 | 102 | 139 | 59 |
| 28 | 63 | 1,730 | 274 | 1,100 | 1,130 | 3,460 | 2,460 | 367 | 822 | 91 | 97 | 46 |
| 29 | 58 | 1,740 | 391 | 1,330 | ------ | 3,560 | 2,660 | 251 | 515 | 171 | 80 | 35 |
| 30 | 53 | 1,740 | 951 | 1,310 | ------ | 3,660 | 2,910 | 174 | 236 | 168 | 78 | 30 |
| 31 | 65 | ------ | 1,190 | 1,310 | ------ | 3,730 | ------ | 152 | ------ | 556 | 60 | ------ |
| TOTAL | 4,659 | 24,943 | 28,678 | 28,922 | 46,890 | 73,675 | 83,880 | 68,868 | 31,541 | 4,321 | 7,293 | 1,553 |
| MEAN | 150 | 831 | 925 | 933 | 1,675 | 2,377 | 2,796 | 2,222 | 1,051 | 139 | 235 | 51.8 |
| MAX | 873 | 2,120 | 1,710 | 1,350 | 2,060 | 3,730 | 4,350 | 3,610 | 1,550 | 556 | 779 | 118 |
| MIN | 47 | 109 | 274 | 310 | 1,130 | 995 | 1,350 | 152 | 156 | 41 | 60 | 30 |
| CFSM | .18 | 1.01 | 1.13 | 1.14 | 2.04 | 2.89 | 3.40 | 2.70 | 1.28 | .17 | .29 | .063 |
| IN. | .21 | 1.13 | 1.30 | 1.31 | 2.12 | 3.33 | 3.80 | 3.12 | 1.43 | .20 | .33 | .07 |

CAL YR 1969 TOTAL 436,502 MEAN 1,196 MAX 7,650 MIN 47 CFSM 1.46 IN 19.75
WAT YR 1970 TOTAL 405,223 MEAN 1,110 MAX 4,350 MIN 30 CFSM 1.35 IN 18.34

## 03377500 Wabash River at Mount Carmel, Ill.

LOCATION.--Lat 38°24'07", long 87°45'10", in SE¼NW¼ sec.28, T.1 S., R.12 W., Wabash County, on right bank on downstream side of Southern Railway bridge at Mount Carmel, 0.1 mile downstream from Patoka River, and at mile 94.5.

DRAINAGE AREA.--28,600 sq mi, approximately.

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 U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 371.46 ft above mean sea level. See WSP 1725 for history of changes prior to Sept. 30, 1949.

AVERAGE DISCHARGE.--43 years, 26,310 cfs (12.49 inches per year).

EXTREMES.--Current year: Maximum discharge, 129,000 cfs May 1 (gage height, 24.53 ft); minimum, 5,100 cfs Sept. 6, 14,15,16 (gage height, 1.04 ft).
Period of record: Maximum discharge, 305,000 cfs May 25, 1943, maximum gage height, 28.62 ft Feb. 5, 6, 1969; minimum discharge, 1,620 cfs Sept. 27, 28, 30, 1941.
1874-78, 1884-1970: Maximum discharge, 428,000 cfs (from rating curve extended above 310,000 cfs) Mar. 30, 1913, (gage height, 31.0 ft, present site and datum).

REMARKS.--Records good. Natural flow of stream affected by storage reservoirs and power development.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 10,600 | 16,500 | 42,800 | 16,900 | 54,100 | 22,400 | 53,300 | 129,000 | 23,400 | 10,700 | 9,670 | 5,620 |
| 2 | 11,400 | 22,000 | 39,700 | 17,500 | 57,100 | 22,000 | 54,500 | 126,000 | 21,500 | 10,600 | 12,200 | 5,360 |
| 3 | 11,400 | 24,400 | 36,700 | 17,600 | 60,500 | 23,000 | 54,500 | 119,000 | 21,500 | 11,400 | 14,400 | 5,300 |
| 4 | 11,000 | 25,200 | 33,500 | 17,700 | 62,000 | 27,400 | 53,800 | 108,000 | 23,100 | 11,800 | 14,700 | 5,170 |
| 5 | 9,920 | 24,700 | 29,600 | 17,700 | 61,800 | 35,300 | 54,800 | 95,700 | 27,000 | 10,800 | 13,800 | 5,240 |
| 6 | 8,810 | 23,600 | 25,800 | 17,300 | 59,200 | 41,500 | 56,700 | 83,800 | 29,900 | 10,000 | 13,000 | 5,100 |
| 7 | 8,190 | 21,900 | 24,700 | 16,300 | 57,300 | 43,900 | 58,200 | 73,500 | 28,500 | 9,980 | 12,400 | 5,330 |
| 8 | 7,640 | 20,600 | 27,600 | 15,200 | 56,500 | 45,300 | 59,300 | 64,700 | 27,400 | 10,100 | 12,200 | 5,720 |
| 9 | 7,570 | 19,600 | 29,300 | 14,500 | 55,800 | 47,600 | 59,700 | 57,500 | 26,800 | 9,600 | 13,100 | 5,690 |
| 10 | 8,010 | 18,400 | 29,200 | 15,700 | 55,100 | 49,200 | 57,900 | 51,700 | 25,100 | 8,900 | 12,500 | 5,400 |
| 11 | 9,410 | 17,400 | 28,500 | 17,100 | 53,100 | 49,400 | 51,900 | 46,600 | 23,200 | 8,450 | 11,100 | 5,200 |
| 12 | 13,200 | 16,300 | 28,600 | 17,800 | 50,100 | 47,400 | 44,400 | 41,300 | 21,800 | 8,110 | 9,890 | 5,230 |
| 13 | 19,500 | 15,600 | 28,900 | 17,900 | 47,100 | 43,200 | 38,600 | 38,900 | 20,500 | 7,930 | 8,690 | 5,200 |
| 14 | 24,300 | 15,200 | 28,000 | 17,500 | 43,700 | 37,900 | 34,600 | 40,100 | 20,900 | 7,910 | 7,740 | 5,100 |
| 15 | 30,800 | 14,500 | 26,200 | 16,700 | 40,000 | 32,300 | 32,600 | 41,700 | 26,200 | 7,920 | 7,130 | 5,100 |
| 16 | 35,000 | 13,600 | 24,400 | 14,100 | 36,000 | 28,300 | 31,700 | 46,200 | 28,900 | 7,840 | 6,690 | 5,100 |
| 17 | 37,300 | 13,300 | 23,300 | 12,200 | 32,400 | 25,900 | 30,800 | 49,900 | 28,900 | 7,590 | 6,390 | 5,170 |
| 18 | 38,500 | 15,500 | 22,100 | 12,100 | 30,000 | 25,000 | 29,400 | 51,900 | 29,000 | 7,330 | 6,090 | 5,530 |
| 19 | 38,100 | 23,600 | 20,500 | 12,300 | 29,500 | 26,200 | 28,600 | 52,800 | 29,500 | 7,300 | 5,910 | 5,920 |
| 20 | 35,100 | 36,400 | 19,400 | 12,500 | 29,600 | 28,500 | 32,200 | 53,000 | 24,800 | 7,270 | 5,800 | 6,760 |
| 21 | 31,000 | 45,700 | 18,500 | 13,700 | 29,600 | 29,500 | 42,300 | 52,100 | 22,900 | 7,360 | 5,950 | 7,180 |
| 22 | 27,200 | 50,900 | 17,900 | 14,800 | 29,500 | 32,100 | 49,000 | 50,500 | 21,400 | 7,480 | 7,250 | 7,320 |
| 23 | 24,000 | 52,600 | 17,300 | 18,400 | 29,600 | 34,000 | 53,500 | 48,900 | 18,400 | 8,380 | 8,190 | 7,350 |
| 24 | 21,300 | 53,400 | 16,600 | 21,700 | 30,000 | 34,800 | 59,700 | 46,000 | 16,100 | 9,180 | 8,720 | 7,380 |
| 25 | 18,800 | 54,300 | 15,700 | 20,800 | 29,700 | 36,200 | 72,300 | 40,900 | 15,300 | 9,310 | 8,290 | 7,410 |
| 26 | 16,900 | 54,800 | 15,000 | 15,800 | 28,000 | 40,500 | 87,700 | 37,100 | 15,400 | 8,600 | 7,580 | 9,420 |
| 27 | 15,700 | 54,400 | 14,300 | 15,600 | 25,700 | 44,500 | 100,000 | 36,100 | 14,600 | 7,970 | 7,090 | 11,800 |
| 28 | 14,900 | 52,500 | 13,800 | 19,100 | 23,700 | 46,800 | 112,000 | 35,600 | 13,600 | 11,100 | 6,660 | 12,700 |
| 29 | 14,500 | 49,500 | 13,600 | 31,600 | ------ | 49,900 | 123,000 | 34,400 | 12,500 | 11,300 | 6,310 | 12,300 |
| 30 | 14,600 | 46,200 | 14,100 | 45,900 | ------ | 51,900 | 128,000 | 31,300 | 11,400 | 10,000 | 6,020 | 10,600 |
| 31 | 14,500 | ------ | 15,700 | 52,000 | ------ | 53,000 | ------ | 26,900 | ------ | 9,250 | 5,880 | ------ |
| TOTAL | 589,150 | 912,600 | 741,300 | 586,000 | 1,196.7M | 1,154.9M | 1,745.0M | 1,811.1M | 669,500 | 281,460 | 281,340 | 201,700 |
| MEAN | 19,000 | 30,420 | 23,910 | 18,900 | 42,740 | 37,250 | 58,170 | 58,420 | 22,320 | 9,079 | 9,075 | 6,723 |
| MAX | 38,500 | 54,800 | 42,800 | 52,000 | 62,000 | 53,000 | 128,000 | 129,000 | 29,900 | 11,800 | 14,700 | 12,700 |
| MIN | 7,570 | 13,300 | 13,600 | 12,100 | 23,700 | 22,000 | 28,600 | 26,900 | 11,400 | 7,270 | 5,800 | 5,100 |
| CFSM | .66 | 1.06 | .84 | .66 | 1.49 | 1.30 | 2.03 | 2.04 | .78 | .32 | .32 | .24 |
| IN. | .77 | 1.19 | .96 | .76 | 1.56 | 1.50 | 2.27 | 2.36 | .87 | .37 | .37 | .26 |

CAL YR 1969 TOTAL 12,432,130 MEAN 34,060 MAX 195,000 MIN 6,200 CFSM 1.19 IN 16.17
WAT YR 1970 TOTAL 10,170,750 MEAN 27,870 MAX 129,000 MIN 5,100 CFSM .97 IN 13.23

M - totals in thousand cfs.

## 03378000 Bonpas Creek at Browns, Ill.

LOCATION.--Lat 38°23'11", long 87°58'32", in NW¼SE¼ sec.33, T.1 S., R.14 W., Wabash County, near center of span on downstream side of bridge on State Highway 15, 0.5 mile north of Browns and 0.7 mile upstream from Southern Railway bridge.

DRAINAGE AREA.--228 sq mi.

PERIOD OF RECORD.--October 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 372.92 ft above mean sea level. Prior to Dec.11, 1968, water-stage recorder and concrete dam at site 0.4 mile downstream at datum 2.0 ft higher. Dec. 11, 1968, to Aug. 13, 1969, nonrecording gage at site 0.5 mile downstream at datum 1.0 ft lower. Auxiliary nonrecording gage near mouth on Wabash River at Grayville read twice daily.

AVERAGE DISCHARGE.--30 years, 216 cfs (12.87 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,350 cfs Jan. 30 (gage height, 17.82 ft); no flow for several days.
Period of record: Maximum discharge, 7,500 cfs May 9, 1961 (gage height, 24.04 ft, site and datum then in use); no flow at times in most years.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.9 | 257 | 42 | 425 | 1,200 | 75 | 393 | 1,440 | 16 | 7.0 | 98 | 14 |
| 2 | 1.6 | 510 | 38 | 350 | 1,000 | 280 | 1,390 | 1,180 | 14 | 15 | 41 | 13 |
| 3 | 1.6 | 609 | 35 | 250 | 1,500 | 687 | 1,230 | 872 | 14 | 40 | 10 | 5.4 |
| 4 | 1.4 | 485 | 30 | 150 | 1,500 | 880 | 1,010 | 386 | 64 | 133 | 5.3 | 2.8 |
| 5 | 1.2 | 222 | 26 | 80 | 1,200 | 940 | 557 | 106 | 561 | 64 | 3.6 | 1.2 |
| 6 | 1.1 | 97 | 24 | 60 | 633 | 833 | 201 | 57 | 624 | 24 | 2.8 | 1.1 |
| 7 | 1.2 | 49 | 278 | 40 | 515 | 489 | 113 | 40 | 652 | 10 | 2.1 | .84 |
| 8 | 1.2 | 33 | 550 | 30 | 869 | 197 | 70 | 30 | 558 | 7.0 | 3.2 | .57 |
| 9 | 1.0 | 26 | 585 | 25 | 545 | 118 | 60 | 21 | 206 | 5.0 | 15 | .39 |
| 10 | .96 | 22 | 398 | 23 | 910 | 86 | 50 | 60 | 63 | 4.0 | 12 | .13 |
| 11 | 113 | 19 | 200 | 23 | 713 | 66 | 45 | 81 | 30 | 3.5 | 4.4 | 0 |
| 12 | 345 | 16 | 134 | 22 | 375 | 58 | 40 | 56 | 20 | 3.0 | 2.9 | 0 |
| 13 | 529 | 15 | 89 | 22 | 195 | 73 | 100 | 43 | 18 | 2.5 | 2.0 | 0 |
| 14 | 748 | 15 | 70 | 22 | 123 | 120 | 200 | 97 | 15 | 2.2 | 1.4 | .39 |
| 15 | 1,020 | 15 | 60 | 22 | 96 | 95 | 100 | 83 | 89 | 2.0 | 1.0 | 4.5 |
| 16 | 930 | 14 | 50 | 25 | 96 | 68 | 80 | 180 | 1,260 | 2.0 | .84 | 5.4 |
| 17 | 451 | 56 | 41 | 35 | 180 | 58 | 60 | 214 | 1,230 | 2.0 | .66 | 4.1 |
| 18 | 122 | 457 | 36 | 82 | 420 | 255 | 50 | 133 | 1,180 | 1.9 | .48 | 3.2 |
| 19 | 44 | 1,030 | 35 | 115 | 527 | 900 | 45 | 75 | 1,080 | 2.0 | .39 | 2.3 |
| 20 | 22 | 1,330 | 35 | 80 | 521 | 955 | 500 | 40 | 621 | 2.3 | .30 | 1.6 |
| 21 | 15 | 1,540 | 35 | 60 | 286 | 834 | 1,500 | 24 | 961 | 1.9 | .21 | 1.1 |
| 22 | 13 | 1,500 | 34 | 50 | 148 | 490 | 1,000 | 18 | 816 | 1.9 | .21 | 1.2 |
| 23 | 11 | 1,280 | 33 | 40 | 151 | 251 | 600 | 16 | 266 | 2.0 | .13 | 1.5 |
| 24 | 9.2 | 916 | 30 | 35 | 137 | 160 | 500 | 14 | 65 | 1.8 | 0 | 1.5 |
| 25 | 8.6 | 386 | 25 | 30 | 125 | 541 | 1,000 | 12 | 166 | 1.5 | 0 | 1.4 |
| 26 | 8.2 | 164 | 20 | 606 | 109 | 1,220 | 1,240 | 10 | 126 | 1.4 | 0 | 1.5 |
| 27 | 6.8 | 118 | 20 | 865 | 91 | 1,110 | 1,260 | 9.7 | 43 | 1.3 | 0 | 1.2 |
| 28 | 6.2 | 76 | 20 | 1,170 | 80 | 913 | 1,870 | 9.5 | 23 | 1.1 | .75 | .86 |
| 29 | 5.7 | 56 | 40 | 1,980 | ------ | 455 | 1,930 | 9.6 | 10 | .92 | 1.4 | .60 |
| 30 | 5.4 | 47 | 239 | 2,290 | ------ | 182 | 1,720 | 10 | 8.0 | .78 | 1.3 | .51 |
| 31 | 17 | ------ | 386 | 2,260 | ------ | 114 | ------ | 13 | ------ | 6.8 | 1.8 | ------ |
| TOTAL | 4,447.26 | 11,360 | 3,638 | 11,267 | 14,657 | 13,503 | 18,914 | 5,339.8 | 10,799.0 | 353.80 | 213.17 | 72.29 |
| MEAN | 143 | 379 | 117 | 363 | 523 | 436 | 630 | 172 | 360 | 11.4 | 6.88 | 2.41 |
| MAX | 1,020 | 1,540 | 585 | 2,290 | 1,500 | 1,220 | 1,930 | 1,440 | 1,260 | 133 | 98 | 14 |
| MIN | .96 | 14 | 20 | 22 | 80 | 58 | 40 | 9.5 | 8.0 | .78 | 0 | 0 |
| CFSM | .63 | 1.66 | .51 | 1.59 | 2.29 | 1.91 | 2.76 | .75 | 1.58 | .050 | .030 | .011 |
| IN. | .73 | 1.85 | .59 | 1.84 | 2.39 | 2.20 | 3.09 | .87 | 1.76 | .06 | .03 | .01 |

CAL YR 1969 TOTAL 127,247.12 MEAN 349 MAX 4,130 MIN .96 CFSM 1.53 IN 20.76
WTR YR 1970 TOTAL 94,564.32 MEAN 259 MAX 2,290 MIN 0 CFSM 1.14 IN 15.43

## 03378550 Big Creek near Wadesville, Ind.

LOCATION.--Lat 38°04'58", long 87°46'10", in SW¼SW¼ sec.16, T.5 S., R.12 W., Posey County, on left bank at downstream side of bridge on U.S. Highway 460 (S.R. 66), 0.6 mile northwest of Blairsville, and 1.6 miles southeast of Wadesville.

DRAINAGE AREA.--104 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 370.00 ft above mean sea level.

AVERAGE DISCHARGE.--5 years, 99.2 cfs (12.95 inches per year).

EXTREMES.--Current year: Maximum discharge, 5,370 cfs Apr. 28 (gage height, 19.18 ft); no flow many days.
Period of record: Maximum discharge, 5,370 cfs Apr. 28, 1970 (gage height, 19.18 ft); no flow at times each year.

REMARKS.--Records poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .90 | 323 | 30 | 249 | 107 | 48 | 231 | 228 | 30 | 13 | 45 | 7.7 |
| 2 | 3.8 | 100 | 23 | 187 | 787 | 1,190 | 1,040 | 114 | 135 | 12 | 3.7 | 5.8 |
| 3 | 3.5 | 52 | 24 | 140 | 193 | 2,050 | 178 | 75 | 285 | 33 | 2.0 | 6.6 |
| 4 | 2.1 | 35 | 18 | 109 | 115 | 633 | 110 | 58 | 650 | 25 | 1.1 | 18 |
| 5 | 1.4 | 26 | 15 | 86 | 77 | 327 | 86 | 47 | 2,480 | 11 | .70 | 4.0 |
| 6 | .90 | 21 | 18 | 65 | 89 | 165 | 73 | 40 | 1,290 | 8.7 | .40 | 1.0 |
| 7 | 27 | 17 | 428 | 50 | 409 | 123 | 53 | 37 | 174 | 7.0 | .23 | .40 |
| 8 | 6.0 | 14 | 196 | 37 | 1,080 | 104 | 49 | 34 | 90 | 7.0 | 90 | .16 |
| 9 | 2.2 | 12 | 101 | 28 | 389 | 88 | 44 | 32 | 60 | 6.6 | 297 | .08 |
| 10 | 1.3 | 11 | 81 | 23 | 216 | 68 | 39 | 162 | 46 | 5.0 | 162 | 0 |
| 11 | 778 | 11 | 70 | 22 | 158 | 50 | 37 | 93 | 37 | 4.0 | 13 | 0 |
| 12 | 457 | 11 | 51 | 22 | 110 | 99 | 35 | 48 | 31 | 3.5 | 5.8 | 0 |
| 13 | 76 | 10 | 44 | 22 | 86 | 227 | 146 | 40 | 74 | 3.0 | 3.5 | 0 |
| 14 | 42 | 11 | 44 | 22 | 76 | 277 | 65 | 39 | 72 | 2.7 | 2.3 | 1.6 |
| 15 | 26 | 9.0 | 34 | 25 | 78 | 118 | 45 | 43 | 646 | 2.6 | 1.6 | .31 |
| 16 | 18 | 7.7 | 27 | 40 | 73 | 82 | 40 | 124 | 224 | 2.9 | 1.2 | .50 |
| 17 | 12 | 32 | 26 | 216 | 126 | 95 | 36 | 52 | 109 | 2.5 | 59 | .12 |
| 18 | 9.5 | 454 | 29 | 347 | 273 | 747 | 36 | 37 | 58 | 2.0 | 6.0 | .08 |
| 19 | 8.7 | 1,900 | 29 | 123 | 173 | 1,030 | 186 | 32 | 40 | 1.7 | 14 | 13 |
| 20 | 8.2 | 337 | 24 | 82 | 83 | 391 | 437 | 30 | 48 | 2.0 | 15 | 122 |
| 21 | 9.0 | 185 | 27 | 47 | 63 | 188 | 151 | 27 | 338 | 2.0 | 1.6 | 14 |
| 22 | 7.2 | 159 | 27 | 31 | 78 | 177 | 99 | 24 | 55 | 1.7 | 1.0 | 2.3 |
| 23 | 5.6 | 113 | 27 | 27 | 140 | 138 | 115 | 23 | 37 | 2.2 | 1.3 | .90 |
| 24 | 4.7 | 82 | 22 | 30 | 104 | 111 | 584 | 21 | 32 | 2.3 | 2.0 | .31 |
| 25 | 4.9 | 68 | 24 | 623 | 91 | 1,250 | 210 | 20 | 235 | 2.1 | .60 | .08 |
| 26 | 4.9 | 55 | 24 | 358 | 62 | 2,370 | 125 | 18 | 51 | 2.2 | .16 | .04 |
| 27 | 4.5 | 47 | 24 | 130 | 55 | 311 | 752 | 17 | 28 | 67 | .04 | 0 |
| 28 | 4.0 | 38 | 24 | 197 | 45 | 143 | 4,660 | 15 | 21 | 26 | .01 | 0 |
| 29 | 3.8 | 34 | 120 | 602 | ------ | 146 | 3,240 | 14 | 17 | 3.4 | 0 | 0 |
| 30 | 3.8 | 30 | 372 | 173 | ------ | 190 | 440 | 31 | 15 | 1.3 | 0 | 0 |
| 31 | 32 | ------ | 464 | 114 | ------ | 110 | ------ | 39 | ------ | 207 | .16 | ------ |
| TOTAL | 1,568.90 | 4,204.7 | 2,467 | 4,227 | 5,336 | 13,046 | 13,342 | 1,614 | 7,408 | 472.4 | 730.40 | 198.98 |
| MEAN | 50.6 | 140 | 79.6 | 136 | 191 | 421 | 445 | 52.1 | 247 | 15.2 | 23.6 | 6.63 |
| MAX | 778 | 1,900 | 464 | 623 | 1,080 | 2,370 | 4,660 | 228 | 2,480 | 207 | 297 | 122 |
| MIN | .90 | 7.7 | 15 | 22 | 45 | 48 | 35 | 14 | 15 | 1.3 | 0 | 0 |
| CFSM | .49 | 1.35 | .77 | 1.31 | 1.84 | 4.05 | 4.28 | .50 | 2.38 | .15 | .23 | .064 |
| IN. | .56 | 1.50 | .88 | 1.51 | 1.91 | 4.67 | 4.77 | .58 | 2.65 | .17 | .26 | .07 |

CAL YR 1969 TOTAL 51,531.44 MEAN 141 MAX 3,620 MIN 0 CFSM 1.36 IN 18.43
WAT YR 1970 TOTAL 54,615.38 MEAN 150 MAX 4,660 MIN 0 CFSM 1.44 IN 19.54

PEAK DISCHARGE (BASE, 2,400 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-19 | 0545 | 16.66 | 2,930 | 03-26 | 0515 | 17.65 | 2,760 |
| 03-02 | 1600 | 16.70 | 2,960 | 04-28 | 1030 | 19.18 | 5,370 |
| 03-18 | 2230 | 15.99 | 2,440 | 06-05 | 0600 | 17.58 | 2,750 |

## 03381500 Little Wabash River at Carmi, Ill.

LOCATION.--Lat 38°03'40", long 88°09'35", near center of E½ sec.25, T.5 S., R.9 E., White County, on right bank at upstream side of Possum Bridge, 2.3 miles south of Main Street Bridge in Carmi and 7.8 miles downstream from Skillet Fork.

DRAINAGE AREA.--3,111 sq mi.

PERIOD OF RECORD.--October 1908 to December 1912 (gage heights only), October 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 339.91 ft above mean sea level. Prior to December 1912, nonrecording gage at site 3.1 miles upstream at datum 0.4 ft higher. Oct. 1 to Nov. 9, 1939, nonrecording gage at present site and datum. Since Nov. 14, 1939, auxiliary water-stage recorder 3.1 miles upstream.

AVERAGE DISCHARGE.--31 years, 2,472 cfs (10.79 inches per year).

EXTREMES.--Current year: Maximum discharge, 18,500 cfs May 2; maximum gage height, 31.99 ft May 2; minimum discharge, 14 cfs Sept. 11-13.
Period of record: Maximum discharge, 46,900 cfs May 12, 1961; maximum gage height, 36.70 ft May 13, 1961; no flow Sept. 16-17, 1952, result of temporary dam upstream; minimum unregulated discharge, 0.6 cfs Sept. 9, 1953, July 31, 1954.

REMARKS.--Records good except those for winter periods, which are poor. There was no diversion through McHenry Slough during the year.

REVISIONS.--WSP 1725: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 217 | 1,230 | 839 | 2,340 | 10,400 | 943 | 5,090 | 18,100 | 223 | 1,620 | 94 | 630 |
| 2 | 208 | 3,360 | 659 | 2,220 | 10,900 | 2,760 | 7,030 | 18,400 | 231 | 759 | 79 | 1,040 |
| 3 | 180 | 3,720 | 565 | 1,930 | 11,400 | 6,140 | 7,250 | 18,000 | 618 | 785 | 77 | 427 |
| 4 | 164 | 3,510 | 498 | 1,540 | 11,600 | 7,650 | 6,210 | 17,400 | 1,120 | 2,440 | 70 | 175 |
| 5 | 158 | 3,300 | 445 | 1,100 | 11,000 | 8,320 | 5,080 | 16,600 | 3,540 | 1,960 | 64 | 96 |
| 6 | 135 | 2,970 | 414 | 900 | 10,500 | 8,330 | 3,980 | 15,500 | 4,890 | 758 | 61 | 62 |
| 7 | 136 | 2,200 | 831 | 600 | 10,100 | 7,740 | 3,170 | 14,400 | 5,520 | 383 | 60 | 44 |
| 8 | 116 | 1,390 | 2,910 | 500 | 11,000 | 6,740 | 2,240 | 13,600 | 6,040 | 302 | 111 | 33 |
| 9 | 108 | 865 | 3,550 | 400 | 11,500 | 5,580 | 1,400 | 12,800 | 5,620 | 254 | 602 | 23 |
| 10 | 114 | 569 | 3,000 | 350 | 11,400 | 4,700 | 877 | 12,000 | 4,150 | 211 | 368 | 21 |
| 11 | 576 | 443 | 2,430 | 300 | 11,000 | 3,790 | 838 | 11,400 | 2,370 | 184 | 213 | 17 |
| 12 | 1,930 | 376 | 1,900 | 280 | 10,400 | 2,750 | 859 | 10,400 | 1,210 | 164 | 166 | 14 |
| 13 | 3,750 | 338 | 1,520 | 250 | 9,500 | 1,530 | 938 | 9,060 | 728 | 149 | 166 | 16 |
| 14 | 5,070 | 304 | 1,240 | 250 | 8,590 | 1,450 | 1,520 | 7,370 | 1,100 | 135 | 119 | 24 |
| 15 | 5,880 | 276 | 1,010 | 250 | 7,630 | 1,320 | 2,080 | 5,500 | 6,420 | 121 | 86 | 27 |
| 16 | 5,920 | 260 | 835 | 313 | 6,630 | 1,070 | 2,020 | 3,940 | 7,580 | 115 | 73 | 28 |
| 17 | 5,200 | 293 | 694 | 365 | 5,640 | 931 | 1,850 | 2,500 | 9,580 | 102 | 71 | 35 |
| 18 | 4,820 | 1,110 | 608 | 550 | 4,960 | 1,610 | 1,690 | 1,360 | 9,980 | 94 | 138 | 50 |
| 19 | 4,630 | 3,770 | 543 | 810 | 4,840 | 4,990 | 1,780 | 961 | 10,100 | 94 | 237 | 67 |
| 20 | 4,390 | 5,070 | 502 | 997 | 4,350 | 6,560 | 5,750 | 847 | 10,100 | 100 | 138 | 93 |
| 21 | 3,750 | 5,520 | 479 | 1,010 | 3,420 | 6,200 | 8,140 | 734 | 9,890 | 159 | 74 | 116 |
| 22 | 2,400 | 5,460 | 456 | 841 | 2,680 | 5,340 | 9,020 | 600 | 9,320 | 207 | 54 | 153 |
| 23 | 1,220 | 5,190 | 443 | 634 | 3,000 | 4,310 | 9,440 | 501 | 9,020 | 319 | 47 | 142 |
| 24 | 629 | 4,960 | 412 | 499 | 3,030 | 3,140 | 9,880 | 428 | 8,470 | 228 | 39 | 130 |
| 25 | 420 | 4,710 | 409 | 928 | 2,320 | 3,430 | 10,400 | 364 | 7,580 | 180 | 35 | 109 |
| 26 | 345 | 4,500 | 415 | 3,030 | 1,670 | 7,220 | 10,800 | 305 | 7,080 | 178 | 33 | 88 |
| 27 | 307 | 4,110 | 370 | 4,670 | 1,290 | 8,140 | 11,200 | 272 | 6,470 | 188 | 32 | 75 |
| 28 | 273 | 3,270 | 396 | 6,200 | 1,060 | 8,160 | 13,400 | 250 | 5,790 | 168 | 29 | 63 |
| 29 | 248 | 2,050 | 493 | 8,170 | ------ | 7,780 | 15,700 | 235 | 4,850 | 142 | 29 | 51 |
| 30 | 237 | 1,210 | 1,330 | 9,520 | ------ | 6,980 | 17,100 | 231 | 3,410 | 119 | 28 | 69 |
| 31 | 258 | ------ | 2,160 | 10,000 | ------ | 5,720 | ------ | 230 | ------ | 104 | 61 | ------ |
| TOTAL | 53,785 | 76,334 | 32,356 | 61,747 | 201,810 | 151,324 | 176,732 | 214,288 | 163,000 | 12,722 | 3,454 | 3,918 |
| MEAN | 1,735 | 2,544 | 1,044 | 1,992 | 7,208 | 4,881 | 5,891 | 6,913 | 5,433 | 410 | 111 | 131 |
| MAX | 5,920 | 5,520 | 3,550 | 10,000 | 11,600 | 8,330 | 17,100 | 18,400 | 10,100 | 2,440 | 602 | 1,040 |
| MIN | 108 | 260 | 370 | 250 | 1,060 | 931 | 838 | 230 | 223 | 94 | 28 | 14 |
| CFSM | .56 | .82 | .34 | .64 | 2.32 | 1.57 | 1.89 | 2.22 | 1.75 | .13 | .036 | .042 |
| IN. | .64 | .91 | .39 | .74 | 2.41 | 1.81 | 2.11 | 2.56 | 1.95 | .15 | .04 | .05 |

CAL YR 1969 TOTAL 1,415,824 MEAN 3,879 MAX 21,900 MIN 86 CFSM 1.25 IN 16.93
WTR YR 1970 TOTAL 1,151,474 MEAN 3,155 MAX 18,400 MIN 14 CFSM 1.01 IN 13.77

## 04087500 Hart ditch at Munster, Ind.

LOCATION.--Lat 41°33'40", long 87°28'50", in SE¼NW¼ sec.20, T.36 N., R.9 W., Lake County, on left bank at city limits of Munster, 0.2 mile downstream from Ridge Road (revised), and 0.4 mile upstream from mouth.

DRAINAGE AREA.--69.2 sq mi.

PERIOD OF RECORD.--September 1942 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 591.27 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission). Since Sept. 11, 1959, auxiliary water-stage recorder 1,200 ft upstream from base gage.

AVERAGE DISCHARGE.--28 years, 56.9 cfs (11.17 inches per year).

EXTREMES.--Current year: Maximum discharge, about 1,050 cfs May 15; maximum gage height, 5.24 ft May 15; minimum discharge, 3.1 cfs Sept 2 (gage height, 0.48 ft).
Period of record: Maximum discharge, 2,670 cfs Apr. 28, 1959; maximum gage height, 7.83 ft Oct. 11, 1954; minimum discharge, 0.8 cfs Sept. 5, 6, 1964; minimum gage height, 0.44 ft Sept. 5, 6, 1964, July 12, 1965.

REMARKS.--Records good except those for parts of January and February and periods of backwater, which are fair.

REVISIONS.--WSP 1337: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.6 | 9.6 | 19 | 17 | 95 | 42 | 235 | 230 | 32 | 12 | 22 | 4.2 |
| 2 | 4.8 | 9.6 | 18 | 16 | 111 | 42 | 300 | 159 | 40 | 15 | 12 | 3.1 |
| 3 | 4.2 | 12 | 18 | 14 | 90 | 100 | 455 | 100 | 46 | 12 | 8.7 | 7.8 |
| 4 | 4.2 | 14 | 14 | 14 | 60 | 108 | 545 | 72 | 33 | 12 | 9.6 | 6.2 |
| 5 | 3.6 | 14 | 14 | 12 | 37 | 165 | 550 | 60 | 32 | 16 | 8.7 | 4.8 |
| 6 | 21 | 14 | 15 | 8.0 | 29 | 103 | 550 | 49 | 25 | 10 | 8.7 | 7.8 |
| 7 | 16 | 12 | 22 | 6.6 | 28 | 79 | 420 | 44 | 21 | 9.6 | 8.7 | 7.8 |
| 8 | 6.2 | 12 | 28 | 6.2 | 30 | 66 | 240 | 38 | 17 | 17 | 8.7 | 9.6 |
| 9 | 4.2 | 12 | 27 | 5.8 | 28 | 56 | 168 | 34 | 16 | 8.7 | 8.7 | 6.2 |
| 10 | 7.8 | 10 | 24 | 5.8 | 27 | 46 | 111 | 30 | 16 | 7.8 | 8.7 | 7.0 |
| 11 | 32 | 10 | 24 | 5.8 | 24 | 38 | 84 | 28 | 14 | 7.0 | 8.7 | 6.2 |
| 12 | 25 | 9.6 | 22 | 6.0 | 22 | 36 | 68 | 37 | 12 | 6.2 | 8.7 | 15 |
| 13 | 74 | 9.6 | 22 | 6.1 | 19 | 33 | 176 | 470 | 37 | 5.5 | 7.8 | 30 |
| 14 | 67 | 8.7 | 21 | 6.2 | 16 | 28 | 185 | 760 | 21 | 10 | 5.5 | 41 |
| 15 | 30 | 8.7 | 18 | 6.4 | 14 | 27 | 114 | 1,000 | 17 | 6.2 | 13 | 135 |
| 16 | 18 | 8.7 | 21 | 6.6 | 14 | 24 | 86 | 740 | 17 | 4.8 | 23 | 42 |
| 17 | 14 | 28 | 18 | 6.5 | 15 | 25 | 68 | 345 | 147 | 4.2 | 12 | 24 |
| 18 | 12 | 56 | 17 | 6.4 | 25 | 25 | 56 | 160 | 100 | 4.2 | 18 | 18 |
| 19 | 12 | 114 | 18 | 6.2 | 40 | 28 | 280 | 131 | 37 | 30 | 43 | 15 |
| 20 | 22 | 86 | 17 | 5.8 | 48 | 34 | 615 | 95 | 25 | 22 | 21 | 10 |
| 21 | 33 | 49 | 16 | 5.8 | 40 | 37 | 490 | 74 | 200 | 12 | 10 | 9.6 |
| 22 | 23 | 42 | 17 | 6.0 | 49 | 33 | 245 | 54 | 119 | 8.7 | 12 | 43 |
| 23 | 16 | 43 | 16 | 6.2 | 146 | 32 | 159 | 46 | 56 | 7.8 | 8.7 | 204 |
| 24 | 12 | 43 | 16 | 6.7 | 168 | 30 | 106 | 44 | 38 | 6.2 | 8.7 | 275 |
| 25 | 12 | 37 | 17 | 7.2 | 140 | 33 | 77 | 46 | 30 | 5.5 | 6.2 | 131 |
| 26 | 10 | 32 | 18 | 8.8 | 106 | 50 | 60 | 40 | 33 | 4.8 | 5.5 | 77 |
| 27 | 7.8 | 28 | 18 | 11 | 60 | 95 | 50 | 34 | 25 | 20 | 4.8 | 62 |
| 28 | 7.8 | 24 | 18 | 67 | 42 | 178 | 48 | 30 | 19 | 18 | 4.8 | 45 |
| 29 | 7.0 | 23 | 17 | 280 | ------ | 182 | 43 | 27 | 16 | 25 | 5.5 | 33 |
| 30 | 7.0 | 21 | 18 | 168 | ------ | 175 | 225 | 25 | 12 | 81 | 5.5 | 27 |
| 31 | 8.7 | ------ | 17 | 119 | ------ | 213 | ------ | 27 | ------ | 43 | 4.8 | ------ |
| TOTAL | 525.9 | 800.5 | 585 | 853.1 | 1,523 | 2,163 | 6,809 | 5,029 | 1,253 | 452.2 | 341.7 | 1,307.3 |
| MEAN | 17.0 | 26.7 | 18.9 | 27.5 | 54.4 | 69.8 | 227 | 162 | 41.8 | 14.6 | 11.0 | 43.6 |
| MAX | 74 | 114 | 28 | 280 | 168 | 213 | 615 | 1,000 | 200 | 81 | 43 | 275 |
| MIN | 3.6 | 8.7 | 14 | 5.8 | 14 | 24 | 43 | 25 | 12 | 4.2 | 4.8 | 3.1 |
| CFSM | .25 | .39 | .27 | .40 | .79 | 1.01 | 3.28 | 2.34 | .60 | .21 | .16 | .63 |
| IN. | .28 | .43 | .31 | .46 | .82 | 1.16 | 3.66 | 2.70 | .67 | .24 | .18 | .70 |

CAL YR 1969 TOTAL 22,183.4 MEAN 60.8 MAX 690 MIN 3.6 CFSM .88 IN 11.93
WAT YR 1970 TOTAL 21,642.7 MEAN 59.3 MAX 1,000 MIN 3.1 CFSM .86 IN 11.63

PEAK DISCHARGE (BASE 800 CFS).--May 15 (1600) a1,050 cfs (5.24 ft).

a about

04087600 Little Calumet River at Munster, Ind.

LOCATION.--Lat 41°34'07", long 87°31'18", in SE¼NW¼ sec.13, T.36 N., R.10 W., Lake County, on left bank 200 ft upstream from Hohman Street Bridge at north city limits of Munster, 0.4 mile upstream from Indiana-Illinois State line, and 4.6 miles upstream from mouth of Thorn Creek.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--June 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 580.72 ft above sea level.

AVERAGE DISCHARGE.--12 years, 62.8 cfs.

EXTREMES.--Current year: Maximum discharge, 628 cfs May 15 (gage height, 12.13 ft); minimum, 3.2 cfs Oct. 6 (gage height, 2.91 ft). Period of record: Maximum discharge, 1,510 cfs Apr. 28, 1959 (gage height, 13.67 ft); minimum, 0.4 cfs Aug. 31, 1967 (gage height, 2.72 ft), result of unusual regulation.

REMARKS.--Records good except those for part of January, February, which are poor. Flow from Upper Little Calumet River basin is diverted to Lake Michigan by Burns ditch.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 8.1 | 10 | 19 | 18 | 128 | 38 | 248 | 311 | 40 | 16 | 25 | 5.1 |
| 2 | 5.3 | 9.7 | 19 | 17 | 133 | 43 | 307 | 209 | 63 | 21 | 14 | 4.9 |
| 3 | 4.8 | 11 | 20 | 16 | 90 | 74 | 427 | 128 | 45 | 28 | 10 | 11 |
| 4 | 3.9 | 14 | 18 | 14 | 60 | 193 | 484 | 88 | 31 | 15 | 9.7 | 4.8 |
| 5 | 3.6 | 12 | 17 | 11 | 42 | 164 | 495 | 68 | 29 | 19 | 9.2 | 6.7 |
| 6 | 15 | 12 | 16 | 8.0 | 30 | 106 | 507 | 51 | 21 | 16 | 9.0 | 9.6 |
| 7 | 40 | 12 | 29 | 6.6 | 29 | 79 | 473 | 43 | 17 | 13 | 9.0 | 11 |
| 8 | 9.2 | 11 | 31 | 6.1 | 30 | 67 | 350 | 37 | 13 | 33 | 8.5 | 16 |
| 9 | 7.3 | 11 | 29 | 6.0 | 29 | 56 | 231 | 31 | 12 | 17 | 9.0 | 8.1 |
| 10 | 15 | 11 | 27 | 6.0 | 27 | 48 | 163 | 26 | 11 | 12 | 8.8 | 11 |
| 11 | 59 | 11 | 27 | 6.2 | 25 | 41 | 127 | 23 | 8.3 | 11 | 9.9 | 9.0 |
| 12 | 37 | 11 | 24 | 6.4 | 22 | 38 | 106 | 34 | 7.9 | 9.9 | 9.0 | 19 |
| 13 | 101 | 10 | 23 | 6.6 | 18 | 35 | 196 | 315 | 60 | 9.0 | 7.5 | 54 |
| 14 | 87 | 9.7 | 22 | 6.8 | 16 | 31 | 221 | 474 | 28 | 15 | 6.1 | 52 |
| 15 | 37 | 9.0 | 20 | 7.0 | 14 | 29 | 161 | 596 | 20 | 12 | 6.0 | 167 |
| 16 | 22 | 9.0 | 20 | 7.0 | 14 | 28 | 128 | 519 | 17 | 8.8 | 52 | 93 |
| 17 | 17 | 39 | 18 | 6.9 | 18 | 28 | 107 | 359 | 137 | 7.7 | 12 | 25 |
| 18 | 15 | 52 | 17 | 6.8 | 30 | 27 | 89 | 252 | 224 | 7.5 | 29 | 18 |
| 19 | 23 | 100 | 17 | 6.4 | 42 | 28 | 263 | 183 | 85 | 33 | 68 | 16 |
| 20 | 32 | 90 | 16 | 6.2 | 48 | 36 | 546 | 133 | 46 | 45 | 43 | 14 |
| 21 | 34 | 52 | 16 | 6.2 | 42 | 37 | 514 | 100 | 219 | 15 | 14 | 12 |
| 22 | 28 | 40 | 16 | 6.3 | 77 | 33 | 374 | 72 | 211 | 12 | 16 | 53 |
| 23 | 19 | 38 | 15 | 6.7 | 125 | 32 | 244 | 55 | 101 | 10 | 11 | 148 |
| 24 | 15 | 40 | 16 | 7.4 | 155 | 31 | 180 | 54 | 60 | 8.8 | 9.7 | 243 |
| 25 | 13 | 36 | 15 | 8.6 | 138 | 36 | 139 | 47 | 45 | 7.7 | 8.1 | 167 |
| 26 | 12 | 31 | 15 | 10 | 100 | 61 | 112 | 39 | 78 | 6.0 | 7.1 | 96 |
| 27 | 11 | 27 | 16 | 14 | 52 | 114 | 97 | 29 | 46 | 20 | 6.5 | 72 |
| 28 | 11 | 24 | 16 | 61 | 40 | 169 | 85 | 24 | 31 | 34 | 6.0 | 55 |
| 29 | 9.9 | 21 | 16 | 203 | ------ | 186 | 75 | 20 | 26 | 30 | 5.6 | 49 |
| 30 | 9.7 | 20 | 17 | 209 | ------ | 176 | 254 | 16 | 19 | 130 | 4.9 | 43 |
| 31 | 9.9 | ------ | 18 | 160 | ------ | 203 | ------ | 20 | ------ | 64 | 4.8 | ------ |
| TOTAL | 714.6 | 783.4 | 605 | 867.2 | 1,574 | 2,267 | 7,703 | 4,356 | 1,751.2 | 686.4 | 448.4 | 1,493.2 |
| MEAN | 23.1 | 26.1 | 19.5 | 28.0 | 56.2 | 73.1 | 257 | 141 | 58.4 | 22.1 | 14.5 | 49.8 |
| MAX | 101 | 100 | 31 | 209 | 155 | 203 | 546 | 596 | 224 | 130 | 68 | 243 |
| MIN | 3.6 | 9.0 | 15 | 6.0 | 14 | 27 | 75 | 16 | 7.9 | 6.0 | 4.8 | 4.8 |

CAL YR 1969 TOTAL 23,919.3 MEAN 65.5 MAX 454 MIN 3.6
WAT YR 1970 TOTAL 23,249.4 MEAN 63.7 MAX 596 MIN 3.6

## 04090500 Thorn Creek at Thornton, Ill.

LOCATION.--Lat 41°34'05", long 87°36'30", near center of NE¼ sec.34, T.36 N., R.14 E., Cook County, on right bank at downstream side of bridge on Margaret Street in Thornton, 1 mile downstream from North Creek, and at mile 4.25.

DRAINAGE AREA.--104 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 586.43 ft above mean sea level. Prior to Dec. 18, 1948, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--22 years, 92.8 cfs (12.12 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,830 cfs May 15 (gage height, 12.51 ft); minimum daily, 21 cfs Oct. 5.
Period of record: Maximum discharge, 4,780 cfs July 13, 1957 (gage height, 16.88 ft); minimum daily, 4.4 cfs Sept. 11, 1949.
Flood of Apr. 5, 1947, reached a stage of 14.34 ft, from floodmark (discharge, 4,200 cfs).

REMARKS.--Records fair. Some diurnal fluctuation caused by pumping operations above station. Figures of discharge include about 16 cfs pumped from groun-water sources for municipal supply and an undetermined amount of ground-water pumpage for industrial use.

REVISIONS.--WSP 1707: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 26 | 32 | 38 | 32 | 121 | 71 | 339 | 738 | 80 | 41 | 106 | 32 |
| 2 | 28 | 28 | 38 | 29 | 165 | 71 | 359 | 299 | 200 | 41 | 63 | 31 |
| 3 | 28 | 34 | 36 | 30 | 116 | 131 | 426 | 162 | 150 | 38 | 46 | 38 |
| 4 | 25 | 46 | 34 | 29 | 93 | 244 | 652 | 122 | 110 | 31 | 41 | 37 |
| 5 | 21 | 33 | 36 | 28 | 61 | 194 | 805 | 104 | 85 | 26 | 38 | 30 |
| 6 | 25 | 32 | 34 | 26 | 55 | 133 | 920 | 90 | 75 | 26 | 38 | 41 |
| 7 | 60 | 32 | 72 | 23 | 51 | 105 | 674 | 82 | 66 | 31 | 38 | 45 |
| 8 | 34 | 29 | 66 | 24 | 53 | 91 | 361 | 76 | 57 | 57 | 36 | 59 |
| 9 | 33 | 26 | 50 | 24 | 55 | 82 | 276 | 65 | 43 | 35 | 34 | 40 |
| 10 | 57 | 29 | 46 | 23 | 52 | 74 | 220 | 61 | 38 | 33 | 33 | 58 |
| 11 | 135 | 30 | 47 | 22 | 45 | 66 | 165 | 53 | 34 | 32 | 36 | 40 |
| 12 | 62 | 29 | 46 | 24 | 45 | 63 | 148 | 52 | 32 | 30 | 38 | 48 |
| 13 | 269 | 30 | 42 | 25 | 40 | 59 | 258 | 516 | 92 | 29 | 38 | 149 |
| 14 | 106 | 29 | 41 | 26 | 42 | 56 | 256 | 1,030 | 60 | 37 | 35 | 124 |
| 15 | 47 | 29 | 36 | 28 | 38 | 53 | 193 | 1,640 | 72 | 32 | 34 | 288 |
| 16 | 36 | 28 | 36 | 28 | 37 | 52 | 164 | 780 | 49 | 28 | 115 | 174 |
| 17 | 33 | 120 | 34 | 26 | 43 | 51 | 149 | 310 | 208 | 26 | 51 | 91 |
| 18 | 28 | 102 | 34 | 23 | 89 | 50 | 134 | 244 | 403 | 25 | 86 | 70 |
| 19 | 42 | 162 | 33 | 27 | 89 | 51 | 388 | 208 | 213 | 74 | 94 | 60 |
| 20 | 84 | 101 | 32 | 25 | 77 | 71 | 1,080 | 188 | 99 | 133 | 113 | 52 |
| 21 | 50 | 68 | 29 | 24 | 69 | 67 | 592 | 195 | 548 | 36 | 57 | 48 |
| 22 | 40 | 54 | 30 | 22 | 105 | 62 | 281 | 188 | 408 | 28 | 53 | 114 |
| 23 | 33 | 50 | 33 | 23 | 191 | 60 | 222 | 100 | 228 | 26 | 54 | 215 |
| 24 | 30 | 48 | 32 | 26 | 196 | 62 | 179 | 110 | 133 | 26 | 42 | 310 |
| 25 | 30 | 48 | 29 | 29 | 185 | 80 | 160 | 84 | 95 | 26 | 40 | 216 |
| 26 | 25 | 47 | 29 | 44 | 113 | 125 | 133 | 76 | 115 | 23 | 39 | 133 |
| 27 | 26 | 44 | 32 | 42 | 99 | 250 | 125 | 60 | 125 | 78 | 38 | 98 |
| 28 | 29 | 38 | 30 | 129 | 78 | 313 | 97 | 50 | 52 | 226 | 36 | 81 |
| 29 | 29 | 38 | 30 | 243 | ------ | 302 | 89 | 45 | 46 | 94 | 36 | 70 |
| 30 | 30 | 37 | 32 | 154 | ------ | 282 | 287 | 45 | 44 | 292 | 34 | 62 |
| 31 | 32 | ------ | 33 | 134 | ------ | 301 | ------ | 45 | ------ | 229 | 32 | ------ |
| TOTAL | 1,533 | 1,453 | 1,170 | 1,392 | 2,407 | 3,672 | 10,132 | 7,818 | 3,960 | 1,889 | 1,574 | 2,854 |
| MEAN | 49.5 | 48.4 | 37.7 | 44.9 | 86.0 | 118 | 338 | 252 | 132 | 60.9 | 50.8 | 95.1 |
| MAX | 269 | 162 | 72 | 243 | 196 | 313 | 1,080 | 1,640 | 548 | 292 | 115 | 310 |
| MIN | 21 | 26 | 29 | 22 | 37 | 50 | 89 | 45 | 32 | 23 | 32 | 30 |
| CFSM | .48 | .47 | .36 | .43 | .83 | 1.13 | 3.25 | 2.42 | 1.27 | .59 | .49 | .91 |
| IN. | .55 | .52 | .42 | .50 | .86 | 1.31 | 3.62 | 2.80 | 1.42 | .68 | .56 | 1.02 |

CAL YR 1969 TOTAL 37,020 MEAN 101 MAX 1,010 MIN 21 CFSM .97 IN 13.24
WTR YR 1970 TOTAL 39,854 MEAN 109 MAX 1,640 MIN 21 CFSM 1.05 IN 14.26

PEAK DISCHARGE (BASE, 900 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-06 | 1215 | 9.59 | 948 | 05-15 | 0630 | 12.51 | 1,830 |
| 04-20 | 1200 | 10.56 | 1,210 | | | | |

## 04091000 Little Calumet River at South Holland, Ill.

LOCATION.--Lat 41°36'05", long 87°34'38", in SW¼SW¼ sec.13, T.36 N., R.14 E., Cook County, on right bank at downstream side of bridge on U.S. Highway 6, 0.6 mile downstream from Thorn Creek, 1.6 miles east of South Holland, and at mile 21.66.

PERIOD OF RECORD.--October 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 575.00 ft above mean sea level (Illinois Division of Waterways bench mark). Prior to Oct. 27, 1947, nonrecording gage at same site and datum. Auxiliary water-stage recorder at Dixmoor, 6.1 miles downstream; prior to Nov. 17, 1947, nonrecording gage at same site read twice daily.

AVERAGE DISCHARGE.--23 years, 163 cfs.

EXTREMES.--Current year: Maximum discharge, 2,340 cfs May 15 (gage height, 15.69 ft); minimum daily, 28 cfs Oct. 5.
Period of record: Maximum discharge, 4,440 cfs July 14, 1957 (gage height, 20.11 ft); minimum daily, 7.9 cfs Oct. 6, 1950.
Flood of Apr. 6, 1947, reached a stage of 19.24 ft, from floodmarks (discharge, 4,760 cfs).

REMARKS.--Records good except those for winter periods, which are poor. Flow from about 330 sq mi of upper Little Calumet River basin above a point in Gary, Ind., is diverted to Lake Michigan by Burns ditch. Calumet Sag Channel, 8 miles below station, diverts the entire low flow to the Mississippi River basin.

REVISIONS (WATER YEARS).--WSP 1507: 1950, 1953.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 39 | 46 | 58 | 50 | 230 | 113 | 616 | 1,250 | 127 | 74 | 120 | 41 |
| 2 | 36 | 39 | 60 | 43 | 262 | 111 | 764 | 741 | 359 | 74 | 76 | 40 |
| 3 | 34 | 41 | 56 | 45 | 210 | 176 | 1,010 | 388 | 257 | 86 | 60 | 59 |
| 4 | 32 | 66 | 51 | 43 | 155 | 458 | 1,240 | 269 | 161 | 66 | 55 | 62 |
| 5 | 28 | 51 | 49 | 40 | 120 | 431 | 1,310 | 213 | 135 | 58 | 51 | 40 |
| 6 | 31 | 47 | 47 | 41 | 96 | 280 | 1,380 | 176 | 115 | 58 | 49 | 53 |
| 7 | 113 | 45 | 60 | 39 | 84 | 209 | 1,280 | 151 | 98 | 59 | 49 | 69 |
| 8 | 52 | 42 | 109 | 38 | 89 | 174 | 874 | 143 | 86 | 87 | 48 | 98 |
| 9 | 38 | 40 | 88 | 41 | 97 | 149 | 582 | 124 | 79 | 76 | 48 | 55 |
| 10 | 55 | 38 | 81 | 38 | 92 | 130 | 384 | 115 | 76 | 59 | 44 | 78 |
| 11 | 201 | 42 | 82 | 36 | 86 | 114 | 279 | 102 | 70 | 56 | 48 | 54 |
| 12 | 105 | 43 | 80 | 40 | 78 | 104 | 222 | 108 | 64 | 54 | 51 | 56 |
| 13 | 309 | 38 | 73 | 45 | 72 | 99 | 465 | 783 | 159 | 51 | 51 | 247 |
| 14 | 229 | 39 | 71 | 50 | 69 | 90 | 563 | 1,620 | 120 | 60 | 45 | 205 |
| 15 | 114 | 37 | 63 | 54 | 61 | 84 | 386 | 2,240 | 116 | 71 | 42 | 692 |
| 16 | 79 | 35 | 60 | 56 | 57 | 80 | 277 | 1,770 | 94 | 52 | 228 | 452 |
| 17 | 65 | 123 | 58 | 48 | 64 | 78 | 224 | 975 | 335 | 51 | 84 | 163 |
| 18 | 54 | 134 | 56 | 42 | 121 | 75 | 184 | 648 | 768 | 46 | 140 | 105 |
| 19 | 79 | 213 | 55 | 38 | 158 | 77 | 693 | 449 | 309 | 103 | 224 | 81 |
| 20 | 121 | 187 | 50 | 45 | 130 | 108 | 1,590 | 318 | 157 | 186 | 258 | 72 |
| 21 | 102 | 129 | 49 | 43 | 125 | 102 | 1,360 | 239 | 802 | 73 | 91 | 65 |
| 22 | 85 | 102 | 44 | 41 | 148 | 94 | 783 | 188 | 786 | 57 | 76 | 192 |
| 23 | 67 | 96 | 46 | 46 | 287 | 91 | 511 | 151 | 342 | 52 | 61 | 418 |
| 24 | 55 | 95 | 47 | 50 | 367 | 90 | 357 | 171 | 194 | 51 | 59 | 804 |
| 25 | 50 | 93 | 44 | 58 | 343 | 100 | 268 | 142 | 140 | 52 | 55 | 563 |
| 26 | 46 | 85 | 42 | 81 | 226 | 180 | 213 | 131 | 201 | 44 | 50 | 306 |
| 27 | 40 | 76 | 45 | 75 | 180 | 308 | 181 | 108 | 172 | 54 | 48 | 212 |
| 28 | 43 | 67 | 44 | 189 | 127 | 436 | 163 | 96 | 101 | 244 | 48 | 154 |
| 29 | 40 | 65 | 42 | 453 | ------ | 441 | 146 | 89 | 85 | 112 | 46 | 130 |
| 30 | 39 | 62 | 46 | 333 | ------ | 418 | 987 | 81 | 81 | 418 | 45 | 114 |
| 31 | 41 | ------ | 51 | 268 | ------ | 500 | ------ | 76 | ------ | 310 | 41 | ------ |
| TOTAL | 2,422 | 2,216 | 1,827 | 2,509 | 4,134 | 5,900 | 19,292 | 14,055 | 6,589 | 2,894 | 2,411 | 5,680 |
| MEAN | 78.1 | 73.9 | 58.9 | 80.9 | 148 | 190 | 643 | 453 | 220 | 93.4 | 77.8 | 189 |
| MAX | 309 | 213 | 109 | 453 | 367 | 500 | 1,590 | 2,240 | 802 | 418 | 258 | 804 |
| MIN | 28 | 35 | 42 | 36 | 57 | 75 | 146 | 76 | 64 | 44 | 41 | 40 |

CAL YR 1969 TOTAL 64,847 MEAN 178 MAX 1,290 MIN 28
WTR YR 1970 TOTAL 69,929 MEAN 192 MAX 2,240 MIN 28

## 04093000 Deep River at Lake George Outlet at Hobart, Ind.

LOCATION.--Lat 41°32'10", long 87°15'25", in NW¼NW¼ sec.32, T.36 N., R.7 W., Lake County, on left bank at upstream side of highway bridge, 300 ft upstream from Duck Creek, and 400 ft downstream from Lake George Dam.

DRAINAGE AREA.--125 sq mi.

PERIOD OF RECORD.--April 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 588.17 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission). Prior to July 29, 1952, nonrecording gage, and July 30, 1952, to July 20, 1955, water-stage recorder at site 400 ft upstream at datum 11.80 ft higher.

AVERAGE DISCHARGE.--23 years, 97.0 cfs (10.54 inches per year).

EXTREMES.--Current year: Maximum discharge, about 2,900 cfs May 15; minimum, 8.3 cfs Aug. 31 (gage height, 3.68 ft).
Period of record: Maximum discharge, 3,880 cfs Oct. 11, 1954 (gage height, 19.48 ft, present datum, site then in use); minimum, 2.0 cfs (regulated) Oct. 8, 1956; minimum gage height, 3.35 ft Sept. 21, 1956.

REMARKS.--Records good except those for period of no gage height record, which are fair. Flow can be regulated by Lake George Dam.

REVISIONS (WATER YEARS).--WSP 1337: 1953, drainage area. WSP 1507: 1956.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 11 | 19 | 38 | 26 | 246 | 77 | 308 | 526 | 110 | 24 | 126 | 9.8 |
| 2 | 11 | 19 | 38 | 25 | 220 | 74 | 429 | 454 | 140 | 22 | 68 | 11 |
| 3 | 11 | 23 | 34 | 23 | 162 | 92 | 616 | 336 | 130 | 24 | 41 | 13 |
| 4 | 12 | 26 | 31 | 23 | 121 | 176 | 813 | 180 | 110 | 20 | 28 | 13 |
| 5 | 12 | 25 | 29 | 22 | 105 | 209 | 871 | 156 | 92 | 20 | 21 | 14 |
| 6 | 16 | 27 | 27 | 20 | 90 | 176 | 945 | 137 | 78 | 18 | 18 | 16 |
| 7 | 24 | 27 | 36 | 16 | 79 | 144 | 875 | 119 | 62 | 16 | 16 | 18 |
| 8 | 19 | 25 | 41 | 14 | 76 | 119 | 738 | 104 | 54 | 19 | 15 | 19 |
| 9 | 18 | 23 | 48 | 12 | 78 | 104 | 597 | 88 | 45 | 22 | 14 | 17 |
| 10 | 19 | 23 | 48 | 13 | 73 | 93 | 465 | 75 | 42 | 20 | 14 | 17 |
| 11 | 45 | 21 | 47 | 14 | 68 | 81 | 367 | 68 | 45 | 18 | 14 | 12 |
| 12 | 54 | 21 | 44 | 15 | 63 | 70 | 287 | 84 | 85 | 16 | 16 | 13 |
| 13 | 95 | 19 | 40 | 16 | 56 | 67 | 267 | 622 | 74 | 15 | 16 | 26 |
| 14 | 134 | 19 | 38 | 17 | 49 | 58 | 296 | 1,430 | 64 | 15 | 14 | 50 |
| 15 | 109 | 17 | 36 | 17 | 45 | 56 | 293 | 2,580 | 55 | 17 | 14 | 86 |
| 16 | 72 | 16 | 33 | 17 | 42 | 51 | 256 | 1,690 | 42 | 13 | 24 | 78 |
| 17 | 46 | 33 | 31 | 16 | 41 | 50 | 207 | 1,300 | 78 | 14 | 25 | 56 |
| 18 | 33 | 50 | 30 | 15 | 55 | 50 | 136 | 900 | 311 | 12 | 22 | 44 |
| 19 | 29 | 93 | 28 | 15 | 109 | 50 | 253 | 690 | 296 | 24 | 26 | 34 |
| 20 | 40 | 114 | 25 | 15 | 127 | 62 | 694 | 490 | 102 | 42 | 40 | 26 |
| 21 | 46 | 96 | 23 | 15 | 105 | 62 | 783 | 350 | 106 | 40 | 43 | 23 |
| 22 | 42 | 78 | 25 | 16 | 104 | 64 | 659 | 285 | 156 | 26 | 31 | 30 |
| 23 | 33 | 72 | 26 | 17 | 116 | 64 | 506 | 270 | 120 | 19 | 26 | 55 |
| 24 | 27 | 76 | 22 | 18 | 128 | 58 | 383 | 250 | 80 | 17 | 24 | 132 |
| 25 | 23 | 71 | 23 | 20 | 136 | 56 | 292 | 205 | 56 | 15 | 20 | 182 |
| 26 | 21 | 61 | 23 | 23 | 110 | 91 | 225 | 160 | 49 | 15 | 16 | 136 |
| 27 | 18 | 53 | 23 | 25 | 107 | 97 | 116 | 135 | 45 | 17 | 15 | 100 |
| 28 | 16 | 53 | 24 | 39 | 87 | 142 | 129 | 115 | 39 | 18 | 13 | 75 |
| 29 | 15 | 44 | 23 | 168 | ------ | 184 | 130 | 98 | 33 | 30 | 14 | 59 |
| 30 | 15 | 43 | 24 | 290 | ------ | 210 | 301 | 86 | 26 | 196 | 13 | 48 |
| 31 | 18 | ------ | 26 | 287 | ------ | 244 | ------ | 82 | ------ | 238 | 9.0 | ------ |
| TOTAL | 1,084 | 1,287 | 984 | 1,269 | 2,798 | 3,131 | 13,237 | 14,065 | 2,725 | 1,022 | 796.0 | 1,412.8 |
| MEAN | 35.0 | 42.9 | 31.7 | 40.9 | 99.9 | 101 | 441 | 454 | 90.8 | 33.0 | 25.7 | 47.1 |
| MAX | 134 | 114 | 48 | 290 | 246 | 244 | 945 | 2,580 | 311 | 238 | 126 | 182 |
| MIN | 11 | 16 | 22 | 12 | 41 | 50 | 116 | 68 | 26 | 12 | 9.0 | 9.8 |
| CFSM | .28 | .34 | .25 | .33 | .80 | .81 | 3.53 | 3.63 | .73 | .26 | .21 | .38 |
| IN. | .32 | .38 | .29 | .38 | .83 | .93 | 3.94 | 4.19 | .81 | .30 | .24 | .42 |

CAL YR 1969 TOTAL 36,307.7 MEAN 99.5 MAX 906 MIN 8.7 CFSM .80 IN 10.81
WAT YR 1970 TOTAL 43,810.8 MEAN 120 MAX 2,580 MIN 9.0 CFSM .96 IN 13.04

PEAK DISCHARGE (BASE, 700 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-06 | 1115 | 9.67 | 985 | 05-15 | Unknown | Unknown | a2,900 |
| 04-21 | 0045 | 8.86 | 804 | | | | |

a about

NOTE.--No gage-height record May 14 to June 16.

## 04093200 Little Calumet River at Gary, Ind.

LOCATION.--Lat 41°34'19", long 87°19'13", in NE¼SE¼ sec.15, T.36 N., R.8 W., Lake County, on right bank at upstream side of bridge on Pennsylvania Railroad at Gary, 1.3 miles downstream from bridge on State Highway 53, and 1.5 miles upstream from confluence with Deep River.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--June 1958 to September 1967, October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 580.00 ft above mean sea level.

AVERAGE DISCHARGE.--11 years, 16.9 cfs.

EXTREMES.--Current year: Maximum discharge, 250 cfs May 16 (gage height, 11.35 ft); no flow Oct. 2-5.
Period of record: Maximum discharge, 250 cfs May 16, 1970 (gage height, 11.35 ft); no flow at times during most years.
Flood in October 1954 reached a stage of 13.09 ft, from floodmark.

REMARKS.--Records poor. During times of flood on Deep River, reverse flow may occur at the gage.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .01 | 5.0 | 9.8 | 3.5 | 30 | 17 | 40 | 68 | 29 | 11 | 16 | 4.7 |
| 2 | 0 | 5.0 | 9.4 | 3.5 | 28 | 18 | 49 | 60 | 33 | 11 | 13 | 4.4 |
| 3 | 0 | 5.0 | 9.8 | 3.5 | 26 | 21 | 58 | 56 | 32 | 12 | 11 | 5.6 |
| 4 | 0 | 6.5 | 7.4 | 3.1 | 23 | 25 | 65 | 51 | 30 | 8.4 | 9.8 | 4.7 |
| 5 | 0 | 6.2 | 7.4 | 2.5 | 21 | 25 | 66 | 47 | 25 | 7.4 | 9.1 | 4.4 |
| 6 | .17 | 5.9 | 7.4 | 1.8 | 18 | 24 | 73 | 44 | 21 | 7.1 | 8.0 | 4.7 |
| 7 | 3.5 | 6.5 | 8.8 | 1.3 | 17 | 24 | 82 | 41 | 18 | 7.4 | 7.1 | 4.4 |
| 8 | 1.4 | 6.2 | 11 | 1.0 | 16 | 23 | 84 | 39 | 16 | 8.4 | 6.5 | 5.6 |
| 9 | 1.4 | 5.6 | 10 | .80 | 17 | 21 | 80 | 37 | 14 | 8.0 | 5.3 | 4.7 |
| 10 | 2.2 | 5.6 | 9.4 | .72 | 16 | 20 | 69 | 35 | 12 | 7.7 | 5.0 | 4.4 |
| 11 | 8.5 | 5.3 | 9.8 | .76 | 14 | 19 | 60 | 34 | 13 | 7.1 | 5.0 | 3.8 |
| 12 | 6.8 | 5.6 | 10 | .80 | 13 | 18 | 52 | 34 | 16 | 5.9 | 5.2 | 3.8 |
| 13 | 16 | 5.6 | 8.4 | .88 | 13 | 17 | 54 | 51 | 19 | 5.6 | 5.2 | 7.7 |
| 14 | 17 | 5.6 | 8.8 | .93 | 12 | 16 | 53 | 65 | 18 | 5.6 | 5.1 | 11 |
| 15 | 14 | 5.0 | 7.7 | 1.0 | 11 | 13 | 49 | 180 | 17 | 5.0 | 5.0 | 22 |
| 16 | 12 | 5.0 | 7.4 | 1.1 | 10 | 14 | 46 | 247 | 19 | 3.8 | 6.6 | 21 |
| 17 | 10 | 9.1 | 6.8 | 1.1 | 10 | 13 | 42 | 245 | 29 | 3.8 | 8.6 | 20 |
| 18 | 9.1 | 12 | 6.5 | 1.1 | 12 | 13 | 39 | 214 | 34 | 4.4 | 9.8 | 19 |
| 19 | 8.8 | 17 | 5.9 | .92 | 15 | 13 | 50 | 158 | 28 | 9.1 | 15 | 16 |
| 20 | 12 | 16 | 5.3 | .80 | 22 | 13 | 66 | 111 | 27 | 8.8 | 16 | 15 |
| 21 | 11 | 13 | 5.0 | .72 | 17 | 14 | 78 | 107 | 34 | 7.1 | 16 | 13 |
| 22 | 9.4 | 13 | 4.7 | .72 | 17 | 13 | 93 | 84 | 33 | 6.5 | 15 | 18 |
| 23 | 8.4 | 14 | 3.0 | .72 | 17 | 13 | 92 | 67 | 31 | 5.3 | 13 | 22 |
| 24 | 8.4 | 13 | 3.4 | .79 | 18 | 13 | 78 | 55 | 25 | 5.3 | 12 | 30 |
| 25 | 8.0 | 13 | 3.5 | 1.0 | 19 | 13 | 67 | 47 | 22 | 5.0 | 11 | 34 |
| 26 | 7.7 | 12 | 3.5 | 1.5 | 20 | 14 | 60 | 39 | 24 | 4.7 | 10 | 34 |
| 27 | 6.8 | 11 | 3.5 | 3.6 | 18 | 22 | 54 | 34 | 19 | 5.3 | 9.4 | 34 |
| 28 | 6.2 | 10 | 3.5 | 9.0 | 18 | 30 | 52 | 30 | 16 | 6.2 | 8.4 | 32 |
| 29 | 5.3 | 10 | 3.5 | 25 | ------ | 32 | 48 | 27 | 14 | 8.0 | 7.4 | 28 |
| 30 | 4.7 | 10 | 3.5 | 30 | ------ | 34 | 67 | 24 | 12 | 26 | 6.2 | 24 |
| 31 | 4.7 | ------ | 3.5 | 30 | ------ | 37 | ------ | 25 | ------ | 19 | 5.0 | ------ |
| TOTAL | 203.46 | 262.7 | 206.6 | 134.16 | 488 | 602 | 1,866 | 2,356 | 680 | 245.9 | 285.7 | 455.9 |
| MEAN | 6.56 | 8.76 | 6.66 | 4.33 | 17.4 | 19.4 | 62.2 | 76.0 | 22.7 | 7.93 | 9.22 | 15.2 |
| MAX | 17 | 17 | 11 | 30 | 30 | 37 | 93 | 247 | 34 | 26 | 16 | 34 |
| MIN | 0 | 5.0 | 3.0 | .72 | 10 | 13 | 39 | 24 | 12 | 3.8 | 5.0 | 3.8 |

CAL YR 1969 TOTAL 8,459.22 MEAN 23.2 MAX 94 MIN 0
WAT YR 1970 TOTAL 7,786.44 MEAN 21.3 MAX 247 MIN 0

## 04093500 Burns ditch at Gary, Ind.

LOCATION.--Lat 41°34'30", long 87°17'20", in SE¼NW¼ sec.13, T.36 N., R.8 W., Lake County, on left bank at downstream side of bridge on Central Avenue, 0.4 mile east of Gary, and 0.4 mile downstream from confluence of Deep River and Little Calumet River.

DRAINAGE AREA.--About 160 sq mi.

PERIOD OF RECORD.--October 1943 to current year (October 1950 to September 1955, high-water records only).

GAGE.--Water-stage recorder. Datum of gage is 577.04 ft above mean sea level. Prior to July 28, 1955, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--22 years (1943-50, 1955 to current year) 136 cfs (11.54 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,380 cfs May 16 (gage height, 14.44 ft); minimum daily, 11 cfs Oct. 1.
Period ofrecord: Maximum discharge, 3,430 cfs Oct. 11, 1954; maximum gage height, 16.44 ft Mar. 16, 1944, from graph based on gage readings; minimum discharge determined, 1.8 cfs Oct. 14, 1946.

REMARKS.--Records fair except those for periods of backwater from Lake Michigan and parts of January, February, which are poor. Burns ditch is an artificial channel which reverses the direction of flow of part of Little Calumet River and flows into Lake Michigan at Wickliffe.

REVISIONS (WATER YEARS).--WSP 1034: 1944. WSP 1337: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECCND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 11 | 24 | 47 | 33 | 417 | 108 | 393 | 604 | 114 | 32 | 160 | 12 |
| 2 | 13 | 26 | 44 | 30 | 401 | 109 | 525 | 616 | 188 | 31 | 79 | 13 |
| 3 | 15 | 31 | 41 | 32 | 336 | 128 | 656 | 486 | 194 | 35 | 67 | 15 |
| 4 | 15 | 33 | 82 | 28 | 231 | 218 | 880 | 327 | 165 | 28 | 40 | 16 |
| 5 | 17 | 33 | 38 | 27 | 178 | 271 | 992 | 237 | 139 | 25 | 30 | 17 |
| 6 | 23 | 35 | 44 | 26 | 141 | 240 | 1,070 | 211 | 121 | 21 | 25 | 18 |
| 7 | 30 | 34 | 48 | 18 | 110 | 197 | 1,090 | 174 | 100 | 23 | 20 | 21 |
| 8 | 29 | 31 | 55 | 16 | 115 | 168 | 952 | 148 | 87 | 28 | 19 | 23 |
| 9 | 29 | 30 | 54 | 16 | 110 | 149 | 796 | 128 | 73 | 26 | 17 | 21 |
| 10 | 36 | 29 | 62 | 18 | 100 | 131 | 644 | 117 | 65 | 23 | 17 | 18 |
| 11 | 89 | 27 | 68 | 19 | 92 | 111 | 514 | 111 | 60 | 22 | 18 | 16 |
| 12 | 95 | 27 | 55 | 29 | 84 | 102 | 424 | 135 | 65 | 21 | 19 | 15 |
| 13 | 158 | 25 | 47 | 21 | 74 | 93 | 387 | 492 | 120 | 20 | 19 | 56 |
| 14 | 167 | 24 | 45 | 22 | 66 | 88 | 397 | 1,220 | 95 | 20 | 18 | 62 |
| 15 | 129 | 22 | 43 | 21 | 63 | 88 | 391 | 2,080 | 81 | 23 | 14 | 120 |
| 16 | 102 | 21 | 51 | 21 | 71 | 75 | 356 | 2,300 | 70 | 17 | 29 | 108 |
| 17 | 65 | 32 | 39 | 20 | 67 | 72 | 308 | 1,940 | 108 | 16 | 34 | 87 |
| 18 | 40 | 58 | 36 | 19 | 116 | 74 | 222 | 1,490 | 314 | 16 | 30 | 65 |
| 19 | 37 | 130 | 51 | 19 | 181 | 73 | 343 | 1,160 | 384 | 36 | 46 | 34 |
| 20 | 56 | 144 | 32 | 19 | 212 | 82 | 676 | 878 | 203 | 56 | 61 | 26 |
| 21 | 44 | 114 | 31 | 20 | 171 | 87 | 904 | 676 | 150 | 44 | 60 | 19 |
| 22 | 52 | 90 | 33 | 21 | 162 | 89 | 850 | 537 | 190 | 34 | 55 | 40 |
| 23 | 42 | 94 | 56 | 23 | 156 | 85 | 694 | 380 | 163 | 26 | 60 | 75 |
| 24 | 33 | 90 | 32 | 25 | 167 | 81 | 539 | 369 | 114 | 22 | 41 | 161 |
| 25 | 29 | 81 | 30 | 31 | 220 | 88 | 429 | 334 | 86 | 19 | 34 | 219 |
| 26 | 26 | 72 | 30 | 51 | 180 | 188 | 338 | 274 | 66 | 20 | 27 | 197 |
| 27 | 23 | 100 | 34 | 36 | 143 | 140 | 226 | 218 | 58 | 22 | 23 | 142 |
| 28 | 20 | 60 | 30 | 61 | 126 | 190 | 181 | 187 | 48 | 25 | 20 | 116 |
| 29 | 19 | 51 | 31 | 239 | ------ | 248 | 186 | 158 | 43 | 36 | 17 | 94 |
| 30 | 20 | 49 | 32 | 421 | ------ | 288 | 434 | 131 | 38 | 188 | 18 | 85 |
| 31 | 23 | ------ | 34 | 451 | ------ | 331 | ------ | 112 | ------ | 256 | 15 | ------ |
| TOTAL | 1,507 | 1,636 | 1,355 | 1,833 | 4,490 | 4,392 | 16,797 | 18,230 | 3,702 | 1,211 | 1,132 | 1,911 |
| MEAN | 48.6 | 54.5 | 43.7 | 59.1 | 160 | 142 | 560 | 588 | 123 | 39.1 | 36.5 | 63.7 |
| MAX | 167 | 144 | 82 | 451 | 417 | 331 | 1,090 | 2,300 | 384 | 256 | 160 | 219 |
| MIN | 11 | 21 | 30 | 16 | 63 | 72 | 181 | 111 | 38 | 16 | 14 | 12 |
| CFSM | .30 | .34 | .27 | .37 | 1.00 | .89 | 3.50 | 3.68 | .77 | .24 | .23 | .40 |
| IN. | .35 | .38 | .32 | .43 | 1.04 | 1.02 | 3.91 | 4.24 | .86 | .28 | .26 | .44 |

CAL YR 1969 TOTAL 49,390.0 MEAN 135 MAX 964 MIN 9.0 CFSM .84 IN 11.48
WAT YR 1970 TOTAL 58,196.0 MEAN 159 MAX 2,300 MIN 11 CFSM .99 IN 13.53

## 04094000 Little Calumet River at Porter, Ind.

LOCATION.--Lat 41°37'18", long 87°05'13", in NE¼NE¼ sec.34, T.37 N., R.6 W., Porter County, on right bank at downstream end of county road bridge, 200 ft upstream from bridge on U.S. Highway 20, 0.8 mile northwest of Porter, and 4.5 miles upstream from Salt Creek.

DRAINAGE AREA.--62.9 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 603.48 ft above mean sea level. Prior to June 26, 1952, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--25 years, 69.6 cfs (15.03 inches per year).

EXTREMES.--Current year: Maximum discharge, 965 cfs May 15 (gage height, 8.07 ft); minimum, 14 cfs Aug. 30 (gage height, 2.30 ft). Period of record: Maximum discharge, 3,110 cfs Oct. 10, 1954 (gage height, 11.66 ft); minimum, 14 cfs Aug. 30, 1970; minimum gage height, 2.14 ft Aug. 22, 1949.

REMARKS.--Records good except those for periods of no gage-height record and parts of January and February, which are fair.

REVISIONS (WATER YEARS).--WSP 1084: 1945. WSP 1337: 1946-47, drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 28 | 51 | 48 | 37 | 102 | 61 | 210 | 189 | 51 | 40 | 95 | 24 |
| 2 | 28 | 54 | 45 | 37 | 116 | 63 | 300 | 133 | 85 | 37 | 49 | 23 |
| 3 | 30 | 50 | 46 | 33 | 111 | 79 | 450 | 93 | 85 | 41 | 38 | 30 |
| 4 | 29 | 51 | 44 | 32 | 101 | 170 | 580 | 83 | 70 | 39 | 32 | 34 |
| 5 | 29 | 58 | 43 | 31 | 87 | 155 | 580 | 76 | 62 | 35 | 31 | 30 |
| 6 | 29 | 54 | 41 | 30 | 66 | 112 | 540 | 71 | 55 | 33 | 27 | 30 |
| 7 | 42 | 50 | 45 | 30 | 60 | 89 | 421 | 66 | 50 | 33 | 22 | 40 |
| 8 | 38 | 46 | 58 | 30 | 58 | 78 | 326 | 62 | 46 | 41 | 24 | 42 |
| 9 | 32 | 44 | 52 | 31 | 65 | 69 | 235 | 56 | 43 | 42 | 29 | 35 |
| 10 | 35 | 44 | 48 | 32 | 64 | 63 | 164 | 51 | 42 | 35 | 29 | 32 |
| 11 | 75 | 43 | 47 | 33 | 61 | 59 | 121 | 49 | 40 | 32 | 28 | 30 |
| 12 | 79 | 43 | 45 | 34 | 57 | 56 | 100 | 53 | 40 | 31 | 28 | 29 |
| 13 | 101 | 42 | 42 | 35 | 54 | 54 | 100 | 108 | 72 | 29 | 27 | 34 |
| 14 | 142 | 41 | 41 | 36 | 50 | 52 | 110 | 237 | 70 | 29 | 28 | 43 |
| 15 | 87 | 41 | 42 | 39 | 48 | 52 | 93 | 771 | 52 | 70 | 27 | 75 |
| 16 | 57 | 40 | 41 | 40 | 46 | 52 | 92 | 563 | 56 | 64 | 30 | 78 |
| 17 | 49 | 54 | 40 | 40 | 46 | 52 | 83 | 320 | 80 | 38 | 29 | 52 |
| 18 | 44 | 77 | 39 | 39 | 51 | 54 | 78 | 194 | 97 | 32 | 30 | 46 |
| 19 | 45 | 126 | 39 | 36 | 72 | 55 | 104 | 132 | 63 | 33 | 34 | 40 |
| 20 | 60 | 169 | 38 | 33 | 59 | 63 | 356 | 94 | 47 | 132 | 43 | 36 |
| 21 | 75 | 109 | 36 | 33 | 59 | 68 | 405 | 77 | 58 | 276 | 33 | 34 |
| 22 | 61 | 78 | 36 | 32 | 69 | 64 | 274 | 67 | 56 | 88 | 31 | 37 |
| 23 | 50 | 79 | 35 | 33 | 99 | 60 | 170 | 60 | 43 | 52 | 32 | 49 |
| 24 | 45 | 76 | 35 | 35 | 101 | 57 | 123 | 60 | 35 | 42 | 31 | 91 |
| 25 | 43 | 68 | 41 | 38 | 105 | 60 | 96 | 64 | 39 | 39 | 29 | 107 |
| 26 | 42 | 61 | 38 | 41 | 79 | 74 | 84 | 61 | 80 | 35 | 30 | 68 |
| 27 | 41 | 56 | 37 | 45 | 72 | 108 | 79 | 54 | 221 | 34 | 29 | 60 |
| 28 | 40 | 53 | 36 | 56 | 62 | 150 | 76 | 51 | 139 | 34 | 29 | 52 |
| 29 | 39 | 50 | 37 | 151 | ------ | 160 | 72 | 47 | 65 | 33 | 25 | 45 |
| 30 | 39 | 48 | 37 | 227 | ------ | 155 | 107 | 46 | 47 | 48 | 24 | 42 |
| 31 | 40 | ------ | 38 | 134 | ------ | 170 | ------ | 44 | ------ | 111 | 30 | ------ |
| TOTAL | 1,574 | 1,856 | 1,290 | 1,513 | 2,020 | 2,614 | 6,529 | 4,032 | 1,989 | 1,658 | 1,003 | 1,368 |
| MEAN | 50.8 | 61.9 | 41.6 | 48.8 | 72.1 | 84.3 | 218 | 130 | 66.3 | 53.5 | 32.4 | 45.6 |
| MAX | 142 | 169 | 58 | 227 | 116 | 170 | 580 | 771 | 221 | 276 | 95 | 107 |
| MIN | 28 | 40 | 35 | 30 | 46 | 52 | 72 | 44 | 35 | 29 | 22 | 23 |
| CFSM | .81 | .98 | .66 | .78 | 1.15 | 1.34 | 3.47 | 2.07 | 1.05 | .85 | .52 | .73 |
| IN. | .93 | 1.10 | .76 | .89 | 1.19 | 1.55 | 3.86 | 2.38 | 1.18 | .98 | .59 | .81 |

CAL YR 1969 TOTAL 25,130 MEAN 68.8 MAX 454 MIN 26 CFSM 1.09 IN 14.86
WAT YR 1970 TOTAL 27,446 MEAN 75.2 MAX 771 MIN 22 CFSM 1.20 IN 16.23

PEAK DISCHARGE (BASE, 700 CFS).--May 15 (1415) 965 cfs (8.07 ft). NOTE.--No gage-height record Mar. 4 to Apr. 7.

## 04094500 Salt Creek near McCool, Ind.

LOCATION.--Lat 41°35'48", long 84°08'40", in SE¼SE¼ sec.6, T.36 N., R.6 W., Porter County, on left bank on downstream side of highway bridge, 50 ft downstream from New York Central Railroad bridge, 1.2 miles north of McCool, and 1.5 miles upstream from Little Calumet River.

DRAINAGE AREA.--78.7 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 594.10 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission). Prior to July 25, 1955, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--25 years, 69.0 cfs (11.90 inches per year).

EXTREMES.--Current year: Maximum daily discharge, 900 cfs May 15; maximum gage height, 11.13 ft May 15, affected by bridge construction; minimum discharge, 26 cfs Oct. 2, 5; minimum gage height, 2.15 ft Sept. 1, 2, 3.
Period of record: Maximum discharge, 3,180 cfs Oct. 11, 1954 (gage height, 14.12 ft); minimum, 6.3 cfs Aug. 24, 1955; minimum gage height, 2.09 ft Sept. 1, 1969.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1337: 1946-48(M), 1950(M), drainage area. WSP 1911: 1958.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 27 | 47 | 45 | 41 | 114 | 48 | 207 | 290 | 53 | 42 | 110 | 30 |
| 2 | 27 | 55 | 44 | 40 | 128 | 50 | 293 | 205 | 118 | 41 | 80 | 29 |
| 3 | 28 | 49 | 43 | 36 | 86 | 74 | 484 | 155 | 122 | 48 | 59 | 32 |
| 4 | 27 | 51 | 42 | 35 | 79 | 155 | 531 | 110 | 91 | 45 | 47 | 35 |
| 5 | 27 | 58 | 41 | 33 | 58 | 134 | 524 | 86 | 73 | 40 | 42 | 33 |
| 6 | 27 | 51 | 41 | 31 | 52 | 96 | 496 | 74 | 65 | 36 | 39 | 32 |
| 7 | 37 | 46 | 45 | 30 | 50 | 78 | 389 | 69 | 57 | 35 | 38 | 36 |
| 8 | 34 | 43 | 61 | 29 | 51 | 69 | 259 | 62 | 51 | 38 | 36 | 38 |
| 9 | 29 | 42 | 55 | 29 | 61 | 62 | 178 | 55 | 47 | 43 | 36 | 36 |
| 10 | 31 | 41 | 51 | 29 | 58 | 56 | 136 | 51 | 45 | 39 | 34 | 32 |
| 11 | 90 | 41 | 50 | 30 | 55 | 52 | 110 | 47 | 43 | 37 | 34 | 32 |
| 12 | 97 | 40 | 47 | 31 | 52 | 50 | 92 | 113 | 42 | 35 | 35 | 31 |
| 13 | 149 | 39 | 44 | 33 | 48 | 49 | 107 | 220 | 77 | 33 | 33 | 40 |
| 14 | 170 | 38 | 44 | 35 | 46 | 47 | 134 | 450 | 73 | 34 | 32 | 60 |
| 15 | 112 | 38 | 43 | 36 | 45 | 47 | 109 | 900 | 55 | 53 | 31 | 98 |
| 16 | 68 | 37 | 42 | 37 | 43 | 46 | 93 | 560 | 55 | 43 | 36 | 70 |
| 17 | 50 | 50 | 41 | 37 | 42 | 47 | 84 | 390 | 110 | 35 | 33 | 50 |
| 18 | 43 | 86 | 41 | 35 | 54 | 49 | 76 | 258 | 150 | 33 | 33 | 43 |
| 19 | 42 | 145 | 41 | 33 | 85 | 49 | 147 | 159 | 250 | 39 | 38 | 39 |
| 20 | 61 | 141 | 39 | 32 | 59 | 60 | 368 | 118 | 200 | 68 | 49 | 37 |
| 21 | 76 | 92 | 38 | 31 | 58 | 63 | 408 | 95 | 153 | 43 | 37 | 35 |
| 22 | 55 | 72 | 38 | 31 | 63 | 57 | 282 | 82 | 129 | 36 | 35 | 44 |
| 23 | 45 | 79 | 37 | 33 | 83 | 54 | 170 | 73 | 94 | 33 | 44 | 68 |
| 24 | 41 | 73 | 37 | 35 | 82 | 52 | 120 | 73 | 73 | 33 | 37 | 149 |
| 25 | 39 | 64 | 42 | 37 | 87 | 53 | 94 | 79 | 63 | 34 | 34 | 122 |
| 26 | 38 | 58 | 39 | 42 | 62 | 79 | 81 | 77 | 80 | 32 | 33 | 85 |
| 27 | 39 | 54 | 39 | 48 | 57 | 107 | 73 | 66 | 90 | 31 | 32 | 73 |
| 28 | 37 | 49 | 39 | 56 | 49 | 142 | 69 | 59 | 64 | 34 | 31 | 58 |
| 29 | 35 | 48 | 38 | 232 | ------ | 146 | 66 | 55 | 51 | 32 | 31 | 49 |
| 30 | 35 | 46 | 40 | 269 | ------ | 140 | 170 | 52 | 46 | 76 | 30 | 44 |
| 31 | 36 | ------ | 41 | 144 | ------ | 164 | ------ | 50 | ------ | 160 | 29 | ------ |
| TOTAL | 1,652 | 1,773 | 1,328 | 1,630 | 1,807 | 2,375 | 6,350 | 5,133 | 2,620 | 1,361 | 1,248 | 1,560 |
| MEAN | 53.3 | 59.1 | 42.8 | 52.6 | 64.5 | 76.6 | 212 | 166 | 87.3 | 43.9 | 40.3 | 52.0 |
| MAX | 170 | 145 | 61 | 269 | 128 | 164 | 531 | 900 | 250 | 160 | 110 | 149 |
| MIN | 27 | 37 | 37 | 29 | 42 | 46 | 66 | 47 | 42 | 31 | 29 | 29 |
| CFSM | .68 | .75 | .54 | .67 | .82 | .97 | 2.69 | 2.11 | 1.11 | .56 | .51 | .66 |
| IN. | .78 | .84 | .63 | .77 | .85 | 1.12 | 3.00 | 2.43 | 1.24 | .64 | .59 | .74 |

CAL YR 1969 TOTAL 24,957 MEAN 68.4 MAX 496 MIN 24 CFSM .87 IN 11.80
WAT YR 1970 TOTAL 28,837 MEAN 79.0 MAX 900 MIN 27 CFSM 1.00 IN 13.63

PEAK DISCHARGE (BASE, 600 CFS).--May 15 (time and discharge unknown).

## 04095300 Trail Creek at Michigan City, Ind.

LOCATION (revised).--Lat 41°43'00", long 86°51'35", in SW¼NE¼ sec.27, T.38 N., R.4W., LaPorte County, on left downstream wingwall of bridge on Springland Avenue in Michigan City, 1.0 mile upstream from Otter Creek, and 4.2 miles upstream from mouth.

DRAINAGE AREA.--54.1 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 584.02 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 602 cfs May 15 (gage height, 7.55 ft); minimum, 23 cfs Aug. 31 (gage height, 2.17 ft). Period of record: Maximum discharge, 602 cfs May 15, 1970 (gage height, 7.55 ft); minimum, 23 cfs Aug. 31, 1970 (gage height, 2.17 ft).

REMARKS.--Records good except those for parts of January and February, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 29 | 55 | 50 | 46 | 89 | 53 | 150 | 110 | 54 | 35 | 32 | 24 |
| 2 | 31 | 49 | 49 | 46 | 114 | 59 | 179 | 80 | 108 | 44 | 30 | 24 |
| 3 | 32 | 47 | 49 | 44 | 80 | 80 | 214 | 69 | 86 | 69 | 29 | 31 |
| 4 | 31 | 54 | 49 | 41 | 74 | 123 | 306 | 63 | 64 | 44 | 28 | 36 |
| 5 | 30 | 59 | 48 | 38 | 70 | 91 | 352 | 58 | 55 | 39 | 29 | 30 |
| 6 | 30 | 52 | 48 | 36 | 65 | 69 | 388 | 56 | 50 | 38 | 29 | 33 |
| 7 | 43 | 49 | 53 | 34 | 62 | 61 | 265 | 56 | 47 | 37 | 28 | 61 |
| 8 | 34 | 46 | 61 | 33 | 58 | 57 | 189 | 55 | 46 | 52 | 28 | 40 |
| 9 | 32 | 46 | 55 | 32 | 73 | 55 | 138 | 53 | 42 | 48 | 29 | 33 |
| 10 | 38 | 46 | 53 | 32 | 67 | 55 | 101 | 52 | 40 | 46 | 28 | 31 |
| 11 | 90 | 45 | 53 | 32 | 63 | 52 | 83 | 51 | 37 | 42 | 28 | 29 |
| 12 | 58 | 45 | 53 | 33 | 58 | 51 | 78 | 64 | 35 | 39 | 29 | 28 |
| 13 | 102 | 44 | 49 | 34 | 53 | 50 | 89 | 145 | 38 | 37 | 28 | 35 |
| 14 | 82 | 46 | 50 | 35 | 49 | 49 | 96 | 247 | 37 | 46 | 27 | 57 |
| 15 | 52 | 47 | 49 | 36 | 47 | 48 | 82 | 482 | 37 | 68 | 26 | 102 |
| 16 | 44 | 46 | 48 | 37 | 46 | 47 | 74 | 219 | 48 | 40 | 33 | 59 |
| 17 | 42 | 81 | 47 | 37 | 45 | 48 | 69 | 143 | 48 | 35 | 29 | 48 |
| 18 | 41 | 105 | 47 | 37 | 59 | 50 | 64 | 106 | 41 | 32 | 31 | 47 |
| 19 | 51 | 194 | 47 | 36 | 77 | 52 | 148 | 86 | 36 | 45 | 35 | 38 |
| 20 | 73 | 132 | 46 | 35 | 60 | 58 | 364 | 72 | 35 | 79 | 35 | 34 |
| 21 | 65 | 78 | 44 | 33 | 62 | 56 | 242 | 63 | 52 | 48 | 29 | 33 |
| 22 | 52 | 68 | 44 | 32 | 67 | 53 | 153 | 57 | 44 | 38 | 30 | 39 |
| 23 | 46 | 78 | 44 | 31 | 86 | 51 | 110 | 55 | 39 | 37 | 33 | 49 |
| 24 | 44 | 69 | 55 | 32 | 81 | 52 | 90 | 58 | 37 | 39 | 29 | 124 |
| 25 | 43 | 61 | 51 | 35 | 82 | 53 | 78 | 59 | 36 | 37 | 28 | 80 |
| 26 | 42 | 57 | 47 | 41 | 60 | 68 | 70 | 55 | 80 | 34 | 28 | 52 |
| 27 | 41 | 55 | 45 | 58 | 57 | 82 | 67 | 52 | 75 | 33 | 27 | 52 |
| 28 | 41 | 53 | 44 | 78 | 52 | 105 | 66 | 50 | 50 | 32 | 26 | 43 |
| 29 | 41 | 52 | 45 | 225 | ------ | 107 | 63 | 49 | 41 | 32 | 25 | 40 |
| 30 | 41 | 50 | 46 | 153 | ------ | 112 | 113 | 50 | 37 | 35 | 24 | 40 |
| 31 | 42 | ------ | 47 | 97 | ------ | 125 | ------ | 49 | ------ | 35 | 23 | ------ |
| TOTAL | 1,463 | 1,900 | 1,516 | 1,549 | 1,856 | 2,072 | 4,481 | 2,864 | 1,475 | 1,315 | 893 | 1,372 |
| MEAN | 47.2 | 63.6 | 48.9 | 50.0 | 66.3 | 66.8 | 149 | 92.4 | 49.2 | 42.4 | 28.8 | 45.7 |
| MAX | 102 | 194 | 61 | 225 | 114 | 125 | 388 | 482 | 108 | 79 | 35 | 124 |
| MIN | 29 | 44 | 44 | 31 | 45 | 47 | 63 | 49 | 35 | 32 | 23 | 24 |
| CFSM | .87 | 1.18 | .90 | .92 | 1.23 | 1.23 | 2.75 | 1.71 | .91 | .78 | .53 | .84 |
| IN. | 1.01 | 1.31 | 1.04 | 1.07 | 1.28 | 1.42 | 3.08 | 1.97 | 1.01 | .90 | .61 | .94 |

WAT YR 1970 TOTAL 22,765 MEAN 62.4 MAX 482 MIN 23 CFSM 1.15 IN 15.65

PEAK DISCHARGE (BASE, 200 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-19 | 0715 | 4.39 | 206 | 04-20 | 1130 | 6.04 | 400 |
| 01-29 | 0845 | 4.67 | 237 | 05-15 | 0800 | 7.55 | 602 |
| 04-06 | 1015 | 6.14 | 413 | | | | |

## 04096100 Galena River near LaPorte, Ind.

LOCATION.--Lat 41°44'54", long 86°40'30", in SE¼NW¼ sec.17, T.38 N., R.2 W., LaPorte County, on left bank at downstream side of bridge on County Road 125 East, 1.3 miles upstream from Indiana-Michigan State line, and 9.8 miles north of Courthouse in LaPorte.

DRAINAGE AREA.--17.2 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 625.00 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 128 cfs Apr. 20 (gage height, 5.48 ft); minimum, 6.2 cfs Aug. 30 (gage height, 1.53 ft).

REMARKS.--Records good except those for parts of January and February, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 12 | 24 | 20 | 19 | 34 | 25 | 47 | 36 | 22 | 10 | 12 | 7.2 |
| 2 | 13 | 22 | 20 | 19 | 41 | 29 | 57 | 30 | 43 | 11 | 11 | 7.2 |
| 3 | 14 | 21 | 20 | 18 | 36 | 37 | 63 | 27 | 33 | 18 | 11 | 12 |
| 4 | 13 | 24 | 21 | 15 | 25 | 53 | 78 | 26 | 26 | 14 | 10 | 14 |
| 5 | 13 | 25 | 21 | 14 | 22 | 42 | 87 | 26 | 22 | 12 | 10 | 11 |
| 6 | 13 | 22 | 21 | 13 | 20 | 34 | 100 | 25 | 20 | 11 | 9.8 | 15 |
| 7 | 20 | 21 | 25 | 11 | 21 | 32 | 74 | 22 | 21 | 9.9 | 9.6 | 32 |
| 8 | 17 | 22 | 29 | 10 | 24 | 29 | 63 | 21 | 24 | 15 | 9.6 | 18 |
| 9 | 14 | 22 | 25 | 9.4 | 29 | 29 | 49 | 21 | 20 | 15 | 9.3 | 14 |
| 10 | 20 | 23 | 25 | 9.2 | 27 | 27 | 41 | 20 | 19 | 14 | 9.1 | 12 |
| 11 | 37 | 22 | 24 | 9.4 | 25 | 27 | 37 | 19 | 17 | 12 | 8.6 | 11 |
| 12 | 25 | 19 | 23 | 9.6 | 24 | 26 | 36 | 23 | 15 | 11 | 8.3 | 11 |
| 13 | 41 | 19 | 21 | 10 | 22 | 26 | 43 | 46 | 13 | 9.8 | 8.3 | 15 |
| 14 | 30 | 20 | 21 | 10 | 21 | 25 | 44 | 58 | 12 | 13 | 8.1 | 24 |
| 15 | 22 | 20 | 21 | 11 | 19 | 24 | 37 | 92 | 12 | 21 | 7.8 | 42 |
| 16 | 19 | 20 | 20 | 11 | 19 | 24 | 34 | 53 | 14 | 13 | 11 | 30 |
| 17 | 17 | 30 | 19 | 11 | 19 | 24 | 32 | 39 | 15 | 11 | 10 | 27 |
| 18 | 17 | 37 | 19 | 11 | 24 | 24 | 32 | 32 | 14 | 10 | 10 | 26 |
| 19 | 23 | 70 | 19 | 10 | 27 | 25 | 53 | 28 | 12 | 21 | 13 | 21 |
| 20 | 30 | 45 | 19 | 9.8 | 25 | 29 | 115 | 25 | 11 | 37 | 12 | 18 |
| 21 | 26 | 33 | 18 | 9.6 | 25 | 27 | 75 | 22 | 17 | 20 | 11 | 17 |
| 22 | 22 | 31 | 18 | 9.5 | 27 | 26 | 53 | 20 | 16 | 16 | 11 | 20 |
| 23 | 20 | 33 | 20 | 9.6 | 31 | 26 | 42 | 20 | 14 | 16 | 12 | 29 |
| 24 | 19 | 29 | 28 | 9.8 | 31 | 26 | 36 | 20 | 13 | 16 | 11 | 101 |
| 25 | 18 | 27 | 23 | 11 | 32 | 26 | 33 | 20 | 12 | 15 | 9.8 | 60 |
| 26 | 18 | 25 | 19 | 16 | 33 | 37 | 30 | 19 | 21 | 14 | 9.1 | 35 |
| 27 | 17 | 24 | 19 | 21 | 25 | 43 | 29 | 18 | 21 | 13 | 8.6 | 31 |
| 28 | 17 | 23 | 19 | 30 | 24 | 45 | 29 | 17 | 16 | 13 | 8.1 | 25 |
| 29 | 17 | 22 | 19 | 63 | ------ | 41 | 28 | 17 | 13 | 12 | 7.8 | 21 |
| 30 | 17 | 21 | 18 | 41 | ------ | 39 | 38 | 18 | 11 | 13 | 7.2 | 20 |
| 31 | 18 | ------ | 19 | 33 | ------ | 43 | ------ | 17 | ------ | 13 | 6.9 | ------ |
| TOTAL | 619 | 796 | 653 | 493.9 | 732 | 970 | 1,515 | 877 | 539 | 449.7 | 301.0 | 726.4 |
| MEAN | 20.0 | 26.5 | 21.1 | 15.9 | 26.1 | 31.3 | 50.5 | 28.3 | 18.0 | 14.5 | 9.71 | 24.2 |
| MAX | 41 | 70 | 29 | 63 | 41 | 53 | 115 | 92 | 43 | 37 | 13 | 101 |
| MIN | 12 | 19 | 18 | 9.2 | 19 | 24 | 28 | 17 | 11 | 9.8 | 6.9 | 7.2 |
| CFSM | 1.16 | 1.54 | 1.23 | .92 | 1.52 | 1.82 | 2.94 | 1.65 | 1.05 | .84 | .56 | 1.41 |
| IN. | 1.34 | 1.72 | 1.41 | 1.07 | 1.58 | 2.10 | 3.28 | 1.90 | 1.17 | .97 | .65 | 1.57 |

WAT YR 1970 TOTAL 8,672.0 MEAN 23.8 MAX 115 MIN 6.9 CFSM 1.38 IN 18.76

PEAK DISCHARGE (BASE, 75 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-19 | 1245 | 4.12 | 76 | 05-15 | 0430 | 5.16 | 115 |
| 04-06 | 0615 | 4.95 | 107 | 09-24 | 1600 | 5.20 | 117 |
| 04-20 | 0715 | 5.48 | 128 | | | | |

04097970 Lime Lake Outlet at Panama, Ind.

LOCATION.--Lat 41°42'46", long 85°07'10", in NW¼NW¼ sec.35, T.38 N., R.12 E., Steuben County, on right bank 10 ft downstream from dam for Lime Lake, 30 ft upstream from bridge on Orland Road, and 0.7 mile northwest of Panama.

DRAINAGE AREA.--17.5 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 950.00 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 26 cfs Apr. 20 (gage height, 4.38 ft); minimum, 0.50 cfs May 22, 23 (gage height, 3.06 ft).
Period of record: Maximum discharge, 26 cfs Apr. 20, 1970 (gage height, 4.38 ft); minimum, 0.50 cfs May 22, 23, 1970 (gage height, 3.06 ft).

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.0 | 5.9 | 6.0 | 4.4 | 3.8 | 2.7 | 7.4 | 17 | 4.3 | 2.5 | 7.5 | .69 |
| 2 | 1.0 | 5.8 | 5.8 | 4.2 | 4.0 | 2.7 | 9.8 | 16 | 4.5 | 3.6 | 6.7 | .65 |
| 3 | 1.0 | 6.8 | 5.7 | 4.1 | 4.0 | 2.8 | 10 | 15 | 4.3 | 4.3 | 5.8 | .77 |
| 4 | 1.0 | 8.8 | 5.4 | 4.1 | 4.0 | 3.0 | 10 | 14 | 4.2 | 3.8 | 5.0 | .85 |
| 5 | 1.0 | 8.5 | 5.4 | 4.0 | 4.0 | 3.1 | 11 | 13 | 4.3 | 3.0 | 4.1 | .81 |
| 6 | 1.0 | 8.3 | 5.4 | 3.9 | 4.0 | 3.1 | 11 | 12 | 4.3 | 2.6 | 3.8 | .85 |
| 7 | 1.0 | 8.1 | 5.4 | 3.9 | 4.0 | 3.2 | 11 | 12 | 4.0 | 2.3 | 3.4 | 1.1 |
| 8 | 1.0 | 7.7 | 5.4 | 3.8 | 3.8 | 3.3 | 11 | 12 | 3.6 | 2.2 | 3.3 | 1.1 |
| 9 | 1.0 | 7.5 | 5.4 | 3.8 | 4.0 | 3.2 | 10 | 12 | 3.6 | 1.9 | 3.0 | 1.1 |
| 10 | 1.0 | 7.4 | 5.2 | 3.7 | 4.0 | 3.2 | 10 | 11 | 3.4 | 1.9 | 2.8 | .90 |
| 11 | 1.1 | 7.2 | 5.2 | 3.7 | 4.1 | 3.2 | 10 | 10 | 3.3 | 1.5 | 2.6 | .73 |
| 12 | 1.3 | 7.0 | 5.1 | 3.7 | 4.1 | 3.2 | 11 | 10 | 3.2 | 1.5 | 3.8 | .65 |
| 13 | 1.5 | 6.8 | 5.1 | 3.6 | 4.0 | 3.3 | 12 | 12 | 3.1 | 1.5 | 5.0 | .65 |
| 14 | 1.5 | 6.6 | 4.9 | 3.6 | 4.0 | 3.3 | 13 | 12 | 2.9 | 1.4 | 4.6 | .90 |
| 15 | 1.5 | 6.4 | 4.9 | 3.7 | 4.0 | 3.3 | 13 | 12 | 2.9 | 1.3 | 4.1 | 1.9 |
| 16 | 1.4 | 6.3 | 4.8 | 3.6 | 4.0 | 3.4 | 13 | 11 | 3.0 | 1.0 | 3.4 | 1.9 |
| 17 | 1.2 | 6.6 | 4.8 | 3.6 | 4.0 | 3.4 | 13 | 10 | 3.3 | .90 | 2.8 | 1.9 |
| 18 | 1.1 | 7.0 | 4.8 | 3.7 | 4.0 | 3.4 | 12 | 9.8 | 3.4 | .95 | 2.5 | 2.2 |
| 19 | 1.1 | 7.9 | 4.6 | 3.7 | 4.0 | 3.6 | 14 | 9.3 | 3.0 | 3.0 | 2.6 | 2.0 |
| 20 | 1.0 | 7.7 | 4.6 | 3.7 | 4.0 | 3.7 | 21 | 9.1 | 2.7 | 6.7 | 2.0 | 1.9 |
| 21 | 1.2 | 7.7 | 4.6 | 3.7 | 4.0 | 3.8 | 21 | 8.7 | 3.6 | 6.6 | 1.6 | 1.9 |
| 22 | 1.7 | 7.5 | 4.5 | 3.7 | 3.8 | 4.0 | 21 | 6.1 | 3.9 | 6.2 | 1.5 | 2.3 |
| 23 | 2.7 | 7.4 | 4.6 | 3.7 | 3.8 | 4.1 | 21 | .83 | 3.6 | 6.4 | 1.5 | 2.8 |
| 24 | 5.4 | 7.2 | 4.6 | 3.7 | 3.1 | 4.2 | 20 | 1.5 | 3.3 | 7.1 | 1.3 | 3.0 |
| 25 | 7.2 | 7.2 | 4.6 | 3.7 | 2.7 | 4.4 | 19 | 2.2 | 2.8 | 7.1 | 1.3 | 2.5 |
| 26 | 6.7 | 6.8 | 4.5 | 3.6 | 2.7 | 5.4 | 18 | 2.8 | 3.0 | 6.9 | 1.2 | 3.0 |
| 27 | 6.3 | 6.8 | 4.5 | 3.6 | 2.7 | 5.4 | 17 | 2.8 | 3.1 | 6.6 | 1.1 | 3.1 |
| 28 | 6.0 | 6.4 | 4.5 | 3.6 | 2.7 | 5.7 | 17 | 3.1 | 3.1 | 6.4 | 1.1 | 2.5 |
| 29 | 5.9 | 6.4 | 4.4 | 3.7 | ------ | 6.1 | 17 | 3.2 | 3.1 | 6.7 | 1.0 | 2.0 |
| 30 | 5.8 | 6.1 | 4.4 | 3.8 | ------ | 6.4 | 17 | 3.9 | 2.6 | 8.6 | .95 | 1.6 |
| 31 | 5.7 | ------ | 4.5 | 3.8 | ------ | 6.7 | ------ | 4.1 | ------ | 8.2 | .81 | ------ |
| TOTAL | 77.3 | 213.8 | 153.6 | 117.1 | 105.3 | 120.3 | 421.2 | 278.43 | 103.4 | 124.65 | 92.16 | 48.25 |
| MEAN | 2.49 | 7.13 | 4.95 | 3.78 | 3.76 | 3.88 | 14.0 | 8.98 | 3.45 | 4.02 | 2.97 | 1.61 |
| MAX | 7.2 | 8.8 | 6.0 | 4.4 | 4.1 | 6.7 | 21 | 17 | 4.5 | 8.6 | 7.5 | 3.1 |
| MIN | 1.0 | 5.8 | 4.4 | 3.6 | 2.7 | 2.7 | 7.4 | .83 | 2.6 | .90 | .81 | .65 |
| CFSM | .14 | .41 | .28 | .22 | .21 | .22 | .80 | .51 | .20 | .23 | .17 | .092 |
| IN. | .16 | .45 | .33 | .25 | .22 | .26 | .90 | .59 | .22 | .26 | .20 | .10 |

WAT YR 1970 TOTAL 1,855.49 MEAN 5.08 MAX 21 MIN .65 CFSM .29 IN 3.94

04098500 Fawn River near White Pigeon, Mich.

LOCATION.--Lat 41°46'56", long 85°35'00", in SW¼ sec.10, T.8 S., R.11 W., St. Joseph County, on right bank 0.3 mile downstream from bridge on county highway, 3.1 miles east of White Pigeon, and 3.5 miles upstream from Sherman Mill Creek.

DRAINAGE AREA.--192 sq mi.

PERIOD OF RECORD.--July 1903 to July 1904 (gage heights and discharge measurements only), October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 805.4 ft above mean sea level.

AVERAGE DISCHARGE.--13 years, 154 cfs (10.89 inches per year).

EXTREMES.--Current year: Maximum discharge, 344 cfs Apr. 24 (gage height, 3.64 ft); minimum, 54 cfs Dec. 23 (gage height, 1.90 ft).
Period of record: Maximum daily discharge, 600 cfs Jan. 30, 1969; minimum discharge, 26 cfs Aug. 5, 1964; minimum gage height, 1.72 ft Jan. 10, Sept. 10, 1964.
A daily mean discharge of 750 cfs occurred Mar. 15, 1904.

REMARKS.--Records good. Small diurnal fluctuation caused by powerplants above station.

REVISIONS.--WRD Mich. 1963: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 119 | 147 | 189 | 146 | 163 | 132 | 216 | 331 | 214 | 140 | 207 | 96 |
| 2 | 109 | 154 | 184 | 140 | 170 | 144 | 233 | 322 | 216 | 141 | 214 | 88 |
| 3 | 121 | 149 | 174 | 137 | 149 | 154 | 254 | 315 | 222 | 131 | 229 | 90 |
| 4 | 118 | 155 | 169 | 116 | 157 | 179 | 278 | 306 | 205 | 132 | 231 | 99 |
| 5 | 116 | 155 | 170 | 119 | 167 | 187 | 291 | 293 | 205 | 147 | 208 | 102 |
| 6 | 106 | 157 | 174 | 137 | 165 | 198 | 300 | 278 | 207 | 149 | 184 | 96 |
| 7 | 132 | 149 | 167 | 143 | 162 | 207 | 304 | 270 | 189 | 140 | 175 | 97 |
| 8 | 137 | 140 | 160 | 112 | 158 | 201 | 306 | 258 | 189 | 138 | 174 | 101 |
| 9 | 128 | 154 | 167 | 111 | 150 | 192 | 306 | 252 | 180 | 132 | 165 | 92 |
| 10 | 125 | 154 | 170 | 119 | 146 | 186 | 295 | 242 | 170 | 131 | 154 | 97 |
| 11 | 143 | 141 | 167 | 123 | 158 | 180 | 283 | 229 | 160 | 128 | 147 | 109 |
| 12 | 140 | 140 | 149 | 119 | 143 | 184 | 272 | 233 | 160 | 131 | 144 | 97 |
| 13 | 143 | 141 | 152 | 122 | 134 | 184 | 272 | 242 | 163 | 132 | 135 | 101 |
| 14 | 144 | 154 | 165 | 125 | 132 | 174 | 274 | 258 | 155 | 135 | 131 | 92 |
| 15 | 162 | 129 | 147 | 123 | 140 | 167 | 283 | 293 | 149 | 131 | 131 | 116 |
| 16 | 154 | 128 | 141 | 125 | 152 | 170 | 278 | 311 | 160 | 115 | 129 | 137 |
| 17 | 147 | 146 | 144 | 131 | 143 | 157 | 283 | 322 | 149 | 119 | 116 | 135 |
| 18 | 140 | 150 | 138 | 132 | 144 | 169 | 287 | 315 | 147 | 126 | 119 | 126 |
| 19 | 138 | 172 | 154 | 126 | 157 | 160 | 291 | 300 | 149 | 141 | 123 | 141 |
| 20 | 157 | 186 | 141 | 125 | 140 | 175 | 298 | 287 | 144 | 179 | 122 | 131 |
| 21 | 162 | 196 | 149 | 109 | 126 | 163 | 309 | 268 | 152 | 184 | 114 | 131 |
| 22 | 157 | 203 | 129 | 123 | 138 | 179 | 315 | 256 | 157 | 187 | 121 | 137 |
| 23 | 149 | 208 | 96 | 115 | 160 | 182 | 328 | 270 | 162 | 175 | 123 | 141 |
| 24 | 138 | 205 | 123 | 121 | 157 | 169 | 342 | 264 | 150 | 180 | 116 | 132 |
| 25 | 149 | 205 | 132 | 119 | 147 | 177 | 342 | 272 | 146 | 187 | 118 | 138 |
| 26 | 146 | 205 | 149 | 122 | 146 | 187 | 337 | 274 | 146 | 194 | 122 | 140 |
| 27 | 132 | 207 | 152 | 131 | 147 | 189 | 333 | 272 | 154 | 196 | 116 | 126 |
| 28 | 143 | 205 | 144 | 134 | 147 | 192 | 333 | 266 | 150 | 186 | 114 | 125 |
| 29 | 125 | 198 | 141 | 172 | ------ | 225 | 331 | 252 | 144 | 179 | 109 | 144 |
| 30 | 132 | 189 | 144 | 158 | ------ | 207 | 335 | 225 | 146 | 177 | 106 | 138 |
| 31 | 129 | ------ | 147 | 157 | ------ | 222 | ------ | 214 | ------ | 189 | 106 | ------ |
| TOTAL | 4,241 | 5,022 | 4,728 | 3,992 | 4,198 | 5,592 | 8,909 | 8,490 | 5,040 | 4,752 | 4,503 | 3,495 |
| MEAN | 137 | 167 | 153 | 129 | 150 | 180 | 297 | 274 | 168 | 153 | 145 | 117 |
| MAX | 162 | 208 | 189 | 172 | 170 | 225 | 342 | 331 | 222 | 196 | 231 | 144 |
| MIN | 106 | 128 | 96 | 109 | 126 | 132 | 216 | 214 | 144 | 115 | 106 | 88 |
| CFSM | .71 | .87 | .80 | .67 | .78 | .94 | 1.55 | 1.43 | .88 | .80 | .76 | .61 |
| IN. | .82 | .97 | .92 | .77 | .81 | 1.08 | 1.73 | 1.64 | .98 | .92 | .87 | .68 |

CAL YR 1969 TOTAL 81,031 MEAN 222 MAX 600 MIN 85 CFSM 1.16 IN 15.70
WAT YR 1970 TOTAL 62,962 MEAN 172 MAX 342 MIN 88 CFSM .90 IN 12.20

04099000 St. Joseph River at Mottville, Mich.

LOCATION.--Lat 41°48'03", long 85°45'22", in SW¼ sec.6, T.8 S., R.12 W., Michigan meridian, St. Joseph County, on right bank 500 ft upstream from bridge on U.S. Highway 12 (revised) at Mottville, 0.4 mile downstream from Michigan Power Co. Hydroelectric plant, 4 miles upstream from Pigeon River, and at mile 96.

DRAINAGE AREA.--1,866 sq mi.

PERIOD OF RECORD.--October 1923 to current year. Monthly discharge only for some periods, published in WSP 1307.

GAGE.--Water-stage recorder. Datum of gage is 755.3 ft above mean sea level (Michigan Power Co. benchmark). Prior to Oct. 1, 1951, at site 0.4 mile upstream at datum 4.2 ft higher.

AVERAGE D SCGRGE.--47 years, 1,497 cfs (10.89 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,040 cfs July 31 (gage height, 6.06 ft); minimum, 135 cfs June 13 (gage height, 1.10 ft); minimum daily, 548 cfs Oct. 5.
Period of record: Maximum discharge, 10,700 cfs Apr. 27, 1950 (gage height, 6.56 ft, site and datum then in use); minimum daily, 39 cfs Oct. 19, 1963.

REMARKS.--Records good except those for the winter period, which are fair. Flow regulated by powerplants above station.

REVISIONS (WATER YEARS).--WSP 1307: 1930, 1932, 1938, 1940-42, 1945. WRD Mich. 1963: Drainage area.

AVERAGE DISCHARGE.--47 years, 1,497 cfs (10.89 inches per year).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 846 | 1,240 | 1,690 | 909 | 1,600 | 1,450 | 1,850 | 2,870 | 2,370 | 1,280 | 1,760 | 920 |
| 2 | 783 | 1,130 | 1,470 | 1,330 | 1,300 | 1,330 | 2,230 | 3,030 | 2,530 | 1,450 | 1,560 | 824 |
| 3 | 846 | 1,590 | 1,550 | 1,290 | 1,200 | 1,120 | 2,420 | 2,830 | 2,500 | 1,390 | 1,780 | 899 |
| 4 | 909 | 1,400 | 1,330 | 1,160 | 1,200 | 1,640 | 2,430 | 2,760 | 2,480 | 1,430 | 1,790 | 895 |
| 5 | 548 | 1,150 | 1,720 | 1,100 | 1,200 | 1,850 | 2,630 | 2,540 | 2,410 | 1,370 | 1,740 | 680 |
| 6 | 867 | 1,260 | 1,260 | 1,000 | 1,300 | 2,100 | 3,050 | 2,650 | 2,420 | 1,390 | 1,790 | 711 |
| 7 | 783 | 1,340 | 1,190 | 900 | 1,100 | 2,260 | 3,510 | 2,570 | 2,210 | 1,390 | 1,740 | 705 |
| 8 | 748 | 867 | 1,180 | 750 | 1,100 | 1,960 | 3,610 | 2,430 | 2,140 | 1,340 | 1,620 | 920 |
| 9 | 756 | 1,310 | 1,360 | 750 | 1,400 | 2,060 | 3,800 | 2,240 | 1,710 | 1,440 | 1,500 | 956 |
| 10 | 1,260 | 1,380 | 1,460 | 800 | 1,400 | 1,910 | 3,770 | 2,170 | 1,790 | 1,460 | 1,490 | 952 |
| 11 | 1,510 | 916 | 1,300 | 750 | 1,300 | 1,900 | 3,660 | 1,950 | 1,720 | 1,230 | 1,380 | 1,010 |
| 12 | 1,340 | 1,140 | 1,600 | 950 | 1,210 | 1,830 | 3,520 | 2,040 | 1,420 | 1,210 | 1,210 | 808 |
| 13 | 1,420 | 1,170 | 1,270 | 900 | 1,270 | 1,840 | 3,360 | 2,140 | 1,440 | 1,160 | 1,350 | 766 |
| 14 | 1,300 | 937 | 855 | 850 | 958 | 1,690 | 3,280 | 2,400 | 1,880 | 1,080 | 1,080 | 1,260 |
| 15 | 937 | 824 | 1,390 | 900 | 923 | 1,560 | 3,170 | 2,530 | 1,650 | 1,090 | 764 | 1,220 |
| 16 | 993 | 1,130 | 1,320 | 1,100 | 1,200 | 1,680 | 3,030 | 3,080 | 1,520 | 1,190 | 1,070 | 1,010 |
| 17 | 1,680 | 1,450 | 1,230 | 1,050 | 1,200 | 1,390 | 3,010 | 3,460 | 1,430 | 1,360 | 1,250 | 1,180 |
| 18 | 1,260 | 1,170 | 1,280 | 1,220 | 1,170 | 1,190 | 2,890 | 3,440 | 1,660 | 991 | 1,020 | 1,290 |
| 19 | 1,020 | 1,750 | 1,400 | 900 | 1,370 | 1,080 | 2,940 | 3,230 | 1,630 | 731 | 1,010 | 840 |
| 20 | 1,790 | 1,750 | 1,320 | 800 | 1,410 | 1,210 | 2,950 | 3,060 | 1,560 | 1,950 | 1,030 | 1,030 |
| 21 | 1,400 | 1,680 | 1,270 | 800 | 1,140 | 1,580 | 3,230 | 3,050 | 1,680 | 1,630 | 1,040 | 1,310 |
| 22 | 1,730 | 1,730 | 1,130 | 850 | 1,040 | 1,380 | 3,350 | 2,460 | 1,630 | 1,720 | 725 | 1,100 |
| 23 | 1,240 | 1,600 | 1,050 | 800 | 832 | 1,540 | 3,470 | 2,660 | 1,490 | 1,700 | 665 | 1,240 |
| 24 | 1,400 | 1,520 | 1,120 | 650 | 1,310 | 1,520 | 3,510 | 2,560 | 1,460 | 1,790 | 935 | 1,050 |
| 25 | 1,440 | 1,800 | 1,060 | 900 | 1,450 | 1,650 | 3,500 | 2,610 | 1,760 | 1,610 | 937 | 1,310 |
| 26 | 1,330 | 1,720 | 1,190 | 950 | 1,260 | 1,740 | 3,420 | 2,940 | 1,730 | 1,600 | 882 | 991 |
| 27 | 1,300 | 1,830 | 892 | 850 | 1,370 | 1,860 | 3,160 | 3,120 | 1,570 | 1,600 | 921 | 1,160 |
| 28 | 1,140 | 2,020 | 976 | 950 | 1,110 | 1,620 | 3,160 | 3,230 | 1,490 | 1,440 | 931 | 1,300 |
| 29 | 1,050 | 1,990 | 1,140 | 1,050 | ------ | 1,630 | 3,130 | 3,130 | 1,530 | 1,400 | 760 | 1,060 |
| 30 | 1,140 | 1,600 | 1,070 | 1,200 | ------ | 1,900 | 3,020 | 2,950 | 1,490 | 1,210 | 837 | 1,110 |
| 31 | 1,530 | ------ | 1,150 | 1,400 | ------ | 1,840 | ------ | 2,670 | ------ | 1,620 | 978 | ------ |
| TOTAL | 36,296 | 42,394 | 39,223 | 29,809 | 34,323 | 51,310 | 94,060 | 84,800 | 54,300 | 43,252 | 37,545 | 30,507 |
| MEAN | 1,171 | 1,413 | 1,265 | 962 | 1,226 | 1,655 | 3,135 | 2,735 | 1,810 | 1,395 | 1,211 | 1,017 |
| MAX | 1,790 | 2,020 | 1,720 | 1,400 | 1,600 | 2,260 | 3,800 | 3,460 | 2,530 | 1,950 | 1,790 | 1,310 |
| MIN | 548 | 824 | 855 | 650 | 832 | 1,080 | 1,850 | 1,950 | 1,420 | 731 | 665 | 680 |
| CFSM | .63 | .76 | .68 | .52 | .66 | .89 | 1.68 | 1.47 | .97 | .75 | .65 | .55 |
| IN. | .72 | .85 | .78 | .59 | .68 | 1.02 | 1.88 | 1.69 | 1.08 | .86 | .75 | .61 |

CAL YR 1969 TOTAL 753,649 MEAN 2,065 MAX 5,320 MIN 500 CFSM 1.11 IN 15.02
WAT YR 1970 TOTAL 577,819 MEAN 1,583 MAX 3,800 MIN 548 CFSM .85 IN 11.52

04099500 Pigeon Creek at Hogback Lake Outlet near Angola, Ind.

LOCATION.--Lat 41°37'24", long 85°05'44", in NE¼NW¼ sec.36, T.37 N., R.12 E., Steuben County, on right bank 200 ft north of lake outlet, 2 miles southeast of Flint, and 5.1 miles west of Angola.

DRAINAGE AREA.--102 sq mi.

PERIOD OF RECORD.--October 1945 to current year. Prior to October 1947, published as "near Flint."

GAGE.--Water-stage recorder. Datum of gage is 940.00 ft above mean sea level. Prior to October 1947, nonrecording gage at site 1.5 miles downstream at different datum. October 1947 to Aug. 3, 1953, nonrecording gage at site 600 ft downstream at same datum.

AVERAGE DISCHARGE.--25 years, 72.8 cfs (9.69 inches per year).

EXTREMES.--Current year: Maximum discharge, 231 cfs Apr. 25 (gage height, 12.20 ft); minimum, 14 cfs Sept. 6, 9-13; minimum gage height, 8.13 ft Sept. 10-13.
Period of record: Maximum discharge, 744 cfs Apr. 8, 1950 (gage height, 14.95 ft); minimum, 3.4 cfs Oct. 25-27, 1964; minimum gage height, 7.24 ft Sept. 9, 10, 1953.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1144: 1948. WSP 1337: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 18 | 19 | 76 | 29 | 40 | 56 | 151 | 178 | 75 | 30 | 37 | 16 |
| 2 | 18 | 19 | 70 | 28 | 47 | 55 | 158 | 167 | 73 | 30 | 38 | 15 |
| 3 | 18 | 20 | 66 | 27 | 53 | 54 | 168 | 156 | 71 | 31 | 39 | 15 |
| 4 | 19 | 20 | 61 | 27 | 56 | 58 | 178 | 146 | 68 | 30 | 39 | 15 |
| 5 | 19 | 22 | 58 | 26 | 57 | 66 | 186 | 135 | 66 | 30 | 39 | 15 |
| 6 | 19 | 22 | 55 | 25 | 57 | 92 | 193 | 124 | 62 | 29 | 37 | 14 |
| 7 | 20 | 22 | 52 | 24 | 56 | 109 | 195 | 115 | 60 | 28 | 34 | 15 |
| 8 | 21 | 22 | 50 | 23 | 55 | 121 | 193 | 107 | 58 | 27 | 32 | 15 |
| 9 | 20 | 22 | 49 | 22 | 54 | 128 | 186 | 100 | 56 | 28 | 30 | 14 |
| 10 | 20 | 22 | 48 | 21 | 53 | 129 | 177 | 94 | 54 | 28 | 29 | 14 |
| 11 | 22 | 22 | 47 | 20 | 51 | 125 | 167 | 88 | 50 | 27 | 28 | 14 |
| 12 | 23 | 22 | 46 | 19 | 50 | 118 | 158 | 85 | 48 | 27 | 26 | 14 |
| 13 | 24 | 22 | 45 | 19 | 48 | 111 | 152 | 95 | 47 | 26 | 25 | 14 |
| 14 | 25 | 22 | 44 | 19 | 46 | 104 | 153 | 115 | 46 | 25 | 24 | 15 |
| 15 | 25 | 22 | 42 | 20 | 45 | 97 | 158 | 142 | 46 | 25 | 23 | 17 |
| 16 | 25 | 22 | 42 | 21 | 43 | 90 | 162 | 163 | 44 | 24 | 22 | 18 |
| 17 | 25 | 23 | 40 | 22 | 41 | 86 | 162 | 174 | 44 | 23 | 21 | 19 |
| 18 | 25 | 24 | 39 | 22 | 40 | 81 | 162 | 175 | 43 | 22 | 20 | 20 |
| 19 | 24 | 30 | 38 | 22 | 40 | 77 | 159 | 170 | 41 | 23 | 19 | 20 |
| 20 | 25 | 36 | 38 | 22 | 43 | 76 | 167 | 160 | 39 | 27 | 18 | 20 |
| 21 | 24 | 46 | 37 | 22 | 45 | 76 | 184 | 148 | 39 | 28 | 18 | 19 |
| 22 | 24 | 59 | 36 | 22 | 47 | 77 | 203 | 134 | 39 | 28 | 18 | 20 |
| 23 | 23 | 72 | 35 | 21 | 49 | 80 | 218 | 124 | 38 | 30 | 18 | 20 |
| 24 | 23 | 85 | 35 | 21 | 51 | 84 | 230 | 115 | 36 | 31 | 18 | 20 |
| 25 | 22 | 90 | 34 | 20 | 53 | 87 | 231 | 107 | 34 | 32 | 17 | 20 |
| 26 | 22 | 90 | 34 | 20 | 56 | 94 | 230 | 100 | 34 | 32 | 17 | 21 |
| 27 | 21 | 90 | 33 | 19 | 57 | 100 | 221 | 95 | 34 | 32 | 17 | 21 |
| 28 | 20 | 90 | 32 | 19 | 57 | 113 | 213 | 90 | 32 | 31 | 16 | 21 |
| 29 | 19 | 87 | 31 | 27 | ------ | 128 | 202 | 84 | 31 | 30 | 16 | 20 |
| 30 | 18 | 84 | 30 | 30 | ------ | 140 | 190 | 80 | 30 | 35 | 16 | 20 |
| 31 | 18 | ------ | 30 | 35 | ------ | 148 | ------ | 76 | ------ | 36 | 16 | ------ |
| TOTAL | 669 | 1,248 | 1,373 | 714 | 1,390 | 2,960 | 5,507 | 3,842 | 1,438 | 885 | 767 | 521 |
| MEAN | 21.6 | 41.6 | 44.3 | 23.0 | 49.6 | 95.5 | 184 | 124 | 47.9 | 28.5 | 24.7 | 17.4 |
| MAX | 25 | 90 | 76 | 35 | 57 | 148 | 231 | 178 | 75 | 36 | 39 | 21 |
| MIN | 18 | 19 | 30 | 19 | 40 | 54 | 151 | 76 | 30 | 22 | 16 | 14 |
| CFSM | .21 | .41 | .43 | .23 | .49 | .94 | 1.80 | 1.22 | .47 | .28 | .24 | .17 |
| IN. | .24 | .46 | .50 | .26 | .51 | 1.08 | 2.01 | 1.40 | .52 | .32 | .28 | .19 |

CAL YR 1969 TOTAL 32,000 MEAN 87.7 MAX 417 MIN 17 CFSM .86 IN 11.67
WAT YR 1970 TOTAL 21,314 MEAN 58.4 MAX 231 MIN 14 CFSM .57 IN 7.77

04099610 Pretty Lake Inlet near Stroh, Ind.

LOCATION.--Lat 41°34'45", long 85°14'59", in NW¼ sec.15, T.36 N., R.11 E., Lagrange County, on left bank 400 ft upstream from mouth and 2.6 miles west of Stroh.

DRAINAGE AREA.--1.96 sq mi.

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

GAGE.--Water-stage recorder with steel V-notch weir (0.5 cfs notch capacity). Datum of gage is 960.00 ft above mean sea level.

AVERAGE DISCHARGE.--7 years, 0.47 cfs (3.26 inches per year).

EXTREMES.--Current year: Maximum discharge, 13 cfs May 14 (gage height, 7.40 ft); minimum, 0.09 cfs Aug. 30 (gage height, 6.26 ft).
Period of record: Maximum discharge, 21 cfs Dec. 25, 1965; no flow for many days in most years.

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

REVISIONS.--WSP 1911: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .20 | .45 | .33 | .18 | .54 | .23 | .83 | 4.6 | .51 | .20 | .54 | .10 |
| 2 | .23 | .40 | .31 | .17 | .48 | .27 | 1.9 | 4.6 | .54 | .20 | .35 | .10 |
| 3 | .20 | .45 | .31 | .16 | .39 | .74 | 1.6 | 3.6 | .52 | .20 | .31 | .11 |
| 4 | .19 | .37 | .27 | .15 | .33 | 1.9 | 1.5 | 3.1 | .51 | .19 | .25 | .11 |
| 5 | .16 | .40 | .27 | .15 | .31 | 1.2 | 1.2 | 2.9 | .51 | .19 | .22 | .10 |
| 6 | .15 | .35 | .25 | .15 | .29 | .95 | 1.1 | 2.4 | .45 | .17 | .20 | .10 |
| 7 | .29 | .29 | .25 | .15 | .27 | .89 | 1.0 | 2.0 | .40 | .17 | .19 | .10 |
| 8 | .19 | .29 | .31 | .14 | .27 | .89 | 1.1 | 1.9 | .35 | .20 | .17 | .11 |
| 9 | .15 | .27 | .29 | .14 | .29 | .58 | 1.4 | 1.7 | .31 | .22 | .17 | .11 |
| 10 | .12 | .25 | .29 | .14 | .27 | .78 | 1.4 | 1.6 | .29 | .22 | .17 | .11 |
| 11 | .42 | .25 | .31 | .14 | .25 | .72 | 1.2 | 1.3 | .29 | .20 | .15 | .11 |
| 12 | .54 | .25 | .29 | .14 | .22 | .62 | 1.2 | 1.4 | .27 | .19 | .15 | .11 |
| 13 | .62 | .22 | .29 | .14 | .20 | .54 | 1.7 | 7.6 | .29 | .17 | .15 | .11 |
| 14 | .25 | .25 | .29 | .14 | .18 | .45 | 3.3 | 11 | .27 | .17 | .15 | .11 |
| 15 | .40 | .22 | .29 | .15 | .17 | .37 | 2.6 | 11 | .27 | .31 | .15 | .33 |
| 16 | .37 | .20 | .27 | .23 | .16 | .29 | 2.2 | 9.8 | .25 | .19 | .15 | .17 |
| 17 | .33 | .33 | .25 | .27 | .17 | .25 | 1.9 | 8.5 | .29 | .17 | .13 | .16 |
| 18 | .31 | .95 | .25 | .22 | .29 | .23 | 1.6 | 6.7 | .31 | .17 | .12 | .19 |
| 19 | .29 | 1.8 | .25 | .19 | .31 | .23 | 2.6 | 5.4 | .27 | .50 | .13 | .15 |
| 20 | .31 | .89 | .23 | .16 | .33 | .51 | 6.9 | 4.2 | .23 | .78 | .12 | .13 |
| 21 | .35 | .67 | .23 | .17 | .31 | .89 | 8.0 | 3.1 | .37 | .37 | .11 | .12 |
| 22 | .29 | .62 | .22 | .15 | .33 | .95 | 6.7 | 2.2 | .33 | .27 | .15 | .19 |
| 23 | .31 | .72 | .22 | .17 | .45 | .83 | 4.4 | 1.7 | .31 | .33 | .13 | .23 |
| 24 | .31 | .62 | .21 | .16 | .45 | .67 | 2.9 | 1.6 | .25 | .42 | .12 | .22 |
| 25 | .31 | .67 | .21 | .19 | .37 | .62 | 1.9 | 1.6 | .23 | .29 | .11 | .17 |
| 26 | .31 | .54 | .20 | .19 | .33 | 1.3 | 1.4 | 1.7 | .27 | .23 | .11 | .44 |
| 27 | .29 | .48 | .20 | .17 | .25 | 1.1 | 1.1 | 1.4 | .29 | .22 | .11 | .33 |
| 28 | .27 | .42 | .20 | .97 | .25 | 1.2 | .89 | .89 | .27 | .20 | .11 | .22 |
| 29 | .27 | .37 | .20 | 1.6 | ------ | 1.1 | 2.0 | .62 | .27 | .22 | .10 | .19 |
| 30 | .27 | .35 | .19 | .45 | ------ | .89 | 4.2 | .54 | .22 | 2.0 | .12 | .17 |
| 31 | .27 | ------ | .18 | .42 | ------ | .89 | ------ | .51 | ------ | .67 | .12 | ------ |
| TOTAL | 8.97 | 14.29 | 7.86 | 7.95 | 8.46 | 23.08 | 71.72 | 111.16 | 9.94 | 10.03 | 5.26 | 4.90 |
| MEAN | .29 | .48 | .25 | .26 | .30 | .74 | 2.39 | 3.59 | .33 | .32 | .17 | .16 |
| MAX | .62 | 1.8 | .33 | 1.6 | .54 | 1.9 | 8.0 | 11 | .54 | 2.0 | .54 | .44 |
| MIN | .12 | .20 | .18 | .14 | .16 | .23 | .83 | .51 | .22 | .17 | .10 | .10 |
| CFSM | .15 | .24 | .13 | .13 | .15 | .38 | 1.22 | 1.83 | .17 | .16 | .087 | .082 |
| IN. | .17 | .27 | .15 | .15 | .16 | .44 | 1.36 | 2.11 | .19 | .19 | .10 | .09 |

CAL YR 1969 TOTAL 274.83 MEAN .75 MAX 11 MIN .12 CFSM .38 IN 5.22
WAT YR 1970 TOTAL 283.62 MEAN .78 MAX 11 MIN .10 CFSM .40 IN 5.38

## 04099750 Pigeon River near Scott, Ind.

LOCATION.--Lat 41°44'56", long 85°34'35", in SW¼ sec.14, T.38 N., R.8 E., Lagrange County, on right bank 20 ft downstream from bridge on County Road 750 North, 1,200 ft downstream from Page ditch, 0.7 mile south of Indiana-Michigan state line, and 1.2 miles northwest of Scott.

DRAINAGE AREA.--373 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 815.00 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 975 cfs May 15 (gage height, 5.20 ft); minimum, 85 cfs Oct. 31, Nov. 1 (gage height, 2.34 ft).
Period of record: Maximum discharge, 1,450 cfs Feb. 1, 1969 (gage height, 6.34 ft); minimum, 85 cfs Oct. 31, Nov. 1, 1969 (gage height, 2.34 ft).

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 152 | 120 | 298 | 191 | 273 | 217 | 452 | 689 | 375 | 195 | 238 | 115 |
| 2 | 152 | 206 | 290 | 189 | 273 | 217 | 561 | 663 | 379 | 192 | 221 | 113 |
| 3 | 155 | 202 | 282 | 190 | 335 | 226 | 677 | 623 | 365 | 197 | 210 | 113 |
| 4 | 149 | 198 | 273 | 187 | 313 | 293 | 751 | 584 | 356 | 196 | 198 | 122 |
| 5 | 147 | 199 | 263 | 185 | 303 | 355 | 774 | 550 | 349 | 196 | 194 | 132 |
| 6 | 146 | 197 | 256 | 183 | 318 | 343 | 745 | 513 | 342 | 186 | 189 | 128 |
| 7 | 164 | 191 | 257 | 182 | 295 | 317 | 696 | 483 | 325 | 174 | 184 | 134 |
| 8 | 183 | 188 | 265 | 181 | 283 | 321 | 667 | 458 | 304 | 173 | 180 | 145 |
| 9 | 172 | 186 | 261 | 180 | 275 | 327 | 647 | 431 | 289 | 177 | 175 | 138 |
| 10 | 155 | 187 | 252 | 180 | 268 | 331 | 619 | 408 | 256 | 181 | 171 | 134 |
| 11 | 159 | 187 | 247 | 180 | 253 | 329 | 593 | 392 | 260 | 190 | 168 | 120 |
| 12 | 180 | 185 | 242 | 180 | 240 | 325 | 569 | 399 | 262 | 181 | 161 | 113 |
| 13 | 213 | 182 | 236 | 180 | 240 | 320 | 595 | 541 | 251 | 172 | 159 | 120 |
| 14 | 219 | 179 | 235 | 180 | 255 | 312 | 657 | 786 | 246 | 162 | 157 | 136 |
| 15 | 200 | 174 | 232 | 190 | 275 | 300 | 685 | 949 | 254 | 164 | 150 | 180 |
| 16 | 186 | 174 | 227 | 195 | 230 | 288 | 642 | 852 | 245 | 163 | 145 | 213 |
| 17 | 179 | 184 | 221 | 190 | 212 | 278 | 597 | 758 | 237 | 157 | 141 | 183 |
| 18 | 173 | 221 | 220 | 180 | 207 | 272 | 567 | 690 | 235 | 154 | 134 | 174 |
| 19 | 173 | 314 | 217 | 180 | 226 | 268 | 588 | 651 | 226 | 188 | 138 | 173 |
| 20 | 191 | 382 | 215 | 180 | 224 | 280 | 682 | 621 | 215 | 267 | 161 | 160 |
| 21 | 207 | 352 | 211 | 180 | 212 | 294 | 827 | 589 | 231 | 310 | 141 | 155 |
| 22 | 202 | 316 | 209 | 180 | 224 | 286 | 873 | 554 | 254 | 260 | 134 | 168 |
| 23 | 189 | 316 | 214 | 180 | 226 | 283 | 855 | 594 | 235 | 221 | 141 | 200 |
| 24 | 181 | 333 | 226 | 180 | 233 | 287 | 821 | 607 | 219 | 233 | 143 | 205 |
| 25 | 176 | 334 | 252 | 180 | 235 | 290 | 803 | 608 | 210 | 240 | 150 | 177 |
| 26 | 174 | 329 | 225 | 190 | 228 | 321 | 779 | 563 | 214 | 219 | 132 | 175 |
| 27 | 172 | 325 | 210 | 210 | 221 | 356 | 751 | 509 | 237 | 205 | 122 | 180 |
| 28 | 169 | 318 | 209 | 235 | 217 | 385 | 744 | 458 | 230 | 203 | 120 | 170 |
| 29 | 166 | 310 | 200 | 295 | ------ | 404 | 720 | 420 | 211 | 198 | 134 | 165 |
| 30 | 164 | 305 | 192 | 377 | ------ | 406 | 706 | 400 | 200 | 210 | 120 | 160 |
| 31 | 118 | ------ | 193 | 305 | ------ | 421 | ------ | 383 | ------ | 250 | 118 | ------ |
| TOTAL | 5,366 | 7,294 | 7,330 | 6,195 | 7,094 | 9,652 | 20,643 | 17,726 | 8,012 | 6,214 | 4,929 | 4,601 |
| MEAN | 173 | 243 | 236 | 200 | 253 | 311 | 688 | 572 | 267 | 200 | 159 | 153 |
| MAX | 219 | 382 | 298 | 377 | 335 | 421 | 873 | 949 | 379 | 310 | 238 | 213 |
| MIN | 118 | 120 | 192 | 180 | 207 | 217 | 452 | 383 | 200 | 154 | 118 | 113 |
| CFSM | .46 | .65 | .63 | .54 | .68 | .83 | 1.84 | 1.53 | .72 | .54 | .43 | .41 |
| IN. | .54 | .73 | .73 | .62 | .71 | .96 | 2.06 | 1.77 | .80 | .62 | .49 | .46 |

CAL YR 1969 TOTAL 148,207 MEAN 406 MAX 1,400 MIN 118 CFSM 1.09 IN 14.78
WAT YR 1970 TOTAL 105,056 MEAN 288 MAX 949 MIN 113 CFSM .77 IN 10.48

04100220 North Branch Elkhart River near Cosperville, Ind.

LOCATION.--Lat 41°29'32", long 85°26'54", in SW¼NE¼ sec.14, T.35 N., R.9 E., Noble County, at downstream side of county road bridge over outlet of Waldron Lake at extreme west end of lake, 1.5 miles northeast of Cosperville, and 6.6 miles northwest of Albion.

DRAINAGE AREA.--133 sq mi.

PERIOD OF RECORD.--October 1950 to current year.

GAGE.--Nonrecording gage read twice daily. Datum of gage is 880.00 ft above mean sea level.

AVERAGE DISCHARGE.--20 years, 107 cfs (10.92 inches per year).

EXTREMES.--Current year: Maximum discharge, 303 cfs Apr. 23 (gage height, 7.38 ft); minimum, 7.6 cfs Sept. 9-12 (gage height, 4.63 ft).
Period of record: Maximum discharge observed, 717 cfs May 13, 1956 (gage height, 8.78 ft); minimum, 2.2 cfs Sept. 17, 18, 21, 1959; minimum gage height, 4.43 ft Aug. 11, Sept. 17, 1964.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 29 | 45 | 107 | 51 | 98 | 69 | 183 | 267 | 133 | 35 | 43 | 9.2 |
| 2 | 31 | 49 | 103 | 50 | 103 | 70 | 204 | 258 | 130 | 33 | 44 | 9.2 |
| 3 | 31 | 50 | 100 | 48 | 103 | 71 | 224 | 247 | 127 | 35 | 43 | 8.0 |
| 4 | 31 | 52 | 95 | 46 | 102 | 95 | 243 | 236 | 121 | 33 | 38 | 9.2 |
| 5 | 29 | 55 | 92 | 45 | 99 | 114 | 252 | 223 | 119 | 28 | 36 | 10 |
| 6 | 27 | 55 | 88 | 43 | 93 | 122 | 249 | 210 | 116 | 25 | 34 | 10 |
| 7 | 33 | 55 | 87 | 42 | 89 | 124 | 242 | 196 | 106 | 22 | 30 | 10 |
| 8 | 34 | 53 | 87 | 40 | 85 | 123 | 238 | 185 | 104 | 22 | 27 | 12 |
| 9 | 31 | 52 | 87 | 38 | 82 | 119 | 232 | 170 | 97 | 24 | 26 | 12 |
| 10 | 27 | 51 | 83 | 37 | 77 | 117 | 222 | 159 | 94 | 24 | 21 | 10 |
| 11 | 34 | 49 | 81 | 35 | 75 | 115 | 216 | 149 | 89 | 22 | 20 | 9.2 |
| 12 | 42 | 49 | 79 | 34 | 73 | 113 | 208 | 143 | 85 | 22 | 18 | 8.0 |
| 13 | 51 | 47 | 77 | 34 | 70 | 111 | 211 | 168 | 86 | 20 | 18 | 10 |
| 14 | 57 | 45 | 75 | 34 | 68 | 107 | 219 | 192 | 82 | 19 | 16 | 14 |
| 15 | 55 | 44 | 76 | 35 | 66 | 103 | 223 | 205 | 78 | 22 | 16 | 22 |
| 16 | 54 | 42 | 75 | 36 | 65 | 101 | 223 | 210 | 73 | 20 | 14 | 26 |
| 17 | 52 | 46 | 73 | 38 | 64 | 99 | 216 | 208 | 69 | 19 | 13 | 26 |
| 18 | 51 | 61 | 71 | 40 | 61 | 97 | 208 | 204 | 65 | 16 | 13 | 29 |
| 19 | 49 | 91 | 71 | 41 | 60 | 95 | 220 | 195 | 61 | 21 | 14 | 33 |
| 20 | 51 | 119 | 72 | 42 | 64 | 97 | 244 | 187 | 55 | 26 | 14 | 35 |
| 21 | 52 | 126 | 67 | 42 | 71 | 107 | 272 | 183 | 60 | 26 | 14 | 35 |
| 22 | 51 | 125 | 63 | 41 | 71 | 109 | 296 | 168 | 60 | 28 | 14 | 40 |
| 23 | 49 | 127 | 61 | 40 | 73 | 113 | 303 | 163 | 55 | 29 | 15 | 47 |
| 24 | 47 | 127 | 60 | 40 | 73 | 114 | 298 | 159 | 51 | 33 | 15 | 49 |
| 25 | 44 | 125 | 63 | 38 | 74 | 126 | 296 | 163 | 48 | 36 | 14 | 47 |
| 26 | 42 | 123 | 59 | 36 | 73 | 137 | 289 | 163 | 44 | 34 | 14 | 45 |
| 27 | 44 | 121 | 58 | 35 | 73 | 154 | 281 | 159 | 47 | 36 | 14 | 48 |
| 28 | 42 | 117 | 56 | 35 | 71 | 171 | 275 | 154 | 45 | 36 | 14 | 46 |
| 29 | 40 | 114 | 55 | 75 | ------ | 181 | 267 | 149 | 41 | 36 | 12 | 44 |
| 30 | 38 | 108 | 54 | 97 | ------ | 183 | 267 | 141 | 38 | 36 | 12 | 42 |
| 31 | 38 | ------ | 52 | 99 | ------ | 185 | ------ | 137 | ------ | 37 | 11 | ------ |
| TOTAL | 1,286 | 2,323 | 2,327 | 1,387 | 2,176 | 3,642 | 7,321 | 5,751 | 2,379 | 855 | 647 | 754.8 |
| MEAN | 41.5 | 77.4 | 75.1 | 44.7 | 77.7 | 117 | 244 | 186 | 79.3 | 27.6 | 20.9 | 25.2 |
| MAX | 57 | 127 | 107 | 99 | 103 | 185 | 303 | 267 | 133 | 37 | 44 | 49 |
| MIN | 27 | 42 | 52 | 34 | 60 | 69 | 183 | 137 | 38 | 16 | 11 | 8.0 |
| CFSM | .31 | .58 | .56 | .34 | .58 | .88 | 1.83 | 1.40 | .60 | .21 | .16 | .19 |
| IN. | .36 | .65 | .65 | .39 | .61 | 1.02 | 2.05 | 1.61 | .67 | .24 | .18 | .21 |

CAL YR 1969 TOTAL 42,333.0 MEAN 116 MAX 471 MIN 16 CFSM .87 IN 11.84
WAT YR 1970 TOTAL 30,848.8 MEAN 84.5 MAX 303 MIN 8.0 CFSM .64 IN 8.63

04100252 Forker Creek near Burr Oak, Ind.

LOCATION.--Lat 41°19'58", long 85°25'25", in SE¼NE¼ sec.12, T.33 N., R.9E., Noble County, on right bank 300 ft downstream from bridge on State Highway 9, 400 ft downstream from Miller Lake outlet, 0.8 mile northwest of Burr Oak, and 4.5 miles south of Albion.

DRAINAGE AREA.--19.2 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 889.00 ft above mean sea level (Indiana State Highway Commission bench mark).

EXTREMES.--Current year: Maximum discharge, 99 cfs Apr. 22 (gage height, 3.60 ft); minimum, 0.47 cfs July 29, 31, Sept. 3; minimum gage height, 1.46 ft on several days.
Period of record: Maximum discharge, 999 cfs Apr. 22, 1970 (gage height, 3.60 ft); minimum, 0.36 cfs Sept. 9-13, 1969; minimum gage height, 1.46 ft on several days in 1970.

REMARKS.--Records fair. Occasional regulation at Miller Lake outlet.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .78 | 2.6 | 14 | 3.0 | 28 | 9.1 | 39 | 25 | 14 | 1.7 | 3.9 | .54 |
| 2 | .83 | 2.6 | 12 | 2.9 | 31 | 8.6 | 40 | 22 | 12 | 1.5 | 4.7 | .50 |
| 3 | .72 | 2.5 | 11 | 2.8 | 30 | 9.5 | 43 | 20 | 11 | 1.5 | 3.4 | .54 |
| 4 | .68 | 2.8 | 9.3 | 2.7 | 27 | 18 | 49 | 18 | 10 | 1.1 | 2.4 | .68 |
| 5 | .68 | 2.7 | 7.1 | 2.6 | 23 | 29 | 48 | 16 | 9.6 | .89 | 2.0 | .72 |
| 6 | .59 | 2.5 | 6.2 | 2.5 | 20 | 39 | 42 | 14 | 9.3 | .78 | 1.8 | .63 |
| 7 | .94 | 2.4 | 6.8 | 2.5 | 18 | 41 | 36 | 12 | 8.9 | .68 | 1.7 | .78 |
| 8 | .89 | 2.4 | 6.8 | 2.4 | 16 | 37 | 30 | 11 | 8.6 | .68 | 1.5 | .83 |
| 9 | .78 | 2.4 | 6.4 | 2.3 | 14 | 32 | 27 | 10 | 9.3 | .83 | 1.4 | .78 |
| 10 | .78 | 2.4 | 6.2 | 2.2 | 13 | 27 | 23 | 8.9 | 9.3 | 1.1 | 1.1 | .78 |
| 11 | 1.3 | 2.5 | 6.2 | 2.2 | 11 | 22 | 21 | 8.2 | 7.8 | .89 | 1.1 | .68 |
| 12 | 2.0 | 2.5 | 5.9 | 2.2 | 10 | 19 | 19 | 8.9 | 6.4 | .83 | 1.0 | .63 |
| 13 | 2.1 | 2.4 | 5.7 | 2.2 | 9.3 | 17 | 20 | 16 | 6.2 | .78 | 1.0 | .78 |
| 14 | 2.0 | 2.3 | 5.7 | 2.3 | 8.2 | 15 | 26 | 26 | 5.4 | .72 | .94 | 1.3 |
| 15 | 1.8 | 2.2 | 5.7 | 2.4 | 7.5 | 13 | 35 | 33 | 4.9 | .72 | .94 | 1.8 |
| 16 | 1.8 | 2.1 | 5.2 | 2.4 | 6.8 | 11 | 39 | 38 | 4.2 | .63 | .89 | 1.9 |
| 17 | 1.7 | 2.7 | 4.9 | 2.5 | 6.4 | 9.1 | 37 | 36 | 3.5 | .54 | .89 | 1.9 |
| 18 | 1.7 | 4.9 | 4.7 | 2.5 | 6.2 | 8.7 | 33 | 30 | 3.2 | .54 | .83 | 2.6 |
| 19 | 1.9 | 17 | 4.4 | 2.5 | 6.2 | 8.2 | 38 | 25 | 2.7 | .59 | .89 | 2.6 |
| 20 | 2.2 | 27 | 4.4 | 2.5 | 7.0 | 12 | 64 | 21 | 2.1 | .68 | .89 | 2.6 |
| 21 | 2.3 | 38 | 4.2 | 2.3 | 7.6 | 13 | 92 | 18 | 2.3 | .63 | .83 | 2.7 |
| 22 | 2.1 | 41 | 3.9 | 2.4 | 8.2 | 18 | 97 | 15 | 2.2 | .59 | .94 | 2.9 |
| 23 | 2.0 | 38 | 4.2 | 2.3 | 8.7 | 20 | 84 | 13 | 2.2 | .54 | 1.2 | 3.4 |
| 24 | 1.9 | 34 | 3.9 | 2.3 | 9.6 | 21 | 72 | 12 | 2.1 | .68 | 1.1 | 3.7 |
| 25 | 1.9 | 30 | 3.8 | 2.3 | 10 | 21 | 61 | 14 | 2.1 | .68 | .94 | 3.5 |
| 26 | 1.9 | 27 | 3.7 | 2.3 | 11 | 34 | 52 | 17 | 2.1 | .59 | 1.1 | 3.7 |
| 27 | 1.8 | 23 | 3.5 | 2.3 | 11 | 53 | 44 | 22 | 2.1 | .59 | .94 | 4.2 |
| 28 | 1.8 | 20 | 3.4 | 3.4 | 9.9 | 66 | 36 | 23 | 2.0 | .54 | .89 | 3.8 |
| 29 | 1.8 | 18 | 3.3 | 14 | ------ | 65 | 31 | 21 | 1.9 | .50 | .78 | 3.7 |
| 30 | 1.8 | 16 | 3.2 | 18 | ------ | 57 | 27 | 18 | 1.7 | .59 | .72 | 3.4 |
| 31 | 1.8 | ------ | 3.1 | 24 | ------ | 47 | ------ | 16 | ------ | .50 | .54 | ------ |
| TOTAL | 47.27 | 375.9 | 178.8 | 125.2 | 374.6 | 800.2 | 1,305 | 588.0 | 169.1 | 24.11 | 43.25 | 58.57 |
| MEAN | 1.52 | 12.5 | 5.77 | 4.04 | 13.4 | 25.8 | 43.5 | 19.0 | 5.64 | .78 | 1.40 | 1.95 |
| MAX | 2.3 | 41 | 14 | 24 | 31 | 66 | 97 | 38 | 14 | 1.7 | 4.7 | 4.2 |
| MIN | .59 | 2.1 | 3.1 | 2.2 | 6.2 | 8.2 | 19 | 8.2 | 1.7 | .50 | .54 | .50 |
| CFSM | .079 | .65 | .30 | .21 | .70 | 1.34 | 2.27 | .99 | .29 | .041 | .073 | .10 |
| IN. | .09 | .73 | .35 | .24 | .73 | 1.55 | 2.53 | 1.14 | .33 | .05 | .08 | .11 |

WAT YR 1970 TOTAL 4,090.00 MEAN 11.2 MAX 97 MIN .50 CFSM .58 IN 7.92

04100465 Turkey Creek at Syracuse, Ind.

LOCATION.--Lat 41°25'35", long 85°45'16", in NE¼SE¼ sec.6, T.34 N., R.7E., Kosciusko County, on right bank 75 ft upstream from Main Street Bridge in Syracuse and 1,500 ft downstream from dam at outlet of Syracuse Lake.

DRAINAGE AREA.--43.8 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 848.00 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 114 cfs May 24 (gage height, 4.59 ft); minimum, 3.2 cfs Aug. 29, Sept. 6; minimum gage height, 1.71 ft July 26.
Period of record: Maximum discharge, 114 cfs May 24, 1970 (gage height, 4.59 ft); minimum, 3.2 cfs Aug. 24, Sept. 6, 1970; minimum gage height, 1.71 ft July 26, 1970.

REMARKS.--Records fair except those below 10 cfs, which are poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.5 | 18 | 52 | 16 | 30 | 29 | 39 | 82 | 71 | 48 | 5.1 | 4.0 |
| 2 | 4.5 | 18 | 52 | 16 | 31 | 29 | 48 | 79 | 70 | 49 | 4.3 | 4.1 |
| 3 | 4.5 | 18 | 52 | 16 | 31 | 31 | 63 | 78 | 68 | 50 | 4.3 | 4.3 |
| 4 | 4.5 | 18 | 52 | 15 | 30 | 33 | 73 | 76 | 66 | 49 | 4.3 | 3.8 |
| 5 | 4.5 | 18 | 51 | 16 | 29 | 34 | 72 | 74 | 67 | 49 | 4.3 | 3.5 |
| 6 | 4.5 | 18 | 51 | 16 | 29 | 33 | 71 | 73 | 64 | 40 | 4.4 | 3.6 |
| 7 | 4.5 | 18 | 51 | 16 | 28 | 32 | 71 | 72 | 61 | 15 | 4.2 | 3.9 |
| 8 | 4.5 | 18 | 51 | 16 | 28 | 31 | 70 | 70 | 60 | 16 | 4.0 | 4.2 |
| 9 | 4.5 | 17 | 34 | 16 | 29 | 31 | 68 | 68 | 58 | 15 | 4.0 | 4.0 |
| 10 | 4.5 | 18 | 17 | 15 | 29 | 31 | 66 | 66 | 54 | 15 | 4.4 | 4.2 |
| 11 | 5.0 | 18 | 17 | 15 | 29 | 30 | 65 | 35 | 52 | 15 | 4.2 | 4.0 |
| 12 | 6.0 | 18 | 17 | 15 | 29 | 30 | 67 | 20 | 51 | 15 | 4.3 | 3.8 |
| 13 | 8.0 | 17 | 17 | 16 | 28 | 30 | 75 | 29 | 53 | 15 | 4.3 | 4.4 |
| 14 | 9.0 | 17 | 16 | 16 | 28 | 30 | 77 | 57 | 52 | 15 | 4.2 | 5.5 |
| 15 | 10 | 16 | 17 | 16 | 28 | 29 | 77 | 74 | 52 | 15 | 4.0 | 5.1 |
| 16 | 10 | 15 | 17 | 16 | 28 | 30 | 76 | 73 | 52 | 15 | 3.7 | 4.8 |
| 17 | 10 | 17 | 17 | 15 | 28 | 30 | 74 | 70 | 52 | 15 | 4.2 | 4.7 |
| 18 | 9.5 | 19 | 17 | 15 | 28 | 30 | 72 | 69 | 52 | 14 | 4.2 | 4.9 |
| 19 | 9.0 | 23 | 17 | 16 | 29 | 30 | 83 | 66 | 28 | 14 | 4.9 | 4.3 |
| 20 | 9.0 | 39 | 16 | 16 | 29 | 31 | 96 | 64 | 9.0 | 14 | 4.5 | 4.2 |
| 21 | 9.0 | 56 | 16 | 15 | 28 | 31 | 100 | 62 | 9.8 | 14 | 4.1 | 4.5 |
| 22 | 10 | 55 | 16 | 15 | 28 | 30 | 100 | 61 | 9.3 | 14 | 4.0 | 7.0 |
| 23 | 15 | 54 | 16 | 15 | 29 | 31 | 93 | 62 | 9.3 | 14 | 3.7 | 6.3 |
| 24 | 16 | 54 | 16 | 15 | 29 | 31 | 89 | 76 | 9.3 | 8.6 | 3.8 | 6.2 |
| 25 | 16 | 53 | 16 | 15 | 29 | 31 | 86 | 109 | 9.5 | 4.7 | 3.8 | 5.5 |
| 26 | 16 | 52 | 16 | 16 | 29 | 35 | 83 | 105 | 18 | 4.5 | 3.7 | 6.3 |
| 27 | 16 | 52 | 16 | 15 | 30 | 37 | 83 | 95 | 51 | 6.1 | 3.7 | 5.8 |
| 28 | 16 | 52 | 15 | 17 | 29 | 40 | 82 | 87 | 51 | 5.3 | 3.7 | 5.7 |
| 29 | 16 | 52 | 16 | 25 | ------ | 40 | 82 | 79 | 50 | 5.1 | 3.7 | 5.7 |
| 30 | 17 | 52 | 16 | 31 | ------ | 39 | 82 | 74 | 49 | 5.2 | 3.5 | 5.5 |
| 31 | 17 | ------ | 16 | 30 | ------ | 37 | ------ | 71 | ------ | 4.9 | 4.0 | ------ |
| TOTAL | 294.5 | 910 | 806 | 523 | 809 | 996 | 2,283 | 2,176 | 1,358.2 | 579.4 | 127.5 | 143.8 |
| MEAN | 9.50 | 30.3 | 26.0 | 16.9 | 28.9 | 32.1 | 76.1 | 70.2 | 45.3 | 18.7 | 4.11 | 4.79 |
| MAX | 17 | 56 | 52 | 31 | 31 | 40 | 100 | 109 | 71 | 50 | 5.1 | 7.0 |
| MIN | 4.5 | 15 | 15 | 15 | 28 | 29 | 39 | 20 | 9.0 | 4.5 | 3.5 | 3.5 |
| CFSM | .22 | .69 | .59 | .39 | .66 | .73 | 1.74 | 1.60 | 1.03 | .43 | .094 | .11 |
| IN. | .25 | .77 | .68 | .44 | .69 | .85 | 1.94 | 1.85 | 1.15 | .49 | .11 | .12 |

WAT YR 1970 TOTAL 11,006.4 MEAN 30.2 MAX 109 MIN 3.5 CFSM .69 IN 9.35

## 04100500 Elkhart River at Goshen, Ind.

LOCATION.--Lat 41°35'36", long 85°50'55", near line between secs.8 and 9, T.36 N., R.6 E., Elkhart County, on right bank 20 ft downstream from River Avenue Bridge at Goshen and 0.5 mile upstream from Rock Run.

DRAINAGE AREA.--580 sq mi.

PERIOD OF RECORD.--April 1931 to current year.

GAGE.--Water-stage recorder. Datum of gage is 769.43 ft above mean sea level. Prior to Nov. 20, 1931, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--39 years, 498 cfs (11.66 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,250 cfs Apr. 21 (gage height, 6.15 ft); minimum, 112 cfs Sept. 12 (gage height, 1.99 ft).
Period of record: Maximum discharge, 5,440 cfs Apr. 4, 1950 (gage height, 10.15 ft); maximum gage height, 10.33 ft July 10, 1951; minimum discharge, 6.6 cfs Aug. 11, 1964 (gage height, 1.38 ft).

REMARKS.--Records good. The flow is regulated by three powerplants upstream from station.

REVISIONS (WATER YEARS).--WSP 1337: 1939(M), drainage area. WSP 1557: 1954.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 161 | 264 | 515 | 273 | 526 | 318 | 971 | 1,110 | 763 | 283 | 425 | 129 |
| 2 | 188 | 332 | 500 | 265 | 570 | 318 | 1,370 | 1,040 | 757 | 271 | 562 | 126 |
| 3 | 198 | 344 | 485 | 255 | 567 | 336 | 1,890 | 977 | 697 | 266 | 383 | 128 |
| 4 | 170 | 293 | 471 | 220 | 499 | 530 | 1,910 | 930 | 645 | 262 | 300 | 141 |
| 5 | 162 | 312 | 444 | 248 | 435 | 793 | 1,810 | 890 | 665 | 255 | 270 | 134 |
| 6 | 164 | 309 | 435 | 251 | 521 | 674 | 1,480 | 844 | 640 | 245 | 252 | 128 |
| 7 | 187 | 307 | 440 | 255 | 493 | 589 | 1,250 | 811 | 580 | 233 | 240 | 135 |
| 8 | 203 | 289 | 444 | 225 | 458 | 553 | 1,130 | 762 | 525 | 219 | 229 | 144 |
| 9 | 180 | 280 | 440 | 227 | 448 | 527 | 1,040 | 730 | 485 | 231 | 222 | 141 |
| 10 | 178 | 288 | 426 | 250 | 432 | 510 | 969 | 687 | 453 | 224 | 213 | 130 |
| 11 | 175 | 266 | 404 | 232 | 421 | 493 | 905 | 656 | 435 | 212 | 207 | 120 |
| 12 | 212 | 256 | 386 | 229 | 407 | 478 | 861 | 636 | 408 | 204 | 207 | 116 |
| 13 | 280 | 262 | 363 | 243 | 372 | 468 | 891 | 712 | 399 | 197 | 196 | 126 |
| 14 | 286 | 255 | 354 | 227 | 384 | 457 | 1,050 | 1,050 | 390 | 198 | 192 | 157 |
| 15 | 279 | 248 | 354 | 226 | 327 | 441 | 1,090 | 1,120 | 377 | 231 | 185 | 259 |
| 16 | 280 | 242 | 341 | 227 | 354 | 424 | 965 | 1,110 | 363 | 213 | 177 | 259 |
| 17 | 271 | 254 | 321 | 232 | 329 | 410 | 889 | 1,020 | 350 | 197 | 159 | 206 |
| 18 | 261 | 320 | 325 | 233 | 337 | 408 | 840 | 904 | 411 | 190 | 161 | 210 |
| 19 | 257 | 581 | 321 | 279 | 364 | 404 | 935 | 827 | 367 | 200 | 169 | 206 |
| 20 | 267 | 889 | 313 | 275 | 345 | 429 | 1,650 | 778 | 319 | 217 | 178 | 191 |
| 21 | 257 | 779 | 285 | 239 | 299 | 470 | 2,150 | 730 | 331 | 221 | 169 | 188 |
| 22 | 266 | 650 | 297 | 282 | 336 | 465 | 1,960 | 687 | 387 | 205 | 164 | 282 |
| 23 | 247 | 635 | 281 | 233 | 356 | 462 | 1,650 | 723 | 333 | 203 | 183 | 453 |
| 24 | 252 | 670 | 227 | 273 | 366 | 460 | 1,420 | 703 | 287 | 223 | 178 | 429 |
| 25 | 235 | 635 | 251 | 216 | 380 | 456 | 1,310 | 995 | 270 | 219 | 169 | 348 |
| 26 | 225 | 615 | 297 | 218 | 357 | 520 | 1,240 | 1,290 | 328 | 207 | 163 | 300 |
| 27 | 229 | 590 | 289 | 220 | 350 | 682 | 1,180 | 1,170 | 483 | 206 | 157 | 309 |
| 28 | 223 | 575 | 277 | 222 | 325 | 933 | 1,130 | 1,020 | 406 | 310 | 151 | 298 |
| 29 | 215 | 550 | 277 | 357 | ------ | 1,040 | 1,100 | 933 | 335 | 284 | 145 | 255 |
| 30 | 212 | 535 | 273 | 647 | ------ | 929 | 1,110 | 867 | 302 | 271 | 136 | 237 |
| 31 | 209 | ------ | 277 | 621 | ------ | 925 | ------ | 801 | ------ | 308 | 132 | ------ |
| TOTAL | 6,929 | 12,825 | 11,113 | 8,400 | 11,358 | 16,902 | 38,146 | 27,513 | 13,491 | 7,205 | 6,674 | 6,285 |
| MEAN | 224 | 428 | 358 | 271 | 406 | 545 | 1,272 | 888 | 450 | 232 | 215 | 210 |
| MAX | 286 | 889 | 515 | 647 | 570 | 1,040 | 2,150 | 1,290 | 763 | 310 | 562 | 453 |
| MIN | 161 | 242 | 227 | 216 | 299 | 318 | 840 | 636 | 270 | 190 | 132 | 116 |
| CFSM | .39 | .74 | .62 | .47 | .70 | .94 | 2.19 | 1.53 | .78 | .40 | .37 | .36 |
| IN. | .44 | .82 | .71 | .54 | .73 | 1.08 | 2.45 | 1.76 | .87 | .46 | .43 | .40 |

CAL YR 1969 TOTAL 208,485 MEAN 571 MAX 3,050 MIN 145 CFSM .98 IN 13.37
WAT YR 1970 TOTAL 166,841 MEAN 457 MAX 2,150 MIN 116 CFSM .79 IN 10.70

PEAK DISCHARGE (BASE, 1,800 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-04 | 0200 | 5.68 | 1,990 | 04-21 | 1100 | 6.15 | 2,250 |

## 04101000 St. Joseph River at Elkhart, Ind.

LOCATION.--Lat 41°41'30", long 85°58'30", in NE¼ sec.5, T.37 N., R.5E., Elkhart County, on left bank 200 ft downstream from mouth of Elkhart River, 200 ft upstream from Main Street Bridge in Elkhart, 2,000 ft downstream from Christiana Creek, and 0.5 mile downstream from Elkhart Hydroelectric Plant.

DRAINAGE AREA.--3,339 sq mi.

PERIOD OF RECORD.--August 1947 to current year. Gage heights at site 0.8 mile downstream at different datum for September 1924 to March 1926 are available in the district office.

GAGE.--Water-stage recorder. Datum of gage is 700.00 ft above mean sea level.

AVERAGE DISCHARGE.--23 years, 3,014 cfs (12.26 inches per year).

EXTREMES.--Current year: Maximum discharge, 8,350 cfs Apr. 21 (gage height, 22.63 ft); minimum daily, 1,240 cfs Sept. 5.
Period of record: Maximum discharge, 18,400 cfs Apr. 5, 1950 (gage height, 27.82 ft); minimum daily, 336 cfs Aug. 5, 1964.

REMARKS.--Records good. The flow is regulated by Elkhart Hydroelectric Plant and by a hydroelectric plant on Elkhart River at Goshen.

REVISIONS.--WSP 1337: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2,190 | 2,360 | 3,070 | 1,940 | 2,970 | 2,560 | 4,220 | 5,750 | 4,550 | 2,260 | 3,430 | 1,530 |
| 2 | 1,420 | 2,170 | 2,960 | 2,060 | 3,170 | 2,520 | 4,990 | 5,830 | 4,480 | 2,280 | 3,210 | 1,350 |
| 3 | 1,790 | 2,450 | 2,780 | 2,250 | 2,470 | 2,230 | 6,150 | 5,560 | 4,680 | 2,650 | 3,080 | 1,470 |
| 4 | 1,670 | 2,640 | 2,760 | 1,870 | 2,890 | 2,730 | 6,270 | 5,300 | 4,540 | 2,350 | 2,930 | 1,510 |
| 5 | 1,340 | 2,270 | 2,780 | 1,870 | 3,090 | 3,960 | 6,480 | 5,080 | 4,200 | 2,380 | 2,530 | 1,240 |
| 6 | 1,530 | 2,270 | 2,660 | 2,050 | 2,800 | 3,800 | 6,540 | 4,900 | 3,970 | 2,310 | 2,980 | 1,310 |
| 7 | 1,690 | 2,360 | 2,450 | 1,640 | 2,760 | 4,070 | 6,640 | 4,920 | 4,040 | 2,300 | 2,730 | 1,340 |
| 8 | 1,630 | 1,910 | 2,430 | 1,520 | 2,260 | 3,790 | 6,610 | 4,630 | 3,830 | 2,250 | 2,550 | 1,520 |
| 9 | 1,600 | 2,070 | 2,630 | 2,320 | 2,460 | 3,580 | 6,680 | 4,380 | 3,530 | 2,370 | 2,470 | 1,580 |
| 10 | 1,750 | 2,480 | 2,700 | 2,050 | 2,690 | 3,600 | 6,590 | 4,150 | 3,090 | 2,240 | 2,460 | 1,580 |
| 11 | 2,320 | 2,040 | 2,640 | 1,880 | 2,650 | 3,460 | 6,420 | 3,830 | 3,210 | 2,430 | 2,180 | 1,640 |
| 12 | 2,850 | 1,900 | 2,470 | 2,230 | 2,440 | 3,270 | 6,200 | 4,150 | 2,980 | 2,080 | 2,230 | 1,250 |
| 13 | 2,710 | 2,220 | 2,690 | 2,130 | 2,330 | 3,260 | 6,050 | 3,960 | 2,410 | 2,050 | 2,040 | 1,410 |
| 14 | 2,510 | 2,070 | 2,180 | 1,890 | 2,150 | 3,120 | 6,330 | 5,000 | 3,210 | 1,980 | 1,930 | 2,000 |
| 15 | 2,300 | 1,640 | 2,130 | 2,050 | 1,890 | 3,010 | 6,250 | 5,820 | 3,190 | 1,910 | 1,500 | 2,290 |
| 16 | 2,060 | 1,990 | 2,600 | 1,960 | 2,320 | 2,980 | 5,900 | 6,190 | 2,650 | 1,970 | 1,670 | 1,800 |
| 17 | 2,270 | 2,410 | 2,300 | 2,000 | 2,320 | 2,820 | 5,740 | 6,420 | 2,620 | 1,960 | 1,920 | 2,020 |
| 18 | 2,680 | 2,250 | 2,310 | 2,220 | 2,260 | 2,450 | 5,520 | 6,370 | 2,650 | 2,180 | 1,890 | 2,100 |
| 19 | 1,920 | 2,760 | 2,380 | 2,060 | 2,310 | 2,450 | 5,520 | 5,970 | 2,950 | 1,730 | 1,710 | 1,650 |
| 20 | 2,660 | 3,790 | 2,390 | 1,840 | 2,490 | 2,290 | 6,760 | 5,690 | 2,540 | 2,480 | 1,750 | 1,820 |
| 21 | 3,090 | 3,630 | 2,270 | 1,890 | 2,390 | 2,840 | 7,480 | 5,320 | 2,890 | 3,190 | 1,770 | 2,080 |
| 22 | 2,550 | 3,550 | 2,290 | 1,860 | 2,320 | 2,960 | 7,670 | 5,110 | 2,890 | 2,480 | 1,500 | 2,170 |
| 23 | 2,910 | 3,310 | 1,900 | 1,980 | 1,930 | 2,790 | 7,300 | 4,840 | 2,790 | 3,070 | 1,480 | 2,440 |
| 24 | 1,800 | 3,310 | 1,790 | 1,850 | 2,010 | 2,830 | 7,060 | 5,040 | 2,500 | 2,830 | 1,600 | 2,220 |
| 25 | 2,240 | 3,490 | 2,320 | 1,790 | 2,590 | 3,110 | 6,960 | 5,200 | 2,770 | 2,710 | 1,640 | 2,340 |
| 26 | 2,460 | 3,350 | 1,870 | 2,080 | 2,550 | 3,160 | 6,730 | 5,680 | 3,010 | 2,680 | 1,570 | 2,050 |
| 27 | 2,230 | 3,460 | 1,760 | 1,870 | 2,290 | 3,840 | 6,360 | 5,760 | 2,990 | 2,500 | 1,540 | 2,220 |
| 28 | 2,360 | 3,510 | 2,050 | 1,890 | 2,090 | 3,690 | 6,170 | 5,780 | 2,790 | 2,580 | 1,530 | 2,340 |
| 29 | 1,870 | 3,540 | 2,100 | 2,280 | ------ | 3,880 | 6,120 | 5,550 | 2,870 | 2,510 | 1,330 | 2,150 |
| 30 | 2,080 | 3,070 | 2,080 | 2,700 | ------ | 4,070 | 5,980 | 5,210 | 2,640 | 2,270 | 1,520 | 1,780 |
| 31 | 2,020 | ------ | 2,000 | 3,030 | ------ | 4,080 | ------ | 4,960 | ------ | 2,370 | 1,540 | ------ |
| TOTAL | 66,500 | 80,270 | 73,740 | 63,050 | 68,890 | 99,200 | 189,690 | 162,350 | 97,460 | 73,350 | 64,210 | 54,200 |
| MEAN | 2,145 | 2,676 | 2,379 | 2,034 | 2,460 | 3,200 | 6,323 | 5,237 | 3,249 | 2,366 | 2,071 | 1,807 |
| MAX | 3,090 | 3,790 | 3,070 | 3,030 | 3,170 | 4,080 | 7,670 | 6,420 | 4,680 | 3,190 | 3,430 | 2,440 |
| MIN | 1,340 | 1,640 | 1,760 | 1,520 | 1,890 | 2,230 | 4,220 | 3,830 | 2,410 | 1,730 | 1,330 | 1,240 |
| CFSM | .64 | .80 | .71 | .61 | .74 | .96 | 1.89 | 1.57 | .97 | .71 | .62 | .54 |
| IN. | .74 | .89 | .82 | .70 | .77 | 1.11 | 2.11 | 1.81 | 1.09 | .82 | .72 | .60 |

CAL YR 1969 TOTAL 1,468,170 MEAN 4,022 MAX 11,600 MIN 1,170 CFSM 1.20 IN 16.36
WAT YR 1970 TOTAL 1,092,910 MEAN 2,994 MAX 7,670 MIN 1,240 CFSM .90 IN 12.18

04101500 St. Joseph River at Niles, Mich.

LOCATION.--Lat 41°49'45", long 86°15'35", in SW¼ sec.26, T.7 S., R.17 W., Berrien County, on right bank 100 ft upstream from Main Street Bridge at Niles, 0.6 mile downstream from dam at French Paper Co., 1 mile upstream from Dowagiac River, and at mile 44.

DRAINAGE AREA.--3,666 sq mi.

PERIOD OF RECORD.--October 1930 to current year. Monthly discharge only for some periods, published in WSP 1307.

GAGE.--Water-stage recorder. Datum of gage is 633.02 ft above mean sea level. Prior to Oct. 1, 1968, at datum 2.0 ft higher. Oct. 1, 1930, to Feb. 11, 1931, nonrecording gage on Main Street Bridge, and Feb. 12 to June 30, 1931, nonrecording gage 50 ft upstream from present site (gage heights referred to mean sea level). Since Apr. 13, 1970, auxiliary water-stage recorder 1.1 miles 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 miles downstream from base gage at different datum.

AVERAGE DISCHARGE.--40 years, 3,095 cfs (11.46 inches per year).

EXTREMES.--Current year: Maximum discharge, 9,570 cfs Apr. 21 (gage height, 9.72 ft); minimum daily discharge, 1,300 cfs Jan. 25. Period of record: Maximum discharge, 20,200 cfs Apr. 5, 1950 (gage height, 15.10 ft, present datum); minimum daily, 420 cfs Aug. 30, 1931.

REMARKS.--Records good. Flow regulated by powerplants above station.

COOPERATION.--Prior to Apr. 12, 1970, gage-height record at auxiliary gage furnished by Indiana and Michigan Electric Co.

REVISIONS (WATER YEARS).--WSP 1307: 1931, 1933-36, 1940-43, 1945-46 (M) 1949 (M). WRD Mich. 1963: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2,570 | 3,010 | 2,900 | 1,890 | 2,840 | 2,670 | 4,500 | 5,800 | 4,840 | 2,640 | 3,540 | 1,740 |
| 2 | 1,970 | 2,810 | 2,910 | 2,010 | 2,920 | 3,100 | 4,500 | 6,100 | 4,730 | 2,660 | 4,060 | 1,790 |
| 3 | 2,010 | 3,060 | 2,750 | 1,890 | 2,640 | 2,480 | 5,000 | 5,760 | 4,710 | 2,370 | 3,290 | 1,700 |
| 4 | 2,010 | 3,200 | 2,770 | 1,850 | 2,480 | 2,540 | 5,000 | 5,610 | 4,790 | 2,470 | 3,330 | 1,620 |
| 5 | 2,180 | 2,790 | 2,720 | 1,910 | 1,910 | 4,020 | 5,500 | 5,440 | 4,710 | 2,620 | 2,830 | 1,680 |
| 6 | 1,740 | 2,420 | 3,080 | 1,760 | 2,430 | 3,570 | 6,500 | 4,800 | 4,490 | 2,490 | 2,810 | 1,540 |
| 7 | 1,970 | 2,460 | 2,280 | 1,820 | 2,570 | 4,080 | 7,500 | 4,880 | 3,700 | 2,480 | 2,840 | 1,630 |
| 8 | 1,990 | 2,530 | 2,530 | 1,600 | 2,280 | 3,740 | 8,000 | 4,850 | 4,030 | 2,380 | 2,700 | 1,700 |
| 9 | 1,820 | 2,070 | 2,610 | 1,600 | 2,260 | 3,510 | 7,800 | 4,570 | 3,770 | 2,740 | 2,610 | 1,780 |
| 10 | 2,380 | 2,700 | 2,770 | 1,600 | 2,580 | 3,530 | 7,600 | 4,320 | 3,240 | 2,420 | 2,700 | 1,710 |
| 11 | 2,540 | 2,120 | 2,460 | 1,500 | 2,720 | 3,440 | 7,200 | 4,300 | 3,150 | 2,390 | 2,620 | 1,940 |
| 12 | 3,120 | 1,960 | 2,440 | 1,620 | 2,640 | 3,720 | 7,000 | 4,300 | 3,020 | 2,340 | 2,320 | 1,970 |
| 13 | 4,410 | 2,660 | 2,800 | 1,810 | 2,590 | 2,910 | 6,780 | 4,470 | 2,830 | 2,240 | 2,230 | 1,740 |
| 14 | 2,740 | 2,060 | 2,220 | 1,710 | 2,210 | 3,110 | 6,580 | 5,290 | 3,150 | 2,440 | 2,450 | 1,510 |
| 15 | 2,960 | 2,200 | 2,280 | 1,380 | 1,850 | 3,070 | 6,570 | 6,160 | 3,270 | 2,300 | 1,960 | 2,740 |
| 16 | 1,950 | 2,240 | 2,280 | 1,810 | 2,320 | 3,310 | 6,270 | 6,800 | 3,000 | 2,140 | 1,940 | 2,420 |
| 17 | 2,150 | 2,850 | 2,040 | 1,960 | 2,520 | 2,770 | 5,810 | 6,670 | 2,970 | 2,120 | 1,830 | 2,000 |
| 18 | 2,430 | 3,310 | 2,400 | 1,770 | 2,410 | 2,750 | 5,770 | 6,610 | 2,940 | 2,330 | 2,190 | 2,260 |
| 19 | 2,360 | 3,410 | 2,150 | 1,920 | 2,630 | 2,600 | 5,940 | 6,430 | 3,150 | 2,380 | 2,030 | 2,270 |
| 20 | 2,420 | 4,410 | 2,270 | 1,680 | 2,950 | 2,500 | 7,930 | 5,660 | 2,900 | 2,650 | 1,950 | 1,960 |
| 21 | 3,230 | 4,280 | 2,300 | 1,660 | 2,730 | 2,700 | 9,200 | 5,640 | 3,180 | 3,300 | 1,800 | 2,110 |
| 22 | 3,390 | 3,810 | 2,220 | 1,590 | 2,840 | 3,060 | 8,940 | 5,300 | 2,660 | 2,550 | 1,800 | 2,320 |
| 23 | 3,090 | 3,260 | 1,890 | 1,520 | 2,810 | 3,000 | 7,930 | 4,650 | 3,220 | 3,130 | 1,670 | 2,450 |
| 24 | 2,410 | 3,410 | 1,500 | 1,810 | 1,840 | 2,860 | 7,570 | 5,280 | 2,500 | 2,900 | 1,830 | 2,800 |
| 25 | 1,820 | 3,590 | 2,680 | 1,300 | 2,990 | 3,130 | 7,040 | 5,600 | 3,000 | 2,770 | 1,850 | 2,420 |
| 26 | 2,490 | 3,290 | 1,760 | 1,800 | 3,170 | 3,340 | 7,010 | 5,710 | 3,340 | 2,590 | 1,810 | 2,420 |
| 27 | 2,650 | 3,320 | 1,510 | 1,760 | 2,970 | 3,970 | 6,820 | 6,010 | 3,230 | 2,810 | 1,780 | 2,240 |
| 28 | 2,410 | 3,280 | 1,950 | 1,660 | 2,900 | 3,800 | 6,360 | 5,780 | 3,230 | 2,730 | 1,780 | 2,350 |
| 29 | 2,430 | 3,410 | 1,930 | 2,130 | ------ | 4,010 | 6,340 | 5,740 | 2,750 | 2,900 | 1,740 | 2,410 |
| 30 | 1,910 | 3,130 | 1,920 | 2,540 | ------ | 4,230 | 6,370 | 5,240 | 2,830 | 2,530 | 1,580 | 2,310 |
| 31 | 2,440 | ------ | 1,940 | 2,710 | ------ | 4,500 | ------ | 5,070 | ------ | 2,510 | 1,690 | ------ |
| TOTAL | 75,990 | 89,050 | 72,260 | 55,570 | 72,000 | 102,020 | 201,330 | 168,840 | 103,330 | 79,320 | 71,560 | 61,530 |
| MEAN | 2,451 | 2,968 | 2,331 | 1,793 | 2,571 | 3,291 | 6,711 | 5,446 | 3,444 | 2,559 | 2,308 | 2,051 |
| MAX | 4,410 | 4,410 | 3,080 | 2,710 | 3,170 | 4,500 | 9,200 | 6,800 | 4,840 | 3,300 | 4,060 | 2,800 |
| MIN | 1,740 | 1,960 | 1,500 | 1,300 | 1,840 | 2,480 | 4,500 | 4,300 | 2,500 | 2,120 | 1,580 | 1,510 |
| CFSM | .67 | .81 | .64 | .49 | .70 | .90 | 1.83 | 1.49 | .94 | .70 | .63 | .56 |
| IN. | .77 | .90 | .73 | .56 | .73 | 1.04 | 2.04 | 1.71 | 1.05 | .80 | .73 | .62 |

CAL YR 1969 TOTAL 1,436,790 MEAN 3,936 MAX 11,000 MIN 1,330 CFSM 1.07 IN 14.58
WAT YR 1970 TOTAL 1,152,800 MEAN 3,158 MAX 9,200 MIN 1,300 CFSM .86 IN 11.70

## 04177720 Fish Creek at Hamilton, Ind.

LOCATION.--Lat 41°31'55", long 84°54'12", in SE¼SW¼ sec.34, T.36 N., R.14 E., Steuben County, on left bank 6 ft upstream from bridge on County Road 775 South, 0.5 mile downstream from Hamilton Lake outlet, and 0.5 mile southeast of Hamilton.

DRAINAGE AREA.--37.5 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 876.00 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 177 cfs Apr. 22 (gage height, 6.94 ft); minimum, 1.1 cfs Aug. 21, 22, Sept. 12 (gage height, 2.72 ft).

REMARKS.--Records good except those for part of December and January, which are poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.8 | 5.9 | 14 | 8.0 | 25 | 16 | 72 | 42 | 17 | 2.3 | 4.0 | 1.7 |
| 2 | 3.0 | 5.9 | 13 | 7.6 | 30 | 16 | 107 | 41 | 17 | 3.2 | 3.3 | 1.5 |
| 3 | 3.0 | 5.7 | 12 | 7.0 | 29 | 27 | 114 | 34 | 16 | 2.8 | 2.9 | 1.6 |
| 4 | 2.7 | 6.2 | 10 | 7.0 | 30 | 82 | 102 | 27 | 14 | 2.2 | 2.6 | 2.2 |
| 5 | 2.4 | 6.8 | 9.6 | 7.0 | 21 | 87 | 85 | 22 | 12 | 2.2 | 2.4 | 1.8 |
| 6 | 2.4 | 6.4 | 9.4 | 7.0 | 19 | 77 | 73 | 20 | 11 | 1.9 | 2.2 | 1.7 |
| 7 | 2.8 | 6.2 | 10 | 7.0 | 17 | 66 | 62 | 30 | 9.8 | 1.8 | 2.0 | 1.8 |
| 8 | 3.0 | 6.0 | 12 | 7.0 | 17 | 56 | 54 | 21 | 8.6 | 2.3 | 1.9 | 1.9 |
| 9 | 2.7 | 5.9 | 11 | 7.0 | 18 | 48 | 49 | 12 | 7.8 | 2.4 | 1.7 | 1.8 |
| 10 | 2.8 | 6.2 | 10 | 7.0 | 17 | 41 | 40 | 11 | 7.2 | 2.8 | 1.7 | 1.6 |
| 11 | 3.2 | 6.2 | 10 | 7.0 | 16 | 36 | 34 | 11 | 7.0 | 2.7 | 1.7 | 1.4 |
| 12 | 4.5 | 6.2 | 9.4 | 7.0 | 15 | 32 | 33 | 22 | 7.0 | 2.9 | 1.7 | 1.2 |
| 13 | 8.0 | 5.6 | 9.0 | 7.0 | 15 | 29 | 47 | 96 | 8.4 | 2.9 | 1.4 | 1.3 |
| 14 | 7.4 | 5.4 | 9.0 | 7.2 | 16 | 26 | 76 | 118 | 7.2 | 3.2 | 1.6 | 2.9 |
| 15 | 6.5 | 5.0 | 8.8 | 7.2 | 12 | 24 | 90 | 120 | 6.6 | 4.8 | 1.5 | 5.6 |
| 16 | 5.8 | 5.0 | 8.2 | 7.2 | 11 | 21 | 73 | 106 | 5.7 | 4.0 | 1.5 | 5.9 |
| 17 | 5.0 | 6.2 | 8.0 | 7.2 | 9.8 | 20 | 57 | 85 | 5.4 | 3.9 | 1.3 | 4.7 |
| 18 | 4.4 | 15 | 8.0 | 7.2 | 17 | 20 | 41 | 64 | 5.3 | 3.5 | 1.3 | 5.7 |
| 19 | 4.0 | 56 | 8.0 | 7.2 | 24 | 19 | 61 | 53 | 4.2 | 4.2 | 1.5 | 5.0 |
| 20 | 3.7 | 53 | 7.8 | 7.2 | 21 | 36 | 117 | 45 | 3.6 | 5.9 | 1.5 | 4.2 |
| 21 | 3.9 | 43 | 8.0 | 7.2 | 18 | 37 | 158 | 40 | 4.5 | 4.7 | 1.3 | 3.9 |
| 22 | 4.1 | 40 | 7.4 | 7.2 | 21 | 38 | 170 | 33 | 4.7 | 4.1 | 1.6 | 4.0 |
| 23 | 3.9 | 47 | 8.0 | 7.2 | 24 | 40 | 137 | 30 | 4.4 | 4.2 | 2.2 | 4.5 |
| 24 | 3.9 | 41 | 8.0 | 7.2 | 25 | 40 | 114 | 26 | 4.2 | 5.0 | 1.9 | 4.4 |
| 25 | 4.0 | 35 | 8.0 | 7.2 | 25 | 33 | 93 | 24 | 4.0 | 4.7 | 1.8 | 4.2 |
| 26 | 4.0 | 30 | 7.7 | 7.5 | 23 | 60 | 69 | 23 | 4.0 | 4.5 | 1.7 | 4.7 |
| 27 | 3.9 | 25 | 7.4 | 7.8 | 20 | 72 | 61 | 17 | 4.1 | 4.4 | 1.6 | 5.0 |
| 28 | 3.7 | 20 | 7.2 | 8.0 | 18 | 74 | 61 | 15 | 3.9 | 4.1 | 1.6 | 4.4 |
| 29 | 3.6 | 18 | 7.6 | 28 | ------ | 67 | 54 | 21 | 3.3 | 4.0 | 1.5 | 3.7 |
| 30 | 3.6 | 16 | 8.0 | 27 | ------ | 85 | 48 | 19 | 2.9 | 5.3 | 1.6 | 3.5 |
| 31 | 3.9 | ------ | 8.0 | 24 | ------ | 89 | ------ | 17 | ------ | 4.4 | 2.0 | ------ |
| TOTAL | 122.6 | 539.8 | 282.5 | 281.3 | 553.8 | 1,414 | 2,352 | 1,245 | 220.8 | 111.3 | 58.5 | 97.8 |
| MEAN | 3.95 | 18.0 | 9.11 | 9.07 | 19.8 | 45.6 | 78.4 | 40.2 | 7.36 | 3.59 | 1.89 | 3.26 |
| MAX | 8.0 | 56 | 14 | 28 | 30 | 89 | 170 | 120 | 17 | 5.9 | 4.0 | 5.9 |
| MIN | 2.4 | 5.0 | 7.2 | 7.0 | 9.8 | 16 | 33 | 11 | 2.9 | 1.8 | 1.3 | 1.2 |
| CFSM | .11 | .48 | .24 | .24 | .53 | 1.22 | 2.09 | 1.07 | .20 | .096 | .050 | .087 |
| IN. | .12 | .54 | .28 | .28 | .55 | 1.40 | 2.33 | 1.24 | .22 | .11 | .06 | .10 |

WAT YR 1970 TOTAL 7,279.4 MEAN 19.9 MAX 170 MIN 1.2 CFSM .53 IN 7.22

PEAK DISCHARGE (BASE, 100 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 03-30 | 1630 | 5.72 | 106 | 04-22 | 0345 | 6.94 | 177 |
| 04-02 | 2100 | 6.01 | 122 | 05-13 | 1500 | 6.18 | 132 |

## 04178000 St. Joseph River near Newville, Ind.

LOCATION.--Lat 41°23'08", long 84°48'06", in SW¼SW¼ sec.18, T.5 N., R.1 E., Defiance County, Ohio, on left bank at bridge on Ohio State Highway 249, 3.5 miles northeast of Newville and 6.5 miles northwest of Hicksville, Ohio.

DRAINAGE AREA.--609 sq mi.

PERIOD OF RECORD.--October 1946 to current year. Monthly discharge only for some periods, published in WSP 1307.

GAGE.--Water-stage recorder. Datum of gage is 795.40 ft above mean sea level. Prior to Oct. 22, 1947, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--24 years, 498 cfs (11.10 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,120 cfs Apr. 24 (gage height, 11.11 ft); minimum, 32 cfs Sept. 5 (gage height, 2.08 ft).
Period of record: Maximum discharge, 9,710 cfs Apr. 6, 1950 (gage height, 17.05 ft); minimum, 14 cfs Sept. 9, 10, 14-16, 1964; minimum gage height, 1.45 ft Sept. 30, 1953.

REMARKS.--Records good except for winter periods, which are fair. Records of chemical analyses for current year at site 0.5 mile downstream (04178100 St. Joseph River at Indiana-Ohio State Line) are published in Part 2 of this report.

REVISIONS.--WSP 1912: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 55 | 82 | 301 | 98 | 610 | 300 | 1,160 | 1,250 | 262 | 128 | 466 | 37 |
| 2 | 56 | 84 | 273 | 97 | 740 | 250 | 1,220 | 1,140 | 255 | 114 | 376 | 37 |
| 3 | 55 | 90 | 244 | 94 | 990 | 260 | 1,420 | 1,060 | 248 | 109 | 280 | 36 |
| 4 | 55 | 109 | 216 | 93 | 900 | 1,020 | 1,490 | 856 | 237 | 114 | 209 | 39 |
| 5 | 57 | 117 | 195 | 89 | 690 | 1,590 | 1,530 | 639 | 227 | 123 | 167 | 35 |
| 6 | 55 | 116 | 189 | 87 | 470 | 1,730 | 1,570 | 517 | 212 | 102 | 140 | 42 |
| 7 | 57 | 114 | 183 | 86 | 370 | 1,790 | 1,520 | 438 | 197 | 88 | 120 | 40 |
| 8 | 56 | 111 | 197 | 84 | 320 | 1,810 | 1,320 | 393 | 181 | 82 | 105 | 37 |
| 9 | 54 | 113 | 203 | 80 | 290 | 1,760 | 1,060 | 353 | 163 | 79 | 93 | 36 |
| 10 | 58 | 111 | 206 | 77 | 280 | 1,500 | 848 | 316 | 147 | 80 | 83 | 36 |
| 11 | 69 | 110 | 201 | 76 | 270 | 1,050 | 700 | 292 | 133 | 89 | 79 | 35 |
| 12 | 76 | 106 | 188 | 78 | 260 | 698 | 601 | 277 | 124 | 84 | 77 | 33 |
| 13 | 115 | 101 | 177 | 82 | 240 | 551 | 597 | 738 | 117 | 84 | 71 | 34 |
| 14 | 149 | 101 | 166 | 84 | 210 | 464 | 942 | 1,590 | 111 | 82 | 65 | 40 |
| 15 | 153 | 98 | 161 | 85 | 190 | 396 | 1,210 | 1,850 | 108 | 77 | 61 | 61 |
| 16 | 134 | 93 | 147 | 86 | 185 | 325 | 1,280 | 1,920 | 117 | 74 | 56 | 75 |
| 17 | 110 | 91 | 144 | 89 | 180 | 292 | 1,220 | 1,910 | 179 | 72 | 51 | 94 |
| 18 | 96 | 144 | 125 | 93 | 190 | 269 | 978 | 1,770 | 196 | 65 | 49 | 110 |
| 19 | 87 | 896 | 142 | 97 | 330 | 264 | 872 | 1,490 | 168 | 67 | 49 | 106 |
| 20 | 82 | 1,330 | 129 | 98 | 400 | 455 | 1,510 | 1,100 | 141 | 94 | 48 | 91 |
| 21 | 78 | 1,320 | 109 | 93 | 410 | 733 | 1,880 | 721 | 130 | 153 | 47 | 73 |
| 22 | 79 | 1,230 | 124 | 88 | 360 | 837 | 2,020 | 542 | 119 | 212 | 54 | 66 |
| 23 | 89 | 1,130 | 100 | 90 | 380 | 906 | 2,050 | 445 | 124 | 211 | 68 | 63 |
| 24 | 97 | 916 | 102 | 91 | 410 | 843 | 2,090 | 406 | 137 | 187 | 58 | 62 |
| 25 | 93 | 753 | 102 | 93 | 470 | 783 | 2,060 | 424 | 126 | 154 | 57 | 63 |
| 26 | 86 | 632 | 103 | 94 | 500 | 1,070 | 1,830 | 440 | 114 | 137 | 52 | 73 |
| 27 | 80 | 531 | 103 | 98 | 450 | 1,520 | 1,500 | 430 | 110 | 128 | 48 | 121 |
| 28 | 78 | 449 | 98 | 104 | 370 | 1,590 | 1,300 | 382 | 155 | 113 | 45 | 111 |
| 29 | 77 | 385 | 97 | 290 | ------ | 1,550 | 1,230 | 330 | 210 | 110 | 42 | 99 |
| 30 | 77 | 337 | 94 | 510 | ------ | 1,480 | 1,290 | 298 | 162 | 192 | 40 | 88 |
| 31 | 76 | ------ | 95 | 560 | ------ | 1,360 | ------ | 277 | ------ | 371 | 38 | ------ |
| TOTAL | 2,539 | 11,800 | 4,914 | 3,864 | 11,465 | 29,446 | 40,298 | 24,594 | 4,910 | 3,775 | 3,194 | 1,873 |
| MEAN | 81.9 | 393 | 159 | 125 | 409 | 950 | 1,343 | 793 | 164 | 122 | 103 | 62.4 |
| MAX | 153 | 1,330 | 301 | 560 | 990 | 1,810 | 2,090 | 1,920 | 262 | 371 | 466 | 121 |
| MIN | 54 | 82 | 94 | 76 | 180 | 250 | 597 | 277 | 108 | 65 | 38 | 33 |
| CFSM | .13 | .65 | .26 | .21 | .67 | 1.56 | 2.21 | 1.30 | .27 | .20 | .17 | .10 |
| IN. | .16 | .72 | .30 | .24 | .70 | 1.80 | 2.46 | 1.50 | .30 | .23 | .20 | .11 |

CAL YR 1969 TOTAL 209,188 MEAN 573 MAX 5,740 MIN 46 CFSM .94 IN 12.78
WAT YR 1970 TOTAL 142,672 MEAN 391 MAX 2,090 MIN 33 CFSM .64 IN 8.71

## 04179000 St. Joseph River at Cedarville, Ind.

LOCATION (revised).--Lat 41°11'46", long 85°01'27", in J. Heckley Reserve, T.32 N., R.13 E., Allen County, on left bank 700 ft upstream from highway bridge, 0.4 mile south of Cedarville, 0.5 mile upstream from Cedar Creek, and 0.6 mile downstream from Cedarville Dam.

DRAINAGE AREA.--762 sq mi.

PERIOD OF RECORD.--January 1931 to May 1932, October 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 757.94 ft above mean sea level. Jan. 1, 1931, to May 31, 1932, nonrecording gage on downstream side of highway bridge 700 ft downstream from present site at datum approximately 20 ft lower.

AVERAGE DISCHARGE.--15 years (1955 to current year), 584 cfs (10.41 inches per year).

EXTREMES.--Current year: Maximum daily discharge, 2,630 cfs Apr. 25; maximum gage height, 10.82 ft Apr. 21; minimum daily discharge, 35 cfs Sept. 1.
Period of record: Maximum discharge, 10,100 cfs May 1, 1956 (gage height, 18.07 ft, from floodmarks); minimum daily, 1.6 cfs May 22, 27, 1958.

REMARKS.--Records good. Flow regulated by Cedarville Reservoir and some flow diverted into storage of Hurshtown Reservoir. Cedar Creek used as factor during periods of high flows.

REVISIONS (WATER YEARS).--WSP 1912: 1956, drainage area. Revised figures of discharge, in cubic feet per second, for the water year 1969, superseding figures published in WRD Ind. 1969 are given herewith:

July 11, 1969..... 610

| Month | Cfs-days | Maximum | Minimum | Mean | Per square mile | Runoff in inches |
|---|---|---|---|---|---|---|
| July 1969..... | 14,595 | 1,810 | 162 | 471 | 0.62 | 0.71 |
| WTR YR 1969..... | 304,011 | 6,620 | 60 | 833 | 1.09 | 14.85 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 83 | 120 | 450 | 147 | 750 | 410 | 1,430 | 1,560 | 406 | 184 | 540 | 35 |
| 2 | 102 | 120 | 364 | 148 | 900 | 394 | 1,550 | 1,500 | 346 | 124 | 465 | 38 |
| 3 | 84 | 118 | 258 | 145 | 1,210 | 328 | 1,770 | 1,120 | 258 | 112 | 367 | 43 |
| 4 | 75 | 123 | 288 | 135 | 980 | 1,020 | 1,660 | 1,280 | 330 | 118 | 245 | 63 |
| 5 | 78 | 165 | 268 | 136 | 830 | 2,180 | 1,610 | 770 | 310 | 120 | 200 | 91 |
| 6 | 78 | 176 | 250 | 133 | 610 | 1,910 | 1,840 | 660 | 265 | 124 | 190 | 49 |
| 7 | 83 | 163 | 253 | 131 | 520 | 2,080 | 1,680 | 620 | 253 | 115 | 169 | 40 |
| 8 | 81 | 154 | 273 | 145 | 460 | 2,050 | 1,730 | 550 | 234 | 107 | 104 | 46 |
| 9 | 81 | 145 | 280 | 145 | 323 | 2,050 | 1,280 | 470 | 180 | 104 | 104 | 44 |
| 10 | 81 | 143 | 275 | 123 | 367 | 1,860 | 940 | 440 | 188 | 96 | 110 | 40 |
| 11 | 143 | 143 | 270 | 112 | 285 | 1,640 | 940 | 410 | 180 | 92 | 107 | 38 |
| 12 | 135 | 141 | 263 | 105 | 293 | 860 | 710 | 333 | 174 | 94 | 96 | 37 |
| 13 | 184 | 136 | 245 | 105 | 290 | 640 | 880 | 640 | 172 | 91 | 96 | 38 |
| 14 | 190 | 133 | 236 | 107 | 283 | 620 | 1,140 | 1,280 | 167 | 88 | 89 | 42 |
| 15 | 192 | 129 | 226 | 108 | 260 | 540 | 1,360 | 1,890 | 152 | 86 | 70 | 77 |
| 16 | 186 | 128 | 214 | 108 | 228 | 490 | 1,430 | 2,260 | 107 | 83 | 65 | 159 |
| 17 | 172 | 128 | 202 | 113 | 220 | 410 | 1,390 | 2,150 | 138 | 77 | 64 | 65 |
| 18 | 126 | 410 | 172 | 116 | 216 | 330 | 1,260 | 2,060 | 169 | 61 | 60 | 128 |
| 19 | 163 | 1,880 | 165 | 116 | 346 | 410 | 1,480 | 1,930 | 190 | 72 | 58 | 110 |
| 20 | 129 | 1,800 | 178 | 131 | 400 | 560 | 2,230 | 1,490 | 176 | 96 | 58 | 107 |
| 21 | 100 | 1,490 | 163 | 131 | 430 | 1,200 | 2,590 | 950 | 192 | 96 | 53 | 115 |
| 22 | 97 | 1,440 | 156 | 124 | 520 | 960 | 2,570 | 680 | 165 | 174 | 54 | 143 |
| 23 | 78 | 1,450 | 154 | 113 | 460 | 1,140 | 2,430 | 560 | 113 | 240 | 70 | 100 |
| 24 | 96 | 1,250 | 116 | 97 | 470 | 1,190 | 2,540 | 520 | 129 | 222 | 86 | 90 |
| 25 | 118 | 835 | 116 | 97 | 520 | 1,000 | 2,630 | 700 | 145 | 194 | 64 | 100 |
| 26 | 128 | 810 | 148 | 107 | 510 | 1,470 | 2,280 | 680 | 186 | 147 | 57 | 110 |
| 27 | 120 | 737 | 154 | 108 | 560 | 1,880 | 2,110 | 570 | 194 | 135 | 58 | 150 |
| 28 | 113 | 550 | 152 | 154 | 485 | 1,900 | 1,810 | 540 | 89 | 140 | 56 | 130 |
| 29 | 108 | 440 | 148 | 710 | ------ | 1,840 | 1,940 | 460 | 124 | 129 | 53 | 120 |
| 30 | 107 | 450 | 148 | 1,100 | ------ | 1,800 | 1,660 | 440 | 222 | 133 | 48 | 110 |
| 31 | 107 | ------ | 150 | 830 | ------ | 1,570 | ------ | 349 | ------ | 216 | 40 | ------ |
| TOTAL | 3,618 | 15,907 | 6,735 | 6,080 | 13,726 | 36,732 | 50,870 | 29,862 | 5,954 | 3,870 | 3,896 | 2,458 |
| MEAN | 117 | 530 | 217 | 196 | 490 | 1,185 | 1,696 | 963 | 198 | 125 | 126 | 81.9 |
| MAX | 192 | 1,880 | 450 | 1,100 | 1,210 | 2,180 | 2,630 | 2,260 | 406 | 240 | 540 | 159 |
| MIN | 75 | 118 | 116 | 97 | 216 | 328 | 710 | 333 | 89 | 61 | 40 | 35 |
| CFSM | .15 | .70 | .28 | .26 | .64 | 1.56 | 2.23 | 1.26 | .26 | .16 | .17 | .11 |
| IN. | .18 | .78 | .33 | .30 | .67 | 1.79 | 2.48 | 1.46 | .29 | .19 | .19 | .12 |

CAL YR 1969 TOTAL 277,920 MEAN 761 MAX 6,620 MIN 60 CFSM 1.00 IN 13.57
WTR YR 1970 TOTAL 179,708 MEAN 492 MAX 2,630 MIN 35 CFSM .65 IN 8.77

## 04179500 Cedar Creek at Auburn, Ind.

LOCATION.--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.

DRAINAGE AREA.--87.3 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 847.14 ft above mean sea level (City of Auburn bench mark). Prior to Aug. 28, 1946, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--27 years, 68.0 cfs (10.58 inches per year).

EXTREMES.--Current year: Maximum discharge, 528 cfs Apr. 21 (gage height, 5.97 ft); minimum, 2.5 cfs Sept. 12 (gage height, 0.88 ft).
Period of record: Maximum discharge, 1,520 cfs Apr. 5, 1950 (gage height, 9.90 ft); minimum, 0.5 cfs Nov. 12, 1953; minimum gage height, 0.57 ft Oct. 4, 1964.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1337: 1944-45(M), 1947-49, 1950(M). WSP 1912: 1961, drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.0 | 11 | 38 | 14 | 102 | 26 | 108 | 125 | 38 | 12 | 58 | 3.5 |
| 2 | 6.3 | 11 | 34 | 13 | 132 | 26 | 276 | 101 | 36 | 11 | 36 | 3.5 |
| 3 | 6.3 | 10 | 31 | 12 | 109 | 43 | 291 | 83 | 35 | 10 | 24 | 5.0 |
| 4 | 5.6 | 13 | 27 | 12 | 79 | 315 | 204 | 75 | 32 | 9.7 | 17 | 4.4 |
| 5 | 5.2 | 14 | 25 | 12 | 72 | 294 | 151 | 66 | 31 | 8.9 | 14 | 3.7 |
| 6 | 5.2 | 14 | 22 | 12 | 48 | 202 | 125 | 59 | 29 | 8.6 | 12 | 3.5 |
| 7 | 6.6 | 13 | 25 | 12 | 40 | 151 | 107 | 55 | 26 | 8.2 | 10 | 3.3 |
| 8 | 6.6 | 12 | 29 | 12 | 38 | 118 | 93 | 51 | 25 | 9.5 | 9.3 | 3.7 |
| 9 | 5.6 | 11 | 28 | 12 | 40 | 93 | 85 | 47 | 25 | 9.3 | 8.2 | 4.0 |
| 10 | 6.0 | 11 | 26 | 10 | 36 | 80 | 74 | 43 | 24 | 9.7 | 7.9 | 3.3 |
| 11 | 7.2 | 10 | 26 | 10 | 34 | 67 | 67 | 39 | 22 | 8.9 | 7.6 | 3.1 |
| 12 | 13 | 10 | 24 | 10 | 29 | 62 | 66 | 43 | 22 | 7.9 | 6.9 | 2.6 |
| 13 | 17 | 8.9 | 21 | 10 | 26 | 54 | 125 | 205 | 21 | 7.6 | 6.9 | 3.6 |
| 14 | 16 | 8.2 | 21 | 11 | 31 | 48 | 308 | 345 | 18 | 7.2 | 6.3 | 7.6 |
| 15 | 13 | 7.6 | 20 | 11 | 22 | 41 | 226 | 280 | 18 | 8.6 | 5.6 | 14 |
| 16 | 12 | 6.9 | 18 | 10 | 21 | 37 | 165 | 207 | 17 | 7.9 | 4.9 | 9.7 |
| 17 | 10 | 9.3 | 18 | 11 | 21 | 34 | 126 | 147 | 17 | 6.9 | 4.7 | 8.2 |
| 18 | 8.9 | 50 | 18 | 11 | 39 | 34 | 100 | 111 | 16 | 6.6 | 4.9 | 13 |
| 19 | 8.2 | 308 | 21 | 10 | 99 | 32 | 206 | 89 | 15 | 7.2 | 6.3 | 11 |
| 20 | 7.9 | 268 | 16 | 12 | 58 | 112 | 486 | 74 | 14 | 7.6 | 6.3 | 6.9 |
| 21 | 8.6 | 181 | 15 | 12 | 50 | 128 | 490 | 63 | 17 | 6.9 | 4.7 | 6.3 |
| 22 | 8.9 | 129 | 16 | 12 | 38 | 117 | 379 | 55 | 17 | 6.6 | 9.1 | 6.3 |
| 23 | 7.9 | 131 | 14 | 12 | 58 | 124 | 271 | 49 | 16 | 8.6 | 8.9 | 7.2 |
| 24 | 7.6 | 110 | 14 | 10 | 53 | 109 | 247 | 58 | 15 | 9.3 | 6.3 | 7.6 |
| 25 | 6.9 | 90 | 14 | 10 | 59 | 96 | 213 | 97 | 14 | 7.6 | 5.6 | 7.2 |
| 26 | 7.2 | 75 | 14 | 10 | 46 | 304 | 157 | 102 | 17 | 7.6 | 5.2 | 13 |
| 27 | 7.6 | 64 | 13 | 11 | 38 | 382 | 126 | 67 | 15 | 6.3 | 5.2 | 15 |
| 28 | 7.6 | 56 | 13 | 14 | 29 | 290 | 146 | 52 | 14 | 6.9 | 4.7 | 11 |
| 29 | 7.2 | 47 | 13 | 212 | ------ | 212 | 132 | 44 | 12 | 6.9 | 4.2 | 8.2 |
| 30 | 7.2 | 41 | 14 | 145 | ------ | 156 | 145 | 39 | 12 | 29 | 4.0 | 7.2 |
| 31 | 7.9 | ------ | 14 | 104 | ------ | 123 | ------ | 37 | ------ | 27 | 3.7 | ------ |
| TOTAL | 257.2 | 1,730.9 | 642 | 779 | 1,447 | 3,910 | 5,695 | 2,908 | 630 | 296.0 | 318.4 | 206.6 |
| MEAN | 8.30 | 57.7 | 20.7 | 25.1 | 51.7 | 126 | 190 | 93.8 | 21.0 | 9.55 | 10.3 | 6.89 |
| MAX | 17 | 308 | 38 | 212 | 132 | 382 | 490 | 345 | 38 | 29 | 58 | 15 |
| MIN | 5.2 | 6.9 | 13 | 10 | 21 | 26 | 66 | 37 | 12 | 6.3 | 3.7 | 2.6 |
| CFSM | .095 | .66 | .24 | .29 | .59 | 1.44 | 2.18 | 1.07 | .24 | .11 | .12 | .079 |
| IN. | .11 | .74 | .27 | .33 | .62 | 1.67 | 2.43 | 1.24 | .27 | .13 | .14 | .09 |

CAL YR 1969 TOTAL 25,326.6 MEAN 69.4 MAX 965 MIN 3.5 CFSM .80 IN 10.79
WAT YR 1970 TOTAL 18,820.1 MEAN 51.6 MAX 490 MIN 2.6 CFSM .59 IN 8.02

PEAK DISCHARGE (BASE, 700 CFS).--No peak above base.

## 04180000 Cedar Creek near Cedarville, Ind.

LOCATION.--Lat 41°13'08", long 85°04'35", in NW¼NW¼ sec.19, T.32 N., R.13 E., Allen County, on left bank at downstream side of bridge on State Highway 427, 3 miles northwest of Cedarville, 5.8 miles upstream from mouth, and 10 miles south of Auburn.

DRAINAGE AREA.--270 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 780.09 ft above mean sea level. Prior to Nov. 4, 1947, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--24 years, 232 cfs (11.67 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,770 cfs Apr. 21 (gage height, 6.37 ft); minimum, 23 cfs Sept. 12, 13 (gage height, 1.31 ft).
Period of record: Maximum discharge, 4,870 cfs Apr. 5, 1950 (gage height, 11.67 ft); minimum, 12 cfs Oct. 3, 1949; minimum gage height, 1.22 ft Sept. 7-9, 1964.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1912: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 32 | 44 | 126 | 58 | 428 | 96 | 314 | 453 | 161 | 50 | 132 | 27 |
| 2 | 32 | 52 | 112 | 56 | 422 | 90 | 647 | 398 | 161 | 48 | 109 | 26 |
| 3 | 35 | 49 | 106 | 50 | 433 | 104 | 865 | 315 | 148 | 47 | 71 | 27 |
| 4 | 32 | 49 | 96 | 50 | 330 | 661 | 579 | 267 | 133 | 44 | 58 | 40 |
| 5 | 30 | 58 | 88 | 50 | 320 | 965 | 429 | 234 | 124 | 41 | 49 | 32 |
| 6 | 27 | 66 | 83 | 50 | 184 | 608 | 355 | 207 | 116 | 39 | 45 | 28 |
| 7 | 30 | 59 | 85 | 50 | 156 | 441 | 305 | 189 | 104 | 39 | 42 | 27 |
| 8 | 35 | 53 | 103 | 50 | 136 | 356 | 266 | 178 | 92 | 42 | 40 | 28 |
| 9 | 32 | 48 | 98 | 50 | 137 | 281 | 247 | 165 | 89 | 49 | 37 | 31 |
| 10 | 32 | 46 | 95 | 45 | 130 | 236 | 221 | 154 | 87 | 44 | 36 | 27 |
| 11 | 35 | 45 | 94 | 45 | 121 | 200 | 200 | 145 | 83 | 43 | 36 | 25 |
| 12 | 48 | 46 | 91 | 45 | 106 | 183 | 196 | 151 | 81 | 39 | 36 | 24 |
| 13 | 79 | 44 | 83 | 45 | 100 | 163 | 292 | 371 | 81 | 36 | 36 | 25 |
| 14 | 71 | 42 | 83 | 47 | 108 | 149 | 989 | 921 | 79 | 37 | 35 | 36 |
| 15 | 56 | 40 | 80 | 47 | 111 | 131 | 775 | 774 | 72 | 37 | 33 | 57 |
| 16 | 46 | 38 | 74 | 47 | 95 | 120 | 517 | 698 | 71 | 37 | 31 | 51 |
| 17 | 41 | 39 | 72 | 47 | 84 | 111 | 398 | 464 | 67 | 35 | 29 | 41 |
| 18 | 37 | 113 | 69 | 47 | 98 | 112 | 322 | 347 | 64 | 34 | 30 | 67 |
| 19 | 36 | 792 | 70 | 47 | 240 | 109 | 552 | 280 | 61 | 36 | 32 | 66 |
| 20 | 36 | 938 | 67 | 47 | 180 | 330 | 1,600 | 234 | 56 | 39 | 37 | 48 |
| 21 | 36 | 567 | 62 | 47 | 166 | 452 | 1,670 | 203 | 62 | 36 | 32 | 41 |
| 22 | 36 | 390 | 65 | 47 | 136 | 378 | 1,340 | 181 | 72 | 34 | 32 | 39 |
| 23 | 34 | 380 | 60 | 47 | 168 | 382 | 819 | 162 | 61 | 36 | 50 | 43 |
| 24 | 33 | 346 | 60 | 47 | 172 | 341 | 740 | 153 | 58 | 47 | 37 | 44 |
| 25 | 32 | 282 | 60 | 47 | 184 | 295 | 761 | 425 | 57 | 39 | 34 | 42 |
| 26 | 32 | 232 | 56 | 48 | 141 | 819 | 517 | 457 | 61 | 39 | 32 | 49 |
| 27 | 30 | 198 | 55 | 52 | 135 | 1,410 | 411 | 287 | 80 | 38 | 31 | 110 |
| 28 | 30 | 170 | 52 | 55 | 99 | 930 | 574 | 205 | 59 | 37 | 30 | 80 |
| 29 | 29 | 151 | 54 | 600 | ------ | 618 | 652 | 173 | 53 | 37 | 28 | 59 |
| 30 | 33 | 136 | 58 | 924 | ------ | 449 | 501 | 233 | 52 | 67 | 27 | 49 |
| 31 | 32 | ------ | 59 | 587 | ------ | 364 | ------ | 176 | ------ | 89 | 26 | ------ |
| TOTAL | 1,159 | 5,513 | 2,416 | 3,474 | 5,110 | 11,884 | 18,054 | 9,600 | 2,545 | 1,315 | 1,313 | 1,289 |
| MEAN | 37.4 | 184 | 77.9 | 112 | 183 | 383 | 602 | 310 | 84.8 | 42.4 | 42.4 | 43.0 |
| MAX | 79 | 938 | 126 | 924 | 433 | 1,410 | 1,670 | 921 | 161 | 89 | 132 | 110 |
| MIN | 27 | 38 | 52 | 45 | 84 | 90 | 196 | 145 | 52 | 34 | 26 | 24 |
| CFSM | .14 | .68 | .29 | .41 | .68 | 1.42 | 2.23 | 1.15 | .31 | .16 | .16 | .16 |
| IN. | .16 | .76 | .33 | .48 | .70 | 1.64 | 2.49 | 1.32 | .35 | .18 | .18 | .18 |

CAL YR 1969 TOTAL 83,063 MEAN 228 MAX 3,610 MIN 27 CFSM .84 IN 11.44
WAT YR 1970 TOTAL 63,672 MEAN 174 MAX 1,670 MIN 24 CFSM .64 IN 8.77

PEAK DISCHARGE (BASE, 2,000 CFS).--No peak above base.

04181500 St. Marys River at Decatur, Ind.

LOCATION.--Lat 40°50'55", long 84°56'16", in SW¼SW¼ sec.27, T.28 N., R.14 E., Adams County, on right bank 10 ft downstream from bridge on U.S. Highway 27, 0.5 mile upstream from Holthouse ditch, and 1.3 miles north of Decatur.

DRAINAGE AREA.--621 sq mi.

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 upstream January 1932 to November 1954, and at present site thereafter are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 760.44 ft above mean sea level. Prior to July 27, 1948, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--24 years, 479 cfs (10.47 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,600 cfs Feb. 3 (gage height, 18.45 ft); minimum, 12 cfs Sept. 11, 13 (gage height, 2.04 ft).
Period of record: Maximum discharge, 11,300 cfs Feb. 10, 11, 1959; maximum gage height, 24.22 ft Feb. 10, 1959 (ice jam); minimum discharge, 4.7 cfs Oct. 19, 1960; minimum gage height, 1.73 ft Sept. 12, 1955.

REMARKS.--Records good. Flow regulated by Grand Lake Reservoir. Slight diversion from or into Wabash River basin and into Miami and Erie Canal.

REVISIONS (WATER YEARS).--WSP 1174: 1948. WSP 1337: 1947. WSP 1627: 1950. WSP 1912: 1955, drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 152 | 79 | 401 | 55 | 2,430 | 394 | 591 | 680 | 130 | 49 | 102 | 17 |
| 2 | 134 | 159 | 293 | 54 | 3,060 | 317 | 1,020 | 525 | 112 | 59 | 74 | 17 |
| 3 | 112 | 83 | 237 | 52 | 3,570 | 322 | 1,720 | 398 | 209 | 189 | 57 | 17 |
| 4 | 91 | 105 | 184 | 50 | 2,900 | 1,390 | 1,130 | 334 | 381 | 116 | 47 | 17 |
| 5 | 73 | 193 | 147 | 49 | 2,300 | 2,100 | 976 | 263 | 431 | 66 | 43 | 17 |
| 6 | 62 | 165 | 130 | 48 | 1,800 | 1,550 | 1,100 | 204 | 618 | 52 | 41 | 15 |
| 7 | 54 | 125 | 147 | 48 | 1,390 | 1,510 | 1,030 | 164 | 611 | 47 | 37 | 16 |
| 8 | 46 | 95 | 405 | 48 | 1,080 | 1,670 | 788 | 146 | 685 | 49 | 33 | 15 |
| 9 | 42 | 89 | 393 | 48 | 920 | 1,390 | 590 | 136 | 760 | 99 | 30 | 16 |
| 10 | 40 | 90 | 389 | 48 | 810 | 981 | 435 | 122 | 736 | 189 | 28 | 15 |
| 11 | 44 | 84 | 426 | 48 | 703 | 693 | 324 | 113 | 577 | 193 | 26 | 15 |
| 12 | 291 | 93 | 437 | 48 | 672 | 515 | 251 | 129 | 368 | 110 | 25 | 14 |
| 13 | 1,250 | 94 | 397 | 48 | 651 | 383 | 258 | 604 | 210 | 155 | 23 | 14 |
| 14 | 1,090 | 83 | 371 | 48 | 642 | 287 | 740 | 1,180 | 142 | 257 | 21 | 15 |
| 15 | 750 | 71 | 308 | 48 | 584 | 226 | 520 | 1,380 | 223 | 282 | 20 | 15 |
| 16 | 508 | 60 | 231 | 48 | 462 | 184 | 338 | 1,830 | 239 | 228 | 20 | 16 |
| 17 | 400 | 60 | 185 | 48 | 371 | 160 | 270 | 1,810 | 128 | 139 | 21 | 16 |
| 18 | 311 | 561 | 154 | 48 | 395 | 149 | 229 | 1,490 | 105 | 90 | 21 | 28 |
| 19 | 232 | 2,640 | 130 | 48 | 1,350 | 144 | 1,550 | 1,060 | 80 | 71 | 21 | 26 |
| 20 | 176 | 2,960 | 100 | 48 | 906 | 208 | 3,330 | 725 | 65 | 67 | 22 | 24 |
| 21 | 147 | 2,440 | 80 | 48 | 728 | 331 | 3,310 | 498 | 61 | 68 | 19 | 20 |
| 22 | 130 | 1,770 | 80 | 48 | 752 | 340 | 2,920 | 333 | 55 | 52 | 21 | 24 |
| 23 | 105 | 2,030 | 70 | 48 | 822 | 544 | 2,490 | 227 | 49 | 52 | 21 | 32 |
| 24 | 83 | 2,110 | 68 | 48 | 822 | 514 | 2,380 | 174 | 45 | 72 | 29 | 43 |
| 25 | 71 | 1,720 | 66 | 60 | 866 | 431 | 2,680 | 169 | 155 | 70 | 24 | 36 |
| 26 | 67 | 1,300 | 64 | 60 | 676 | 1,550 | 2,110 | 193 | 194 | 55 | 22 | 38 |
| 27 | 62 | 1,010 | 63 | 60 | 577 | 1,670 | 1,630 | 252 | 325 | 70 | 21 | 45 |
| 28 | 54 | 800 | 62 | 140 | 474 | 962 | 1,540 | 244 | 197 | 375 | 20 | 42 |
| 29 | 50 | 633 | 60 | 2,190 | ------ | 870 | 1,260 | 186 | 81 | 158 | 18 | 27 |
| 30 | 48 | 503 | 58 | 2,830 | ------ | 841 | 930 | 138 | 57 | 132 | 18 | 21 |
| 31 | 49 | ------ | 56 | 2,580 | ------ | 747 | ------ | 124 | ------ | 174 | 17 | ------ |
| TOTAL | 6,724 | 22,205 | 6,192 | 9,092 | 32,713 | 23,373 | 38,440 | 15,831 | 8,029 | 3,785 | 942 | 673 |
| MEAN | 217 | 740 | 200 | 293 | 1,168 | 754 | 1,281 | 511 | 268 | 122 | 30.4 | 22.4 |
| MAX | 1,250 | 2,960 | 437 | 2,830 | 3,570 | 2,100 | 3,330 | 1,830 | 760 | 375 | 102 | 45 |
| MIN | 40 | 60 | 56 | 48 | 371 | 144 | 229 | 113 | 45 | 47 | 17 | 14 |
| CFSM | .35 | 1.19 | .32 | .47 | 1.88 | 1.21 | 2.06 | .82 | .43 | .20 | .049 | .036 |
| IN. | .40 | 1.33 | .37 | .54 | 1.96 | 1.40 | 2.30 | .95 | .48 | .23 | .06 | .04 |

CAL YR 1969 TOTAL 179,075 MEAN 491 MAX 4,740 MIN 16 CFSM .79 IN 10.73
WAT YR 1970 TOTAL 167,999 MEAN 460 MAX 3,570 MIN 14 CFSM .74 IN 10.06

PEAK DISCHARGE (BASE, 2,900 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-20 | 0145 | 16.92 | 3,040 | 04-20 | 1515 | 18.02 | 3,420 |
| 02-03 | 1230 | 18.45 | 3,600 | | | | |

04182000 St. Marys River near Fort Wayne, Ind.

LOCATION.--Lat 40°59'16", long 85°06'03", in A. LaFontaine Reserve, T.29 N., R.12 E., Allen County, on left bank 130 ft downstream from highway bridge on Anthony Boulevard, 5 miles south of Fort Wayne, and 10.8 miles upstream from confluence with St. Joseph River.

DRAINAGE AREA.--762 sq mi.

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 in the District office.

GAGE.--Water-stage recorder. Datum of gage is 748.97 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission). Prior to Apr. 13, 1939, nonrecording gage on highway bridge at same datum.

AVERAGE DISCHARGE.--40 years, 549 cfs (9.78 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,840 cfs Feb. 4 (gage height, 12.32 ft); minimum, 17 cfs Sept. 11, 12 (gage height, 0.68 ft).
Period of record: Maximum discharge, 13,600 cfs Feb. 11, 1959; maximum gage height, 19.42 ft Feb. 11, 1959 (ice jam); minimum discharge observed, 3.4 cfs Oct. 19, 1934 (gage height, 0.28 ft).

REMARKS.--Records good. The flow is sometimes regulated by Grand Lake. There is slight diversion from or into Wabash River basin and into Miami and Erie Canal.

REVISIONS (WATER YEARS).--WSP 974: 1942. WSP 1337: 1933, 1947. WSP 1912: 1954, 1955, 1960, drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 174 | 78 | 490 | 78 | 3,430 | 472 | 712 | 916 | 147 | 67 | 165 | 21 |
| 2 | 151 | 142 | 377 | 74 | 3,830 | 395 | 1,380 | 647 | 140 | 116 | 108 | 21 |
| 3 | 133 | 184 | 295 | 70 | 4,620 | 357 | 2,340 | 484 | 142 | 222 | 80 | 22 |
| 4 | 112 | 102 | 247 | 66 | 4,760 | 1,360 | 1,730 | 386 | 348 | 215 | 62 | 23 |
| 5 | 92 | 191 | 194 | 62 | 4,240 | 2,680 | 1,170 | 317 | 375 | 116 | 52 | 26 |
| 6 | 77 | 245 | 165 | 60 | 3,290 | 2,190 | 1,200 | 256 | 560 | 75 | 48 | 24 |
| 7 | 67 | 188 | 159 | 60 | 2,280 | 1,670 | 1,210 | 206 | 597 | 59 | 45 | 22 |
| 8 | 59 | 145 | 307 | 60 | 1,690 | 1,900 | 978 | 176 | 636 | 55 | 42 | 22 |
| 9 | 50 | 115 | 470 | 60 | 1,410 | 1,690 | 734 | 161 | 729 | 60 | 37 | 19 |
| 10 | 51 | 108 | 410 | 60 | 1,280 | 1,220 | 545 | 146 | 764 | 134 | 34 | 18 |
| 11 | 94 | 105 | 438 | 60 | 1,130 | 856 | 405 | 132 | 650 | 211 | 33 | 18 |
| 12 | 245 | 99 | 463 | 60 | 970 | 617 | 314 | 179 | 450 | 170 | 31 | 17 |
| 13 | 1,220 | 108 | 435 | 60 | 890 | 466 | 320 | 1,220 | 283 | 110 | 30 | 20 |
| 14 | 1,430 | 105 | 401 | 60 | 780 | 355 | 853 | 1,640 | 184 | 195 | 28 | 20 |
| 15 | 1,010 | 94 | 357 | 60 | 700 | 278 | 842 | 1,660 | 139 | 272 | 26 | 19 |
| 16 | 627 | 83 | 283 | 60 | 620 | 229 | 507 | 2,120 | 276 | 268 | 26 | 18 |
| 17 | 460 | 77 | 225 | 60 | 580 | 193 | 372 | 2,170 | 181 | 198 | 24 | 18 |
| 18 | 361 | 1,040 | 192 | 60 | 570 | 177 | 304 | 1,820 | 124 | 126 | 25 | 22 |
| 19 | 282 | 3,850 | 170 | 60 | 1,500 | 168 | 1,640 | 1,300 | 102 | 90 | 26 | 31 |
| 20 | 221 | 4,060 | 140 | 60 | 1,600 | 239 | 4,380 | 889 | 82 | 83 | 27 | 28 |
| 21 | 175 | 3,530 | 120 | 60 | 880 | 382 | 4,580 | 600 | 72 | 77 | 26 | 28 |
| 22 | 150 | 2,470 | 120 | 60 | 990 | 419 | 4,100 | 411 | 69 | 69 | 26 | 25 |
| 23 | 130 | 2,390 | 110 | 60 | 1,200 | 593 | 3,350 | 289 | 63 | 58 | 26 | 33 |
| 24 | 111 | 2,630 | 100 | 60 | 970 | 643 | 3,190 | 221 | 57 | 64 | 28 | 47 |
| 25 | 91 | 2,280 | 100 | 75 | 979 | 527 | 3,390 | 196 | 55 | 84 | 31 | 46 |
| 26 | 81 | 1,650 | 90 | 75 | 841 | 1,780 | 2,900 | 198 | 253 | 75 | 31 | 44 |
| 27 | 77 | 1,220 | 90 | 75 | 686 | 2,410 | 2,020 | 221 | 283 | 72 | 28 | 47 |
| 28 | 73 | 967 | 90 | 150 | 574 | 1,370 | 1,800 | 254 | 349 | 214 | 26 | 51 |
| 29 | 66 | 769 | 90 | 2,560 | ------ | 1,010 | 1,520 | 225 | 158 | 308 | 25 | 48 |
| 30 | 63 | 612 | 86 | 3,810 | ------ | 947 | 1,310 | 174 | 89 | 194 | 24 | 34 |
| 31 | 60 | ------ | 82 | 3,880 | ------ | 868 | ------ | 143 | ------ | 196 | 23 | ------ |
| TOTAL | 7,993 | 29,637 | 7,296 | 12,115 | 47,290 | 28,461 | 50,096 | 19,757 | 8,357 | 4,253 | 1,243 | 832 |
| MEAN | 258 | 988 | 235 | 391 | 1,689 | 918 | 1,670 | 637 | 279 | 137 | 40.1 | 27.7 |
| MAX | 1,430 | 4,060 | 490 | 3,880 | 4,760 | 2,680 | 4,580 | 2,170 | 764 | 308 | 165 | 51 |
| MIN | 50 | 77 | 82 | 60 | 570 | 168 | 304 | 132 | 55 | 55 | 23 | 17 |
| CFSM | .34 | 1.30 | .31 | .51 | 2.22 | 1.20 | 2.19 | .84 | .37 | .18 | .053 | .036 |
| IN. | .39 | 1.45 | .36 | .59 | 2.31 | 1.39 | 2.45 | .96 | .41 | .21 | .06 | .04 |

CAL YR 1969 TOTAL 229,088 MEAN 628 MAX 6,260 MIN 17 CFSM .82 IN 11.18
WAT YR 1970 TOTAL 217,330 MEAN 595 MAX 4,760 MIN 17 CFSM .78 IN 10.61

PEAK DISCHARGE (BASE, 4,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-19 | 2215 | 11.27 | 4,210 | 04-21 | 0730 | 12.00 | 4,650 |
| 02-04 | 0500 | 12.32 | 4,840 | | | | |

04182590 Harber ditch at Fort Wayne, Ind.

LOCATION.--Lat 41°00'27", long 85°10'58", in NE¼SW¼ sec.33, T.30 N., R.12 E., Allen County, on left bank 50 ft upstream from bridge on State Highway 3 at Fort Wayne city limits and 3.2 miles upstream from mouth. The stream name changes to Fairfield ditch 0.7 mile downstream at bridge on Lower Huntington Road.

DRAINAGE AREA.--21.9 sq mi.

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 downstream.

GAGE.--Water-stage recorder. Datum of gage is 757.00 ft above mean sea level.

AVERAGE DISCHARGE.--6 years, 17.7 cfs (10.98 inches per year).

EXTREMES.--Current year: Maximum discharge, 588 cfs Nov. 19 (gage height, 10.63 ft); minimum, 0.17 cfs Aug. 16, 17, but may have been less during period of ice effect.
Period of record: Maximum discharge, 718 cfs May 16, 1968 (gage height, 11.30 ft); minimum, 0.1 cfs several days in September and November 1964; minimum gage height, 1.59 ft Nov. 1, 1964.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .67 | 6.1 | 11 | 1.3 | 30 | 4.7 | 20 | 66 | 4.1 | 2.0 | 15 | .36 |
| 2 | 1.2 | 4.8 | 8.2 | 1.3 | 60 | 4.7 | 90 | 31 | 3.1 | 9.5 | 3.8 | .41 |
| 3 | .67 | 4.3 | 7.9 | 1.2 | 35 | 49 | 40 | 20 | 5.1 | 5.3 | 2.0 | 1.0 |
| 4 | .47 | 6.1 | 6.4 | 1.2 | 20 | 86 | 28 | 14 | 3.3 | 2.7 | 1.1 | 6.3 |
| 5 | .41 | 7.6 | 4.8 | 1.1 | 15 | 62 | 22 | 11 | 4.1 | 2.2 | .60 | 2.0 |
| 6 | .47 | 6.7 | 4.6 | .91 | 9.8 | 32 | 18 | 8.5 | 3.3 | 1.8 | .41 | .67 |
| 7 | .90 | 5.1 | 6.1 | .94 | 7.4 | 25 | 14 | 6.7 | 1.8 | 1.6 | .41 | 1.2 |
| 8 | .74 | 4.1 | 6.4 | .96 | 6.1 | 18 | 13 | 7.6 | 1.4 | 2.9 | .36 | .53 |
| 9 | .60 | 3.6 | 5.3 | .98 | 5.7 | 13 | 12 | 6.7 | 1.3 | 19 | .36 | .47 |
| 10 | 15 | 3.3 | 5.1 | 1.0 | 5.2 | 10 | 10 | 6.1 | 1.3 | 4.6 | .26 | .36 |
| 11 | 12 | 2.9 | 5.8 | 1.0 | 4.5 | 8.8 | 9.4 | 6.1 | 1.1 | 2.5 | .22 | .36 |
| 12 | 159 | 2.7 | 4.8 | 1.0 | 4.1 | 7.3 | 8.4 | 9.4 | .74 | 1.8 | .22 | .26 |
| 13 | 61 | 2.5 | 4.2 | 1.0 | 3.8 | 6.1 | 70 | 97 | 3.9 | 1.6 | .31 | 9.1 |
| 14 | 38 | 2.3 | 3.6 | 1.0 | 3.4 | 5.6 | 40 | 58 | 1.2 | 1.6 | .47 | 9.4 |
| 15 | 15 | 2.0 | 3.4 | 1.0 | 3.1 | 5.0 | 25 | 96 | 1.2 | 1.6 | .20 | 2.2 |
| 16 | 9.7 | 1.7 | 3.1 | 1.0 | 2.9 | 4.3 | 17 | 85 | 1.1 | 1.4 | .17 | 1.2 |
| 17 | 6.4 | 5.6 | 2.8 | 1.0 | 4.3 | 4.3 | 14 | 33 | 1.0 | 1.4 | .50 | 1.2 |
| 18 | 4.6 | 245 | 2.5 | .96 | 24 | 4.3 | 11 | 16 | .90 | 1.4 | .63 | 5.4 |
| 19 | 4.1 | 493 | 2.4 | .94 | 35 | 4.6 | 256 | 9.7 | .74 | 5.6 | .87 | 1.8 |
| 20 | 4.6 | 146 | 2.2 | .90 | 26 | 22 | 232 | 7.0 | .67 | 6.9 | 1.8 | 1.7 |
| 21 | 3.8 | 64 | 2.0 | .90 | 22 | 20 | 162 | 5.8 | 1.2 | 2.5 | .41 | 1.2 |
| 22 | 3.3 | 45 | 1.9 | .90 | 8.8 | 20 | 69 | 4.8 | .67 | 1.6 | .81 | 4.6 |
| 23 | 2.5 | 63 | 1.8 | 2.0 | 10 | 23 | 48 | 4.6 | .67 | 4.6 | .47 | 28 |
| 24 | 2.3 | 47 | 1.7 | 5.0 | 10 | 17 | 166 | 6.1 | 3.8 | 2.5 | .36 | 49 |
| 25 | 2.3 | 32 | 1.6 | 6.6 | 8.0 | 20 | 75 | 6.7 | 2.0 | 1.7 | 1.9 | 4.3 |
| 26 | 2.0 | 23 | 1.6 | 9.6 | 6.1 | 70 | 34 | 4.3 | 16 | 1.6 | 1.6 | 39 |
| 27 | 2.5 | 18 | 1.6 | 12 | 4.8 | 40 | 23 | 2.9 | 11 | 13 | .26 | 8.2 |
| 28 | 2.0 | 15 | 1.5 | 67 | 4.1 | 26 | 24 | 2.0 | 4.1 | 6.1 | .31 | 4.3 |
| 29 | 1.8 | 14 | 1.5 | 245 | ------ | 22 | 50 | 2.0 | 2.7 | 2.9 | .31 | 2.7 |
| 30 | 1.7 | 12 | 1.4 | 122 | ------ | 18 | 143 | 2.0 | 2.2 | 7.3 | .26 | 2.5 |
| 31 | 3.1 | ------ | 1.4 | 70 | ------ | 16 | ------ | 3.6 | ------ | 2.7 | .50 | ------ |
| TOTAL | 362.83 | 1,288.4 | 118.6 | 561.69 | 379.1 | 668.7 | 1,743.8 | 639.6 | 85.69 | 123.9 | 36.88 | 189.72 |
| MEAN | 11.7 | 42.9 | 3.83 | 18.1 | 13.5 | 21.6 | 58.1 | 20.6 | 2.86 | 4.00 | 1.19 | 6.32 |
| MAX | 159 | 493 | 11 | 245 | 60 | 86 | 256 | 97 | 16 | 19 | 15 | 49 |
| MIN | .41 | 1.7 | 1.4 | .90 | 2.9 | 4.3 | 8.4 | 2.0 | .67 | 1.4 | .17 | .26 |
| CFSM | .53 | 1.96 | .17 | .83 | .62 | .99 | 2.65 | .94 | .13 | .18 | .054 | .29 |
| IN. | .62 | 2.19 | .20 | .95 | .64 | 1.14 | 2.96 | 1.09 | .15 | .21 | .06 | .32 |

CAL YR 1969 TOTAL 7,988.11 MEAN 21.9 MAX 541 MIN .22 CFSM 1.00 IN 13.57
WAT YR 1970 TOTAL 6,198.91 MEAN 17.0 MAX 493 MIN .17 CFSM .78 IN 10.53

PEAK DISCHARGE (BASE, 250 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-12 | 1400 | 9.70 | 480 | 04-19 | 1600 | 9.35 | 445 |
| 11-19 | 0530 | 10.63 | 588 | 05-15 | 2130 | 7.26 | 273 |
| 01-29 | 0400 | 7.47 | 288 | | | | |

NOTE.--No gage-height record Dec. 12 to Jan. 20.

## 04183000 Maumee River at New Haven, Ind.

LOCATION.--Lat 41°05'06", long 85°01'19", in SE¼NE¼ sec.2, T.30 N., R.13. E., Allen County, on left bank 600 ft upstream from bridge on Landin Road, 1400 ft upstream from the Wabash Railroad bridge, 0.8 mile north of New Haven, 2.8 miles upstream from Sixmile Creek.

DRAINAGE AREA.--1,966 sq mi.

PERIOD OF RECORD.--December 1946 to September 1956 (high-water records only), October 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 724.51 ft above mean sea level. Prior to Sept. 7, 1956, nonrecording gage and Sept. 7, 1956, to Sept. 14, 1965, water-stage recorder at site 500 ft downstream at same datum.

AVERAGE DISCHARGE.--14 years (1956-70), 1,494 cfs (10.32 inches per year).

EXTREMES.--Current year: Maximum discharge, 10,400 cfs Apr. 21 (gage height, 16.43 ft); minimum, 90 cfs Sept. 12 (gage height, 2.58 ft).
Period of record: Maximum discharge, 19,100 cfs Feb. 16, 1950 (gage height, 21.4 ft at site then in use); minimum daily discharge, 48 cfs Oct. 6, 13, 1963.

REMARKS.--Records good. Flow regulated by hydro-powerplant on the St. Joseph River 10.3 miles upstream from station. Flow slightly regulated by upstream reservoirs.

REVISIONS.--WSP 1912: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 358 | 386 | 1,340 | 343 | 4,230 | 1,090 | 2,990 | 3,980 | 801 | 367 | 885 | 109 |
| 2 | 343 | 374 | 1,090 | 327 | 4,620 | 996 | 4,340 | 3,280 | 786 | 380 | 899 | 106 |
| 3 | 334 | 446 | 832 | 311 | 5,800 | 972 | 6,230 | 2,500 | 673 | 486 | 639 | 112 |
| 4 | 273 | 443 | 722 | 276 | 6,000 | 2,870 | 5,290 | 2,150 | 748 | 404 | 492 | 136 |
| 5 | 234 | 453 | 664 | 297 | 5,230 | 6,720 | 3,880 | 1,940 | 967 | 373 | 372 | 161 |
| 6 | 231 | 591 | 587 | 288 | 4,040 | 6,120 | 3,760 | 1,370 | 948 | 297 | 330 | 153 |
| 7 | 242 | 578 | 646 | 270 | 2,790 | 4,930 | 3,670 | 1,290 | 1,070 | 258 | 277 | 136 |
| 8 | 210 | 427 | 718 | 285 | 2,140 | 4,840 | 3,310 | 1,140 | 1,030 | 294 | 260 | 122 |
| 9 | 202 | 408 | 960 | 344 | 1,750 | 4,620 | 2,880 | 992 | 1,070 | 345 | 182 | 117 |
| 10 | 303 | 574 | 903 | 280 | 1,430 | 3,880 | 1,990 | 894 | 1,110 | 306 | 185 | 112 |
| 11 | 674 | 288 | 891 | 237 | 1,390 | 3,110 | 1,810 | 826 | 1,050 | 421 | 184 | 106 |
| 12 | 1,910 | 433 | 903 | 225 | 1,150 | 2,290 | 1,570 | 946 | 823 | 358 | 191 | 98 |
| 13 | 2,130 | 220 | 838 | 225 | 1,080 | 1,560 | 1,920 | 2,900 | 676 | 308 | 160 | 150 |
| 14 | 2,370 | 318 | 853 | 228 | 997 | 1,390 | 3,530 | 4,710 | 539 | 300 | 168 | 269 |
| 15 | 1,630 | 329 | 706 | 232 | 1,010 | 1,230 | 4,030 | 5,390 | 465 | 410 | 152 | 270 |
| 16 | 1,140 | 312 | 712 | 240 | 962 | 961 | 3,000 | 6,820 | 447 | 443 | 125 | 331 |
| 17 | 818 | 404 | 636 | 262 | 802 | 886 | 2,690 | 5,870 | 470 | 409 | 120 | 150 |
| 18 | 652 | 2,560 | 484 | 258 | 855 | 790 | 2,220 | 5,010 | 447 | 264 | 104 | 412 |
| 19 | 558 | 8,910 | 473 | 251 | 1,560 | 781 | 4,170 | 4,280 | 392 | 433 | 150 | 277 |
| 20 | 554 | 9,120 | 456 | 240 | 2,250 | 1,310 | 8,980 | 3,090 | 370 | 488 | 156 | 246 |
| 21 | 421 | 7,520 | 403 | 252 | 1,450 | 2,230 | 10,200 | 2,410 | 375 | 265 | 136 | 193 |
| 22 | 356 | 5,670 | 404 | 238 | 1,520 | 2,410 | 9,530 | 1,620 | 398 | 277 | 156 | 279 |
| 23 | 279 | 5,090 | 374 | 235 | 1,670 | 2,400 | 7,840 | 1,320 | 272 | 485 | 164 | 394 |
| 24 | 309 | 5,220 | 333 | 224 | 1,810 | 2,650 | 7,450 | 1,060 | 290 | 468 | 158 | 674 |
| 25 | 289 | 4,390 | 332 | 217 | 1,830 | 2,320 | 7,700 | 1,260 | 353 | 380 | 141 | 285 |
| 26 | 307 | 3,380 | 372 | 254 | 1,770 | 4,780 | 6,610 | 1,530 | 453 | 334 | 149 | 525 |
| 27 | 282 | 2,790 | 366 | 253 | 1,510 | 7,060 | 5,040 | 1,200 | 774 | 353 | 112 | 434 |
| 28 | 260 | 2,170 | 348 | 452 | 1,400 | 5,760 | 5,620 | 1,110 | 580 | 425 | 147 | 366 |
| 29 | 260 | 1,670 | 341 | 3,280 | ------ | 4,170 | 5,160 | 1,020 | 415 | 547 | 112 | 305 |
| 30 | 321 | 1,460 | 336 | 4,760 | ------ | 3,750 | 5,730 | 914 | 393 | 1,590 | 101 | 250 |
| 31 | 391 | ------ | 330 | 4,670 | ------ | 3,180 | ------ | 858 | ------ | 527 | 109 | ------ |
| TOTAL | 18,641 | 66,934 | 19,353 | 20,254 | 63,046 | 92,056 | 143,140 | 73,680 | 19,185 | 12,995 | 7,516 | 7,278 |
| MEAN | 601 | 2,231 | 624 | 653 | 2,252 | 2,970 | 4,771 | 2,377 | 640 | 419 | 242 | 243 |
| MAX | 2,370 | 9,120 | 1,340 | 4,760 | 6,000 | 7,060 | 10,200 | 6,820 | 1,110 | 1,590 | 899 | 674 |
| MIN | 202 | 220 | 330 | 217 | 802 | 781 | 1,570 | 826 | 272 | 258 | 101 | 98 |
| CFSM | .31 | 1.13 | .32 | .33 | 1.15 | 1.51 | 2.43 | 1.21 | .33 | .21 | .12 | .12 |
| IN. | .35 | 1.27 | .37 | .38 | 1.19 | 1.74 | 2.71 | 1.39 | .36 | .25 | .14 | .14 |

CAL YR 1969 TOTAL 687,018 MEAN 1,882 MAX 17,600 MIN 120 CFSM .96 IN 13.00
WAT YR 1970 TOTAL 544,078 MEAN 1,491 MAX 10,200 MIN 98 CFSM .76 IN 10.29

PEAK DISCHARGE (BASE, 9,500 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-19 | 2245 | 15.26 | 9,760 | 04-21 | 1330 | 16.43 | 10,400 |

## 04183500 Maumee River at Antwerp, Ohio

LOCATION.--Lat 41°11'56", long 84°44'40", in sec.22, T.3 N., R.1 E., Paulding County, on left bank 425 ft downstream from bridge on State Highway 49, 1 mile north of Antwerp, 7 miles downstream from Indiana State line, and 10 miles upstream from Marie DeLarme Creek.

DRAINAGE AREA.--2,128 sq mi.

PERIOD OF RECORD.--September 1921 to December 1935, April 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 694.90 ft above mean sea level. Prior to Sept. 13, 1925, nonrecording gage at site 400 ft upstream at same datum.

AVERAGE DISCHARGE.--45 years, 1,650 cfs (10.53 inches per year).

EXTREMES.--Current year: Maximum discharge, 11,400 cfs Apr. 21 (gage height, 14.05 ft); minimum, 124 cfs Aug. 31, Sept. 1 (gage height, 0.82 ft).
Period of record: Maximum discharge, 26,200 cfs May 20, 1943 (gage height, 20.29 ft); minimum, 24 cfs Oct. 17, 1930, June 21, 22, 1933 (gage height, 0.32 ft).
Flood of Mar. 27, 1913, estimated as 40,000 cfs.

REMARKS.--Records good except those for winter periods, which are fair. Low flow slightly regulated by powerplant at Fort Wayne, Indiana 32 miles upstream. Flow slightly regulated by upstream reservoirs. Records of chemical analyses for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1174: 1927, 1933, 1940. WSP 1387: 1922-23, 1925-27, 1934. WSP 1912: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 362 | 415 | 1,440 | 370 | 6,790 | 1,290 | 3,000 | 5,650 | 886 | 391 | 668 | 128 |
| 2 | 332 | 471 | 1,330 | 380 | 7,030 | 1,080 | 3,880 | 3,900 | 853 | 366 | 1,030 | 130 |
| 3 | 323 | 434 | 1,100 | 370 | 7,920 | 1,060 | 6,140 | 3,010 | 805 | 395 | 863 | 133 |
| 4 | 319 | 488 | 891 | 340 | 7,360 | 2,060 | 5,930 | 2,220 | 710 | 474 | 647 | 141 |
| 5 | 252 | 557 | 811 | 310 | 6,800 | 5,810 | 4,450 | 2,160 | 874 | 408 | 506 | 162 |
| 6 | 233 | 592 | 739 | 270 | 5,600 | 6,680 | 3,660 | 1,580 | 947 | 369 | 386 | 200 |
| 7 | 222 | 654 | 668 | 240 | 4,400 | 5,370 | 3,690 | 1,360 | 1,020 | 290 | 359 | 183 |
| 8 | 218 | 597 | 884 | 240 | 3,500 | 4,810 | 3,350 | 1,280 | 1,040 | 260 | 307 | 178 |
| 9 | 206 | 456 | 937 | 230 | 2,800 | 4,690 | 3,040 | 1,120 | 1,040 | 301 | 288 | 149 |
| 10 | 206 | 423 | 1,070 | 230 | 2,300 | 4,190 | 2,260 | 999 | 1,080 | 412 | 218 | 148 |
| 11 | 534 | 571 | 1,010 | 230 | 1,900 | 3,320 | 1,830 | 916 | 1,110 | 334 | 220 | 136 |
| 12 | 938 | 324 | 1,000 | 240 | 1,700 | 2,620 | 1,700 | 913 | 992 | 406 | 218 | 132 |
| 13 | 3,400 | 435 | 995 | 240 | 1,500 | 1,840 | 1,550 | 2,080 | 783 | 359 | 229 | 134 |
| 14 | 2,700 | 248 | 938 | 250 | 1,400 | 1,470 | 3,170 | 4,940 | 662 | 295 | 198 | 180 |
| 15 | 2,120 | 317 | 927 | 250 | 1,400 | 1,330 | 4,420 | 5,570 | 540 | 306 | 208 | 350 |
| 16 | 1,510 | 330 | 781 | 260 | 1,300 | 1,150 | 3,470 | 6,800 | 458 | 411 | 182 | 315 |
| 17 | 1,060 | 322 | 738 | 270 | 1,200 | 956 | 2,800 | 6,350 | 471 | 408 | 152 | 374 |
| 18 | 813 | 1,040 | 686 | 290 | 1,100 | 909 | 2,350 | 5,340 | 459 | 390 | 160 | 248 |
| 19 | 662 | 8,510 | 552 | 280 | 1,400 | 816 | 2,970 | 4,580 | 438 | 309 | 136 | 504 |
| 20 | 593 | 10,500 | 525 | 270 | 2,130 | 1,070 | 9,310 | 3,480 | 390 | 497 | 170 | 330 |
| 21 | 570 | 8,530 | 522 | 260 | 2,570 | 1,780 | 11,000 | 2,650 | 382 | 526 | 207 | 289 |
| 22 | 435 | 6,580 | 461 | 250 | 1,580 | 2,610 | 11,000 | 1,920 | 394 | 285 | 174 | 245 |
| 23 | 365 | 5,460 | 440 | 250 | 1,690 | 2,420 | 9,330 | 1,510 | 388 | 297 | 179 | 341 |
| 24 | 300 | 5,370 | 420 | 240 | 1,800 | 2,660 | 8,110 | 1,190 | 283 | 529 | 209 | 716 |
| 25 | 305 | 4,950 | 400 | 240 | 1,850 | 2,470 | 8,590 | 1,110 | 302 | 472 | 196 | 616 |
| 26 | 290 | 3,860 | 420 | 240 | 1,830 | 3,810 | 7,720 | 1,430 | 370 | 384 | 186 | 356 |
| 27 | 305 | 3,060 | 410 | 260 | 1,610 | 6,740 | 6,260 | 1,360 | 635 | 337 | 178 | 698 |
| 28 | 282 | 2,470 | 400 | 350 | 1,480 | 6,470 | 5,820 | 1,170 | 728 | 378 | 144 | 487 |
| 29 | 261 | 1,900 | 390 | 2,430 | ------ | 4,720 | 6,110 | 1,080 | 592 | 424 | 164 | 421 |
| 30 | 258 | 1,600 | 380 | 6,500 | ------ | 3,870 | 7,570 | 997 | 415 | 1,240 | 160 | 355 |
| 31 | 339 | ------ | 370 | 7,060 | ------ | 3,350 | ------ | 939 | ------ | 1,190 | 130 | ------ |
| TOTAL | 20,713 | 71,464 | 22,635 | 23,640 | 83,940 | 93,421 | 154,480 | 79,604 | 20,047 | 13,443 | 9,072 | 8,779 |
| MEAN | 668 | 2,382 | 730 | 763 | 2,998 | 3,014 | 5,149 | 2,568 | 668 | 434 | 293 | 293 |
| MAX | 3,400 | 10,500 | 1,440 | 7,060 | 7,920 | 6,740 | 11,000 | 6,800 | 1,110 | 1,240 | 1,030 | 716 |
| MIN | 206 | 248 | 370 | 230 | 1,100 | 816 | 1,550 | 913 | 283 | 260 | 130 | 128 |
| CFSM | .31 | 1.12 | .34 | .36 | 1.41 | 1.42 | 2.42 | 1.21 | .31 | .20 | .14 | .14 |
| IN. | .36 | 1.25 | .40 | .41 | 1.47 | 1.63 | 2.70 | 1.39 | .35 | .23 | .16 | .15 |

CAL YR 1969 TOTAL 732,765 MEAN 2,008 MAX 18,600 MIN 112 CFSM .94 IN 12.81
WAT YR 1970 TOTAL 601,238 MEAN 1,647 MAX 11,000 MIN 128 CFSM .77 IN 10.51

PEAK DISCHARGE (BASE, 8,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11-20 | 0600 | 13.60 | 10,800 | 04-24 | 2200 | 14.05 | 11,400 |
| 02-03 | 0500 | 11.36 | 8,100 | 04-30 | 1100 | 11.54 | 8,290 |

05515000 Kankakee River near North Liberty, Ind.

LOCATION.--Lat 41°33'50", long 86°29'50", in NW¼NE¼ sec.23, T.36 N., R.1 W., St. Joseph County, on left bank at downstream side of bridge on county highway named "New Road", 2.7 miles upstream from Little Kankakee River, and 4 miles northwest of North Liberty.

DRAINAGE AREA.--152 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 680.04 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission). Prior to June 26, 1956, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--19 years, 144 cfs (12.87 inches per year).

EXTREMES.--Current year: Maximum discharge, 492 cfs Apr. 20, 21 (gage height, 7.79 ft); minimum, 80 cfs Sept. 2, 3 (gage height, 2.86 ft).
Period of record: Maximum discharge, 686 cfs Oct. 10, 1954; maximum gage height, 9.04 ft June 27, 1968; minimum discharge, 44 cfs Sept. 9, 10, 1964; minimum gage height, 1.60 ft Aug. 19, 1957.

REMARKS.--Records good except those for parts of January and February, which are fair.

REVISIONS (WATER YEARS).--WSP 1338: Drainage area. WSP 1915: 1952, 1956-59.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 86 | 133 | 138 | 115 | 164 | 123 | 195 | 215 | 152 | 133 | 129 | 82 |
| 2 | 85 | 141 | 136 | 115 | 181 | 123 | 273 | 201 | 195 | 130 | 121 | 81 |
| 3 | 84 | 138 | 135 | 114 | 173 | 132 | 296 | 188 | 191 | 148 | 116 | 82 |
| 4 | 84 | 140 | 133 | 113 | 170 | 172 | 327 | 182 | 178 | 136 | 111 | 86 |
| 5 | 84 | 151 | 131 | 112 | 150 | 178 | 364 | 175 | 171 | 130 | 108 | 85 |
| 6 | 86 | 147 | 130 | 105 | 138 | 166 | 390 | 168 | 164 | 121 | 106 | 85 |
| 7 | 98 | 140 | 132 | 100 | 134 | 158 | 359 | 165 | 156 | 114 | 103 | 97 |
| 8 | 101 | 135 | 138 | 100 | 132 | 150 | 322 | 162 | 145 | 116 | 101 | 97 |
| 9 | 97 | 131 | 137 | 102 | 134 | 143 | 290 | 156 | 138 | 122 | 99 | 95 |
| 10 | 97 | 128 | 136 | 108 | 133 | 139 | 252 | 152 | 136 | 119 | 98 | 94 |
| 11 | 125 | 126 | 135 | 110 | 131 | 135 | 228 | 153 | 136 | 115 | 96 | 91 |
| 12 | 141 | 124 | 131 | 110 | 128 | 132 | 212 | 160 | 128 | 111 | 95 | 89 |
| 13 | 178 | 124 | 130 | 108 | 126 | 130 | 210 | 207 | 135 | 100 | 96 | 91 |
| 14 | 185 | 124 | 130 | 106 | 123 | 129 | 217 | 272 | 145 | 109 | 93 | 98 |
| 15 | 157 | 122 | 128 | 105 | 122 | 126 | 202 | 386 | 140 | 168 | 91 | 123 |
| 16 | 142 | 120 | 126 | 106 | 120 | 124 | 189 | 355 | 132 | 144 | 90 | 130 |
| 17 | 133 | 130 | 125 | 107 | 119 | 123 | 181 | 307 | 133 | 131 | 88 | 121 |
| 18 | 128 | 165 | 125 | 106 | 122 | 123 | 175 | 262 | 134 | 123 | 88 | 117 |
| 19 | 127 | 237 | 124 | 105 | 131 | 122 | 199 | 231 | 124 | 127 | 93 | 113 |
| 20 | 138 | 233 | 123 | 100 | 127 | 126 | 431 | 210 | 122 | 176 | 110 | 108 |
| 21 | 153 | 204 | 122 | 100 | 124 | 126 | 481 | 194 | 147 | 165 | 106 | 106 |
| 22 | 144 | 187 | 122 | 105 | 126 | 125 | 428 | 182 | 141 | 147 | 102 | 108 |
| 23 | 136 | 188 | 120 | 110 | 134 | 124 | 372 | 180 | 132 | 137 | 104 | 117 |
| 24 | 131 | 179 | 118 | 110 | 136 | 123 | 324 | 178 | 127 | 134 | 100 | 176 |
| 25 | 129 | 170 | 118 | 109 | 138 | 123 | 283 | 185 | 124 | 130 | 96 | 173 |
| 26 | 126 | 162 | 118 | 114 | 133 | 128 | 254 | 177 | 174 | 125 | 93 | 151 |
| 27 | 123 | 154 | 116 | 115 | 130 | 143 | 231 | 165 | 219 | 119 | 91 | 146 |
| 28 | 122 | 148 | 116 | 119 | 124 | 163 | 218 | 159 | 180 | 115 | 89 | 136 |
| 29 | 120 | 145 | 116 | 177 | ------ | 167 | 209 | 154 | 154 | 109 | 87 | 130 |
| 30 | 119 | 142 | 116 | 184 | ------ | 164 | 212 | 152 | 138 | 117 | 85 | 125 |
| 31 | 120 | ------ | 116 | 169 | ------ | 169 | ------ | 149 | ------ | 148 | 84 | ------ |
| TOTAL | 3,779 | 4,568 | 3,921 | 3,559 | 3,803 | 4,309 | 8,324 | 6,182 | 4,491 | 4,019 | 3,069 | 3,333 |
| MEAN | 122 | 152 | 126 | 115 | 136 | 139 | 277 | 199 | 150 | 130 | 99.0 | 111 |
| MAX | 185 | 237 | 138 | 184 | 181 | 178 | 481 | 386 | 219 | 176 | 129 | 176 |
| MIN | 84 | 120 | 116 | 100 | 119 | 122 | 175 | 149 | 122 | 100 | 84 | 81 |
| CFSM | .80 | 1.00 | .83 | .76 | .89 | .91 | 1.82 | 1.31 | .99 | .86 | .65 | .73 |
| IN. | .92 | 1.12 | .96 | .87 | .93 | 1.05 | 2.04 | 1.51 | 1.10 | .98 | .75 | .82 |

CAL YR 1969 TOTAL 56,231 MEAN 154 MAX 461 MIN 72 CFSM 1.01 IN 13.76
WAT YR 1970 TOTAL 53,357 MEAN 146 MAX 481 MIN 81 CFSM .96 IN 13.06

## 05515500 Kankakee River at Davis, Ind.

LOCATION.--Lat 41°24'00", long 86°42'04", in SE¼NE¼ sec.13, T.34 N., R.3 W., Starke County, on left bank at downstream side of bridge on U.S. Highway 30 at Davis, 0.5 mile downstream from Mill Creek, and 4 miles east of Hanna.

DRAINAGE AREA.--508 sq mi.

PERIOD OF RECORD.--July 1905 to July 1906 and October 1924 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 664.68 ft above mean sea level. July 13, 1905, to July 21, 1906, nonrecording gage at site 50 ft downstream at different datum. July 28, 1925, to May 18, 1929, nonrecording gage on bridge 0.5 mile downstream at different datum. Apr. 19, 1931, to Nov. 3, 1953, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--46 years (1924-70), 483 cfs (12.91 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,200 cfs Apr. 23 (gage height, 11.50 ft); minimum, 275 cfs Oct. 5 (gage height, 5.88 ft).
Period of record: Maximum discharge observed, about 1,700 cfs Dec. 15, 1927 (gage height, 9.50 ft, site and datum then in use), from rating curve extended above 520 cfs; maximum gage height at present site and datum, 11.76 ft Oct. 16-18, 1954; minimum discharge observed, 154 cfs Aug. 30 to Sept. 3, 1941; minimum gage height observed, 2.97 ft Aug. 14, 1934.

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

REVISIONS (WATER YEARS).--WSP 1338: 1953, drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 280 | 413 | 450 | 372 | 536 | 401 | 664 | 932 | 571 | 485 | 445 | 308 |
| 2 | 279 | 437 | 439 | 369 | 546 | 397 | 917 | 888 | 774 | 463 | 413 | 306 |
| 3 | 279 | 433 | 435 | 365 | 530 | 416 | 1,060 | 824 | 819 | 481 | 391 | 311 |
| 4 | 278 | 447 | 430 | 357 | 497 | 495 | 1,110 | 770 | 759 | 489 | 378 | 318 |
| 5 | 277 | 460 | 423 | 350 | 528 | 555 | 1,160 | 713 | 710 | 463 | 369 | 316 |
| 6 | 277 | 461 | 421 | 335 | 508 | 547 | 1,180 | 663 | 685 | 442 | 363 | 315 |
| 7 | 306 | 446 | 425 | 320 | 464 | 522 | 1,160 | 625 | 641 | 422 | 356 | 352 |
| 8 | 311 | 433 | 442 | 320 | 445 | 498 | 1,120 | 597 | 590 | 420 | 351 | 358 |
| 9 | 303 | 422 | 449 | 335 | 441 | 478 | 1,060 | 568 | 554 | 430 | 348 | 347 |
| 10 | 304 | 413 | 444 | 350 | 435 | 463 | 987 | 545 | 530 | 424 | 344 | 337 |
| 11 | 380 | 406 | 441 | 350 | 431 | 450 | 912 | 526 | 512 | 416 | 341 | 327 |
| 12 | 443 | 400 | 430 | 350 | 423 | 444 | 847 | 521 | 495 | 402 | 338 | 322 |
| 13 | 523 | 393 | 421 | 350 | 415 | 430 | 813 | 662 | 516 | 388 | 340 | 333 |
| 14 | 568 | 394 | 417 | 350 | 403 | 422 | 799 | 907 | 526 | 389 | 337 | 356 |
| 15 | 532 | 389 | 412 | 350 | 399 | 414 | 760 | 1,120 | 510 | 490 | 329 | 429 |
| 16 | 484 | 384 | 408 | 350 | 394 | 406 | 712 | 1,180 | 493 | 518 | 326 | 459 |
| 17 | 448 | 398 | 402 | 350 | 390 | 401 | 659 | 1,190 | 496 | 470 | 321 | 434 |
| 18 | 424 | 453 | 400 | 350 | 392 | 398 | 612 | 1,140 | 551 | 439 | 319 | 409 |
| 19 | 410 | 606 | 398 | 344 | 412 | 397 | 668 | 1,070 | 521 | 440 | 332 | 392 |
| 20 | 426 | 693 | 393 | 320 | 409 | 407 | 1,000 | 984 | 483 | 513 | 374 | 377 |
| 21 | 454 | 658 | 390 | 320 | 401 | 418 | 1,150 | 891 | 524 | 537 | 365 | 367 |
| 22 | 449 | 607 | 388 | 335 | 404 | 417 | 1,180 | 808 | 575 | 493 | 352 | 383 |
| 23 | 428 | 585 | 384 | 350 | 416 | 410 | 1,190 | 739 | 537 | 457 | 362 | 453 |
| 24 | 412 | 571 | 377 | 350 | 431 | 405 | 1,180 | 718 | 505 | 443 | 353 | 750 |
| 25 | 402 | 545 | 380 | 350 | 440 | 404 | 1,150 | 845 | 481 | 431 | 342 | 857 |
| 26 | 395 | 524 | 379 | 370 | 431 | 423 | 1,100 | 860 | 490 | 420 | 333 | 752 |
| 27 | 384 | 503 | 376 | 370 | 425 | 474 | 1,050 | 764 | 642 | 406 | 326 | 672 |
| 28 | 380 | 482 | 372 | 368 | 409 | 532 | 991 | 678 | 622 | 396 | 322 | 604 |
| 29 | 375 | 468 | 371 | 495 | ------ | 558 | 928 | 622 | 560 | 389 | 319 | 546 |
| 30 | 372 | 460 | 372 | 596 | ------ | 564 | 920 | 600 | 514 | 406 | 314 | 511 |
| 31 | 374 | ------ | 374 | 568 | ------ | 582 | ------ | 574 | ------ | 441 | 310 | ------ |
| TOTAL | 11,957 | 14,284 | 12,643 | 11,409 | 12,355 | 14,128 | 29,039 | 24,524 | 17,186 | 13,803 | 10,813 | 13,001 |
| MEAN | 386 | 476 | 408 | 368 | 441 | 456 | 968 | 791 | 573 | 445 | 349 | 433 |
| MAX | 568 | 693 | 450 | 596 | 546 | 582 | 1,190 | 1,190 | 819 | 537 | 445 | 857 |
| MIN | 277 | 384 | 371 | 320 | 390 | 397 | 612 | 521 | 481 | 388 | 310 | 306 |
| CFSM | .76 | .94 | .80 | .72 | .87 | .90 | 1.91 | 1.56 | 1.13 | .88 | .69 | .85 |
| IN. | .88 | 1.05 | .93 | .84 | .90 | 1.03 | 2.13 | 1.80 | 1.26 | 1.01 | .79 | .95 |

CAL YR 1969 TOTAL 198,787 MEAN 545 MAX 1,240 MIN 268 CFSM 1.07 IN 14.56
WAT YR 1970 TOTAL 185,142 MEAN 507 MAX 1,190 MIN 277 CFSM 1.00 IN 13.56

## 05516000 Yellow River near Bremen, Ind.

LOCATION.--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 4 th Road, 0.5 mile downstream from Bunch ditch, 2 miles southwest of Bremen, and 4 miles upstream from Dausman ditch.

DRAINAGE AREA.--132 sq mi.

PERIOD OF RECORD.--August 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 784.63 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission).

AVERAGE DISCHARGE.--15 years, 98.2 cfs (10.10 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,110 cfs Apr. 21 (gage height, 12.79 ft); minimum, 8.5 cfs Aug. 30 (gage height, 1.35 ft).
Period of record: Maximum discharge, 1,650 cfs Dec. 26, 1965 (gage height, 13.99 ft); minimum, 6.2 cfs Aug. 23, Oct. 11-13, 1957, Oct. 17, 1964; minimum gage height, 0.81 ft Sept. 10, 1955.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 10 | 47 | 54 | 28 | 179 | 42 | 446 | 192 | 72 | 48 | 97 | 9.3 |
| 2 | 12 | 72 | 47 | 27 | 269 | 42 | 847 | 138 | 103 | 43 | 120 | 9.2 |
| 3 | 11 | 45 | 48 | 25 | 180 | 56 | 930 | 113 | 89 | 47 | 47 | 11 |
| 4 | 10 | 39 | 42 | 22 | 120 | 313 | 942 | 99 | 74 | 44 | 30 | 12 |
| 5 | 10 | 48 | 39 | 20 | 90 | 265 | 951 | 88 | 96 | 38 | 24 | 10 |
| 6 | 10 | 46 | 39 | 19 | 65 | 164 | 871 | 79 | 108 | 35 | 20 | 9.9 |
| 7 | 16 | 37 | 47 | 18 | 62 | 133 | 672 | 73 | 79 | 32 | 18 | 12 |
| 8 | 14 | 32 | 85 | 19 | 59 | 112 | 483 | 69 | 63 | 34 | 16 | 13 |
| 9 | 12 | 29 | 74 | 19 | 56 | 94 | 348 | 62 | 55 | 33 | 16 | 11 |
| 10 | 12 | 27 | 64 | 20 | 52 | 83 | 249 | 57 | 51 | 30 | 16 | 10 |
| 11 | 17 | 25 | 60 | 20 | 49 | 71 | 192 | 52 | 47 | 29 | 14 | 9.8 |
| 12 | 27 | 24 | 51 | 20 | 47 | 66 | 164 | 57 | 42 | 28 | 14 | 9.6 |
| 13 | 40 | 23 | 46 | 20 | 44 | 60 | 216 | 287 | 42 | 27 | 14 | 15 |
| 14 | 34 | 22 | 47 | 20 | 42 | 56 | 326 | 569 | 96 | 30 | 13 | 17 |
| 15 | 26 | 21 | 42 | 20 | 40 | 51 | 232 | 853 | 61 | 38 | 12 | 54 |
| 16 | 20 | 20 | 37 | 20 | 38 | 45 | 178 | 756 | 48 | 33 | 12 | 54 |
| 17 | 18 | 25 | 37 | 20 | 38 | 42 | 147 | 499 | 45 | 27 | 12 | 28 |
| 18 | 16 | 76 | 37 | 20 | 51 | 44 | 124 | 299 | 143 | 25 | 11 | 21 |
| 19 | 16 | 444 | 37 | 19 | 88 | 43 | 381 | 192 | 76 | 33 | 13 | 18 |
| 20 | 16 | 394 | 33 | 18 | 59 | 57 | 979 | 141 | 52 | 35 | 15 | 15 |
| 21 | 24 | 190 | 33 | 19 | 59 | 70 | 1,090 | 113 | 86 | 28 | 13 | 14 |
| 22 | 24 | 131 | 34 | 20 | 57 | 68 | 1,020 | 94 | 142 | 24 | 13 | 82 |
| 23 | 20 | 155 | 28 | 20 | 81 | 65 | 776 | 97 | 80 | 23 | 13 | 173 |
| 24 | 18 | 127 | 40 | 20 | 77 | 62 | 533 | 150 | 61 | 23 | 12 | 103 |
| 25 | 17 | 105 | 31 | 20 | 87 | 59 | 371 | 520 | 52 | 22 | 11 | 68 |
| 26 | 16 | 89 | 30 | 21 | 65 | 86 | 265 | 372 | 83 | 20 | 10 | 59 |
| 27 | 16 | 78 | 28 | 23 | 59 | 187 | 208 | 195 | 249 | 21 | 9.9 | 75 |
| 28 | 16 | 68 | 26 | 38 | 43 | 301 | 171 | 129 | 109 | 22 | 9.8 | 53 |
| 29 | 15 | 63 | 27 | 414 | ------ | 263 | 142 | 100 | 72 | 20 | 9.6 | 39 |
| 30 | 14 | 57 | 28 | 456 | ------ | 219 | 164 | 85 | 57 | 23 | 9.1 | 32 |
| 31 | 15 | ------ | 27 | 236 | ------ | 305 | ------ | 74 | ------ | 37 | 9.3 | ------ |
| TOTAL | 542 | 2,559 | 1,298 | 1,701 | 2,156 | 3,524 | 14,418 | 6,604 | 2,433 | 952 | 653.7 | 1,046.8 |
| MEAN | 17.5 | 85.3 | 41.9 | 54.9 | 77.0 | 114 | 481 | 213 | 81.1 | 30.7 | 21.1 | 34.9 |
| MAX | 40 | 444 | 85 | 456 | 269 | 313 | 1,090 | 853 | 249 | 48 | 120 | 173 |
| MIN | 10 | 20 | 26 | 18 | 38 | 42 | 124 | 52 | 42 | 20 | 9.1 | 9.2 |
| CFSM | .13 | .65 | .32 | .42 | .58 | .86 | 3.64 | 1.61 | .61 | .23 | .16 | .26 |
| IN. | .15 | .72 | .37 | .48 | .61 | .99 | 4.06 | 1.86 | .69 | .27 | .18 | .30 |

CAL YR 1969 TOTAL 36,615.0 MEAN 100 MAX 1,080 MIN 10 CFSM .76 IN 10.32
WAT YR 1970 TOTAL 37,887.5 MEAN 104 MAX 1,090 MIN 9.1 CFSM .79 IN 10.68

PEAK DISCHARGE (BASE, 800 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-05 | 0445 | 11.77 | 963 | 05-15 | 1330 | 10.93 | 870 |
| 04-21 | 1615 | 12.79 | 1,110 | | | | |

## 05516500 Yellow River at Plymouth, Ind.

LOCATION.--Lat 41°20'25", long 86°18'16", in SE¼NW¼ sec.13, T.33 N., R.2 E., Marshall County, on left bank 50 ft upstream from LaPorte Street footbridge in Plymouth, 1.1 miles downstream from Elmer Seltenright (formerly Baker) ditch, and 8.1 miles upstream from Wolf Creek.

DRAINAGE AREA.--284 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 764.78 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission). Prior to Aug. 27, 1959, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--22 years, 244 cfs (11.67 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,960 cfs Apr. 23 (gage height, 12.49 ft); minimum, 34 cfs Oct. 1, 2; (gage height, 4.21 ft).
Period of record: Maximum discharge, 5,390 cfs Oct. 12, 13, 1954 (gage height, 17.13 ft); minimum, 12 cfs, occurred during period Nov. 20 to Dec. 9, 1964; minimum gage height observed, 3.49 ft Jan. 11, 14, 1954.

REMARKS.--Records fair.

REVISIONS (WATER YEARS).--WSP 1338: 1950-51, drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 34 | 129 | 169 | 81 | 430 | 90 | 804 | 550 | 216 | 121 | 187 | 38 |
| 2 | 35 | 234 | 156 | 79 | 460 | 90 | 1,160 | 440 | 282 | 110 | 348 | 37 |
| 3 | 37 | 176 | 146 | 67 | 440 | 90 | 1,420 | 344 | 278 | 116 | 192 | 40 |
| 4 | 35 | 144 | 137 | 60 | 470 | 120 | 1,650 | 298 | 228 | 114 | 119 | 45 |
| 5 | 35 | 152 | 132 | 54 | 350 | 600 | 1,730 | 286 | 244 | 100 | 94 | 43 |
| 6 | 35 | 152 | 127 | 52 | 220 | 500 | 1,670 | 230 | 316 | 87 | 83 | 44 |
| 7 | 48 | 130 | 137 | 50 | 160 | 400 | 1,560 | 201 | 244 | 80 | 73 | 47 |
| 8 | 52 | 113 | 208 | 52 | 150 | 340 | 1,330 | 201 | 192 | 111 | 66 | 46 |
| 9 | 45 | 100 | 212 | 52 | 140 | 280 | 1,020 | 187 | 165 | 122 | 65 | 46 |
| 10 | 42 | 94 | 192 | 55 | 135 | 230 | 689 | 172 | 151 | 97 | 62 | 43 |
| 11 | 54 | 91 | 179 | 54 | 125 | 201 | 510 | 160 | 137 | 87 | 60 | 38 |
| 12 | 82 | 87 | 163 | 54 | 120 | 185 | 438 | 169 | 126 | 79 | 56 | 37 |
| 13 | 134 | 81 | 143 | 54 | 110 | 172 | 427 | 636 | 129 | 72 | 56 | 60 |
| 14 | 124 | 78 | 134 | 54 | 100 | 158 | 634 | 1,080 | 199 | 81 | 54 | 70 |
| 15 | 92 | 76 | 126 | 55 | 110 | 143 | 594 | 1,520 | 203 | 113 | 53 | 130 |
| 16 | 74 | 70 | 116 | 55 | 113 | 132 | 469 | 1,580 | 153 | 100 | 51 | 130 |
| 17 | 64 | 78 | 113 | 54 | 108 | 122 | 396 | 1,520 | 140 | 80 | 49 | 90 |
| 18 | 57 | 189 | 111 | 54 | 116 | 124 | 334 | 1,250 | 236 | 73 | 47 | 80 |
| 19 | 54 | 730 | 111 | 52 | 188 | 122 | 598 | 799 | 244 | 91 | 56 | 70 |
| 20 | 65 | 977 | 102 | 50 | 151 | 143 | 1,320 | 510 | 154 | 199 | 62 | 60 |
| 21 | 79 | 844 | 97 | 52 | 134 | 185 | 1,720 | 388 | 146 | 161 | 55 | 56 |
| 22 | 78 | 502 | 101 | 54 | 148 | 183 | 1,900 | 320 | 260 | 101 | 60 | 180 |
| 23 | 67 | 462 | 77 | 54 | 156 | 183 | 1,910 | 284 | 197 | 86 | 66 | 400 |
| 24 | 61 | 438 | 83 | 54 | 178 | 174 | 1,690 | 310 | 153 | 77 | 60 | 250 |
| 25 | 57 | 345 | 94 | 54 | 210 | 163 | 1,310 | 653 | 132 | 73 | 53 | 160 |
| 26 | 55 | 290 | 90 | 58 | 150 | 238 | 905 | 864 | 135 | 70 | 52 | 130 |
| 27 | 52 | 254 | 84 | 62 | 151 | 513 | 623 | 590 | 358 | 70 | 49 | 160 |
| 28 | 50 | 220 | 80 | 93 | 116 | 722 | 513 | 372 | 276 | 113 | 47 | 120 |
| 29 | 48 | 203 | 80 | 635 | ------ | 778 | 440 | 294 | 176 | 114 | 45 | 90 |
| 30 | 46 | 185 | 91 | 1,010 | ------ | 636 | 469 | 250 | 142 | 244 | 43 | 70 |
| 31 | 49 | ------ | 81 | 852 | ------ | 660 | ------ | 220 | ------ | 192 | 38 | ------ |
| TOTAL | 1,940 | 7,624 | 3,862 | 4,116 | 5,439 | 8,677 | 30,233 | 16,678 | 6,012 | 3,334 | 2,401 | 2,810 |
| MEAN | 59.4 | 254 | 125 | 133 | 194 | 280 | 1,008 | 538 | 200 | 108 | 77.5 | 93.7 |
| MAX | 134 | 977 | 212 | 1,010 | 470 | 778 | 1,910 | 1,580 | 358 | 244 | 348 | 400 |
| MIN | 34 | 70 | 77 | 50 | 100 | 90 | 334 | 160 | 126 | 70 | 38 | 37 |
| CFSM | .21 | .89 | .44 | .47 | .68 | .99 | 3.55 | 1.89 | .70 | .38 | .27 | .33 |
| IN. | .24 | 1.00 | .51 | .54 | .71 | 1.14 | 3.96 | 2.18 | .79 | .44 | .31 | .37 |

CAL YR 1969 TOTAL 98,419 MEAN 270 MAX 1,930 MIN 34 CFSM .95 IN 12.89
WAT YR 1970 TOTAL 93,026 MEAN 255 MAX 1,910 MIN 34 CFSM .90 IN 12.19

05517000 Yellow River at Knox, Ind.

LOCATION.--Lat 41°18'10", long 86°37'14", in SW¼SW¼ sec.14, T.33 N., R.2 W., Starke County, on right bank 40 ft upstream from bridge on U.S. Highway 35 in Knox, 1.5 miles downstream from Eagle Creek, and 9 miles upstream from mouth.

DRAINAGE AREA.--425 sq mi.

PERIOD OF RECORD.--August 1905 to July 1906, August 1943 to current year.

GAGE.--Water-stage recorder. Datum of gage is 679.93 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission). 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.

AVERAGE DISCHARGE.--27 years (1943-70), 377 cfs (12.05 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,300 cfs Apr. 24 (gage height, 8.78 ft); minimum, 145 cfs Aug. 31, Sept. 1, 2; minimum gage height, 5.28 ft Sept. 1-3.
Period of record: Maximum discharge, 5,660 cfs Oct. 15, 16, 1954 (gage height, 13.75 ft); minimum, 39 cfs Jan. 11, 1957, result of freezeup; minimum gage height, 3.96 ft Oct. 27, 1967.

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

REVISIONS (WATER YEARS).--WSP 1278: 1952. WSP 1338: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 168 | 216 | 267 | 204 | 707 | 195 | 515 | 539 | 288 | 241 | 234 | 146 |
| 2 | 169 | 280 | 259 | 203 | 497 | 193 | 713 | 521 | 317 | 230 | 237 | 146 |
| 3 | 170 | 311 | 250 | 211 | 514 | 197 | 916 | 444 | 337 | 227 | 280 | 148 |
| 4 | 169 | 280 | 247 | 218 | 548 | 234 | 1,130 | 384 | 320 | 231 | 224 | 151 |
| 5 | 168 | 262 | 239 | 195 | 394 | 389 | 1,410 | 344 | 300 | 224 | 198 | 153 |
| 6 | 167 | 260 | 235 | 184 | 334 | 494 | 1,580 | 316 | 316 | 217 | 189 | 152 |
| 7 | 172 | 256 | 235 | 182 | 259 | 386 | 1,600 | 293 | 331 | 211 | 182 | 157 |
| 8 | 178 | 242 | 249 | 185 | 237 | 319 | 1,480 | 279 | 293 | 216 | 178 | 162 |
| 9 | 176 | 230 | 275 | 192 | 230 | 287 | 1,240 | 265 | 265 | 233 | 175 | 162 |
| 10 | 174 | 224 | 277 | 200 | 225 | 264 | 942 | 253 | 251 | 231 | 171 | 159 |
| 11 | 186 | 219 | 264 | 197 | 219 | 246 | 628 | 244 | 242 | 218 | 169 | 157 |
| 12 | 200 | 216 | 254 | 195 | 214 | 232 | 458 | 246 | 236 | 212 | 168 | 155 |
| 13 | 233 | 211 | 244 | 193 | 208 | 225 | 405 | 533 | 266 | 207 | 165 | 160 |
| 14 | 249 | 209 | 235 | 194 | 215 | 218 | 406 | 1,070 | 277 | 210 | 162 | 168 |
| 15 | 238 | 206 | 233 | 195 | 197 | 211 | 489 | 1,490 | 290 | 218 | 161 | 189 |
| 16 | 220 | 205 | 230 | 195 | 198 | 205 | 464 | 1,820 | 278 | 224 | 159 | 201 |
| 17 | 208 | 207 | 224 | 197 | 193 | 200 | 388 | 1,830 | 254 | 217 | 156 | 205 |
| 18 | 200 | 233 | 221 | 197 | 192 | 198 | 339 | 1,710 | 267 | 208 | 155 | 194 |
| 19 | 197 | 387 | 219 | 191 | 204 | 198 | 389 | 1,390 | 309 | 225 | 155 | 190 |
| 20 | 198 | 629 | 218 | 178 | 224 | 202 | 828 | 913 | 293 | 239 | 160 | 182 |
| 21 | 207 | 750 | 215 | 183 | 211 | 210 | 1,270 | 587 | 263 | 268 | 157 | 177 |
| 22 | 218 | 736 | 211 | 195 | 202 | 221 | 1,770 | 463 | 258 | 242 | 158 | 186 |
| 23 | 217 | 523 | 212 | 198 | 208 | 221 | 2,100 | 401 | 297 | 216 | 162 | 269 |
| 24 | 207 | 464 | 223 | 197 | 218 | 219 | 2,240 | 370 | 268 | 208 | 158 | 372 |
| 25 | 200 | 430 | 212 | 199 | 221 | 216 | 1,980 | 388 | 244 | 203 | 155 | 335 |
| 26 | 195 | 377 | 210 | 207 | 223 | 240 | 1,450 | 573 | 251 | 198 | 152 | 284 |
| 27 | 193 | 340 | 206 | 215 | 208 | 306 | 967 | 685 | 282 | 194 | 150 | 264 |
| 28 | 191 | 312 | 204 | 225 | 205 | 440 | 650 | 518 | 371 | 191 | 150 | 264 |
| 29 | 189 | 291 | 202 | 346 | ------ | 545 | 524 | 378 | 314 | 201 | 149 | 249 |
| 30 | 188 | 277 | 203 | 755 | ------ | 572 | 500 | 328 | 263 | 227 | 149 | 226 |
| 31 | 190 | ------ | 205 | 853 | ------ | 502 | ------ | 298 | ------ | 262 | 146 | ------ |
| TOTAL | 6,035 | 9,783 | 7,178 | 7,479 | 7,705 | 8,785 | 29,771 | 19,873 | 8,541 | 6,849 | 5,364 | 5,963 |
| MEAN | 195 | 326 | 232 | 241 | 275 | 283 | 992 | 641 | 285 | 221 | 173 | 199 |
| MAX | 249 | 750 | 277 | 853 | 707 | 572 | 2,240 | 1,830 | 371 | 268 | 280 | 372 |
| MIN | 167 | 205 | 202 | 178 | 192 | 193 | 339 | 244 | 236 | 191 | 146 | 146 |
| CFSM | .46 | .77 | .55 | .57 | .65 | .67 | 2.33 | 1.51 | .67 | .52 | .41 | .47 |
| IN. | .53 | .86 | .63 | .65 | .67 | .77 | 2.61 | 1.74 | .75 | .60 | .47 | .52 |

CAL YR 1969 TOTAL 137,680 MEAN 377 MAX 2,230 MIN 136 CFSM .89 IN 12.05
WAT YR 1970 TOTAL 123,326 MEAN 338 MAX 2,240 MIN 146 CFSM .80 IN 10.79

PEAK DISCHARGE (BASE, 1,600 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-06 | 2230 | 8.18 | 1,640 | 05-16 | 1415 | 8.33 | 1,860 |
| 04-24 | 1130 | 8.78 | 2,300 | | | | |

## 05517500 Kankakee River at Dunns Bridge, Ind.

LOCATION.--Lat 41°13'17", long 86°57'52", in NE¼SE¼ sec.15, T.32 N., R.5 W., Jasper County, on left bank at downstream side of county highway bridge at Dunns Bridge, 1.8 miles north of Tefft, and 3.5 miles upstream from Davis ditch.

DRAINAGE AREA.--1,308 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 649.65 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission). Prior to July 17, 1956, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--22 years, 1,251 cfs (12.99 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,450 cfs Apr. 27 (gage height, 11.00 ft); minimum, 500 cfs Oct. 2, 6 (gage height, 2.64 ft).
Period of record: Maximum discharge, 5,300 cfs Oct. 22, 1954 (gage height, 13.20 ft); minimum daily discharge, 280 cfs Jan. 25-29, 1963, result of freezeup; minimum gage height, 1.87 ft Sept. 9-19, 1964.

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

REVISIONS (WATER YEARS).--WSP 1338: Drainage area. WSP 1728: 1954(m)

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 506 | 843 | 1,200 | 864 | 1,700 | 1,070 | 1,870 | 2,930 | 1,690 | 1,230 | 1,010 | 521 |
| 2 | 503 | 970 | 1,160 | 848 | 1,700 | 979 | 2,140 | 2,830 | 1,780 | 1,150 | 990 | 513 |
| 3 | 506 | 1,040 | 1,110 | 828 | 1,630 | 979 | 2,440 | 2,710 | 1,940 | 1,120 | 950 | 540 |
| 4 | 506 | 1,060 | 1,070 | 796 | 1,490 | 1,130 | 2,630 | 2,560 | 1,960 | 1,140 | 920 | 564 |
| 5 | 506 | 1,100 | 1,040 | 795 | 1,420 | 1,330 | 2,770 | 2,400 | 1,910 | 1,120 | 890 | 568 |
| 6 | 503 | 1,120 | 1,020 | 780 | 1,400 | 1,440 | 2,900 | 2,230 | 1,840 | 1,060 | 840 | 556 |
| 7 | 539 | 1,100 | 1,030 | 750 | 1,380 | 1,460 | 3,010 | 2,070 | 1,780 | 1,010 | 810 | 589 |
| 8 | 573 | 1,060 | 1,060 | 720 | 1,310 | 1,380 | 3,080 | 1,930 | 1,700 | 984 | 780 | 665 |
| 9 | 568 | 1,020 | 1,090 | 700 | 1,270 | 1,320 | 3,120 | 1,810 | 1,590 | 1,030 | 760 | 680 |
| 10 | 558 | 986 | 1,110 | 670 | 1,250 | 1,280 | 3,100 | 1,710 | 1,480 | 1,040 | 740 | 652 |
| 11 | 671 | 967 | 1,110 | 640 | 1,200 | 1,210 | 3,030 | 1,620 | 1,430 | 1,010 | 720 | 615 |
| 12 | 873 | 948 | 1,090 | 620 | 1,150 | 1,160 | 2,880 | 1,560 | 1,370 | 949 | 710 | 590 |
| 13 | 1,130 | 929 | 1,060 | 600 | 1,090 | 1,120 | 2,710 | 1,860 | 1,360 | 915 | 690 | 629 |
| 14 | 1,310 | 907 | 1,040 | 600 | 1,040 | 1,070 | 2,540 | 2,380 | 1,480 | 884 | 680 | 687 |
| 15 | 1,290 | 893 | 1,020 | 600 | 1,020 | 1,030 | 2,410 | 2,740 | 1,480 | 955 | 660 | 810 |
| 16 | 1,170 | 873 | 1,000 | 600 | 985 | 1,000 | 2,330 | 2,960 | 1,450 | 1,070 | 650 | 1,010 |
| 17 | 1,050 | 871 | 985 | 580 | 970 | 987 | 2,230 | 3,120 | 1,400 | 1,070 | 630 | 1,040 |
| 18 | 981 | 938 | 964 | 570 | 964 | 983 | 2,100 | 3,230 | 1,370 | 1,030 | 601 | 986 |
| 19 | 936 | 1,180 | 946 | 560 | 1,040 | 964 | 2,080 | 3,290 | 1,410 | 1,060 | 601 | 921 |
| 20 | 939 | 1,490 | 925 | 540 | 1,070 | 972 | 2,360 | 3,280 | 1,380 | 1,200 | 655 | 857 |
| 21 | 1,000 | 1,690 | 911 | 530 | 1,060 | 999 | 2,680 | 3,160 | 1,370 | 1,270 | 691 | 808 |
| 22 | 1,030 | 1,800 | 903 | 520 | 1,050 | 1,020 | 2,900 | 3,000 | 1,420 | 1,250 | 665 | 813 |
| 23 | 996 | 1,800 | 887 | 520 | 1,050 | 1,010 | 3,070 | 2,800 | 1,420 | 1,130 | 686 | 1,040 |
| 24 | 942 | 1,700 | 845 | 560 | 1,060 | 997 | 3,190 | 2,580 | 1,400 | 1,040 | 687 | 1,660 |
| 25 | 906 | 1,630 | 818 | 620 | 1,100 | 996 | 3,320 | 2,400 | 1,310 | 1,000 | 650 | 2,020 |
| 26 | 885 | 1,560 | 851 | 750 | 1,080 | 1,050 | 3,420 | 2,290 | 1,250 | 980 | 616 | 2,040 |
| 27 | 842 | 1,480 | 843 | 950 | 1,080 | 1,160 | 3,440 | 2,260 | 1,390 | 920 | 601 | 1,930 |
| 28 | 838 | 1,380 | 839 | 1,200 | 1,080 | 1,340 | 3,380 | 2,220 | 1,490 | 900 | 585 | 1,780 |
| 29 | 807 | 1,310 | 845 | 1,500 | ------ | 1,560 | 3,230 | 2,100 | 1,510 | 860 | 567 | 1,640 |
| 30 | 799 | 1,250 | 872 | 1,650 | ------ | 1,700 | 3,070 | 1,950 | 1,380 | 910 | 561 | 1,510 |
| 31 | 796 | ------ | 875 | 1,680 | ------ | 1,790 | ------ | 1,800 | ------ | 980 | 543 | ------ |
| TOTAL | 25,459 | 35,895 | 30,519 | 24,141 | 33,639 | 36,486 | 83,430 | 75,780 | 45,740 | 32,267 | 22,139 | 29,234 |
| MEAN | 821 | 1,197 | 984 | 779 | 1,201 | 1,177 | 2,781 | 2,445 | 1,525 | 1,041 | 714 | 974 |
| MAX | 1,310 | 1,800 | 1,200 | 1,680 | 1,700 | 1,790 | 3,440 | 3,290 | 1,960 | 1,270 | 1,010 | 2,040 |
| MIN | 503 | 843 | 818 | 520 | 964 | 964 | 1,870 | 1,560 | 1,250 | 860 | 543 | 513 |
| CFSM | .63 | .92 | .75 | .60 | .92 | .90 | 2.13 | 1.87 | 1.17 | .80 | .55 | .74 |
| IN. | .72 | 1.02 | .87 | .69 | .96 | 1.04 | 2.37 | 2.16 | 1.30 | .92 | .63 | .83 |

CAL YR 1969 TOTAL 511,792 MEAN 1,402 MAX 3,800 MIN 503 CFSM 1.07 IN 14.56
WAT YR 1970 TOTAL 474,729 MEAN 1,301 MAX 3,440 MIN 503 CFSM .99 IN 13.50

## 05517900 State ditch near Kouts, Ind.

LOCATION.--Lat 41°19'08", long 87°04'55", in SW¼SW¼ sec.11, T.33 N., R.6 W., Porter County, on left bank 15 ft upstream from bridge on State Highway 8, 700 ft upstream from mouth, and 3 miles west of Kouts.

DRAINAGE AREA.--31.7 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 652.00 ft above mean sea level (State Highway Commission bench mark).

EXTREMES.--Current year: Maximum discharge, 444 cfs June 18 (gage height, 7.17 ft); minimum daily, 12 cfs Jan. 8-25.
Period of record: Maximum discharge, 444 cfs June 18, 1970 (gage height, 7.17 ft); maximum gage height, 8.03 ft Aug. 17, 1968; minimum discharge, 11 cfs Oct. 23, 1968; minimum gage height,,2.40 ft Aug. 31, 1969.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 14 | 18 | 18 | 14 | 31 | 19 | 68 | 125 | 31 | 25 | 28 | 15 |
| 2 | 14 | 19 | 18 | 14 | 37 | 19 | 150 | 63 | 36 | 24 | 23 | 15 |
| 3 | 14 | 18 | 18 | 14 | 40 | 27 | 190 | 50 | 41 | 26 | 21 | 16 |
| 4 | 14 | 18 | 17 | 13 | 44 | 63 | 165 | 42 | 34 | 25 | 20 | 16 |
| 5 | 14 | 18 | 17 | 13 | 36 | 41 | 145 | 38 | 32 | 23 | 19 | 16 |
| 6 | 15 | 18 | 17 | 13 | 26 | 32 | 130 | 35 | 30 | 22 | 19 | 15 |
| 7 | 16 | 18 | 18 | 13 | 23 | 29 | 94 | 33 | 28 | 21 | 18 | 15 |
| 8 | 15 | 17 | 19 | 12 | 22 | 27 | 76 | 32 | 27 | 21 | 18 | 16 |
| 9 | 14 | 18 | 20 | 12 | 21 | 24 | 60 | 31 | 27 | 21 | 18 | 15 |
| 10 | 16 | 18 | 20 | 12 | 20 | 23 | 49 | 29 | 26 | 20 | 18 | 15 |
| 11 | 31 | 18 | 20 | 12 | 19 | 22 | 44 | 27 | 26 | 20 | 17 | 15 |
| 12 | 23 | 17 | 19 | 12 | 19 | 21 | 38 | 40 | 25 | 19 | 17 | 15 |
| 13 | 62 | 17 | 18 | 12 | 20 | 21 | 48 | 80 | 27 | 19 | 17 | 18 |
| 14 | 49 | 16 | 18 | 12 | 22 | 21 | 53 | 160 | 26 | 20 | 17 | 19 |
| 15 | 28 | 16 | 17 | 12 | 18 | 20 | 40 | 300 | 26 | 22 | 17 | 25 |
| 16 | 23 | 16 | 17 | 12 | 18 | 19 | 34 | 270 | 26 | 19 | 17 | 20 |
| 17 | 20 | 18 | 16 | 12 | 17 | 19 | 32 | 230 | 61 | 18 | 16 | 19 |
| 18 | 19 | 20 | 16 | 12 | 20 | 19 | 31 | 200 | 368 | 18 | 16 | 18 |
| 19 | 19 | 43 | 16 | 12 | 26 | 19 | 85 | 165 | 102 | 19 | 16 | 18 |
| 20 | 21 | 31 | 15 | 12 | 31 | 20 | 211 | 130 | 54 | 20 | 18 | 17 |
| 21 | 21 | 24 | 16 | 12 | 27 | 22 | 113 | 105 | 70 | 19 | 17 | 16 |
| 22 | 19 | 23 | 17 | 12 | 21 | 20 | 76 | 84 | 51 | 18 | 17 | 19 |
| 23 | 19 | 24 | 22 | 12 | 24 | 20 | 60 | 66 | 40 | 18 | 18 | 28 |
| 24 | 18 | 23 | 23 | 12 | 26 | 20 | 53 | 52 | 35 | 19 | 17 | 57 |
| 25 | 18 | 21 | 20 | 12 | 28 | 19 | 45 | 41 | 32 | 18 | 16 | 35 |
| 26 | 18 | 20 | 18 | 13 | 34 | 22 | 40 | 35 | 32 | 18 | 16 | 27 |
| 27 | 18 | 20 | 17 | 13 | 21 | 32 | 38 | 33 | 30 | 18 | 16 | 25 |
| 28 | 18 | 19 | 16 | 18 | 19 | 33 | 35 | 31 | 28 | 18 | 16 | 23 |
| 29 | 17 | 19 | 16 | 59 | ------ | 33 | 33 | 29 | 27 | 18 | 16 | 22 |
| 30 | 17 | 18 | 15 | 39 | ------ | 33 | 184 | 28 | 26 | 137 | 16 | 21 |
| 31 | 17 | ------ | 14 | 30 | ------ | 42 | ------ | 29 | ------ | 41 | 16 | ------ |
| TOTAL | 640 | 603 | 548 | 482 | 710 | 801 | 2,420 | 2,613 | 1,424 | 764 | 551 | 611 |
| MEAN | 20.6 | 20.1 | 17.7 | 15.5 | 25.4 | 25.8 | 80.7 | 84.3 | 47.5 | 24.6 | 17.8 | 20.4 |
| MAX | 62 | 43 | 23 | 59 | 44 | 63 | 211 | 300 | 368 | 137 | 28 | 57 |
| MIN | 14 | 16 | 14 | 12 | 17 | 19 | 31 | 27 | 25 | 18 | 16 | 15 |
| CFSM | .65 | .63 | .56 | .49 | .80 | .81 | 2.55 | 2.66 | 1.50 | .78 | .56 | .64 |
| IN. | .75 | .71 | .64 | .57 | .83 | .94 | 2.84 | 3.07 | 1.67 | .90 | .65 | .72 |

CAL YR 1969 TOTAL 13,958 MEAN 38.2 MAX 150 MIN 14 CFSM 1.21 IN 16.38
WAT YR 1970 TOTAL 12,167 MEAN 33.3 MAX 368 MIN 12 CFSM 1.05 IN 14.28

NOTE.--No gage-height record Dec. 8 to Jan. 26.

PEAK DISCHARGE (BASE, 150 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-03 | Unknown | Unknown | a220 | 05-15 | Unknown | Unknown | a350 |
| 04-20 | 0530 | 5.82 | 274 | 06-18 | 0800 | 7.17 | 444 |
| 04-30 | 1730 | 6.50 | 356 | 07-30 | 0800 | 5.13 | 203 |

a about

## 05518000 Kankakee River at Shelby, Ind.

LOCATION.--Lat 41°10'58", long 87°20'33", in SW¼NE¼ sec.33, T.32 N., R.8 W., Lake County, on right bank 25 ft upstream from Monon Railroad bridge, 1 mile south of Shelby, and 9 miles upstream from Beaver Lake Creek.

DRAINAGE AREA.--1,753 sq mi.

PERIOD OF RECORD.--October 1922 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 628.13 ft above mean sea level. Prior to Dec. 19, 1934, nonrecording gage at highway bridge about 400 ft upstream. Dec. 19, 1934, to Oct. 4, 1965, water-stage recorder on left bank 50 ft downstream, and Oct. 5, 1965, to Sept. 21, 1966, nonrecording gage on right bank 200 ft upstream. All at same datum.

AVERAGE DISCHARGE.--48 years, 1,532 cfs (11.87 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,030 cfs May 16 (gage height, 10.12 ft); minimum daily, 598 cfs Oct. 6.
Period of record: Maximum discharge, 7,200 cfs Dec. 21, 1927 (gage height, 11.40 ft, site then in use), from rating curve extended above 3,000 cfs by gage-height relation study with site below railroad bridge; minimum daily, 260 cfs Jan. 13-15, 1954, result of freezeup; minimum gage height, 0.80 ft (site then in use) Aug. 4, 5, 1934.

REMARKS.--Records good except those for parts of January and Febraury, which are fair.

REVISIONS (WATER YEARS).--WSP 1005: 1928(M). WSP 1338: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 636 | 1,060 | 1,590 | 1,140 | 2,300 | 1,350 | 2,360 | 3,910 | 2,290 | 1,580 | 1,350 | 742 |
| 2 | 629 | 1,150 | 1,520 | 1,120 | 2,250 | 1,330 | 2,810 | 3,780 | 2,510 | 1,470 | 1,310 | 728 |
| 3 | 625 | 1,230 | 1,470 | 1,100 | 2,150 | 1,350 | 3,280 | 3,610 | 2,690 | 1,430 | 1,230 | 740 |
| 4 | 621 | 1,270 | 1,420 | 1,120 | 2,000 | 1,530 | 3,510 | 3,430 | 2,730 | 1,440 | 1,220 | 768 |
| 5 | 604 | 1,320 | 1,370 | 1,120 | 1,900 | 1,690 | 3,620 | 3,240 | 2,710 | 1,420 | 1,160 | 775 |
| 6 | 598 | 1,350 | 1,350 | 1,050 | 1,850 | 1,800 | 3,680 | 3,050 | 2,630 | 1,370 | 1,090 | 780 |
| 7 | 649 | 1,350 | 1,350 | 1,010 | 1,820 | 1,860 | 3,720 | 2,850 | 2,500 | 1,310 | 1,040 | 778 |
| 8 | 675 | 1,310 | 1,380 | 980 | 1,780 | 1,830 | 3,730 | 2,650 | 2,360 | 1,260 | 1,010 | 824 |
| 9 | 675 | 1,270 | 1,400 | 950 | 1,720 | 1,750 | 3,720 | 2,460 | 2,200 | 1,260 | 1,000 | 859 |
| 10 | 674 | 1,250 | 1,420 | 910 | 1,680 | 1,680 | 3,700 | 2,280 | 2,040 | 1,290 | 981 | 859 |
| 11 | 785 | 1,210 | 1,430 | 870 | 1,620 | 1,620 | 3,670 | 2,150 | 1,890 | 1,270 | 956 | 828 |
| 12 | 953 | 1,190 | 1,410 | 840 | 1,600 | 1,560 | 3,600 | 2,030 | 1,790 | 1,230 | 934 | 802 |
| 13 | 1,290 | 1,170 | 1,390 | 810 | 1,580 | 1,510 | 3,540 | 2,410 | 1,750 | 1,180 | 921 | 843 |
| 14 | 1,670 | 1,150 | 1,370 | 800 | 1,490 | 1,450 | 3,480 | 3,240 | 1,780 | 1,150 | 909 | 907 |
| 15 | 1,700 | 1,150 | 1,330 | 800 | 1,440 | 1,390 | 3,300 | 3,700 | 1,860 | 1,180 | 891 | 1,010 |
| 16 | 1,570 | 1,130 | 1,310 | 800 | 1,390 | 1,340 | 3,160 | 3,980 | 1,840 | 1,240 | 880 | 1,150 |
| 17 | 1,420 | 1,140 | 1,290 | 780 | 1,360 | 1,310 | 3,050 | 4,020 | 1,820 | 1,290 | 856 | 1,250 |
| 18 | 1,300 | 1,200 | 1,270 | 770 | 1,350 | 1,300 | 2,920 | 3,970 | 1,950 | 1,280 | 831 | 1,230 |
| 19 | 1,230 | 1,410 | 1,250 | 750 | 1,420 | 1,280 | 2,910 | 3,930 | 2,070 | 1,330 | 827 | 1,180 |
| 20 | 1,220 | 1,720 | 1,220 | 720 | 1,430 | 1,280 | 3,260 | 3,890 | 1,870 | 1,560 | 856 | 1,120 |
| 21 | 1,230 | 1,930 | 1,210 | 710 | 1,430 | 1,300 | 3,550 | 3,840 | 1,950 | 1,640 | 887 | 1,070 |
| 22 | 1,300 | 2,080 | 1,210 | 700 | 1,440 | 1,300 | 3,680 | 3,770 | 1,860 | 1,600 | 892 | 1,070 |
| 23 | 1,260 | 2,160 | 1,180 | 700 | 1,430 | 1,300 | 3,750 | 3,650 | 1,820 | 1,500 | 900 | 1,280 |
| 24 | 1,220 | 2,150 | 1,150 | 740 | 1,440 | 1,280 | 3,800 | 3,490 | 1,790 | 1,380 | 902 | 1,840 |
| 25 | 1,170 | 2,080 | 1,150 | 820 | 1,470 | 1,270 | 3,840 | 3,290 | 1,700 | 1,310 | 881 | 2,540 |
| 26 | 1,150 | 2,010 | 1,160 | 850 | 1,440 | 1,320 | 3,880 | 3,080 | 1,630 | 1,260 | 847 | 2,810 |
| 27 | 1,110 | 1,910 | 1,140 | 1,150 | 1,450 | 1,410 | 3,900 | 2,920 | 1,630 | 1,210 | 824 | 2,790 |
| 28 | 1,080 | 1,810 | 1,120 | 1,420 | 1,400 | 1,580 | 3,940 | 2,820 | 1,730 | 1,160 | 809 | 2,630 |
| 29 | 1,050 | 1,700 | 1,120 | 1,800 | ------ | 1,800 | 3,930 | 2,710 | 1,780 | 1,120 | 791 | 2,430 |
| 30 | 1,020 | 1,620 | 1,130 | 2,150 | ------ | 1,990 | 3,910 | 2,570 | 1,740 | 1,200 | 777 | 2,230 |
| 31 | 1,020 | ------ | 1,150 | 2,250 | ------ | 2,160 | ------ | 2,400 | ------ | 1,330 | 763 | ------ |
| TOTAL | 32,184 | 44,480 | 40,250 | 31,830 | 45,630 | 46,920 | 105,200 | 99,120 | 60,800 | 41,250 | 29,525 | 38,963 |
| MEAN | 1,038 | 1,483 | 1,298 | 1,027 | 1,630 | 1,514 | 3,507 | 3,197 | 2,027 | 1,331 | 952 | 1,295 |
| MAX | 1,700 | 2,160 | 1,580 | 2,250 | 2,300 | 2,160 | 3,940 | 4,020 | 2,730 | 1,640 | 1,350 | 2,810 |
| MIN | 598 | 1,060 | 1,120 | 700 | 1,350 | 1,270 | 2,360 | 2,030 | 1,630 | 1,120 | 763 | 728 |
| CFSM | .59 | .85 | .74 | .59 | .93 | .86 | 2.00 | 1.82 | 1.16 | .76 | .54 | .74 |
| IN. | .68 | .94 | .85 | .68 | .97 | 1.00 | 2.23 | 2.10 | 1.29 | .88 | .63 | .82 |

CAL YR 1969 TOTAL 658,039 MEAN 1,803 MAX 4,590 MIN 598 CFSM 1.03 IN 13.96
WAT YR 1970 TOTAL 616,052 MEAN 1,688 MAX 4,020 MIN 598 CFSM .96 IN 13.07

## 05519000 Singleton ditch at Schneider, Ind.

LOCATION.--Lat 41°12'44", long 87°26'44", in SW¼NW¼ sec.22, T.32 N., R.9 W., Lake County, on left bank 15 ft upstream from bridge on Ackerman Avenue, 0.5 mile upstream from Bruce ditch, 1.5 miles downstream from Cedar Creek, and 1.6 miles north of Schneider.

DRAINAGE AREA.--122 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 623.67 ft above mean sea level. Prior to Oct. 1, 1949, nonrecording gage at same site at datum 2.00 ft higher. Oct. 1, 1949, to Aug. 13, 1951, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--22 years, 95.4 cfs (10.62 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,160 cfs May 14 (gage height, 11.24 ft); minimum, 13 cfs Oct. 5 (gage height, 1.52 ft). Period of record: Maximum discharge, 1,160 cfs May 14, 1970 (gage height, 11.24 ft); minimum, 3.0 cfs Sept. 7, 1964 (gage height, 1.13 ft).

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

REVISIONS (WATER YEARS).--WSP 1338: Drainage area. WSP 1915: 1956-59.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 14 | 42 | 68 | 40 | 241 | 66 | 292 | 340 | 107 | 49 | 38 | 18 |
| 2 | 15 | 42 | 63 | 40 | 194 | 66 | 672 | 253 | 184 | 47 | 35 | 18 |
| 3 | 14 | 40 | 61 | 38 | 225 | 95 | 764 | 199 | 188 | 49 | 32 | 20 |
| 4 | 14 | 43 | 56 | 36 | 185 | 219 | 742 | 169 | 158 | 52 | 30 | 22 |
| 5 | 14 | 47 | 54 | 35 | 141 | 189 | 656 | 148 | 139 | 47 | 29 | 21 |
| 6 | 14 | 46 | 52 | 33 | 120 | 150 | 589 | 134 | 118 | 44 | 28 | 20 |
| 7 | 18 | 44 | 55 | 32 | 105 | 133 | 497 | 121 | 105 | 41 | 25 | 22 |
| 8 | 16 | 47 | 65 | 30 | 95 | 122 | 398 | 111 | 98 | 40 | 24 | 22 |
| 9 | 15 | 42 | 65 | 28 | 85 | 108 | 320 | 103 | 93 | 40 | 25 | 21 |
| 10 | 18 | 40 | 64 | 27 | 79 | 98 | 260 | 96 | 87 | 38 | 24 | 21 |
| 11 | 48 | 40 | 64 | 26 | 72 | 89 | 222 | 90 | 82 | 36 | 22 | 20 |
| 12 | 54 | 40 | 61 | 25 | 66 | 86 | 192 | 88 | 78 | 36 | 21 | 19 |
| 13 | 155 | 38 | 60 | 24 | 72 | 81 | 231 | 356 | 74 | 34 | 20 | 30 |
| 14 | 227 | 38 | 60 | 23 | 80 | 75 | 282 | 793 | 71 | 33 | 20 | 50 |
| 15 | 148 | 36 | 56 | 22 | 74 | 71 | 240 | 1,040 | 72 | 33 | 20 | 70 |
| 16 | 107 | 36 | 52 | 22 | 66 | 66 | 203 | 992 | 71 | 32 | 23 | 60 |
| 17 | 84 | 45 | 50 | 22 | 59 | 63 | 174 | 875 | 82 | 32 | 21 | 54 |
| 18 | 77 | 80 | 50 | 22 | 62 | 62 | 146 | 736 | 93 | 30 | 20 | 50 |
| 19 | 77 | 176 | 49 | 22 | 70 | 61 | 355 | 626 | 89 | 38 | 30 | 46 |
| 20 | 76 | 173 | 45 | 21 | 80 | 67 | 845 | 463 | 78 | 130 | 31 | 43 |
| 21 | 81 | 134 | 46 | 21 | 88 | 78 | 654 | 362 | 104 | 78 | 27 | 42 |
| 22 | 76 | 117 | 46 | 21 | 98 | 71 | 462 | 286 | 110 | 55 | 28 | 55 |
| 23 | 73 | 124 | 94 | 21 | 90 | 67 | 348 | 243 | 86 | 47 | 28 | 220 |
| 24 | 66 | 119 | 91 | 27 | 85 | 64 | 280 | 214 | 76 | 44 | 28 | 270 |
| 25 | 61 | 106 | 68 | 23 | 78 | 63 | 232 | 196 | 70 | 41 | 25 | 240 |
| 26 | 55 | 95 | 61 | 35 | 75 | 65 | 199 | 166 | 66 | 37 | 23 | 170 |
| 27 | 49 | 86 | 60 | 70 | 72 | 98 | 175 | 148 | 64 | 34 | 21 | 140 |
| 28 | 45 | 80 | 58 | 116 | 69 | 138 | 160 | 135 | 58 | 32 | 22 | 120 |
| 29 | 41 | 76 | 56 | 407 | ------ | 162 | 145 | 110 | 54 | 31 | 22 | 105 |
| 30 | 40 | 72 | 45 | 364 | ------ | 157 | 245 | 102 | 51 | 39 | 21 | 95 |
| 31 | 40 | ------ | 41 | 308 | ------ | 193 | ------ | 97 | ------ | 48 | 20 | ------ |
| TOTAL | 1,832 | 2,144 | 1,816 | 1,981 | 2,826 | 3,123 | 10,980 | 9,792 | 2,806 | 1,367 | 783 | 2,104 |
| MEAN | 59.1 | 71.5 | 58.6 | 63.9 | 101 | 101 | 366 | 316 | 93.5 | 44.1 | 25.3 | 70.1 |
| MAX | 227 | 176 | 94 | 407 | 241 | 219 | 845 | 1,040 | 188 | 130 | 38 | 270 |
| MIN | 14 | 36 | 41 | 21 | 59 | 61 | 145 | 88 | 51 | 30 | 20 | 18 |
| CFSM | .48 | .59 | .48 | .52 | .83 | .83 | 3.00 | 2.59 | .77 | .36 | .21 | .57 |
| IN. | .56 | .65 | .55 | .60 | .86 | .95 | 3.35 | 2.99 | .86 | .42 | .24 | .64 |

CAL YR 1969 TOTAL 47,340 MEAN 130 MAX 866 MIN 14 CFSM 1.07 IN 14.43
WAT YR 1970 TOTAL 41,554 MEAN 114 MAX 1,040 MIN 14 CFSM .93 IN 12.67

PEAK DISCHARGE (BASE, 730 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-03 | 0200 | 8.74 | 794 | 05-14 | 1900 | 11.24 | 1,160 |
| 04-20 | 1000 | 9.42 | 889 | | | | |

NOTE.--No gage-height record Aug. 18 to Sept. 30.

## 05519500 West Creek near Schneider, Ind.

LOCATION.--Lat 41°12'52", long 87°29'36", in NW¼NE¼ sec.19, T.32 N., R.9 W., Lake County, on left bank at downstream side of county highway bridge, 1.2 miles upstream from Singleton ditch, and 2.8 miles northwest of Schneider.

DRAINAGE AREA.--54.5 sq mi.

PERIOD OF RECORD.--July 1948 to December 1951, January 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 627.86 ft above mean sea level (levels by Soil Conservation Service). Prior to Mar. 17, 1950, nonrecording gage 75 ft below bridge at same datum. Mar. 17, 1950, to Dec. 31, 1951, Jan. 1, 1954 to June 10, 1956, nonrecording gage, at present site and datum.

AVERAGE DISCHARGE.--19 years, 41.4 cfs (10.32 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,460 cfs May 15 (gage height, 7.72 ft); minimum, 5.9 cfs Dec. 23 (gage height, 0.57 ft).
Period of record: Maximum discharge, 1,840 cfs Oct. 10, 11, 1954 (gage height, 8.06 ft, from graph based on gage readings); minimum, 1.3 cfs Feb. 17, 1957 (gage height, 0.32 ft), result of freezeup.

REMARKS.--Records good except those for parts of January and February, which are poor.

REVISIONS (WATER YEARS).--WSP 1338: Drainage area. WSP 1388: 1952(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 8.3 | 12 | 19 | 11 | 164 | 33 | 140 | 116 | 29 | 14 | 15 | 9.1 |
| 2 | 8.3 | 11 | 17 | 10 | 100 | 32 | 365 | 82 | 35 | 13 | 12 | 9.1 |
| 3 | 8.5 | 11 | 17 | 9.7 | 138 | 51 | 401 | 56 | 35 | 16 | 12 | 9.4 |
| 4 | 8.3 | 15 | 16 | 9.4 | 115 | 114 | 425 | 42 | 31 | 18 | 11 | 10 |
| 5 | 8.0 | 14 | 14 | 9.0 | 75 | 91 | 385 | 33 | 29 | 15 | 11 | 9.8 |
| 6 | 8.3 | 13 | 16 | 8.8 | 56 | 68 | 366 | 27 | 29 | 15 | 11 | 9.5 |
| 7 | 8.3 | 12 | 18 | 8.6 | 45 | 56 | 274 | 25 | 25 | 14 | 10 | 10 |
| 8 | 8.5 | 11 | 22 | 8.4 | 44 | 48 | 197 | 22 | 22 | 15 | 10 | 9.7 |
| 9 | 8.0 | 12 | 21 | 8.4 | 34 | 42 | 134 | 18 | 20 | 14 | 11 | 9.4 |
| 10 | 9.0 | 13 | 24 | 8.4 | 33 | 36 | 95 | 16 | 19 | 15 | 10 | 10 |
| 11 | 17 | 12 | 25 | 8.4 | 32 | 32 | 78 | 15 | 18 | 14 | 9.8 | 9.9 |
| 12 | 15 | 12 | 23 | 8.4 | 27 | 32 | 62 | 15 | 17 | 13 | 9.8 | 9.4 |
| 13 | 27 | 12 | 20 | 8.4 | 27 | 28 | 98 | 279 | 19 | 13 | 10 | 15 |
| 14 | 42 | 12 | 19 | 8.4 | 33 | 25 | 116 | 845 | 21 | 14 | 10 | 16 |
| 15 | 28 | 11 | 17 | 8.4 | 28 | 23 | 84 | 1,410 | 19 | 15 | 9.8 | 24 |
| 16 | 22 | 12 | 18 | 8.4 | 24 | 20 | 66 | 888 | 19 | 14 | 12 | 18 |
| 17 | 19 | 18 | 15 | 8.4 | 24 | 20 | 53 | 323 | 18 | 13 | 12 | 14 |
| 18 | 16 | 26 | 14 | 8.4 | 27 | 20 | 45 | 206 | 17 | 14 | 11 | 12 |
| 19 | 14 | 48 | 14 | 8.2 | 33 | 20 | 206 | 158 | 16 | 40 | 11 | 12 |
| 20 | 14 | 42 | 15 | 7.8 | 40 | 21 | 756 | 121 | 15 | 87 | 15 | 12 |
| 21 | 17 | 33 | 17 | 7.8 | 49 | 23 | 302 | 96 | 22 | 30 | 11 | 12 |
| 22 | 17 | 29 | 14 | 7.8 | 58 | 22 | 174 | 75 | 25 | 19 | 12 | 20 |
| 23 | 14 | 31 | 14 | 7.8 | 82 | 22 | 111 | 61 | 21 | 16 | 12 | 38 |
| 24 | 13 | 32 | 21 | 7.8 | 69 | 21 | 81 | 60 | 19 | 17 | 10 | 69 |
| 25 | 14 | 28 | 15 | 14 | 56 | 21 | 63 | 55 | 17 | 15 | 11 | 52 |
| 26 | 13 | 24 | 13 | 28 | 45 | 27 | 51 | 43 | 16 | 13 | 10 | 37 |
| 27 | 11 | 23 | 15 | 52 | 44 | 30 | 44 | 36 | 16 | 13 | 10 | 30 |
| 28 | 11 | 24 | 12 | 107 | 34 | 52 | 38 | 35 | 15 | 13 | 11 | 25 |
| 29 | 11 | 19 | 12 | 396 | ------ | 67 | 32 | 31 | 16 | 12 | 10 | 21 |
| 30 | 11 | 19 | 15 | 313 | ------ | 64 | 79 | 30 | 14 | 14 | 10 | 18 |
| 31 | 11 | ------ | 13 | 230 | ------ | 82 | ------ | 29 | ------ | 18 | 9.6 | ------ |
| TOTAL | 441.5 | 591 | 525 | 1,346.1 | 1,536 | 1,243 | 5,321 | 5,248 | 634 | 566 | 340.0 | 560.3 |
| MEAN | 14.2 | 19.7 | 16.9 | 43.4 | 54.9 | 40.1 | 177 | 169 | 21.1 | 18.3 | 11.0 | 18.7 |
| MAX | 42 | 48 | 25 | 396 | 164 | 114 | 756 | 1,410 | 35 | 87 | 15 | 69 |
| MIN | 8.0 | 11 | 12 | 7.8 | 24 | 20 | 32 | 15 | 14 | 12 | 9.6 | 9.1 |
| CFSM | .26 | .36 | .31 | .80 | 1.01 | .74 | 3.25 | 3.10 | .39 | .34 | .20 | .34 |
| IN. | .30 | .40 | .36 | .92 | 1.05 | .85 | 3.63 | 3.58 | .43 | .39 | .23 | .38 |

CAL YR 1969 TOTAL 18,415.5 MEAN 50.5 MAX 600 MIN 8.0 CFSM .93 IN 12.57
WAT YR 1970 TOTAL 18,351.9 MEAN 50.3 MAX 1,410 MIN 7.8 CFSM .92 IN 12.53

PEAK DISCHARGE (BASE, 500 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-04 | 0300 | 5.20 | 537 | 05-15 | 0445 | 7.72 | 1,460 |
| 04-20 | 0815 | 6.60 | 1,030 | | | | |

05520000 Singleton ditch at Illinoi, Ill.

LOCATION.--Lat 41°11'20", long 87°31'35" in SW¼NW¼ sec.8, T.31 N., R.15 E., Kankakee County, Illinois, 50 ft downstream from county highway bridge at Illinoi, beside the Cleveland, Cincinnati, Chicago and St. Louis Railway, and at Indiana-Illinois State line.

DRAINAGE AREA.--219 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 620.33 ft above mean sea level. Prior to Aug. 28, 1953, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--26 years, 167 cfs (10.36 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,800 cfs May 14 (gage height, 9.68 ft); minimum, 28 cfs Sept. 12 (gage height, 1.49 ft).
Period of record: Maximum discharge, 2,040 cfs Feb. 14, 23, 1959; maximum gage height, 10.11 ft Mar. 4, 1963 (backwater from ice); minimum discharge, 4.5 cfs Sept. 8, 1964; minimum gage height, 0.71 ft Oct. 21, 1948.

REMARKS.--Records good except those for parts of January and February, which are fair.

REVISIONS (WATER YEARS).--WSP 1338: 1948(M), drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 30 | 72 | 116 | 121 | 499 | 133 | 491 | 615 | 167 | 76 | 63 | 29 |
| 2 | 32 | 71 | 108 | 112 | 511 | 129 | 1,100 | 473 | 267 | 73 | 55 | 28 |
| 3 | 30 | 69 | 105 | 84 | 327 | 174 | 1,310 | 370 | 289 | 76 | 52 | 30 |
| 4 | 30 | 75 | 96 | 75 | 280 | 373 | 1,310 | 312 | 247 | 83 | 48 | 35 |
| 5 | 30 | 80 | 90 | 68 | 270 | 343 | 1,190 | 276 | 221 | 74 | 47 | 33 |
| 6 | 30 | 77 | 91 | 62 | 270 | 273 | 1,090 | 249 | 198 | 70 | 45 | 32 |
| 7 | 32 | 75 | 97 | 56 | 283 | 241 | 935 | 228 | 177 | 65 | 42 | 34 |
| 8 | 30 | 76 | 113 | 51 | 289 | 221 | 749 | 212 | 161 | 66 | 42 | 35 |
| 9 | 30 | 73 | 112 | 46 | 300 | 198 | 595 | 198 | 149 | 65 | 42 | 31 |
| 10 | 35 | 70 | 113 | 43 | 297 | 180 | 479 | 189 | 139 | 64 | 41 | 35 |
| 11 | 75 | 69 | 116 | 40 | 302 | 164 | 407 | 179 | 130 | 60 | 38 | 31 |
| 12 | 80 | 68 | 108 | 38 | 270 | 158 | 355 | 176 | 122 | 58 | 35 | 30 |
| 13 | 210 | 66 | 105 | 36 | 243 | 149 | 409 | 720 | 119 | 55 | 34 | 58 |
| 14 | 310 | 64 | 104 | 35 | 243 | 139 | 515 | 1,420 | 116 | 54 | 33 | 71 |
| 15 | 205 | 62 | 96 | 35 | 246 | 130 | 437 | 1,700 | 116 | 60 | 31 | 121 |
| 16 | 150 | 61 | 92 | 35 | 221 | 118 | 366 | 1,650 | 114 | 55 | 39 | 113 |
| 17 | 120 | 76 | 85 | 35 | 235 | 114 | 318 | 1,540 | 121 | 51 | 41 | 88 |
| 18 | 110 | 129 | 85 | 35 | 213 | 113 | 281 | 1,420 | 132 | 51 | 33 | 82 |
| 19 | 110 | 244 | 82 | 34 | 205 | 110 | 557 | 1,320 | 125 | 77 | 36 | 77 |
| 20 | 105 | 254 | 112 | 32 | 210 | 119 | 1,500 | 1,020 | 113 | 230 | 60 | 73 |
| 21 | 115 | 206 | 130 | 31 | 215 | 136 | 1,200 | 738 | 140 | 125 | 46 | 71 |
| 22 | 110 | 182 | 129 | 31 | 227 | 126 | 856 | 587 | 153 | 86 | 44 | 90 |
| 23 | 105 | 189 | 129 | 31 | 200 | 122 | 646 | 471 | 123 | 74 | 51 | 171 |
| 24 | 95 | 189 | 173 | 33 | 180 | 117 | 515 | 399 | 112 | 71 | 44 | 397 |
| 25 | 90 | 171 | 143 | 39 | 165 | 116 | 423 | 348 | 105 | 66 | 40 | 437 |
| 26 | 80 | 155 | 125 | 64 | 150 | 118 | 364 | 279 | 99 | 60 | 36 | 295 |
| 27 | 75 | 143 | 117 | 160 | 174 | 165 | 323 | 238 | 96 | 55 | 35 | 233 |
| 28 | 74 | 136 | 117 | 213 | 140 | 239 | 299 | 216 | 88 | 52 | 35 | 200 |
| 29 | 72 | 126 | 117 | 764 | ------ | 284 | 275 | 182 | 84 | 49 | 36 | 171 |
| 30 | 70 | 119 | 126 | 705 | ------ | 279 | 415 | 167 | 80 | 63 | 34 | 159 |
| 31 | 70 | ------ | 128 | 577 | ------ | 334 | ------ | 158 | ------ | 77 | 31 | ------ |
| TOTAL | 2,740 | 3,447 | 3,460 | 3,721 | 7,165 | 5,615 | 19,710 | 18,050 | 4,303 | 2,241 | 1,289 | 3,290 |
| MEAN | 88.4 | 115 | 112 | 120 | 256 | 181 | 657 | 582 | 143 | 72.3 | 41.6 | 110 |
| MAX | 310 | 254 | 173 | 764 | 511 | 373 | 1,500 | 1,700 | 289 | 230 | 63 | 437 |
| MIN | 30 | 61 | 82 | 31 | 140 | 110 | 275 | 158 | 80 | 49 | 31 | 28 |
| CFSM | .40 | .53 | .51 | .55 | 1.17 | .83 | 3.00 | 2.66 | .65 | .33 | .19 | .50 |
| IN. | .47 | .59 | .59 | .63 | 1.22 | .95 | 3.35 | 3.07 | .73 | .38 | .22 | .56 |

CAL YR 1969 TOTAL 65,438 MEAN 179 MAX 1,490 MIN 23 CFSM .82 IN 11.12
WAT YR 1970 TOTAL 75,031 MEAN 206 MAX 1,700 MIN 28 CFSM .94 IN 12.74

PEAK DISCHARGE (BASE, 1,100 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-04 | 0445 | 8.25 | 1,380 | 05-14 | 1800 | 9.68 | 1,800 |
| 04-20 | 1230 | 9.07 | 1,620 | | | | |

## 05520500 Kankakee River at Momence, Ill.

LOCATION.--Lat 41°09'36", long 87°40'07", in NE¼ sec.24, T.31 N., R.13 E., Kankakee County, on right bank at Hill Street in Momence, 0.2 mile downstream from bridge on State Highways 1 and 17, and 1.2 miles upstream from Tower Creek.

DRAINAGE AREA.--2,340 sq mi, approximately.

PERIOD OF RECORD.--February to December 1905, February to July 1906, December 1914 to current year.

GAGE.--Water-stage recorder. Datum of gage is 609.18 ft above mean sea level. Prior to Aug. 1, 1938, nonrecording gage at site 0.2 mile upstream at datum 1.00 ft higher. Aug. 1, 1938, to Aug. 8, 1969, water-stage recorder at present site at datum 1.00 ft higher.

AVERAGE DISCHARGE.--55 years (1915-70), 1,861 cfs (10.80 inches per year).

EXTREMES.--Current year: Maximum discharge, 9,480 cfs May 15 (gage height, 5.55 ft); minimum, 634 cfs Oct. 6.
Period of record: Maximum discharge, 10,100 cfs Apr. 25, 1950 (gage height, 5.06 ft); maximum gage height observed, 8.09 ft Jan. 25, 1930, site and datum then in use (ice jam); minimum discharge observed, 306 cfs Sept. 1, 16, 17, 1919.

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

REVISIONS (WATER YEARS).--WSP 1238: 1916, 1930. WSP 1308: 1915(M), 1917(M), 1919(M), 1922(M), 1926(M), 1934-35(M), 1938(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 662 | 1,170 | 1,920 | 1,220 | 2,800 | 1,630 | 2,940 | 5,240 | 2,890 | 1,840 | 1,400 | 723 |
| 2 | 655 | 1,220 | 1,830 | 1,200 | 2,850 | 1,600 | 4,090 | 5,030 | 3,010 | 1,730 | 1,390 | 708 |
| 3 | 655 | 1,310 | 1,760 | 1,150 | 2,900 | 1,720 | 4,930 | 4,740 | 3,120 | 1,640 | 1,340 | 710 |
| 4 | 648 | 1,400 | 1,680 | 1,100 | 2,900 | 2,100 | 5,370 | 4,450 | 3,190 | 1,600 | 1,260 | 732 |
| 5 | 648 | 1,470 | 1,610 | 1,000 | 2,800 | 2,170 | 5,580 | 4,140 | 3,230 | 1,550 | 1,240 | 746 |
| 6 | 641 | 1,510 | 1,550 | 1,000 | 2,700 | 2,180 | 5,600 | 3,840 | 3,200 | 1,510 | 1,170 | 753 |
| 7 | 662 | 1,520 | 1,580 | 1,000 | 2,600 | 2,220 | 5,400 | 3,580 | 3,090 | 1,450 | 1,100 | 754 |
| 8 | 690 | 1,520 | 1,620 | 980 | 2,500 | 2,240 | 5,140 | 3,330 | 2,940 | 1,400 | 1,050 | 760 |
| 9 | 690 | 1,500 | 1,620 | 950 | 2,400 | 2,210 | 4,870 | 3,100 | 2,780 | 1,340 | 1,030 | 793 |
| 10 | 704 | 1,450 | 1,620 | 920 | 2,300 | 2,130 | 4,610 | 2,900 | 2,630 | 1,330 | 1,010 | 823 |
| 11 | 824 | 1,410 | 1,650 | 900 | 2,200 | 2,050 | 4,440 | 2,750 | 2,470 | 1,340 | 975 | 803 |
| 12 | 984 | 1,370 | 1,640 | 900 | 2,100 | 1,980 | 4,310 | 2,630 | 2,320 | 1,300 | 941 | 780 |
| 13 | 1,400 | 1,330 | 1,610 | 900 | 2,100 | 1,900 | 4,400 | 4,740 | 2,210 | 1,250 | 915 | 833 |
| 14 | 1,890 | 1,290 | 1,580 | 900 | 2,000 | 1,820 | 4,570 | 7,130 | 2,130 | 1,210 | 902 | 907 |
| 15 | 2,000 | 1,260 | 1,540 | 880 | 2,000 | 1,740 | 4,420 | 8,890 | 2,130 | 1,210 | 884 | 1,050 |
| 16 | 2,030 | 1,240 | 1,500 | 880 | 2,000 | 1,660 | 4,170 | 7,570 | 2,170 | 1,210 | 879 | 1,160 |
| 17 | 1,960 | 1,290 | 1,500 | 880 | 1,950 | 1,600 | 3,900 | 7,230 | 2,190 | 1,250 | 858 | 1,240 |
| 18 | 1,800 | 1,430 | 1,470 | 850 | 1,950 | 1,570 | 3,670 | 6,980 | 2,160 | 1,290 | 825 | 1,300 |
| 19 | 1,660 | 1,720 | 1,440 | 850 | 1,950 | 1,550 | 4,050 | 6,670 | 2,170 | 1,410 | 828 | 1,280 |
| 20 | 1,590 | 1,920 | 1,380 | 820 | 1,900 | 1,570 | 5,570 | 6,190 | 2,210 | 1,720 | 851 | 1,220 |
| 21 | 1,610 | 2,030 | 1,340 | 800 | 1,900 | 1,590 | 5,610 | 5,690 | 2,320 | 1,770 | 858 | 1,160 |
| 22 | 1,640 | 2,150 | 1,330 | 780 | 1,900 | 1,590 | 5,320 | 5,310 | 2,280 | 1,750 | 886 | 1,200 |
| 23 | 1,590 | 2,280 | 1,290 | 740 | 1,900 | 1,590 | 5,090 | 5,020 | 2,190 | 1,710 | 895 | 1,420 |
| 24 | 1,540 | 2,390 | 1,250 | 740 | 1,870 | 1,580 | 4,880 | 4,810 | 2,120 | 1,630 | 890 | 1,910 |
| 25 | 1,470 | 2,420 | 1,260 | 800 | 1,880 | 1,570 | 4,710 | 4,530 | 2,050 | 1,520 | 881 | 2,310 |
| 26 | 1,410 | 2,370 | 1,200 | 900 | 1,770 | 1,590 | 4,620 | 4,150 | 1,970 | 1,420 | 848 | 2,500 |
| 27 | 1,340 | 2,300 | 1,200 | 1,200 | 1,750 | 1,690 | 4,560 | 3,770 | 1,900 | 1,340 | 815 | 2,720 |
| 28 | 1,290 | 2,210 | 1,270 | 1,600 | 1,680 | 1,930 | 4,520 | 3,480 | 1,850 | 1,260 | 795 | 2,840 |
| 29 | 1,240 | 2,130 | 1,210 | 2,100 | ------ | 2,140 | 4,500 | 3,260 | 1,860 | 1,200 | 778 | 2,840 |
| 30 | 1,180 | 2,010 | 1,200 | 2,400 | ------ | 2,300 | 4,870 | 3,110 | 1,880 | 1,240 | 760 | 2,720 |
| 31 | 1,160 | ------ | 1,220 | 2,600 | ------ | 2,530 | ------ | 2,970 | ------ | 1,350 | 741 | ------ |
| TOTAL | 38,263 | 50,620 | 45,870 | 33,940 | 61,550 | 57,740 | 140,710 | 147,230 | 72,660 | 44,770 | 30,003 | 39,695 |
| MEAN | 1,234 | 1,687 | 1,480 | 1,095 | 2,198 | 1,863 | 4,690 | 4,749 | 2,422 | 1,444 | 968 | 1,323 |
| MAX | 2,030 | 2,420 | 1,920 | 2,600 | 2,900 | 2,530 | 5,610 | 8,890 | 3,230 | 1,840 | 1,400 | 2,840 |
| MIN | 641 | 1,170 | 1,200 | 740 | 1,680 | 1,550 | 2,940 | 2,630 | 1,850 | 1,200 | 741 | 708 |
| CFSM | .53 | .72 | .63 | .47 | .94 | .80 | 2.00 | 2.03 | 1.04 | .62 | .41 | .57 |
| IN. | .61 | .80 | .73 | .54 | .98 | .92 | 2.24 | 2.34 | 1.16 | .71 | .48 | .63 |

CAL YR 1969 TOTAL 837,624 MEAN 2,295 MAX 6,200 MIN 641 CFSM .98 IN 13.32
WTR YR 1970 TOTAL 763,051 MEAN 2,091 MAX 8,890 MIN 641 CFSM .89 IN 12.13

## 05521000 Iroquois River at Rosebud, Ind.

LOCATION.--Lat 41°02'00", long 87°10'49", in NW¼SW¼ sec.24, T.30 N., R.7 W., Jasper County, 100 ft downstream from bridge on county road, 0.5 mile north of Rosebud, 0.5 mile downstream from confluence of Swain and Dexter ditches, 1.5 miles upstream from Davidson ditch, and 2 miles east of Parr.

DRAINAGE AREA.--30.3 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 661.47 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission). Prior to Oct. 1, 1953, nonrecording gage on downstream side of county road bridge at same datum.

AVERAGE DISCHARGE.--22 years, 24.0 cfs (10.76 inches per year).

EXTREMES.--Current year: Maximum discharge, 237 cfs Apr. 20 (gage height, 6.39 ft); minimum, 2.3 cfs Aug. 26, 27, 31, Sept. 4 (gage height, 1.10 ft).
Period of record: Maximum discharge, 422 cfs Apr. 4, 1950; maximum gage height, 8.86 ft Feb. 10, 1959; minimum discharge, 0.2 cfs Oct. 11, 1964.

REMARKS.--Records good except those for parts of December, January, and February, which are poor.

REVISIONS (WATER YEARS).--WSP 1338: 1950-53, drainage area. WSP 1728: 1959-60(M). WSP 1915: 1959-60.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.0 | 40 | 22 | 12 | 27 | 14 | 52 | 49 | 28 | 9.3 | 6.1 | 2.6 |
| 2 | 3.5 | 33 | 20 | 12 | 28 | 15 | 137 | 41 | 106 | 9.0 | 5.2 | 2.6 |
| 3 | 3.4 | 29 | 20 | 9.0 | 47 | 25 | 115 | 36 | 82 | 9.5 | 4.8 | 2.8 |
| 4 | 3.4 | 36 | 18 | 8.5 | 29 | 43 | 77 | 33 | 56 | 9.0 | 4.7 | 3.1 |
| 5 | 3.5 | 35 | 17 | 7.6 | 22 | 34 | 60 | 31 | 45 | 8.5 | 4.6 | 3.4 |
| 6 | 3.7 | 31 | 17 | 7.0 | 20 | 29 | 52 | 28 | 38 | 8.0 | 4.4 | 3.0 |
| 7 | 5.2 | 28 | 19 | 6.6 | 18 | 28 | 42 | 27 | 32 | 7.7 | 4.0 | 3.4 |
| 8 | 4.2 | 26 | 26 | 6.1 | 15 | 26 | 40 | 25 | 28 | 7.7 | 4.2 | 3.5 |
| 9 | 3.5 | 24 | 25 | 5.8 | 14 | 24 | 36 | 24 | 26 | 8.3 | 4.4 | 3.1 |
| 10 | 4.2 | 23 | 27 | 5.8 | 13 | 22 | 32 | 23 | 24 | 7.8 | 4.0 | 3.0 |
| 11 | 24 | 23 | 24 | 6.0 | 13 | 22 | 30 | 23 | 22 | 7.4 | 3.8 | 2.8 |
| 12 | 33 | 22 | 23 | 6.2 | 12 | 19 | 29 | 26 | 21 | 6.9 | 3.7 | 2.8 |
| 13 | 67 | 21 | 21 | 6.3 | 12 | 18 | 34 | 138 | 19 | 6.6 | 4.7 | 4.2 |
| 14 | 52 | 20 | 21 | 6.5 | 11 | 17 | 34 | 194 | 20 | 6.7 | 4.6 | 5.1 |
| 15 | 34 | 19 | 19 | 6.6 | 11 | 16 | 31 | 193 | 24 | 8.8 | 3.7 | 11 |
| 16 | 26 | 18 | 18 | 6.6 | 14 | 15 | 29 | 141 | 23 | 7.0 | 3.5 | 11 |
| 17 | 21 | 24 | 17 | 6.4 | 17 | 15 | 27 | 101 | 21 | 6.4 | 3.3 | 8.6 |
| 18 | 18 | 35 | 17 | 6.0 | 21 | 15 | 27 | 74 | 20 | 6.2 | 3.1 | 7.8 |
| 19 | 19 | 66 | 17 | 5.8 | 26 | 16 | 134 | 60 | 17 | 7.5 | 3.5 | 7.0 |
| 20 | 29 | 48 | 13 | 5.7 | 20 | 20 | 225 | 51 | 16 | 27 | 4.7 | 6.6 |
| 21 | 33 | 38 | 18 | 5.7 | 17 | 19 | 181 | 44 | 21 | 15 | 4.2 | 6.6 |
| 22 | 27 | 36 | 12 | 5.7 | 16 | 18 | 126 | 37 | 20 | 9.5 | 3.9 | 17 |
| 23 | 22 | 40 | 10 | 5.8 | 17 | 17 | 91 | 39 | 16 | 7.8 | 4.6 | 42 |
| 24 | 20 | 34 | 13 | 6.4 | 18 | 15 | 76 | 40 | 15 | 7.4 | 4.0 | 70 |
| 25 | 19 | 31 | 14 | 8.0 | 19 | 15 | 62 | 38 | 15 | 6.6 | 3.5 | 46 |
| 26 | 18 | 29 | 12 | 11 | 24 | 40 | 54 | 33 | 14 | 5.9 | 3.3 | 32 |
| 27 | 17 | 27 | 13 | 20 | 16 | 58 | 48 | 29 | 13 | 5.5 | 3.1 | 27 |
| 28 | 16 | 26 | 11 | 45 | 15 | 71 | 46 | 27 | 13 | 5.3 | 2.9 | 23 |
| 29 | 15 | 25 | 12 | 75 | ------ | 57 | 42 | 25 | 12 | 5.9 | 2.8 | 20 |
| 30 | 15 | 24 | 12 | 40 | ------ | 45 | 48 | 25 | 10 | 9.0 | 2.7 | 19 |
| 31 | 18 | ------ | 12 | 30 | ------ | 38 | ------ | 25 | ------ | 7.8 | 2.6 | ------ |
| TOTAL | 580.6 | 911 | 540 | 395.1 | 532 | 826 | 2,017 | 1,680 | 817 | 261.0 | 122.6 | 400.0 |
| MEAN | 18.7 | 30.4 | 17.4 | 12.7 | 19.0 | 26.6 | 67.2 | 54.2 | 27.2 | 8.42 | 3.95 | 13.3 |
| MAX | 67 | 66 | 27 | 75 | 47 | 71 | 225 | 194 | 106 | 27 | 6.1 | 70 |
| MIN | 3.0 | 18 | 10 | 5.7 | 11 | 14 | 27 | 23 | 10 | 5.3 | 2.6 | 2.6 |
| CFSM | .62 | 1.00 | .57 | .42 | .63 | .88 | 2.22 | 1.79 | .90 | .28 | .13 | .44 |
| IN. | .71 | 1.12 | .66 | .49 | .65 | 1.01 | 2.48 | 2.06 | 1.00 | .32 | .15 | .49 |

CAL YR 1969 TOTAL 9,647.3 MEAN 26.4 MAX 190 MIN 3.0 CFSM .87 IN 11.84
WAT YR 1970 TOTAL 9,082.3 MEAN 24.9 MAX 225 MIN 2.6 CFSM .82 IN 11.15

PEAK DISCHARGE (BASE, 150 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-20 | 0345 | 6.39 | 237 | 05-14 | 2330 | 6.11 | 218 |

## 05522000 Iroquois River near North Marion, Ind.

LOCATION.--Lat 40°58'12", long 87°06'50", in NE¼NW¼ sec.16, T.29 N., R.6 W., Jasper County, on left bank at upstream side of county highway bridge, 1.2 miles upstream from Ryan ditch, 2 miles east of North Marion, and 3.5 miles northeast of Rensselaer.

DRAINAGE AREA.--134 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 646.68 ft above mean sea level. Prior to Sept. 6, 1955, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--21 years (1949 to current year), 117 cfs (11.86 inches per year). 20 years, 117 cfs (11.86 inches per year); figure published in Water Resources Data for Ind., 1969, in error.

EXTREMES.--Current year: Maximum discharge, 955 cfs May 15 (gage height, 11.97 ft); minimum, 6.6 cfs Sept. 1 (gage height, 1.30 ft). Period of record: Maximum discharge, 2,040 cfs June 10, 1958 (gage height, 15.09 ft); minimum, 1.5 cfs Sept. 8, 1964.

REMARKS.--Records good except those for parts of December, January, and February, which are poor. Water can be diverted from Oliver ditch, an upstream tributary, into Ryan ditch, which enters below station.

REVISIONS.--WSP 1278: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 14 | 136 | 89 | 60 | 239 | 57 | 239 | 223 | 103 | 24 | 27 | 7.4 |
| 2 | 16 | 150 | 82 | 52 | 213 | 60 | 437 | 211 | 235 | 24 | 21 | 9.5 |
| 3 | 14 | 117 | 80 | 46 | 173 | 80 | 604 | 178 | 297 | 26 | 19 | 11 |
| 4 | 16 | 126 | 72 | 40 | 165 | 167 | 595 | 154 | 255 | 31 | 18 | 13 |
| 5 | 13 | 141 | 70 | 36 | 130 | 181 | 505 | 138 | 196 | 30 | 20 | 11 |
| 6 | 13 | 126 | 67 | 33 | 100 | 153 | 397 | 124 | 172 | 30 | 13 | 12 |
| 7 | 19 | 101 | 79 | 30 | 90 | 134 | 301 | 115 | 143 | 24 | 11 | 11 |
| 8 | 18 | 91 | 102 | 28 | 80 | 118 | 240 | 106 | 114 | 26 | 16 | 13 |
| 9 | 15 | 82 | 97 | 27 | 72 | 102 | 204 | 96 | 99 | 32 | 19 | 14 |
| 10 | 15 | 76 | 94 | 27 | 66 | 91 | 172 | 97 | 90 | 28 | 18 | 12 |
| 11 | 65 | 76 | 88 | 28 | 62 | 79 | 151 | 92 | 82 | 27 | 17 | 11 |
| 12 | 122 | 80 | 77 | 29 | 56 | 77 | 141 | 108 | 71 | 27 | 16 | 11 |
| 13 | 228 | 71 | 77 | 30 | 53 | 71 | 148 | 374 | 71 | 23 | 14 | 14 |
| 14 | 264 | 64 | 75 | 32 | 50 | 68 | 164 | 724 | 94 | 24 | 12 | 17 |
| 15 | 211 | 60 | 66 | 32 | 48 | 65 | 148 | 917 | 95 | 30 | 9.5 | 38 |
| 16 | 133 | 57 | 62 | 30 | 54 | 58 | 134 | 944 | 81 | 32 | 13 | 36 |
| 17 | 100 | 74 | 61 | 29 | 66 | 58 | 125 | 867 | 74 | 27 | 12 | 28 |
| 18 | 79 | 131 | 61 | 28 | 84 | 59 | 117 | 735 | 68 | 21 | 12 | 26 |
| 19 | 77 | 245 | 58 | 27 | 120 | 61 | 343 | 594 | 55 | 26 | 15 | 23 |
| 20 | 95 | 287 | 70 | 26 | 100 | 78 | 712 | 443 | 52 | 69 | 19 | 22 |
| 21 | 141 | 240 | 81 | 26 | 84 | 89 | 832 | 316 | 71 | 56 | 15 | 20 |
| 22 | 119 | 196 | 50 | 26 | 78 | 83 | 800 | 236 | 68 | 39 | 19 | 44 |
| 23 | 92 | 180 | 54 | 28 | 74 | 76 | 708 | 196 | 53 | 30 | 35 | 124 |
| 24 | 78 | 169 | 62 | 31 | 74 | 71 | 598 | 188 | 48 | 28 | 18 | 312 |
| 25 | 80 | 150 | 66 | 37 | 77 | 70 | 477 | 175 | 43 | 27 | 16 | 415 |
| 26 | 67 | 133 | 62 | 45 | 76 | 166 | 358 | 152 | 40 | 23 | 12 | 346 |
| 27 | 61 | 118 | 57 | 70 | 71 | 300 | 269 | 129 | 37 | 25 | 9.8 | 245 |
| 28 | 57 | 106 | 56 | 145 | 59 | 367 | 228 | 114 | 35 | 26 | 13 | 155 |
| 29 | 54 | 100 | 56 | 320 | ------ | 374 | 211 | 100 | 35 | 21 | 11 | 115 |
| 30 | 56 | 94 | 58 | 360 | ------ | 310 | 199 | 98 | 29 | 31 | 12 | 96 |
| 31 | 59 | ------ | 59 | 303 | ------ | 251 | ------ | 93 | ------ | 33 | 10 | ------ |
| TOTAL | 2,391 | 3,767 | 2,188 | 2,061 | 2,614 | 3,974 | 10,557 | 9,037 | 2,906 | 920 | 492.3 | 2,211.9 |
| MEAN | 77.1 | 126 | 70.6 | 66.5 | 93.4 | 128 | 352 | 292 | 96.9 | 29.7 | 15.9 | 73.7 |
| MAX | 264 | 287 | 102 | 360 | 239 | 374 | 832 | 944 | 297 | 69 | 35 | 415 |
| MIN | 13 | 57 | 50 | 26 | 48 | 57 | 117 | 92 | 29 | 21 | 9.5 | 7.4 |
| CFSM | .58 | .94 | .53 | .50 | .70 | .96 | 2.63 | 2.18 | .72 | .22 | .12 | .55 |
| IN. | .66 | 1.05 | .61 | .57 | .73 | 1.10 | 2.93 | 2.51 | .81 | .26 | .14 | .61 |

CAL YR 1969 TOTAL 51,024.9 MEAN 140 MAX 834 MIN 9.2 CFSM 1.04 IN 14.17
WAT YR 1970 TOTAL 43,119.2 MEAN 118 MAX 944 MIN 7.4 CFSM .88 IN 11.97

PEAK DISCHARGE (BASE, 420 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-03 | 1815 | 9.30 | 620 | 05-15 | 2315 | 11.97 | 955 |
| 04-21 | 1500 | 11.22 | 843 | 09-25 | 0800 | 7.30 | 423 |

## 05522500 Iroquois River at Rensselaer, Ind.

**LOCATION.**--Lat 40°56'00", long 87°07'44", in NW¼SE¼ sec.29, T.29 N., R.6 W., Jasper County, on right bank 20 ft downstream from bridge on State Highway 114, 0.8 mile east of Rensselaer, 1.5 miles downstream from Ryan ditch, and 5.5 miles upstream from Slough Creek.

**DRAINAGE AREA.**--194 sq mi.

**PERIOD OF RECORD.**--July 1948 to current year.

**GAGE.**--Water-stage recorder. Datum of gage is 642.29 ft above mean sea level (levels by Indiana Flood Control and Water Resources Commission). Prior to July 8, 1949, nonrecording gage at same site and datum.

**AVERAGE DISCHARGE.**--22 years, 153 cfs (10.71 inches per year).

**EXTREMES.**--Current year: Maximum discharge, 1,340 cfs May 15; (gage height, 12.57 ft); minimum, 6.7 cfs Sept. 1 (gage height, 3.09 ft).
Period of record: Maximum discharge, 2,550 cfs June 10, 1958 (gage height, 16.54 ft); minimum, 1.7 cfs Oct. 29, 30, 1964; minimum gage height, 2.73 ft Sept. 15, 1948.

**REMARKS.**--Records fair except those for parts of January and February, which are poor.

**REVISIONS.**--WSP 1338: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 15 | 159 | 117 | 73 | 261 | 81 | 307 | 267 | 119 | 25 | 26 | 7.9 |
| 2 | 17 | 187 | 106 | 62 | 220 | 83 | 624 | 250 | 243 | 21 | 19 | 8.2 |
| 3 | 15 | 148 | 105 | 55 | 200 | 105 | 833 | 211 | 326 | 22 | 17 | 12 |
| 4 | 17 | 153 | 95 | 50 | 220 | 216 | 797 | 186 | 283 | 32 | 16 | 15 |
| 5 | 15 | 173 | 86 | 44 | 150 | 235 | 659 | 169 | 216 | 30 | 19 | 13 |
| 6 | 14 | 158 | 88 | 42 | 125 | 202 | 503 | 154 | 190 | 30 | 13 | 14 |
| 7 | 18 | 133 | 95 | 39 | 105 | 180 | 379 | 143 | 161 | 18 | 9.7 | 15 |
| 8 | 23 | 118 | 124 | 36 | 95 | 161 | 303 | 135 | 131 | 22 | 16 | 20 |
| 9 | 19 | 107 | 122 | 34 | 90 | 141 | 254 | 122 | 114 | 40 | 18 | 23 |
| 10 | 20 | 100 | 119 | 32 | 87 | 126 | 213 | 123 | 104 | 30 | 19 | 18 |
| 11 | 53 | 97 | 112 | 32 | 82 | 110 | 189 | 117 | 96 | 30 | 20 | 15 |
| 12 | 136 | 100 | 101 | 33 | 76 | 108 | 176 | 148 | 85 | 27 | 20 | 14 |
| 13 | 299 | 93 | 93 | 34 | 72 | 100 | 183 | 642 | 85 | 19 | 17 | 22 |
| 14 | 331 | 86 | 98 | 35 | 68 | 95 | 202 | 1,090 | 175 | 21 | 14 | 31 |
| 15 | 261 | 80 | 87 | 38 | 64 | 91 | 186 | 1,310 | 156 | 39 | 10 | 59 |
| 16 | 171 | 75 | 82 | 38 | 75 | 82 | 171 | 1,310 | 128 | 39 | 12 | 58 |
| 17 | 132 | 92 | 80 | 37 | 86 | 81 | 160 | 1,200 | 112 | 28 | 15 | 46 |
| 18 | 102 | 169 | 79 | 36 | 112 | 82 | 150 | 1,010 | 98 | 18 | 14 | 41 |
| 19 | 97 | 340 | 76 | 34 | 167 | 84 | 550 | 796 | 80 | 28 | 23 | 37 |
| 20 | 116 | 369 | 72 | 33 | 125 | 104 | 1,080 | 571 | 72 | 93 | 33 | 35 |
| 21 | 170 | 302 | 80 | 32 | 128 | 120 | 1,180 | 388 | 87 | 80 | 24 | 30 |
| 22 | 149 | 236 | 78 | 32 | 104 | 116 | 1,110 | 284 | 87 | 59 | 25 | 68 |
| 23 | 117 | 229 | 56 | 32 | 98 | 107 | 960 | 231 | 71 | 38 | 55 | 177 |
| 24 | 99 | 214 | 69 | 32 | 99 | 99 | 800 | 219 | 68 | 27 | 30 | 416 |
| 25 | 99 | 190 | 83 | 40 | 105 | 97 | 618 | 205 | 64 | 24 | 24 | 511 |
| 26 | 88 | 170 | 73 | 52 | 93 | 247 | 448 | 180 | 57 | 20 | 15 | 415 |
| 27 | 81 | 153 | 68 | 90 | 97 | 440 | 337 | 154 | 54 | 21 | 11 | 296 |
| 28 | 74 | 139 | 68 | 174 | 81 | 496 | 280 | 138 | 47 | 27 | 14 | 188 |
| 29 | 71 | 131 | 67 | 432 | ------ | 480 | 255 | 123 | 49 | 17 | 13 | 144 |
| 30 | 72 | 124 | 69 | 449 | ------ | 396 | 240 | 119 | 36 | 31 | 13 | 121 |
| 31 | 75 | ------ | 68 | 366 | ------ | 320 | ------ | 113 | ------ | 35 | 11 | ------ |
| TOTAL | 2,956 | 4,825 | 2,716 | 2,548 | 3,285 | 5,385 | 14,147 | 12,108 | 3,594 | 991 | 585.7 | 2,870.1 |
| MEAN | 95.4 | 161 | 87.6 | 82.2 | 117 | 174 | 472 | 391 | 120 | 32.0 | 18.9 | 95.7 |
| MAX | 331 | 369 | 124 | 449 | 261 | 496 | 1,180 | 1,310 | 326 | 93 | 55 | 511 |
| MIN | 14 | 75 | 56 | 32 | 64 | 81 | 150 | 113 | 36 | 17 | 9.7 | 7.9 |
| CFSM | .49 | .83 | .45 | .42 | .60 | .90 | 2.43 | 2.02 | .62 | .16 | .097 | .49 |
| IN. | .57 | .93 | .52 | .49 | .63 | 1.03 | 2.71 | 2.32 | .69 | .19 | .11 | .55 |

CAL YR 1969 TOTAL 62,412.1 MEAN 171 MAX 1,160 MIN 9.1 CFSM .88 IN 11.97
WAT YR 1970 TOTAL 56,010.8 MEAN 153 MAX 1,310 MIN 7.9 CFSM .79 IN 10.74

PEAK DISCHARGE (BASE, 650 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-03 | 1730 | 9.93 | 847 | 05-15 | 2000 | 12.57 | 1,340 |
| 04-21 | 1045 | 11.79 | 1,190 | | | | |

## 05523000 Bice ditch near South Marion, Ind.

LOCATION.--Lat 40°52'00", long 87°05'32", in NE¼NW¼ sec.22, T.28 N., R.6 W., Jasper County, on left bank at upstream side of bridge on State Highway 16, 2 miles upstream from Slough Creek, 3 miles southeast of South Marion, and 5 miles southeast of Rensselaer.

DRAINAGE AREA.--22.6 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 651.30 ft above mean sea level. Prior to Aug. 5, 1955, nonrecording gage, and Aug. 5, 1955, to Sept. 30, 1965, water-stage recorder at present site at datum 2.00 ft higher.

AVERAGE DISCHARGE.--21 years (1949-70), 16.1 cfs (9.67 inches per year).

EXTREMES.--Current year: Maximum discharge, 790 cfs May 14 (gage height, 9.84 ft); minimum, 0.30 cfs Feb. 19 (gage height, 1.34 ft). Period of record: Maximum discharge, 958 cfs Dec. 21, 1967 (gage height, 10.89 ft); no flow at times during 1952, 1955, and 1964.

REMARKS.--Records good except those for parts of January and February, which are poor.

REVISIONS (WATER YEARS).--WSP 1338: Drainage area. WSP 1508: 1956.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .79 | 19 | 10 | 4.6 | 15 | 3.1 | 38 | 27 | 11 | 1.9 | 9.0 | .83 |
| 2 | .86 | 13 | 9.0 | 4.0 | 16 | 3.6 | 129 | 18 | 16 | 1.8 | 6.0 | .85 |
| 3 | .85 | 11 | 8.8 | 3.5 | 13 | 9.0 | 96 | 15 | 14 | 1.8 | 4.8 | 1.1 |
| 4 | .79 | 17 | 6.7 | 3.2 | 7.0 | 22 | 60 | 13 | 13 | 1.9 | 4.0 | 1.4 |
| 5 | .79 | 15 | 6.4 | 2.8 | 5.8 | 18 | 42 | 12 | 17 | 1.7 | 3.4 | 1.4 |
| 6 | .86 | 12 | 6.8 | 2.6 | 4.9 | 15 | 31 | 10 | 20 | 1.3 | 2.8 | 1.2 |
| 7 | 5.6 | 10 | 11 | 2.4 | 4.5 | 14 | 22 | 9.8 | 16 | 1.2 | 2.6 | 1.4 |
| 8 | 3.0 | 8.5 | 14 | 2.3 | 4.1 | 12 | 20 | 9.5 | 13 | 4.2 | 2.2 | 2.2 |
| 9 | 1.9 | 7.9 | 12 | 2.3 | 3.9 | 11 | 18 | 8.8 | 11 | 3.3 | 2.0 | 2.2 |
| 10 | 1.7 | 7.2 | 11 | 2.3 | 3.6 | 9.5 | 15 | 8.6 | 10 | 2.2 | 1.7 | 1.4 |
| 11 | 17 | 7.0 | 11 | 2.3 | 3.5 | 8.3 | 13 | 11 | 9.7 | 1.8 | 1.4 | 1.1 |
| 12 | 48 | 6.6 | 8.0 | 2.4 | 3.4 | 9.3 | 12 | 23 | 9.2 | 1.6 | 1.2 | 1.1 |
| 13 | 49 | 6.0 | 7.8 | 2.5 | 3.2 | 7.8 | 18 | 465 | 7.1 | 1.5 | 1.0 | 4.1 |
| 14 | 24 | 5.5 | 7.9 | 2.5 | 3.1 | 6.8 | 18 | 450 | 9.8 | 1.6 | .84 | 9.2 |
| 15 | 15 | 5.0 | 6.4 | 2.4 | 3.1 | 5.9 | 14 | 333 | 25 | 4.4 | .75 | 15 |
| 16 | 12 | 4.9 | 5.9 | 2.3 | 3.0 | 4.8 | 13 | 147 | 15 | 1.9 | .68 | 8.2 |
| 17 | 8.8 | 10 | 5.9 | 2.2 | 3.2 | 4.9 | 12 | 88 | 11 | 1.4 | .64 | 5.4 |
| 18 | 7.1 | 31 | 6.1 | 2.2 | 4.4 | 5.9 | 10 | 56 | 8.6 | 1.3 | .62 | 44 |
| 19 | 6.7 | 78 | 5.3 | 2.2 | 3.8 | 8.5 | 366 | 36 | 6.5 | 5.4 | 1.4 | 20 |
| 20 | 7.2 | 42 | 5.0 | 2.2 | 3.4 | 19 | 305 | 25 | 5.4 | 52 | 8.5 | 12 |
| 21 | 8.1 | 27 | 5.3 | 2.3 | 2.8 | 17 | 178 | 19 | 5.1 | 27 | 1.8 | 9.2 |
| 22 | 6.4 | 26 | 5.1 | 2.4 | 3.0 | 15 | 97 | 16 | 4.2 | 18 | 3.3 | 71 |
| 23 | 5.1 | 31 | 4.7 | 3.2 | 2.8 | 12 | 62 | 14 | 3.6 | 5.5 | 4.1 | 135 |
| 24 | 4.8 | 23 | 5.3 | 6.0 | 3.0 | 10 | 60 | 23 | 3.2 | 4.0 | 1.8 | 155 |
| 25 | 4.8 | 19 | 4.5 | 9.2 | 2.9 | 11 | 42 | 78 | 3.1 | 2.8 | 1.2 | 80 |
| 26 | 4.7 | 16 | 4.5 | 13 | 3.4 | 126 | 31 | 33 | 3.0 | 2.1 | 1.1 | 70 |
| 27 | 4.3 | 14 | 3.9 | 22 | 3.4 | 84 | 25 | 22 | 2.9 | 1.7 | .95 | 73 |
| 28 | 3.9 | 12 | 3.9 | 35 | 2.8 | 52 | 23 | 16 | 2.5 | 1.4 | .87 | 40 |
| 29 | 3.7 | 12 | 4.1 | 60 | ------ | 32 | 20 | 13 | 2.4 | 1.2 | .89 | 27 |
| 30 | 3.7 | 11 | 4.5 | 22 | ------ | 24 | 28 | 12 | 2.1 | 66 | .83 | 22 |
| 31 | 4.8 | ------ | 5.3 | 16 | ------ | 19 | ------ | 11 | ------ | 18 | .77 | ------ |
| TOTAL | 264.25 | 507.2 | 216.1 | 244.3 | 136.0 | 600.4 | 1,818 | 2,022.7 | 280.4 | 241.9 | 73.14 | 816.28 |
| MEAN | 8.59 | 16.9 | 6.97 | 7.88 | 4.86 | 19.4 | 60.6 | 65.2 | 9.35 | 7.80 | 2.36 | 27.2 |
| MAX | 49 | 78 | 14 | 60 | 16 | 126 | 366 | 465 | 25 | 66 | 9.0 | 155 |
| MIN | .79 | 4.5 | 3.9 | 2.2 | 2.8 | 3.1 | 10 | 8.6 | 2.1 | 1.2 | .62 | .83 |
| CFSM | .38 | .75 | .31 | .35 | .22 | .86 | 2.68 | 2.89 | .41 | .35 | .10 | 1.20 |
| IN. | .44 | .83 | .36 | .40 | .22 | .99 | 2.99 | 3.33 | .46 | .40 | .12 | 1.34 |

CAL YR 1969 TOTAL 6,683.69 MEAN 18.3 MAX 341 MIN .62 CFSM .81 IN 11.00
WAT YR 1970 TOTAL 7,222.67 MEAN 19.8 MAX 465 MIN .62 CFSM .88 IN 11.89

PEAK DISCHARGE (BASE, 340 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-19 | 1200 | 8.08 | 538 | 05-14 | 1815 | 9.84 | 790 |

## 05523500 Slough Creek near Collegeville, Ind.

LOCATION.--Lat 40°53'30", long 87°09'17", in SE¼NE¼ sec.12, T.28 N., R.7 W., Jasper County, on right bank at downstream side of bridge on State Highway 53, 1.5 miles south of Collegeville, 2.5 miles upstream from mouth, and 2.8 miles downstream from Bice ditch.

DRAINAGE AREA.--84.1 sq mi.

PERIOD OF RECORD.--July 1948 to December 1951, October 1952 to current year. Prior to October 1965, published as Big Slough Creek near Collegeville.

GAGE.--Water-stage recorder. Datum of gage is 634.75 ft above mean sea level. 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 higher.

AVERAGE DISCHARGE.--21 years, 66.8 cfs (10.79 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,180 cfs May 15 (gage height, 16.16 ft); minimum, 5.3 cfs Aug. 31, Sept. 1, 11 (gage height, 2.61 ft).
Period of record: Maximum discharge, 2,390 cfs Dec. 22, 1967 (gage height, 16.88 ft); minimum daily discharge, 0.7 cfs Dec. 20-26, 1963.

REMARKS.--Records fair except those for parts of December and January, which are poor.

REVISIONS (WATER YEARS).--WSP 1338: Drainage area. WSP 1558: 1955(M), 1956(M), 1957.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.1 | 63 | 46 | 23 | 100 | 21 | 160 | 158 | 48 | 16 | 18 | 5.9 |
| 2 | 6.5 | 62 | 41 | 21 | 110 | 23 | 300 | 108 | 58 | 16 | 14 | 5.9 |
| 3 | 6.4 | 48 | 40 | 19 | 120 | 34 | 540 | 79 | 59 | 16 | 12 | 6.2 |
| 4 | 6.0 | 60 | 35 | 17 | 70 | 82 | 270 | 65 | 54 | 16 | 11 | 7.7 |
| 5 | 6.4 | 62 | 32 | 16 | 45 | 80 | 210 | 56 | 54 | 14 | 10 | 6.8 |
| 6 | 6.2 | 50 | 33 | 15 | 32 | 66 | 150 | 49 | 60 | 13 | 9.6 | 6.5 |
| 7 | 16 | 42 | 42 | 13 | 28 | 62 | 120 | 46 | 52 | 13 | 9.2 | 6.5 |
| 8 | 14 | 37 | 57 | 12 | 27 | 54 | 100 | 43 | 47 | 16 | 8.7 | 8.8 |
| 9 | 9.6 | 35 | 51 | 12 | 26 | 47 | 77 | 41 | 38 | 18 | 8.3 | 8.0 |
| 10 | 9.0 | 33 | 48 | 11 | 24 | 41 | 64 | 39 | 36 | 13 | 8.0 | 6.5 |
| 11 | 45 | 32 | 47 | 12 | 24 | 36 | 55 | 37 | 33 | 12 | 7.7 | 5.9 |
| 12 | 125 | 30 | 38 | 12 | 23 | 38 | 50 | 82 | 31 | 10 | 7.4 | 5.6 |
| 13 | 273 | 27 | 36 | 13 | 23 | 35 | 60 | 1,560 | 29 | 10 | 7.2 | 9.6 |
| 14 | 158 | 26 | 36 | 13 | 22 | 31 | 64 | 1,780 | 126 | 13 | 7.0 | 17 |
| 15 | 88 | 23 | 31 | 13 | 22 | 28 | 54 | 2,020 | 171 | 19 | 6.8 | 32 |
| 16 | 54 | 21 | 29 | 13 | 21 | 24 | 49 | 700 | 89 | 14 | 6.6 | 26 |
| 17 | 41 | 34 | 28 | 13 | 22 | 24 | 44 | 425 | 58 | 11 | 6.4 | 18 |
| 18 | 35 | 94 | 29 | 12 | 25 | 27 | 42 | 330 | 45 | 10 | 6.1 | 50 |
| 19 | 34 | 353 | 27 | 12 | 29 | 32 | 978 | 260 | 37 | 21 | 12 | 42 |
| 20 | 35 | 274 | 28 | 11 | 37 | 56 | 1,610 | 210 | 34 | 57 | 31 | 28 |
| 21 | 38 | 182 | 27 | 11 | 42 | 59 | 650 | 170 | 32 | 32 | 14 | 23 |
| 22 | 34 | 136 | 25 | 11 | 24 | 52 | 475 | 150 | 28 | 21 | 13 | 94 |
| 23 | 28 | 142 | 23 | 12 | 22 | 44 | 330 | 120 | 26 | 17 | 17 | 353 |
| 24 | 26 | 106 | 29 | 14 | 23 | 39 | 290 | 111 | 25 | 16 | 11 | 482 |
| 25 | 25 | 86 | 27 | 18 | 24 | 37 | 250 | 238 | 23 | 15 | 8.8 | 418 |
| 26 | 24 | 68 | 26 | 45 | 30 | 480 | 220 | 140 | 23 | 13 | 7.7 | 376 |
| 27 | 22 | 61 | 26 | 90 | 24 | 340 | 190 | 88 | 22 | 12 | 7.4 | 356 |
| 28 | 20 | 55 | 26 | 235 | 20 | 235 | 170 | 65 | 20 | 12 | 6.8 | 221 |
| 29 | 19 | 53 | 26 | 310 | ------ | 165 | 157 | 54 | 19 | 11 | 6.5 | 99 |
| 30 | 18 | 49 | 27 | 180 | ------ | 125 | 144 | 51 | 18 | 36 | 6.2 | 45 |
| 31 | 21 | ------ | 25 | 120 | ------ | 90 | ------ | 50 | ------ | 35 | 5.9 | ------ |
| TOTAL | 1,249.2 | 2,344 | 1,041 | 1,329 | 1,039 | 2,507 | 7,873 | 9,325 | 1,395 | 548 | 311.3 | 2,769.9 |
| MEAN | 40.3 | 78.1 | 33.6 | 42.9 | 37.1 | 80.9 | 262 | 301 | 46.5 | 17.7 | 10.0 | 92.3 |
| MAX | 273 | 353 | 57 | 310 | 120 | 480 | 1,610 | 2,020 | 171 | 57 | 31 | 482 |
| MIN | 6.0 | 21 | 23 | 11 | 20 | 21 | 42 | 37 | 18 | 10 | 5.9 | 5.6 |
| CFSM | .48 | .93 | .40 | .51 | .44 | .96 | 3.12 | 3.58 | .55 | .21 | .12 | 1.10 |
| IN. | .55 | 1.04 | .46 | .59 | .46 | 1.11 | 3.48 | 4.12 | .62 | .24 | .14 | 1.23 |

CAL YR 1969 TOTAL 30,564.7 MEAN 83.7 MAX 1,500 MIN 5.2 CFSM 1.00 IN 13.52
WAT YR 1970 TOTAL 31,731.4 MEAN 86.9 MAX 2,020 MIN 5.6 CFSM 1.03 IN 14.04

## 05524000 Carpenter Creek at Egypt, Ind.

LOCATION.--Lat 40°51'58", long 87°12'20", in SE¼SW¼ sec.15, T.28 N., R.7 W., Jasper County, on left bank at downstream side of bridge on State Highway 16, 0.5 mile north of Egypt, 2.8 miles upstream from mouth, and 4 miles southwest of Collegeville.

DRAINAGE AREA.--48.1 sq mi.

PERIOD OF RECORD.--July 1948 to December 1951, October 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 641.79 ft above mean sea level. Prior to Sept. 6, 1955, nonrecording gage, at same site and datum.

AVERAGE DISCHARGE.--21 years, 35.1 cfs (9.91 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,720 cfs May 13 (gage height, 10.59 ft); no flow Oct. 5, 6.
Period of record: Maximum discharge, 3,720 cfs June 10, 1958 (gage height, 11.66 ft); no flow at times most years.

REMARKS.--Records fair except those below 10 cfs and parts of December, January, February, and March, which are poor.

REVISIONS (WATER YEARS).--WSP 1175: 1949(M). WSP 1338: Drainage area. WSP 1558: 1955-57. WSP 1728: 1951(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .02 | 21 | 25 | 8.3 | 26 | 5.2 | 67 | 56 | 22 | 4.4 | 14 | .38 |
| 2 | .02 | 24 | 20 | 8.0 | 28 | 9.5 | 263 | 41 | 34 | 4.1 | 7.0 | .36 |
| 3 | .06 | 19 | 21 | 7.2 | 18 | 17 | 253 | 35 | 27 | 3.8 | 4.9 | .54 |
| 4 | .06 | 24 | 15 | 6.5 | 12 | 39 | 158 | 32 | 23 | 4.0 | 3.5 | .98 |
| 5 | 0 | 32 | 14 | 5.8 | 8.0 | 44 | 105 | 28 | 29 | 4.1 | 2.8 | 1.1 |
| 6 | 0 | 28 | 15 | 5.2 | 7.0 | 34 | 82 | 24 | 38 | 3.7 | 2.4 | 1.0 |
| 7 | .77 | 23 | 22 | 4.7 | 6.4 | 32 | 56 | 22 | 30 | 3.3 | 2.0 | .95 |
| 8 | .95 | 21 | 24 | 4.2 | 6.0 | 30 | 48 | 22 | 23 | 3.3 | 1.8 | 1.0 |
| 9 | .32 | 20 | 21 | 4.0 | 5.8 | 26 | 43 | 22 | 20 | 4.0 | 1.7 | 1.4 |
| 10 | .20 | 19 | 20 | 4.0 | 5.6 | 22 | 37 | 22 | 20 | 3.3 | 1.5 | 1.2 |
| 11 | 20 | 17 | 21 | 4.1 | 5.5 | 19 | 33 | 21 | 17 | 2.7 | 1.3 | .90 |
| 12 | 47 | 16 | 15 | 4.2 | 5.4 | 20 | 31 | 30 | 14 | 2.3 | .97 | .83 |
| 13 | 108 | 13 | 15 | 4.3 | 5.3 | 17 | 44 | 1,140 | 12 | 2.0 | .86 | 2.8 |
| 14 | 56 | 12 | 17 | 4.4 | 5.2 | 16 | 47 | 924 | 12 | 2.0 | .75 | 9.4 |
| 15 | 33 | 10 | 13 | 4.5 | 5.1 | 14 | 40 | 855 | 38 | 2.7 | .60 | 23 |
| 16 | 24 | 9.1 | 11 | 4.4 | 5.0 | 11 | 37 | 371 | 27 | 2.0 | .56 | 12 |
| 17 | 17 | 13 | 11 | 4.3 | 5.5 | 11 | 32 | 250 | 20 | 1.6 | .48 | 6.6 |
| 18 | 13 | 48 | 12 | 4.1 | 7.0 | 13 | 29 | 173 | 17 | 1.4 | .44 | 31 |
| 19 | 11 | 106 | 12 | 4.0 | 5.6 | 15 | 550 | 115 | 14 | 4.3 | .50 | 21 |
| 20 | 11 | 119 | 12 | 3.8 | 5.2 | 25 | 724 | 79 | 12 | 50 | 7.7 | 11 |
| 21 | 12 | 72 | 12 | 3.9 | 4.7 | 31 | 411 | 59 | 11 | 12 | 2.0 | 8.0 |
| 22 | 10 | 59 | 12 | 4.0 | 6.5 | 31 | 272 | 48 | 9.9 | 5.6 | 2.5 | 102 |
| 23 | 8.0 | 71 | 9.3 | 5.0 | 5.8 | 27 | 198 | 41 | 8.7 | 3.9 | 6.1 | 292 |
| 24 | 7.3 | 56 | 12 | 8.0 | 5.2 | 24 | 169 | 38 | 7.8 | 3.2 | 2.5 | 407 |
| 25 | 7.1 | 47 | 10 | 13 | 4.8 | 23 | 126 | 141 | 7.4 | 2.6 | 1.4 | 234 |
| 26 | 7.3 | 39 | 11 | 25 | 5.7 | 251 | 88 | 68 | 6.7 | 1.8 | .96 | 151 |
| 27 | 6.7 | 35 | 9.5 | 50 | 5.0 | 224 | 67 | 43 | 6.4 | 1.4 | .71 | 147 |
| 28 | 6.0 | 30 | 8.4 | 130 | 4.6 | 131 | 59 | 34 | 5.7 | 1.1 | .55 | 89 |
| 29 | 5.6 | 29 | 8.6 | 50 | ------ | 86 | 48 | 28 | 5.2 | 1.7 | .51 | 61 |
| 30 | 5.4 | 26 | 8.7 | 32 | ------ | 62 | 52 | 25 | 4.8 | 62 | .45 | 49 |
| 31 | 5.9 | ------ | 8.6 | 24 | ------ | 49 | ------ | 22 | ------ | 46 | .42 | ------ |
| TOTAL | 423.70 | 1,148.1 | 446.1 | 444.9 | 219.9 | 1,358.7 | 4,169 | 4,809 | 522.6 | 250.3 | 73.86 | 1,667.44 |
| MEAN | 13.7 | 38.3 | 14.4 | 14.4 | 7.85 | 43.8 | 139 | 155 | 17.4 | 8.07 | 2.38 | 55.6 |
| MAX | 108 | 196 | 25 | 130 | 28 | 251 | 724 | 1,140 | 38 | 62 | 14 | 407 |
| MIN | 0 | 9.1 | 8.4 | 3.8 | 4.6 | 5.2 | 29 | 21 | 4.8 | 1.1 | .42 | .36 |
| CFSM | .28 | .80 | .30 | .30 | .16 | .91 | 2.89 | 3.22 | .36 | .17 | .050 | 1.16 |
| IN. | .33 | .89 | .35 | .34 | .17 | 1.05 | 3.22 | 3.72 | .40 | .19 | .06 | 1.29 |

CAL YR 1969 TOTAL 15,996.81 MEAN 43.8 MAX 920 MIN 0 CFSM .91 IN 12.37
WAT YR 1970 TOTAL 15,533.60 MEAN 42.6 MAX 1,140 MIN 0 CFSM .89 IN 12.01

PEAK DISCHARGE (BASE, 600 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-19 | 2230 | 9.63 | 925 | 05-13 | 1445 | 10.59 | 1,720 |

## 05524500 Iroquois River near Foresman, Ind.

LOCATION.--Lat 40°52'14", long 87°18'24", in NE¼SE¼ sec.15, T.28 N., R.8 W., Newton County, on right bank at downstream side of bridge on State Highway 55, 0.2 mile north of intersection of Highways 16 and 55, 0.5 mile downstream from Mosquito Creek, 0.6 mile west of Foresman, and 3 miles east of Brook.

DRAINAGE AREA.--452 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 624.00 ft above mean sea level. Prior to Sept. 7, 1955, nonrecording gage 2.5 miles upstream at datum 3.54 ft higher.

AVERAGE DISCHARGE.--21 years, 345 cfs (10.37 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,240 cfs May 16 (gage height, 20.31 ft); minimum, 25 cfs Sept. 2, 3 (gage height, 3.74 ft).
Period of record: Maximum discharge, 5,930 cfs June 14, 1958 (gage height, 24.42 ft); minimum, 6.1 cfs Sept. 10, 1964; minimum gage height, 2.92 ft Sept. 27-29, 1956.

REMARKS.--Records fair. Records of suspended sediment loads for current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1338: 1953, drainage area (at former site). WSP 1438: 1955. WSP 1508: 1956.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 41 | 230 | 279 | 146 | 680 | 132 | 853 | 738 | 266 | 88 | 156 | 29 |
| 2 | 40 | 356 | 252 | 131 | 650 | 152 | 1,140 | 659 | 606 | 78 | 94 | 26 |
| 3 | 40 | 352 | 240 | 120 | 450 | 203 | 1,490 | 550 | 699 | 75 | 70 | 27 |
| 4 | 39 | 341 | 216 | 110 | 330 | 399 | 1,610 | 448 | 663 | 76 | 58 | 31 |
| 5 | 40 | 384 | 190 | 100 | 260 | 553 | 1,590 | 372 | 584 | 79 | 54 | 36 |
| 6 | 40 | 386 | 185 | 92 | 235 | 552 | 1,480 | 365 | 541 | 76 | 50 | 33 |
| 7 | 50 | 354 | 198 | 85 | 220 | 504 | 1,300 | 284 | 465 | 71 | 43 | 34 |
| 8 | 68 | 307 | 254 | 80 | 200 | 458 | 1,100 | 266 | 371 | 70 | 40 | 35 |
| 9 | 60 | 273 | 270 | 75 | 190 | 399 | 892 | 244 | 299 | 80 | 44 | 37 |
| 10 | 51 | 250 | 264 | 73 | 180 | 349 | 702 | 228 | 254 | 80 | 43 | 37 |
| 11 | 138 | 234 | 258 | 74 | 170 | 306 | 536 | 218 | 226 | 72 | 41 | 34 |
| 12 | 299 | 226 | 235 | 76 | 160 | 287 | 428 | 242 | 199 | 68 | 40 | 32 |
| 13 | 596 | 216 | 209 | 78 | 150 | 272 | 401 | 1,490 | 180 | 60 | 54 | 38 |
| 14 | 747 | 199 | 209 | 80 | 140 | 252 | 455 | 3,020 | 264 | 68 | 40 | 50 |
| 15 | 706 | 182 | 192 | 83 | 135 | 235 | 450 | 4,030 | 426 | 76 | 34 | 110 |
| 16 | 572 | 168 | 174 | 88 | 130 | 211 | 404 | 4,210 | 426 | 78 | 30 | 140 |
| 17 | 401 | 173 | 165 | 86 | 140 | 200 | 363 | 3,910 | 352 | 68 | 30 | 105 |
| 18 | 284 | 297 | 163 | 82 | 160 | 201 | 330 | 3,420 | 284 | 62 | 30 | 117 |
| 19 | 221 | 604 | 161 | 78 | 240 | 210 | 1,030 | 2,920 | 224 | 100 | 33 | 157 |
| 20 | 219 | 832 | 141 | 72 | 215 | 257 | 2,360 | 2,380 | 180 | 218 | 107 | 102 |
| 21 | 278 | 860 | 161 | 70 | 202 | 327 | 2,860 | 1,880 | 182 | 226 | 75 | 92 |
| 22 | 291 | 790 | 171 | 70 | 211 | 339 | 2,780 | 1,480 | 184 | 134 | 52 | 186 |
| 23 | 249 | 731 | 134 | 70 | 180 | 324 | 2,590 | 1,150 | 162 | 97 | 90 | 631 |
| 24 | 206 | 675 | 124 | 74 | 165 | 297 | 2,320 | 853 | 145 | 82 | 75 | 1,060 |
| 25 | 185 | 592 | 162 | 80 | 167 | 275 | 1,990 | 700 | 134 | 78 | 48 | 1,230 |
| 26 | 175 | 500 | 157 | 95 | 139 | 475 | 1,680 | 584 | 125 | 68 | 42 | 1,210 |
| 27 | 160 | 421 | 143 | 130 | 157 | 1,090 | 1,400 | 492 | 118 | 62 | 36 | 1,140 |
| 28 | 146 | 361 | 139 | 210 | 138 | 1,250 | 1,150 | 370 | 109 | 66 | 32 | 1,000 |
| 29 | 137 | 325 | 137 | 600 | ------ | 1,240 | 945 | 300 | 102 | 62 | 33 | 799 |
| 30 | 132 | 296 | 141 | 700 | ------ | 1,140 | 807 | 259 | 98 | 142 | 32 | 579 |
| 31 | 134 | ------ | 140 | 700 | ------ | 993 | ------ | 242 | ------ | 270 | 31 | ------ |
| TOTAL | 6,745 | 11,915 | 5,864 | 4,608 | 6,394 | 13,882 | 37,436 | 38,304 | 8,868 | 2,930 | 1,637 | 9,137 |
| MEAN | 218 | 397 | 189 | 149 | 228 | 448 | 1,248 | 1,236 | 296 | 94.5 | 52.8 | 305 |
| MAX | 747 | 860 | 279 | 700 | 680 | 1,250 | 2,860 | 4,210 | 699 | 270 | 156 | 1,230 |
| MIN | 39 | 168 | 124 | 70 | 130 | 132 | 330 | 218 | 98 | 60 | 30 | 26 |
| CFSM | .48 | .88 | .42 | .33 | .50 | .99 | 2.76 | 2.73 | .65 | .21 | .12 | .67 |
| IN. | .56 | .98 | .48 | .38 | .53 | 1.14 | 3.08 | 3.15 | .73 | .24 | .13 | .75 |

CAL YR 1969 TOTAL 172,244 MEAN 472 MAX 3,030 MIN 36 CFSM 1.04 IN 14.18
WAT YR 1970 TOTAL 147,720 MEAN 405 MAX 4,210 MIN 26 CFSM .90 IN 12.16

## 05525000 Iroquois River at Iroquois, Ill.

LOCATION.--Lat 40°49'25", long 87°34'55", in SE¼ sec.15, T.27 N., R.11 W., Iroquois County, on left bank at upstream side of bridge on U.S. Highway 52 in Iroquois, 500 ft upstream from Cleveland, Cincinnati, Chicago & St. Louis Railway bridge, and 4.5 miles downstream from Indiana-Illinois State line.

DRAINAGE AREA.--682 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 614.34 ft above mean sea level. Prior to Aug. 5, 1945, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--26 years, 508 cfs (10.12 inches per year).

EXTREMES.--Current year: Maximum discharge, 5,400 cfs May 15 (gage height, 22.28 ft); minimum, 34 cfs Oct. 3.
Period of record: Maximum discharge, 10,400 cfs June 13, 1958 (gage height, 26.31 ft); minimum, 5.2 cfs Sept. 13, 1964.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | 201 | 453 | 205 | 940 | 190 | 1,130 | 1,130 | 395 | 139 | 519 | 41 |
| 2 | 35 | 256 | 414 | 205 | 920 | 190 | 1,460 | 982 | 914 | 123 | 304 | 38 |
| 3 | 35 | 403 | 388 | 190 | 840 | 208 | 1,780 | 857 | 1,150 | 120 | 190 | 35 |
| 4 | 35 | 469 | 355 | 180 | 660 | 345 | 1,890 | 747 | 1,070 | 115 | 132 | 35 |
| 5 | 35 | 499 | 323 | 170 | 500 | 524 | 1,920 | 654 | 964 | 106 | 104 | 38 |
| 6 | 37 | 550 | 298 | 150 | 400 | 596 | 1,880 | 569 | 935 | 102 | 88 | 43 |
| 7 | 42 | 562 | 308 | 140 | 350 | 595 | 1,720 | 503 | 825 | 99 | 79 | 44 |
| 8 | 51 | 508 | 342 | 130 | 320 | 562 | 1,510 | 459 | 705 | 93 | 67 | 43 |
| 9 | 59 | 444 | 374 | 120 | 300 | 507 | 1,280 | 426 | 590 | 91 | 60 | 42 |
| 10 | 103 | 400 | 388 | 115 | 280 | 448 | 1,070 | 392 | 494 | 95 | 58 | 44 |
| 11 | 253 | 366 | 385 | 110 | 270 | 386 | 864 | 370 | 422 | 97 | 58 | 45 |
| 12 | 754 | 344 | 363 | 110 | 250 | 344 | 710 | 431 | 371 | 88 | 57 | 41 |
| 13 | 1,040 | 326 | 338 | 110 | 230 | 320 | 637 | 3,170 | 332 | 79 | 62 | 48 |
| 14 | 1,010 | 311 | 321 | 115 | 220 | 299 | 653 | 4,710 | 311 | 75 | 69 | 72 |
| 15 | 894 | 291 | 304 | 120 | 220 | 276 | 666 | 5,360 | 461 | 76 | 62 | 198 |
| 16 | 703 | 262 | 282 | 120 | 210 | 251 | 644 | 5,220 | 619 | 79 | 50 | 318 |
| 17 | 510 | 254 | 262 | 120 | 220 | 231 | 593 | 4,960 | 650 | 84 | 42 | 279 |
| 18 | 381 | 335 | 254 | 120 | 260 | 222 | 537 | 4,550 | 542 | 78 | 38 | 354 |
| 19 | 367 | 652 | 248 | 115 | 320 | 220 | 1,320 | 4,080 | 435 | 194 | 61 | 404 |
| 20 | 406 | 950 | 235 | 105 | 340 | 244 | 2,900 | 3,520 | 356 | 262 | 349 | 343 |
| 21 | 411 | 1,050 | 202 | 100 | 310 | 304 | 3,560 | 2,980 | 321 | 320 | 265 | 262 |
| 22 | 359 | 1,050 | 220 | 100 | 300 | 365 | 3,850 | 2,410 | 300 | 277 | 206 | 498 |
| 23 | 312 | 1,020 | 220 | 100 | 280 | 380 | 3,800 | 1,930 | 284 | 192 | 367 | 1,440 |
| 24 | 281 | 960 | 210 | 100 | 270 | 361 | 3,550 | 1,460 | 257 | 137 | 229 | 2,320 |
| 25 | 260 | 880 | 210 | 110 | 250 | 333 | 3,220 | 1,120 | 231 | 110 | 159 | 2,560 |
| 26 | 236 | 781 | 200 | 130 | 210 | 628 | 2,820 | 919 | 213 | 96 | 110 | 2,400 |
| 27 | 215 | 699 | 200 | 170 | 200 | 1,120 | 2,370 | 787 | 194 | 84 | 82 | 2,210 |
| 28 | 198 | 615 | 200 | 280 | 190 | 1,280 | 2,010 | 664 | 176 | 84 | 66 | 1,990 |
| 29 | 190 | 544 | 208 | 760 | ------ | 1,330 | 1,640 | 544 | 159 | 80 | 55 | 1,690 |
| 30 | 185 | 487 | 206 | 920 | ------ | 1,300 | 1,320 | 454 | 148 | 338 | 49 | 1,350 |
| 31 | 190 | ------ | 212 | 940 | ------ | 1,220 | ------ | 403 | ------ | 749 | 45 | ------ |
| TOTAL | 9,603 | 16,471 | 8,923 | 6,464 | 10,060 | 15,579 | 53,324 | 56,761 | 14,824 | 4,662 | 4,022 | 19,225 |
| MEAN | 310 | 549 | 288 | 209 | 359 | 503 | 1,777 | 1,831 | 494 | 150 | 130 | 641 |
| MAX | 1,040 | 1,050 | 453 | 940 | 940 | 1,330 | 3,850 | 5,360 | 1,150 | 749 | 519 | 2,560 |
| MIN | 35 | 201 | 200 | 100 | 190 | 190 | 537 | 370 | 148 | 75 | 38 | 35 |
| CFSM | .45 | .81 | .42 | .31 | .53 | .74 | 2.61 | 2.68 | .72 | .22 | .19 | .94 |
| IN. | .52 | .90 | .49 | .35 | .55 | .85 | 2.91 | 3.10 | .81 | .25 | .22 | 1.05 |

CAL YR 1969 TOTAL 225,495 MEAN 618 MAX 3,660 MIN 31 CFSM .91 IN 12.30
WTR YR 1970 TOTAL 219,919 MEAN 603 MAX 5,360 MIN 35 CFSM .88 IN 12.00

## 05525500 Sugar Creek at Milford, Ill.

LOCATION.--Lat 40°37'50", long 87°43'25", in NE¼ sec.16, T.25 N., R.12 W., Iroquois County, near right bank on downstream side of highway bridge, 200 ft downstream from Mud Creek and 1 mile west of Milford.

DRAINAGE AREA.--430 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 622.00 ft above mean sea level. Prior to July 23, 1970, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--22 years, 326 cfs (10.30 inches per year).

EXTREMES.--Current year: Maximum discharge, 7,010 cfs May 14 (gage height, 19.13 ft, from graph based on gage readings); minimum, 10 cfs Oct. 5, 6.
Period of record: Maximum discharge, 22,900 cfs Feb. 21, 1951 (gage height, 20.90 ft), from rating curve extended above 8,200 cfs; maximum gage height, 23.74 ft Feb. 10, 1959 (ice jam); minimum discharge, 2.6 cfs Oct. 9, 1966.

REMARKS.--Records poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 12 | 117 | 153 | 54 | 240 | 134 | 1,210 | 295 | 261 | 92 | 490 | 21 |
| 2 | 12 | 101 | 131 | 50 | 180 | 126 | 1,730 | 293 | 261 | 68 | 381 | 19 |
| 3 | 12 | 91 | 132 | 45 | 150 | 97 | 2,410 | 191 | 289 | 365 | 202 | 18 |
| 4 | 14 | 93 | 125 | 42 | 120 | 229 | 2,290 | 216 | 327 | 595 | 136 | 21 |
| 5 | 10 | 97 | 112 | 40 | 100 | 343 | 1,800 | 301 | 341 | 297 | 99 | 25 |
| 6 | 10 | 112 | 117 | 35 | 90 | 295 | 1,000 | 267 | 321 | 209 | 83 | 25 |
| 7 | 20 | 112 | 117 | 32 | 80 | 251 | 600 | 255 | 358 | 136 | 69 | 27 |
| 8 | 26 | 102 | 122 | 31 | 72 | 315 | 450 | 245 | 317 | 112 | 60 | 24 |
| 9 | 28 | 95 | 134 | 30 | 65 | 343 | 341 | 227 | 277 | 92 | 56 | 22 |
| 10 | 34 | 91 | 121 | 30 | 60 | 323 | 205 | 329 | 267 | 81 | 50 | 20 |
| 11 | 89 | 89 | 115 | 31 | 56 | 181 | 170 | 482 | 241 | 68 | 45 | 18 |
| 12 | 225 | 82 | 101 | 33 | 54 | 147 | 162 | 1,650 | 303 | 61 | 42 | 16 |
| 13 | 752 | 78 | 117 | 35 | 52 | 142 | 325 | 3,900 | 736 | 56 | 44 | 42 |
| 14 | 680 | 79 | 117 | 37 | 52 | 128 | 640 | 5,500 | 1,350 | 54 | 37 | 105 |
| 15 | 545 | 84 | 95 | 38 | 50 | 111 | 550 | 3,210 | 1,480 | 52 | 33 | 278 |
| 16 | 450 | 87 | 85 | 39 | 50 | 116 | 495 | 2,350 | 1,590 | 49 | 31 | 284 |
| 17 | 318 | 82 | 87 | 39 | 52 | 101 | 425 | 910 | 1,180 | 47 | 28 | 194 |
| 18 | 267 | 115 | 88 | 39 | 70 | 96 | 370 | 265 | 1,590 | 45 | 26 | 143 |
| 19 | 117 | 610 | 57 | 38 | 80 | 116 | 2,120 | 482 | 1,050 | 135 | 54 | 121 |
| 20 | 98 | 746 | 89 | 36 | 90 | 152 | 5,420 | 760 | 455 | 213 | 240 | 93 |
| 21 | 85 | 600 | 71 | 35 | 93 | 125 | 5,260 | 664 | 301 | 85 | 172 | 75 |
| 22 | 84 | 520 | 67 | 34 | 92 | 101 | 4,270 | 515 | 222 | 52 | 147 | 930 |
| 23 | 80 | 382 | 60 | 34 | 96 | 92 | 3,560 | 365 | 202 | 50 | 178 | 2,630 |
| 24 | 74 | 334 | 56 | 37 | 94 | 111 | 3,110 | 209 | 170 | 46 | 150 | 3,680 |
| 25 | 77 | 290 | 56 | 54 | 84 | 362 | 2,350 | 211 | 121 | 42 | 102 | 3,500 |
| 26 | 59 | 255 | 54 | 80 | 62 | 1,300 | 1,670 | 223 | 143 | 36 | 69 | 2,800 |
| 27 | 51 | 231 | 54 | 110 | 81 | 1,660 | 688 | 234 | 138 | 33 | 51 | 2,110 |
| 28 | 48 | 207 | 54 | 300 | 106 | 1,230 | 415 | 249 | 114 | 43 | 40 | 1,310 |
| 29 | 46 | 190 | 56 | 850 | ------ | 1,130 | 375 | 339 | 116 | 33 | 33 | 733 |
| 30 | 50 | 176 | 56 | 500 | ------ | 709 | 350 | 341 | 98 | 625 | 28 | 503 |
| 31 | 73 | ------ | 56 | 260 | ------ | 715 | ------ | 315 | ------ | 1,450 | 24 | ------ |
| TOTAL | 4,446 | 6,248 | 2,855 | 3,048 | 2,471 | 11,281 | 44,761 | 25,793 | 14,619 | 5,322 | 3,200 | 19,787 |
| MEAN | 143 | 208 | 92.1 | 98.3 | 88.3 | 364 | 1,492 | 832 | 487 | 172 | 103 | 660 |
| MAX | 752 | 746 | 153 | 850 | 240 | 1,660 | 5,420 | 5,500 | 1,590 | 1,450 | 490 | 3,680 |
| MIN | 10 | 78 | 54 | 30 | 50 | 92 | 162 | 191 | 98 | 33 | 24 | 16 |
| CFSM | .33 | .48 | .21 | .23 | .21 | .85 | 3.47 | 1.93 | 1.13 | .40 | .24 | 1.53 |
| IN. | .38 | .54 | .25 | .26 | .21 | .98 | 3.87 | 2.23 | 1.26 | .46 | .28 | 1.71 |

CAL YR 1969 TOTAL 124,956 MEAN 342 MAX 5,320 MIN 10 CFSM .80 IN 10.81
WTR YR 1970 TOTAL 143,831 MEAN 394 MAX 5,500 MIN 10 CFSM .92 IN 12.44

PEAK DISCHARGE (BASE, 2,500 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 04-03 | 2000 | 13.15 | 2,510 | 05-14 | 0100 | 19.13 | 7,010 |
| 04-20 | 2200 | 19.00 | 6,800 | 09-24 | 1730 | 17.25 | 3,980 |

PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES 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.

Records collected at partial-record stations and miscellaneous sites are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in the second table.

## Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of 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 1970

| Station No. | Station name | Location | Drainage area (sq mi) | Period of record | Measurements | |
|---|---|---|---|---|---|---|
| | | | | | Date | Discharge (cfs) |
| | | **OHIO RIVER BASIN** | | | | |
| | | **Great Miami River** | | | | |
| 03274700 | Whitewater River at Hagerstown, Ind. | Lat 39°55'05", long 85°09'22", in SE¼SW¼ sec.14, T.17 N., R.12 E., Wayne County, at bridge on Jones Road, 0.15 mile north of Hagerstown. | 29.2 | 1969-70 | 06-12-70<br>09-01-70 | 16.2<br>3.64 |
| 03274900 | Greens Fork at Greens Fork, Ind. | Lat 39°53'35", long 85°02'39", in NE¼SW¼ sec.26, T.17 N., R.13 E., Wayne County, at bridge on State Highway 38, at west edge of Greens Fork. | 66.7 | 1969-70 | 09-01-70 | 5.30 |
| | | **Tanners Creek** | | | | |
| 03276600 | Tanners Creek near Guilford, Ind. | Lat 39°09'15", long 84°53'50", in E½ sec.29, T.6 N., R.1 W., first principal meridian, Ohio Dearborn County, at bridge on Pribble Road, 2.3 miles southeast of Guilford. | | 1969-70 | 09-01-70 | 0.14 |
| | | **Blue River** | | | | |
| 03302900 | Spring Creek near White Cloud, Ind. | Lat 38°14'20", long 86°13'45", in SE¼ sec.19, T.3 S., R.3 E., Harrison County, at county highway bridge, 0.8 mile north of White Cloud, and at mouth of Harrison Spring. | | 1951-52<br>1954-70 | 10-14-69<br>11-19-69<br>12-17-69<br>01-21-70<br>02-25-70<br>03-31-70<br>05-06-70<br>06-17-70<br>07-22-70<br>08-25-70<br>09-29-70 | 12.5<br>193<br>65.8<br>94.5<br>139<br>203<br>162<br>214<br>45.6<br>98.1<br>49.0 |
| | | **Wabash River** | | | | |
| 03322860 | Loblolly Creek at Geneva, Ind. | Lat 40°34'59", long 84°57'38", in NW¼NE¼ sec.32, T.25 N., R.14 E., Adams County, at bridge on U.S. Highway 27, at south edge of Geneva. | 67.2 | 1969-70 | 07-06-70<br>07-28-70<br>09-10-70 | 5.81<br>4.00<br>0.19 |
| 03322880 | Limberlost Creek at Geneva | Lat 40°34'59", long 84°57'38", in NW¼NE¼ sec.32, T.25 N., R.14 E., Adams County, 50 ft upstream of mouth, above bridge on U.S. Highway 27, at south edge of Geneva. | 41.7 | 1969-70 | 07-06-70<br>07-28-70<br>09-10-70 | 2.22<br>3.54<br>0.15 |
| 03323700 | Aboite Creek near Aboite, Ind. | Lat 40°59'23", long 85°21'00", on line between secs. 1 and 12, T.29 N., R.10 E., Huntington County, at bridge on County Road 1100 North, 800 ft above mouth, 2.25 miles northeast of Roanoke. | 52.7 | 1969-70 | 06-16-70<br>07-28-70<br>09-09-70 | 5.24<br>10.3<br>2.92 |

Discharge measurements made at low-flow partial-record stations during water year 1970--Continued

| Station No. | Station name | Location | Drainage area (sq mi) | Period of record | Measurements | |
|---|---|---|---|---|---|---|
| | | | | | Date | Discharge (cfs) |
| | | OHIO RIVER BASIN--Continued | | | | |
| | | Wabash River--Continued | | | | |
| 03324250 | Salamonie River at Montpelier, Ind. | Lat 40°33'33", long 85°16'43", in NE¼NE¼SE¼ sec.4, T.24 N., R.11 E., Blackford County, at bridge on State Highway 303, at north edge of Montpelier. | 253 | 1969-70 | 07-08-70<br>07-27-70<br>09-09-70 | 15.1<br>15.8<br>7.77 |
| 03324700 | Treaty Creek at Wabash, Ind. | Lat 40°47'31", long 85°48'36", in SE¼NE¼NE¼ sec.14, T.27 N., R.6 E., Wabash County, at bridge on Cassatt Road, 0.5 mile southeast of Wabash. | 30.1 | 1969-70 | 06-16-70<br>08-11-70 | 4.10<br>2.91 |
| 03327590 | Eel River near Columbia City, Ind. | Lat 41°08'33", long 85°27'25", in NW¼SE¼NE¼ sec.13, T.31 N., R.9 E., Whitley County, at bridge on Old U.S. Highway 30, 1.5 miles east of Columbia City. | 77.4 | 1969-70 | 06-17-70<br>07-12-70 | 21.1<br>18.7 |
| 03327900 | Sugar Creek near South Whitley, Ind. | Lat 41°04'31", long 85°36'54", on line between secs.3 and 10, T.30 N., R.8 E., Whitley County, at bridge on State Highway 14, 0.3 mile east of junction with State Highway 5, at southeast edge of South Whitley. | 30.7 | 1969-70 | 06-17-70<br>08-13-70 | 3.95<br>3.86 |
| 03329100 | Crooked Creek near Royal Center, Ind. | Lat 40°48'23", long 86°29'31", in NW¼ sec. 11, T.27 N., R.1 W., Cass County, at culverts on 625 West Road, 4 miles south of Royal Center. | 35.9 | 1968-70 | 06-11-70 | 18.6 |
| 03329150 | Crooked Creek near Logansport, Ind. | Lat 40°45'51", long 86°29'54", in NW¼ sec.26, T.27 N., R.1 W., Cass County, at bridge on U.S. Highway 24, 6.5 miles west of Logansport. | 54.2 | 1968-70 | 06-11-70 | 41.8 |
| 03329510 | Deer Creek near Lincoln, Ind. | Lat 40°36'11", long 86°12'10", in NW¼ sec.21, T.25 N., R.3 E., Cass County, at bridge on U.S. Highway 35, one mile south of Lincoln. | 56.5 | 1968-70 | 06-12-70 | 10.8 |
| 03329530 | South Fork Deer Creek at Galveston, Ind. | Lat 40°34'54", long 86°11'23", in SE¼ sec.28, T.25 N., R.3 E., Cass County, at bridge on U.S. Highway 35, at Galveston. | 31.6 | 1968-70 | 06-12-70 | 7.39 |
| 03331350 | Yellow Creek near Mentone, Ind. | Lat 41°10'18", long 86°07'16", in NW¼NE¼ sec.6, T.31 N., R.4 E., Fulton County, at bridge on State Highway 25, 4.5 miles west of Mentone. | 47.8 | 1969-70 | 06-12-70 | 14.9 |
| 03331375 | Chippewanuck Creek near Rochester, Ind. | Lat 41°06'43", long 86°11'09", in NW¼NW¼ sec.27, T.31 N., R.3 E., Fulton County, at bridge on State Highway 25, 3.5 miles north of Rochester. | 43.7 | 1969-70 | 06-12-70 | 20.0 |
| 03332250 | Indian Creek near Thornhope, Ind. | Lat 40°55'12", long 86°31'42", in NE¼SE¼NE¼ sec.33, T.29 N., R.1 W., Pulaski County, at bridge on U.S. Highway 35, 0.3 mile south of Thornhope. | 56.6 | 1968, 1970 | 06-11-70 | 28.2 |
| 03334700 | Middle Fork Wildcat Creek near Rossville, Ind. | Lat 40°25'47", long 86°36'15", in NE¼NE¼ sec.23 T.23 N., R.2 W., Clinton County, at bridge on U.S. Highway 421, 1 mile northwest of Rossville. | 54.0 | 1969-70 | 12-16-69<br>06-11-70<br>09-04-70 | 26.2<br>18.8<br>8.05 |
| 03334750 | Campbells Run near Rossville, Ind. | Lat 40°24'46", long 86°35'41", in SE¼NW¼ sec.25, T.23 N., R.2 W., Clinton County, at bridge on U.S. Highway 421, 0.3 mile south of Rossville. | 18.3 | 1969-70 | 12-16-69<br>06-11-70<br>09-04-70 | 7.53<br>4.30<br>1.11 |
| 03335800 | Big Shawnee Creek near Attica, Ind. | Lat 40°14'30", long 87°14'12", in NW¼ sec.29, T.21 N., R.7 W., Fountain County, at county road bridge, 0.5 mile northeast of Rob Roy, and 3.7 miles southeast of Attica. | 42.0 | 1968-70 | 12-16-69<br>06-09-70<br>09-04-70 | 21.8<br>32.0<br>12.5 |
| 03339111 | East Fork Coal Creek near Veedersburg, Ind. | Lat 40°05'48", long 87°14'34", in NW¼NW¼ sec.17, T.19 N., R.7 W., Fountain County, at bridge on New U.S. Highway 41, 1.5 miles southeast of Veedersburg. | 60.1 | 1969-70 | 12-15-69<br>06-09-70<br>09-03-70 | 29.0<br>36.4<br>13.4 |
| 03339300 | Prairie Creek at Thorntown, Ind. | Lat 40°07'46", long 86°36'01", in SE¼SE¼ sec.35, T.20 N., R.2 W., Boone County, at bridge on State Highway 47, at east edge of Thorntown. | 46.9 | 1969-70 | 12-16-69<br>06-09-70<br>09-04-70 | 22.2<br>11.7<br>6.86 |
| 03339460 | Walnut Fork Sugar Creek near Crawfordsville, Ind. | Lat 40°02'49", long 86°51'33", in SE¼NW¼ sec.34, T.19 N., R.4 W., Montgomery County, at bridge on State Highway 32, 2.5 miles east of Crawfordsville. | 44.8 | 1969-70 | 12-15-69<br>06-09-70<br>09-03-70 | 22.7<br>12.6<br>0.40 |
| 03341580 | Honey Creek near Terre Haute, Ind. | Lat 39°23'40", long 87°23'54", in SW¼ sec.15, T.11 N., R.9 W., Vigo County, at bridge on U.S. Highway 41, at north edge of Allendale, and 3 miles south of the city limits of Terre Haute. | a64 | 1965,1967<br>1969-70 | 12-15-69<br>05-21-70<br>09-09-70 | 22.1<br>39.4<br>3.73 |

Discharge measurements made at low-flow partial-record stations during water year 1970--Continued

| Station No. | Station name | Location | Drainage area (sq mi) | Period of record | Measurements | |
|---|---|---|---|---|---|---|
| | | | | | Date | Discharge (cfs) |
| | | OHIO RIVER BASIN--Continued | | | | |
| | | Wabash River--Continued | | | | |
| 03341920 | Turman Creek near Farmersburg, Ind. | Lat 39°14'40", long 87°24'28", at corner of secs.3, 4, 9, and 10, T.9 N., R.9 W., Sullivan County, at bridge on County Road 1100 North, 1.5 miles southwest of Farmersburg. | a13 | 1964,1967 1969-70 | 12-15-69<br>05-22-70<br>09-09-70 | 3.67<br>1.89<br>0.05 |
| 03348300 | Pipe Creek near Alexandria, Ind. | Lat 40°16'40", long 85°38'34", on line between secs.8 and 17, T.21 N., R.8 E., Madison County, at bridge on State Highway 28, 2 miles northeast of Alexandria. | 44.7 | 1960-65 1967-70 | 06-18-70 | 11.2 |
| 03348400 | Duck Creek near Strawtown, Ind. | Lat 40°08'17", long 85°56'22", on line between secs.34 and 35, T.20 N., R.5 E., Hamilton County, at bridge on State Highway 213, 0.6 mile north of State Highway 37, and 1.1 miles north of Strawtown. | 98.9 | 1946,1965 1968-70 | 06-22-70 | 15.6 |
| 03349200 | Cicero Creek at Tipton, Ind. | Lat 40°16'16", long 86°03'02", on line between secs.14 and 15, T.21 N., R.4 E., Tipton County, at county road bridge, 0.5 mile southwest of Tipton. | 80.2 | 1968-70 | 06-22-70 | 8.44 |
| 03353665 | Stotts Creek near Martinsville, Ind. | Lat 39°30'02", long 86°19'57", in NE¼ sec.8, T.12 N., R.2 E., Morgan County, at bridge on State Highway 37, 250 ft upstream of mouth, 7.2 miles northeast of Martinsville. | 60.1 | 1954, 1968-70 | 12-17-69<br>06-08-70<br>09-03-70 | 25.7<br>14.9<br>0.48 |
| 03353900 | East Fork White Lick Creek at Mooresville, Ind. | Lat 39°38'47", long 86°20'47", in SE¼ sec.18, T.14,N., R.2 E., Hendricks County, at bridge on Mooresville Road, 0.8 mile west of Friendswood, and 3 miles northeast of Mooresville. | 42.8 | 1965, 1968-70 | 12-17-69<br>06-08-70<br>09-03-70 | 23.8<br>14.9<br>3.94 |
| 03360225 | Plummer Creek near Bloomfield, Ind. | Lat 38°59'33", long 86°55'44", in NE¼ sec.2, T.6 N., R.5 W., Greene County, at bridge on U.S. Highway 231, 2.3 miles south of Bloomfield. | 66.7 | 1954, 1968-70 | 12-15-69<br>05-25-70<br>09-09-70 | 27.3<br>11.3<br>1.57 |
| 03360920 | Big Blue River near New Castle, Ind. | Lat 40°00'15", long 85°20'48", at corner of secs.13, 14, 23, and 24, T.18 N., R.10 E., Henry County, at bridge on U.S. Highway 36, 5.2 miles east of Sulphur Springs and 5.2 miles north of New Castle. | 15.8 | 1965, 1969-70 | 09-01-70 | 3.77 |
| 03361700 | Sugar Creek near Pleasant View, Ind. | Lat 39°38'49", long 85°55'09", in E½ sec.24, T.14 N., R.5 E., Shelby County, at bridge on Interstate Highway 74, 1.75 miles southeast of Pleasant View. | 130 | 1954, 1960-70 | 06-10-70 | 49.5 |
| 03361800 | Buck Creek near New Bethel, Ind. | Lat 39°43'34", long 85°58'21", on line between secs.21 and 28, T.15 N., R.5 E., Marion County, at bridge on East Troy Avenue, 2.4 miles northeast of New Bethel. | 51.0 | 1960-65 1967-70 | 06-10-70 | 10.3 |
| 03363400 | Flatrock River at Rushville, Ind. | Lat 39°36'15", long 85°26'39", in NW¼SW¼ sec.5, T.13 N., R.10 E., Rush County, at bridge on U.S. Highway 52, 0.3 mile south of courthouse in Rushville. | 168 | 1969-70 | 09-01-70 | 8.85 |
| 03364400 | Clifty Creek at Sandusky, Ind. | Lat 39°25'27", long 85°28'48", in NE¼NE¼ sec.11, T.11 N., R.9 E., Decatur County, at bridge on State Highway 3, in Sandusky. | 46.4 | 1969-70 | 06-10-70<br>09-01-70 | 8.49<br>1.15 |
| | | STREAMS TRIBUTARY TO LAKE ERIE | | | | |
| | | Maumee River | | | | |
| 04177800 | Fish Creek near Artic, Ind. | Lat 41°29'15", long 84°50'13", in SE¼ sec.18, T.35 N., R.15 E., Dekalb County, at bridge on County Road 12, 1.7 miles northwest of Artic. | | 1968-70 | 07-08-70<br>09-02-70 | 7.85<br>3.43 |
| 04177900 | Big Run at Butler, Ind. | Lat 41°26'09", long 84°52'08", in NE¼ sec.1, T.34 N., R.14 E., Dekalb County, at bridge on State Highway 1, 0.6 mile north of Butler. | | 1968-70 | 07-08-70<br>09-02-70 | 2.63<br>1.23 |
| 04179310 | Cedar Creek at Waterloo, Ind. | Lat 41°26'14", long 85°01'03", in NW¼ sec.3, T.34 N., R.13 E., Dekalb County, at bridge on U.S. Highway 27, 0.3 mile northeast of Waterloo. | | 1968-70 | 07-08-70<br>09-02-70 | 5.57<br>2.10 |
| 04181100 | Blue Creek near Pleasant Mills, Ind. | Lat 40°44'49", long 84°49'20", in NE¼NE¼ sec.4, T.26 N., R.15 E., Adams County, at bridge on State Highway 124, 1.5 miles west of Willshire, Ohio, and 2.2 miles southeast of Pleasant Mills. | | 1969-70 | 07-09-70<br>09-03-70 | 31.4<br>1.40 |
| 04181600 | Holthouse ditch at Decatur, Ind. | Lat 40°50'48", long 84°56'44", in NE¼ sec.33, T.28 N., R.14 E., Adams County, at bridge on Winchester Road, 0.4 mile upstream of mouth, and 1 mile northwest of Decatur. | | 1968-70 | 07-09-70<br>09-03-70 | 1.09<br>0 |

Discharge measurements made at low-flow partial-record stations during water year 1970--Continued

| Station No. | Station name | Location | Drainage area (sq mi) | Period of record | Measurements | |
|---|---|---|---|---|---|---|
| | | | | | Date | Discharge (cfs) |
| | | STREAMS TRIBUTARY TO LAKE ERIE--Continued | | | | |
| | | Maumee River--Continued | | | | |
| 04181900 | Houk ditch near Hassen Cassel, Ind. | Lat 40°59'27", long 85°05'32", in SW¼ sec.5, T.29 N., R.13 E., Allen County, at bridge on U.S. Highways 27 and 33, 0.4 mile upstream of mouth, and 1.2 miles northwest of Hassen Cassel. | | 1968-70 | 07-09-70<br>09-03-70 | 1.03<br>0 |
| 04191340 | Flatrock Creek near Townley, Ind. | Lat 41°00'51", long 84°51'06", in SE¼ sec.32, T.30 N., R.15 E., Allen County, at bridge on U.S. Highway 30, 1.2 miles southeast of Townley. | | 1968-70 | 07-09-70<br>09-02-70 | 2.19<br>0.06 |
| 04191360 | Hoffman Creek at Townley, Ind. | Lat 41°01'16", long 84°52'16", in NE¼ sec.31, T.30 N., R.15 E., Allen County, at bridge on U.S. Highway 30, at Townley. | | 1968-70 | 07-09-70<br>09-02-70 | 1.77<br>0 |

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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 year 1970

| Stream | Tributary to | Location | Drainage area (sq mi) | Measured previously (water years) | Measurements | |
|---|---|---|---|---|---|---|
| | | | | | Date | Discharge (cfs) |
| **Ohio River Basin** | | | | | | |
| Casselbury Creek | Ohio River | Lat 37°54'28", long 86°44'18", in sec. 16, T. 7 S., R. 3 W., Perry County, at culverts on State Highway 237, at Cannelton, and 2400 ft upstream from mouth. | 1.27 | | 04-28-70 | 659 |
| Windy Creek | ...do..... | Lat 37°56'28", long 86°45'46", in sec. 32, T. 6 S., R. 3 W., Perry County, at culvert on State Highway 66, at south edge of Tell City, and 1.5 miles upstream from Little Windy Creek. | 0.89 | | 04-28-70 | 1,550 |
| Alexandria Creek | Pipe Creek | Lat 40°14'56", long 85°40'13", in SW¼SW¼SW¼ sec. 19, T. 21 N., R. 8 E., Madison County, 250 ft upstream from State Highway 9, at south edge of Alexandria. | | | 06-23-70 | 0.68 |
| Outflow from well | Alexandria Creek | Lat 40°14'57", long 85°40'20", in SE¼SE¼SE¼ sec. 24, T. 21 N., R. 7 E., Madison County, 50 ft upstream from Alexandria Creek, at south edge of Alexandria. | | | 06-23-70 | 0.01 |
| Beulah Run | ...do..... | Lat 40°15'07", long 85°40'12", in NE¼SW¼SW¼ sec. 19, T. 21 N., R. 8 E., Madison County, 400 ft upstream from Alexandria Creek, at south edge of Alexandria | | | 06-23-70 | 0.12 |
| Outflow from spring | ...do..... | Lat 40°15'03", long 85°40'26", in NW¼SE¼SE¼ sec. 24, T. 21 N., R. 7 E., Madison County, 10 ft upstream from small lake on Alexandria Creek, and in Alexandria | | | 06-23-70 | 0.01 |
| Alexandria Creek | Pipe Creek | Lat 40°15'06", long 85°40'27", in NW¼SE¼SE¼ sec. 24, T. 21 N., R. 7 E., Madison County, 10 ft upstream from bridge on South Harrison Street, 30 ft downstream from dam of small lake, and in Alexandria | | | 06-23-70 | 0.64 |
| **Streams Tributary to Lake Erie** | | | | | | |
| Cedar Creek | St. Joseph River | Lat 41°12'10", long 85°01'39", in SW¼SW¼NE¼ sec. 28, T. 32 N., R. 13 E., Allen County, 50 ft downstream from bridge on State Highway 1, 0.1 mile west of Cedarville, and 0.9 mile upstream from mouth. | 273 | | 06-04-70 | 126 |

For several 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 are based on once-daily readings of a staff gage by a local observer and consist of daily, monthly, and yearly mean water-surface elevations as well as graphs showing the fluctuation in elevation. 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 Lake Section of Water Resources Division of the Geological Survey.

Lakes in the Ohio River basin for which records are available

| Lake | County | Drainage Area (square mile) | Surface Area (acres) | Established Levelxx | Capacity (acre-feet) | Depth Contour Map available | Records available |
|---|---|---|---|---|---|---|---|
| **LAUGHERY CREEK BASIN** | | | | | | | |
| 03-2768.00 Versailles Lake near Versailles | Ripley | 167.0 | 232 | - | - | - | 1957- |
| **BAYOU DRAIN BASIN** | | | | | | | |
| 03-3223.00 Hovey Lake near Mount Vernon | Posey | 6.34 | 253 | - | - | - | 1950-70 |
| **WABASH RIVER BASIN** | | | | | | | |
| 03-3275.50 Everett Lake at Levert | Allen | *1.07 | 43 | 835.13 | 650 | + | 1946-66 |
| 03-3276.00 Blue Lake near Churubusco | Whitley | *3.58 | 239 | 850.28 | 5010 | + | 1946-69 |
| 03-3276.50 Shriner Lake at Tri-Lakes | Whitley | *0.94 | 111 | 907.04 | - | - | 1943-70 |
| 03-3277.00 Cedar Lake at Tri-Lakes | Whitley | *0.79 | 131 | 901.90 | - | - | 1943-49 |
| 03-3277.50 Round Lake at Tri-Lakes | Whitley | *3.36 | 125 | 901.90 | - | - | 1943-53 |
| 03-3278.00 Wilson Lake near Larwill | Whitley | *0.46 | 29 | 865.39 | 390 | + | 1946-52 |
| 03-3278.50 Little Wilson Lake near Larwill | Whitley | *0.52 | 8 | 865.39 | 130 | + | 1946-52 |
| 03-3281.00 Long Lake at Laketon | Wabash | *0.55 | 48 | 751.19 | 760 | + | 1946-51<br>1959-70 |
| 03-3282.50 North Little Lake at Silver Lake | Kosciusko | *2.89 | 12 | 861.73 | 170 | + | 1947-70 |
| 03-3283.50 Silver Lake at Silver Lake | Kosciusko | *6.31 | 102 | 861.73 | 1520 | + | 1947-70 |
| 03-3284.00 Lukens Lake near Disko | Wabash | *1.76 | 46 | - | 1010 | + | 1948-49<br>1959-70 |
| 03-3300.20 Crooked Lake near Wolflake | Noble | *1.51 | 206 | 905.69 | 9040 | + | 1943-53 |
| 03-3300.40 Big Lake near Wolflake | Noble | *8.89 | 228 | 898.18 | 5630 | + | 1943-70 |
| 03-3300.60 Goose Lake near Lorane | Whitley | *1.51 | 84 | 910.96 | 2180 | + | 1945-53 |
| 03-3300.80 Loon Lake at Ormas | Whitley | *11.1 | 222 | 895.14 | 5730 | + | 1943-66 |
| 03-3301.00 New Lake near Etna | Whitley | *0.29 | 50 | 903.91 | 880 | + | 1945-53 |
| 03-3301.20 Old Lake near Etna | Whitley | *2.81 | 32 | 898.07 | 620 | + | 1949-66 |
| 03-3301.40 Smalley Lake near Washington Center | Noble | *27.1 | 69 | - | 1520 | + | 1943-70 |
| 03-3301.60 Gilbert Lake near Washington Center | Noble | *0.37 | 28 | - | 490 | + | 1954-70 |
| 03-3301.80 Horseshoe Lake nr Washington Center | Noble | *1.62 | 18 | 901.80 | 250 | + | 1945-66 |
| 03-3302.00 Baugher Lake near Washington Center | Noble | *31.0 | 32 | 878.52 | 390 | + | 1945-51 |
| 03-3302.20 Wilmot Pond at Wilmot a/ | Noble | *35.2 | 10 | - | - | - | 1945-51 |
| 03-3302.40 Webster Lake at North Webster | Kosciusko | *49.2 | 774 | 852.75 | - | - | 1943-70 |
| 03-3302.43 James Lake at Oswego | Kosciusko | 55.9 | 282 | 836.40 | 7580 | + | 1943-70 |
| 03-3302.60 Robinson Lake near Pierceton | Kosciusko | *7.15 | 59 | 851.09 | 1170 | + | 1946-51 |
| 03-3302.80 Troy Cedar Lake near Lorane | Whitley | *5.33 | 93 | 905.41 | 2540 | + | 1945-52 |
| 03-3303.00 Ridinger Lake near Pierceton | Kosciusko | *34.6 | 136 | 843.12 | 2900 | + | 1943-70 |
| 03-3303.20 Kuhn Lake near North Webster | Kosciusko | *3.85 | 137 | 837.50 | 1290 | + | 1945-70 |
| 03-3303.40 Big Barbee Lake near North Webster | Kosciusko | *44.7 | 304 | 837.50 | 5640 | + | 1945-70 |
| 03-3303.60 Little Barbee Lake near North Webster | Kosciusko | *49.0 | 74 | 837.5^ | 960 | + | 1945-70 |
| 03-3303.80 Shoe Lake near Oswego | Kosciusko | *0.34 | 40 | 841.57 | - | - | 1946-53 |
| 03-3304.00 Banning Lake near North Webster | Kosciusko | *0.48 | 12 | 837.50 | 110 | + | 1945-70 |
| 03-3304.20 Irish Lake near North Webster | Kosciusko | *50.9 | 182 | 837.50 | 2330 | + | 1945-70 |
| 03-3304.40 Sechrist Lake near North Webster | Kosciusko | *0.58 | 105 | 837.50 | 2490 | + | 1945-70 |
| 03-3304.60 Sawmill Lake near North Webster | Kosciusko | *51.8 | 36 | 837.50 | 370 | + | 1945-70 |
| 03-3304.80 Tippecanoe Lake at Oswego | Kosciusko | *113 | 768 | 836.40 | 28,380 | + | 1943-70 |
| 03-3304.95 Oswego Lake at Oswego | Kosciusko | *113 | 83 | 836.40 | 780 | + | 1943-70 |
| 03-3310.10 Big Chapman Lake near Warsaw b/ | Kosciusko | *4.17 | 581 | 827.75 | 6080 | + | 1945-70 |
| 03-3310.20 Little Chapman Lake near Warsaw | Kosciusko | *7.13 | 177 | 827.75 | 1990 | + | 1945-70 |
| 03-3310.40 Pike Lake at Warsaw | Kosciusko | *41.5 | 203 | 805.64 | 2830 | + | 1954-70 |
| 03-3310.60 Fish Lake near Warsaw | Kosciusko | *4.93 | 15 | 845.52 | - | - | 1951-66 |
| 03-3310.80 Muskelonge Lake near Warsaw | Kosciusko | *11.8 | 32 | 842.67 | 300 | + | 1943-53<br>1959-70 |
| 03-3311.00 Carr Lake near Claypool | Kosciusko | *2.27 | 79 | 848.88 | 1340 | + | 1947-53 |
| 03-3311.20 Sherburn Lake near Pierceton c/ | Kosciusko | *5.51 | 15 | - | 230 | + | 1954-70 |
| 03-3311.40 Winona Lake at Warsaw | Kosciusko | *32.1 | 562 | 811.06 | 16,680 | + | 1943-70 |
| 03-3311.60 Center Lake at Warsaw | Kosciusko | *0.73 | 120 | 803.86 | 2060 | + | 1945-70 |
| 03-3311.80 Palestine Lake at Palestine | Kosciusko | *32.4 | 290 | - | 1170 | + | 1954-70 |
| 03-3312.00 Crystal Lake near Atwood | Kosciusko | *0.45 | 76 | 789.69 | 930 | + | 1945-51 |
| 03-3312.20 Hoffman Lake at Atwood | Kosciusko | *8.07 | 180 | 785.85 | 3160 | + | 1945-53 |

Lakes in the Ohio River basin for which records are available--Continued

| Lake | County | Drainage Area (square mile) | Surface Area (acres) | Established Levelxx | Capacity (acre-feet) | Depth Contour Map available | Records available |
|---|---|---|---|---|---|---|---|
| **WABASH RIVER BASIN--Continued** | | | | | | | |
| 03-3312.40 Beaver Dam Lake near Silver Lake | Kosciusko | *2.83 | 146 | 868.95 | 3280 | + | 1947-53 |
| 03-3312.60 Loon Lake near Silver Lake | Kosciusko | *3.59 | 40 | 865.74 | 670 | + | 1947-53 |
| 03-3312.80 McClures Lake near Silver Lake | Kosciusko | *1.29 | 32 | 865.85 | 410 | + | 1945-52 |
| 03-3313.00 Hill Lake near Silver Lake | Kosciusko | *0.85 | 67 | 871.50 | 1300 | + | 1952-70 |
| 03-3313.20 Diamond Lake near Silver Lake | Kosciusko | *3.92 | 79 | - | 1280 | + | 1954-70 |
| 03-3313.40 Yellow Creek Lake near Silver Lake | Kosciusko | *11.1 | 151 | 860.50 | 4730 | + | 1945-53 |
| 03-3313.60 Rock Lake near Akron | Kosciusko | *2.74 | 56 | 847.29 | 360 | + | 1946-66 |
| 03-3313.70 Town Lake near Akron | Fulton | *2.77 | 23 | - | 220 | + | 1949-50 |
| 03-3313.80 Lake Manitou at Rochester | Fulton | *44.2 | 631 | 778.41 | - | - | 1943-70 |
| 03-3313.90 Zink Lake near Rochester | Fulton | *1.11 | 19 | 810.68 | - | - | 1952-55 |
| 03-3314.00 Nyona Lake near Greenoak | Fulton | *7.59 | 104 | 793.91 | 1340 | + | 1946-70 |
| 03-3314.20 South Mud Lake near Fulton | Fulton | *4.53 | 94 | 793.42 | 1020 | + | 1946-66 |
| 03-3314.40 Maxinkuckee Lake at Culver | Marshall | *13.7 | *1864 | 733.12 | 45,600 | + | 1943-70 |
| 03-3314.60 Lost Lake near Culver dj | Marshall | *14.2 | 40 | 732.00 | - | - | 1954-70 |
| 03-3314.80 Langenbaum Lake near Monterey | Starke | *0.72 | 48 | 717.96 | 260 | + | 1954-66 |
| 03-3317.00 Bruce Lake at Bruce Lake | Pulaski | *6.38 | 245 | 723.69 | 1790 | + | 1943-53 |
| 03-3322.00 Fletcher Lake at Fletcher | Fulton | *0.67 | 45 | 783.20 | 880 | + | 1946-53 |
| 03-3709.00 Starve Hollow Lake near Vallonia | Jackson | *6.67 | 145 | - | 980 | + | 1946-61<br>1963-70 |
| 03-3717.00 Ogle Lake near Nashville | Brown | *1.03 | 20 | - | 250 | + | 1954-70 |
| **Lakes in the St. Lawrence River basin for which records are available** | | | | | | | |
| **STREAMS TRIBUTATY TO LAKE MICHIGAN** | | | | | | | |
| 04-0925.00 Wolf Lake at Hammond | Lake | 5.72 | 999 | - | - | - | 1946-49 |
| 04-0929.90 Lake George at Hobart | Lake | 125 | 282 | 602.23 | - | - | 1946-70 |
| 04-0963.00 Saugany Lake near Rolling Prairie | LaPorte | 0.82 | 74 | 781.21 | 2190 | + | 1946-50 |
| 04-0975.20 Lake Pleasant near Nevada Mills | Steuben | 2.51 | 424 | - | 3490 | + | 1954-70 |
| 04-0975.50 Lake George at Jamestown | Steuben | 12.3 | 488 | 985.28 | - | - | 1946-70 |
| 04-0975.96 Marsh Lake near Fremont | Steuben | 14.8 | - | - | - | - | 1967-69 |
| 04-0976.00 Little Otter Lake near Fremont | Steuben | 14.3 | 34 | 965.18 | 740 | + | 1946-53 |
| 04-0976.40 Big Otter Lake near Fremont | Steuben | 19.8 | 69 | 965.18 | 1780 | + | 1946-53 |
| 04-0976.50 Snow Lake at Lake James | Steuben | 36.3 | 310 | 964.96 | - | - | 1943-49 |
| 04-0976.60 Lake James at Lake James | Steuben | 43.0 | 1,034 | 964.96 | - | - | 1943-49 |
| 04-0976.80 Jimmerson Lake at Nevada Mills dj | Steuben | 47.0 | 283 | 964.66 | - | - | 1946-70 |
| 04-0977.80 Loon Lake near Angola | Steuben | 2.73 | 138 | 1,011.98 | 630 | + | 1954-66 |
| 04-0978.50 Crooked Lake at Crooked Lake | Steuben | 11.9 | 733 | 988.17 | - | - | 1946-70 |
| 04-0979.50 Lake Gage at Panama | Steuben | 17.2 | 324 | 954.25 | - | - | 1946-70 |
| 04-0979.60 Lime Lake at Panama | Steuben | 17.4 | 44 | 954.25 | - | - | 1946-70 |
| 04-0981.00 Wall Lake near Orland | Lagrange | 1.43 | 141 | 942.25 | 1640 | + | 1953-54 |
| 04-0981.10 Mud Lake near Orland | Steuben | 1.64 | 25 | 939.01 | - | - | 1956-67 |
| 04-0983.00 Cedar Lake near Ontario | Lagrange | 1.66 | 120 | 871.90 | 1020 | + | 1948-51 |
| 04-0990.50 Pigeon Lake near Angola | Steuben | 30.6 | 61 | 988.24 | 930 | + | 1954-63 |
| 04-0991.00 Fox Lake near Angola | Steuben | 1.13 | 142 | 1,018.83 | 3150 | + | 1946-53 |
| 04-0991.90 Pleasant Lake at Pleasant Lake | Steuben | 0.94 | 53 | 963.52 | 1190 | + | 1946-66 |
| 04-0992.00 Long Lake at Moonlight | Steuben | 70.8 | 92 | - | 1540 | + | 1946-70 |
| 04-0992.50 Bower Lake near Pleasant Lake | Steuben | 87.5 | 25 | 948.50 | 280 | + | 1946-70 |
| 04-0992.60 Golden Lake near Pleasant Lake | Steuben | 92.4 | 119 | 948.50 | 1810 | + | 1946-70 |
| 04-0994.00 Silver Lake near Angola | Steuben | 3.72 | 238 | 959.40 | 2540 | + | 1945-53 |
| 04-0994.30 Bass Lake near Angola | Steuben | 0.60 | 61 | 979.68 | 450 | + | 1954-66 |
| 04-0994.40 Howard Lake near Angola | Steuben | 3.94 | 27 | 977.34 | 130 | + | 1954-63 |
| 04-0995.00 Hogback Lake near Angola | Steuben | 102 | 146 | 948.50 | 1450 | + | 1946-70 |
| 04-0995.20 Otter Lake near Flint | Steuben | 6.82 | 118 | 934.15 | 1960 | + | 1954-66 |
| 04-0995.40 Story Lake near Hudson | Dekalb | 2.48 | 77 | 942.20 | 1020 | + | 1946<br>1954-66 |
| 04-0995.60 Big Turkey Lake at Stroh | Lagrange | 34.6 | 450 | 926.61 | 7,300 | + | 1945-66 |
| 04-0995.75 McClish Lake near Helmer | Lagrange | 1.36 | 35 | 951.09 | 1210 | + | 1951-70 |
| 04-0995.80 Lake of the Woods near Helmer | Lagrange | 5.36 | 136 | 951.09 | 5470 | + | 1951-70 |
| 04-0996.00 Big Long Lake near Stroh | Lagrange | 4.13 | 388 | 956.21 | - | - | 1954-70 |
| 04-0996.20 Pretty Lake near Stroh | Lagrange | 2.91 | 184 | 965.50 | 4720 | + | 1949-53<br>1963-65 |
| 04-0996.40 Little Turkey Lake at Elmira | Lagrange | 56.0 | 135 | 925.72 | 1550 | + | 1945-66 |
| 04-0996.60 Royer Lake near Plato | Lagrange | 4.91 | 69 | 936.50 | 1630 | + | 1952-66 |
| 04-0996.70 Fish Lake near Plato | Lagrange | 10.8 | 100 | 936.50 | 4050 | + | 1945-70 |
| 04-0997.00 North Twin Lake near Howe | Lagrange | 1.99 | 135 | 843.56 | 2120 | + | 1953-70 |
| 04-0997.10 South Twin Lake near Howe | Lagrange | 3.13 | 116 | 843.56 | 3600 | + | 1953-70 |
| 04-0997.40 Shipshewana Lake near Shipshewana | Lagrange | 4.00 | 202 | 852.04 | 1350 | + | 1951-70 |
| 04-0997.60 Fish Lake near Scott | Lagrange | 6.14 | 139 | 814.42 | 2560 | + | 1954-70 |
| 04-0997.80 Stone Lake near Scott | Lagrange | 1.32 | 152 | 818.76 | 2060 | + | 1954-70 |
| 04-0998.00 Emma Lake near Emma | Lagrange | 14.8 | 42 | 880.87 | 700 | + | 1954-66 |
| 04-0998.20 Hunter Lake near Middleburg | Elkhart | 0.72 | 99 | 856.90 | 1120 | + | 1946-53 |
| 04-0998.40 Wolf Lake near Goshen | Elkhart | 0.87 | 100 | 813.00 | - | - | 1947-57 |

Lakes in the St. Lawrence River Basin for which records are available--Continued

| Lake | County | Drainage Area (square mile) | Surface Area (acres) | Established Levelxx | Capacity (acre-feet) | Depth Contour Map available | Records available |
|---|---|---|---|---|---|---|---|
| **STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued** | | | | | | | |
| 04-0998.60 Heaton Lake near Elkhart | Elkhart | 8.78 | 87 | 767.30 | 640 | + | 1946-53, 1969 |
| 04-0998.80 Simonton Lake near Elkhart | Elkhart | 4.37 | 282 | 772.19 | 1560 | + | 1946-70 |
| 04-0999.50 Indiana Lake near Bristol | Elkhart | 0.53 | 122 | 759.73 | 3400 | + | 1946-53 |
| 04-1000.10 Cree Lake near Kendallville | Noble | 4.90 | 58 | 945.23 | 910 | + | 1949-66 |
| 04-1000.20 Blackman Lake near Wolcottville | Lagrange | 1.40 | 67 | 974.20 | 1210 | + | 1953-59 |
| 04-1000.30 Adams Lake near Wolcottville | Lagrange | 5.69 | 308 | 953.59 | 7690 | + | 1946-70 |
| 04-1000.40 Atwood Lake near Wolcottville | Lagrange | 1.31 | 170 | 899.99 | 1560 | + | 1948-53 |
| 04-1000.50 Witmer Lake near Wolcottville | Lagrange | 35.8 | 204 | 897.36 | 7040 | + | 1945-70 |
| 04-1000.60 Westler Lake near Wolcottville | Lagrange | 37.3 | 88 | 897.36 | 1770 | + | 1945-70 |
| 04-1000.70 Dallas Lake near Wolcottville | Lagrange | 39.4 | 283 | 897.36 | 9970 | + | 1945-70 |
| 04-1000.80 Martin Lake near Valentine | Lagrange | 5.36 | 26 | 899.45 | 890 | + | 1945-70 |
| 04-1000.90 Olin Lake near Valentine | Lagrange | 6.12 | 103 | 899.45 | 9180 | + | 1945-70 |
| 04-1001.00 Oliver Lake near Valentine | Lagrange | 11.3 | 362 | 899.45 | - | - | 1945-70 |
| 04-1001.10 Hackenburg Lake near Wolcottville | Lagrange | 54.8 | 42 | 897.36 | 510 | + | 1945-70 |
| 04-1001.20 Messick Lake near Wolcottville | Lagrange | 55.8 | 68 | 897.36 | 1450 | + | 1945-70 |
| 04-1001.30 Jones Lake near Cosperville f/ | Noble | 104 | 114 | - | 960 | + | 1948-70 |
| 04-1001.40 Bixler Lake at Kendallville | Noble | 3.63 | 120 | 963.65 | 2090 | + | 1945-70 |
| 04-1001.50 Round Lake at Kendallville | Noble | 3.60 | 99 | - | 2140 | + | 1954-70 |
| 04-1001.60 Little Long Lake at Kendallville | Noble | 4.34 | 71 | - | 1750 | + | 1954-70 |
| 04-1001.70 Latta Lake near Rome City | Noble | 4.37 | 42 | 918.71 | 900 | + | 1954-66 |
| 04-1001.80 Sylvan Lake at Rome City | Noble | 31.5 | 575 | 916.20 | - | - | 1943-70 |
| 04-1001.90 Sacarider Lake near Kendallville | Noble | 2.42 | 33 | - | 740 | + | 1954-63 |
| 04-1002.00 Tamarack Lake near Cosperville | Noble | 15.1 | 50 | 885.55 | 880 | + | 1948-70 |
| 04-1002.10 Steinbarger Lake near Cosperville | Noble | 25.3 | 73 | 885.55 | 1590 | + | 1948-70 |
| 04-1002.20 Waldron Lake near Cosperville | Noble | 131 | 216 | 885.55 | 3120 | + | 1948-70 |
| 04-1002.30 Long Lake near Burr Oak | Noble | 12.0 | 40 | 895.82 | 630 | + | 1954-70 |
| 04-1002.40 Sand Lake near Burr Oak | Noble | 15.0 | 47 | 893.56 | 1270 | + | 1946-51 |
| 04-1002.50 Rivir Lake near Burr Oak | Noble | 18.7 | 24 | - | 380 | + | 1954-65 |
| 04-1002.58 High Lake near Wolflake | Noble | 4.75 | 123 | 896.35 | 1240 | + | 1961-70 |
| 04-1002.60 Bear Lake near Wolflake | Noble | 6.12 | 136 | 894.60 | 3030 | + | 1943-70 |
| 04-1002.80 Muncie Lake near Burr Oak | Noble | 43.4 | 47 | - | 580 | + | 1954-70 |
| 04-1002.90 Silver Lake near Wolflake | Noble | 0.32 | 34 | - | 220 | + | 1953-63 |
| 04-1003.00 Skinner Lake near Albion | Noble | 13.8 | 125 | 927.74 | 1750 | + | 1945-70 |
| 04-1003.10 Pleasant Lake near Wolflake | Noble | 0.30 | 20 | - | 540 | + | 1952-53 |
| 04-1003.20 Upper Long Lake near Wolflake | Noble | 2.03 | 86 | - | 1900 | + | 1956-70 |
| 04-1003.30 Lower Long Lake near Albion | Noble | 3.96 | 66 | 889.81 | 1560 | + | 1946-52 |
| 04-1003.40 Eagle Lake near Kimmel | Noble | 1.77 | 81 | - | 1050 | + | 1946-48 |
| 04-1003.50 Diamond Lake near Wawaka | Noble | 2.82 | 105 | - | 2580 | + | 1946-70 |
| 04-1003.60 Sparta Lake at Kimmel | Noble | 0.26 | 31 | 888.50 | 170 | + | 1946-51 |
| 04-1003.70 Engle Lake near Ligonier | Noble | 3.22 | 48 | - | 670 | + | 1956-70 |
| 04-1003.80 Harper Lake near Washington Center | Noble | 2.67 | 11 | 878.25 | 160 | + | 1946-70 |
| 04-1003.90 Knapp Lake near Washington Center | Noble | 5.64 | 88 | 878.25 | 3040 | + | 1946-70 |
| 04-1004.00 Moss Lake near Washington Center | Noble | 5.90 | 9 | 878.25 | 80 | + | 1946-70 |
| 04-1004.10 Hindman Lake near Washington Center | Noble | 8.00 | 13 | 878.25 | 140 | + | 1946-70 |
| 04-1004.20 Gordy Lake near Cromwell | Noble | 8.82 | 31 | 876.68 | 680 | + | 1953-66 |
| 04-1004.25 Rider Lake near Cromwell | Noble | 9.12 | 5 | 876.68 | 30 | + | 1953-66 |
| 04-1004.30 Duely Lake near Cromwell g/ | Noble | 11.2 | 21 | 876.68 | 180 | + | 1953-66 |
| 04-1004.40 Village Lake near Cromwell | Noble | 11.9 | 12 | 876.68 | 160 | + | 1953-66 |
| 04-1004.46 Flatbelly Lake near Syracuse | Kosclusko | 4.40 | 326 | - | - | - | 1964-69 |
| 04-1004.48 Papakeechie Lake near Syracuse | Kosclusko | 5.30 | 300 | - | - | - | 1964-69 |
| 04-1004.50 Wawasee Lake at Wawasee | Kosclusko | 36.1 | 3060 | 858.89 | 67,210 | + | 1943-66 |
| 04-1004.60 Syracuse Lake at Syracuse | Kosclusko | 37.4 | 414 | 858.87 | 5360 | + | 1943-70 |
| 04-1004.70 Dewart Lake near Leesburg | Kosclusko | 7.88 | 551 | 867.70 | 9000 | + | 1945-70 |
| 04-1004.80 Wabee Lake near Milford | Kosclusko | 13.4 | 187 | 829.79 | 4750 | + | 1946-53 |
| **STREAMS TRIBUTARY TO LAKE ERIE** | | | | | | | |
| 04-1772.00 Clear Lake at Clear Lake | Steuben | 6.86 | 800 | 1,037.38 | 24,990 | + | 1943-70 |
| 04-1772.10 Round Lake at Clear Lake | Steuben | 7.25 | 30 | 1,037.38 | 340 | + | 1943-70 |
| 04-1773.00 Long Lake near Ray | Steuben | 2.80 | 154 | - | 1840 | + | 1961-63 |
| 04-1776.80 Ball Lake near Hamilton | Steuben | 11.6 | 87 | - | 3520 | + | 1961-70 |
| 04-1777.00 Hamilton Lake at Hamilton | Steuben | 16.5 | 802 | 898.83 | 16,600 | + | 1943-70 |
| 04-1792.00 Indian Lake near Corunna | Dekalb | 3.76 | 56 | - | 1220 | + | 1957 70 |
| 04-1793.00 Cedar Lake near Waterloo | Dekalb | 23.4 | 28 | 896.76 | 230 | + | 1943-56 |
| Lakes in the Upper Mississippi River basin for which records are available | | | | | | | |
| **ILLINOIS RIVER BASIN** | | | | | | | |
| 05-5147.41 Hudson Lake at Hudson Lake | Laporte | 3.06 | 432 | 763.09 | 5060 | + | 1946-70 |
| 05-5147.50 North Chain Lake at Lydick | St. Joseph | 4.50 | 88 | 721.17 | 1400 | + | 1946-53 |
| 05-5147.60 South Chain Lake at Westfield | St. Joseph | 6.00 | 90 | 717.04 | 270 | - | 1946-53 |
| 05-5147.70 Wharton Lake near South Bend | St. Joseph | 1.75 | - | - | - | - | 1960-70 |
| 05-5150.30 Silver Lake near Rolling Prairie | LaPorte | 0.82 | 54 | 795.20 | - | - | 1946-66 |

Lakes in the Upper Mississippi River basin for which records are available--Continued

| Lake | County | Drainage Area (square mile) | Surface Area (acres) | Established Levelxx | Capacity (acre-feet) | Depth Contour Map available | Records available |
|---|---|---|---|---|---|---|---|
| **ILLINOIS RIVER BASIN--Continued** | | | | | | | |
| 05-5152.00 Upper Fish Lake near Stillwell | LaPorte | 9.71 | 139 | 688.22 | 1040 | + | 1946-53 |
| 05-5152.10 Lower Fish Lake near Stillwell | LaPorte | 10.5 | 134 | 688.22 | 870 | + | 1946-53 |
| 05-5152.20 Pine Lake at LaPorte | LaPorte | 5.88 | 564 | 796.20 | - | - | 1946-70 |
| 05-5152.30 Stone Lake at LaPorte | LaPorte | 5.88 | 140 | 796.20 | - | - | 1946-70 |
| 05-5152.40 Clear Lake at LaPorte | LaPorte | 0.35 | 106 | 798.20 | 760 | + | 1942-49<br>1952-70 |
| 05-5156.00 Koontz Lake at Koontz Lake | Starke | 6.46 | 346 | 714.56 | 3170 | + | 1943-70 |
| 05-5158.00 Riddles Lake near Lakeville | St. Joseph | 13.5 | 77 | 817.50 | 640 | + | 1946-70 |
| 05-5162.00 Lake of the Woods near Bremen | Marshall | 11.6 | 416 | 803.85 | 6810 | + | 1945-70 |
| 05-5166.00 Pretty Lake near Plymouth | Marshall | 0.91 | 97 | 787.36 | 2140 | + | 1954-66 |
| 05-5167.00 Myers Lake near Twin Lakes | Marshall | 1.66 | 96 | 768.69 | 2000 | + | 1945-53 |
| 05-5168.00 Mill Pond and Kreighbaum Lake near Twin Lakes | Marshall | 4.86 | 168 | 767.75 | 1020 | + | 1945-53 |
| 05-5169.00 Eagle Lake near Ober | Starke | 26.2 | 24 | 713.25 | 160 | + | 1946-53 |
| 05-5171.00 Skitz Lake near Knox | Starke | - | 1,000 | - | - | - | 1949-53 |
| 05-5172.00 Bass Lake at Bass Lake | Starke | 3.66 | 1405 | 713.65 | - | - | 1943-70 |
| 05-5176.00 Wauhob Lake near Valparaiso | Porter | 0.29 | 21 | - | - | - | 1946-70 |
| 05-5176.50 Long Lake near Valparaiso | Porter | 1.25 | 65 | 797.66 | 520 | + | 1947-52 |
| 05-5176.70 Spectacle Lake near Valparaiso | Porter | 0.89 | 62 | 812.82 | 540 | + | 1946-53 |
| 05-5177.00 Flint Lake near Valparaiso | Porter | 2.88 | 86 | 797.66 | - | - | 1946-70 |
| 05-5178.00 Eliza Lake near Beatrice | Porter | 2.69 | 45 | - | - | - | 1954-70 |
| 05-5187.00 Cedar Lake at Cedar Lake | Lake | 8.05 | 781 | - | 6750 | + | 1943-70 |
| 05-5188.00 Dalecarlia Lake near Creston | Lake | 19.4 | 193 | - | - | - | 1947-52 |
| 05-5212.00 Ringneck Lake near Medaryville | Jasper | - | 1400 | - | - | - | 1949-55 |
| 05-5257.00 J.C. Murphy Lake near Morocco | Newton | 16.7 | 1515 | - | - | - | 1952-61 |

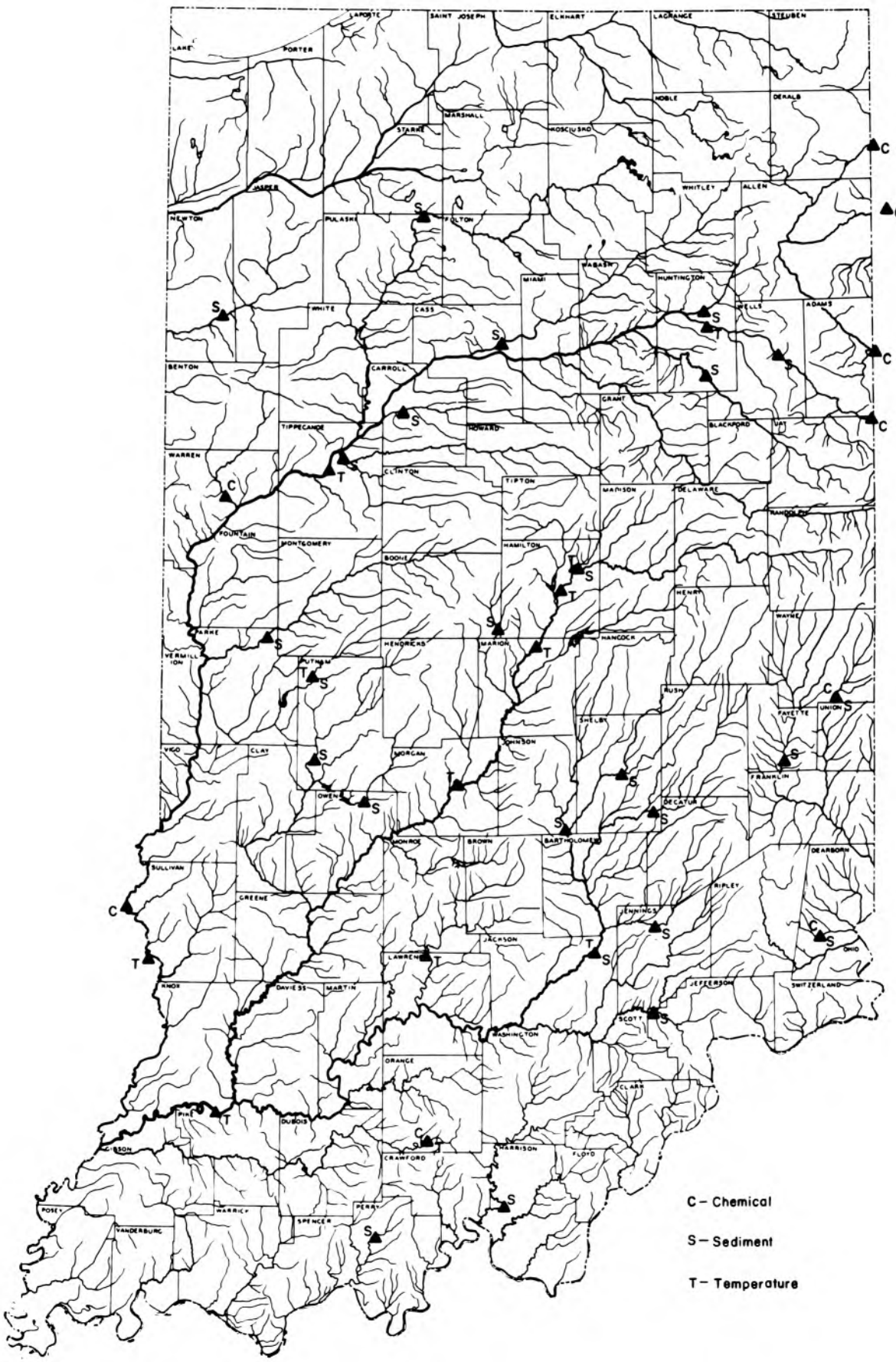
\+ Depth contour maps available for sale by Indiana Department of Natural Resources, State Office Building, Indianapolis, Indiana
* Revised.
xx Elevation, in feet, above mean sea level.
a Formerly published as Rider Lake at Wilmot.
b Formerly published as Chapman Lake near Warsaw.
c Formerly published as Johnson Lake near Pierceton.
d Formerly published as Hawks Lake near Culver.
e Formerly published as Jimerson Lake at Nevada Mills.
f Formerly published as Sanford Lake near Cosperville.
g Formerly published as Duley Lake near Cromwell, and Druely Lake near Cromwell, and Druley Lake near Cromwell.

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 areas 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 | 1920 | 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 | Clay | 56 | 610 |
| Kunkel Lake | Wells | 25 | 150 | Twin Lakes | Wabash | 18 | 190 |
| Lake Freeman | Carroll | 1547 | 26,000 | Whitewater Lake | Union | 199 | 3650 |
| Lake Shafer | White | 1291 | 13,120 | Yellowwood Lake | Brown | 133 | 1890 |
| **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 | 1340 | 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 | 1080 | Pigeon Lake | Lagrange | 61 | 1160 |
| 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 | 1210 |
| 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 | 1340 |
| 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 | 1070 |
| 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 | 1580 |

# PART 2. WATER QUALITY RECORDS

# QUALITY OF WATER STATIONS IN INDIANA



## 03275600 EAST FORK WHITEWATER RIVER AT ABINGTON, IND.

LOCATION.--Lat 39°43'57", long 84°57'35", in SW¼ sec.2, T.12 N., R.2 W., Union County, at gaging station at downstream side of center pier of bridge on county road at Abington, 3 miles downstream from Elkhorn Creek, and 8 miles southwest of Richmond.
DRAINAGE AREA.--198 sq mi.
PERIOD OF RECORD.--Chemical analyses: October 1969 to September 1970.
Water temperatures: August to September 1970.
Sediment records: April 1967 to September 1970.(partial-record station).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DIS-CHARGE (CFS) | SILICA (SIO2) (MG/L) | TOTAL IRON (FE) (UG/L) | IRON (FE) (UG/L) | TOTAL MAN-GANESE (MN) (UG/L) | MAN-GANESE (MN) (UG/L) | CAL-CIUM (CA) (MG/L) | MAG-NE-SIUM (MG) (MG/L) | SODIUM (NA) (MG/L) | SODIUM AD-SORP-TION RATIO | PERCENT SODIUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. 13... | 1200 | 54 | 8.8 | 100 | 60 | 40 | 30 | 82 | 29 | 20 | .5 | 12 |
| NOV. 18... | 1045 | 68 | 5.8 | -- | 60 | -- | 50 | 94 | 26 | 30 | .7 | 16 |
| DEC. 22... | 1240 | 94 | 6.4 | 100 | 100 | 40 | 40 | 93 | 34 | 18 | .4 | 9 |
| JAN. 29... | 1545 | 3120 | 6.1 | 2500 | 360 | 300 | 70 | 51 | 17 | 6.1 | .2 | 6 |
| MAR. 12... | 1215 | 179 | 6.5 | -- | 30 | -- | 0 | 88 | 29 | 14 | .3 | 8 |
| APR. 20... | 1300 | 886 | 5.1 | -- | 260 | -- | 20 | 66 | 27 | 8.3 | .2 | 6 |
| MAY 19... | 1530 | 133 | 8.0 | 110 | 40 | 10 | 10 | 83 | 31 | 16 | .4 | 9 |
| JUNE 18... | 1430 | 78 | 4.6 | 150 | 150 | 90 | 70 | 82 | 31 | 22 | .5 | 13 |
| AUG. 05... | 1510 | 48 | 11 | 590 | 220 | 150 | 50 | 75 | 32 | 30 | .7 | 17 |
| SEPT. 04... | 1155 | 49 | 7.1 | 200 | 30 | 40 | 10 | 66 | 30 | 18 | .5 | 12 |

| DATE | PO-TAS-SIUM (K) (MG/L) | BICAR-BONATE (HCO3) (MG/L) | CAR-BONATE (CO3) (MG/L) | SULFATE (SO4) (MG/L) | CHLO-RIDE (CL) (MG/L) | FLUO-RIDE (F) (MG/L) | NITRATE (NO3) (MG/L) | DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) | DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) | DIS-SOLVED SOLIDS (TONS PER DAY) | DIS-SOLVED SOLIDS (TONS PER AC-FT) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. 13... | 4.0 | 306 | 0 | 55 | 28 | .4 | 15 | 376 | 392 | 54.8 | .51 |
| NOV. 18... | 4.1 | 324 | 0 | 62 | 42 | .4 | 23 | 456 | 446 | 83.7 | .62 |
| DEC. 22... | 3.0 | 336 | 0 | 64 | 30 | .4 | 20 | 419 | 434 | 106 | .57 |
| JAN. 29... | 4.8 | 184 | 0 | 36 | 14 | .4 | 14 | 267 | 240 | 2250 | .36 |
| MAR. 12... | 2.4 | 318 | 0 | 57 | 22 | .3 | 20 | 399 | 395 | 193 | .54 |
| APR. 20... | 2.3 | 248 | 0 | 50 | 18 | .3 | 11 | 320 | 310 | 766 | .44 |
| MAY 19... | 2.6 | 314 | 0 | 56 | 25 | .3 | 18 | 395 | 394 | 142 | .54 |
| JUNE 18... | 1.6 | 316 | 0 | 60 | 32 | .7 | 15 | 418 | 404 | 88.0 | .57 |
| AUG. 05... | 5.1 | 312 | 0 | 63 | 42 | .6 | 17 | 434 | 429 | 56.2 | .59 |
| SEPT. 04... | 5.3 | 256 | 0 | 60 | 42 | .8 | 13 | 390 | 368 | 51.6 | .53 |

03275600 - EAST FORK WHITEWATER RIVER AT ABINGTON, INDIANA

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | HARDNESS (CA,MG) (MG/L) | NON-CARBONATE HARDNESS (MG/L) | ALKALINITY AS CACO3 (MG/L) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH (UNITS) | COLOR (PLATINUM-COBALT UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT. 13... | 324 | 72 | 251 | 668 | 7.9 | 8 | 20.0 |
| NOV. 18... | 342 | 76 | 266 | 763 | 7.9 | 12 | 10.0 |
| DEC. 22... | 372 | 96 | 276 | 720 | 7.9 | 10 | 2.0 |
| JAN. 29... | 197 | 46 | 151 | 408 | 7.1 | 40 | 3.0 |
| MAR. 12... | 339 | 78 | 261 | 653 | 7.5 | 7 | 4.0 |
| APR. 20... | 276 | 72 | 203 | 529 | 8.0 | 15 | 15.0 |
| MAY 19... | 335 | 77 | 258 | 657 | 8.1 | 5 | 19.0 |
| JUNE 18... | 332 | 73 | 259 | 702 | 7.9 | 10 | 28.0 |
| AUG. 05... | 319 | 63 | 256 | 731 | 8.1 | 10 | 23.0 |
| SEPT. 04... | 288 | 78 | 210 | 644 | 7.5 | 10 | 21.0 |

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

| DAY | APR | | MAY | | JUN | | JUL | | AUG | | SEP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 22.5 | 21.0 |
| 2 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 21.0 | 20.0 |
| 3 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 22.0 | 21.0 |
| 4 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 22.0 | 21.0 |
| 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 21.5 | 19.5 |
| 6 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 21.5 | 19.5 |
| 7 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 21.5 | 20.5 |
| 8 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 21.5 | 21.0 |
| 9 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 21.5 | 20.5 |
| 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 21.5 | 20.5 |
| 11 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 20.5 | 18.0 |
| 12 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 18.5 | 17.0 |
| 13 | -- | -- | -- | -- | -- | -- | -- | -- | 21.5 | 20.5 | 19.5 | 17.5 |
| 14 | -- | -- | -- | -- | -- | -- | -- | -- | 21.5 | 20.5 | 19.5 | 18.5 |
| 15 | -- | -- | -- | -- | -- | -- | -- | -- | 22.0 | 21.0 | 21.0 | 19.0 |
| 16 | -- | -- | -- | -- | -- | -- | -- | -- | 22.5 | 21.0 | 21.5 | 20.5 |
| 17 | -- | -- | -- | -- | -- | -- | -- | -- | 23.5 | 21.5 | 21.0 | 20.0 |
| 18 | -- | -- | -- | -- | -- | -- | -- | -- | 23.0 | 21.0 | 20.5 | 19.5 |
| 19 | -- | -- | -- | -- | -- | -- | -- | -- | 22.5 | 21.5 | 19.5 | 18.5 |
| 20 | -- | -- | -- | -- | -- | -- | -- | -- | 21.5 | 20.0 | 19.0 | 19.0 |
| 21 | -- | -- | -- | -- | -- | -- | -- | -- | 21.5 | 19.5 | 20.5 | 18.5 |
| 22 | -- | -- | -- | -- | -- | -- | -- | -- | 21.0 | 19.5 | 22.0 | 20.5 |
| 23 | -- | -- | -- | -- | -- | -- | -- | -- | 21.0 | 20.0 | 22.0 | 21.0 |
| 24 | -- | -- | -- | -- | -- | -- | -- | -- | 21.0 | 19.0 | 22.0 | 21.5 |
| 25 | -- | -- | -- | -- | -- | -- | -- | -- | 20.5 | 19.0 | 21.5 | 20.5 |
| 26 | -- | -- | -- | -- | -- | -- | -- | -- | 21.0 | 19.5 | 21.0 | 19.5 |
| 27 | -- | -- | -- | -- | -- | -- | -- | -- | 21.5 | 20.5 | 19.5 | 17.0 |
| 28 | -- | -- | -- | -- | -- | -- | -- | -- | 22.0 | 21.0 | 18.0 | 16.0 |
| 29 | -- | -- | -- | -- | -- | -- | -- | -- | 23.0 | 21.5 | 16.0 | 14.0 |
| 30 | -- | -- | -- | -- | -- | -- | -- | -- | 23.5 | 21.5 | 15.5 | 14.0 |
| 31 | -- | -- | -- | -- | -- | -- | -- | -- | 23.5 | 22.5 | 15.5 | 14.0 |
| AVG | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 20.3 | 18.9 |

## 03276700 SOUTH HOGAN CREEK NEAR DILLSBORO, IND.
(Hydrologic bench-mark station)

LOCATION.--Lat 39°01'47", long 85°02'17", in NW¼ sec.7, T.4 N., R.2 W., Dearborn County, on left downstream abutment of bridge on county road at Dillsboro Station, 1.2 miles northeast of Dillsboro, and 1.5 miles downstream from Whitaker Creek.
DRAINAGE AREA.--38.2 sq mi.
PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1970.
Sediment records: August 1969 to September 1970 (partial-record station).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DIS-CHARGE (CFS) | SILICA (SIO2) (MG/L) | IRON (FE) (UG/L) | TOTAL MAN-GANESE (MN) (UG/L) | MAN-GANESE (MN) (UG/L) | CAL-CIUM (CA) (MG/L) | MAG-NE-SIUM (MG) (MG/L) | SODIUM (NA) (MG/L) | SODIUM AD-SORP-TION RATIO | PERCENT SODIUM | PO-TAS-SIUM (K) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | | |
| 09... | 1100 | .57 | 6.6 | 630 | 30 | -- | 74 | 14 | 12 | .3 | 10 | 3.6 |
| NOV. | | | | | | | | | | | | |
| 20... | 1055 | 36 | 9.4 | 250 | -- | 570 | 54 | 14 | 8.2 | .3 | 8 | 3.5 |
| DEC. | | | | | | | | | | | | |
| 18... | 1230 | 8.9 | 4.7 | 380 | -- | 310 | 87 | 18 | 13 | .3 | 9 | 1.9 |
| JAN. | | | | | | | | | | | | |
| 28... | 1100 | 25 | 6.5 | 150 | -- | 10 | 68 | 11 | 11 | .3 | 10 | 3.8 |
| MAR. | | | | | | | | | | | | |
| 06... | 1130 | 73 | 7.1 | 300 | -- | 0 | 63 | 9.2 | 9.3 | .3 | 9 | 2.9 |
| 27... | 1030 | 87 | 9.6 | 50 | -- | 0 | 59 | 9.7 | 8.0 | .3 | 8 | 2.4 |
| APR. | | | | | | | | | | | | |
| 16... | 0930 | 11 | 1.4 | 20 | -- | 0 | 74 | 14 | 9.9 | .3 | 8 | 2.2 |
| MAY | | | | | | | | | | | | |
| 22... | 0930 | 3.6 | 5.5 | 10 | -- | 10 | 82 | 14 | 11 | .3 | 8 | 3.2 |
| JUNE | | | | | | | | | | | | |
| 19... | 1130 | 1.1 | 7.6 | 30 | -- | 70 | 84 | 12 | 11 | .3 | 8 | 3.8 |
| JULY | | | | | | | | | | | | |
| 24... | 0945 | 1.3 | 3.9 | 960 | -- | 40 | 73 | 10 | 18 | .5 | 14 | 6.0 |
| AUG. | | | | | | | | | | | | |
| 26... | 1000 | 1.2 | 9.2 | 20 | -- | 130 | 61 | 6.8 | 9.8 | .3 | 10 | 4.9 |
| SEPT. | | | | | | | | | | | | |
| 23... | 1000 | .80 | 6.4 | 40 | -- | 90 | 65 | 13 | 11 | .3 | 10 | 4.0 |
| 29... | 1100 | 2.8 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | BICAR-BONATE (HCO3) (MG/L) | CAR-BONATE (CO3) (MG/L) | SULFATE (SO4) (MG/L) | CHLO-RIDE (CL) (MG/L) | FLUO-RIDE (F) (MG/L) | NITRATE (NO3) (MG/L) | TOTAL PHOS-PHORUS (PO4) (MG/L) | DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) | DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) | DIS-SOLVED SOLIDS (TONS PER DAY) | DIS-SOLVED SOLIDS (TONS PER AC-FT) | HARD-NESS (CA,MG) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | | |
| 09... | 205 | 0 | 75 | 18 | .2 | .6 | .08 | 302 | 306 | .46 | .41 | 242 |
| NOV. | | | | | | | | | | | | |
| 20... | 164 | 0 | 52 | 11 | .2 | 7.2 | .61 | 230 | 242 | 22.4 | .31 | 192 |
| DEC. | | | | | | | | | | | | |
| 18... | 274 | 0 | 71 | 20 | .2 | .1 | 1.2 | 324 | 353 | 7.79 | .44 | 291 |
| JAN. | | | | | | | | | | | | |
| 28... | 188 | 0 | 56 | 15 | .2 | 9.7 | .79 | 292 | 274 | 19.7 | .40 | 215 |
| MAR. | | | | | | | | | | | | |
| 06... | 170 | 0 | 50 | 16 | .2 | 7.5 | .79 | 260 | 250 | 51.2 | .35 | 195 |
| 27... | 164 | 0 | 46 | 12 | .1 | 6.0 | .62 | 260 | 234 | 61.1 | .35 | 187 |
| APR. | | | | | | | | | | | | |
| 16... | 212 | 0 | 66 | 12 | .1 | .0 | .81 | 298 | 284 | 8.85 | .41 | 242 |
| MAY | | | | | | | | | | | | |
| 22... | 240 | 0 | 66 | 14 | .2 | .2 | .60 | 328 | 315 | 3.19 | .45 | 262 |
| JUNE | | | | | | | | | | | | |
| 19... | 220 | 4 | 73 | 14 | .2 | .5 | .19 | 330 | 318 | .98 | .45 | 259 |
| JULY | | | | | | | | | | | | |
| 24... | 192 | 0 | 71 | 23 | .2 | .1 | .89 | 305 | 301 | 1.07 | .41 | 223 |
| AUG. | | | | | | | | | | | | |
| 26... | 156 | 0 | 54 | 12 | .4 | 2.5 | 1.7 | 243 | 239 | .79 | .33 | 180 |
| SEPT. | | | | | | | | | | | | |
| 23... | 198 | 0 | 57 | 14 | .4 | .0 | .82 | 271 | 269 | .59 | .37 | 216 |
| 29... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

### PESTICIDE ANALYSIS

Sample taken on Sept. 23, 1969, was analyzed for the following pesticides: Aldrin, Chlordane, DDD, DDE, DDT, Dieldrin, Endrin, Heptachlor, Heptachlor Epoxide, Lindane, 2, 4-D, Silvex, 2, 4, 5-T, Malathion, Parathion, Methyl Parathion, and Diazinon. None of the pesticides were detected except 2, 4, 5-T, which was present in the sample in a concentration of 0.01 micrograms per liter (UG/L). None of the following pesticides were found in bottom deposits taken on the same date: Aldrin, DDD, DDE, DDT, Dieldrin, Endrin, Heptachlor Epoxide, and Lindane.

03276700 - SOUTH HOGAN CREEK NEAR DILLSBORO, INDIANA--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | AIR TEMPERATURE (DEG C) | NON-CARBONATE HARDNESS (MG/L) | ALKALINITY AS CACO3 (MG/L) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH (UNITS) | COLOR (PLATINUM-COBALT UNITS) | BIOCHEMICAL OXYGEN DEMAND (MG/L) | DISSOLVED OXYGEN (MG/L) | PERCENT SATURATION | COLIFORM (COLONIES PER 100 ML) | FECAL COLIFORM (COL. PER 100 ML) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | |
| 09... | 24.0 | 74 | 168 | 518 | 7.9 | 5 | -- | 10.0 | 100 | 240 | -- |
| NOV. | | | | | | | | | | | |
| 20... | 7.5 | 58 | 135 | 390 | 7.0 | 20 | 4.0 | 15.0 | 111 | -- | -- |
| DEC. | | | | | | | | | | | |
| 18... | 6.0 | 66 | 225 | 620 | 8.2 | 10 | 4.7 | -- | -- | 160 | -- |
| JAN. | | | | | | | | | | | |
| 28... | 13.5 | 60 | 154 | 480 | 8.1 | 5 | 4.1 | 12.6 | 89 | 19000 | -- |
| MAR. | | | | | | | | | | | |
| 06... | 8.0 | 56 | 139 | 421 | 7.5 | 5 | 5.6 | 13.0 | 102 | 3200 | -- |
| 27... | 15.0 | 52 | 135 | 397 | 7.6 | 6 | 2.2 | 12.8 | 98 | 600 | -- |
| APR. | | | | | | | | | | | |
| 16... | 14.0 | 68 | 174 | 489 | 7.9 | 4 | 2.2 | 12.2 | 117 | 40 | 32 |
| MAY | | | | | | | | | | | |
| 22... | 24.0 | 66 | 197 | 529 | 7.9 | 3 | 3.0 | 7.0 | 80 | 28000 | -- |
| JUNE | | | | | | | | | | | |
| 19... | 28.0 | 72 | 187 | 480 | 8.1 | 10 | 2.0 | 10.4 | 122 | 270 | -- |
| JULY | | | | | | | | | | | |
| 24... | 24.0 | 66 | 157 | 510 | 7.8 | 10 | 1.6 | 10.0 | 114 | 3000 | -- |
| AUG. | | | | | | | | | | | |
| 26... | 21.0 | 52 | 128 | 410 | 8.0 | 5 | 2.0 | 9.8 | 111 | 87 | -- |
| SEPT. | | | | | | | | | | | |
| 23... | 28.5 | 54 | 162 | 480 | 8.1 | 15 | 3.2 | 7.4 | 88 | 720 | -- |
| 29... | 13.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | TIME | DISCHARGE (CFS) | TOTAL CHROMIUM (CR) (UG/L) | NICKEL (NI) (UG/L) | COPPER (CU) (UG/L) | LEAD (PB) (UG/L) | ZINC (ZN) (UG/L) | COBALT (CO) (UG/L) | ARSENIC (AS) (UG/L) | CADMIUM (CD) (UG/L) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | |
| 09... | 1100 | .57 | -- | -- | -- | -- | -- | -- | -- | -- | 16.0 |
| NOV. | | | | | | | | | | | |
| 20... | 1055 | 36 | -- | -- | -- | -- | -- | -- | -- | -- | 3.0 |
| DEC. | | | | | | | | | | | |
| 18... | 1230 | 8.9 | -- | -- | -- | -- | -- | -- | -- | -- | .5 |
| JAN. | | | | | | | | | | | |
| 28... | 1100 | 25 | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 |
| MAR. | | | | | | | | | | | |
| 06... | 1130 | 73 | -- | -- | -- | -- | -- | -- | -- | -- | 5.0 |
| 27... | 1030 | 87 | -- | -- | -- | -- | -- | -- | -- | -- | 4.5 |
| APR. | | | | | | | | | | | |
| 16... | 0930 | 11 | -- | -- | -- | -- | -- | -- | -- | -- | 12.0 |
| MAY | | | | | | | | | | | |
| 22... | 0930 | 3.6 | -- | -- | -- | -- | -- | -- | -- | -- | 23.0 |
| JUNE | | | | | | | | | | | |
| 19... | 1130 | 1.1 | 0 | 0 | 40 | 0 | 20 | 0 | 0 | 10 | 25.0 |
| JULY | | | | | | | | | | | |
| 24... | 0945 | 1.3 | -- | -- | -- | -- | -- | -- | -- | -- | 22.0 |
| AUG. | | | | | | | | | | | |
| 26... | 1000 | 1.2 | -- | -- | -- | -- | -- | -- | -- | -- | 22.0 |
| SEPT. | | | | | | | | | | | |
| 23... | 1000 | .90 | -- | -- | -- | -- | -- | -- | -- | -- | 24.5 |
| 29... | 1100 | 2.8 | 10 | 10 | 0 | 0 | 70 | 0 | 0 | 0 | 16.5 |

RADIOISOTOPES IN WATER

Units of measurement: Uranium, micrograms per liter of water; radium, as radium-226, in picocuries per liter of water; gross beta radiation as strontium-90-yttrium-90, in picocuries per liter of water; gross alpha radiation, as micrograms of uranium equivalent per liter of water. A picocurie is one millionth of the amount of radioactivity represented by a microcurie, which is the quantity of radiation represented by one millionth of a gram of radium-226. A picocurie of radium results in 2.22 disintegrations per minute.

| Date of Collection | Determination: Dissolved Uranium (ug/l) | Radium (pCi/l) | Gross Beta (pCi/l as Sr-90/Y-90) | Gross Alpha (ug/l as U nat) | Dissolved Solids mg/l | Suspended Gross Beta (pCi/l as Sr-90/Y-90) | Suspended Gross Alpha (ug/l as U nat) | Suspended Solids mg/l |
|---|---|---|---|---|---|---|---|---|
| Sept. 29, 1970 | 0.48 | 0.06 | 8.4 | 2.5 | 310 | 2.3 | 1.6 | 26 |

## 03322500 WABASH RIVER NEAR NEW CORYDON, IND.

LOCATION.--Lat 40°33'50", long 84°48'10", in SE¼ sec.3, T.24 N., R.15 E., Jay County, at gaging station on left bank, 10 ft downstream from county bridge on Indiana-Ohio State line road, 2 miles east of New Corydon, 2.8 miles downstream from Beaver Creek, and at mile 465.6.
DRAINAGE AREA.--262 sq mi.
PERIOD OF RECORD.--Chemical analyses: July 1969 to September 1970.
REMARKS.--Occasional regulation by Grand Lake Reservoir, diversion from or into St. Marys River, and into Miami and Erie Canal.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DIS-CHARGE (CFS) | DIS-SOLVED IRON (FE) (UG/L) | DIS-SOLVED MAN-GANESE (MN) (UG/L) | CAL-CIUM (CA) (MG/L) | MAG-NE-SIUM (MG) (MG/L) | SULFATE (SO4) (MG/L) | CHLO-RIDE (CL) (MG/L) | NITRATE (N) (MG/L) | NITRITE (N) (MG/L) | AMMONIA NITRO-GEN (N) (MG/L) | ORGANIC NITRO-GEN (N) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. 30... | 1337 | 19 | 1400 | -- | 88 | 38 | 163 | 40 | .50 | .02 | .21 | .69 |
| NOV. 24... | 1530 | 366 | 460 | -- | 65 | 23 | 80 | 36 | -- | -- | -- | -- |
| DEC. 31... | 1100 | 138 | 430 | -- | 47 | 24 | 87 | 29 | .70 | .03 | .30 | 1.4 |
| JAN. 22... | 1046 | 16 | 650 | -- | 152 | 56 | 287 | 80 | -- | -- | -- | -- |
| FEB. 19... | 1500 | 154 | 300 | -- | 42 | 13 | 47 | 18 | 4.6 | .03 | .98 | 1.7 |
| MAR. 19... | 0800 | 94 | 250 | -- | 118 | 41 | 197 | 60 | -- | -- | -- | -- |
| MAY 01... | 1030 | 189 | 30 | -- | 67 | 23 | 77 | 24 | 2.9 | .08 | .11 | 11 |
| JUNE 04... | 1145 | 186 | 90 | -- | 78 | 26 | 85 | 38 | -- | -- | -- | -- |
| 23... | 1115 | 46 | 210 | -- | 66 | 32 | 137 | 29 | 1.2 | .04 | .25 | 2.2 |
| JULY 22... | 1300 | 19 | -- | 20 | 90 | 39 | 198 | 62 | -- | -- | -- | -- |
| AUG. 18... | 1700 | 9.9 | -- | 250 | 132 | 55 | 302 | 94 | -- | -- | -- | -- |
| SEPT. 17... | 1330 | 9.9 | -- | 20 | 132 | 61 | 332 | 102 | 2.0 | .20 | .79 | .75 |

03322500 - WABASH RIVER NEAR NEW CORYDON, IND.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TOTAL PHOSPHORUS (P) (MG/L) | DISSOLVED PHOSPHORUS (P) (MG/L) | HARDNESS (CA,MG) (MG/L) | ALKALINITY AS CACO3 (MG/L) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH (UNITS) | TURBIDITY (JTU) | TEMPERATURE (DEG C) | AIR TEMPERATURE (DEG C) | BIOCHEMICAL OXYGEN DEMAND (MG/L) | DISSOLVED OXYGEN (MG/L) | PERCENT SATURATION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | | |
| 30... | .75 | .52 | 376 | 202 | 800 | 7.5 | 17 | 8.0 | 16.0 | 6.0 | 9.5 | 80 |
| NOV. | | | | | | | | | | | | |
| 24... | -- | -- | 258 | 128 | 540 | 8.0 | 60 | 4.0 | -- | 3.6 | 10.1 | 77 |
| DEC. | | | | | | | | | | | | |
| 31... | .25 | .18 | 216 | 123 | 540 | 6.7 | 10 | .5 | 1.0 | 4.4 | 12.9 | 95 |
| JAN. | | | | | | | | | | | | |
| 22... | -- | -- | 610 | 326 | 1500 | 7.5 | 6.5 | .0 | -15.9 | 5.6 | -- | -- |
| FEB. | | | | | | | | | | | | |
| 19... | .39 | .21 | 160 | 87 | 380 | 7.5 | 135 | 1.5 | 1.5 | -- | 13.2 | 94 |
| MAR. | | | | | | | | | | | | |
| 19... | -- | -- | 462 | 238 | 1050 | 7.8 | 26 | 4.0 | 5.0 | 4.6 | 13.2 | 100 |
| MAY | | | | | | | | | | | | |
| 01... | .44 | .37 | 262 | 151 | 520 | 7.7 | 59 | 20.0 | 24.0 | 6.6 | 9.7 | 105 |
| JUNE | | | | | | | | | | | | |
| 04... | -- | -- | 302 | 128 | 660 | 7.5 | 51 | 16.0 | 19.0 | 8.0 | 10.6 | 107 |
| 23... | .45 | .34 | 294 | 152 | 650 | 7.7 | 23 | 23.0 | 26.0 | 10 | 6.2 | 71 |
| JULY | | | | | | | | | | | | |
| 22... | -- | -- | 388 | 189 | 850 | 8.0 | 39 | 23.0 | 27.0 | 6.1 | -- | -- |
| AUG. | | | | | | | | | | | | |
| 18... | -- | -- | 558 | 254 | 1400 | 8.4 | 19 | 24.5 | 35.0 | 7.2 | 6.2 | 73 |
| SEPT. | | | | | | | | | | | | |
| 17... | .62 | .06 | 580 | 262 | 610 | 7.5 | 31 | 23.0 | -- | 6.4 | 5.6 | 64 |

| DATE | COLIFORM (COLONIES PER 100 ML) | FECAL COLIFORM (COL. PER 100 ML) |
|---|---|---|
| OCT. | | |
| 30... | 4600 | -- |
| NOV. | | |
| 24... | 19000 | -- |
| DEC. | | |
| 31... | 16500 | -- |
| JAN. | | |
| 22... | 4800 | -- |
| FEB. | | |
| 19... | 21000 | -- |
| MAR. | | |
| 19... | 3200 | -- |
| MAY | | |
| 01... | 4800 | 2400 |
| JUNE | | |
| 04... | 120000 | 73000 |
| 23... | 1500 | -- |
| JULY | | |
| 22... | 3600 | 3600 |
| AUG. | | |
| 18... | 400 | 300 |
| SEPT. | | |
| 17... | 300 | 600 |

## 03323500 WABASH RIVER AT HUNTINGTON, IND.

LOCATION.--Lat 40°51'20", long 85°29'53", in SW¼NE¼ sec.27, T.28 N., R.9 E., Huntington County, temperature recorder at gaging station on right bank at the Huntington Water and Light Company Plant, 2 miles south of courthouse in Huntington, 3.2 miles upstream from mouth of Little River, and at mile 409.
DRAINAGE AREA.--721 sq mi (revised).
PERIOD OF RECORD.--Water temperatures: October 1, 1963 to current year.
EXTREMES, Current year.--Water temperatures: Maximum, 28.0°C July 12; minimum, freezing point on many days during December to February.
EXTREMES, Period of record.--Water temperatures: Maximum, 32.0°C July 27, 1964; minimum, freezing point on many days during most winter periods.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

| DAY | OCT | | NOV | | DEC | | JAN | | FEB | | MAR | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 18.5 | 16.5 | 8.5 | 8.5 | 2.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 2.5 | 2.5 |
| 2 | 18.0 | 17.0 | 8.5 | 8.5 | 2.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 2.5 | 2.5 |
| 3 | 18.0 | 16.5 | 8.5 | 8.0 | 2.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 2.5 | 2.5 |
| 4 | 18.0 | 17.0 | 8.0 | 8.0 | 1.5 | 1.5 | 0.5 | 0.0 | 0.0 | 0.0 | 2.5 | 2.5 |
| 5 | 18.5 | 17.0 | 8.0 | 7.0 | 1.5 | 1.5 | 0.5 | 0.5 | 0.0 | 0.0 | 3.5 | 2.5 |
| 6 | 18.5 | 17.5 | 7.0 | 6.5 | 1.5 | 1.5 | 1.0 | 0.5 | 0.0 | 0.0 | 4.0 | 3.5 |
| 7 | 18.0 | 17.0 | 6.5 | 6.5 | 1.5 | 1.0 | 0.5 | 0.5 | 3.0 | 0.0 | 4.5 | 4.0 |
| 8 | 18.0 | 16.0 | 6.5 | 6.5 | 1.0 | 0.5 | 0.5 | 0.5 | 3.0 | 3.0 | 4.5 | 4.0 |
| 9 | 17.5 | 15.0 | 6.5 | 6.5 | 0.5 | 0.0 | 0.5 | 0.5 | 3.0 | 2.5 | 4.0 | 4.0 |
| 10 | 17.0 | 16.0 | 6.5 | 6.5 | 0.0 | 0.0 | 0.5 | 0.0 | 2.5 | 2.0 | 4.0 | 3.5 |
| 11 | 16.5 | 16.5 | 6.5 | 6.5 | 1.0 | 0.0 | 0.0 | 0.0 | 2.0 | 1.0 | 3.5 | 3.5 |
| 12 | 16.5 | 15.5 | 6.5 | 6.5 | 1.0 | 1.0 | 0.0 | 0.0 | 2.0 | 1.0 | 3.5 | 3.5 |
| 13 | 15.5 | 15.5 | 6.5 | 6.0 | 1.0 | 1.0 | 0.0 | 0.0 | 2.5 | 2.0 | 3.5 | 3.5 |
| 14 | 15.5 | 15.0 | 6.0 | 5.5 | 1.0 | 1.0 | 0.0 | 0.0 | 3.0 | 2.5 | 3.5 | 3.5 |
| 15 | 15.0 | 14.5 | 5.5 | 4.5 | 1.0 | 1.0 | 0.0 | 0.0 | 3.0 | 3.0 | 3.5 | 3.5 |
| 16 | 14.5 | 13.5 | 4.5 | 4.0 | 1.0 | 1.0 | 0.0 | 0.0 | 3.0 | 2.0 | 3.5 | 3.5 |
| 17 | 13.5 | 12.0 | 4.5 | 4.0 | 1.0 | 1.0 | 0.0 | 0.0 | 2.0 | 2.0 | 3.5 | 3.0 |
| 18 | 12.0 | 11.5 | 4.5 | 4.5 | 1.0 | 1.0 | 0.0 | 0.0 | 2.0 | 2.0 | 3.0 | 3.0 |
| 19 | 11.5 | 11.5 | 4.5 | 4.0 | 1.0 | 1.0 | 0.0 | 0.0 | 2.0 | 0.5 | 3.0 | 2.5 |
| 20 | 11.5 | 11.0 | 4.5 | 4.0 | 1.0 | 0.5 | 0.0 | 0.0 | 0.5 | 0.0 | 3.0 | 2.5 |
| 21 | 11.5 | 11.0 | 4.5 | 4.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 | 2.5 |
| 22 | 11.5 | 11.0 | 4.0 | 2.5 | 1.0 | 0.5 | 0.0 | 0.0 | 1.5 | 0.0 | 2.5 | 2.5 |
| 23 | 11.0 | 10.0 | 2.5 | 2.0 | 0.5 | 0.5 | 0.0 | 0.0 | 2.0 | 1.5 | 3.5 | 2.5 |
| 24 | 10.5 | 9.5 | 2.0 | 2.0 | 0.5 | 0.5 | 0.0 | 0.0 | 3.0 | 2.0 | 3.5 | 3.5 |
| 25 | 10.0 | 9.5 | 2.0 | 2.0 | 0.5 | 0.5 | 0.0 | 0.0 | 2.5 | 2.0 | 3.5 | 3.5 |
| 26 | 10.0 | 9.5 | 2.0 | 2.0 | 0.5 | 0.5 | 0.0 | 0.0 | 3.0 | 2.0 | 3.5 | 3.5 |
| 27 | 10.0 | 9.5 | 2.0 | 2.0 | 0.5 | 0.5 | 0.0 | 0.0 | 3.0 | 2.5 | 3.5 | 3.0 |
| 28 | 9.5 | 9.5 | 2.0 | 1.5 | 0.5 | 0.5 | 0.0 | 0.0 | 3.0 | 2.5 | 3.0 | 3.0 |
| 29 | 9.5 | 9.0 | 1.5 | 1.5 | 0.5 | 0.5 | 0.0 | 0.0 | -- | -- | 3.0 | 3.0 |
| 30 | 9.5 | 8.5 | 2.0 | 1.5 | 0.5 | 0.5 | 0.0 | 0.0 | -- | -- | 3.0 | 2.5 |
| 31 | 9.0 | 8.5 | -- | -- | 0.5 | 0.0 | 0.0 | 0.0 | -- | -- | 3.5 | 3.0 |
| AVG | 14.0 | 13.1 | 5.0 | 4.7 | 0.9 | 0.7 | 0.1 | 0.0 | 1.8 | 1.2 | 3.3 | 3.0 |

03323500 WABASH RIVER AT HUNTINGTON, IND--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

| DAY | APR | | MAY | | JUN | | JUL | | AUG | | SEP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 3.5 | 3.5 | 18.0 | 18.0 | 21.0 | 18.5 | 23.0 | 21.0 | 26.5 | 23.0 | 25.5 | 22.0 |
| 2 | 3.5 | 3.0 | 18.0 | 17.5 | 20.5 | 19.5 | 23.5 | 21.5 | 24.0 | 22.0 | 25.0 | 22.0 |
| 3 | 3.0 | 3.0 | 17.5 | 16.5 | 20.0 | 19.0 | 24.0 | 22.0 | 24.0 | 23.0 | 25.0 | 24.5 |
| 4 | 3.0 | 3.0 | 17.0 | 16.5 | 19.5 | 18.5 | 23.5 | 22.0 | 24.0 | 23.0 | 25.5 | 24.0 |
| 5 | 3.5 | 3.0 | 16.5 | 16.0 | 20.0 | 19.0 | 25.5 | 22.0 | 27.0 | 23.0 | 25.5 | 23.5 |
| 6 | 3.5 | 3.5 | 16.0 | 15.5 | 20.0 | 19.0 | 26.0 | 23.0 | 26.5 | 23.0 | 25.5 | 24.0 |
| 7 | 4.5 | 3.5 | 15.5 | 15.5 | 19.0 | 18.5 | 25.5 | 22.5 | 27.0 | 24.0 | 26.0 | 24.0 |
| 8 | 6.5 | 4.5 | 17.5 | 15.5 | 20.5 | 18.5 | 25.5 | 23.5 | 26.5 | 24.5 | 26.0 | 25.0 |
| 9 | 6.5 | 6.0 | 18.5 | 16.5 | 21.0 | 18.5 | 24.0 | 23.0 | 26.5 | 24.5 | 25.0 | 23.0 |
| 10 | 7.5 | 6.0 | 19.5 | 18.0 | 22.0 | 19.0 | 24.5 | 23.0 | 26.5 | 24.5 | 24.5 | 23.0 |
| 11 | 7.5 | 6.5 | 19.5 | 18.5 | 22.0 | 19.0 | 27.0 | 23.5 | 27.0 | 24.0 | 23.0 | 19.5 |
| 12 | 8.5 | 6.5 | 19.0 | 18.0 | 22.0 | 19.5 | 28.0 | 23.5 | 27.0 | 25.0 | 22.5 | 20.0 |
| 13 | 8.0 | 6.5 | 18.0 | 17.0 | 21.5 | 19.0 | 27.5 | 24.0 | 27.0 | 25.0 | 22.5 | 20.5 |
| 14 | 7.0 | 6.5 | 17.5 | 17.0 | 21.0 | 19.0 | 27.0 | 24.5 | 27.0 | 25.5 | 20.5 | 19.0 |
| 15 | 8.5 | 6.5 | 17.5 | 17.0 | 20.5 | 19.5 | 27.0 | 25.0 | 27.0 | 25.5 | 23.5 | 19.0 |
| 16 | 9.5 | 8.0 | 18.0 | 17.0 | 23.0 | 20.0 | 27.5 | 23.5 | 27.0 | 26.0 | 23.0 | 21.5 |
| 17 | 11.5 | 9.0 | 17.5 | 16.5 | 24.0 | 21.5 | 27.0 | 24.0 | 27.0 | 24.5 | 22.0 | 21.0 |
| 18 | 11.0 | 9.0 | 17.0 | 16.5 | 24.0 | 21.0 | 27.5 | 24.5 | 26.5 | 24.0 | 22.0 | 21.0 |
| 19 | 9.0 | 6.5 | 17.0 | 16.5 | 23.0 | 21.0 | 27.0 | 24.5 | 25.5 | 25.0 | 21.5 | 20.0 |
| 20 | 10.5 | 8.5 | 18.0 | 16.5 | 22.0 | 19.5 | 25.5 | 23.0 | 25.5 | 24.0 | 21.5 | 21.0 |
| 21 | 10.5 | 9.5 | 18.5 | 17.0 | 22.0 | 20.5 | 26.0 | 21.5 | 25.5 | 22.0 | 24.5 | 21.0 |
| 22 | 11.0 | 10.5 | 19.0 | 17.0 | 24.5 | 19.5 | 26.5 | 22.0 | 25.5 | 23.0 | 24.5 | 23.5 |
| 23 | 11.5 | 11.0 | 18.0 | 16.5 | 25.5 | 22.0 | 26.5 | 23.0 | 24.5 | 22.5 | 23.5 | 22.0 |
| 24 | 13.0 | 11.5 | 19.0 | 17.0 | 26.0 | 23.5 | 26.0 | 23.0 | 25.0 | 22.0 | 23.0 | 22.5 |
| 25 | 14.5 | 13.0 | 18.5 | 17.0 | 26.0 | 23.0 | 27.0 | 23.5 | 26.0 | 22.5 | 23.5 | 21.0 |
| 26 | 16.0 | 14.5 | 19.5 | 17.5 | 23.5 | 22.0 | 27.5 | 24.5 | 26.5 | 24.0 | 23.5 | 20.5 |
| 27 | 16.5 | 16.0 | 20.0 | 18.0 | 23.5 | 22.0 | 27.0 | 24.5 | 26.5 | 24.0 | 21.0 | 19.5 |
| 28 | 17.5 | 16.5 | 20.5 | 17.5 | 22.0 | 21.0 | 27.0 | 23.5 | 26.5 | 24.0 | 20.5 | 19.0 |
| 29 | 18.0 | 17.5 | 20.5 | 18.0 | 21.0 | 20.5 | 27.0 | 24.5 | 26.0 | 24.5 | 20.5 | 18.0 |
| 30 | 18.0 | 18.0 | 20.0 | 19.0 | 21.5 | 21.0 | 26.5 | 23.5 | 26.0 | 24.5 | 20.0 | 18.0 |
| 31 | -- | -- | 20.0 | 19.0 | -- | -- | 27.0 | 24.0 | 26.0 | 24.5 | -- | -- |
| AVG | 9.4 | 8.3 | 18.2 | 17.0 | 22.0 | 20.0 | 26.1 | 23.2 | 26.0 | 23.8 | 23.3 | 21.4 |

## 03328500 EEL RIVER NEAR LOGANSPORT, IND

LOCATION.--Lat 40°46'55", long 86°15'50", in sec.14, T.27 N., R.2 E., Cass County, at gaging station on right bank at downstream side of bridge on Adamsboro Road, 5.5 miles northeast of Logansport, and 6.9 miles upstream from mouth.
DRAINAGE AREA.--789 sq mi.
PERIOD OF RECORD.--Water temperatures: October 1969 to September 1970.
Sediment records: August 1969 to September 1970.
EXTREMES.--Sediment concentration: Maximum daily, 1,080 mg/l May 25; minimum daily, 15 mg/l Mar. 13, 25.
Sediment loads: Maximum daily, 12,800 tons Apr. 20; minimum daily, 16 tons Sept. 3.
EXTREMES, Period of record.--Sediment concentration: Maximum daily, 1,080 mg/l May 25, 1970; minimum daily, 15 mg/l Mar. 13, 25, 1970.
Sediment loads: Maximum daily, 12,800 tons Apr. 20, 1970; minimum daily, 16 tons Sept. 3, 1970.

### TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
### (ONCE-DAILY MEASUREMENT BETWEEN 1200 AND 1800)

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -- | 11.0 | -- | -- | 2.0 | -- | 5.0 | 20.0 | 20.0 | 28.0 | 28.0 | -- |
| 2 | -- | 10.0 | 3.0 | -- | 1.0 | -- | -- | 15.0 | 22.0 | -- | 26.0 | 25.0 |
| 3 | -- | 9.0 | 2.0 | -- | 0.0 | -- | 5.0 | 16.0 | 18.0 | -- | 20.0 | -- |
| 4 | -- | 8.0 | -- | -- | 0.0 | 6.0 | 6.0 | 17.0 | -- | 23.0 | -- | -- |
| 5 | -- | 9.0 | -- | -- | 1.0 | -- | 7.0 | 15.0 | -- | -- | -- | 25.0 |
| 6 | -- | -- | 2.0 | -- | 1.0 | 6.0 | 8.0 | 14.0 | 21.0 | -- | 25.0 | -- |
| 7 | -- | -- | -- | -- | 1.0 | 6.0 | 9.0 | 17.0 | -- | -- | -- | -- |
| 8 | 12.0 | -- | 3.0 | -- | 1.0 | 6.0 | 12.0 | 19.0 | -- | 24.0 | -- | -- |
| 9 | -- | -- | 3.0 | -- | 1.0 | 4.0 | 13.0 | 20.0 | -- | -- | -- | 24.0 |
| 10 | -- | -- | -- | -- | -- | 3.0 | 11.0 | 20.0 | 26.0 | -- | -- | -- |
| 11 | 17.0 | -- | -- | -- | -- | 4.0 | 10.0 | 19.0 | -- | 24.0 | -- | -- |
| 12 | 15.0 | 9.0 | -- | -- | 1.0 | 4.0 | 14.0 | 21.0 | -- | -- | 26.0 | 20.0 |
| 13 | -- | -- | -- | -- | -- | 4.0 | 12.0 | 19.0 | 25.0 | -- | -- | -- |
| 14 | 15.0 | -- | -- | 1.0 | -- | -- | 10.0 | 22.0 | -- | -- | -- | -- |
| 15 | -- | -- | 2.0 | -- | 1.0 | -- | 13.0 | 24.0 | -- | 25.0 | 27.0 | -- |
| 16 | 12.0 | 4.0 | -- | -- | -- | 4.0 | 14.0 | 16.0 | 23.0 | -- | -- | 22.0 |
| 17 | -- | -- | -- | 1.0 | -- | -- | 15.0 | 16.0 | -- | -- | -- | -- |
| 18 | -- | 9.0 | -- | -- | 6.0 | -- | 13.0 | 17.0 | -- | -- | 25.0 | -- |
| 19 | 12.0 | -- | -- | -- | 2.0 | 5.0 | 10.0 | 21.0 | 23.0 | 23.0 | -- | 23.0 |
| 20 | -- | -- | -- | -- | 1.0 | 5.0 | 10.0 | 23.0 | -- | 20.0 | -- | -- |
| 21 | -- | 4.0 | -- | -- | 2.0 | 6.0 | 10.0 | 24.0 | -- | -- | 24.0 | -- |
| 22 | 10.0 | 5.0 | -- | -- | 5.0 | 5.0 | -- | 25.0 | -- | -- | -- | -- |
| 23 | -- | 6.0 | -- | -- | 6.0 | 7.0 | 14.0 | 24.0 | -- | -- | -- | -- |
| 24 | -- | 6.0 | -- | -- | 3.0 | 7.0 | 14.0 | 25.0 | 25.0 | -- | -- | -- |
| 25 | -- | 6.0 | -- | -- | -- | 5.0 | 16.0 | -- | -- | 23.0 | 24.0 | -- |
| 26 | -- | 6.0 | -- | -- | -- | 3.0 | 16.0 | 19.0 | -- | -- | -- | -- |
| 27 | -- | 5.0 | -- | -- | -- | 4.0 | 18.0 | 20.0 | 22.0 | 28.0 | -- | -- |
| 28 | -- | 4.0 | -- | 1.0 | 3.0 | 4.0 | 18.0 | 21.0 | -- | -- | -- | -- |
| 29 | 10.0 | -- | -- | 1.0 | -- | 5.0 | 20.0 | 22.0 | -- | -- | 27.0 | -- |
| 30 | -- | 3.0 | -- | 1.0 | -- | -- | -- | 21.0 | -- | -- | -- | -- |
| 31 | -- | -- | -- | 2.0 | -- | 7.0 | -- | 20.0 | -- | 28.0 | 25.0 | -- |
| AVG | -- | -- | -- | -- | -- | -- | 12.0 | 19.7 | -- | -- | -- | -- |

03328500 EEL RIVER NEAR LOGANSPORT, IND.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|---|---|---|---|---|---|---|---|---|---|
| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 203 | 35 | 19 | 554 | 166 | 248 | 584 | 138 | 218 |
| 2 | 208 | 35 | 20 | 970 | 158 | 414 | 542 | 139 | 203 |
| 3 | 208 | 35 | 20 | 704 | 139 | 264 | 518 | 137 | 192 |
| 4 | 208 | 35 | 20 | 584 | 148 | 233 | 494 | 134 | 179 |
| 5 | 205 | 35 | 19 | 542 | 147 | 215 | 452 | 132 | 161 |
| 6 | 203 | 35 | 19 | 500 | 149 | 201 | 435 | 130 | 153 |
| 7 | 215 | 35 | 20 | 458 | 150 | 185 | 464 | 130 | 163 |
| 8 | 220 | 35 | 21 | 424 | 154 | 176 | 650 | 139 | 244 |
| 9 | 217 | 35 | 21 | 391 | 153 | 162 | 656 | 117 | 207 |
| 10 | 220 | 35 | 21 | 366 | 152 | 150 | 584 | 83 | 131 |
| 11 | 306 | 125 | 103 | 352 | 151 | 144 | 542 | 67 | 98 |
| 12 | 698 | 173 | 326 | 342 | 150 | 139 | 506 | 58 | 79 |
| 13 | 1600 | 236 | 1020 | 328 | 150 | 133 | 464 | 52 | 65 |
| 14 | 1140 | 198 | 609 | 319 | 150 | 129 | 446 | 45 | 54 |
| 15 | 817 | 143 | 426 | 311 | 150 | 126 | 429 | 39 | 45 |
| 16 | 614 | 189 | 313 | 297 | 150 | 120 | 408 | 42 | 46 |
| 17 | 488 | 186 | 245 | 342 | 157 | 145 | 386 | 73 | 76 |
| 18 | 402 | 183 | 199 | 810 | 212 | 464 | 381 | 72 | 74 |
| 19 | 357 | 180 | 174 | 3240 | 342 | 3010 | 376 | 71 | 72 |
| 20 | 347 | 175 | 164 | 3930 | 274 | 2910 | 366 | 70 | 69 |
| 21 | 347 | 170 | 159 | 2350 | 192 | 1220 | 347 | 70 | 66 |
| 22 | 333 | 166 | 149 | 1540 | 167 | 694 | 347 | 70 | 66 |
| 23 | 315 | 163 | 139 | 1360 | 162 | 595 | 347 | 70 | 66 |
| 24 | 293 | 160 | 127 | 1320 | 160 | 570 | 293 | 90 | 71 |
| 25 | 282 | 162 | 123 | 1130 | 166 | 506 | 328 | 95 | 84 |
| 26 | 278 | 163 | 122 | 955 | 158 | 407 | 337 | 93 | 85 |
| 27 | 270 | 162 | 118 | 824 | 142 | 316 | 328 | 91 | 81 |
| 28 | 263 | 162 | 115 | 734 | 138 | 273 | 306 | 88 | 73 |
| 29 | 255 | 165 | 114 | 668 | 138 | 249 | 297 | 86 | 69 |
| 30 | 252 | 163 | 111 | 620 | 137 | 229 | 297 | 83 | 67 |
| 31 | 263 | 158 | 112 | -- | -- | -- | 306 | 82 | 68 |
| TOTAL | 12027 | -- | 5168 | 27285 | -- | 14627 | 14216 | -- | 3325 |

| | JANUARY | | | FEBRUARY | | | MARCH | | |
|---|---|---|---|---|---|---|---|---|---|
| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 311 | 78 | 65 | 1240 | 72 | 241 | 371 | 62 | 62 |
| 2 | 302 | 75 | 61 | 1140 | 63 | 194 | 362 | 59 | 58 |
| 3 | 289 | 73 | 57 | 1250 | 58 | 196 | 386 | 58 | 60 |
| 4 | 263 | 71 | 50 | 740 | 53 | 106 | 1030 | 102 | 314 |
| 5 | 250 | 68 | 46 | 620 | 50 | 84 | 2050 | 213 | 1180 |
| 6 | 250 | 66 | 45 | 580 | 53 | 83 | 1510 | 108 | 440 |
| 7 | 250 | 63 | 43 | 520 | 59 | 83 | 1140 | 41 | 126 |
| 8 | 240 | 62 | 40 | 548 | 57 | 84 | 940 | 26 | 66 |
| 9 | 240 | 62 | 40 | 518 | 57 | 80 | 789 | 18 | 38 |
| 10 | 240 | 61 | 40 | 488 | 57 | 75 | 686 | 17 | 31 |
| 11 | 240 | 60 | 39 | 452 | 57 | 70 | 608 | 17 | 28 |
| 12 | 245 | 60 | 40 | 424 | 58 | 66 | 554 | 16 | 24 |
| 13 | 250 | 61 | 41 | 397 | 61 | 65 | 524 | 15 | 21 |
| 14 | 250 | 65 | 44 | 366 | 65 | 64 | 488 | 16 | 21 |
| 15 | 250 | 57 | 38 | 357 | 65 | 63 | 458 | 16 | 20 |
| 16 | 255 | 48 | 33 | 357 | 63 | 61 | 418 | 17 | 19 |
| 17 | 255 | 42 | 29 | 337 | 62 | 56 | 402 | 17 | 18 |
| 18 | 250 | 40 | 27 | 381 | 63 | 65 | 397 | 17 | 18 |
| 19 | 240 | 40 | 26 | 788 | 80 | 166 | 397 | 19 | 20 |
| 20 | 235 | 40 | 25 | 789 | 74 | 158 | 602 | 39 | 67 |
| 21 | 230 | 40 | 25 | 530 | 73 | 104 | 1190 | 80 | 257 |
| 22 | 230 | 40 | 25 | 512 | 73 | 101 | 1130 | 87 | 265 |
| 23 | 230 | 40 | 25 | 488 | 72 | 95 | 978 | 41 | 108 |
| 24 | 230 | 40 | 25 | 542 | 72 | 105 | 895 | 23 | 56 |
| 25 | 235 | 40 | 25 | 536 | 71 | 103 | 796 | 15 | 32 |
| 26 | 245 | 48 | 32 | 524 | 70 | 99 | 2700 | 622 | 5340 |
| 27 | 270 | 63 | 46 | 452 | 68 | 83 | 4040 | 594 | 6480 |
| 28 | 429 | 87 | 101 | 413 | 66 | 74 | 2800 | 246 | 1860 |
| 29 | 1490 | 200 | 1150 | -- | -- | -- | 1940 | 128 | 670 |
| 30 | 2870 | 238 | 1840 | -- | -- | -- | 1350 | 82 | 299 |
| 31 | 1820 | 109 | 536 | -- | -- | -- | 1100 | 61 | 181 |
| TOTAL | 13884 | -- | 4659 | 16269 | -- | 2824 | 33031 | -- | 18179 |

03328500 EEL RIVER NEAR LOGANSPORT, IND.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| | APRIL | | | MAY | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 948 | 45 | 115 | 1930 | 484 | 2520 | 566 | 90 | 138 |
| 2 | 1370 | 76 | 294 | 1580 | 189 | 806 | 566 | 100 | 153 |
| 3 | 2270 | 144 | 883 | 1260 | 114 | 388 | 530 | 95 | 136 |
| 4 | 1830 | 100 | 494 | 1030 | 68 | 189 | 488 | 94 | 124 |
| 5 | 1330 | 58 | 208 | 895 | 50 | 121 | 482 | 93 | 121 |
| 6 | 1080 | 38 | 111 | 796 | 41 | 88 | 470 | 93 | 118 |
| 7 | 925 | 31 | 77 | 722 | 40 | 78 | 435 | 92 | 108 |
| 8 | 803 | 32 | 69 | 674 | 37 | 67 | 397 | 89 | 95 |
| 9 | 754 | 33 | 67 | 632 | 36 | 61 | 376 | 87 | 88 |
| 10 | 698 | 31 | 58 | 590 | 33 | 53 | 362 | 84 | 82 |
| 11 | 644 | 33 | 57 | 572 | 27 | 42 | 347 | 84 | 79 |
| 12 | 602 | 34 | 55 | 578 | 27 | 42 | 333 | 83 | 75 |
| 13 | 602 | 30 | 49 | 1460 | 203 | 1030 | 530 | 112 | 160 |
| 14 | 716 | 41 | 79 | 3180 | 416 | 3570 | 482 | 133 | 173 |
| 15 | 970 | 58 | 152 | 3150 | 412 | 3500 | 470 | 134 | 170 |
| 16 | 963 | 43 | 112 | 2380 | 283 | 1820 | 386 | 122 | 127 |
| 17 | 810 | 28 | 61 | 1610 | 132 | 574 | 357 | 113 | 109 |
| 18 | 704 | 21 | 40 | 1200 | 66 | 214 | 324 | 107 | 94 |
| 19 | 2260 | 667 | 5520 | 978 | 48 | 127 | 302 | 100 | 82 |
| 20 | 6090 | 781 | 12800 | 831 | 45 | 101 | 282 | 97 | 74 |
| 21 | 5300 | 323 | 4620 | 728 | 41 | 81 | 270 | 93 | 68 |
| 22 | 3800 | 194 | 1990 | 662 | 39 | 70 | 270 | 90 | 66 |
| 23 | 2890 | 159 | 1240 | 614 | 34 | 56 | 259 | 88 | 62 |
| 24 | 2670 | 178 | 1280 | 644 | 29 | 50 | 248 | 85 | 57 |
| 25 | 2560 | 169 | 1170 | 3120 | 1080 | 9500 | 245 | 83 | 55 |
| 26 | 1850 | 108 | 539 | 1730 | 395 | 1950 | 245 | 82 | 54 |
| 27 | 1390 | 67 | 251 | 1080 | 192 | 560 | 263 | 83 | 59 |
| 28 | 1200 | 52 | 168 | 817 | 114 | 251 | 278 | 76 | 57 |
| 29 | 1570 | 87 | 369 | 692 | 93 | 174 | 245 | 65 | 43 |
| 30 | 1700 | 208 | 955 | 620 | 88 | 147 | 225 | 60 | 36 |
| 31 | -- | -- | -- | 572 | 89 | 137 | -- | -- | -- |
| TOTAL | 51299 | -- | 33883 | 37327 | -- | 28367 | 11033 | -- | 2863 |

| | JULY | | | AUGUST | | | SEPTEMBER | | |
|---|---|---|---|---|---|---|---|---|---|
| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 217 | 57 | 33 | 572 | 88 | 136 | 162 | 42 | 18 |
| 2 | 210 | 55 | 31 | 1390 | 211 | 808 | 162 | 40 | 17 |
| 3 | 222 | 53 | 32 | 789 | 153 | 326 | 162 | 37 | 16 |
| 4 | 220 | 50 | 30 | 476 | 110 | 141 | 175 | 39 | 18 |
| 5 | 203 | 50 | 27 | 337 | 88 | 80 | 225 | 51 | 31 |
| 6 | 196 | 50 | 26 | 278 | 79 | 59 | 235 | 55 | 35 |
| 7 | 192 | 50 | 26 | 245 | 78 | 52 | 220 | 51 | 30 |
| 8 | 194 | 49 | 26 | 225 | 75 | 46 | 200 | 47 | 25 |
| 9 | 203 | 49 | 27 | 215 | 72 | 42 | 194 | 45 | 24 |
| 10 | 232 | 53 | 33 | 208 | 70 | 39 | 183 | 44 | 22 |
| 11 | 278 | 53 | 40 | 200 | 67 | 36 | 175 | 42 | 20 |
| 12 | 217 | 49 | 29 | 196 | 65 | 34 | 172 | 40 | 19 |
| 13 | 192 | 48 | 25 | 192 | 64 | 33 | 177 | 37 | 18 |
| 14 | 183 | 47 | 23 | 188 | 64 | 32 | 203 | 34 | 19 |
| 15 | 183 | 46 | 23 | 185 | 63 | 31 | 242 | 30 | 20 |
| 16 | 179 | 43 | 21 | 181 | 62 | 30 | 311 | 28 | 24 |
| 17 | 175 | 38 | 18 | 179 | 61 | 29 | 311 | 25 | 21 |
| 18 | 174 | 37 | 17 | 175 | 60 | 28 | 333 | 28 | 25 |
| 19 | 252 | 58 | 47 | 181 | 59 | 29 | 476 | 37 | 48 |
| 20 | 782 | 194 | 410 | 190 | 58 | 30 | 440 | 35 | 42 |
| 21 | 506 | 87 | 119 | 190 | 58 | 30 | 319 | 27 | 23 |
| 22 | 285 | 67 | 52 | 190 | 57 | 29 | 289 | 23 | 18 |
| 23 | 225 | 63 | 38 | 190 | 57 | 29 | 386 | 52 | 54 |
| 24 | 215 | 59 | 34 | 190 | 56 | 29 | 548 | 97 | 144 |
| 25 | 212 | 57 | 33 | 185 | 56 | 28 | 632 | 114 | 195 |
| 26 | 198 | 54 | 29 | 179 | 54 | 26 | 482 | 81 | 105 |
| 27 | 196 | 52 | 28 | 175 | 52 | 25 | 782 | 106 | 246 |
| 28 | 239 | 68 | 44 | 172 | 50 | 23 | 933 | 137 | 345 |
| 29 | 311 | 97 | 81 | 170 | 47 | 22 | 602 | 104 | 169 |
| 30 | 342 | 102 | 94 | 169 | 45 | 21 | 435 | 95 | 112 |
| 31 | 608 | 129 | 212 | 163 | 44 | 19 | -- | -- | -- |
| TOTAL | 8041 | -- | 1708 | 8575 | -- | 2322 | 10166 | -- | 1903 |

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 242153

119828

03328500 EEL RIVER NEAR LOGANSPORT, IND.--Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

| DATE | TIME | WATER TEMPERATURE (C) | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) .002 | .004 | .008 | .016 | .031 | .062 | .125 | .250 | .500 | 1.00 | 2.00 | METHOD OF ANALYSIS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MAR 26, 1970 | 1400 | 3 | 3100 | 917 | 7680 | 47 | 60 | 72 | 82 | 88 | 95 | 98 | 99 | 100 | -- | -- | SAWC |
| APR 20..... | 1640 | 10 | 6410 | 614 | 10600 | 58 | 67 | 77 | 85 | 91 | 93 | 95 | 98 | 100 | -- | -- | SAWC |

## 03335500 WABASH RIVER AT LAFAYETTE, IND.

LOCATION.--Lat 40°25'19", long 86°53'49", in sec.20, T.23 N., R.4 W., Tippecanoe County, temperature recorder at gaging station on right bank 20 ft downstream from Brown Street Bridge in Lafayette, 5.1 miles downstream from Wildcat Creek, and at mile 311.9.
DRAINAGE AREA.--7,267 sq mi (revised).
PERIOD OF RECORD.--Water temperatures: July 1954 to September 1964, August 1967 to current year.
EXTREMES, Current year.--Water temperatures: Maximum, 28.0°C July 29; minimum recorded, freezing point Feb. 14.
EXTREMES, Period of record.--Water temperatures: Maximum, 32.0°C July 30, 31, 1954; minimum, freezing point on many days during most winter periods.
REMARKS.--Some regulation at low stages caused by powerplants above station.

### TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
### (CONTINUOUS ETHYL ALCOHOL-ACUATED THERMOGRAPH)

| DAY | OCT | | NOV | | DEC | | JAN | | FEB | | MAR | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 20.0 | 19.0 | 12.0 | 11.0 | 3.5 | 3.0 | 2.0 | 1.5 | -- | -- | 4.5 | 3.5 |
| 2 | 21.0 | 19.5 | 12.0 | 11.5 | 3.5 | 3.0 | 1.5 | 1.0 | -- | -- | 5.5 | 4.5 |
| 3 | 21.5 | 20.0 | 11.5 | 11.0 | 3.5 | 3.0 | 1.5 | 1.0 | -- | -- | 6.0 | 5.5 |
| 4 | 22.0 | 20.0 | 11.0 | 10.5 | 3.0 | 2.5 | 1.5 | 1.0 | -- | -- | 6.0 | 5.5 |
| 5 | 21.5 | 20.0 | 10.5 | 9.5 | 3.0 | 2.5 | 2.0 | 1.5 | -- | -- | 6.5 | 5.5 |
| 6 | 21.5 | 20.0 | 10.5 | 10.0 | 3.0 | 3.0 | 2.0 | 2.0 | -- | -- | 6.5 | 5.5 |
| 7 | 21.0 | 20.0 | 10.5 | 10.0 | 3.5 | 3.0 | 2.0 | 2.0 | -- | -- | 6.5 | 5.5 |
| 8 | 20.0 | 18.5 | 10.5 | 10.0 | 3.5 | 3.5 | 2.5 | 2.0 | -- | -- | 7.0 | 6.0 |
| 9 | 19.0 | 18.0 | 10.0 | 9.5 | 3.5 | 3.0 | 2.5 | 2.0 | -- | -- | 6.5 | 6.0 |
| 10 | 18.0 | 17.5 | 10.0 | 9.5 | 3.5 | 3.0 | 2.0 | 1.5 | -- | -- | 6.0 | 5.5 |
| 11 | 18.5 | 18.0 | 10.5 | 9.5 | 4.0 | 3.5 | 2.0 | 1.5 | 3.0 | 2.5 | 6.0 | 4.5 |
| 12 | 18.5 | 17.0 | 10.0 | 9.5 | 3.5 | 2.0 | 1.5 | 1.0 | 2.5 | 1.5 | 6.0 | 5.0 |
| 13 | 18.0 | 17.0 | 9.5 | 8.5 | 2.0 | 1.5 | -- | -- | 1.5 | 1.0 | 5.5 | 4.5 |
| 14 | 17.5 | 16.0 | 8.5 | 6.0 | 2.5 | 2.0 | -- | -- | 1.0 | 0.0 | 5.0 | 4.0 |
| 15 | 16.0 | 15.0 | 6.0 | 5.0 | 2.5 | 1.5 | -- | -- | 1.5 | 1.0 | 4.0 | 3.5 |
| 16 | 15.5 | 14.5 | 6.0 | 4.5 | 2.0 | 1.5 | -- | -- | 2.0 | 1.5 | 4.5 | 3.5 |
| 17 | 14.5 | 13.5 | 7.5 | 6.0 | 2.5 | 2.0 | -- | -- | 3.0 | 2.0 | 4.5 | 4.0 |
| 18 | 13.5 | 13.0 | 9.5 | 7.5 | 2.5 | 2.5 | -- | -- | 5.0 | 2.5 | 4.5 | 3.5 |
| 19 | 14.5 | 13.0 | 9.5 | 7.0 | 2.5 | 2.0 | -- | -- | 4.5 | 4.0 | 5.0 | 4.0 |
| 20 | 15.0 | 14.5 | 7.0 | 5.5 | 2.0 | 1.5 | -- | -- | 4.0 | 2.5 | 5.0 | 4.5 |
| 21 | 15.0 | 14.0 | 5.5 | 4.5 | 2.0 | 1.5 | -- | -- | 3.0 | 2.0 | 7.0 | 5.0 |
| 22 | 15.0 | 13.5 | 5.0 | 4.5 | 2.5 | 2.0 | -- | -- | 4.0 | 3.0 | 7.0 | 7.0 |
| 23 | 13.5 | 12.0 | 6.5 | 5.0 | 2.5 | 1.5 | -- | -- | 5.0 | 4.0 | 7.5 | 6.5 |
| 24 | 12.0 | 11.5 | 6.5 | 5.0 | 2.0 | 1.5 | -- | -- | 5.5 | 4.5 | 8.0 | 7.5 |
| 25 | 12.0 | 11.0 | 6.0 | 5.0 | 1.5 | 1.5 | -- | -- | 5.5 | 4.0 | 8.0 | 7.0 |
| 26 | 13.0 | 12.0 | 5.5 | 4.5 | 1.5 | 1.5 | -- | -- | 4.0 | 2.5 | 7.0 | 6.5 |
| 27 | 13.0 | 12.0 | 5.0 | 4.5 | 1.5 | 1.0 | -- | -- | 3.5 | 2.5 | 6.5 | 6.0 |
| 28 | 12.0 | 10.5 | 4.5 | 4.0 | 1.5 | 1.5 | -- | -- | 3.5 | 2.5 | 6.5 | 6.0 |
| 29 | 11.0 | 9.5 | 4.0 | 3.5 | 1.5 | 1.5 | -- | -- | -- | -- | 6.5 | 5.5 |
| 30 | 11.0 | 9.5 | 3.5 | 3.0 | 2.0 | 1.5 | -- | -- | -- | -- | 7.0 | 6.0 |
| 31 | 11.0 | 10.5 | -- | -- | 1.5 | 1.0 | -- | -- | -- | -- | 7.5 | 6.0 |
| AVG | 16.3 | 15.1 | 8.1 | 7.1 | 2.5 | 2.1 | -- | -- | -- | -- | 6.1 | 5.2 |

03335500 WABASH RIVER AT LAFAYETTE, IND.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(CONTINUOUS ETHYL ALCOHOL-ACUATED THERMOGRAPH)

| DAY | APR | | MAY | | JUN | | JUL | | AUG | | SEP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 7.5 | 6.5 | 18.0 | 17.0 | 20.0 | 19.5 | 26.0 | 25.0 | 27.5 | 26.5 | 25.5 | 23.5 |
| 2 | 6.5 | 6.0 | 17.5 | 15.5 | 21.0 | 20.0 | 27.0 | 25.5 | 27.5 | 26.0 | 24.5 | 23.0 |
| 3 | 6.0 | 6.0 | 15.5 | 14.0 | 20.5 | 19.0 | 27.0 | 25.0 | 26.0 | 25.0 | 24.5 | 23.5 |
| 4 | 7.0 | 6.0 | 15.5 | 14.5 | 19.5 | 18.5 | 25.5 | 22.5 | 25.5 | 23.5 | 24.0 | 23.0 |
| 5 | 8.0 | 6.5 | 16.0 | 14.5 | 19.5 | 18.5 | 22.5 | 21.0 | 23.5 | 22.5 | -- | -- |
| 6 | 8.0 | 7.5 | 15.0 | 14.5 | 20.5 | 19.0 | 23.0 | 22.0 | 24.0 | 23.0 | -- | -- |
| 7 | 9.0 | 7.0 | 15.5 | 14.5 | 21.5 | 20.5 | 24.0 | 23.0 | 25.0 | 23.5 | -- | -- |
| 8 | 10.5 | 8.0 | 17.5 | 15.0 | 22.5 | 21.0 | 25.0 | 23.5 | 25.0 | 23.5 | -- | -- |
| 9 | 11.5 | 10.0 | 18.0 | 17.0 | 23.0 | 21.5 | 24.0 | 23.0 | 24.5 | 23.0 | -- | -- |
| 10 | 12.0 | 10.5 | 18.5 | 17.0 | 23.0 | 22.0 | 23.0 | 22.5 | 24.0 | 23.0 | -- | -- |
| 11 | 11.5 | 10.0 | 18.5 | 17.0 | 23.0 | 22.0 | 25.0 | 23.0 | 24.5 | 22.0 | -- | -- |
| 12 | 12.5 | 10.5 | 18.5 | 17.0 | 23.0 | 23.0 | 26.5 | 24.0 | 25.5 | 23.5 | -- | -- |
| 13 | 12.5 | 11.5 | 18.5 | 17.0 | 23.5 | 22.0 | 27.0 | 25.5 | 26.0 | 24.0 | -- | -- |
| 14 | 12.0 | 10.0 | 17.5 | 16.5 | 23.5 | 22.0 | 27.0 | 25.5 | 26.0 | 24.0 | -- | -- |
| 15 | 13.0 | 10.5 | 17.5 | 16.5 | 22.0 | 20.5 | 27.0 | 24.5 | 26.5 | 24.5 | -- | -- |
| 16 | 13.0 | 11.5 | 17.5 | 16.5 | 22.5 | 21.5 | 26.0 | 23.5 | 26.5 | 25.0 | -- | -- |
| 17 | 13.5 | 12.0 | 16.5 | 15.5 | 24.0 | 22.5 | 26.5 | 24.0 | 26.0 | 24.0 | -- | -- |
| 18 | 13.5 | 12.0 | 17.0 | 15.5 | 24.5 | 24.0 | 26.5 | 24.5 | 26.0 | 24.0 | -- | -- |
| 19 | 12.0 | 10.0 | 18.0 | 16.0 | 24.0 | 22.5 | 25.0 | 24.0 | 25.5 | 24.0 | -- | -- |
| 20 | 11.5 | 10.5 | 19.5 | 17.0 | 23.5 | 21.0 | 24.0 | 23.5 | 25.0 | 23.0 | -- | -- |
| 21 | 11.5 | 11.0 | 20.0 | 18.0 | 22.5 | 21.0 | 23.5 | 22.0 | 24.0 | 22.0 | -- | -- |
| 22 | 12.0 | 10.5 | 20.5 | 19.0 | 21.5 | 21.0 | 24.0 | 23.0 | 23.5 | 22.0 | -- | -- |
| 23 | 13.0 | 12.0 | 20.5 | 19.5 | 22.5 | 21.0 | 23.5 | 22.5 | 23.5 | 22.0 | -- | -- |
| 24 | 13.0 | 12.5 | 21.5 | 20.0 | 23.0 | 21.5 | 24.0 | 22.0 | 24.0 | 22.5 | -- | -- |
| 25 | 13.5 | 12.5 | 21.5 | 20.0 | 23.0 | 21.5 | 26.0 | 24.0 | 24.5 | 22.0 | -- | -- |
| 26 | 14.0 | 13.0 | 21.0 | 20.0 | 23.0 | 21.5 | 26.0 | 25.5 | 25.5 | 23.0 | -- | -- |
| 27 | 14.5 | 14.0 | 20.0 | 19.0 | 22.5 | 21.0 | 27.5 | 25.0 | 25.5 | 24.0 | -- | -- |
| 28 | 15.0 | 14.5 | 21.0 | 19.0 | 23.0 | 22.0 | 27.5 | 26.0 | 26.0 | 24.0 | -- | -- |
| 29 | 16.5 | 15.0 | 21.0 | 20.0 | 24.0 | 22.5 | 28.0 | 26.5 | 26.0 | 24.5 | -- | -- |
| 30 | 17.5 | 16.5 | 21.0 | 20.5 | 25.0 | 23.0 | 27.5 | 25.0 | 27.0 | 25.0 | -- | -- |
| 31 | -- | -- | 20.5 | 20.0 | -- | -- | 27.0 | 24.5 | 26.0 | 24.5 | -- | -- |
| AVG | 11.7 | 10.4 | 18.5 | 17.1 | 22.4 | 21.2 | 25.5 | 23.9 | 25.3 | 23.6 | -- | -- |

## 03335700 BIG PINE CREEK NEAR WILLIAMSPORT, IND.

LOCATION.--Lat 40°19'03", long 87°17'26", in SE¼ sec.26, T.22 N., R.8 W., Warren County, at gaging station on downstream side of county road bridge, 1.6 miles north of city limits of Williamsport, and 2.5 miles upstream from mouth.
DRAINAGE AREA.--329 sq mi.
PERIOD OF RECORD.--Chemical analyses: July to September 1970.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DIS-CHARGE (CFS) | SILICA (SIO2) (MG/L) | TOTAL IRON (FE) (UG/L) | IRON (FE) (UG/L) | TOTAL MAN-GANESE (MN) (UG/L) | MAN-GANESE (MN) (UG/L) | CAL-CIUM (CA) (MG/L) | MAG-NE-SIUM (MG) (MG/L) | SODIUM (NA) (MG/L) | SODIUM AD-SORP-TION RATIO | PERCENT SODIUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JULY | | | | | | | | | | | | |
| 14... | 1450 | 40 | 5.5 | 130 | 30 | 70 | 50 | 81 | 32 | 9.1 | .2 | 6 |
| AUG. | | | | | | | | | | | | |
| 20... | 1300 | 76 | 5.0 | 880 | 90 | 260 | 40 | 40 | 16 | 5.1 | .2 | 6 |

| DATE | POTAS-SIUM (K) (MG/L) | BICAR-BONATE (HCO3) (MG/L) | CAR-BONATE (CO3) (MG/L) | SULFATE (SO4) (MG/L) | CHLO-RIDE (CL) (MG/L) | FLUO-RIDE (F) (MG/L) | NITRATE (NO3) (MG/L) | DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) | DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) | DIS-SOLVED SOLIDS (TONS PER DAY) | DIS-SOLVED SOLIDS (TONS PER AC-FT) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| JULY | | | | | | | | | | | |
| 14... | 1.8 | 296 | 0 | 85 | 16 | .1 | 6.1 | 388 | 378 | 41.9 | .53 |
| AUG. | | | | | | | | | | | |
| 20... | 4.1 | 154 | 0 | 39 | 12 | .2 | 2.6 | 210 | 200 | 43.1 | .29 |

| DATE | HARD-NESS (CA,MG) (MG/L) | NON-CAR-BONATE HARD-NESS (MG/L) | ALKA-LINITY AS CACO3 (MG/L) | SPECI-FIC COND-UCTANCE (MICRO-MHOS) | PH (UNITS) | COLOR (PLAT-INUM-COBALT UNITS) | TEMP-ERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| JULY | | | | | | | |
| 14... | 334 | 99 | 235 | 618 | 8.2 | 10 | 26.5 |
| AUG. | | | | | | | |
| 20... | 166 | 40 | 126 | 335 | 7.4 | 40 | 22.0 |

## 03340800 BIG RACCOON CREEK NEAR FINCASTLE, IND.

LOCATION.--Lat 39°48'45", long 86°57'14", in SW¼ sec.22, T.16 N., R.5 W., Putnam County, at gaging station at county road bridge, 8,350 ft upstream from Ramp Creek, and 3.1 miles northwest of Fincastle.
DRAINAGE AREA.--132 sq mi.
PERIOD OF RECORD.--Water temperatures: July 1965 to September 1970.
Sediment records: August 1959 to September 1970.
EXTREMES, Current year.--Sediment concentrations: Maximum daily, 27,900 mg/l Jan. 29; minimum daily, 1 mg/l Apr. 13, 14, 15.
Sediment loads: Maximum daily, 123,000 tons Nov. 19; minimum daily, 0.08 ton Aug. 10.
EXTREMES, Period of record.--Sediment concentrations: Maximum daily, 27,900 mg/l Jan. 29, 1970; minimum daily, 1 mg/l Apr. 13, 14, 15, 1970.
Sediment loads: Maximum daily, 295,000 tons Dec. 22, 1967; minimum daily, 0.03 ton Sept. 15, 1964.

### TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DAY | OCT | | NOV | | DEC | | JAN | | FEB | | MAR | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM |
| 1 | -- | 21.0 | -- | 10.0 | -- | -- | -- | 2.0 | -- | -- | -- | 4.0 |
| 2 | -- | -- | -- | 10.0 | -- | -- | -- | -- | -- | -- | -- | -- |
| 3 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 4.0 | 4.0 |
| 4 | -- | -- | -- | -- | 2.0 | -- | 2.0 | -- | -- | -- | 5.0 | -- |
| 5 | 20.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 4.0 | 5.0 |
| 6 | -- | -- | -- | -- | -- | -- | -- | -- | 3.0 | -- | 5.0 | 5.0 |
| 7 | -- | -- | -- | -- | -- | -- | -- | -- | 4.0 | -- | -- | 5.0 |
| 8 | -- | -- | -- | -- | -- | -- | -- | 0.0 | -- | 4.0 | -- | 6.0 |
| 9 | 19.0 | -- | -- | 8.0 | -- | 3.0 | -- | -- | -- | -- | -- | -- |
| 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 4.0 | -- | -- |
| 11 | 20.0 | 19.0 | -- | -- | -- | -- | -- | -- | -- | 4.0 | -- | -- |
| 12 | 21.0 | 20.0 | -- | -- | 2.0 | -- | -- | -- | -- | -- | 2.0 | 2.0 |
| 13 | 18.0 | 17.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14 | -- | -- | -- | 8.0 | -- | -- | -- | -- | -- | 4.0 | -- | -- |
| 15 | -- | -- | -- | 5.0 | -- | -- | -- | -- | -- | 3.0 | -- | -- |
| 16 | -- | -- | -- | 4.0 | -- | -- | -- | -- | -- | 3.0 | -- | -- |
| 17 | -- | -- | -- | -- | -- | 2.0 | -- | -- | -- | -- | -- | -- |
| 18 | -- | -- | -- | -- | -- | -- | -- | -- | 4.0 | 4.0 | -- | -- |
| 19 | -- | -- | 8.0 | -- | -- | -- | -- | -- | -- | 4.0 | -- | -- |
| 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21 | -- | -- | -- | 7.0 | -- | -- | -- | -- | -- | 4.0 | -- | -- |
| 22 | -- | 14.0 | -- | 8.0 | -- | 4.0 | -- | -- | -- | 4.0 | -- | -- |
| 23 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 4.0 | 6.0 | 6.0 |
| 24 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3.0 | 6.0 | 7.0 |
| 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.0 | 7.0 |
| 26 | -- | 10.0 | -- | -- | -- | -- | -- | -- | -- | 4.0 | 9.0 | 9.0 |
| 27 | -- | -- | -- | 7.0 | -- | -- | -- | -- | -- | -- | 7.0 | 7.0 |
| 28 | -- | -- | -- | -- | -- | -- | -- | 4.0 | -- | -- | 4.0 | 6.0 |
| 29 | -- | -- | -- | -- | -- | -- | -- | 4.0 | -- | -- | 7.0 | 7.0 |
| 30 | -- | 10.0 | -- | 2.0 | -- | -- | -- | 2.0 | -- | -- | 7.0 | 8.0 |
| 31 | -- | -- | -- | -- | -- | -- | 2.0 | -- | -- | -- | 4.0 | 4.0 |
| AVG | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

03340800 BIG RACCOON CREEK NEAR FINCASTLE, IND.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1969 to SEPTEMBER 1970

| DAY | APR | | MAY | | JUN | | JUL | | AUG | | SEP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM |
| 1 | 9.0 | 8.0 | 10.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2 | 5.0 | 2.0 | -- | 10.0 | 14.0 | -- | -- | -- | -- | -- | -- | 25.0 |
| 3 | 2.0 | 2.0 | -- | 11.0 | -- | 15.0 | -- | -- | -- | -- | -- | -- |
| 4 | 3.0 | 4.0 | -- | -- | -- | 14.0 | -- | -- | -- | -- | -- | -- |
| 5 | 5.0 | 7.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 6 | 6.0 | 6.0 | -- | -- | -- | -- | -- | -- | -- | -- | 22.0 | -- |
| 7 | 4.0 | 4.0 | -- | -- | -- | 18.0 | -- | -- | -- | 26.0 | -- | -- |
| 8 | 4.0 | 5.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9 | 5.0 | 8.0 | -- | -- | -- | -- | -- | 22.0 | -- | -- | -- | -- |
| 10 | 8.0 | 9.0 | 12.0 | -- | -- | -- | -- | -- | -- | -- | -- | 22.0 |
| 11 | 9.0 | 9.0 | -- | -- | 19.0 | -- | -- | -- | 24.0 | -- | -- | -- |
| 12 | 10.0 | 11.0 | 18.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 13 | 11.0 | 9.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 22.0 |
| 14 | -- | 8.0 | -- | -- | -- | 20.0 | -- | -- | -- | -- | -- | -- |
| 15 | 9.0 | 10.0 | -- | 13.0 | -- | -- | -- | -- | -- | -- | -- | -- |
| 16 | 9.0 | 10.0 | -- | -- | -- | -- | -- | -- | 26.0 | -- | -- | -- |
| 17 | 9.0 | 10.0 | -- | -- | -- | -- | -- | -- | -- | -- | 22.0 | -- |
| 18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 26.0 | -- | -- |
| 19 | 10.0 | 10.0 | 12.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20 | 10.0 | 11.0 | -- | -- | -- | 22.0 | -- | -- | -- | 27.0 | -- | 20.0 |
| 21 | 10.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22 | 10.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23 | 10.0 | -- | 13.0 | -- | 22.0 | -- | -- | -- | -- | 27.0 | -- | 20.0 |
| 24 | 11.0 | 12.0 | -- | 13.0 | -- | -- | -- | -- | -- | -- | -- | -- |
| 25 | 11.0 | 11.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26 | 11.0 | -- | -- | -- | -- | -- | -- | -- | -- | 26.0 | 19.0 | -- |
| 27 | 10.0 | -- | -- | -- | -- | 22.0 | -- | -- | -- | -- | 19.0 | -- |
| 28 | 11.0 | -- | 13.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29 | 11.0 | -- | -- | -- | -- | -- | -- | -- | -- | 27.0 | -- | -- |
| 30 | 11.0 | -- | -- | -- | -- | 24.0 | -- | -- | -- | 26.0 | -- | 18.0 |
| 31 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AVG | 8.4 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|---|---|---|---|---|---|---|---|---|---|
| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 34 | 21 | 1.9 | 821 | 2470 | 6370 | 134 | 125 | 45 |
| 2 | 33 | 23 | 2.0 | 631 | 1220 | 2080 | 115 | 112 | 35 |
| 3 | 34 | 29 | 2.7 | 388 | 960 | 1010 | 112 | 97 | 29 |
| 4 | 32 | 24 | 2.1 | 302 | 950 | 775 | 101 | 86 | 23 |
| 5 | 30 | 12 | .97 | 264 | 940 | 670 | 90 | 73 | 18 |
| 6 | 26 | 10 | .70 | 224 | 920 | 556 | 87 | 62 | 15 |
| 7 | 30 | 11 | .89 | 188 | 890 | 452 | 126 | 122 | 48 |
| 8 | 30 | 13 | 1.1 | 160 | 860 | 372 | 212 | 327 | 187 |
| 9 | 30 | 14 | 1.1 | 142 | 850 | 326 | 171 | 294 | 136 |
| 10 | 68 | 191 | 106 | 130 | 760 | 267 | 149 | 257 | 103 |
| 11 | 653 | 948 | 1580 | 122 | 680 | 224 | 141 | 231 | 88 |
| 12 | 2210 | 3940 | 31900 | 115 | 600 | 186 | 136 | 204 | 75 |
| 13 | 2490 | 4140 | 33600 | 104 | 510 | 143 | 106 | 182 | 52 |
| 14 | 979 | 610 | 1610 | 97 | 430 | 113 | 111 | 162 | 49 |
| 15 | 587 | 258 | 409 | 89 | 400 | 96 | 98 | 143 | 38 |
| 16 | 420 | 215 | 244 | 83 | 375 | 84 | 87 | 122 | 29 |
| 17 | 304 | 184 | 151 | 84 | 345 | 78 | 83 | 104 | 23 |
| 18 | 240 | 158 | 102 | 254 | 3630 | 5300 | 82 | 88 | 19 |
| 19 | 196 | 139 | 74 | 1830 | 25200 | 123000 | 83 | 76 | 17 |
| 20 | 171 | 120 | 55 | 980 | 9850 | 26100 | 73 | 64 | 13 |
| 21 | 155 | 100 | 42 | 525 | 989 | 1400 | 73 | 50 | 9.9 |
| 22 | 133 | 83 | 30 | 417 | 333 | 375 | 77 | 38 | 7.9 |
| 23 | 112 | 74 | 22 | 464 | 316 | 396 | 71 | 30 | 5.8 |
| 24 | 99 | 68 | 18 | 345 | 276 | 257 | 73 | 22 | 4.3 |
| 25 | 95 | 63 | 16 | 278 | 240 | 180 | 70 | 10 | 1.9 |
| 26 | 91 | 56 | 14 | 232 | 205 | 128 | 66 | 6 | 1.1 |
| 27 | 84 | 50 | 11 | 200 | 176 | 95 | 62 | 6 | 1.0 |
| 28 | 77 | 44 | 9.1 | 171 | 164 | 76 | 60 | 5 | .81 |
| 29 | 72 | 37 | 7.2 | 155 | 152 | 64 | 59 | 5 | .80 |
| 30 | 69 | 31 | 5.8 | 141 | 138 | 53 | 61 | 5 | .82 |
| 31 | 84 | 31 | 7.0 | -- | -- | -- | 62 | 5 | .84 |
| TOTAL | 9668 | -- | 70026.56 | 9936 | -- | 171226 | 3031 | -- | 1077.17 |

03340800 BIG RACCOON CREEK NEAR FINCASTLE, IND.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| | JANUARY | | | FEBRUARY | | | MARCH | | |
|---|---|---|---|---|---|---|---|---|---|
| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 62 | 5 | .84 | 252 | 2400 | 1630 | 88 | 5 | 1.2 |
| 2 | 58 | 5 | .78 | 339 | 1260 | 1150 | 97 | 4 | 1.0 |
| 3 | 55 | 6 | .89 | 353 | 1400 | 1330 | 213 | 1330 | 1270 |
| 4 | 50 | 8 | 1.1 | 260 | 1240 | 870 | 651 | 10200 | 17900 |
| 5 | 43 | 9 | 1.0 | 202 | 925 | 504 | 575 | 6590 | 10200 |
| 6 | 38 | 9 | .92 | 138 | 625 | 233 | 340 | 1980 | 1820 |
| 7 | 35 | 9 | .85 | 128 | 505 | 175 | 255 | 216 | 149 |
| 8 | 32 | 9 | .78 | 153 | 465 | 192 | 206 | 85 | 47 |
| 9 | 30 | 10 | .81 | 169 | 370 | 169 | 171 | 68 | 31 |
| 10 | 28 | 10 | .76 | 144 | 240 | 93 | 141 | 55 | 21 |
| 11 | 27 | 9 | .66 | 134 | 65 | 24 | 122 | 43 | 14 |
| 12 | 26 | 9 | .63 | 118 | 18 | 5.7 | 111 | 78 | 23 |
| 13 | 28 | 8 | .60 | 109 | 17 | 5.0 | 102 | 8 | 2.2 |
| 14 | 35 | 9 | .85 | 91 | 18 | 4.4 | 95 | 5 | 1.3 |
| 15 | 43 | 9 | 1.0 | 99 | 36 | 9.6 | 90 | 5 | 1.2 |
| 16 | 44 | 10 | 1.2 | 81 | 34 | 7.4 | 77 | 3 | .62 |
| 17 | 43 | 10 | 1.2 | 98 | 32 | 8.5 | 78 | 4 | .84 |
| 18 | 38 | 10 | 1.0 | 140 | 60 | 23 | 84 | 201 | 46 |
| 19 | 31 | 10 | .84 | 513 | 140 | 194 | 97 | 203 | 53 |
| 20 | 29 | 10 | .78 | 265 | 75 | 54 | 138 | 778 | 290 |
| 21 | 29 | 10 | .78 | 181 | 83 | 41 | 161 | 452 | 196 |
| 22 | 29 | 10 | .78 | 162 | 53 | 23 | 142 | 82 | 31 |
| 23 | 32 | 11 | .95 | 144 | 37 | 14 | 128 | 10 | 3.5 |
| 24 | 35 | 10 | .95 | 133 | 40 | 14 | 113 | 8 | 2.4 |
| 25 | 45 | 27 | 3.9 | 138 | 41 | 15 | 106 | 12 | 3.4 |
| 26 | 200 | 375 | 227 | 115 | 41 | 13 | 492 | 1950 | 2980 |
| 27 | 284 | 148 | 120 | 118 | 31 | 9.9 | 382 | 2050 | 2110 |
| 28 | 348 | 7630 | 13700 | 97 | 12 | 3.1 | 251 | 790 | 535 |
| 29 | 1190 | 27900 | 89600 | -- | -- | -- | 193 | 335 | 175 |
| 30 | 554 | 9820 | 14700 | -- | -- | -- | 155 | 180 | 75 |
| 31 | 330 | 4320 | 3850 | -- | -- | -- | 133 | 29 | 10 |
| TOTAL | 3851 | -- | 122221.85 | 4874 | -- | 6814.6 | 5987 | -- | 37993.66 |

| | APRIL | | | MAY | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 120 | 25 | 8.1 | 218 | 394 | 232 | 71 | 95 | 18 |
| 2 | 161 | 187 | 86 | 192 | 320 | 166 | 90 | 84 | 20 |
| 3 | 246 | 667 | 443 | 157 | 221 | 94 | 252 | 1560 | 1150 |
| 4 | 204 | 408 | 225 | 136 | 147 | 54 | 138 | 648 | 241 |
| 5 | 162 | 321 | 140 | 120 | 111 | 36 | 109 | 190 | 56 |
| 6 | 147 | 190 | 75 | 105 | 109 | 31 | 98 | 18 | 4.8 |
| 7 | 123 | 60 | 20 | 95 | 99 | 25 | 78 | 12 | 2.5 |
| 8 | 106 | 48 | 14 | 92 | 75 | 19 | 67 | 10 | 1.8 |
| 9 | 104 | 41 | 12 | 84 | 58 | 13 | 58 | 10 | 1.6 |
| 10 | 92 | 17 | 4.2 | 78 | 55 | 12 | 54 | 11 | 1.6 |
| 11 | 87 | 3 | .70 | 78 | 54 | 11 | 50 | 12 | 1.6 |
| 12 | 83 | 2 | .45 | 88 | 55 | 13 | 46 | 11 | 1.4 |
| 13 | 95 | 1 | .26 | 82 | 55 | 12 | 43 | 8 | .93 |
| 14 | 98 | 1 | .26 | 90 | 102 | 31 | 40 | 6 | .65 |
| 15 | 83 | 1 | .22 | 393 | 664 | 705 | 56 | 5 | .76 |
| 16 | 76 | 2 | .41 | 434 | 700 | 820 | 51 | 6 | .83 |
| 17 | 73 | 5 | .99 | 288 | 435 | 338 | 44 | 5 | .59 |
| 18 | 69 | 15 | 2.8 | 198 | 264 | 141 | 39 | 5 | .53 |
| 19 | 475 | 3260 | 6910 | 152 | 249 | 102 | 34 | 4 | .37 |
| 20 | 1300 | 5290 | 18600 | 112 | 244 | 74 | 30 | 4 | .32 |
| 21 | 705 | 2250 | 4280 | 97 | 240 | 63 | 29 | 4 | .31 |
| 22 | 441 | 338 | 402 | 84 | 241 | 55 | 28 | 4 | .30 |
| 23 | 318 | 295 | 253 | 80 | 253 | 55 | 27 | 4 | .29 |
| 24 | 1580 | 8220 | 42300 | 102 | 292 | 80 | 25 | 4 | .27 |
| 25 | 980 | 2630 | 8270 | 104 | 320 | 90 | 26 | 9 | .63 |
| 26 | 477 | 440 | 567 | 83 | 313 | 70 | 40 | 30 | 3.2 |
| 27 | 344 | 387 | 359 | 70 | 300 | 57 | 33 | 32 | 2.9 |
| 28 | 338 | 396 | 361 | 62 | 280 | 47 | 28 | 20 | 1.5 |
| 29 | 268 | 400 | 289 | 57 | 247 | 38 | 24 | 10 | .65 |
| 30 | 224 | 401 | 243 | 56 | 211 | 32 | 21 | 6 | .34 |
| 31 | -- | -- | -- | 54 | 153 | 22 | -- | -- | -- |
| TOTAL | 9579 | -- | 83867.39 | 4041 | -- | 3538 | 1729 | -- | 1515.67 |

03340800 BIG RACCOON CREEK NEAR FINCASTLE, IND.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| | JULY | | | AUGUST | | | SEPTEMBER | | |
|---|---|---|---|---|---|---|---|---|---|
| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 19 | 6 | .31 | 58 | 573 | 98 | 5.5 | 22 | .33 |
| 2 | 17 | 6 | .28 | 33 | 19 | 1.7 | 5.4 | 11 | .16 |
| 3 | 17 | 6 | .28 | 26 | 8 | .56 | 5.6 | 9 | .14 |
| 4 | 17 | 5 | .23 | 19 | 7 | .36 | 6.0 | 10 | .16 |
| 5 | 19 | 5 | .26 | 16 | 5 | .22 | 6.3 | 10 | .17 |
| 6 | 17 | 5 | .23 | 14 | 4 | .15 | 5.9 | 10 | .16 |
| 7 | 15 | 5 | .20 | 12 | 4 | .13 | 5.9 | 10 | .16 |
| 8 | 15 | 5 | .20 | 11 | 3 | .09 | 5.8 | 10 | .16 |
| 9 | 14 | 5 | .19 | 11 | 3 | .09 | 5.5 | 10 | .15 |
| 10 | 13 | 5 | .18 | 10 | 3 | .08 | 5.5 | 10 | .15 |
| 11 | 13 | 5 | .18 | 9.8 | 4 | .11 | 5.2 | 10 | .14 |
| 12 | 12 | 5 | .16 | 9.0 | 4 | .10 | 5.0 | 10 | .14 |
| 13 | 12 | 5 | .16 | 8.7 | 4 | .09 | 5.1 | 10 | .14 |
| 14 | 11 | 5 | .15 | 8.4 | 4 | .09 | 6.6 | 10 | .18 |
| 15 | 10 | 5 | .14 | 8.0 | 4 | .09 | 8.2 | 11 | .24 |
| 16 | 9.8 | 5 | .13 | 7.8 | 4 | .08 | 7.5 | 11 | .22 |
| 17 | 9.4 | 5 | .13 | 7.5 | 4 | .08 | 6.4 | 11 | .19 |
| 18 | 9.0 | 6 | .15 | 7.1 | 4 | .08 | 7.0 | 12 | .23 |
| 19 | 17 | 8 | .37 | 7.5 | 9 | .18 | 8.5 | 15 | .34 |
| 20 | 28 | 11 | .83 | 12 | 38 | 1.2 | 11 | 21 | .62 |
| 21 | 27 | 11 | .80 | 12 | 38 | 1.2 | 11 | 21 | .62 |
| 22 | 18 | 8 | .39 | 16 | 35 | 1.5 | 8.7 | 19 | .45 |
| 23 | 15 | 6 | .24 | 11 | 33 | .98 | 7.5 | 14 | .28 |
| 24 | 14 | 5 | .19 | 9.0 | 32 | .78 | 6.9 | 13 | .24 |
| 25 | 12 | 5 | .16 | 7.9 | 32 | .68 | 6.9 | 11 | .20 |
| 26 | 11 | 5 | .15 | 7.3 | 32 | .63 | 9.3 | 41 | 1.0 |
| 27 | 11 | 5 | .15 | 6.9 | 32 | .60 | 14 | 59 | 2.2 |
| 28 | 10 | 5 | .14 | 6.7 | 32 | .58 | -- | -- | -- |
| 29 | 9.8 | 5 | .13 | 6.3 | 32 | .54 | -- | -- | -- |
| 30 | 18 | 264 | 17 | 6.1 | 32 | .53 | -- | -- | -- |
| 31 | 114 | 1810 | 581 | 6.0 | 31 | .50 | -- | -- | -- |
| TOTAL | 554.0 | -- | 605.11 | 391.0 | -- | 112.00 | 192.2 | -- | 9.17 |

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 53833.2
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS) 499007.18

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

| DATE | TIME | WATER TEMP-PERA-TURE (C) | DISCHARGE (CFS) | CONCEN-TRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002 | .004 | .008 | .016 | .031 | .062 | .125 | .250 | .500 | 1.00 | 2.00 | METHOD OF ANALY-SIS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 1, 1969 | 1400 | 10 | 1130 | 3840 | 11700 | 13 | 24 | 36 | 56 | 68 | 99 | 100 | -- | -- | -- | -- | SNWC |
| JAN 29, 1970 | 1700 | 3 | 850 | 21800 | 50000 | 6 | 11 | 14 | 20 | 33 | 41 | 56 | 99 | 100 | -- | -- | SNWC |
| MAR 5..... | 0700 | 5 | 673 | 7640 | 13900 | 7 | 13 | 21 | 32 | 53 | 84 | 96 | 99 | 100 | -- | -- | SNWC |
| APR 19..... | 1800 | 10 | 838 | 5800 | 13100 | 21 | 30 | 41 | 57 | 79 | 97 | 99 | 100 | -- | -- | -- | SNWC |

PARTICLE SIZE OF BED MATERIAL, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHOD OF ANALYSIS: H, HYDROMETER; O, OPTICAL ANALYZER; S, SIEVE; V, VISUAL ACCUMULATION TUBE)

| DATE | TIME | WATER TEM-PERA-TURE (C) | NUMBER OF SAM-PLING POINTS | DISCHARGE (CFS) | PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .062 | .125 | .250 | .500 | 1.00 | 2.00 | 4.00 | 8.00 | 16.0 | 32.0 | 64.0 | METHOD OF ANALY-SIS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 14, 1969 | 1300 | 13.0 | 4 | 948 | 1 | 1 | 13 | 31 | 51 | 67 | 82 | 93 | 99 | 100 | -- | S |

## 03341910 WABASH RIVER NEAR HUTSONVILLE, ILL.

LOCATION.--Lat 39°08'03", long 87°39'30", Crawford County, Illinois, at intake line to Ohio River Valley Water Sanitation Commission (ORSANCO) monitor station at Central Illinois Public Service Company, 1.8 mile north of Hutsonville (revised).
DRAINAGE AREA.--12,600 sq mi, approximately.
PERIOD OF RECORD.--Chemical analyses: November 1964 to December 1965, October 1967 to current year.
Water temperatures: November 1964 to December 1965, October 1967 to current year.
EXTREMES, Current year.--Specific conductance: Maximum daily, 807 micromhos Jan. 15; minimum daily, 335 micromhos Apr. 28.
Water temperatures: Maximum, 31.0°C Aug. 1; minimum, 0.5°C Feb. 4.
EXTREMES, Period of record.--Specific conductance: Maximum daily, 807 micromhos Jan. 15, 1970; minimum daily, 233 micromhos Jan. 30, 1968.
Water temperatures: Maximum, 31.0°C Aug. 19, 1965, Aug. 1, 1970; minimum, 0°C Jan. 2, 1969.
REMARKS.--Record published as "at Hutsonville" prior to October 1969.

### CHEMICAL ANALYSES, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DIS-CHARGE (CFS) | IRON (FE) (UG/L) | MAN-GANESE (MN) (UG/L) | BICAR-BONATE (HCO3) (MG/L) | CAR-BONATE (CO3) (MG/L) | SULFATE (SO4) (MG/L) | CHLO-RIDE (CL) (MG/L) | DIS-SOLVED FLUO-RIDE (F) (MG/L) | NITRATE (NO3) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | |
| 06... | 0800 | 4180 | 130 | 60 | 232 | 0 | 70 | 24 | .4 | 5.3 |
| 14... | 0800 | 18600 | 160 | 60 | -- | -- | 38 | 12 | -- | 5.7 |
| 28... | 0800 | 8040 | 200 | 70 | -- | -- | 70 | 22 | -- | 9.0 |
| NOV. | | | | | | | | | | |
| 01... | 0800 | 9210 | 320 | 80 | -- | -- | 54 | 19 | -- | 14 |
| 11... | 0800 | 8900 | 220 | 40 | -- | -- | 76 | 20 | -- | 17 |
| 29... | 0800 | 25000 | 130 | 50 | 224 | 0 | 64 | 20 | .5 | 26 |
| DEC. | | | | | | | | | | |
| 01... | 0800 | 20900 | 150 | 0 | -- | -- | 67 | 18 | -- | 12 |
| 14... | 0800 | 10200 | 110 | 0 | 278 | 0 | 78 | 21 | .2 | 15 |
| 28... | 0800 | 5700 | 180 | 0 | -- | -- | 91 | 22 | -- | 13 |
| JAN. | | | | | | | | | | |
| 09... | 0800 | 4220 | 240 | 100 | 282 | 4 | 92 | 26 | .3 | 11 |
| 15... | 0800 | 4070 | 250 | 80 | -- | -- | 100 | 30 | -- | 12 |
| 30... | 0800 | 20000 | 390 | 800 | -- | -- | 61 | 17 | -- | 11 |
| FEB. | | | | | | | | | | |
| 09... | 0800 | 18300 | 450 | 80 | -- | -- | 59 | 18 | -- | 16 |
| 18... | 0800 | 7800 | 160 | 50 | -- | -- | 84 | 24 | -- | 14 |
| 26... | 0800 | 9450 | 210 | 50 | 212 | 16 | 80 | 22 | .4 | 14 |
| MAR. | | | | | | | | | | |
| 14... | 0800 | 9800 | 150 | 30 | 222 | 10 | 78 | 22 | .2 | 24 |
| 25... | 0800 | 10900 | 340 | 30 | -- | -- | 87 | 26 | -- | 20 |
| 30... | 0800 | 24200 | 150 | 140 | -- | -- | 70 | 18 | -- | 27 |
| APR. | | | | | | | | | | |
| 04... | 0800 | 18300 | 70 | 30 | 210 | 11 | 70 | 20 | .5 | 18 |
| 14... | 0800 | 11100 | 100 | 40 | -- | -- | 92 | 21 | -- | 17 |
| 28... | 0800 | 72000 | 350 | 80 | -- | -- | 42 | 10 | -- | 16 |
| MAY | | | | | | | | | | |
| 05... | 0800 | 37300 | 470 | 30 | 210 | 0 | 66 | 17 | .3 | 17 |
| 13... | 0800 | 15300 | 230 | 70 | -- | -- | 81 | 20 | -- | 14 |
| 27... | 0800 | 24500 | -- | 250 | -- | -- | 55 | 10 | -- | 16 |
| JUNE | | | | | | | | | | |
| 02... | 0800 | 11300 | 150 | 70 | -- | -- | 80 | 18 | -- | 19 |
| 08... | 0800 | 9940 | 170 | 40 | 240 | 0 | 70 | 19 | .2 | 14 |
| 14... | 0800 | 8490 | 130 | 30 | -- | -- | 72 | 18 | -- | 7.3 |
| JULY | | | | | | | | | | |
| 09... | 0800 | 5540 | 21 | 39 | -- | -- | 82 | 21 | -- | 11 |
| 21... | 0800 | 4120 | 99 | 25 | 220 | 0 | 83 | 22 | .3 | 7.0 |
| 23... | 0800 | 6390 | 84 | 22 | -- | -- | 71 | 20 | -- | 6.5 |

| DATE | TIME | DIS-CHARGE (CFS) | IRON (FE) (UG/L) | MAN-GANESE (MN) (UG/L) | BICAR-BONATE (HCO3) (MG/L) | CAR-BONATE (CO3) (MG/L) | SULFATE (SO4) (MG/L) | CHLO-RIDE (CL) (MG/L) | DIS-SOLVED FLUO-RIDE (F) (MG/L) | NITRATE (NO3) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| AUG. | | | | | | | | | | |
| 03... | 0800 | 10100 | 82 | 25 | -- | -- | 46 | 13 | -- | 12 |
| 07... | 0800 | 8390 | 170 | 140 | 204 | 10 | 65 | 18 | .3 | 11 |
| 15... | 0800 | 3600 | 27 | 33 | -- | -- | 79 | 22 | -- | 8.1 |
| SEPT. | | | | | | | | | | |
| 11... | 0800 | 2560 | 80 | 40 | -- | -- | 81 | 28 | -- | 5.6 |
| 26... | 0800 | 10000 | 260 | 85 | -- | -- | 53 | 17 | -- | 11 |
| 30... | 0800 | 7560 | 170 | 8 | 246 | 0 | 68 | 20 | .1 | 12 |

03341910 WABASH RIVER NEAR HUTSONVILLE, ILL.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TOTAL PHOS-PHORUS (PO4) (MG/L) | DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) | DIS-SOLVED SOLIDS (TONS PER DAY) | DIS-SOLVED SOLIDS (TONS PER AC-FT) | HARD-NESS (CA,MG) (MG/L) | NON-CAR-BONATE HARD-NESS (MG/L) | ALKA-LINITY AS CACO3 (MG/L) | SPECI-FIC COND-UCTANCE (MICRO-MHOS) | PH (UNITS) | TEMP-ERATURE (DEG C) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | |
| 06... | .52 | 346 | 3910 | .47 | 278 | 88 | 190 | 575 | 7.6 | 22.0 |
| 14... | .48 | -- | -- | -- | 198 | -- | -- | 378 | 7.4 | 16.5 |
| 28... | .46 | -- | -- | -- | 310 | -- | -- | 621 | 7.7 | 14.5 |
| NOV. | | | | | | | | | | |
| 01... | .82 | -- | -- | -- | 216 | -- | -- | 469 | 8.1 | 13.5 |
| 11... | .38 | -- | -- | -- | 329 | -- | -- | 653 | 7.7 | 11.0 |
| 29... | .38 | 332 | 22400 | .45 | 274 | 90 | 184 | 558 | 7.5 | 4.5 |
| DEC. | | | | | | | | | | |
| 01... | .43 | -- | -- | -- | 276 | -- | -- | 542 | 8.4 | 3.5 |
| 14... | .48 | 392 | 10800 | .53 | 336 | 108 | 228 | 662 | 7.7 | 5.0 |
| 28... | .28 | -- | -- | -- | 353 | -- | -- | 710 | 7.7 | 4.5 |
| JAN. | | | | | | | | | | |
| 09... | .19 | 432 | 4920 | .59 | 344 | 106 | 238 | 737 | 8.3 | 2.0 |
| 15... | .52 | -- | -- | -- | 405 | -- | -- | 807 | 7.5 | 5.5 |
| 30... | .45 | -- | -- | -- | 214 | -- | -- | 462 | 8.2 | 2.0 |
| FEB. | | | | | | | | | | |
| 09... | .60 | -- | -- | -- | 222 | -- | -- | 475 | 8.0 | 1.5 |
| 18... | 1.2 | -- | -- | -- | 316 | -- | -- | 657 | 7.5 | 5.0 |
| 26... | .50 | 410 | 10500 | .56 | 305 | 100 | 200 | 610 | 8.6 | 6.0 |
| MAR. | | | | | | | | | | |
| 14... | .50 | 376 | 9950 | .51 | 300 | 101 | 198 | 607 | 8.5 | 6.0 |
| 25... | .57 | -- | -- | -- | 324 | -- | -- | 645 | 8.6 | 10.0 |
| 30... | .72 | -- | -- | -- | 256 | -- | -- | 519 | 8.5 | 5.5 |
| APR. | | | | | | | | | | |
| 04... | .45 | 372 | 18400 | .51 | 294 | 103 | 190 | 579 | 8.5 | 7.0 |
| 14... | .38 | -- | -- | -- | 314 | -- | -- | 634 | 7.5 | 14.0 |
| 28... | .36 | -- | -- | -- | 157 | -- | -- | 335 | 7.2 | 16.0 |
| MAY | | | | | | | | | | |
| 05... | .43 | 336 | 33800 | .46 | 245 | 73 | 172 | 530 | 7.6 | 17.0 |
| 13... | .44 | -- | -- | -- | 306 | -- | -- | 617 | 7.5 | 20.0 |
| 27... | .48 | -- | -- | -- | 202 | -- | -- | 427 | 8.2 | 21.0 |
| JUNE | | | | | | | | | | |
| 02... | .65 | -- | -- | -- | 313 | -- | -- | 624 | 7.7 | 21.0 |
| 08... | .40 | 358 | 9610 | .49 | 283 | 86 | 197 | 581 | 7.5 | 21.0 |
| 14... | .61 | -- | -- | -- | 259 | -- | -- | 549 | 8.4 | 25.5 |
| JULY | | | | | | | | | | |
| 08... | .96 | -- | -- | -- | 288 | -- | -- | 623 | 8.3 | 25.5 |
| 21... | .46 | 346 | 3850 | .47 | 264 | 84 | 180 | 577 | 7.6 | 24.5 |
| 23... | .45 | -- | -- | -- | 232 | -- | -- | 503 | 8.5 | 24.0 |
| AUG. | | | | | | | | | | |
| 03... | .48 | -- | -- | -- | 194 | -- | -- | 420 | 8.2 | 28.5 |
| 07... | .60 | 330 | 7480 | .45 | 256 | 72 | 184 | 535 | 8.5 | 26.5 |
| 15... | .57 | -- | -- | -- | 298 | -- | -- | 612 | 8.5 | 28.0 |
| SEPT. | | | | | | | | | | |
| 11... | .60 | -- | -- | -- | 284 | -- | -- | 627 | 7.5 | 27.0 |
| 26... | .87 | -- | -- | -- | 216 | -- | -- | 474 | 8.2 | 25.5 |
| 30... | .54 | 366 | 7470 | .50 | 276 | 74 | 202 | 572 | 7.8 | 21.5 |

03341910 WABASH RIVER NEAR HUTSONVILLE, ILL.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(ONCE-DAILY MEASUREMENT AT 0800)

| DAY | OCTOBER | NOVEMBER | DECEMBER | JANUARY | FEBRUARY | MARCH | APRIL | MAY | JUNE | JULY | AUGUST | SEPTEMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 584 | 469 | 542 | 691 | -- | 632 | 580 | 490 | 609 | 584 | 521 | 558 |
| 2 | 537 | 550 | 552 | 701 | 510 | 632 | 596 | 516 | 624 | 579 | 494 | 557 |
| 3 | 529 | 562 | 566 | 695 | 543 | 634 | 597 | 523 | 620 | 589 | 420 | 569 |
| 4 | 528 | 598 | 578 | 697 | 573 | 558 | 579 | 519 | 607 | 571 | 447 | -- |
| 5 | 536 | 604 | 595 | 697 | 577 | 552 | 574 | 530 | 598 | 562 | 451 | 590 |
| 6 | 575 | 607 | 618 | 693 | 557 | 618 | 572 | 552 | 619 | 563 | 507 | 599 |
| 7 | 592 | 610 | 607 | 688 | 516 | -- | 575 | 556 | 619 | 594 | 535 | 607 |
| 8 | 596 | 618 | 607 | 730 | 504 | 622 | 578 | 556 | 581 | 623 | 524 | 604 |
| 9 | 613 | 642 | 590 | 737 | 475 | 606 | 598 | 551 | 581 | 603 | 527 | 623 |
| 10 | 615 | 649 | 613 | 763 | 510 | 583 | 603 | 556 | 569 | 607 | 531 | 602 |
| 11 | 600 | 653 | 618 | 773 | 518 | 593 | 581 | 584 | 566 | 599 | 539 | 627 |
| 12 | 461 | 653 | 639 | 774 | 539 | 597 | 616 | 601 | 577 | 611 | 555 | -- |
| 13 | 509 | -- | 655 | 798 | 548 | 606 | 585 | 617 | 569 | 590 | 567 | 607 |
| 14 | 378 | -- | 662 | 796 | 592 | 607 | 634 | 540 | 549 | 586 | 498 | 594 |
| 15 | 450 | -- | 662 | 807 | 624 | 622 | 623 | 487 | 552 | 574 | 612 | 599 |
| 16 | 454 | -- | 660 | 792 | 624 | 630 | 622 | 427 | 560 | 579 | 578 | 603 |
| 17 | -- | -- | 674 | 780 | 637 | 640 | 615 | 446 | 552 | 556 | 578 | 596 |
| 18 | -- | -- | 674 | 776 | 657 | 641 | 611 | 459 | 584 | 566 | 573 | 599 |
| 19 | -- | -- | 680 | 756 | 627 | 637 | 616 | 471 | 569 | 572 | 576 | 556 |
| 20 | -- | -- | 684 | 758 | 643 | 568 | 480 | 490 | 602 | 558 | 577 | 578 |
| 21 | 549 | -- | 670 | -- | 616 | 615 | 376 | 507 | 583 | 577 | 596 | 531 |
| 22 | -- | 507 | 689 | 756 | 617 | 625 | 362 | 518 | 552 | 559 | 513 | 564 |
| 23 | 570 | 504 | 669 | 753 | 643 | 636 | 374 | 531 | 584 | 503 | 579 | 571 |
| 24 | 584 | 524 | 682 | 753 | 642 | 641 | -- | 538 | 628 | 506 | 572 | 566 |
| 25 | 548 | 532 | 696 | 763 | 612 | 645 | 342 | 550 | 604 | 532 | 493 | 568 |
| 26 | 604 | 556 | 701 | 665 | 610 | 607 | 348 | 452 | 588 | 549 | 509 | 474 |
| 27 | 613 | 555 | 682 | 680 | 619 | 589 | 404 | 427 | 573 | 551 | 541 | 496 |
| 28 | 621 | 548 | 710 | 618 | 625 | 540 | 335 | 505 | 575 | 587 | 559 | 521 |
| 29 | 597 | 559 | 700 | -- | -- | 535 | 439 | 537 | 575 | 613 | 551 | 527 |
| 30 | 575 | 550 | 690 | 462 | -- | 519 | 461 | -- | 576 | 614 | 536 | 572 |
| 31 | 595 | -- | 710 | -- | -- | 546 | -- | 617 | -- | 576 | 531 | -- |
| AVERAGE | 555 | -- | 647 | 726 | 583 | 602 | 526 | 521 | 584 | 575 | 535 | 573 |

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(ONCE-DAILY MEASUREMENT AT 0800)

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 20.5 | 13.5 | 3.5 | 4.5 | -- | 8.0 | 9.0 | 19.5 | 21.0 | 27.0 | 31.0 | 30.0 |
| 2 | 20.5 | 14.0 | 4.0 | 4.5 | 3.0 | 8.5 | 8.0 | 18.0 | 21.0 | 28.5 | 29.0 | 30.0 |
| 3 | 20.5 | 13.0 | 4.5 | 4.5 | 1.5 | 9.0 | 7.0 | 17.0 | 21.5 | 29.5 | 28.5 | 29.0 |
| 4 | 21.5 | 11.5 | 4.0 | 4.5 | .5 | 11.0 | 7.0 | 17.0 | 20.5 | 29.0 | 29.0 | -- |
| 5 | 22.0 | 12.5 | 4.0 | 4.5 | 1.0 | 9.5 | 6.5 | 17.0 | 19.5 | 26.5 | 28.0 | 28.5 |
| 6 | 22.0 | 11.0 | 5.0 | 4.5 | 1.0 | 9.0 | 6.5 | 16.5 | 19.5 | 25.5 | 26.5 | 28.5 |
| 7 | 21.5 | 11.0 | 5.5 | 3.0 | 1.0 | -- | 7.0 | 19.0 | 19.5 | 25.5 | 26.5 | 28.0 |
| 8 | 20.5 | 11.0 | 4.5 | -- | 1.5 | 8.0 | 8.0 | 18.5 | 21.0 | 25.5 | 27.0 | 28.5 |
| 9 | 20.0 | 10.5 | 4.5 | 2.0 | 1.5 | 8.0 | 8.0 | 17.0 | 21.0 | 26.0 | 25.0 | 28.5 |
| 10 | 19.5 | 10.5 | 5.0 | 3.0 | 1.5 | 8.0 | 10.5 | 18.0 | 23.5 | 24.5 | 26.0 | 29.0 |
| 11 | 19.5 | 11.5 | 6.0 | 2.0 | 3.0 | 7.0 | 12.0 | 18.5 | 24.5 | 25.0 | 25.0 | 26.5 |
| 12 | 20.0 | 12.0 | 5.5 | 3.0 | 4.0 | 5.0 | 13.5 | 19.5 | 25.0 | 26.0 | 24.5 | -- |
| 13 | 19.5 | -- | 5.0 | 5.0 | 4.0 | 5.5 | 14.5 | 20.0 | 25.0 | 27.0 | 24.5 | 27.0 |
| 14 | 16.5 | -- | 5.0 | 5.0 | 4.0 | 6.0 | 14.0 | 19.5 | 25.5 | 27.0 | 28.0 | 27.0 |
| 15 | 16.5 | -- | 5.0 | 5.5 | 4.0 | 6.0 | 13.0 | 20.0 | 25.0 | 28.0 | 28.5 | 26.5 |
| 16 | 16.5 | -- | 4.5 | 6.0 | 4.0 | 6.0 | 13.5 | 20.0 | 25.5 | 26.5 | 29.0 | 28.5 |
| 17 | -- | -- | 5.0 | 6.0 | 4.5 | 6.5 | 14.0 | 19.5 | 25.5 | 28.0 | 28.5 | 28.5 |
| 18 | -- | -- | 5.5 | 6.0 | 5.0 | 6.0 | 15.5 | 19.0 | 26.0 | 28.5 | 28.0 | 28.5 |
| 19 | -- | -- | 6.5 | 4.5 | 6.5 | 6.5 | 15.5 | 20.0 | 26.0 | 29.0 | 28.5 | 27.0 |
| 20 | -- | -- | 5.0 | 4.0 | 6.0 | 7.0 | 14.5 | 20.0 | 25.5 | 26.5 | 29.0 | 26.5 |
| 21 | 14.5 | -- | 5.0 | -- | 5.5 | 9.0 | 13.5 | 22.0 | 24.5 | 24.5 | 28.5 | 26.5 |
| 22 | -- | 5.0 | 5.0 | 3.0 | 5.0 | 8.0 | 14.0 | 23.5 | 23.5 | 24.0 | 27.0 | 28.0 |
| 23 | 14.0 | 7.0 | 4.5 | 3.0 | 5.0 | 9.0 | 15.5 | 23.5 | 23.5 | 24.0 | 25.5 | 28.5 |
| 24 | 14.0 | 8.0 | 4.0 | 4.5 | 5.0 | 9.0 | -- | 22.0 | 23.5 | 23.5 | 25.0 | 28.5 |
| 25 | 13.0 | 7.5 | 4.0 | 4.5 | 6.0 | 10.0 | 14.5 | 23.0 | 24.0 | 25.0 | 26.0 | 27.0 |
| 26 | 13.5 | 6.0 | 4.5 | -- | 6.0 | 10.0 | 15.0 | 23.0 | 25.0 | 26.5 | 27.0 | 25.5 |
| 27 | 13.5 | 5.0 | 4.0 | 5.5 | 5.5 | 9.0 | 16.0 | 21.0 | 24.5 | 27.0 | 28.5 | 25.5 |
| 28 | 14.5 | 4.0 | 4.5 | 4.5 | 6.5 | 7.0 | 16.0 | 21.5 | 24.0 | 27.0 | 28.0 | 23.0 |
| 29 | 14.0 | 4.5 | 4.5 | -- | -- | 7.0 | 18.0 | 21.0 | 24.5 | 30.0 | 29.5 | 22.0 |
| 30 | 13.5 | 4.5 | 4.5 | 2.0 | -- | 5.5 | 18.5 | -- | 25.0 | 30.0 | 29.5 | 21.5 |
| 31 | 14.0 | -- | 4.0 | -- | -- | 6.0 | -- | 21.0 | -- | 29.5 | 30.5 | -- |
| WTD | 17.5 | -- | 4.7 | 4.1 | 5.7 | 7.5 | 12.3 | 19.9 | 23.4 | 26.7 | 27.6 | 27.2 |

## 03341920 WABASH RIVER AT HUTSONVILLE, ILL.

LOCATION.--Lat 39°06'37", long 87°39'18", Crawford County, Illinois, Sullivan County, Indiana, at center of bridge (State Line) on Indiana State Highway 154, 0.2 mile northeast of Hutsonville, 0.3 mile downstream from Sewage Disposal Plant, and 0.5 mile upstream from Hutson Creek.
DRAINAGE AREA.--12,700 sq mi, approximately.
PERIOD OF RECORD.--Chemical analyses: July 1969 to September 1970.
REMARKS.--Records of discharge are available for Wabash River at Riverton, Ind. (03342000), drainage area 13,100 sq mi, approximately.
CORRECTIONS.--Chemical analyses for July 23, Aug. 14, and Sept. 11, 1969, published under Wabash River near Hutsonville, Ill. (03341910) in WRD Ind. 1969, should have been published for this station.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | NITRATE (N) (MG/L) | NITRITE (N) (MG/L) | AMMONIA NITROGEN (N) (MG/L) | ORGANIC NITROGEN (N) (MG/L) | TOTAL PHOSPHORUS (P) (MG/L) | DISSOLVED PHOSPHORUS (P) (MG/L) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH (UNITS) |
|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | |
| 08... | 0845 | 1.3 | .02 | .06 | 1.3 | .22 | .14 | -- | -- |
| 08... | 0845 | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV. | | | | | | | | | |
| 04... | 1030 | -- | -- | -- | -- | -- | -- | -- | -- |
| DEC. | | | | | | | | | |
| 03... | 1000 | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | 1100 | 4.8 | .03 | .08 | .65 | .19 | .11 | -- | -- |
| JAN. | | | | | | | | | |
| 05... | 1030 | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB. | | | | | | | | | |
| 24... | 1045 | 4.4 | .03 | .32 | .32 | .21 | .14 | -- | -- |
| 24... | 1045 | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR. | | | | | | | | | |
| 24... | 1145 | -- | -- | -- | -- | -- | -- | -- | -- |
| APR. | | | | | | | | | |
| 22... | 0800 | 5.7 | -- | .14 | .27 | .25 | .09 | -- | -- |
| 22... | 0800 | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | |
| 21... | 1015 | -- | -- | -- | -- | -- | -- | -- | -- |
| JUNE | | | | | | | | | |
| 17... | 1020 | 1.6 | .02 | .12 | 1.2 | .18 | .04 | -- | -- |
| 17... | 1020 | -- | -- | -- | -- | -- | -- | 666 | -- |
| JULY | | | | | | | | | |
| 16... | 1000 | -- | -- | -- | -- | -- | -- | 480 | 8.2 |
| AUG. | | | | | | | | | |
| 13... | 1020 | -- | -- | -- | -- | -- | -- | 575 | 7.8 |
| SEPT. | | | | | | | | | |
| 09... | 1025 | -- | -- | -- | -- | -- | -- | 620 | 8.5 |

| DATE | TEMPERATURE (DEG C) | AIR TEMPERATURE (DEG C) | BIOCHEMICAL OXYGEN DEMAND (MG/L) | DISSOLVED OXYGEN (MG/L) | PERCENT SATURATION | COLIFORM (COLONIES PER 100 ML) | FECAL COLIFORM (COL. PER 100 ML) | TOTAL ORGANIC CARBON (C) (MG/L) |
|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | 20.0 | -- | 3.7 | 11.6 | 126 | 140000 | 1800 | -- |
| NOV. | | | | | | | | |
| 04... | -- | -- | 2.9 | -- | -- | 200000 | 1700 | -- |
| DEC. | | | | | | | | |
| 03... | 4.0 | -- | 2.3 | -- | -- | -- | -- | -- |
| 03... | -- | 6.0 | -- | -- | -- | -- | -- | -- |
| JAN. | | | | | | | | |
| 05... | 2.0 | -- | 2.4 | 11.0 | 80 | 27000 | 3000 | -- |
| FEB. | | | | | | | | |
| 24... | -- | -- | -- | -- | -- | -- | -- | 5.2 |
| 24... | 6.0 | 7.5 | 2.8 | 10.2 | 82 | 25000 | 1100 | -- |
| MAR. | | | | | | | | |
| 24... | 9.0 | -- | 3.4 | 12.4 | 104 | 5100 | 610 | 5.5 |
| APR. | | | | | | | | |
| 22... | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | 13.0 | 14.0 | 5.8 | 8.0 | 75 | 9200 | 1750 | -- |
| MAY | | | | | | | | |
| 21... | 21.0 | -- | 4.4 | 7.4 | 82 | 3500 | 1250 | -- |
| JUNE | | | | | | | | |
| 17... | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | 27.0 | -- | 5.1 | 6.2 | 76 | 4500 | 650 | -- |
| JULY | | | | | | | | |
| 16... | 28.0 | -- | 7.6 | 9.2 | 116 | 3700 | 900 | -- |
| AUG. | | | | | | | | |
| 13... | 26.5 | -- | 4.0 | 6.0 | 74 | 3300 | 700 | -- |
| SEPT. | | | | | | | | |
| 09... | 28.5 | -- | 8.4 | 9.4 | 120 | 12000 | 1800 | -- |

## 03342000 WABASH RIVER AT RIVERTON, IND.

LOCATION.--Lat 39°01'13", long 87°34'07", in sec.30, T.7 N., R.10 W., Sullivan County, temperature recorder at center pier of Illinois Central Railroad bridge at Riverton, 0.6 mile downstream from Turtle Creek, and at mile 162.0.
DRAINAGE AREA.--13,100 sq mi, approximately.
PERIOD OF RECORD.--Water temperatures: July 1954 to September 1961, October 1962 to September 1965, October 1967 to current year.
EXTREMES, Current year.--Water temperatures: Maximum, 30.5°C Aug. 31; minimum, freezing point on several days during January and February.
EXTREMES, Period of record.--Water temperatures: Maximum, 33.0°C July 20 and Aug. 29, 1954; minimum, freezing point on many days during most winter periods.
REMARKS.--Temperatures affected by powerplant upstream.

### TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
### (CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

| DAY | OCT | | NOV | | DEC | | JAN | | FEB | | MAR | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 21.0 | 20.0 | 12.0 | 11.5 | 4.0 | 3.5 | 3.5 | 3.0 | 1.5 | 0.0 | 4.0 | 3.5 |
| 2 | 21.0 | 20.0 | 12.0 | 11.0 | 4.0 | 2.5 | 4.0 | 3.0 | 1.5 | 0.5 | 5.0 | 4.0 |
| 3 | 21.5 | 20.0 | 11.0 | 10.5 | 4.0 | 3.0 | 3.0 | 2.0 | 0.5 | 0.0 | 6.5 | 5.0 |
| 4 | 22.0 | 21.0 | 10.5 | 10.0 | 4.0 | 3.0 | 3.0 | 2.0 | 0.0 | 0.0 | 7.5 | 6.5 |
| 5 | 22.5 | 22.0 | 10.5 | 10.0 | 4.0 | 3.0 | 2.5 | 2.0 | 0.0 | 0.0 | 7.5 | 6.5 |
| 6 | 22.5 | 22.0 | 11.0 | 10.0 | 4.0 | 4.0 | 2.0 | 1.0 | 0.0 | 0.0 | 8.0 | 7.0 |
| 7 | 22.5 | 22.0 | 11.0 | 10.0 | 4.0 | 4.0 | 1.0 | 0.0 | 0.5 | 0.0 | 8.0 | 7.0 |
| 8 | 22.0 | 21.0 | 11.0 | 10.0 | 4.0 | 4.0 | 0.0 | 0.0 | 0.5 | 0.0 | 7.5 | 6.5 |
| 9 | 21.0 | 20.0 | 11.0 | 10.0 | 4.5 | 4.0 | 0.0 | 0.0 | 1.0 | 0.5 | 7.0 | 6.5 |
| 10 | 20.0 | 19.5 | 10.0 | 9.5 | 4.5 | 3.5 | 0.0 | 0.0 | 1.5 | 1.0 | 7.0 | 6.5 |
| 11 | 20.0 | 19.5 | 10.5 | 9.5 | 4.0 | 4.0 | 0.5 | 0.0 | 1.5 | 1.5 | 6.5 | 5.5 |
| 12 | 20.0 | 19.5 | 10.5 | 9.5 | 4.0 | 3.5 | 2.0 | 0.5 | 2.0 | 1.5 | 5.5 | 5.0 |
| 13 | 20.0 | 18.0 | 10.0 | 9.5 | 3.5 | 3.0 | 3.0 | 2.0 | 2.0 | 1.5 | 5.0 | 4.0 |
| 14 | 18.0 | 16.0 | 10.0 | 8.0 | 3.0 | 2.0 | 4.0 | 3.0 | 2.0 | 1.5 | 5.0 | 4.0 |
| 15 | 16.0 | 15.5 | 8.0 | 7.0 | 2.5 | 2.0 | 4.5 | 4.0 | 2.0 | 1.0 | 4.0 | 3.5 |
| 16 | 15.5 | 14.5 | 7.0 | 6.0 | 2.5 | 2.0 | 5.0 | 4.0 | 2.0 | 1.0 | 5.0 | 3.0 |
| 17 | 14.5 | 13.0 | 7.0 | 6.0 | 2.5 | 2.0 | 4.5 | 3.5 | 3.0 | 1.5 | 5.5 | 5.0 |
| 18 | 13.5 | 13.0 | 8.5 | 7.0 | 3.5 | 2.5 | 3.5 | 2.0 | 4.0 | 2.5 | 5.5 | 4.5 |
| 19 | 13.0 | 12.0 | 8.5 | 7.5 | 4.0 | 3.0 | 2.0 | 0.5 | 4.0 | 3.5 | 6.0 | 5.5 |
| 20 | 14.0 | 13.0 | 7.5 | 7.0 | 4.0 | 4.0 | 0.5 | 0.0 | 3.5 | 3.5 | 6.5 | 6.0 |
| 21 | 14.0 | 13.0 | 7.0 | 6.0 | 4.0 | 4.0 | 0.0 | 0.0 | 3.5 | 2.5 | 7.0 | 5.5 |
| 22 | 14.0 | 13.5 | 6.0 | 5.5 | 4.0 | 4.0 | 0.5 | 0.0 | 3.0 | 2.5 | 7.5 | 7.0 |
| 23 | 14.0 | 13.0 | 5.5 | 5.0 | 4.0 | 3.5 | 2.5 | 0.5 | 3.0 | 2.0 | 7.5 | 7.5 |
| 24 | 13.5 | 13.0 | 5.5 | 4.5 | 4.0 | 3.0 | 3.0 | 1.5 | 3.5 | 2.5 | 8.5 | 7.5 |
| 25 | 13.0 | 12.5 | 6.0 | 5.0 | 3.0 | 3.0 | 4.0 | 3.0 | 3.5 | 3.5 | 8.5 | 8.0 |
| 26 | 13.0 | 12.5 | 6.0 | 5.5 | 3.0 | 3.0 | 4.0 | 3.5 | 3.5 | 3.0 | 8.0 | 7.0 |
| 27 | 12.5 | 12.0 | 6.0 | 5.5 | 3.0 | 2.5 | 3.5 | 3.0 | 3.5 | 3.0 | 7.0 | 6.5 |
| 28 | 12.0 | 11.0 | 5.5 | 4.0 | 3.0 | 2.5 | 3.5 | 2.0 | 4.0 | 3.0 | 6.5 | 6.0 |
| 29 | 12.0 | 11.0 | 4.5 | 3.0 | 3.0 | 2.5 | 2.0 | 0.5 | -- | -- | 6.0 | 5.5 |
| 30 | 12.0 | 12.0 | 3.5 | 2.5 | 4.0 | 3.0 | 1.5 | 0.5 | -- | -- | 5.5 | 5.0 |
| 31 | 12.0 | 11.5 | -- | -- | 4.0 | 3.0 | 1.0 | 0.0 | -- | -- | 5.5 | 5.0 |
| AVG | 16.8 | 16.0 | 8.4 | 7.5 | 3.6 | 3.1 | 2.3 | 1.5 | 2.1 | 1.5 | 6.4 | 5.6 |

03342000 WABASH RIVER AT RIVERTON, IND.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

| DAY | APR | | MAY | | JUN | | JUL | | AUG | | SEP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 6.0 | 5.0 | 20.5 | 19.5 | 21.5 | 20.5 | 28.5 | 27.0 | 29.5 | 28.0 | 30.0 | 29.5 |
| 2 | 7.0 | 5.5 | 20.0 | 18.5 | 21.5 | 21.0 | 28.5 | 28.0 | 28.5 | 28.0 | 29.5 | 28.0 |
| 3 | 7.0 | 6.0 | 19.0 | 18.0 | 21.0 | 20.0 | 28.5 | 27.5 | 28.0 | 27.5 | 29.0 | 28.0 |
| 4 | 7.0 | 6.5 | 18.0 | 16.5 | 20.0 | 19.5 | 27.5 | 26.0 | 28.0 | 27.5 | 28.5 | 27.5 |
| 5 | 6.5 | 5.5 | 17.0 | 16.0 | 20.0 | 19.5 | 26.5 | 25.5 | 28.0 | 27.0 | 28.5 | 27.0 |
| 6 | 6.5 | 5.5 | 16.0 | 15.5 | 21.0 | 19.5 | 26.5 | 25.0 | 27.5 | 26.5 | 28.0 | 27.0 |
| 7 | 6.5 | 6.0 | 15.5 | 15.5 | 22.0 | 20.5 | 26.0 | 25.5 | 27.5 | 26.0 | 29.0 | 27.0 |
| 8 | 7.5 | 6.5 | 15.5 | 15.0 | 23.5 | 22.0 | 26.0 | 25.5 | 26.5 | 25.0 | 29.5 | 28.0 |
| 9 | 9.0 | 7.5 | 16.5 | 15.5 | 24.0 | 23.0 | 26.0 | 25.0 | 25.0 | 24.5 | 28.5 | 27.5 |
| 10 | 10.5 | 9.0 | 18.0 | 16.5 | 25.0 | 24.0 | 26.5 | 25.0 | 25.0 | 24.5 | 28.0 | 27.0 |
| 11 | 11.0 | 10.5 | 19.0 | 18.0 | 25.5 | 24.5 | 27.5 | 26.5 | 25.0 | 24.0 | 27.0 | 26.0 |
| 12 | 11.5 | 11.0 | 20.0 | 19.0 | 25.5 | 24.0 | 28.5 | 27.0 | 26.0 | 24.5 | 26.0 | 25.0 |
| 13 | 12.5 | 11.5 | 20.0 | 19.5 | 25.5 | 24.5 | 28.5 | 27.5 | 27.0 | 25.5 | 26.5 | 24.5 |
| 14 | 12.0 | 11.5 | 20.0 | 19.0 | 25.5 | 25.0 | 28.5 | 28.0 | 28.0 | 26.5 | 25.5 | 25.0 |
| 15 | 11.5 | 11.0 | 19.5 | 19.0 | 25.0 | 24.5 | 28.5 | 27.5 | 28.5 | 27.5 | 26.5 | 24.5 |
| 16 | 11.0 | 10.5 | 19.5 | 18.5 | 25.5 | 24.5 | 28.0 | 27.5 | 29.5 | 28.0 | 27.0 | 25.5 |
| 17 | 11.5 | 11.0 | 19.5 | 17.5 | 26.5 | 25.5 | 29.0 | 28.0 | 28.5 | 27.5 | 27.5 | 26.5 |
| 18 | 12.5 | 11.5 | 19.0 | 18.0 | 27.0 | 26.0 | 29.0 | 28.0 | 29.0 | 27.5 | 27.0 | 26.0 |
| 19 | 14.5 | 12.5 | 20.0 | 18.5 | 26.5 | 25.0 | 28.0 | 27.5 | 30.0 | 28.0 | 26.5 | 26.0 |
| 20 | 14.5 | 13.0 | 21.0 | 19.5 | 25.0 | 23.5 | 27.5 | 25.5 | 29.0 | 28.0 | 26.0 | 25.5 |
| 21 | 13.0 | 11.5 | 22.0 | 20.5 | 23.5 | 23.0 | 26.0 | 24.5 | 29.5 | 28.0 | 26.0 | 25.5 |
| 22 | 13.5 | 12.5 | 22.5 | 21.5 | 23.0 | 22.0 | 24.5 | 24.0 | 28.0 | 26.5 | 27.0 | 26.0 |
| 23 | 15.0 | 13.5 | 23.0 | 22.0 | 22.5 | 22.0 | 24.5 | 23.5 | 27.5 | 26.5 | 27.5 | 26.5 |
| 24 | 15.5 | 14.5 | 23.0 | 22.5 | 23.0 | 22.0 | 24.5 | 23.5 | 26.5 | 25.5 | 27.5 | 26.5 |
| 25 | 15.5 | 14.5 | 23.0 | 22.0 | 24.0 | 23.0 | 26.0 | 24.0 | 27.0 | 26.0 | 27.0 | 25.5 |
| 26 | 16.0 | 15.0 | 22.0 | 21.5 | 24.5 | 23.5 | 27.5 | 26.0 | 27.5 | 26.0 | 25.5 | 23.5 |
| 27 | 16.5 | 16.0 | 21.5 | 21.0 | 24.5 | 24.0 | 28.0 | 25.5 | 28.5 | 27.0 | 23.5 | 21.5 |
| 28 | 17.5 | 16.0 | 21.0 | 21.0 | 24.5 | 24.0 | 29.0 | 27.5 | 29.0 | 27.5 | 21.5 | 20.5 |
| 29 | 18.5 | 17.5 | 21.0 | 20.5 | 25.0 | 24.0 | 29.0 | 28.0 | 30.0 | 29.0 | 20.5 | 20.0 |
| 30 | 20.0 | 18.0 | 21.0 | 20.5 | 27.0 | 25.0 | 29.5 | 28.0 | 30.0 | 29.5 | 20.0 | 19.5 |
| 31 | -- | -- | 21.0 | 20.5 | -- | -- | 30.0 | 29.0 | 30.5 | 29.5 | -- | -- |
| AVG | 11.9 | 10.8 | 19.8 | 18.9 | 23.9 | 22.9 | 27.4 | 26.3 | 28.0 | 26.8 | 26.6 | 25.5 |

## 03348500 WHITE RIVER NEAR NOBLESVILLE, IND.

LOCATION.--Lat 40°07'46", long 85°57'46", in sec.4, T.19 N., R.5 E., Hamilton County, temperature recorder at gaging station on downstream side of center pier of highway bridge, 1 mile west of Strawtown, 7 miles northeast of Noblesville, 9.5 miles upstream from Cicero Creek, and at mile 277.4.
DRAINAGE AREA.--828 sq mi.
PERIOD OF RECORD.--Water temperatures: October 1953 to July 1957, October 1962 to current year.
EXTREMES, Current year.--Water temperatures: Maximum, 29.0°C July 2, 3; minimum, freezing point on several days during January.
EXTREMES, Period of record.--Water temperatures: Maximum, 31.0°C July 14, 1954; minimum, freezing point on many days during winter months.

### TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
### (CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

| DAY | OCT | | NOV | | DEC | | JAN | | FEB | | MAR | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 18.0 | 17.0 | 11.5 | 10.5 | 4.5 | 4.5 | 1.5 | 1.0 | 3.0 | 2.0 | 3.5 | 3.0 |
| 2 | 18.5 | 18.0 | 11.5 | 11.0 | 4.5 | 4.5 | 1.5 | 1.5 | 3.0 | 3.0 | 4.5 | 3.5 |
| 3 | 19.0 | 18.0 | 11.0 | 10.5 | 4.5 | 4.0 | 1.5 | 1.0 | 3.0 | 1.5 | 6.0 | 4.5 |
| 4 | 19.5 | 19.0 | 10.5 | 9.5 | 4.5 | 4.0 | 1.0 | 0.5 | 1.5 | 1.0 | 6.5 | 6.0 |
| 5 | 19.5 | 18.5 | 9.5 | 9.0 | 4.0 | 4.0 | 0.5 | 0.5 | 1.0 | 1.0 | 6.5 | 6.0 |
| 6 | 19.0 | 18.5 | 9.0 | 9.0 | 4.0 | 3.5 | 0.5 | 0.5 | 1.5 | 1.0 | 6.0 | 5.0 |
| 7 | 19.0 | 18.5 | 9.0 | 8.5 | 4.0 | 3.5 | 0.5 | 0.5 | 2.0 | 1.5 | 5.5 | 5.0 |
| 8 | 19.0 | 17.5 | 9.0 | 8.5 | 4.0 | 4.0 | 0.5 | 0.5 | 2.5 | 2.0 | 6.0 | 5.5 |
| 9 | 18.0 | 16.5 | 8.5 | 8.5 | 4.0 | 4.0 | 0.5 | 0.5 | 3.0 | 2.5 | 6.0 | 5.5 |
| 10 | 18.0 | 17.0 | 9.0 | 8.5 | 4.0 | 4.0 | 0.5 | 0.5 | 3.0 | 3.0 | 5.5 | 4.0 |
| 11 | 18.5 | 18.0 | 9.0 | 9.0 | 4.0 | 4.0 | 0.5 | 0.5 | 3.0 | 3.0 | 4.0 | 3.5 |
| 12 | 18.5 | 17.5 | 9.0 | 9.0 | 4.0 | 3.5 | 0.5 | 0.0 | 3.0 | 2.5 | 3.5 | 3.5 |
| 13 | 18.0 | 17.0 | 9.0 | 8.5 | 3.5 | 3.5 | 0.5 | 0.0 | 3.0 | 2.0 | 4.0 | 3.5 |
| 14 | 17.0 | 16.0 | 8.5 | 6.0 | 3.5 | 3.5 | 0.0 | 0.0 | 2.0 | 1.5 | 3.5 | 3.0 |
| 15 | 16.0 | 14.5 | 6.0 | 4.5 | 3.5 | 3.5 | 0.5 | 0.0 | 1.5 | 1.0 | 3.5 | 2.5 |
| 16 | 14.5 | 14.0 | 4.5 | 4.0 | 3.5 | 3.0 | 0.0 | 0.0 | 1.5 | 1.0 | 3.5 | 2.5 |
| 17 | 14.0 | 13.0 | 5.0 | 4.0 | 3.5 | 3.0 | 0.0 | 0.0 | 1.5 | 1.5 | 3.5 | 3.5 |
| 18 | 13.0 | 12.0 | 8.5 | 5.0 | 3.5 | 3.0 | 0.0 | 0.0 | 3.5 | 1.5 | 3.5 | 3.0 |
| 19 | 13.0 | 12.0 | 8.5 | 6.5 | 3.0 | 3.0 | 0.0 | 0.0 | 3.5 | 3.0 | 4.0 | 3.5 |
| 20 | 14.0 | 13.0 | 6.5 | 4.5 | 3.0 | 2.0 | 0.5 | 0.0 | 3.0 | 1.5 | 4.5 | 4.0 |
| 21 | 14.0 | 13.0 | 4.5 | 4.0 | 2.0 | 1.5 | 0.5 | 0.0 | 1.5 | 0.5 | 5.5 | 4.5 |
| 22 | 13.5 | 12.5 | 4.5 | 4.0 | 2.0 | 1.5 | 0.5 | 0.0 | 2.5 | 1.5 | 6.0 | 5.5 |
| 23 | 12.5 | 11.0 | 5.5 | 4.5 | 2.0 | 1.5 | 0.5 | 0.0 | 3.5 | 2.5 | 6.0 | 5.5 |
| 24 | 11.0 | 9.5 | 5.5 | 5.5 | 1.5 | 1.0 | 0.0 | 0.0 | 4.0 | 3.5 | 6.5 | 6.0 |
| 25 | 10.5 | 9.5 | 6.0 | 5.5 | 1.0 | 1.0 | 0.0 | 0.0 | 4.0 | 3.5 | 6.5 | 6.0 |
| 26 | 12.0 | 10.5 | 6.0 | 5.5 | 1.5 | 1.0 | 0.0 | 0.0 | 3.5 | 2.5 | 6.0 | 5.5 |
| 27 | 12.0 | 11.5 | 6.0 | 6.0 | 1.0 | 1.0 | 0.5 | 0.0 | 3.0 | 2.0 | 5.5 | 4.5 |
| 28 | 12.0 | 10.0 | 6.0 | 5.5 | 1.0 | 1.0 | 0.5 | 0.0 | 3.0 | 2.5 | 5.5 | 4.5 |
| 29 | 11.0 | 9.5 | 5.5 | 5.0 | 1.0 | 1.0 | 1.5 | 0.0 | -- | -- | 6.0 | 5.0 |
| 30 | 10.5 | 9.5 | 5.0 | 4.5 | 1.5 | 1.0 | 1.5 | 1.5 | -- | -- | 6.0 | 5.5 |
| 31 | 10.5 | 10.0 | -- | -- | 1.5 | 1.0 | 2.0 | 1.5 | -- | -- | 7.5 | 6.0 |
| AVG | 15.2 | 14.2 | 7.5 | 6.8 | 3.0 | 2.7 | 0.5 | 0.3 | 2.6 | 1.9 | 5.1 | 4.4 |

03348500 WHITE RIVER NEAR NOBLESVILLE, IND.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

| DAY | APR | | MAY | | JUN | | JUL | | AUG | | SEP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 8.5 | 7.5 | 18.5 | 18.5 | 21.5 | 20.5 | 28.0 | 26.5 | 28.0 | 26.5 | 27.0 | 24.5 |
| 2 | 8.5 | 7.0 | 18.5 | 17.0 | 21.5 | 21.0 | 29.0 | 27.0 | 27.0 | 26.0 | 25.5 | 23.5 |
| 3 | 7.0 | 6.5 | 17.0 | 15.5 | 21.5 | 19.5 | 29.0 | 26.5 | 26.0 | 24.0 | 25.5 | 25.0 |
| 4 | 7.0 | 6.5 | 17.0 | 15.5 | 19.5 | 18.5 | 27.5 | 24.5 | 25.0 | 23.0 | 25.0 | 24.5 |
| 5 | 8.5 | 7.0 | 17.0 | 16.5 | 18.5 | 18.0 | 24.5 | 23.0 | 24.0 | 23.0 | 25.0 | 23.5 |
| 6 | 8.5 | 8.5 | 17.0 | 15.5 | 19.5 | 18.0 | 24.5 | 22.0 | 25.0 | 23.0 | 25.0 | 24.0 |
| 7 | 9.0 | 8.0 | 16.5 | 15.5 | 21.0 | 19.5 | 24.0 | 23.0 | 25.5 | 23.5 | 25.5 | 24.0 |
| 8 | 11.5 | 9.0 | 19.0 | 16.0 | 23.0 | 20.5 | 24.0 | 23.5 | 25.5 | 24.0 | 26.0 | 25.5 |
| 9 | 13.5 | 11.5 | 20.5 | 18.5 | 24.0 | 22.0 | 23.5 | 22.5 | 25.5 | 23.5 | 25.5 | 24.0 |
| 10 | 13.5 | 12.0 | 20.5 | 19.5 | 24.0 | 23.0 | 23.0 | 21.5 | 25.0 | 24.0 | 25.0 | 24.0 |
| 11 | 13.0 | 11.5 | 20.5 | 19.5 | 24.5 | 23.0 | 23.5 | 22.0 | 25.5 | 23.5 | 24.0 | 21.5 |
| 12 | 13.5 | 12.0 | 20.5 | 19.0 | 24.5 | 23.5 | 25.5 | 23.5 | 26.0 | 24.0 | 22.5 | 21.0 |
| 13 | 13.5 | 13.0 | 20.5 | 19.0 | 25.5 | 24.0 | 26.5 | 25.0 | 26.5 | 24.5 | 22.5 | 22.0 |
| 14 | 13.5 | 13.0 | 20.0 | 19.5 | 25.5 | 24.5 | 26.5 | 26.0 | 27.0 | 24.5 | 22.0 | 21.0 |
| 15 | 14.0 | 12.0 | 21.0 | 19.5 | 24.5 | 23.5 | 26.5 | 26.0 | 27.5 | 25.5 | 23.5 | 21.0 |
| 16 | 15.0 | 13.5 | 21.0 | 18.0 | 24.5 | 24.0 | 26.5 | 25.0 | 27.0 | 26.0 | 23.5 | 23.5 |
| 17 | 16.0 | 14.5 | 18.0 | 16.5 | 25.5 | 24.0 | 26.5 | 25.0 | 28.5 | 26.0 | 23.5 | 22.0 |
| 18 | 16.0 | 14.5 | 18.5 | 16.5 | 26.5 | 25.0 | 26.0 | 25.0 | 27.5 | 26.0 | 23.0 | 23.0 |
| 19 | 14.5 | 12.0 | 21.0 | 18.0 | 26.5 | 24.0 | 25.5 | 24.0 | 27.0 | 25.5 | 23.0 | 21.0 |
| 20 | 12.5 | 12.0 | 22.0 | 20.0 | 24.0 | 21.5 | 24.0 | 22.0 | 25.5 | 23.0 | 23.0 | 22.0 |
| 21 | 13.0 | 12.5 | 23.5 | 21.5 | 23.0 | 20.5 | 22.0 | 21.5 | 24.0 | 22.0 | 23.5 | 22.0 |
| 22 | 13.5 | 12.0 | 24.0 | 22.0 | 21.0 | 19.5 | 22.0 | 21.5 | 23.5 | 22.5 | 24.0 | 23.5 |
| 23 | 14.5 | 13.5 | 24.0 | 23.0 | 22.5 | 20.5 | 22.5 | 22.0 | 24.5 | 23.0 | 24.5 | 23.5 |
| 24 | 14.5 | 14.0 | 24.0 | 23.0 | 23.5 | 22.0 | 23.0 | 22.0 | 24.5 | 23.0 | 24.5 | 23.5 |
| 25 | 15.0 | 14.5 | 23.5 | 22.5 | 23.5 | 23.0 | 24.5 | 23.0 | 25.5 | 23.0 | 23.5 | 22.0 |
| 26 | 16.0 | 14.5 | 23.5 | 21.5 | 23.5 | 23.5 | 25.0 | 24.0 | 26.0 | 24.0 | 22.5 | 20.0 |
| 27 | 16.5 | 16.0 | 21.5 | 19.5 | 23.5 | 21.5 | 25.5 | 24.0 | 26.0 | 25.0 | 20.0 | 18.0 |
| 28 | 16.5 | 16.0 | 22.0 | 19.5 | 23.0 | 21.5 | 26.5 | 24.0 | 26.5 | 25.5 | 18.0 | 15.5 |
| 29 | 18.0 | 16.0 | 22.0 | 21.0 | 24.5 | 22.0 | 27.0 | 26.0 | 26.5 | 26.0 | 15.5 | 14.0 |
| 30 | 18.5 | 18.0 | 21.5 | 21.0 | 26.5 | 24.5 | 27.0 | 26.0 | 27.5 | 26.5 | 16.5 | 15.0 |
| 31 | -- | -- | 21.5 | 21.0 | -- | -- | 27.0 | 25.5 | 27.5 | 26.5 | -- | -- |
| AVG | 13.1 | 11.9 | 20.5 | 19.0 | 23.3 | 21.8 | 25.3 | 23.9 | 26.0 | 24.3 | 23.2 | 21.9 |

## 03349000 WHITE RIVER AT NOBLESVILLE, IND.

LOCATION.--Lat 40°02'50", long 86°01'00", in SE¼ sec.36, T.19 N., R.4 E., Hamilton County, temperature recorder at gaging station on right bank at downstream side of Logan Street Bridge in Noblesville, 1.5 miles upstream from Cicero Creek, 3.5 miles downstream from dam at Clare, and at mile 269.0.
DRAINAGE AREA.--858 sq mi.
PERIOD OF RECORD.--Water temperatures: November 1952 to current year.
EXTREMES, Current year.--Water temperatures: Maximum, 33.5°C July 2; minimum, freezing point on several days during December and January.
EXTREMES, Period of record.--Water temperatures: Maximum, 34.0°C Aug. 1, 1953; minimum, freezing point on many days during most winter periods.
REMARKS.--Flow regulated by powerplant above station.

### TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
### (CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

| DAY | OCT | | NOV | | DEC | | JAN | | FEB | | MAR | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 18.0 | 16.0 | 11.5 | 10.5 | 5.5 | 4.5 | 1.0 | 0.5 | 3.0 | 1.5 | 4.5 | 4.0 |
| 2 | 17.5 | 17.0 | 11.0 | 10.5 | 5.5 | 4.0 | 1.0 | 1.0 | 3.5 | 3.0 | 8.0 | 4.5 |
| 3 | 20.5 | 16.5 | 11.0 | 10.5 | 5.5 | 4.5 | 1.0 | 0.5 | 3.5 | 2.0 | 7.5 | 7.0 |
| 4 | 21.5 | 19.0 | 11.0 | 9.0 | 5.5 | 4.5 | 0.5 | 0.0 | 2.0 | 1.0 | 9.0 | 7.5 |
| 5 | 21.5 | 18.5 | 9.5 | 9.0 | 5.5 | 4.0 | 1.5 | 0.5 | 1.5 | 1.0 | 9.0 | 7.0 |
| 6 | 21.0 | 18.0 | 9.5 | 8.5 | 5.5 | 4.5 | 2.0 | 0.0 | 3.0 | 1.5 | 7.0 | 6.0 |
| 7 | 21.0 | 18.5 | 9.5 | 8.5 | 5.5 | 4.5 | 1.5 | 1.0 | 3.5 | 2.5 | 7.0 | 6.0 |
| 8 | 20.5 | 18.0 | 9.5 | 8.5 | 5.5 | 4.5 | 1.5 | 1.0 | 3.5 | 3.0 | 7.0 | 6.5 |
| 9 | 20.5 | 17.0 | 8.5 | 8.5 | 5.0 | 4.0 | 2.0 | 1.0 | 4.0 | 3.0 | 7.5 | 6.5 |
| 10 | 20.5 | 15.5 | 10.5 | 8.5 | 5.5 | 4.0 | 2.0 | 1.0 | 4.5 | 3.5 | 7.0 | 5.5 |
| 11 | 21.0 | 19.0 | 10.5 | 9.0 | 5.5 | 4.5 | 2.0 | 0.5 | 4.5 | 4.0 | 5.5 | 4.0 |
| 12 | 20.0 | 18.0 | 10.5 | 9.0 | 5.5 | 4.0 | 3.0 | 0.0 | 4.5 | 3.5 | 5.5 | 4.5 |
| 13 | 18.5 | 17.5 | 10.5 | 9.0 | 4.5 | 3.0 | 2.0 | 0.5 | 4.5 | 3.0 | 6.0 | 4.0 |
| 14 | 18.0 | 16.5 | 9.5 | 7.5 | 4.0 | 3.5 | 3.0 | 0.5 | 4.0 | 2.0 | 5.0 | 4.0 |
| 15 | 16.5 | 14.5 | 8.0 | 5.0 | 4.0 | 3.0 | 3.0 | 0.5 | 2.5 | 2.0 | 4.0 | 3.5 |
| 16 | 15.0 | 14.5 | 5.5 | 3.5 | 4.5 | 3.0 | 3.0 | 0.5 | 4.0 | 1.5 | 5.5 | 3.0 |
| 17 | 14.5 | 12.5 | 8.0 | 4.5 | 4.0 | 3.0 | 2.0 | 0.5 | 4.5 | 2.0 | 4.5 | 3.5 |
| 18 | 12.5 | 11.5 | 8.5 | 7.0 | 4.0 | 3.0 | 0.5 | 0.0 | 6.0 | 3.5 | 4.0 | 3.5 |
| 19 | 13.0 | 12.0 | 8.5 | 7.5 | 4.0 | 3.0 | 1.5 | 0.0 | 5.5 | 4.5 | 5.5 | 4.0 |
| 20 | 15.5 | 13.0 | 7.5 | 4.5 | 4.0 | 2.0 | 1.5 | 0.5 | 4.5 | 3.5 | 6.5 | 5.0 |
| 21 | 15.5 | 13.5 | 5.0 | 4.5 | 3.0 | 1.5 | 1.5 | 1.0 | 3.5 | 1.5 | 7.0 | 5.5 |
| 22 | 14.0 | 13.0 | 6.0 | 5.0 | 3.5 | 1.5 | 2.5 | 0.5 | 4.0 | 3.0 | 7.5 | 7.0 |
| 23 | 13.0 | 11.0 | 7.0 | 6.0 | 3.0 | 1.5 | 3.0 | 2.0 | 6.0 | 4.0 | 9.0 | 6.5 |
| 24 | 12.5 | 9.5 | 8.0 | 7.0 | 2.5 | 1.0 | 2.0 | 0.5 | 6.5 | 4.5 | 9.5 | 7.5 |
| 25 | 11.0 | 9.5 | 8.0 | 7.5 | 1.0 | 0.5 | 0.5 | 0.0 | 6.5 | 6.0 | 9.0 | 8.0 |
| 26 | 12.0 | 10.5 | 8.0 | 6.5 | 1.0 | 0.5 | 0.0 | 0.0 | 6.0 | 3.5 | 9.0 | 8.0 |
| 27 | 14.0 | 11.5 | 7.0 | 6.5 | 1.0 | 1.0 | 2.0 | 0.0 | 5.0 | 3.5 | 8.0 | 7.0 |
| 28 | 13.0 | 11.0 | 6.5 | 6.0 | 1.0 | 1.0 | 2.5 | 0.5 | 5.0 | 3.5 | 7.0 | 7.0 |
| 29 | 12.0 | 9.5 | 6.0 | 5.5 | 3.0 | 1.0 | 1.5 | 0.5 | -- | -- | 8.5 | 7.0 |
| 30 | 12.5 | 9.5 | 6.0 | 4.5 | 3.0 | 1.0 | 1.5 | 1.0 | -- | -- | 9.5 | 7.5 |
| 31 | 12.0 | 10.5 | -- | -- | 1.0 | 0.0 | 1.5 | 1.0 | -- | -- | 10.0 | 9.0 |
| AVG | 16.4 | 14.2 | 8.5 | 7.2 | 3.9 | 2.7 | 1.7 | 0.5 | 4.2 | 2.8 | 7.0 | 5.7 |

03349000 WHITE RIVER AT NOBLESVILLE, IND.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

| DAY | APR | | MAY | | JUN | | JUL | | AUG | | SEP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 9.5 | 9.0 | 20.5 | 19.0 | -- | -- | 33.0 | 29.5 | 29.5 | 27.0 | 28.0 | 27.0 |
| 2 | 9.5 | 8.0 | 19.0 | 16.5 | -- | -- | 33.5 | 31.5 | 29.0 | 26.0 | 27.0 | 26.0 |
| 3 | 8.0 | 6.0 | 16.5 | 15.0 | -- | -- | 33.0 | 29.0 | 26.5 | 24.5 | 27.0 | 26.0 |
| 4 | 7.0 | 6.5 | 17.5 | 15.5 | -- | -- | 29.0 | 25.0 | 26.5 | 23.0 | 27.5 | 26.5 |
| 5 | 8.0 | 6.5 | 17.5 | 16.0 | -- | -- | 25.0 | 23.0 | 23.5 | 21.5 | 27.0 | 25.5 |
| 6 | 9.0 | 8.0 | 17.0 | 15.0 | -- | -- | 25.5 | 21.0 | 24.5 | 21.0 | 26.0 | 23.5 |
| 7 | 9.5 | 7.0 | 16.5 | 15.0 | -- | -- | 25.5 | 22.0 | 25.5 | 22.0 | 26.0 | 23.5 |
| 8 | 11.5 | 9.0 | 18.5 | 16.0 | -- | -- | 24.5 | 23.5 | 25.5 | 23.0 | 27.0 | 25.0 |
| 9 | 14.0 | 11.0 | 20.0 | 18.0 | -- | -- | 24.5 | 22.5 | 25.0 | 23.0 | 27.5 | 26.5 |
| 10 | 14.5 | 12.0 | 20.5 | 19.5 | -- | -- | 24.0 | 21.5 | 24.5 | 22.0 | 27.0 | 26.5 |
| 11 | 13.5 | 11.5 | 20.5 | 19.5 | -- | -- | 24.0 | 21.0 | 24.5 | 22.0 | 26.5 | 24.0 |
| 12 | 13.5 | 11.5 | 22.0 | 19.0 | -- | -- | 25.5 | 22.0 | 24.5 | 22.5 | 24.5 | 21.5 |
| 13 | 14.5 | 13.0 | 22.0 | 20.5 | -- | -- | 27.5 | 23.5 | 25.5 | 23.0 | 23.0 | 21.5 |
| 14 | 13.5 | 12.0 | 21.0 | 19.5 | -- | -- | 27.5 | 26.0 | 26.5 | 24.0 | 23.0 | 21.0 |
| 15 | 15.0 | 11.5 | 22.0 | 19.5 | -- | -- | 27.5 | 26.0 | 28.0 | 25.5 | 25.5 | 23.0 |
| 16 | 16.0 | 13.0 | 22.0 | 18.0 | -- | -- | 27.0 | 24.5 | 27.5 | 25.5 | 26.0 | 25.5 |
| 17 | 17.0 | 14.0 | 18.0 | 16.5 | -- | -- | 26.5 | 23.5 | 28.0 | 25.5 | 26.5 | 25.5 |
| 18 | 15.5 | 14.0 | 18.0 | 16.5 | -- | -- | 26.5 | 25.5 | 28.0 | 26.5 | 27.0 | 25.5 |
| 19 | 14.0 | 12.0 | 21.0 | 18.0 | -- | -- | 26.0 | 23.5 | 28.0 | 27.0 | 25.5 | 24.5 |
| 20 | 12.0 | 11.5 | 23.0 | 20.5 | -- | -- | 24.5 | 22.0 | 28.5 | 24.0 | 25.5 | 23.5 |
| 21 | 13.0 | 12.0 | 25.0 | 21.5 | -- | -- | 22.5 | 20.5 | 24.0 | 21.5 | 27.0 | 23.0 |
| 22 | 13.5 | 12.0 | 26.5 | 22.5 | -- | -- | 23.0 | 20.0 | 23.0 | 21.5 | 29.5 | 26.5 |
| 23 | 15.0 | 13.5 | 26.0 | 23.5 | -- | -- | 23.0 | 20.5 | 23.5 | 21.0 | 29.0 | 29.0 |
| 24 | 15.0 | 14.0 | 25.0 | 23.0 | -- | -- | 23.5 | 21.0 | 23.5 | 21.0 | 29.0 | 26.0 |
| 25 | 14.5 | 14.0 | 26.0 | 23.0 | -- | -- | 26.0 | 22.0 | 24.5 | 21.0 | 26.0 | 24.5 |
| 26 | 16.0 | 14.5 | 25.5 | 21.5 | -- | -- | 26.0 | 24.5 | 24.5 | 22.0 | 25.5 | 21.0 |
| 27 | 17.0 | 16.0 | 23.0 | 20.0 | -- | -- | 26.0 | 23.5 | 26.0 | 22.5 | 21.0 | 19.0 |
| 28 | 17.0 | 16.0 | 23.0 | 20.5 | -- | -- | 28.0 | 24.0 | 28.0 | 26.0 | 19.0 | 16.0 |
| 29 | 19.0 | 17.0 | 22.0 | 20.5 | 26.5 | 23.0 | 29.5 | 26.5 | 28.0 | 26.5 | 18.5 | 15.0 |
| 30 | 20.0 | 18.5 | 21.5 | 20.5 | 30.5 | 26.0 | 29.5 | 26.0 | 28.0 | 26.5 | 16.5 | 15.0 |
| 31 | -- | -- | 21.0 | 20.5 | -- | -- | 29.5 | 25.5 | 28.0 | 26.0 | -- | -- |
| AVG | 13.5 | 11.8 | 21.2 | 19.0 | -- | -- | 26.6 | 23.8 | 26.1 | 23.6 | 25.4 | 23.5 |

## 03351000 WHITE RIVER NEAR NORA, IND.

LOCATION.--Lat 39°54'35", long 86°06'20", in sec.20, T.17 N., R.4 E., Marion County, temperature recorder at gaging station on downstream side of center pier of bridge on State Highway 100, 2 miles east of Nora, 14 miles upstream from Fall Creek, and at mile 253.4.
DRAINAGE AREA.--1,219 sq mi.
PERIOD OF RECORD.--Water temperatures: June 1954 to May 1960, October 1962 to current year.
EXTREMES, Current year.--Water temperatures: Maximum, 30.0°C Aug. 2; minimum, freezing point on many days during December and January.
EXTREMES, Period of record.--Water temperatures: Maximum, 32.0°C July 14, 1954; minimum, freezing point on many days during winter months.
REMARKS.--Flow regulated by powerplant above station.

### TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
### (CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

| DAY | OCT | | NOV | | DEC | | JAN | | FEB | | MAR | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 16.5 | 16.5 | 9.5 | 9.0 | 5.5 | 5.5 | 0.0 | 0.0 | 0.5 | 0.5 | 3.5 | 3.0 |
| 2 | 16.5 | 16.5 | 9.5 | 9.0 | 5.5 | 5.5 | 0.0 | 0.0 | 1.0 | 0.5 | 3.5 | 3.5 |
| 3 | 17.0 | 16.5 | 9.0 | 9.0 | 5.5 | 5.5 | 0.0 | 0.0 | 1.0 | 1.0 | 4.0 | 3.5 |
| 4 | 17.0 | 16.5 | 9.0 | 8.5 | 5.5 | 5.0 | 0.0 | 0.0 | 1.0 | 0.5 | 5.0 | 4.0 |
| 5 | 17.5 | 17.0 | 8.5 | 8.5 | 5.0 | 5.0 | 0.0 | 0.0 | 0.5 | 0.5 | 5.5 | 4.5 |
| 6 | 17.5 | 17.5 | 8.5 | 8.0 | 5.0 | 5.0 | 0.0 | 0.0 | 0.5 | 0.5 | 5.5 | 4.5 |
| 7 | 17.5 | 17.5 | 8.0 | 8.0 | 5.0 | 4.0 | 0.0 | 0.0 | 0.5 | 0.5 | 4.5 | 4.5 |
| 8 | 17.5 | 17.0 | 8.0 | 7.0 | 4.0 | 4.0 | 0.0 | 0.0 | 1.0 | 0.5 | 4.5 | 4.5 |
| 9 | 17.0 | 16.5 | 7.0 | 7.0 | 4.0 | 4.0 | 0.0 | 0.0 | 1.0 | 1.0 | 4.5 | 4.5 |
| 10 | 16.5 | 16.0 | 7.0 | 7.0 | 4.0 | 4.0 | 0.0 | 0.0 | 1.0 | 1.0 | 4.5 | 4.5 |
| 11 | 16.0 | 16.0 | 7.0 | 6.5 | 4.0 | 4.0 | 0.0 | 0.0 | 1.5 | 1.0 | 4.5 | 4.0 |
| 12 | 16.0 | 16.0 | 7.0 | 6.5 | 4.0 | 4.0 | 0.0 | 0.0 | 1.5 | 1.5 | 4.0 | 3.5 |
| 13 | 16.0 | 16.0 | 7.0 | 6.5 | 4.0 | 3.5 | 0.0 | 0.0 | 1.5 | 1.5 | 3.5 | 3.5 |
| 14 | 16.0 | 15.5 | 6.5 | 6.5 | 3.5 | 3.5 | 0.0 | 0.0 | 1.5 | 1.5 | 3.5 | 3.5 |
| 15 | 15.5 | 14.5 | 6.5 | 6.0 | 3.5 | 3.0 | 0.0 | 0.0 | 1.5 | 1.5 | 3.5 | 3.5 |
| 16 | 14.5 | 14.0 | 6.0 | 5.5 | 3.0 | 3.0 | 0.0 | 0.0 | 1.5 | 1.0 | 3.5 | 2.0 |
| 17 | 14.0 | 13.5 | 5.5 | 5.5 | 3.0 | 2.5 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 2.0 |
| 18 | 13.5 | 12.5 | 5.5 | 5.5 | 2.5 | 2.5 | 0.0 | 0.0 | 1.5 | 1.0 | 2.0 | 2.0 |
| 19 | 12.5 | 12.0 | 6.0 | 5.5 | 2.5 | 2.0 | 0.0 | 0.0 | 1.5 | 1.5 | 2.0 | 2.0 |
| 20 | 12.0 | 12.0 | 6.0 | 5.5 | 2.0 | 1.5 | 0.0 | 0.0 | 1.5 | 1.5 | 2.5 | 2.0 |
| 21 | 12.0 | 12.0 | 5.5 | 4.5 | 1.5 | 1.5 | 0.0 | 0.0 | 1.5 | 1.5 | 3.0 | 2.5 |
| 22 | 12.0 | 12.0 | 4.5 | 4.5 | 1.5 | 1.0 | 0.0 | 0.0 | 1.5 | 1.5 | 3.0 | 3.0 |
| 23 | 12.0 | 11.5 | 4.5 | 4.5 | 1.0 | 0.5 | 0.0 | 0.0 | 1.5 | 1.5 | 3.5 | 3.0 |
| 24 | 11.5 | 10.5 | 5.0 | 4.5 | 1.0 | 0.5 | 0.0 | 0.0 | 1.5 | 1.5 | 4.0 | 3.5 |
| 25 | 10.5 | 10.0 | 5.5 | 5.0 | 0.5 | 0.5 | 0.0 | 0.0 | 2.0 | 1.5 | 4.0 | 4.0 |
| 26 | 10.0 | 10.0 | 5.5 | 5.5 | 0.5 | 0.5 | 0.0 | 0.0 | 3.0 | 2.0 | 4.0 | 3.5 |
| 27 | 10.0 | 10.0 | 5.5 | 5.5 | 0.5 | 0.5 | 0.0 | 0.0 | 3.0 | 3.0 | 3.5 | 3.5 |
| 28 | 10.0 | 9.5 | 6.0 | 5.5 | 0.5 | 0.0 | 0.0 | 0.0 | 3.0 | 3.0 | 3.5 | 3.5 |
| 29 | 9.5 | 9.5 | 6.0 | 5.5 | 0.0 | 0.0 | 0.5 | 0.0 | -- | -- | 3.5 | 3.5 |
| 30 | 9.5 | 9.5 | 5.5 | 5.5 | 0.0 | 0.0 | 0.5 | 0.5 | -- | -- | 5.5 | 3.5 |
| 31 | 9.5 | 9.0 | -- | -- | 0.0 | 0.0 | 0.5 | 0.5 | -- | -- | 7.0 | 5.5 |
| AVG | 13.9 | 13.6 | 6.6 | 6.3 | 2.8 | 2.6 | 0.0 | 0.0 | 1.4 | 1.2 | 3.8 | 3.4 |

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

| DAY | APR | | MAY | | JUN | | JUL | | AUG | | SEP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 8.0 | 7.0 | 18.0 | 17.5 | 20.5 | 20.5 | 27.0 | 26.0 | 29.0 | 29.0 | 25.5 | 24.5 |
| 2 | 8.0 | 8.0 | 18.0 | 18.0 | 21.0 | 20.5 | 28.0 | 27.0 | 30.0 | 29.0 | 24.5 | 24.0 |
| 3 | 8.0 | 8.0 | 18.0 | 17.0 | 21.0 | 20.5 | 28.0 | 25.5 | 29.5 | 29.0 | 24.0 | 24.0 |
| 4 | 8.0 | 8.0 | 17.5 | 17.0 | 20.5 | 19.5 | 25.5 | 25.0 | 29.0 | 28.5 | 24.0 | 23.5 |
| 5 | 8.0 | 8.0 | 17.5 | 17.0 | 19.5 | 19.0 | 25.0 | 24.5 | 28.5 | 27.0 | 24.0 | 24.0 |
| 6 | 8.0 | 8.0 | 17.5 | 17.0 | 19.0 | 19.0 | 24.5 | 24.5 | 27.0 | 26.5 | 24.0 | 24.0 |
| 7 | 8.5 | 8.0 | 17.0 | 16.5 | 20.5 | 19.0 | 24.5 | 24.0 | 26.5 | 25.5 | 24.0 | 24.0 |
| 8 | 10.0 | 8.5 | 17.0 | 17.0 | 21.5 | 20.5 | 24.5 | 24.0 | 26.0 | 25.5 | 24.0 | 24.0 |
| 9 | 11.5 | 10.0 | 19.0 | 17.0 | 22.5 | 21.5 | 24.5 | 24.0 | 25.5 | 25.0 | 24.0 | 24.0 |
| 10 | 12.0 | 11.5 | 19.5 | 18.5 | 23.5 | 22.5 | 24.5 | 24.0 | 25.0 | 24.5 | 24.0 | 24.0 |
| 11 | 12.0 | 12.0 | 20.0 | 19.5 | 24.0 | 23.5 | 24.0 | 24.0 | 25.0 | 24.0 | 24.0 | 23.5 |
| 12 | 12.0 | 12.0 | 20.5 | 20.0 | 24.5 | 24.0 | 24.0 | 24.0 | 24.5 | 24.0 | 23.5 | 22.5 |
| 13 | 12.0 | 12.0 | 21.0 | 20.5 | 25.0 | 24.5 | 24.5 | 24.0 | 24.5 | 23.5 | 22.5 | 22.5 |
| 14 | 12.0 | 12.0 | 21.5 | 21.0 | 25.0 | 25.0 | 25.5 | 24.5 | 24.5 | 24.5 | 23.0 | 22.5 |
| 15 | 12.5 | 12.0 | 21.5 | 20.5 | 25.0 | 24.0 | 25.5 | 25.5 | 25.5 | 24.5 | 22.5 | 22.5 |
| 16 | 13.0 | 12.5 | 20.5 | 19.5 | 24.5 | 24.0 | 25.5 | 25.5 | 25.5 | 25.5 | 23.0 | 22.5 |
| 17 | 14.0 | 13.0 | 19.5 | 18.5 | 25.5 | 24.5 | 25.5 | 25.5 | 26.5 | 25.5 | 23.0 | 22.5 |
| 18 | 14.0 | 14.0 | 18.5 | 18.0 | 26.5 | 25.5 | 25.5 | 25.5 | 26.5 | 26.0 | 22.5 | 22.0 |
| 19 | 14.0 | 13.5 | 18.5 | 17.0 | 26.5 | 26.0 | 25.5 | 25.5 | 26.0 | 26.0 | 22.5 | 22.0 |
| 20 | 13.5 | 12.0 | 19.0 | 18.0 | 26.0 | 24.5 | 25.5 | 25.0 | 26.0 | 26.0 | 22.5 | 22.0 |
| 21 | 12.0 | 12.0 | 20.0 | 19.0 | 24.5 | 23.5 | 25.0 | 24.5 | 26.0 | 24.5 | 22.0 | 21.5 |
| 22 | 12.0 | 12.0 | 21.0 | 20.0 | 23.5 | 22.5 | 24.5 | 24.0 | 24.5 | 24.5 | 23.0 | 21.5 |
| 23 | 12.5 | 12.0 | 21.5 | 21.0 | 23.0 | 22.5 | 24.5 | 24.0 | 24.5 | 24.0 | 23.0 | 22.5 |
| 24 | 13.5 | 12.5 | 22.0 | 21.5 | 23.5 | 23.0 | 25.5 | 24.5 | 24.0 | 23.5 | 23.0 | 23.0 |
| 25 | 14.0 | 13.5 | 22.0 | 21.5 | 24.0 | 23.5 | 26.0 | 25.0 | 23.5 | 23.5 | 23.0 | 22.5 |
| 26 | 14.5 | 14.0 | 21.5 | 21.5 | 24.0 | 24.0 | 26.5 | 26.0 | 23.5 | 23.5 | 22.5 | 21.5 |
| 27 | 16.0 | 14.5 | 21.5 | 20.5 | 24.0 | 23.5 | 27.0 | 26.5 | 24.5 | 23.5 | 21.5 | 20.0 |
| 28 | 16.0 | 16.0 | 21.0 | 20.5 | 24.0 | 23.5 | 27.0 | 27.0 | 24.5 | 24.0 | 20.0 | 19.0 |
| 29 | 16.5 | 16.0 | 21.0 | 20.5 | 24.5 | 24.0 | 28.0 | 27.0 | 24.5 | 24.0 | 19.0 | 18.0 |
| 30 | 17.5 | 16.5 | 21.0 | 20.5 | 26.0 | 24.5 | 29.0 | 28.0 | 24.5 | 24.5 | 18.0 | 18.0 |
| 31 | -- | -- | 20.5 | 20.5 | -- | -- | 29.0 | 28.5 | 25.5 | 24.5 | -- | -- |
| AVG | 12.1 | 11.6 | 19.7 | 19.0 | 23.4 | 22.7 | 25.7 | 25.2 | 25.8 | 25.2 | 22.8 | 22.4 |

## 03354000 WHITE RIVER NEAR CENTERTON, IND.

LOCATION.--Lat 39°30'02", long 86°24'24", in SW¼SE¼ sec.3, T.12 N., R.1 E., Morgan County, at gaging station on right bank, 0.4 mile downstream from bridge on Blue Bluff Road, 1 mile south of Centerton, 1.1 miles downstream from White Lick Creek, and at mile 202.6.
DRAINAGE AREA.--2,444 sq mi.
PERIOD OF RECORD.--Water temperatures: September 1953 to April 1956, October 1966 to September 1967, May to September 1970.
EXTREMES, Current year.--Water temperatures: Maximum, 33.0°C July 3.
EXTREMES, Period of record.--Water temperatures: Maximum, 33.0°C July 3, 1970; minimum, freezing point Feb. 13, 14, 1955.
REMARKS.--No records available for the 1968-69 water years; thermograph record unreliable. Minimum temperature observed during period when thermograph was not operating was 1.5°C Dec. 30, 1966. Flow slightly regulated by Morse and Geist Reservoirs. Sediment samples were taken at highway bridge, 0.4 mile upstream from gaging station.

### TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
### (CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

| DAY | APR | | MAY | | JUN | | JUL | | AUG | | SEP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | -- | -- | 20.0 | 18.5 | 21.5 | 21.0 | 31.0 | 28.5 | 29.5 | 28.0 | 29.0 | 26.5 |
| 2 | -- | -- | 19.0 | 17.5 | 22.5 | 21.5 | 32.0 | 29.5 | 28.5 | 27.0 | 28.5 | 26.0 |
| 3 | -- | -- | 18.0 | 16.5 | 22.0 | 20.0 | 33.0 | 30.0 | 27.0 | 26.0 | 27.0 | 26.0 |
| 4 | -- | -- | 17.0 | 16.5 | 20.0 | 19.0 | 31.0 | 26.0 | 26.5 | 24.5 | 27.0 | 26.0 |
| 5 | -- | -- | 18.0 | 17.0 | 19.5 | 19.0 | 26.0 | 24.0 | 25.5 | 24.0 | 27.5 | 25.0 |
| 6 | -- | -- | 18.0 | 16.5 | 22.0 | 19.5 | 26.5 | 23.0 | 26.0 | 23.5 | 27.0 | 26.0 |
| 7 | -- | -- | 17.0 | 16.5 | 23.0 | 20.5 | 26.5 | 24.5 | 26.5 | 23.5 | 28.5 | 25.5 |
| 8 | -- | -- | 19.5 | 17.0 | 24.0 | 21.5 | 26.5 | 25.0 | 25.5 | 24.0 | 29.0 | 27.0 |
| 9 | -- | -- | 21.0 | 19.5 | 25.5 | 23.0 | 25.5 | 24.0 | 25.5 | 23.5 | 28.5 | 26.0 |
| 10 | -- | -- | 20.5 | 19.5 | 26.0 | 24.0 | 24.5 | 23.5 | 25.0 | 24.0 | 28.0 | 26.0 |
| 11 | -- | -- | 20.0 | 19.0 | 27.0 | 24.5 | 26.5 | 24.0 | 26.0 | 23.0 | 26.0 | 23.5 |
| 12 | -- | -- | 20.5 | 19.0 | 27.0 | 25.0 | 28.5 | 25.5 | 26.5 | 24.5 | 25.0 | 23.0 |
| 13 | -- | -- | 23.0 | 20.0 | 27.5 | 25.5 | 29.0 | 26.0 | 26.5 | 24.5 | 25.5 | 23.5 |
| 14 | -- | -- | 22.5 | 20.5 | 27.5 | 25.5 | 29.0 | 27.0 | 27.5 | 24.5 | 25.5 | 24.5 |
| 15 | -- | -- | 21.5 | 19.5 | 27.0 | 24.5 | 29.0 | 28.0 | 29.0 | 26.0 | 28.0 | 25.0 |
| 16 | -- | -- | 20.0 | 18.5 | 27.0 | 26.0 | 28.5 | 26.0 | 28.5 | 26.5 | 28.0 | 26.0 |
| 17 | -- | -- | 18.5 | 17.0 | 29.0 | 26.0 | 28.0 | 25.5 | 29.0 | 26.5 | 26.5 | 25.0 |
| 18 | -- | -- | 19.0 | 17.0 | 29.5 | 26.5 | 29.0 | 26.0 | 28.5 | 26.0 | 26.5 | 25.5 |
| 19 | -- | -- | 21.0 | 18.5 | 29.0 | 26.0 | 28.5 | 26.5 | 28.5 | 27.0 | 26.0 | 24.5 |
| 20 | -- | -- | 23.0 | 20.5 | 27.0 | 24.0 | 28.0 | 23.5 | 28.5 | 26.0 | 25.5 | 24.0 |
| 21 | -- | -- | 24.0 | 21.5 | 26.5 | 23.5 | 23.5 | 20.5 | 28.5 | 24.5 | 26.0 | 24.0 |
| 22 | -- | -- | 24.5 | 23.0 | 25.0 | 21.5 | 25.0 | 22.0 | 27.0 | 26.0 | 27.0 | 25.5 |
| 23 | -- | -- | 25.0 | 23.5 | 26.5 | 22.5 | 24.5 | 23.0 | 26.5 | 25.5 | 27.0 | 25.5 |
| 24 | -- | -- | 25.5 | 23.0 | 27.0 | 23.5 | 26.0 | 23.0 | 26.0 | 24.5 | 26.5 | 24.5 |
| 25 | -- | -- | 24.5 | 23.0 | 27.0 | 25.5 | 28.0 | 24.5 | 27.0 | 24.0 | 24.5 | 23.5 |
| 26 | -- | -- | 24.0 | 22.5 | 27.0 | 25.0 | 28.0 | 26.5 | 27.5 | 24.5 | 24.0 | 22.0 |
| 27 | -- | -- | 23.5 | 21.0 | 26.5 | 24.0 | 28.5 | 26.5 | 28.5 | 26.0 | 22.0 | 20.5 |
| 28 | -- | -- | 23.5 | 21.0 | 27.0 | 24.0 | 29.0 | 26.5 | 28.5 | 26.0 | 21.5 | 19.5 |
| 29 | -- | -- | 23.0 | 21.5 | 28.0 | 24.5 | 29.0 | 27.0 | 29.0 | 26.5 | 19.5 | 18.0 |
| 30 | -- | -- | 23.0 | 21.5 | 30.0 | 26.0 | 29.0 | 28.0 | 29.5 | 27.0 | 20.5 | 18.5 |
| 31 | -- | -- | 22.5 | 21.0 | -- | -- | 28.0 | 25.5 | 29.5 | 28.0 | -- | -- |
| AVG | -- | -- | 21.2 | 19.5 | 25.8 | 23.4 | 27.9 | 25.4 | 27.4 | 25.3 | 26.0 | 24.2 |

## 03365500 EAST FORK WHITE RIVER AT SEYMOUR, IND.

LOCATION.--Lat 38°58'57", long 85°53'57", in NW¼ sec.7, T.6 N., R.6 E., Jackson County, at gaging station on left bank 1,700 ft downstream from highway bridge, 1 mile north of Seymour, 9.6 miles downstream from Sand Creek, and at mile 219.2.
DRAINAGE AREA.--2,341 sq mi.
PERIOD OF RECORD.--Water temperatures: October 1954 to current year.
Sediment records: July 1966 to current year.
EXTREMES, Current year.--Water temperatures: Maximum, 28.5°C Aug. 1-3; minimum, freezing point on many days during January.
Sediment concentrations: Maximum daily, 1,020 mg/l Apr. 2; minimum daily, 6 mg/l Nov. 16.
Sediment loads: Maximum daily, 60,100 tons Apr. 3; minimum daily, 11 tons Nov. 16.
EXTREMES, Period of record.--Water temperatures: Maximum, 31.0°C July 13, 14, 1966; minimum, freezing point on many days during winter months. Maximum temperature of 32°C was observed on July 19, 1954.
Sediment concentrations: Maximum daily, 1,200 mg/l May 25, June 25, 1968; minimum daily, 4 mg/l Nov. 5, 1966.
Sediment loads: Maximum daily, 179,000 tons May 25, 1968; minimum daily, 3 tons Nov. 5, 1966.
REMARKS.--Regulation at low flow by pumping plant 1,200 ft upstream from recorder. Sediment samples collected at highway bridge, 1,700 ft upstream from gaging station.

### TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
### (CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

| DAY | OCT | | NOV | | DEC | | JAN | | FEB | | MAR | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 17.0 | 16.5 | 10.0 | 10.0 | 4.5 | 4.0 | 1.5 | 1.5 | 1.5 | 1.5 | 5.0 | 4.0 |
| 2 | 16.5 | 16.5 | 10.0 | 10.0 | 4.5 | 4.0 | 1.5 | 1.5 | 2.0 | 1.5 | 8.0 | 5.0 |
| 3 | 17.5 | 16.5 | 10.0 | 10.0 | 4.0 | 4.0 | 1.5 | 1.0 | 2.0 | 1.0 | 8.5 | 8.0 |
| 4 | 18.0 | 17.5 | 10.0 | 9.0 | 4.0 | 4.0 | 1.0 | 0.5 | 1.0 | 0.5 | 9.0 | 8.5 |
| 5 | 18.0 | 18.0 | 9.0 | 8.5 | 4.0 | 3.5 | 1.0 | 0.5 | 0.5 | 0.5 | 9.0 | 9.0 |
| 6 | 18.0 | 18.0 | 9.0 | 8.5 | 4.0 | 3.5 | 0.5 | 0.5 | 0.5 | 0.5 | 9.0 | 8.5 |
| 7 | 18.0 | 18.0 | 9.0 | 9.0 | 4.0 | 4.0 | 0.5 | 0.0 | 1.0 | 0.5 | 8.5 | 8.0 |
| 8 | 18.0 | 17.5 | 9.0 | 8.5 | 4.0 | 4.0 | 0.0 | 0.0 | 1.5 | 1.0 | 8.5 | 8.0 |
| 9 | 17.5 | 17.0 | 8.5 | 8.0 | 4.0 | 4.0 | 0.0 | 0.0 | 2.0 | 1.5 | 9.0 | 8.5 |
| 10 | 17.0 | 16.5 | 8.5 | 8.0 | 4.0 | 4.0 | 0.0 | 0.0 | 2.5 | 2.0 | 9.0 | 8.5 |
| 11 | 17.0 | 17.0 | 9.0 | 8.5 | 4.0 | 4.0 | 0.0 | 0.0 | 3.0 | 2.5 | 8.5 | 7.5 |
| 12 | 18.0 | 17.0 | 9.0 | 9.0 | 4.0 | 4.0 | 0.0 | 0.0 | 3.0 | 3.0 | 8.0 | 6.5 |
| 13 | 18.5 | 18.0 | 9.0 | 8.5 | 4.0 | 3.5 | 0.0 | 0.0 | 2.5 | 2.5 | 6.5 | 6.0 |
| 14 | 18.5 | 17.0 | 8.5 | 6.5 | 3.5 | 3.5 | 0.0 | 0.0 | 2.5 | 2.0 | 6.0 | 6.0 |
| 15 | 17.0 | 15.5 | 6.5 | 5.5 | 3.5 | 3.5 | 0.0 | 0.0 | 2.0 | 2.0 | 6.0 | 6.0 |
| 16 | 15.5 | 14.0 | 5.5 | 5.0 | 3.5 | 2.5 | 0.0 | 0.0 | 2.0 | 2.0 | 6.0 | 5.0 |
| 17 | 14.0 | 13.0 | 5.5 | 5.0 | 3.0 | 2.5 | 0.0 | 0.0 | 2.0 | 2.0 | 6.0 | 5.5 |
| 18 | 13.0 | 12.0 | 7.0 | 5.5 | 3.0 | 3.0 | 0.0 | 0.0 | 3.5 | 2.0 | 5.5 | 5.5 |
| 19 | 12.0 | 11.5 | 7.0 | 6.5 | 3.0 | 3.0 | 0.0 | 0.0 | 4.0 | 3.5 | 6.0 | 5.5 |
| 20 | 13.0 | 12.0 | 6.5 | 5.0 | 3.0 | 2.0 | 0.0 | 0.0 | 4.0 | 3.5 | 7.0 | 6.0 |
| 21 | 13.5 | 13.0 | 5.0 | 4.0 | 2.0 | 1.5 | 0.0 | 0.0 | 3.5 | 3.0 | 8.0 | 7.0 |
| 22 | 13.5 | 12.5 | 4.0 | 3.5 | 1.5 | 1.0 | 0.0 | 0.0 | 3.0 | 3.0 | 8.0 | 8.0 |
| 23 | 12.5 | 11.5 | 4.5 | 4.0 | 1.5 | 1.0 | 0.0 | 0.0 | 3.5 | 3.0 | 8.0 | 8.0 |
| 24 | 11.5 | 10.5 | 5.5 | 4.5 | 1.0 | 0.5 | 0.0 | 0.0 | 4.5 | 3.5 | 8.0 | 8.0 |
| 25 | 10.5 | 10.0 | 5.5 | 5.5 | 0.5 | 0.5 | 0.0 | 0.0 | 5.0 | 4.5 | 8.0 | 8.0 |
| 26 | 11.0 | 10.5 | 6.0 | 5.5 | 1.0 | 0.5 | 0.0 | 0.0 | 5.0 | 4.0 | 8.0 | 7.5 |
| 27 | 11.0 | 11.0 | 6.0 | 5.5 | 1.0 | 1.0 | 0.5 | 0.0 | 4.0 | 4.0 | 7.5 | 7.0 |
| 28 | 11.0 | 10.0 | 5.5 | 5.5 | 1.5 | 1.0 | 1.0 | 0.5 | 4.0 | 4.0 | 7.5 | 7.5 |
| 29 | 10.0 | 9.5 | 5.5 | 5.0 | 1.5 | 1.5 | 1.0 | 1.0 | -- | -- | 7.5 | 7.5 |
| 30 | 10.0 | 9.5 | 5.0 | 4.5 | 2.0 | 1.5 | 1.5 | 0.5 | -- | -- | 7.5 | 7.5 |
| 31 | 10.0 | 10.0 | -- | -- | 2.0 | 1.5 | 1.5 | 1.0 | -- | -- | 8.5 | 7.5 |
| AVG | 14.7 | 14.0 | 7.3 | 6.7 | 2.9 | 2.6 | 0.4 | 0.2 | 2.6 | 2.3 | 7.5 | 7.0 |

03365500 EAST FORK WHITE RIVER AT SEYMOUR, IND.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

| DAY | APR | | MAY | | JUN | | JUL | | AUG | | SEP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 9.5 | 8.5 | 20.0 | 20.0 | 20.5 | 20.0 | 26.5 | 25.5 | 28.5 | 27.5 | 27.0 | 26.0 |
| 2 | 10.0 | 9.5 | 20.0 | 18.5 | 21.0 | 20.5 | 28.0 | 26.5 | 28.5 | 28.5 | 26.0 | 25.5 |
| 3 | 10.0 | 9.0 | 18.5 | 17.5 | 21.0 | 20.5 | 28.0 | 28.0 | 28.5 | 28.0 | 25.5 | 25.0 |
| 4 | 9.5 | 9.0 | 17.5 | 17.0 | 20.5 | 19.5 | 28.0 | 26.0 | 28.0 | 26.5 | 25.0 | 24.5 |
| 5 | 9.0 | 8.5 | 17.5 | 17.0 | 19.5 | 19.0 | 26.0 | 24.0 | 26.5 | 26.0 | 24.5 | 24.0 |
| 6 | 9.5 | 9.0 | 17.5 | 17.0 | 20.0 | 19.0 | 24.0 | 23.0 | 26.0 | 25.0 | 25.0 | 24.5 |
| 7 | 10.0 | 9.0 | 17.0 | 16.5 | 21.0 | 19.5 | 24.0 | 23.5 | 25.5 | 25.0 | 25.5 | 25.0 |
| 8 | 11.0 | 10.0 | 18.0 | 17.0 | 22.0 | 20.5 | 24.0 | 23.5 | 25.5 | 24.5 | 26.5 | 25.5 |
| 9 | 12.5 | 11.0 | 19.5 | 18.0 | 23.0 | 22.0 | 23.5 | 22.5 | 24.5 | 24.0 | 26.0 | 26.0 |
| 10 | 13.0 | 12.5 | 19.0 | 18.5 | 23.5 | 23.0 | 22.5 | 22.0 | 24.0 | 23.5 | 26.0 | 26.0 |
| 11 | 13.5 | 12.5 | 20.0 | 18.5 | 23.5 | 23.0 | 23.5 | 22.0 | 23.5 | 23.0 | 26.0 | 24.0 |
| 12 | 13.5 | 13.0 | 21.0 | 20.0 | 24.5 | 23.5 | 25.0 | 23.5 | 24.0 | 23.0 | 24.0 | 23.0 |
| 13 | 14.5 | 13.5 | 21.0 | 21.0 | 24.5 | 24.0 | 26.0 | 25.0 | 24.5 | 24.0 | 23.5 | 22.5 |
| 14 | 14.5 | 14.0 | 21.5 | 21.0 | 24.5 | 24.0 | 27.0 | 26.0 | 25.5 | 24.5 | 23.5 | 23.5 |
| 15 | 14.5 | 13.5 | 21.5 | 21.0 | 24.5 | 24.0 | 27.0 | 27.0 | 26.5 | 25.5 | 24.5 | 23.5 |
| 16 | 15.0 | 14.5 | 21.0 | 19.5 | 24.5 | 24.5 | 27.0 | 26.5 | 27.0 | 26.5 | 25.5 | 24.5 |
| 17 | 16.0 | -- | 19.5 | 18.0 | 25.0 | 24.0 | 26.5 | 26.0 | 27.0 | 26.5 | 25.5 | 25.5 |
| 18 | 16.0 | 15.5 | 18.5 | 17.0 | 26.0 | 25.0 | 26.0 | 26.0 | 27.0 | 26.5 | 25.5 | 24.5 |
| 19 | 16.0 | 15.5 | 19.5 | 18.0 | 26.0 | 24.5 | 26.0 | 26.0 | 27.0 | 26.5 | 24.5 | 23.5 |
| 20 | 15.5 | 15.0 | 20.5 | 19.0 | 24.5 | 23.0 | 26.0 | 24.0 | 26.5 | 26.0 | 23.5 | 23.5 |
| 21 | 15.5 | 14.5 | 21.5 | 20.0 | 23.0 | 23.0 | 24.0 | 22.5 | 26.0 | 25.0 | 24.5 | 23.5 |
| 22 | 15.5 | 15.5 | 22.0 | 21.0 | 23.0 | 21.5 | 22.5 | 22.0 | 25.5 | 25.5 | 25.5 | 24.5 |
| 23 | 16.0 | 15.5 | 22.5 | 21.5 | 23.0 | 22.0 | 22.5 | 22.5 | 25.5 | 25.0 | 25.5 | 25.5 |
| 24 | 16.0 | 15.5 | 23.0 | 22.5 | 23.5 | 22.5 | 23.5 | 22.5 | 25.0 | 24.5 | 25.5 | 24.5 |
| 25 | 16.0 | 15.0 | 23.0 | 22.5 | 24.0 | 23.5 | 25.0 | 23.5 | 24.5 | 24.0 | 24.5 | 24.0 |
| 26 | 17.0 | 16.0 | 23.0 | 22.0 | 24.5 | 23.5 | 25.5 | 25.0 | 24.5 | 24.0 | 24.0 | 23.0 |
| 27 | 17.0 | 17.0 | 22.5 | 21.5 | 24.5 | 23.0 | 25.5 | 25.0 | 25.0 | 24.5 | 23.0 | 21.0 |
| 28 | 17.0 | 17.0 | 21.5 | 21.0 | 23.5 | 23.0 | 27.0 | 25.5 | 26.0 | 25.0 | 21.0 | 19.5 |
| 29 | 18.0 | 17.0 | 21.5 | 21.5 | 24.0 | 23.0 | 28.0 | 27.0 | 26.0 | 25.5 | 19.5 | 18.5 |
| 30 | 20.0 | 18.0 | 21.5 | 21.0 | 25.5 | 24.0 | 28.0 | 28.0 | 27.0 | 26.0 | 19.0 | 18.0 |
| 31 | -- | -- | 21.0 | 20.5 | -- | -- | 28.0 | 27.0 | 27.0 | 26.5 | -- | -- |
| AVG | 14.0 | 13.2 | 20.3 | 19.5 | 23.2 | 22.4 | 25.6 | 24.7 | 26.0 | 25.3 | 24.5 | 23.7 |

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|---|---|---|---|---|---|---|---|---|---|
| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 651 | 31 | 54 | 691 | 10 | 19 | 1990 | 134 | 720 |
| 2 | 647 | 32 | 56 | 722 | 10 | 19 | 1860 | 156 | 783 |
| 3 | 643 | 30 | 52 | 830 | 10 | 22 | 1710 | 151 | 697 |
| 4 | 639 | 24 | 41 | 884 | 10 | 24 | 1590 | 144 | 618 |
| 5 | 637 | 35 | 60 | 873 | 12 | 28 | 1500 | 148 | 599 |
| 6 | 624 | 45 | 76 | 852 | 20 | 46 | 1400 | 185 | 699 |
| 7 | 617 | 28 | 47 | 839 | 20 | 45 | 1470 | 202 | 802 |
| 8 | 610 | 27 | 44 | 812 | 15 | 33 | 2850 | 212 | 1630 |
| 9 | 609 | 35 | 58 | 783 | 11 | 23 | 3740 | 168 | 1700 |
| 10 | 623 | 27 | 45 | 758 | 11 | 23 | 3480 | 138 | 1300 |
| 11 | 666 | 23 | 41 | 741 | 15 | 30 | 2880 | 142 | 1100 |
| 12 | 719 | 24 | 47 | 728 | 12 | 24 | 2490 | 155 | 1040 |
| 13 | 1040 | 32 | 90 | 716 | 10 | 19 | 2160 | 155 | 904 |
| 14 | 1480 | 37 | 148 | 719 | 9 | 17 | 1930 | 146 | 761 |
| 15 | 1450 | 35 | 137 | 708 | 9 | 17 | 1800 | 165 | 802 |
| 16 | 1370 | 30 | 111 | 692 | 6 | 11 | 1670 | 147 | 663 |
| 17 | 1230 | 23 | 76 | 684 | 9 | 17 | 1540 | 70 | 291 |
| 18 | 1100 | 27 | 80 | 719 | 10 | 19 | 1460 | 66 | 260 |
| 19 | 993 | 23 | 62 | 1970 | 95 | 736 | 1400 | 74 | 280 |
| 20 | 926 | 26 | 65 | 5470 | 327 | 4780 | 1350 | 79 | 288 |
| 21 | 889 | 33 | 79 | 7080 | 225 | 4300 | 1310 | 97 | 343 |
| 22 | 884 | 29 | 69 | 7870 | 163 | 3460 | 1280 | 96 | 332 |
| 23 | 865 | 37 | 86 | 5920 | 155 | 2480 | 1270 | 107 | 367 |
| 24 | 827 | 11 | 25 | 4650 | 166 | 2080 | 1230 | 94 | 312 |
| 25 | 789 | 11 | 23 | 4190 | 160 | 1810 | 1180 | 87 | 277 |
| 26 | 758 | 12 | 25 | 3640 | 143 | 1410 | 1160 | 87 | 272 |
| 27 | 736 | 12 | 24 | 3160 | 161 | 1370 | 1150 | 78 | 242 |
| 28 | 716 | 11 | 21 | 2730 | 173 | 1280 | 1110 | 69 | 207 |
| 29 | 699 | 11 | 21 | 2410 | 207 | 1350 | 1100 | 68 | 202 |
| 30 | 684 | 14 | 26 | 2170 | 157 | 920 | 1140 | 74 | 228 |
| 31 | 675 | 7 | 13 | -- | -- | -- | 1330 | 67 | 241 |
| TOTAL | 25796 | -- | 1802 | 65011 | -- | 26412 | 53530 | -- | 18960 |

03365500 EAST FORK WHITE RIVER AT SEYMOUR, IND.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| | JANUARY | | | FEBRUARY | | | MARCH | | |
|---|---|---|---|---|---|---|---|---|---|
| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 1470 | 67 | 266 | 11700 | 178 | 5620 | 1850 | 77 | 385 |
| 2 | 1430 | 58 | 224 | 9580 | 100 | 2590 | 1860 | 72 | 362 |
| 3 | 1360 | 68 | 250 | 9000 | 84 | 2040 | 3050 | 108 | 889 |
| 4 | 1280 | 54 | 187 | 8500 | 70 | 1610 | 6480 | 256 | 4480 |
| 5 | 1150 | 65 | 202 | 7500 | 62 | 1260 | 9730 | 338 | 8880 |
| 6 | 1000 | 13 | 35 | 6200 | 53 | 887 | 9410 | 138 | 3510 |
| 7 | 950 | 9 | 23 | 5500 | 44 | 653 | 8570 | 67 | 1550 |
| 8 | 910 | 13 | 32 | 4900 | 41 | 542 | 6630 | 65 | 1160 |
| 9 | 900 | 17 | 41 | 4670 | 48 | 605 | 4970 | 57 | 765 |
| 10 | 870 | 21 | 49 | 5220 | 45 | 634 | 4030 | 44 | 479 |
| 11 | 850 | 25 | 57 | 5190 | 38 | 532 | 3390 | 36 | 330 |
| 12 | 840 | 27 | 61 | 4620 | 27 | 337 | 2980 | 17 | 137 |
| 13 | 840 | 31 | 70 | 3980 | 29 | 312 | 2750 | 19 | 141 |
| 14 | 840 | 34 | 77 | 3450 | 22 | 205 | 2580 | 17 | 118 |
| 15 | 840 | 35 | 79 | 3050 | 18 | 148 | 2440 | 10 | 66 |
| 16 | 850 | 38 | 87 | 2790 | 22 | 166 | 2270 | 12 | 74 |
| 17 | 870 | 41 | 96 | 2550 | 26 | 179 | 2150 | 12 | 70 |
| 18 | 900 | 44 | 107 | 2440 | 21 | 138 | 2160 | 11 | 64 |
| 19 | 950 | 47 | 121 | 2770 | 22 | 165 | 2730 | 35 | 274 |
| 20 | 950 | 50 | 128 | 3080 | 32 | 266 | 4270 | 115 | 1330 |
| 21 | 922 | 56 | 139 | 3250 | 36 | 316 | 3760 | 22 | 223 |
| 22 | 890 | 73 | 175 | 2810 | 32 | 243 | 3200 | 20 | 173 |
| 23 | 880 | 88 | 209 | 2550 | 20 | 138 | 3120 | 24 | 202 |
| 24 | 900 | 85 | 207 | 2370 | 22 | 141 | 2890 | 27 | 211 |
| 25 | 950 | 79 | 203 | 2260 | 35 | 214 | 2670 | 34 | 245 |
| 26 | 1500 | 132 | 535 | 2190 | 42 | 248 | 3200 | 44 | 380 |
| 27 | 2500 | 132 | 891 | 2080 | 75 | 421 | 4140 | 47 | 525 |
| 28 | 3000 | 64 | 518 | 1970 | 79 | 420 | 4360 | 41 | 483 |
| 29 | 5440 | 317 | 5930 | -- | -- | -- | 3730 | 40 | 403 |
| 30 | 10100 | 347 | 9460 | -- | -- | -- | 3230 | 41 | 358 |
| 31 | 11300 | 194 | 5920 | -- | -- | -- | 2900 | 35 | 274 |
| TOTAL | 58432 | -- | 26379 | 126170 | -- | 21030 | 121500 | -- | 28541 |

| | APRIL | | | MAY | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 2650 | 35 | 250 | 10300 | 604 | 16800 | 971 | 61 | 160 |
| 2 | 11100 | 1020 | 35900 | 6570 | 293 | 5200 | 972 | 56 | 147 |
| 3 | 22600 | 985 | 60100 | 4490 | 142 | 1720 | 1010 | 53 | 145 |
| 4 | 11400 | 305 | 9390 | 3590 | 58 | 562 | 1120 | 54 | 163 |
| 5 | 7470 | 110 | 2220 | 3060 | 98 | 810 | 1310 | 62 | 219 |
| 6 | 5260 | 103 | 1460 | 2710 | 113 | 827 | 1440 | 91 | 354 |
| 7 | 4130 | 100 | 1120 | 2420 | 114 | 745 | 1500 | 86 | 348 |
| 8 | 3420 | 99 | 914 | 2240 | 111 | 671 | 1360 | 76 | 279 |
| 9 | 2970 | 93 | 746 | 2100 | 111 | 629 | 1220 | 72 | 237 |
| 10 | 2680 | 86 | 622 | 2000 | 88 | 475 | 1110 | 70 | 210 |
| 11 | 2410 | 83 | 540 | 1900 | 85 | 436 | 1030 | 67 | 186 |
| 12 | 2210 | 94 | 561 | 1900 | 72 | 369 | 963 | 66 | 172 |
| 13 | 2090 | 82 | 463 | 1890 | 73 | 373 | 918 | 64 | 159 |
| 14 | 2010 | 78 | 423 | 1970 | 67 | 356 | 882 | 63 | 150 |
| 15 | 1910 | 71 | 366 | 1920 | 77 | 399 | 1080 | 76 | 222 |
| 16 | 1780 | 76 | 365 | 1740 | 78 | 366 | 1060 | 71 | 203 |
| 17 | 1680 | 86 | 390 | 1710 | 75 | 346 | 948 | 62 | 159 |
| 18 | 1600 | 76 | 328 | 1650 | 93 | 414 | 880 | 57 | 135 |
| 19 | 1610 | 84 | 365 | 1550 | 95 | 398 | 819 | 56 | 124 |
| 20 | 2270 | 105 | 644 | 1450 | 89 | 348 | 773 | 56 | 117 |
| 21 | 3110 | 72 | 605 | 1380 | 78 | 291 | 737 | 56 | 111 |
| 22 | 3110 | 81 | 680 | 1320 | 72 | 257 | 706 | 57 | 109 |
| 23 | 2670 | 75 | 541 | 1260 | 70 | 238 | 686 | 57 | 106 |
| 24 | 7870 | 628 | 17100 | 1220 | 85 | 280 | 672 | 56 | 102 |
| 25 | 20300 | 835 | 45800 | 1180 | 84 | 268 | 666 | 54 | 97 |
| 26 | 14400 | 110 | 4280 | 1160 | 67 | 210 | 670 | 53 | 96 |
| 27 | 12100 | 132 | 4310 | 1130 | 68 | 207 | 666 | 52 | 94 |
| 28 | 8660 | 90 | 2100 | 1080 | 77 | 225 | 640 | 50 | 86 |
| 29 | 6260 | 86 | 1450 | 1040 | 84 | 236 | 627 | 49 | 83 |
| 30 | 7380 | 507 | 12200 | 1010 | 80 | 218 | 613 | 46 | 76 |
| 31 | -- | -- | -- | 984 | 69 | 183 | -- | -- | -- |
| TOTAL | 179110 | -- | 206233 | 69924 | -- | 34857 | 28049 | -- | 4849 |

03365500 EAST FORK WHITE RIVER AT SEYMOUR, IND.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| | JULY | | | AUGUST | | | SEPTEMBER | | |
|---|---|---|---|---|---|---|---|---|---|
| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 593 | 40 | 64 | 662 | 34 | 61 | 334 | 26 | 23 |
| 2 | 568 | 34 | 52 | 667 | 34 | 61 | 326 | 27 | 24 |
| 3 | 556 | 29 | 44 | 608 | 34 | 56 | 323 | 29 | 25 |
| 4 | 553 | 27 | 40 | 558 | 34 | 51 | 346 | 41 | 38 |
| 5 | 562 | 26 | 39 | 559 | 34 | 51 | 373 | 40 | 40 |
| 6 | 573 | 25 | 39 | 538 | 33 | 48 | 377 | 35 | 36 |
| 7 | 546 | 23 | 34 | 500 | 31 | 42 | 362 | 32 | 31 |
| 8 | 545 | 24 | 35 | 470 | 31 | 39 | 339 | 31 | 28 |
| 9 | 592 | 32 | 51 | 474 | 39 | 50 | 354 | 30 | 29 |
| 10 | 544 | 31 | 46 | 448 | 53 | 64 | 408 | 29 | 32 |
| 11 | 526 | 31 | 44 | 430 | 61 | 71 | 373 | 28 | 28 |
| 12 | 549 | 32 | 47 | 416 | 58 | 65 | 343 | 28 | 26 |
| 13 | 543 | 32 | 47 | 404 | 56 | 61 | 327 | 28 | 25 |
| 14 | 518 | 32 | 45 | 397 | 54 | 58 | 328 | 27 | 24 |
| 15 | 493 | 32 | 43 | 389 | 54 | 57 | 326 | 26 | 23 |
| 16 | 471 | 33 | 42 | 382 | 53 | 55 | 342 | 25 | 23 |
| 17 | 453 | 33 | 40 | 386 | 53 | 55 | 341 | 24 | 22 |
| 18 | 439 | 34 | 40 | 364 | 52 | 51 | 368 | 23 | 23 |
| 19 | 427 | 34 | 39 | 366 | 50 | 49 | 362 | 22 | 22 |
| 20 | 422 | 35 | 40 | 428 | 48 | 55 | 353 | 24 | 23 |
| 21 | 425 | 35 | 40 | 426 | 46 | 53 | 342 | 28 | 26 |
| 22 | 508 | 42 | 58 | 396 | 44 | 47 | 339 | 33 | 30 |
| 23 | 557 | 51 | 77 | 470 | 41 | 52 | 327 | 37 | 33 |
| 24 | 513 | 27 | 37 | 482 | 39 | 51 | 320 | 40 | 35 |
| 25 | 484 | 17 | 22 | 485 | 37 | 48 | 323 | 43 | 38 |
| 26 | 476 | 27 | 35 | 450 | 36 | 44 | 321 | 43 | 37 |
| 27 | 469 | 44 | 56 | 413 | 36 | 40 | 333 | 43 | 39 |
| 28 | 477 | 45 | 58 | 388 | 31 | 32 | 316 | 42 | 36 |
| 29 | 521 | 42 | 59 | 370 | 25 | 25 | 319 | 41 | 35 |
| 30 | 724 | 37 | 72 | 357 | 23 | 22 | 331 | 34 | 30 |
| 31 | 713 | 34 | 65 | 343 | 23 | 21 | -- | -- | -- |
| TOTAL | 16340 | -- | 1450 | 14026 | -- | 1535 | 10276 | -- | 884 |

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 768164
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS) 372932

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

| | | | | | | PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DATE | TIME | WATER TEMPERATURE (C) | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | .002 | .004 | .008 | .016 | .031 | .062 | .125 | .250 | .500 | 1.00 | 2.00 | METHOD OF ANALYSIS |
| JAN 30, 1970 | 1610 | 1 | 10500 | 427 | 12100 | 33 | 46 | 60 | 70 | 76 | 80 | 86 | 97 | 100 | -- | -- | SRWC |
| APR 2..... | 1600 | 9 | 13200 | 994 | 35400 | 45 | 57 | 68 | 81 | 87 | 96 | 99 | 100 | -- | -- | -- | SRWC |
| APR 24..... | 1530 | 14 | 8630 | 753 | 17500 | 44 | 57 | 68 | 80 | 87 | 95 | 98 | 100 | -- | -- | -- | SRWC |

PARTICLE SIZE OF BED MATERIAL, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHOD OF ANALYSIS: H, HYDROMETER; O, OPTICAL ANALYZER; S, SIEVE; V, VISUAL ACCUMULATION TUBE)

| | | | | | PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DATE | TIME | WATER TEMPERATURE (C) | NUMBER OF SAMPLING POINTS | DISCHARGE (CFS) | .062 | .125 | .250 | .500 | 1.00 | 2.00 | 4.00 | 8.00 | 16.0 | 32.0 | 64.0 | METHOD OF ANALYSIS |
| OCT 16, 1969 | 0830 | 15.0 | 4 | 1400 | 1 | 2 | 3 | 8 | 40 | 70 | 88 | 97 | 100 | -- | -- | S |

## 03372500 SALT CREEK NEAR HARRODSBURG, IND.

LOCATION.--Lat 39°00'16", long 86°30'31", in NW¼ sec.34, T.7 N., R.1 W., Monroe County, temperature recorder at gaging station on right bank, 1,300 ft downstream from Monroe Reservoir dam, 0.9 mile upstream from Clear Creek, 2.2 miles southeast of Harrodsburg, and 25.1 miles upstream from mouth.
DRAINAGE AREA.--432 sq mi.
PERIOD OF RECORD.--Water temperatures: August 1966 to current year.
EXTREMES, Current year.--Water temperatures: Maximum, 25.5°C Aug. 2, 4, 6, 7, 9-11, 21; minimum, 2.0°C Jan. 14-18.
EXTREMES, Period of record.--Water temperatures: Maximum, 26.0°C Aug. 21, 26, 27, 1968, Aug. 1, 3-7, 1969; minimum, 1.0°C Jan. 4, 5, 8-13, 1968. Maximum observed temperature, 31.0°C Aug. 6, 1964.
REMARKS.--Flow regulated by Monroe Reservoir (capacity, 418,700 acre-ft).

### TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
### (CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

| DAY | OCT | | NOV | | DEC | | JAN | | FEB | | MAR | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 20.5 | 20.5 | 14.5 | 14.0 | 8.0 | 8.0 | 2.5 | 2.5 | 3.0 | 2.5 | 3.5 | 3.5 |
| 2 | 21.0 | 20.5 | 14.0 | 14.0 | 8.0 | 7.5 | 3.0 | 2.5 | 3.0 | 2.5 | 3.5 | 3.0 |
| 3 | 21.0 | 21.0 | 14.0 | 13.5 | 7.5 | 7.5 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| 4 | 21.5 | 21.0 | 13.5 | 13.5 | 7.5 | 7.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.5 | 3.0 |
| 5 | 21.5 | 21.0 | 13.5 | 13.5 | 7.0 | 7.0 | 3.0 | 3.0 | 3.0 | 3.0 | 4.0 | 3.5 |
| 6 | 21.0 | 21.0 | 13.5 | 13.0 | 7.0 | 6.5 | 3.0 | 3.0 | 3.0 | 3.0 | 4.0 | 4.0 |
| 7 | 21.5 | 21.0 | 13.5 | 13.0 | 6.5 | 6.5 | 3.0 | 3.0 | 3.0 | 3.0 | 4.0 | 4.0 |
| 8 | 21.0 | 21.0 | 13.5 | 13.0 | 6.5 | 6.5 | 3.0 | 3.0 | 3.0 | 3.0 | 4.0 | 4.0 |
| 9 | 21.0 | 21.0 | 13.0 | 13.0 | 6.5 | 6.5 | 3.0 | 3.0 | 3.0 | 3.0 | 4.5 | 4.0 |
| 10 | 21.0 | 20.5 | 13.0 | 13.0 | 6.5 | 6.0 | 3.0 | 3.0 | 3.0 | 3.0 | 4.5 | 4.5 |
| 11 | 20.5 | 19.5 | 13.0 | 13.0 | 6.0 | 6.0 | 3.0 | 3.0 | 3.0 | 2.5 | 4.5 | 4.5 |
| 12 | 20.5 | 20.0 | 13.0 | 12.0 | 6.0 | 6.0 | 3.0 | 3.0 | 2.5 | 2.5 | 4.5 | 4.5 |
| 13 | 20.5 | 20.0 | 12.0 | 11.5 | 6.0 | 5.5 | 3.0 | 3.0 | 2.5 | 2.5 | 4.5 | 4.5 |
| 14 | 20.0 | 19.5 | 11.5 | 11.0 | 5.5 | 5.5 | 3.0 | 2.0 | 2.5 | 2.5 | 4.5 | 4.5 |
| 15 | 19.5 | 19.0 | 11.0 | 10.5 | 5.5 | 5.5 | 2.5 | 2.0 | 2.5 | 2.5 | 4.5 | 4.5 |
| 16 | 19.0 | 18.5 | 10.5 | 10.5 | 5.5 | 5.5 | 2.5 | 2.0 | 3.0 | 2.5 | 4.5 | 4.0 |
| 17 | 18.5 | 18.5 | 10.5 | 10.5 | 5.5 | 5.5 | 2.0 | 2.0 | 3.0 | 2.5 | 4.0 | 4.0 |
| 18 | 18.5 | 18.0 | 10.5 | 10.5 | 5.5 | 5.5 | 2.5 | 2.0 | 3.0 | 2.5 | 4.5 | 3.5 |
| 19 | 18.5 | 18.0 | 10.5 | 9.0 | 5.5 | 5.0 | 2.5 | 2.5 | 3.0 | 3.0 | 4.5 | 4.5 |
| 20 | 18.0 | 18.0 | 9.0 | 9.0 | 5.0 | 4.5 | 3.0 | 2.5 | 3.5 | 3.0 | 5.0 | 4.5 |
| 21 | 18.0 | 17.5 | 9.0 | 9.0 | 4.5 | 4.0 | 3.0 | 3.0 | 3.5 | 3.5 | 5.0 | 4.5 |
| 22 | 17.5 | 17.0 | 9.0 | 9.0 | 4.0 | 4.0 | 3.0 | 3.0 | 3.5 | 3.5 | 5.0 | 4.5 |
| 23 | 17.0 | 16.5 | 9.0 | 9.0 | 4.0 | 4.0 | 3.0 | 3.0 | 3.5 | 3.5 | 5.0 | 5.0 |
| 24 | 16.5 | 16.0 | 9.0 | 9.0 | 4.0 | 3.5 | 3.0 | 3.0 | 3.5 | 3.5 | 5.0 | 5.0 |
| 25 | 16.0 | 16.0 | 9.0 | 9.0 | 3.5 | 3.5 | 3.0 | 3.0 | 3.5 | 3.5 | 5.0 | 5.0 |
| 26 | 16.0 | 15.5 | 9.0 | 9.0 | 3.5 | 3.0 | 3.0 | 3.0 | 3.5 | 3.5 | 5.0 | 5.0 |
| 27 | 15.5 | 15.5 | 9.0 | 8.5 | 3.0 | 3.0 | 3.0 | 3.0 | 3.5 | 3.5 | 5.5 | 5.0 |
| 28 | 15.5 | 15.0 | 8.5 | 8.0 | 3.0 | 3.0 | 3.0 | 2.5 | 3.5 | 3.5 | 5.5 | 5.5 |
| 29 | 15.0 | 14.5 | 8.0 | 8.0 | 3.0 | 3.0 | 2.5 | 2.5 | -- | -- | 5.5 | 5.5 |
| 30 | 14.5 | 14.5 | 8.0 | 8.0 | 3.0 | 2.5 | 3.0 | 2.5 | -- | -- | 6.0 | 5.5 |
| 31 | 14.5 | 14.5 | -- | -- | 2.5 | 2.5 | 3.0 | 3.0 | -- | -- | 6.0 | 6.0 |
| AVG | 18.7 | 18.3 | 11.1 | 10.9 | 5.3 | 5.1 | 2.8 | 2.7 | 3.0 | 2.9 | 4.5 | 4.3 |

03372500 SALT CREEK NEAR HARRODSBURG, IND.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

| DAY | APR | | MAY | | JUN | | JUL | | AUG | | SEP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 8.0 | 6.0 | 14.5 | 13.5 | 19.5 | 18.5 | 23.0 | 22.0 | 24.5 | 23.5 | 24.5 | 23.5 |
| 2 | 8.0 | 7.5 | 14.0 | 13.5 | 20.0 | 18.5 | 23.5 | 22.0 | 25.5 | 23.5 | 24.0 | 23.5 |
| 3 | 7.5 | 7.0 | 15.5 | 13.5 | 20.5 | 18.5 | 23.5 | 22.5 | 24.5 | 24.0 | 24.0 | 23.5 |
| 4 | 7.5 | 7.0 | 16.0 | 15.5 | 21.0 | 20.5 | 23.0 | 21.0 | 25.5 | 23.5 | 23.5 | 22.5 |
| 5 | 7.5 | 7.0 | 16.0 | 15.5 | 21.0 | 20.5 | 23.5 | 22.0 | 24.5 | 24.5 | 23.5 | 23.5 |
| 6 | 7.0 | 7.0 | 16.0 | 15.5 | 20.5 | 19.0 | 23.5 | 23.0 | 25.5 | 24.5 | 23.5 | 23.5 |
| 7 | 7.5 | 7.0 | 15.5 | 15.5 | 20.5 | 20.5 | 23.5 | 23.0 | 25.5 | 24.5 | 24.0 | 23.5 |
| 8 | 7.5 | 7.0 | 15.5 | 15.0 | 21.5 | 20.5 | 23.5 | 22.0 | 24.5 | 24.5 | 24.0 | 23.5 |
| 9 | 8.0 | 7.0 | 16.0 | 15.0 | 21.5 | 21.5 | 23.0 | 22.0 | 25.5 | 24.5 | 24.5 | 23.5 |
| 10 | 9.0 | 8.0 | 16.5 | 16.0 | 21.5 | 21.5 | 23.0 | 22.5 | 25.5 | 24.5 | 24.5 | 23.5 |
| 11 | 9.0 | 8.5 | 16.5 | 16.5 | 21.5 | 19.5 | 24.0 | 22.5 | 25.5 | 25.0 | 24.0 | 23.5 |
| 12 | 8.5 | 8.5 | 17.0 | 16.5 | 21.5 | 19.5 | 24.0 | 23.5 | 25.0 | 24.5 | 24.0 | 23.5 |
| 13 | 9.5 | 8.5 | 17.5 | 17.0 | 21.5 | 20.5 | 24.0 | 23.5 | 25.0 | 24.5 | 24.0 | 24.0 |
| 14 | 9.5 | 9.5 | 18.0 | 17.5 | 22.0 | 20.5 | 24.0 | 23.0 | 25.0 | 24.5 | 24.0 | 23.5 |
| 15 | 9.5 | 9.5 | 18.5 | 18.0 | 22.5 | 20.0 | 24.0 | 22.0 | 24.5 | 24.5 | 24.0 | 23.5 |
| 16 | 10.5 | 9.5 | 18.5 | 18.0 | 21.5 | 20.0 | 24.5 | 22.0 | 24.5 | 24.0 | 24.0 | 23.5 |
| 17 | 11.0 | 10.5 | 18.5 | 18.0 | 21.0 | 20.0 | 24.5 | 24.0 | 24.5 | 23.5 | 24.0 | 23.5 |
| 18 | 12.5 | 11.0 | 18.5 | 18.0 | 20.5 | 20.0 | 24.0 | 23.5 | 24.5 | 24.0 | 24.0 | 23.5 |
| 19 | 12.5 | 12.0 | 19.0 | 18.5 | 22.0 | 20.0 | 24.0 | 23.0 | 25.0 | 23.5 | 24.0 | 23.5 |
| 20 | 12.0 | 11.5 | 19.5 | 18.5 | 23.0 | 21.5 | 23.5 | 23.0 | 24.0 | 23.5 | 24.0 | 23.5 |
| 21 | 12.0 | 11.5 | 20.5 | 19.5 | 23.0 | 20.0 | 24.5 | 23.5 | 25.5 | 24.0 | 24.0 | 23.5 |
| 22 | 12.0 | 12.0 | 20.5 | 20.5 | 22.0 | 20.5 | 24.5 | 23.5 | 24.5 | 24.5 | 24.0 | 23.5 |
| 23 | 13.0 | 12.0 | 20.5 | 20.5 | 22.0 | 21.5 | 24.5 | 24.0 | 25.0 | 24.0 | 24.0 | 23.5 |
| 24 | 13.0 | 13.0 | 20.5 | 19.5 | 22.0 | 21.0 | 24.5 | 24.0 | 25.0 | 24.0 | 24.0 | 24.0 |
| 25 | 13.0 | 13.0 | 19.5 | 18.0 | 22.0 | 20.5 | 24.0 | 24.0 | 24.5 | 24.0 | 24.0 | 23.5 |
| 26 | 13.5 | 13.0 | 19.5 | 18.0 | 22.0 | 20.5 | 24.0 | 23.5 | 24.5 | 24.0 | 23.5 | 23.5 |
| 27 | 13.5 | 13.0 | 20.5 | 18.0 | 23.5 | 20.5 | 24.0 | 23.5 | 24.0 | 24.0 | 23.5 | 23.0 |
| 28 | 14.0 | 13.0 | 20.5 | 19.5 | 23.0 | 22.0 | 24.0 | 23.5 | 24.0 | 23.5 | 23.0 | 22.5 |
| 29 | 14.5 | 13.5 | 20.5 | 20.0 | 23.0 | 22.0 | 24.0 | 23.0 | 24.0 | 23.5 | 22.5 | 22.0 |
| 30 | 14.5 | 13.5 | 20.0 | 19.0 | 23.0 | 21.5 | 24.0 | 23.5 | 23.5 | 23.5 | 22.0 | 22.0 |
| 31 | -- | -- | 20.0 | 19.0 | -- | -- | 24.0 | 23.0 | 24.0 | 23.0 | -- | -- |
| AVG | 10.5 | 9.9 | 18.0 | 17.3 | 21.6 | 20.3 | 23.8 | 22.9 | 24.7 | 24.0 | 23.8 | 23.3 |

## 03374000 WHITE RIVER AT PETERSBURG, IND.

LOCATION.--Lat 38°30'39", long 87°17'22", in SW¼ sec.15, T.1 N., R.8 W., Pike County, temperature recorder at gaging station on left bank 300 ft downstream from bridge on State Highway 61, 0.4 mile upstream from Prides Creek, 1 mile north of Petersburg, and at mile 47.7.
DRAINAGE AREA.--11,125 sq mi.
PERIOD OF RECORD.--Water temperatures: June 1964 to current year.
EXTREMES, Current year.--Water temperatures: Maximum, 32.0°C Aug. 18-21; minimum, 2.0°C Jan. 8, 19-22, Feb. 5-9.
EXTREMES, Period of record.--Water temperatures: Maximum, 32°C Aug. 18-21, 1970; minimum, freezing point on many days during most winter periods.
REMARKS.--Flow slightly regulated by reservoirs and powerplant above station.

### TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
### (CONTINUOUS ETHYL ALCOHOL-AXTUATED THERMOGRAPH)

| DAY | OCT | | NOV | | DEC | | JAN | | FEB | | MAR | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 20.5 | 20.5 | 12.0 | 11.5 | 5.0 | 5.0 | 4.5 | 4.5 | 3.5 | 3.5 | 6.5 | 6.5 |
| 2 | 21.0 | 20.5 | 11.5 | 11.5 | 5.0 | 5.0 | 4.5 | 4.5 | 3.5 | 3.5 | 8.0 | 6.5 |
| 3 | 21.5 | 21.0 | 11.5 | 11.0 | 5.0 | 5.0 | 4.5 | 4.5 | 3.5 | 3.0 | 8.5 | 8.0 |
| 4 | 21.5 | 21.5 | 11.0 | 10.5 | 5.0 | 5.0 | 4.5 | 4.0 | 3.0 | 2.5 | 8.5 | 8.5 |
| 5 | 21.5 | 21.5 | 10.5 | 10.0 | 5.0 | 5.0 | 4.0 | 4.0 | 2.5 | 2.0 | 8.5 | 8.5 |
| 6 | 21.5 | 21.5 | 10.0 | 10.0 | 5.0 | 5.0 | 4.0 | 4.0 | 2.0 | 2.0 | 8.5 | 8.5 |
| 7 | 21.5 | 21.0 | 10.5 | 10.0 | 5.0 | 5.0 | 4.0 | 2.5 | 2.0 | 2.0 | 8.5 | 8.5 |
| 8 | 21.0 | 20.0 | 10.5 | 10.0 | 5.0 | 5.0 | 3.5 | 2.0 | 2.0 | 2.0 | 8.5 | 8.5 |
| 9 | 20.5 | 19.5 | 10.5 | 10.0 | 5.0 | 5.0 | 5.0 | 3.0 | 3.0 | 2.0 | 8.5 | 8.5 |
| 10 | 20.0 | 20.0 | 10.0 | 10.0 | 5.5 | 5.0 | 6.0 | 4.0 | 3.5 | 3.0 | 9.0 | 8.5 |
| 11 | 20.0 | 19.5 | 10.5 | 10.0 | 5.5 | 5.5 | 6.0 | 6.0 | 3.5 | 3.5 | 9.0 | 8.5 |
| 12 | 19.5 | 19.5 | 10.5 | 10.0 | 5.5 | 5.5 | 6.5 | 5.5 | 3.5 | 3.5 | 8.5 | 8.0 |
| 13 | 20.0 | 19.0 | 10.5 | 10.0 | 5.5 | 5.5 | 6.0 | 5.5 | 3.5 | 3.5 | 8.0 | 7.5 |
| 14 | 19.0 | 18.0 | 10.0 | 8.0 | 5.5 | 5.0 | 6.0 | 5.0 | 3.5 | 3.5 | 7.5 | 7.0 |
| 15 | 18.0 | 17.0 | 8.0 | 7.0 | 5.0 | 5.0 | 6.0 | 6.0 | 3.5 | 3.5 | 7.0 | 6.0 |
| 16 | 17.0 | 16.0 | 7.0 | 6.5 | 5.0 | 5.0 | 6.0 | 4.5 | 4.0 | 3.5 | 7.0 | 6.5 |
| 17 | 16.0 | 14.5 | 7.0 | 6.5 | 5.0 | 4.5 | 4.5 | 4.0 | 4.0 | 4.0 | 7.0 | 6.5 |
| 18 | 14.5 | 13.5 | 8.0 | 7.0 | 4.5 | 4.5 | 4.0 | 3.5 | 4.5 | 4.0 | 6.5 | 6.5 |
| 19 | 13.5 | 13.5 | 8.0 | 7.0 | 4.5 | 4.5 | 3.5 | 2.0 | 5.5 | 4.5 | 6.5 | 6.5 |
| 20 | 13.5 | 13.5 | 7.0 | 6.5 | 4.5 | 4.5 | 2.0 | 2.0 | 5.5 | 5.0 | 6.5 | 6.5 |
| 21 | 14.0 | 13.5 | 6.5 | 6.5 | 4.5 | 4.5 | 2.0 | 2.0 | 5.5 | 4.5 | 6.5 | 6.5 |
| 22 | 14.0 | 13.0 | 6.5 | 6.5 | 5.0 | 4.5 | 4.0 | 2.0 | 5.0 | 4.5 | 6.5 | 6.5 |
| 23 | 13.0 | 12.0 | 6.5 | 6.0 | 4.5 | 4.5 | 4.5 | 4.0 | 5.5 | 4.5 | 7.0 | 6.5 |
| 24 | 12.0 | 11.5 | 6.0 | 6.0 | 4.5 | 4.0 | 4.5 | 4.0 | 5.5 | 5.0 | 8.0 | 7.0 |
| 25 | 12.0 | 11.5 | 6.0 | 5.5 | 4.0 | 4.0 | 5.0 | 4.5 | 5.5 | 5.5 | 8.0 | 7.5 |
| 26 | 12.0 | 11.5 | 5.5 | 5.5 | 4.0 | 4.0 | 4.5 | 4.5 | 5.5 | 5.5 | 8.0 | 7.0 |
| 27 | 12.0 | 11.0 | 5.5 | 5.5 | 4.0 | 3.5 | 4.5 | 4.0 | 6.0 | 5.5 | 7.0 | 7.0 |
| 28 | 11.5 | 11.0 | 5.5 | 5.5 | 4.0 | 3.5 | 4.0 | 3.5 | 6.5 | 6.0 | 7.0 | 7.0 |
| 29 | 11.0 | 10.5 | 5.5 | 5.5 | 4.5 | 4.0 | 3.5 | 3.0 | -- | -- | 7.0 | 7.0 |
| 30 | 11.5 | 11.0 | 5.5 | 5.0 | 4.5 | 4.5 | 3.5 | 2.5 | -- | -- | 7.0 | 7.0 |
| 31 | 11.5 | 11.5 | -- | -- | 4.5 | 4.5 | 3.5 | 3.5 | -- | -- | 8.0 | 7.0 |
| AVG | 16.6 | 16.0 | 8.4 | 8.0 | 4.8 | 4.6 | 4.4 | 3.8 | 4.0 | 3.7 | 7.6 | 7.2 |

03374000 WHITE RIVER AT PETERSBURG, IND.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

| DAY | APR | | MAY | | JUN | | JUL | | AUG | | SEP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 8.0 | 8.0 | 18.0 | 18.0 | 23.5 | 23.5 | 30.0 | 29.0 | 31.0 | 30.0 | 31.0 | 30.5 |
| 2 | 8.5 | 8.0 | 18.5 | 18.0 | 23.5 | 23.5 | 31.0 | 30.0 | 30.5 | 29.5 | 31.0 | 31.0 |
| 3 | 8.5 | 8.5 | 18.5 | 18.5 | 23.5 | 23.5 | 31.0 | 30.5 | 30.5 | 30.5 | 31.0 | 31.0 |
| 4 | 8.5 | 8.5 | 18.5 | 18.5 | 23.5 | 22.5 | 30.5 | 28.5 | 30.5 | 29.5 | 31.0 | 30.0 |
| 5 | 9.0 | 8.5 | 18.5 | 18.5 | 22.5 | 22.0 | 28.5 | 27.0 | 29.5 | 29.0 | 30.0 | 29.0 |
| 6 | 9.0 | 9.0 | 18.5 | 18.0 | 22.0 | 21.5 | 28.0 | 26.0 | 29.0 | 27.5 | 29.5 | 28.5 |
| 7 | 10.0 | 9.0 | 18.0 | 18.0 | 22.0 | 21.5 | 28.5 | 26.5 | 29.0 | 28.5 | 30.5 | 28.5 |
| 8 | 10.5 | 10.0 | 18.0 | 18.0 | 22.0 | 22.0 | 28.5 | 27.0 | 29.0 | 27.5 | 30.5 | 30.5 |
| 9 | 11.0 | 10.5 | 18.5 | 18.0 | 23.5 | 22.0 | 28.5 | 28.0 | 27.0 | 26.0 | 30.5 | 29.5 |
| 10 | 12.0 | 11.0 | 18.5 | 18.5 | 24.5 | 23.5 | 28.5 | 27.0 | 26.0 | 26.0 | 30.5 | 30.5 |
| 11 | 13.5 | 12.0 | 19.5 | 18.5 | 25.0 | 24.5 | 28.5 | 27.5 | 26.5 | 25.5 | 30.5 | 28.5 |
| 12 | 14.0 | 13.5 | 20.5 | 19.5 | 25.5 | 25.0 | 29.5 | 28.0 | 27.5 | 26.5 | 29.0 | 26.5 |
| 13 | 14.5 | 14.0 | 20.5 | 20.5 | 26.0 | 25.5 | 30.5 | 29.5 | 29.0 | 27.0 | 29.0 | 27.5 |
| 14 | 14.5 | 14.5 | 21.0 | 20.5 | 26.0 | 26.0 | 31.0 | 30.5 | 29.5 | 28.5 | 30.0 | 29.0 |
| 15 | 15.0 | 14.0 | 21.0 | 21.0 | 26.0 | 24.5 | 31.0 | 31.0 | 29.5 | 28.5 | 30.5 | 29.5 |
| 16 | 15.5 | 15.0 | 21.0 | 21.0 | 25.0 | 24.5 | 31.0 | 29.5 | 31.0 | 29.0 | 31.0 | 30.5 |
| 17 | 15.5 | 15.5 | 21.0 | 20.0 | 25.5 | 25.0 | 31.0 | 29.5 | 31.5 | 31.0 | 31.0 | 31.0 |
| 18 | 15.5 | 15.5 | 20.0 | 19.5 | 25.5 | 25.5 | 30.5 | 29.0 | 32.0 | 31.0 | 31.0 | 30.5 |
| 19 | 15.5 | 15.5 | 20.0 | 19.5 | 25.5 | 25.5 | 29.5 | 29.0 | 32.0 | 32.0 | 30.5 | 28.5 |
| 20 | 15.5 | 15.5 | 21.0 | 20.0 | 25.5 | 24.5 | 29.0 | 26.5 | 32.0 | 32.0 | 29.5 | 28.5 |
| 21 | 15.5 | 15.5 | 21.5 | 21.0 | 24.5 | 24.0 | 26.5 | 25.0 | 32.0 | 30.5 | 31.0 | 29.5 |
| 22 | 15.5 | 15.5 | 22.0 | 21.5 | 24.0 | 23.5 | 26.5 | 25.5 | 30.5 | 28.5 | 31.0 | 31.0 |
| 23 | 15.5 | 15.5 | 22.5 | 22.0 | 24.5 | 23.5 | 26.5 | 25.0 | 28.5 | 27.0 | 31.5 | 31.0 |
| 24 | 15.5 | 15.5 | 23.5 | 22.5 | 25.5 | 24.5 | 26.0 | 24.5 | 28.5 | 26.5 | 31.5 | 31.0 |
| 25 | 15.5 | 15.5 | 24.0 | 23.5 | 26.0 | 25.5 | 27.5 | 26.0 | 28.5 | 26.5 | 31.0 | 30.0 |
| 26 | 15.5 | 15.0 | 24.0 | 24.0 | 26.5 | 26.0 | 27.5 | 27.5 | 29.0 | 28.0 | 31.0 | 29.0 |
| 27 | 15.5 | 15.0 | 24.0 | 24.0 | 26.5 | 26.0 | 29.5 | 27.5 | 30.0 | 29.0 | 29.0 | 25.5 |
| 28 | 16.5 | 15.5 | 24.5 | 24.0 | 27.0 | 26.0 | 29.5 | 28.5 | 30.0 | 28.5 | 26.5 | 24.5 |
| 29 | 17.5 | 16.5 | 24.5 | 24.5 | 27.0 | 26.5 | 29.0 | 28.5 | 30.5 | 29.0 | 25.5 | 23.5 |
| 30 | 18.0 | 17.5 | 24.5 | 24.5 | 29.0 | 27.0 | 30.5 | 29.0 | 31.0 | 30.0 | 25.0 | 23.5 |
| 31 | -- | -- | 24.5 | 23.5 | -- | -- | 31.0 | 30.5 | 31.0 | 31.0 | -- | -- |
| AVG | 13.4 | 13.1 | 20.9 | 20.5 | 24.8 | 24.2 | 29.1 | 27.9 | 29.7 | 28.6 | 30.0 | 28.9 |

## 03374470 PATOKA RIVER NEAR ENGLISH, IND.

LOCATION.--Lat 38°26'26", long 86°27'21", in SW¼SW¼ sec.7, T.1 S., R.1 E., Orange County, at bridge on State Highway 37, 1 mile upstream from Hogs Defeat Creek, 8.0 miles north of English, and 8.7 miles south of Paoli.
DRAINAGE AREA.--30.8 sq mi.
PERIOD OF RECORD.--Chemical analyses: July 1969 to current year.
REMARKS.--Discharge measurements only to bankfull stage.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DIS-CHARGE (CFS) | SILICA (SIO2) (MG/L) | TOTAL IRON (FE) (UG/L) | IRON (FE) (UG/L) | TOTAL MAN-GANESE (MN) (UG/L) | MAN-GANESE (MN) (UG/L) | CAL-CIUM (CA) (MG/L) | MAG-NE-SIUM (MG) (MG/L) | SODIUM (NA) (MG/L) | SODIUM AD-SORP-TION RATIO | PERCENT SODIUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV. 05... | 1250 | 1.2 | 7.9 | 190 | 50 | 50 | 40 | 65 | 11 | 3.9 | .1 | 4 |
| DEC. 11... | 1030 | 23 | 8.3 | 90 | 30 | 0 | 0 | 56 | 5.1 | 2.6 | .1 | 3 |
| JAN. 22... | 1230 | 11 | 6.8 | 150 | 40 | 20 | 20 | 56 | 5.8 | 3.6 | .1 | 5 |
| MAR. 12... | 1130 | 28 | 10 | 160 | 20 | 50 | 50 | 49 | 6.0 | 2.8 | .1 | 4 |
| MAY 12... | 1215 | 230 | 8.9 | 540 | 500 | 260 | 230 | 32 | 2.7 | 1.8 | .1 | 4 |
| JUNE 22... | 1115 | 13 | 8.2 | 250 | 140 | 70 | 50 | 59 | 5.0 | 2.8 | .1 | 3 |
| JULY 31... | 1300 | 1.5 | 4.9 | 100 | 40 | 70 | 50 | 58 | 6.6 | 3.1 | .1 | 4 |
| SEPT. 10... | 1030 | .55 | 5.6 | -- | -- | -- | -- | 56 | 8.5 | 3.6 | .1 | 4 |

| DATE | PO-TAS-SIUM (K) (MG/L) | BICAR-BONATE (HCO3) (MG/L) | CAR-BONATE (CO3) (MG/L) | SULFATE (SO4) (MG/L) | CHLO-RIDE (CL) (MG/L) | FLUO-RIDE (F) (MG/L) | NITRATE (NO3) (MG/L) | DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) | DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) | DIS-SOLVED SOLIDS (TONS PER DAY) | DIS-SOLVED SOLIDS (TONS PER AC-FT) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV. 05... | 3.5 | 220 | 0 | 26 | 5.0 | .4 | .2 | 234 | 231 | .76 | .32 |
| DEC. 11... | 1.4 | 160 | 0 | 22 | 4.0 | .1 | 2.4 | 206 | 181 | 12.8 | .28 |
| JAN. 22... | 1.4 | 162 | 0 | 31 | 4.0 | .1 | 1.5 | 196 | 190 | 5.82 | .27 |
| MAR. 12... | .9 | 150 | 0 | 21 | 4.0 | .5 | 2.5 | 179 | 171 | 13.5 | .24 |
| MAY 12... | 1.5 | 90 | 0 | 19 | 2.0 | .1 | 2.2 | 126 | 115 | 78.2 | .17 |
| JUNE 22... | .7 | 178 | 0 | 26 | 3.0 | .1 | 3.1 | 205 | 196 | 7.20 | .28 |
| JULY 31... | 1.4 | 176 | 0 | 29 | 4.0 | .2 | 1.0 | 194 | 194 | .79 | .26 |
| SEPT. 10... | 2.7 | 182 | 0 | 28 | 7.0 | .2 | .3 | 208 | 201 | .31 | .28 |

| DATE | HARD-NESS (CA,MG) (MG/L) | NON-CAR-BONATE HARD-NESS (MG/L) | ALKA-LINITY AS CACO3 (MG/L) | SPECI-FIC COND-UCTANCE (MICRO-MHOS) | PH (UNITS) | COLOR (PLAT-INUM-COBALT UNITS) | TEMP-ERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV. 05... | 207 | 27 | 180 | 401 | 7.9 | 7 | 8.5 |
| DEC. 11... | 161 | 30 | 131 | 318 | 7.9 | 10 | 5.0 |
| JAN. 22... | 164 | 30 | 133 | 331 | 7.7 | 7 | .5 |
| MAR. 12... | 147 | 24 | 123 | 298 | 7.9 | 5 | 4.5 |
| MAY 12... | 91 | 17 | 74 | 191 | 7.5 | 5 | 16.0 |
| JUNE 22... | 168 | 22 | 146 | 328 | 8.0 | 5 | 19.0 |
| JULY 31... | 172 | 28 | 144 | 331 | 7.8 | 5 | 24.5 |
| SEPT. 10... | 175 | 26 | 149 | 358 | 7.6 | 10 | 22.5 |

## 04178100 ST. JOSEPH RIVER AT NEWVILLE, IND.

LOCATION.--Lat 41°22'29", long 85°48'41", in SW¼SW¼ sec.28, T.34 N., R.15 E., Dekalb County, at bridge on county road, 0.6 mile downstream from Ohio-Indiana State Line, 0.8 mile upstream from Christoffel ditch, 2.2 miles downstream from gaging station on Ohio State Highway 249, and 2.5 miles northeast of Newville.
DRAINAGE AREA.--615 sq mi.
PERIOD OF RECORD.--Chemical analyses: July 1969 to current year.
REMARKS.--Records of discharge are from St. Joseph River near Newville, Ind (04178000), drainage area, 609 sq mi.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DIS-CHARGE (CFS) | NITRATE (N) (MG/L) | AMMONIA NITRO-GEN (N) (MG/L) | ORGANIC NITRO-GEN (N) (MG/L) | TOTAL PHOS-PHORUS (P) (MG/L) | DIS-SOL-VED-PHOS-PHORUS (P) (MG/L) | DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) | DIS-SOLVED SOLIDS (TONS PER AC-FT) | SUS-PENDED SOLIDS (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | |
| 15... | 1145 | 153 | 5.2 | .22 | .80 | .36 | .16 | 396 | .54 | 52 |
| NOV. | | | | | | | | | | |
| 13... | 1030 | 191 | .30 | .13 | .60 | .65 | .62 | 432 | .59 | 0 |
| DEC. | | | | | | | | | | |
| 11... | 1035 | 202 | 1.9 | .19 | .55 | .13 | .09 | 448 | .61 | 22 |
| JAN. | | | | | | | | | | |
| 16... | 1030 | 86 | .67 | .50 | .28 | .17 | .08 | 394 | .54 | 82 |
| FEB. | | | | | | | | | | |
| 05... | 1200 | 708 | 3.9 | .43 | 1.0 | .43 | .07 | 314 | .43 | 110 |
| MAR. | | | | | | | | | | |
| 03... | 1135 | 237 | 1.5 | .33 | .32 | .13 | .09 | 372 | .51 | 46 |
| APR. | | | | | | | | | | |
| 01... | 1215 | 1160 | 3.4 | .11 | .74 | .09 | .05 | 342 | .47 | 54 |
| 13... | 1030 | 558 | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | |
| 13... | 1110 | 600 | 1.7 | .15 | 1.6 | .41 | .08 | 344 | .47 | 308 |
| JUNE | | | | | | | | | | |
| 10... | 1100 | 146 | 1.3 | .00 | 1.5 | .32 | .13 | 378 | .51 | 128 |
| JULY | | | | | | | | | | |
| 07... | -- | 87 | 3.5 | .05 | 1.0 | .78 | -- | 466 | .63 | 86 |
| SEPT. | | | | | | | | | | |
| 01... | 1100 | 37 | .14 | .00 | .99 | .23 | -- | 396 | .54 | 32 |

| DATE | TOTAL RESI-DUE (MG/L) | SPECI-FIC COND-UCTANCE (MICRO-MHOS) | PH (UNITS) | COLOR (PLAT-INUM-COBALT UNITS) | TEMP-ERATURE (DEG C) | AIR TEMP-ERATURE (DEG C) | DIS-SOLVED OXYGEN (MG/L) | PER-CENT SATUR-ATION | COLI-FORM (COL-ONIES PER 100 ML) |
|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | |
| 15... | 448 | 640 | -- | 22 | 12.0 | -- | 5.7 | 53 | 33000 |
| NOV. | | | | | | | | | |
| 13... | 432 | 670 | 7.9 | 22 | 6.5 | 5.5 | 11.8 | 94 | 1700 |
| DEC. | | | | | | | | | |
| 11... | 470 | 750 | 7.7 | 20 | .5 | 6.0 | 14.4 | 112 | 16000 |
| JAN. | | | | | | | | | |
| 16... | 476 | 700 | 7.6 | 25 | 1.0 | 4.5 | 7.4 | 52 | 5000 |
| FEB. | | | | | | | | | |
| 05... | 424 | 600 | 7.5 | 25 | .5 | .5 | 10.9 | 76 | -- |
| MAR. | | | | | | | | | |
| 03... | 418 | 610 | 7.8 | 20 | .0 | 3.0 | 11.8 | 81 | 3100 |
| APR. | | | | | | | | | |
| 01... | 396 | 420 | 7.5 | 25 | 5.0 | 5.0 | 12.8 | 100 | -- |
| 13... | -- | 520 | 7.6 | -- | 6.5 | 5.0 | 11.9 | 103 | 1800 |
| MAY | | | | | | | | | |
| 13... | 652 | 590 | 8.0 | 30 | 16.0 | 19.0 | 11.0 | 110 | -- |
| JUNE | | | | | | | | | |
| 10... | 506 | 600 | 7.9 | 17 | 21.5 | 25.0 | 7.9 | 89 | 2800 |
| JULY | | | | | | | | | |
| 07... | 552 | 685 | 7.9 | 20 | 26.0 | 30.0 | 6.2 | 76 | 3600 |
| SEPT. | | | | | | | | | |
| 01... | 428 | 640 | 8.1 | 20 | 19.5 | 22.0 | 8.4 | 90 | 700 |

## 04181050 ST. MARYS RIVER NEAR WILSHIRE, OHIO

LOCATION.--Lat 40°45'07", long 84°47'36", in SW¼NE¼ sec.30, T.3 S., R.1 E., First principal meridian, at bridge on New York, Chicago, and St. Louis Railroad at northeast edge of Wilshire, 1 mile upstream from Ohio-Indiana State Line.
DRAINAGE AREA.--435 sq mi.
PERIOD OF RECORD.--Chemical analyses: July 1969 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | NITRATE (N) (MG/L) | AMMONIA NITROGEN (N) (MG/L) | ORGANIC NITROGEN (N) (MG/L) | TOTAL PHOSPHORUS (P) (MG/L) | DISSOLVED PHOSPHORUS (P) (MG/L) | DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) | DISSOLVED SOLIDS (TONS PER AC-FT) | SUSPENDED SOLIDS (MG/L) |
|---|---|---|---|---|---|---|---|---|---|
| OCT. 30... | 1230 | 1.2 | .13 | .34 | .21 | .14 | 550 | .75 | 50 |
| NOV. 24... | 1200 | 9.5 | .56 | .95 | .85 | .72 | 328 | .45 | 48 |
| DEC. 30... | 1230 | 2.0 | .17 | .31 | .22 | .18 | 608 | .83 | 0 |
| JAN. 21... | 1100 | 1.3 | .26 | .69 | .42 | .35 | 574 | .78 | 84 |
| FEB. 19... | 1300 | 6.1 | .33 | .92 | .56 | .21 | 278 | .38 | 202 |
| MAR. 19... | 1200 | 3.2 | .00 | .00 | .00 | .00 | 524 | .71 | 28 |
| APR. 30... | 1045 | 5.0 | .09 | 1.2 | .30 | .30 | 326 | .44 | 147 |
| JUNE 03... | 1300 | 4.9 | .00 | .35 | .31 | .12 | 430 | .58 | 230 |
| 23... | 1030 | .70 | .00 | 1.2 | .25 | .18 | 502 | .68 | 128 |
| AUG. 03... | 1300 | .40 | .04 | 1.0 | .26 | -- | 476 | .65 | 236 |

| DATE | TOTAL RESIDUE (MG/L) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH (UNITS) | COLOR (PLATINUM-COBALT UNITS) | TEMPERATURE (DEG C) | AIR TEMPERATURE (DEG C) | DISSOLVED OXYGEN (MG/L) | PERCENT SATURATION | COLIFORM (COLONIES PER 100 ML) |
|---|---|---|---|---|---|---|---|---|---|
| OCT. 30... | 600 | 900 | 8.0 | 10 | 8.0 | 16.0 | 10.2 | 86 | 13600 |
| NOV. 24... | 376 | 482 | 7.1 | 30 | 2.0 | -- | 9.7 | 70 | 16000 |
| DEC. 30... | 608 | 950 | 7.4 | 10 | .0 | -0.4 | 12.2 | 84 | 7000 |
| JAN. 21... | 658 | 960 | 7.5 | 3 | .0 | -19.9 | 3.8 | 26 | 5000 |
| FEB. 19... | 480 | 480 | 7.9 | 20 | 1.0 | 2.5 | 12.9 | 91 | 4200 |
| MAR. 19... | 552 | 794 | 7.9 | 10 | 4.0 | 8.0 | 13.2 | 100 | 4000 |
| APR. 30... | 473 | 480 | 7.5 | 30 | 20.0 | 24.5 | 6.8 | 74 | 700 |
| JUNE 03... | 660 | 650 | 7.9 | 10 | 19.0 | 19.0 | 9.2 | 98 | 970 |
| 23... | 630 | 750 | 8.1 | 18 | 24.0 | 25.5 | 7.6 | 89 | 1550 |
| AUG. 03... | 712 | 700 | 8.0 | 5 | 25.0 | 33.0 | 7.4 | 88 | 90 |

## 04183500 MAUMEE RIVER AT ANTWERP, OHIO

LOCATION.--Lat 41°11'56", long 84°44'40", in sec.22, T.3 N., R.1 E., first principal meridian, Paulding County Ohio, at gaging station on left bank 425 ft downstream from bridge on State Highway 49, 1 mile north of Antwerp, 7 miles downstream from Indiana State line, and 10 miles upstream from Marie DeLarme Creek.
DRAINAGE AREA.--2,128 sq mi.
PERIOD OF RECORD.--Chemical analyses: October 1965 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DIS-CHARGE (CFS) | NITRATE (N) (MG/L) | AMMONIA NITRO-GEN (N) (MG/L) | ORGANIC NITRO-GEN (N) (MG/L) | TOTAL PHOS-PHORUS (P) (MG/L) | DIS-SOL-VED-PHOS-PHORUS (P) (MG/L) | TOTAL CHRO-MIUM (CR) (UG/L) | NICKEL (NI) (UG/L) | COPPER (CU) (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | |
| 02... | 1230 | 350 | 7.5 | .18 | 1.1 | 1.2 | -- | 0 | 0 | 20 |
| 15... | 1330 | 2030 | 6.3 | .18 | 1.6 | .62 | -- | -- | -- | -- |
| 30... | 1130 | 265 | 3.9 | .39 | .95 | 1.2 | -- | -- | -- | -- |
| NOV. | | | | | | | | | | |
| 13... | 1445 | 500 | 2.9 | .10 | .71 | .78 | -- | -- | -- | -- |
| 24... | 1430 | 5400 | 9.3 | .03 | .91 | .52 | -- | -- | -- | -- |
| DEC. | | | | | | | | | | |
| 03... | 1235 | 1095 | -- | -- | -- | -- | -- | -- | -- | -- |
| 11... | 1300 | 1015 | 4.4 | .54 | .69 | .64 | -- | 30 | 20 | 10 |
| 30... | 1430 | 488 | 2.9 | .46 | .62 | 1.1 | -- | 10 | 40 | 20 |
| JAN. | | | | | | | | | | |
| 16... | 1410 | 464 | 2.4 | 1.2 | .98 | 1.7 | -- | -- | -- | -- |
| 21... | 1300 | 472 | 2.2 | 1.5 | .65 | 2.3 | -- | -- | -- | -- |
| FEB. | | | | | | | | | | |
| 05... | 1343 | 7620 | 6.3 | .61 | 1.3 | .28 | .20 | -- | -- | -- |
| 19... | 1130 | 1620 | 3.6 | .99 | .71 | .54 | -- | -- | -- | -- |
| MAR. | | | | | | | | | | |
| 03... | 1300 | 1055 | 3.2 | .90 | .40 | .46 | -- | -- | -- | -- |
| 19... | 1000 | 810 | 2.9 | .93 | .00 | .47 | -- | -- | -- | -- |
| APR. | | | | | | | | | | |
| 01... | 1500 | 3030 | 6.5 | .31 | .81 | .29 | -- | 0 | 10 | 10 |
| 13... | 1300 | 1360 | .80 | .48 | .27 | .59 | -- | -- | -- | -- |
| 30... | 1245 | 8270 | 5.6 | .17 | 18 | .92 | -- | -- | -- | -- |
| MAY | | | | | | | | | | |
| 13... | 1315 | 1975 | 4.6 | .26 | 1.2 | .81 | -- | -- | -- | -- |
| JUNE | | | | | | | | | | |
| 03... | 1100 | 860 | 4.5 | .00 | .60 | 1.4 | -- | -- | -- | -- |
| 17... | 1215 | 1120 | 9.7 | .21 | 1.2 | .99 | -- | 20 | 30 | 20 |
| 23... | 0930 | 367 | 4.6 | .23 | .78 | .73 | -- | -- | -- | -- |
| JULY | | | | | | | | | | |
| 07... | 1145 | 243 | 3.0 | .04 | .40 | .20 | -- | -- | -- | -- |
| 22... | 1100 | 240 | 6.2 | .35 | .53 | .63 | -- | -- | -- | -- |
| AUG. | | | | | | | | | | |
| 03... | 1445 | 795 | 2.4 | .21 | .58 | .48 | -- | -- | -- | -- |
| 19... | 1500 | 152 | 1.6 | .07 | 3.1 | 1.2 | -- | -- | -- | -- |
| SEPT. | | | | | | | | | | |
| 01... | 1230 | 130 | 1.1 | .05 | 2.5 | 1.3 | -- | -- | -- | -- |
| 16... | 1115 | 283 | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | 1045 | 396 | 2.4 | .08 | .90 | 1.3 | -- | 0 | 60 | 0 |
| 30... | 1200 | 327 | 2.8 | .17 | .88 | .60 | -- | -- | -- | -- |

| DATE | TIME | DIS-SOLVED MAN-GANESE (MN) (UG/L) | SODIUM (NA) (MG/L) | BICAR-BONATE (HCO3) (MG/L) | CAR-BONATE (CO3) (MG/L) | SULFATE (SO4) (MG/L) | CHLO-RIDE (CL) (MG/L) | DIS-SOLVED FLUO-RIDE (F) (MG/L) |
|---|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | | |
| 03... | 1235 | -- | -- | 242 | 0 | 110 | 28 | -- |
| SEPT. | | | | | | | | |
| 16... | 1115 | -- | -- | 231 | 0 | 136 | 58 | .9 |
| 17... | 1045 | 90 | 41 | -- | -- | -- | -- | 1.9 |

04183500 - MAUMEE RIVER AT ANTWERP, OHIO.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | LEAD (PB) (UG/L) | ZINC (ZN) (UG/L) | ARSENIC (AS) (UG/L) | CADMIUM (CD) (UG/L) | DISSOLVED MERCURY (HG) (UG/L) | DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) | DISSOLVED SOLIDS (TONS PER DAY) | DISSOLVED SOLIDS (TONS PER AC-FT) | SUSPENDED SOLIDS (MG/L) | TOTAL RESIDUE (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | |
| 02... | 10 | 60 | 10 | 20 | -- | 390 | 369 | .53 | 104 | 494 |
| 15... | -- | -- | -- | -- | -- | 322 | 1770 | .44 | 182 | 504 |
| 30... | -- | -- | -- | -- | -- | 506 | 362 | .69 | 28 | 534 |
| NOV. | | | | | | | | | | |
| 13... | -- | -- | -- | -- | -- | 492 | 664 | .67 | 38 | 530 |
| 24... | -- | -- | -- | -- | -- | 372 | 5420 | .51 | 150 | 522 |
| DEC. | | | | | | | | | | |
| 03... | -- | -- | -- | -- | -- | 458 | 1350 | .62 | -- | -- |
| 11... | 0 | 0 | 10 | 0 | -- | 512 | 1400 | .70 | 60 | 572 |
| 30... | 10 | 20 | 0 | 0 | -- | 564 | 743 | .77 | 2 | 566 |
| JAN. | | | | | | | | | | |
| 16... | -- | -- | -- | -- | -- | 584 | 732 | .79 | 134 | 718 |
| 21... | -- | -- | -- | -- | -- | 690 | 879 | .94 | 88 | 778 |
| FEB. | | | | | | | | | | |
| 05... | -- | -- | -- | -- | -- | 232 | 4770 | .32 | 146 | 378 |
| 19... | -- | -- | -- | -- | -- | 396 | 1730 | .54 | 84 | 480 |
| MAR. | | | | | | | | | | |
| 03... | -- | -- | -- | -- | -- | 398 | 1130 | .54 | 40 | 438 |
| 19... | -- | -- | -- | -- | -- | 436 | 954 | .59 | 32 | 468 |
| APR. | | | | | | | | | | |
| 01... | 0 | 20 | 0 | 10 | -- | 366 | 2990 | .50 | 100 | 466 |
| 13... | -- | -- | -- | -- | -- | 380 | 1400 | .52 | 118 | 498 |
| 30... | -- | -- | -- | -- | -- | 264 | 5900 | .36 | 996 | 1260 |
| MAY | | | | | | | | | | |
| 13... | -- | -- | -- | -- | -- | 374 | 1990 | .51 | 480 | 854 |
| JUNE | | | | | | | | | | |
| 03... | -- | -- | -- | -- | -- | 386 | 896 | .52 | 82 | 468 |
| 17... | 30 | 50 | 0 | 10 | 6.0 | 468 | 1420 | .64 | 94 | 562 |
| 23... | -- | -- | -- | -- | -- | 438 | 434 | .60 | 70 | 508 |
| JULY | | | | | | | | | | |
| 07... | -- | -- | -- | -- | -- | 370 | 243 | .50 | 64 | 434 |
| 22... | -- | -- | -- | -- | -- | 378 | 245 | .51 | 52 | 430 |
| AUG. | | | | | | | | | | |
| 03... | -- | -- | -- | -- | -- | 364 | 781 | .50 | 176 | 540 |
| 18... | -- | -- | -- | -- | .1 | 476 | 195 | .65 | 38 | 514 |
| SEPT. | | | | | | | | | | |
| 01... | -- | -- | -- | -- | -- | 514 | 180 | .70 | 58 | 572 |
| 16... | -- | -- | -- | -- | -- | 508 | 388 | .69 | -- | -- |
| 17... | 0 | 90 | 10 | 20 | -- | 444 | 475 | .60 | 76 | 520 |
| 30... | -- | -- | -- | -- | -- | 404 | 357 | .55 | 64 | 468 |

| DATE | TIME | DISSOLVED MANGANESE (MN) (UG/L) | SODIUM (NA) (MG/L) | BICARBONATE (HCO3) (MG/L) | CARBONATE (CO3) (MG/L) | SULFATE (SO4) (MG/L) | CHLORIDE (CL) (MG/L) | FLUORIDE (F) (MG/L) | HARDNESS (CA,MG) (MG/L) | NONCARBONATE HARDNESS (MG/L) | ALKALINITY AS CACO3 (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | |
| 02... | 1230 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 15... | 1330 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 30... | 1138 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV. | | | | | | | | | | | |
| 13... | 1445 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | 1430 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DEC. | | | | | | | | | | | |
| 03... | 1235 | -- | -- | 242 | 0 | 110 | 28 | -- | 339 | 140 | 198 |
| 11... | 1300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 30... | 1430 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN. | | | | | | | | | | | |
| 16... | 1410 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | 1300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB. | | | | | | | | | | | |
| 05... | 1343 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 19... | 1130 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR. | | | | | | | | | | | |
| 03... | 1300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 19... | 1000 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR. | | | | | | | | | | | |
| 01... | 1500 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 13... | 1300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 30... | 1245 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | |
| 13... | 1315 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUNE | | | | | | | | | | | |
| 03... | 1100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | 1215 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | 0930 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JULY | | | | | | | | | | | |
| 07... | 1145 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | 1100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG. | | | | | | | | | | | |
| 03... | 1445 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 18... | 1500 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEPT. | | | | | | | | | | | |
| 01... | 1230 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | 1115 | -- | -- | 231 | 0 | 136 | 58 | .9 | 295 | 105 | 189 |
| 17... | 1045 | 90 | 41 | -- | -- | -- | -- | 1.9 | -- | -- | -- |
| 30... | 1200 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

04183500 - MAUMEE RIVER AT ANTWERP, OHIO.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | SELENIUM (SE) (UG/L) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH (UNITS) | COLOR (PLATINUM-COBALT UNITS) | TEMPERATURE (DEG C) | AIR TEMPERATURE (DEG C) | PHENOLS (UG/L) | DISSOLVED OXYGEN (MG/L) | PERCENT SATURATION | COLIFORM (COLONIES PER 100 ML) | FECAL COLIFORM (COL. PER 100 ML) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | |
| 02... | -- | 625 | -- | 28 | 18.0 | 20.0 | 0 | 6.8 | 72 | -- | -- |
| 15... | -- | 480 | -- | 40 | 14.5 | -- | 0 | 4.0 | 38 | 110000 | -- |
| 30... | -- | 800 | 7.6 | 15 | 8.0 | 11.0 | -- | 11.7 | 98 | -- | -- |
| NOV. | | | | | | | | | | | |
| 13... | -- | 690 | 8.0 | 17 | 7.0 | 7.0 | 0 | 13.0 | 106 | 2600 | -- |
| 24... | -- | 525 | 7.5 | 22 | 3.5 | -- | -- | 10.5 | 79 | -- | -- |
| DEC. | | | | | | | | | | | |
| 03... | -- | 692 | 7.5 | -- | 2.5 | -- | -- | -- | -- | -- | -- |
| 11... | -- | 800 | 7.8 | 20 | 2.5 | 3.0 | 1 | 14.4 | 106 | 22000 | -- |
| 30... | -- | 869 | 8.1 | 10 | .5 | 3.0 | -- | 13.4 | 93 | -- | -- |
| JAN. | | | | | | | | | | | |
| 16... | -- | 1050 | 7.5 | 60 | .0 | 5.0 | 2 | 10.3 | 70 | 2000 | -- |
| 21... | -- | 1220 | 7.7 | 22 | .0 | -14.9 | -- | 12.3 | 84 | -- | -- |
| FEB. | | | | | | | | | | | |
| 05... | -- | 403 | 8.0 | 30 | 3.0 | 4.0 | 0 | 12.3 | 91 | -- | -- |
| 19... | -- | 725 | 7.8 | 15 | 4.0 | 4.5 | -- | 12.5 | 95 | -- | -- |
| MAR. | | | | | | | | | | | |
| 03... | -- | 650 | 8.0 | 15 | 3.0 | -- | -- | 12.2 | 90 | 2400 | -- |
| 19... | -- | 690 | 7.9 | 17 | 3.0 | 4.0 | -- | 13.0 | 96 | -- | -- |
| APR. | | | | | | | | | | | |
| 01... | -- | 500 | -- | 20 | 6.0 | 5.5 | -- | 12.9 | 103 | 1000 | -- |
| 13... | -- | 550 | 8.1 | 20 | 8.0 | 5.5 | -- | 11.8 | 99 | 3300 | 880 |
| 30... | -- | 350 | 7.4 | 30 | 18.5 | 26.5 | -- | 6.2 | 65 | -- | -- |
| MAY | | | | | | | | | | | |
| 13... | -- | 590 | 8.1 | 25 | 16.5 | 22.5 | 8 | 10.1 | 103 | -- | -- |
| JUNE | | | | | | | | | | | |
| 03... | -- | 610 | 7.6 | 20 | 20.0 | 19.0 | -- | 6.6 | 72 | -- | -- |
| 10... | -- | 670 | 7.8 | 20 | 26.0 | 31.5 | 0 | 6.2 | 76 | 54000 | -- |
| 23... | -- | 700 | -- | 20 | 21.0 | 19.5 | -- | 6.2 | 69 | -- | -- |
| JULY | | | | | | | | | | | |
| 07... | -- | 577 | 8.0 | 25 | 24.0 | 28.0 | 7 | 9.2 | 108 | 1500 | -- |
| 22... | -- | 540 | 7.7 | 20 | 21.5 | 28.5 | -- | -- | -- | -- | -- |
| AUG. | | | | | | | | | | | |
| 03... | -- | 600 | 8.1 | 15 | 26.5 | 26.5 | 2 | 4.8 | 58 | 85 | -- |
| 18... | -- | 680 | 8.9 | 25 | 27.0 | 32.0 | -- | 8.2 | 101 | -- | -- |
| SEPT. | | | | | | | | | | | |
| 01... | -- | 810 | 8.5 | 13 | 24.5 | 22.5 | 9 | 11.6 | 138 | 340 | -- |
| 16... | -- | 819 | 7.2 | -- | 21.0 | -- | -- | -- | -- | -- | -- |
| 17... | 0 | 700 | 7.6 | 13 | 20.0 | -- | 4 | 10.8 | 106 | 1850 | -- |
| 30... | -- | 645 | 7.8 | 15 | 15.5 | 17.5 | -- | 7.4 | 73 | -- | -- |

| DATE | HARDNESS (CA,MG) (MG/L) | NONCARBONATE HARDNESS (MG/L) | ALKALINITY AS CACO3 (MG/L) | DISSOLVED SELENIUM (SE) (UG/L) | DISSOLVED BARIUM (BA) (UG/L) | CYANIDE (CN) (MG/L) | DISSOLVED SILVER (AG) (UG/L) |
|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | |
| 03... | 339 | 140 | 198 | -- | -- | -- | -- |
| SEPT. | | | | | | | |
| 16... | 295 | 105 | 189 | -- | -- | -- | -- |
| 17... | -- | -- | -- | 0 | 0 | .01 | 0 |

Water-quality partial-record stations in Indiana are regular streamflow stations where sediment data are collected systematically over a period of years for use in hydrologic analyses. Measurements of sediment discharge when correlated with the simultaneous sediment discharges of a continuous sediment station will give a picture of the potentiality of the stream. At numerous times during the water year, adequate samples are collected for determinations of particle size of the suspended sediment and of the bed material.

## OHIO RIVER BASIN

### 03275000 WHITEWATER RIVER NEAR ALPINE, IND (Lat 39°34'23", long 85°09'27")
PERIOD OF RECORD.--1968-70.

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| OCT 14, 1969 | 1150 | 255 | 14 | 9.6 | APR 22..... | 1200 | 923 | 53 | 142 |
| NOV 19..... | 1800 | 5170 | 813 | 11300 | APR 24..... | 1345 | 7230 | 1140 | 22300 |
| DEC 23..... | 1415 | 300 | 89 | 72 | JUL 29..... | 1320 | 175 | 63 | 30 |
| JAN 30, 1970 | 1215 | 3000 | 286 | 2320 | SEP 3..... | 1325 | 109 | 18 | 5.3 |
| MAR 11..... | 1530 | 680 | 94 | 173 | | | | | |

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

| DATE | TIME | WATER TEMPERATURE (°C) | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | PARTICLE SIZE: PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002 | .004 | .008 | .016 | .031 | .062 | .125 | .250 | .500 | 1.00 | 2.00 | METHOD OF ANALYSIS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JAN 30, 1970 | 1215 | 4 | 3000 | 286 | 2320 | 31 | 42 | 53 | 65 | 76 | 82 | 87 | 91 | 95 | 100 | -- | SNWC |
| APR 24..... | 1345 | 15 | 7230 | 1140 | 22300 | 29 | 38 | 50 | 64 | 78 | 86 | 93 | 98 | 100 | -- | -- | SNWC |

PARTICLE SIZE OF BED MATERIAL, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHOD OF ANALYSIS: H, HYDROMETER; O, OPTICAL ANALYZER; S, SIEVE; V, VISUAL ACCUMULATION TUBE)

| DATE | TIME | WATER TEMPERATURE (°C) | NUMBER OF SAMPLING POINTS | DISCHARGE (CFS) | PARTICLE SIZE: PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .062 | .125 | .250 | .500 | 1.00 | 2.00 | 4.00 | 8.00 | 16.0 | 32.0 | 64.0 | METHOD OF ANALYSIS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 14, 1969 | 1400 | | 4 | 904 | -- | 1 | 7 | 26 | 40 | 49 | 58 | 66 | 79 | 87 | 100 | S |

OHIO RIVER BASIN--Continued.

03275600 EAST FORK WHITEWATER RIVER AT ABINGTON, IND (Lat 39°43'57", long 84°57'35")

PERIOD OF RECORD.--1967-70.

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| OCT 13, 1969 | 1200 | 56 | 8 | 1.2 | APR 20..... | 1445 | 886 | 162 | 460 |
| NOV 18..... | 1015 | 48 | 4 | .73 | AUG 5..... | 1415 | 68 | 15 | 1.9 |
| JAN 29, 1970 | 1530 | 4120 | 530 | 4460 | SEP 4..... | 1140 | 64 | 44 | 5.8 |
| MAR 12..... | 1215 | 170 | 12 | 5.5 | | | | | |

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHODS OF ANALYSIS: A, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

| DATE | TIME | WATER TEMPERATURE (°C) | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | PARTICLE SIZE: PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002 | .004 | .008 | .016 | .031 | .062 | .125 | .250 | .500 | 1.00 | 2.00 | METHOD OF ANALYSIS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JAN 29, 1970 | 1530 | 3 | 3120 | 530 | 4460 | 27 | 38 | 49 | 59 | 69 | 78 | 86 | 100 | -- | -- | -- | SNWP |

PARTICLE SIZE OF BED MATERIAL, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHOD OF ANALYSIS: H, HYDROMETER; O, OPTICAL ANALYZER; S, SIEVE; V, VISUAL ACCUMULATION TUBE)

| DATE | TIME | WATER TEMPERATURE (°C) | NUMBER OF SAMPLING POINTS | DISCHARGE (CFS) | PARTICLE SIZE: PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .062 | .125 | .250 | .500 | 1.00 | 2.00 | 4.00 | 8.00 | 16.0 | 32.0 | 64.0 | METHOD OF ANALYSIS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 14, 1969 | 1500 | | 1 | 45 | - | 1 | 3 | 7 | 8 | 15 | 42 | 68 | 85 | 91 | 100 | S |

03276700 SOUTH HOGAN CREEK NEAR DILLSBORO, IND (Lat 39°01'47", long 85°02'17")

PERIOD OF RECORD.--1969-70.

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| DEC 24, 1969 | 1630 | 4.4 | 111 | 1.3 | APR 15..... | 1345 | 11 | 8 | .24 |
| JAN 28, 1970 | 1240 | 25 | 18 | 1.2 | APR 30..... | 1350 | 415 | 282 | 282 |
| MAR 4..... | 1130 | 73 | 40 | 7.9 | JUL 31..... | 1105 | .24 | 45 | .02 |
| MAY 27..... | 1245 | 87 | 45 | 8.2 | AUG 28..... | 1120 | 1.2 | 48 | .12 |

03303000 BLUE RIVER NEAR WHITE CLOUD, IND (Lat 38°14'04", long 86°13'38")

PERIOD OF RECORD.--1968-70.

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| OCT 14, 1969 | 0950 | 47 | 48 | 3.4 | MAY 12..... | 1045 | 712 | 42 | 81 |
| [illegible] | 1440 | 458 | 151 | 267 | JUL 22..... | 1200 | 60 | 34 | 4.6 |
| [illegible] | 0910 | 196 | 82 | 43 | AUG 25..... | 1400 | 402 | 170 | 185 |
| [illegible] | 1010 | 566 | 86 | 124 | SEP 29..... | 0950 | 104 | 40 | 5.6 |
| MAR 31..... | 0950 | 1250 | 28 | 99 | | | | | |

PARTICLE SIZE OF BED MATERIAL, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHODS OF ANALYSIS: H, HYDROMETER; O, OPTICAL ANALYZER; S, SIEVE; V, VISUAL ACCUMULATION TUBE)

| DATE | TIME | WATER TEMPERATURE (°C) | NUMBER OF SAMPLING POINTS | DISCHARGE (CFS) | PARTICLE SIZE: PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .062 | .125 | .250 | .500 | 1.00 | 2.00 | 4.00 | 8.00 | 16.0 | 32.0 | 64.0 | METHOD OF ANALYSIS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [illegible] | 1040 | | 2 | 51.7 | - | - | 1 | 2 | 4 | 8 | 21 | 53 | 4 | 100 | -- | |

**03303300 MIDDLE FORK ANDERSON RIVER AT BRISTOW, IND. (Lat 38°08'19", long 86°43'16")**
**PERIOD OF RECORD.--1970.**

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| OCT 30, 1969 | 1415 | .32 | 6 | .01 | APR 29..... | 0900 | 462 | 92 | 115 |
| JAN 22, 1970 | 1415 | 18 | 4 | .19 | AUG 4..... | 1230 | 1.7 | 12 | .06 |
| MAR 17..... | 0915 | 43 | 19 | 2.2 | SEP 14..... | 1250 | .46 | 12 | .01 |
| APR 28..... | 1815 | 1600 | 143 | 618 | | | | | |

**03323000 WABASH RIVER AT BLUFFTON, IND. (Lat 40°44'30", long 85°10'19")**
**PERIOD OF RECORD.-- 1968-70**

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| OCT 6, 1969 | 1210 | 101 | 22 | 6.0 | APR 21..... | 1110 | 3160 | 314 | 2680 |
| NOV 17..... | 1230 | 56 | 154 | 23 | MAY 6..... | 1245 | 261 | 42 | 30 |
| FEB 10, 1970 | 1210 | 759 | 50 | 102 | JUL 27..... | 1700 | 45 | 58 | 7.0 |
| MAR 23..... | 1130 | 393 | 33 | 35 | SEP 9..... | 1115 | 10 | 54 | 1.5 |

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

| DATE | TIME | WATER TEMPERATURE (C) | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | PARTICLE SIZE: PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002 | .004 | .008 | .016 | .031 | .062 | .125 | .250 | .500 | 1.00 | 2.00 | METHOD OF ANALYSIS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APR 21, 1970 | 1110 | 4.6 | 3160 | 314 | 2680 | 86 | 93 | 97 | 98 | 99 | 99 | 100 | -- | -- | -- | -- | SBWC |

**03324000 LITTLE RIVER NEAR HUNTINGTON, IND (Lat 40°54'14", long 85°24'22")**
**PERIOD OF RECORD.--1970.**

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| OCT 22, 1969 | 1330 | 48 | 47 | 6.1 | FEB 26..... | 0930 | 97 | 14 | 4.2 |
| DEC 4..... | 1330 | 91 | 182 | 45 | APR 2..... | 1155 | 1150 | 423 | 1310 |
| JAN 14, 1970 | 1730 | 32 | 112 | 9.7 | AUG 13..... | 0900 | 19 | 138 | 7.1 |

PARTICLE SIZE OF BED MATERIAL, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHOD OF ANALYSIS: H, HYDROMETER; O, OPTICAL ANALYZER; S, SIEVE; V, VISUAL ACCUMULATION TUBE)

| DATE | TIME | WATER TEMPERATURE (C) | NUMBER OF SAMPLING POINTS | DISCHARGE (CFS) | PARTICLE SIZE: PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .062 | .125 | .250 | .500 | 1.00 | 2.00 | 4.00 | 8.00 | 16.0 | 32.0 | 64.0 | METHOD OF ANALYSIS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 20, 1969 | | | 2 | 54 | -- | 1 | 7 | 37 | 45 | 49 | 54 | 64 | 67 | 70 | 100 | S |

OHIO RIVER BASIN--Continued.

03324300 SALAMONIE RIVER NEAR WARREN, IND. (Lat 40°42'45", long 85°27'13")
PERIOD OF RECORD.--1964-70.

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| OCT 7, 1969 | 0935 | 14 | 54 | 2.0 | APR 20..... | 1740 | 4840 | 389 | 5080 |
| NOV 17..... | 1000 | 79 | 166 | 35 | MAY 6..... | 0945 | 152 | 84 | 34 |
| FEB 10, 1970 | 0930 | 444 | 36 | 43 | JUL 27..... | 1245 | 58 | 120 | 19 |
| MAR 23..... | 0910 | 357 | 29 | 28 | SEP 9..... | 0930 | 18 | 91 | 4.4 |

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHODS OF ANALYSIS: H, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

| DATE | TIME | WATER TEMPERATURE (°C) | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002 | .004 | .008 | .016 | .031 | .062 | .125 | .250 | .500 | 1.00 | 2.00 | METHOD OF ANALYSIS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APR 20, 1970 | 1740 | | 4840 | 389 | 5080 | 77 | 84 | 88 | 92 | 96 | 96 | 98 | 98 | 100 | -- | -- | SHWC |

PARTICLE SIZE OF BED MATERIAL, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHOD OF ANALYSIS: H, HYDROMETER; O, OPTICAL ANALYZER; S, SIEVE; V, VISUAL ACCUMULATION TUBE)

| DATE | TIME | WATER TEMPERATURE (°C) | NUMBER OF SAMPLING POINTS | DISCHARGE (CFS) | PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .062 | .125 | .250 | .500 | 1.00 | 2.00 | 4.00 | 8.00 | 16.0 | 32.0 | 64.0 | METHOD OF ANALYSIS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 30, 1969 | | | 2 | 134 | - | - | 2 | 28 | 53 | 66 | 78 | 86 | 90 | 91 | 100 | S |

03329700 DEER CREEK NEAR DELPHI, IND. (Lat 40°35'25", long 86°37'15")
PERIOD OF RECORD.--1969-70.

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| OCT 30, 1969 | 1540 | 120 | 98 | 32 | APR 16..... | 1745 | 170 | 26 | 12 |
| DEC 10..... | 1455 | 242 | 133 | 90 | APR 20..... | 1740 | 3320 | 742 | 6650 |
| JAN 28, 1970 | 1220 | 201 | 70 | 38 | AUG 6..... | 1355 | 59 | 81 | 13 |
| MAR 6..... | 1440 | 351 | 137 | 130 | AUG 20..... | 1530 | 704 | 686 | 1300 |

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHODS OF ANALYSIS: H, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

| DATE | TIME | WATER TEMPERATURE (°C) | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002 | .004 | .008 | .016 | .031 | .062 | .125 | .250 | .500 | 1.00 | 2.00 | METHOD OF ANALYSIS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APR 20, 1970 | 1740 | | 3320 | 740 | 6650 | 48 | 56 | 65 | 74 | 82 | 88 | 92 | 97 | 99 | 100 | -- | SHWC |

PARTICLE SIZE OF BED MATERIAL, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHODS OF ANALYSIS: H, HYDROMETER; O, OPTICAL ANALYZER; S, SIEVE; V, VISUAL ACCUMULATION TUBE)

| DATE | TIME | WATER TEMPERATURE (°C) | NUMBER OF SAMPLING POINTS | DISCHARGE (CFS) | PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .062 | .125 | .250 | .500 | 1.00 | 2.00 | 4.00 | 8.00 | 16.0 | 32.0 | 64.0 | METHOD OF ANALYSIS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 31, 1969 | 0900 | | 2 | 265 | 1 | 2 | 7 | 45 | 76 | 94 | 99 | 100 | -- | -- | -- | S |

03331500 TIPPECANOE RIVER NEAR ORA, IND (Lat 41°09'26", long 86°33'49")

PERIOD OF RECORD.--1968-70.

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| NOV 4, 1969 | 1335 | 624 | 12 | 20 | APR 20..... | 1155 | 2150 | 112 | 650 |
| DEC 16..... | 1715 | 568 | 24 | 37 | JUN 2..... | 1400 | 848 | 62 | 142 |
| DEC 22..... | 1220 | 115 | 9 | 2.8 | AUG 26..... | 1445 | 291 | 24 | 19 |
| MAR 10, 1970 | 1810 | 802 | 29 | 63 | | | | | |

PARTICLE SIZE OF BED MATERIAL, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHOD OF ANALYSIS: H, HYDROMETER; O, OPTICAL ANALYZER; S, SIEVE; V, VISUAL ACCUMULATION TUBE)

| DATE | TIME | WATER TEMPERATURE (C) | NUMBER OF SAMPLING POINTS | DISCHARGE (CFS) | PARTICLE SIZE: PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .062 | .125 | .250 | .500 | 1.00 | 2.00 | 4.00 | 8.00 | 16.0 | 32.0 | 64.0 | METHOD OF ANALYSIS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 20, 1969 | 1400 | . | 2 | 402 | 1 | 2 | 24 | 71 | 83 | 88 | 94 | 99 | 100 | -- | -- | S |

03335000 WILDCAT CREEK NEAR LAFAYETTE, IND (Lat 40°26'26", long 86°49'46")

PERIOD OF RECORD.--1968-70.

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| FEB 11, 1970 | 0950 | 486 | 102 | 134 | JUL 7..... | 1300 | 203 | 75 | 41 |
| FEB 27..... | 1245 | 386 | 80 | 83 | AUG 10..... | 1100 | 276 | 58 | 43 |
| APR 15..... | 1630 | 543 | 34 | 50 | SEP 25..... | 1445 | 249 | 114 | 77 |
| JUN 2..... | 1715 | 615 | 35 | 58 | | | | | |

PARTICLE SIZE OF BED MATERIAL, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHOD OF ANALYSIS: H, HYDROMETER; O, OPTICAL ANALYZER; S, SIEVE; V, VISUAL ACCUMULATION TUBE)

| DATE | TIME | WATER TEMPERATURE (C) | NUMBER OF SAMPLING POINTS | DISCHARGE (CFS) | PARTICLE SIZE: PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .062 | .125 | .250 | .500 | 1.00 | 2.00 | 4.00 | 8.00 | 16.0 | 32.0 | 64.0 | METHOD OF ANALYSIS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 21, 1969 | 0700 | | 4 | 1020 | -- | 1 | 3 | 10 | 19 | 32 | 55 | 77 | 90 | 100 | -- | S |

03340000 SUGAR CREEK NEAR BYRON, IND (Lat 39°55'52", long 87°07'33")

PERIOD OF RECORD.--1968-70.

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| NOV 19, 1969 | 1530 | 6030 | 385 | 6270 | MAY 12..... | 1500 | 592 | 26 | 42 |
| FEB 12, 1970 | 1451 | 414 | 62 | 70 | JUL 8..... | 1357 | 128 | 98 | 34 |
| APR 3..... | 1455 | 1480 | 92 | 368 | AUG 20..... | 1505 | 175 | 104 | 49 |

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

| DATE | TIME | WATER TEMPERATURE (C) | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | PARTICLE SIZE: PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002 | .004 | .008 | .016 | .031 | .062 | .125 | .250 | .500 | 1.00 | 2.00 | METHOD OF ANALYSIS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 19, 1969 | 1530 | 10.0 | 6030 | 385 | 6270 | 28 | 39 | 50 | 63 | 76 | 83 | 90 | 95 | 99 | 100 | -- | SWBC |

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

### OHIO RIVER BASIN--Continued.

### 03348500 WHITE RIVER NEAR NOBLESVILLE, IND (Lat 40°07'46", long 85°57'46")

**PERIOD OF RECORD.--1968-70.**

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| OCT 28, 1969 | 1045 | 311 | 8 | 6.7 | APR 24..... | 1000 | 3330 | 248 | 2230 |
| NOV 25..... | 1050 | 703 | 140 | 304 | APR 28..... | 1300 | 1780 | 60 | 288 |
| FEB 25, 1970 | 1100 | 776 | 34 | 71 | JUN 29..... | 0830 | 334 | 21 | 19 |
| APR 1..... | 0910 | 815 | 14 | 31 | SEP 29..... | 0900 | 164 | 14 | 6.2 |

PARTICLE SIZE OF BED MATERIAL, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHOD OF ANALYSIS: H, HYDROMETER; O, OPTICAL ANALYZER; S, SIEVE; V, VISUAL ACCUMULATION TUBE)

| DATE | TIME | WATER TEMPERATURE (°C) | NUMBER OF SAMPLING POINTS | DISCHARGE (CFS) | PARTICLE SIZE: PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .062 | .125 | .250 | .500 | 1.00 | 2.00 | 4.00 | 8.00 | 16.0 | 32.0 | 64.0 | METHOD OF ANALYSIS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 17, 1969 | | | 2 | 1060 | - | 1 | 4 | 14 | 25 | 36 | 51 | 69 | 80 | 91 | 100 | S |

### 03353200 EAGLE CREEK AT ZIONSVILLE, IND (Lat 39°56'56", long 86°15'22")

**PERIOD OF RECORD.--1969-70.**

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| NOV 4, 1969 | 1315 | 147 | 64 | 25 | APR 24..... | 1635 | 1900 | 405 | 2080 |
| APR 17, 1970 | 1540 | 42 | 10 | 1.1 | AUG 9..... | 1455 | 3.1 | 76 | .64 |
| APR 24..... | 0900 | 2170 | 708 | 4150 | | | | | |

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

| DATE | TIME | WATER TEMPERATURE (°C) | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | PARTICLE SIZE: PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002 | .004 | .008 | .016 | .031 | .062 | .125 | .250 | .500 | 1.00 | 2.00 | METHOD OF ANALYSIS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APR 24, 1970 | 0900 | | 2170 | 708 | 4150 | 51 | 62 | 73 | 82 | 88 | 94 | 97 | 99 | 100 | -- | -- | SPWC |

PARTICLE SIZE OF BED MATERIAL, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHODS OF ANALYSIS: H, HYDROMETER; O, OPTICAL ANALYZER; S, SIEVE; V, VISUAL ACCUMULATION TUBE)

| DATE | TIME | WATER TEMPERATURE (°C) | NUMBER OF SAMPLING POINTS | DISCHARGE (CFS) | PARTICLE SIZE: PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .062 | .125 | .250 | .500 | 1.00 | 2.00 | 4.00 | 8.00 | 16.0 | 32.0 | 64.0 | METHOD OF ANALYSIS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 17, 1969 | | | 1 | 155 | - | - | 1 | 3 | 10 | 22 | 30 | 45 | 62 | 85 | 100 | S |

OHIO RIVER BASIN--Continued.

03357500 BIG WALNUT CREEK NEAR REELSVILLE, IND. (Lat 39°32'11", long 86°58'35")
PERIOD OF RECORD.--1969-70.

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| OCT 14, 1969 | 1730 | 1600 | 203 | 877 | MAR 5, 1970 | 1445 | 1170 | 230 | 727 |
| OCT 17..... | 1350 | 507 | 130 | 178 | | | | | |

PARTICLE SIZE OF BED MATERIAL, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHOD OF ANALYSIS: H, HYDROMETER; O, OPTICAL ANALYZER; S, SIEVE; V, VISUAL ACCUMULATION TUBE)

| DATE | TIME | WATER TEMPERATURE (°C) | NUMBER OF SAMPLING POINTS | DISCHARGE (CFS) | PARTICLE SIZE: PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .062 | .125 | .250 | .500 | 1.00 | 2.00 | 4.00 | 8.00 | 16.0 | 32.0 | 64.0 | METHOD OF ANALYSIS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 14, 1969 | 1730 | 14.0 | 3 | 1550 | -- | -- | 4 | 15 | 37 | 55 | 68 | 78 | 87 | 95 | 100 | S |

03358000 MILL CREEK NEAR CATARACT, IND. (Lat 39°26'00", long 86°45'48")
PERIOD OF RECORD.--1969-70.

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| OCT 14, 1969 | 1430 | 327 | 82 | 72 | JAN 14, 1970 | 1250 | 58 | 73 | 11 |
| NOV 28..... | 1330 | 191 | 178 | 92 | MAR 4..... | 1110 | 1040 | 240 | 674 |

PARTICLE SIZE OF BED MATERIAL, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHOD OF ANALYSIS: H, HYDROMETER; O, OPTICAL ANALYZER; S, SIEVE; V, VISUAL ACCUMULATION TUBE)

| DATE | TIME | WATER TEMPERATURE (°C) | NUMBER OF SAMPLING POINTS | DISCHARGE (CFS) | PARTICLE SIZE: PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .062 | .125 | .250 | .500 | 1.00 | 2.00 | 4.00 | 8.00 | 16.0 | 32.0 | 64.0 | METHOD OF ANALYSIS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 17, 1969 | 0900 | | 2 | 112 | - | 1 | 2 | 48 | 94 | 99 | 100 | -- | -- | -- | -- | S |

03361500 BIG BLUE RIVER AT SHELBYVILLE, IND. (Lat 39°31'45", long 85°46'55")
PERIOD OF RECORD.--1968-70

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| OCT 27, 1969 | 1510 | 151 | 54 | 22 | APR 24..... | 1215 | 2030 | 339 | 1860 |
| DEC 4..... | 1430 | 283 | 184 | 141 | APR 30..... | 1900 | 820 | 82 | 182 |
| JAN 12, 1970 | 1000 | 183 | 58 | 29 | JUL 10..... | 1520 | 135 | 46 | 17 |
| FEB 19..... | 1740 | 1060 | 94 | 269 | AUG 21..... | 1810 | 126 | 76 | 26 |
| MAR 26..... | 1600 | 1000 | 87 | 235 | SEP 28..... | 1225 | 77 | 17 | 3.5 |
| APR 3..... | 1515 | 1920 | 114 | 591 | | | | | |

PARTICLE SIZE OF BED MATERIAL, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHOD OF ANALYSIS: H, HYDROMETER; O, OPTICAL ANALYZER; S, SIEVE; V, VISUAL ACCUMULATION TUBE)

| DATE | TIME | WATER TEMPERATURE (°C) | NUMBER OF SAMPLING POINTS | DISCHARGE (CFS) | PARTICLE SIZE: PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .062 | .125 | .250 | .500 | 1.00 | 2.00 | 4.00 | 8.00 | 16.0 | 32.0 | 64.0 | METHOD OF ANALYSIS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | 70 | 93 | 100 | -- | S |

03362500 SUGAR CREEK NEAR EDINBURG, IND. (Lat 39°21'39", long 85°59'51")
PERIOD OF RECORD.--1968-70.

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| OCT 23, 1969 | 1430 | 183 | 52 | 26 | APR 27..... | 1700 | 1540 | 72 | 299 |
| FEB 25, 1970 | 1415 | 401 | 36 | 39 | JUL 13..... | 1505 | 85 | 76 | 17 |
| MAR 24..... | 1450 | 368 | 21 | 21 | AUG 19..... | 1545 | 50 | 42 | 5.7 |
| APR 7..... | 1530 | 1180 | 124 | 395 | SEP 23..... | 1240 | 54 | 24 | 3.5 |
| APR 24..... | 1730 | 2670 | 466 | 3360 | | | | | |

PARTICLE SIZE OF BED MATERIAL, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHOD OF ANALYSIS: H, HYDROMETER; O, OPTICAL ANALYZER; S, SIEVE; V, VISUAL ACCUMULATION TUBE)

| DATE | TIME | WATER TEMPERATURE (°C) | NUMBER OF SAMPLING POINTS | DISCHARGE (CFS) | PARTICLE SIZE: PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED | | | | | | | | | | METHOD OF ANALYSIS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | .062 | .125 | .250 | .500 | 1.00 | 2.00 | 4.00 | 8.00 | 16.0 | 32.0 | 64.0 | |
| OCT 16, 1969 | 1015 | | 1 | 600 | 1 | 1 | 4 | 10 | 13 | 17 | 29 | 51 | 83 | 100 | -- | S |

03363500 FLATROCK RIVER AT ST. PAUL, IND. (Lat 39°25'03", long 85°38'03")
PERIOD OF RECORD.--1968-70.

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| OCT 27, 1969 | 1300 | 65 | 35 | 6.1 | APR 24..... | 1300 | 3660 | 470 | 4640 |
| DEC 4..... | 1215 | 168 | 195 | 88 | APR 30..... | 1615 | 1120 | 226 | 683 |
| JAN 12, 1970 | 1230 | 95 | 28 | 7.2 | JUL 10..... | 1320 | 32 | 21 | 1.8 |
| FEB 19..... | 1445 | 453 | 28 | 34 | AUG 21..... | 1620 | 105 | 60 | 17 |
| MAR 26..... | 1310 | 416 | 46 | 52 | SEP 28..... | 1445 | 42 | 16 | 1.8 |
| APR 3..... | 1400 | 2590 | 159 | 1110 | | | | | |

OHIO RIVER BASIN--Continued.

03365000 SAND CREEK NEAR BREWERSVILLE, IND. (Lat 39°05'03", long 85°39'32")
PERIOD OF RECORD.--1969-70.

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| OCT 28, 1969 | 1545 | 5.6 | 38 | .57 | APR 24..... | 1515 | 8700 | 1400 | 32900 |
| JAN 15, 1970 | 1040 | 33 | 66 | 5.9 | APR 28..... | 1915 | 316 | 54 | 46 |
| FEB 17..... | 1100 | 80 | 2 | .43 | JUL 8..... | 1305 | 2.6 | 43 | .30 |
| MAR 25..... | 1115 | 184 | 20 | 9.9 | AUG 17..... | 1635 | 1.8 | 16 | .08 |
| APR 3..... | 1240 | 841 | 424 | 963 | SEP 23..... | 1515 | 1.4 | 12 | .05 |

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

| DATE | TIME | WATER TEMPERATURE (C) | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | PARTICLE SIZE: PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002 | .004 | .008 | .016 | .031 | .062 | .125 | .250 | .500 | 1.00 | 2.00 | METHOD OF ANALYSIS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APR 3, 1970 | 1240 | | 841 | 424 | 963 | 54 | 66 | 75 | 86 | 93 | 97 | 98 | 100 | -- | -- | -- | SBWC |

03366500 MUSCATATUCK RIVER NEAR DEPUTY, IND. (Lat 38°48'15", long 85°40'26")
PERIOD OF RECORD.--1968-70.

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | DATE | TIME | DISCHARGE (CFS) | CONCENTRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| OCT 15, 1969 | 1540 | 1.5 | 38 | .15 | APR 24..... | 1155 | 468 | 260 | 329 |
| NOV 20..... | 1730 | 432 | 73 | 85 | MAY 7..... | 1325 | 102 | 16 | 4.4 |
| DEC 18..... | 1330 | 41 | 68 | 7.5 | JUL 24..... | 1140 | 5.3 | 38 | .54 |
| JAN 22, 1970 | 1310 | 46 | 32 | 4.0 | AUG 27..... | 1155 | 20 | 60 | 3.2 |
| MAR 2..... | 1530 | 166 | 36 | 16 | SEP 30..... | 1200 | 8.6 | 49 | 1.1 |
| APR 3..... | 1455 | 1530 | 200 | 826 | | | | | |

PARTICLE SIZE OF BED MATERIAL, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHOD OF ANALYSIS: H, HYDROMETER; O, OPTICAL ANALYZER; S, SIEVE; V, VISUAL ACCUMULATION TUBE)

| DATE | TIME | WATER TEMPERATURE (C) | NUMBER OF SAMPLING POINTS | DISCHARGE (CFS) | PARTICLE SIZE: PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .062 | .125 | .250 | .500 | 1.00 | 2.00 | 4.00 | 8.00 | 16.0 | 32.0 | 64.0 | METHOD OF ANALYSIS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 15, 1969 | 1615 | | 2 | 1.68 | 1 | 1 | 2 | 14 | 40 | 57 | 71 | 79 | 86 | 95 | 100 | S |

**ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS**

**HUDSON BAY AND UPPER MISSISSIPPI RIVER BASIN**

**05524500 IROQUOIS RIVER NEAR FORESMAN, IND (Lat 40°52'14", long 87°18'24")**

**PERIOD OF RECORD.--1968-70.**

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

| DATE | TIME | DISCHARGE (CFS) | CONCEN-TRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) | DATE | TIME | DISCHARGE (CFS) | CONCEN-TRATION (MG/L) | SUSPENDED SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| OCT 7, 1969 | 0930 | 45 | 99 | 12 | APR 22..... | 1345 | 2790 | 70 | 527 |
| NOV 26..... | 1200 | 488 | 84 | 111 | MAY 26..... | 1200 | 660 | 182 | 324 |
| JAN 16, 1970 | 1120 | 88 | 96 | 23 | JUL 22..... | 1415 | 126 | 124 | 42 |
| MAR 4..... | 0925 | 379 | 76 | 78 | AUG 21..... | 1055 | 30 | 148 | 12 |
| APR 14..... | 1500 | 460 | 46 | 57 | SEP 30..... | 1020 | 598 | 53 | 86 |

PARTICLE SIZE OF BED MATERIAL, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(METHOD OF ANALYSIS: H, HYDROMETER; O, OPTICAL ANALYZER; S, SIEVE; V, VISUAL ACCUMULATION TUBE)

| DATE | TIME | WATER TEMPERATURE (°C) | NUMBER OF SAMPLING POINTS | DISCHARGE (CFS) | PARTICLE SIZE: PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED | | | | | | | | | | | METHOD OF ANALYSIS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | .062 | .125 | .250 | .500 | 1.00 | 2.00 | 4.00 | 8.00 | 16.0 | 32.0 | 64.0 | |
| OCT 21, 1969 | 1045 | | 4 | 279 | 22 | 36 | 64 | 90 | 93 | 95 | 96 | 98 | 99 | 100 | -- | S |

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