

CALENDAR FOR WATER YEAR 1993

1992

OCTOBER							NOVEMBER							DECEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
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25	26	27	28	29	30	31	29	30						27	28	29	30	31		

1993

JANUARY							FEBRUARY							MARCH							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
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31																					
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Water Resources Data Indiana Water Year 1993

by James A. Stewart, Charles R. Keeton, Brian L. Benedict, and
Lowell E. Hammil



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT IN-93-1
Prepared in cooperation with the State of Indiana
and with other agencies

U. S. DEPARTMENT OF THE INTERIOR

BRUCE BABBIT, Secretary

U.S. Geological Survey

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PREFACE

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

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

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(d-discharge, e-gage heights, c-chemical, t-temperature, s-sediment,
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DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

The following continuous-record surface-water discharge or stage-only stations (gaging stations) in Indiana have been discontinued. Daily streamflow or stage records were collected and published for the period of record, expressed in water years, shown for each station. Discontinued short-term project stations have not been included. Information regarding these stations may be obtained from the District Office at the address given on the back side of the title page of this report.

(Most stations are surface-water discharge, exceptions are designated with footnotes)

Station name	Station number	Drainage area (mi ²)	Period of record
WABASH RIVER BASIN			
Little Williams Creek at Connersville	03274950	9.6	1968-91
East Fork Whitewater River at Richmond	03275500	121	1949-78
Laughery Creek near Farmers Retreat (a)	03277000	248	1941-73
Friday Branch tributary near Saint Meinrad (b)	03303276	.096	1981
Little Pigeon Creek near Tennyson	03304000	187	1944-47
Pigeon Creek at Evansville	03322100	323	1960-85
Wabash River near New Corydon	03322500	262	1951-88
Wabash River at Bluffton	03323000	532	1930-71, 1987-92 (d)
Mississinewa River near Eaton (b)	03326000	310	1952-71
Wabash River at Delphi	03329500	4,072	1940-71
Tippecanoe River near Warsaw	03331000	126	1943-49
Tippecanoe River at Pulaski	03332000	1,089	1928-31
Little Indian Creek near Royal Center (a)	03332300	35.0	1959-73
Tippecanoe River at Buffalo	03332345	1,285	1986-92 (e)
Big Monon Creek near Francesville (a)	03332400	152	1959-73
Tippecanoe River near Monticello (c)	03332500	1,732	1932-81
Wildcat Creek at Greentown	03333500	168	1945-61
Big Pine Creek near Williamsport	03335700	323	1955-87
East Fork Coal Creek near Hillsboro	03339108	33.4	1968-91
Coal Creek at Coal Creek	03339120	214	1965-72
Little Vermilion River near Newport	03339150	237	1965-72
Sugar Creek tributary near Deer Mill (b)	03339855	.45	1981
Sugar Creek near Byron (b)	03340000	670	1941-71
Big Raccoon Creek at Mansfield (d)	03341000	248	1939-58
Little Raccoon Creek near Catlin (d,g)	03341200	134	1957-71
Big Raccoon Creek near Mecca (d)	03341315	473	1988-92
Brouillets Creek near Universal (b)	03341420	321	1966-71
North Coal Creek near Terre Haute	03341470	1.91	1974-76
Honey Creek near Riley (b)	03341570	5.79	1981
West Fork Busseron Creek near Hymera	03342150	14.4	1966-86
Mud Creek near Cass	03342244	9.16	1981-91
Mud Creek near Dugger	03342250	11.9	1966-81
Busseron Creek near Sullivan	03342300	138	1966-86
Buttermilk Creek near Paxton	03342350	16.5	1966-73
Buttermilk Creek near Sullivan	03342360	17.6	1975-78
South Fork Smalls Creek at Bruceville (b,g)	03342800	4.94	1972-75
Killbuck Creek near Gaston	03348020	25.5	1968-91
Killbuck Creek near Anderson	03348100	97.8	1964-68
White River near Noblesville	03348500	828	1915-26, 1929-74 (b)
Cicero Creek near Arcadia (a)	03349500	131	1955-76
Little Cicero Creek near Arcadia (a)	03349700	40.4	1956-76
Cicero Creek near Cicero	03350000	196	1946-54
Hinkle Creek near Cicero (a)	03350100	18.5	1956-76
Cicero Creek at Noblesville	03350500	216	1950-80, 1985-92
Sugar Creek near Middletown	03351400	5.80	1969-89
Lawrence Creek at Fort Benjamin Harrison	03352000	2.74	1952-56, 1958-69
Mud Creek at Indianapolis (a)	03352200	42.4	1958-76
Fall Creek at 16th St. at Indianapolis	03352875	317	1985-91
Pleasant Run at Brookville Road at Indpls.	03353160	10.1	1960-81
White River at Waverly	03353660	2,026	1986-88
Bear Creek near Trevlac (a)	03355000	6.94	1952-73
Beanblossom Creek at Dolan	03356000	100	1946-78
Beanblossom Creek near Bloomington	03356500	112	1931-33
Big Walnut Creek at Greencastle	03357420	216	1975-1982
Deer Creek near Putnamville	03359500	59.0	1955-65, 1968-72
Jordan Creek near Jordan (b)	03359980	25.9	1981
Driftwood River near Edinburgh	03363000	1,060	1940-91
Haw Creek near Clifford	03364200	47.5	1967-91

Station name	Station number	Drainage area (mi ²)	Period of record
WABASH RIVER BASIN--Continued			
Sand Creek near Brewersville	03365000	155	1948-86
Graham Creek near Vernon	03366000	77.2	1955-73
Muscatactuck River near Austin	03367000	359	1932-43, 1944-71 (f)
Stucker Creek near Austin	03367500	127	1932-33
Vernon Fork near Crothersville	03370000	391	1932-33
Muscatactuck River near Tampico	03370500	960	1939
Muscatactuck River near Vallonia	03371000	1,134	1932-33
South Fork Salt Creek at Kurtz	03371600	38.2	1961-71, 1972-75 (e)
North Fork Salt Creek at Nashville (a)	03371650	76.1	1962-76
North Fork Salt Creek near Belmont	03372000	120	1946-71
Stephens Creek near Bloomington	03372300	10.9	1970-91
Clear Creek near Harrodsburg	03372700	55.2	1960-71
Salt Creek near Peerless	03373000	573	1939-50, 1957-71, 1971-84 (d)
Indian Creek near Springville (a)	03373200	60.7	1961-73
White River at Hazleton (h)	03374100	11,305	1928-38
Patoka River near Jasper (g)	03376000	348	1944-47
Flat Creek near Otwell	03376260	21.3	1965-82
Little Flat Creek near Otwell (b)	03376279	6.56	1981
South Fork Patoka River near Spurgeon	03376350	42.8	1964-86

STREAMS TRIBUTARY TO LAKE MICHIGAN

Dunes Creek at Porter	04090500	3.40	1979-1982
Burns Ditch at Gary	04093500	160	1943-91 (g)
Salt Creek near McCool	04094500	74.6	1945-91
Derby ditch at Beverly Shores	04095100	4.64	1980
Lime Lake outlet at Panama	04097970	17.5	1969-86
Fawn River at Orland	04098000	86.4	1943-47
Pigeon Creek and Hogback Lake near Angola	04099500	103	1946-74
Pretty Lake Inlet near Stroh	04099610	1.96	1963-80
Christiana Creek at Elkhart	04100000	127	1947-52
North Branch Elkhart River near Cosperville	04100220	134	1951-71
Turkey Creek at Syracuse	04100465	43.8	1969-87

STREAMS TRIBUTARY TO LAKE ERIE

St. Joseph River at Hursh	04178500	734	1950-54
St. Joseph River at Cedarville	04179000	763	1931-32, 1956-81
Cedar Creek near Auburn (a)	04179500	87.3	1943-73
Harber Ditch at Fort Wayne	04182590	21.9	1960-64 (g), 1961-64 (e), 1964-91
St. Marys River at Fort Wayne	04182700	810	1905-06

UPPER MISSISSIPPI RIVER BASIN

Kingsbury Creek near LaPorte	05515400	7.08	1970-86
Yellow River near Bremen (a)	05516000	135	1955-73
Singleton ditch near Hebron	05518500	34.2	1949-51
West Creek near Schneider	05519500	54.7	1948-52, 1954-72
Singleton ditch at Illinois, IL	05520000	220	1945-77
Oliver ditch near Aix	05521500	79.6	1948-51
Slough Creek near Collegeville	05523500	83.7	1948-52, 1953-82
Carpenter Creek at Egypt	05524000	44.8	1948-52, 1953-82

a Continued as a crest-stage and low-flow partial-record station through 1984.

b Some quality of water data available.

c Records of daily discharges furnished by Northern Indiana Public Service Company.

d Continued as a stage only station.

e Stage only station.

f High-water records only.

g Some record fragmentary.

h Some quality of water data available after station discontinued for stream-gaging records.

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

The following stations were discontinued as surface-water-quality stations. Records of temperature, specific conductance, pH, dissolved oxygen or sediment were collected and published for the record shown for each station. Discontinued short-term project stations have not been included. Information regarding these stations may be obtained from the District Office at the address given on the back side of the title page of this report.

Station name	Station number	Drainage area (mi ²)	Type of Record	Period of record
WABASH RIVER BASIN				
East Fork Whitewater River at Abington	03275600	198	C T T	1969-76, 1970-71, 1973-76
East Fork Whitewater at Brookville	03276000	380	C,T	1974-75
Whitewater River at Brookville	03276500	1224	T C	1974-81, 1974-86
Trib to Friday Branch at St. Meinard	03303276	.096	C,T,S	1980-81
Wabash River near New Corydon	03322500	262	C	1969-73
Wabash River at Huntington	03323500	710	T	1963-77
Salamonie Creek at Warren	03324288	402	T	1980-81
Mississinewa River at Marion	03326500	682	C,T	1975-76,79
Eel River near Logansport	03328500	789	S,T	1969-80
Wildcat Creek near Lafayette	03335000	794	C T	1970-79, 1970-74
Wabash River at Lafayette	03335500	7247	T T S	1954-64, 1967-75, 1978-80
Big Pine Creek at Williamsport	03335700	323	C T T	1970-76, 1970-75, 1980-81
Big Raccoon Creek near Fincastle	03340800	132	C,T,S T C	1965-77, 1975-77
Honey Creek at Riley	03341570	5.79	C,T,S	1980-81
Wabash River near Sullivan	03341805	12,600	C,T	1963-64
Wabash River at Riverton	03342000	13,100	T T T	1954-61, 1962-65, 1967-78
South Fork Smalls Creek at Bruceville	03342800	4.94	C	1973-75
White River at Noblesville	03348500	814	T	1952-76
White River near Nora	03351000	1200	T T	1954-60, 1962-72
Big Walnut Creek at Greencastle	03357420	216	C,T	1973-77
Mill Creek at Cataract	03358000	245	C,T	1978-82
Jordan Creek at Jordan	03359980	25.9	C,T	1980-81
Big Blue River at Carthage	03361000	184	T C,T S C	1974-77, 1979-82, 1977-81, 1973-77
Flatrock River at St. Paul	03363500	303	C,T	1976-79
Clifty Creek at Hartsville	03364500	91.4	C,T	1970-75
East Fork White River at Seymour	03365500	2333	S T	1966-80, 1954-79
North Fork Salt Creek near Nashville	03371650	761	C,T	1974-76
Salt Creek near Harrodsburg	03372500	441	T	1966-76
White River at Petersburg	03374000	11125	T	1964-77
White River near Hazelton	03374100	11305	T S C	1973-81, 1973-83, 1973-86
Patoka River near English	03374470	308	T C	1970-76, 1969-76
Little Flat Creek near Otwell	03376279	6.36	C,T,S	1980-81
Wabash River at New Harmony	03378500	29234	T C S	1974-80 1974-86 1974-83
STREAM TRIBUTARY TO LAKE MICHIGAN				
Trail Creek near Michigan City	04095300	54.1	C,T	1977-81
STREAMS TRIBUTARY TO LAKE ERIE				
St. Joseph River near Newville	04178100	615	C	1969-73
St. Marys River at Wilshire	04181050	435	C	1969-73
St. Marys River near Ft Wayne	04182000	762	S T	1953-67, 1964-67
UPPER MISSISSIPPI RIVER BASIN				
Yellow Creek near Plymouth	05516500	29.4	S,T	1979-81

WATER RESOURCES DATA - INDIANA, 1993

INTRODUCTION

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

Water-resources data for the 1993 water year for Indiana consist of records of discharge, stage, and water quality of streams, and water levels of lakes and ground-water wells. This volume contains records for water discharge at 178 gaging stations, stage at 5 gaging stations, stage and contents at 1 reservoir, water quality at 3 stream sites, sediment discharge at 1 gaging station, water levels at 80 lakes, and water levels at 94 observation wells. Locations of the streamflow and water-quality sites, are shown on figures 5, and 6. The number of lakes and ground-water observation wells by county having 1993 water-level records are shown on figures 7, and 8. A systematic collection of stages on selected lakes was begun in 1943 in cooperation with the State of Indiana, Department of Natural Resources. The data collected since the beginning of record have not been published previously in the annual water data reports for Indiana. They are available from the Indiana District Office. A selected amount of lake data was published in Water-Supply Paper 1363, "Hydrology of Indiana Lakes," by J. I. Perrey and D. M. Corbett (1956). Additional lake data were published in Open-File Report 88-331, "Annual maximum and minimum lake levels for Indiana, water years 1942-85," by Kathleen K. Fowler (1988). These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Indiana.

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

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

through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from U.S. Geological Survey, Books and Open-File Reports, Federal Center, Building 41, Box 25425, Denver, CO 80225.

Publications similar to this report are published annually by the U.S. Geological Survey for all States. These official U.S. Geological Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report IN-92-1." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161. Beginning with the 1990 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc.

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

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (317) 290-3333. A limited number of CD-ROM discs will be available for sale by the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, Colorado 80225.

COOPERATION

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

State of Indiana, Department of Natural Resources, Patrick R. Ralston, Director, through the Bureau of Water and Mineral Resources, Gary N. Doxtater, Deputy Director

State of Indiana, Department of Environmental Management, Kathy Prosser, Commissioner, Bernard Landman, Assistant Commissioner, Office of Water Management

State of Indiana, Department of Transportation, Fred C. P'Pool, Director

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

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

SUMMARY OF HYDROLOGIC CONDITIONS

Precipitation

Annual precipitation amounts in Indiana differ geographically. The average long-term (1961-90) precipitation in the State ranges from about 36 inches in the northeast climactic division (Indiana's climactic divisions are shown in figure 1) to nearly 46.5 inches in the south-central climactic division (Ken Sheeringa, Indiana State Climatologist, written commun., 1994). Water year 1993 was wetter than normal over most of Indiana; the precipitation amounts for the 1993 water year were greater than the long-term average in all climactic divisions with the exception of the southeast. Departures of precipitation from the long-term average ranged from just over 15 inches above the long-term average in northwest Indiana to nearly 2 inches below the long-term average in the southeast division. The average long-term precipitation and precipitation for the 1993 water year are compared by climactic division in figure 2.

Monthly precipitation amounts in the 1993 water year varied geographically and seasonally. Monthly precipitation ranged from a low of 42 percent of the long-term monthly average in the southeast region in December to a high of 254 percent of the long-term monthly average in the northwest region in June. Monthly precipitation amounts state-wide were generally above the long-term averages for November, January, April, June, and September; and generally below the long-term averages for October, December, February, March, and May. Monthly precipitation amounts during water year 1993 as a percentage of the average monthly precipitation for the period 1961-90 are shown in table 1.

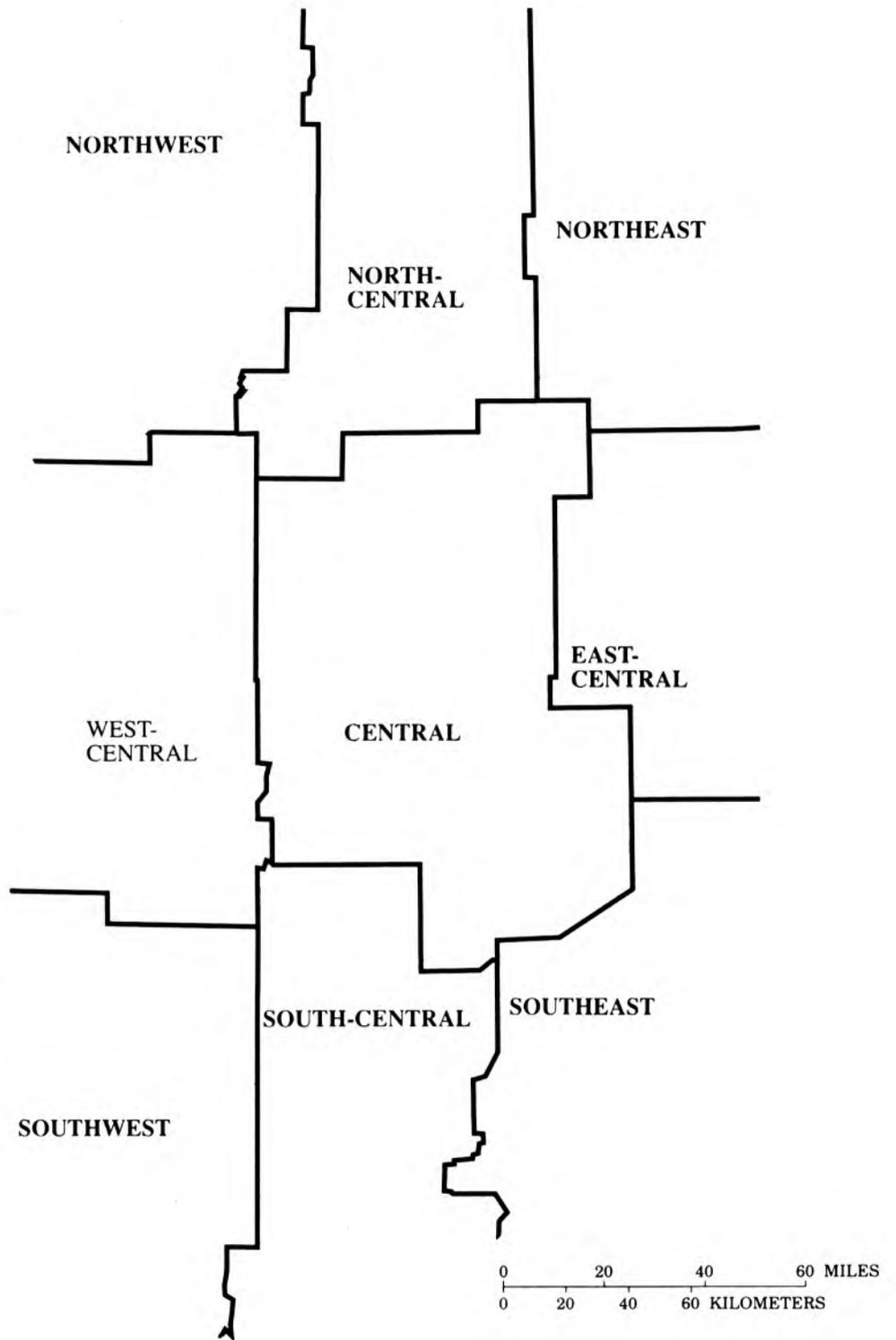


Figure 1.--Climactic divisions in Indiana.
(Data from National Oceanic and Atmospheric Administration, 1994.)

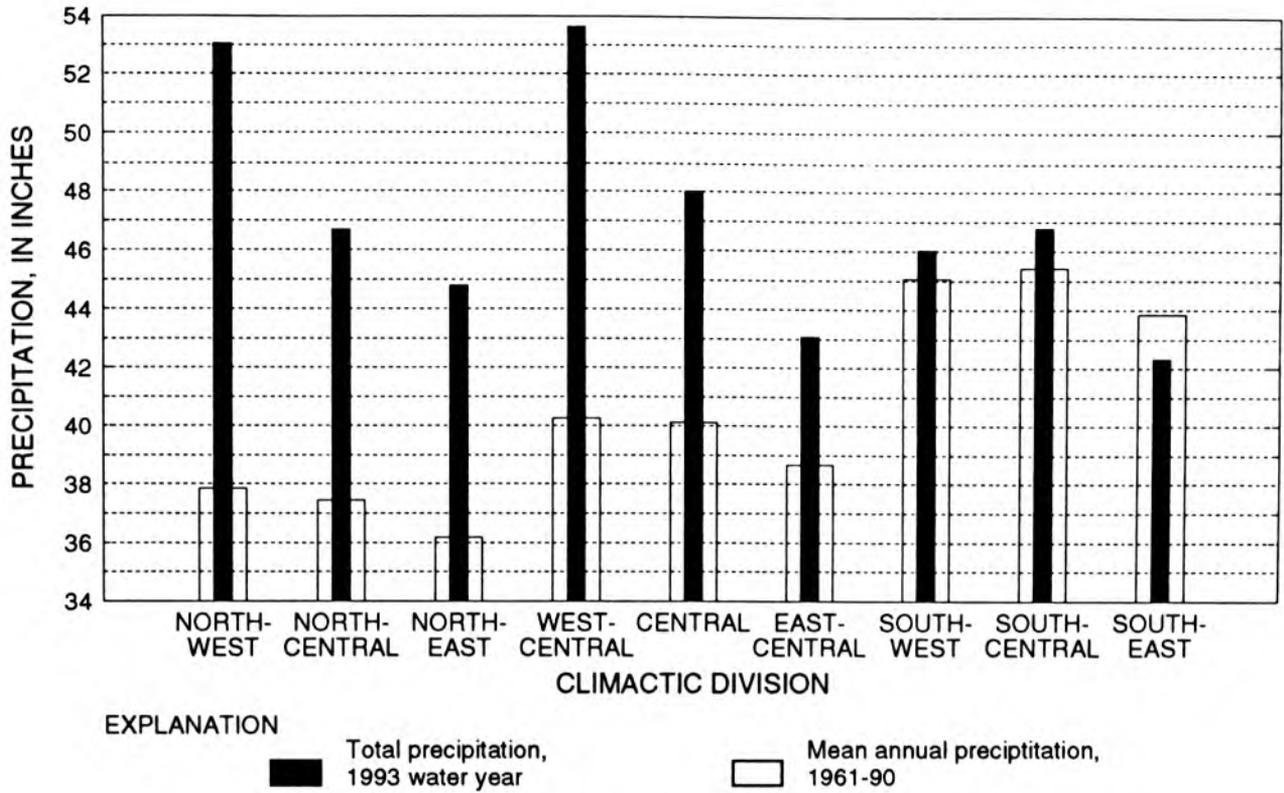


Figure 2.--Indiana precipitation during 1993 water year and mean annual precipitation for period 1961-90.

Table 1.--Monthly precipitation during 1993 water year as a percentage of mean monthly precipitation for the period 1961-90

Climactic division	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Northwest	49	179	113	215	82	120	128	76	254	98	132	209
North-central	56	187	90	199	86	92	123	89	174	93	109	195
Northeast	79	214	97	226	85	91	117	81	172	115	76	153
West-central	68	255	64	192	84	78	140	79	150	107	165	225
Central	77	211	48	163	88	77	123	86	144	110	119	207
East-central	74	175	41	142	93	65	106	99	164	120	85	173
Southwest	38	117	52	140	91	62	138	90	104	99	96	228
South-central	38	103	48	144	108	71	122	94	131	81	144	174
Southeast	56	127	42	150	111	76	107	68	119	66	143	118

Surface Water

Runoff patterns in Indiana generally vary with precipitation patterns across the State. Streamflows at three Indiana surface water index stations are indicative of the runoff occurring in the drainage basins above the stations. The three index stations are Mississinewa River at Marion (03326500), East Fork White River at Shoals (03373500), and Wabash River at Mount Carmel, Illinois (03377500).

The index station Mississinewa River at Marion is located in Randolph County (the locations of all Indiana surface-water stations, including the index stations, are shown in figure 5), in the east-central climactic division. The drainage area above this station is 682 square miles. Mean monthly discharges at this station for the 1993 water year were much greater than the long-term (1961-90) median monthly discharges for the months of November, January, and July. Monthly precipitation in the east-central climactic division for these months was 175, 142, and 120 percent, respectively, of the long-term precipitation. Two months of the 1993 water year, October and December, had mean discharges which were less than the long-term median monthly discharges. Precipitation in October was 74 percent of the long-term average and was 41 percent of the long-term average in December. The mean discharge for the 1993 water year for this index station was greater than the long-term median annual discharge, reflecting the wetter than normal water year in east-central Indiana. Mean discharges during the 1993 water year and long-term median discharges for Mississinewa River at Marion are compared in figure 3.

The East Fork White River at Shoals index station, which has above it a drainage area of 4,927 square miles, is located in Martin County, within the southwest climactic division. All months during the 1993 water year, with the exception of December, February, and May, had mean discharges which were greater than the long-term median discharges. The 1993 water year mean discharge was greater than the long-term median annual discharge for East Fork White River at Shoals. The exceedance of the long-term median discharges for 9 months of the water year, and hence the entire water year, is indicative of the generally wetter than normal year in central and southwest Indiana. Mean discharges during the 1993 water year and long-term median discharges for East Fork White River at Shoals are compared in figure 3.

The index station Wabash River at Mount Carmel is located in Illinois, adjacent to Gibson County of Indiana. It is in the same climactic division, the southwest, as the index station East Fork White River at Shoals. The drainage area of the Wabash River at this location is 28,635 square miles, and includes a large portion of Indiana. The generally wetter than normal precipitation pattern which occurred over most of Indiana produced mean monthly discharges which were greater than the long-term medians for all months of the 1993 water year. Mean discharges during the 1993 water year and long-term median discharges for the Wabash River at Mount Carmel are compared in figure 3.

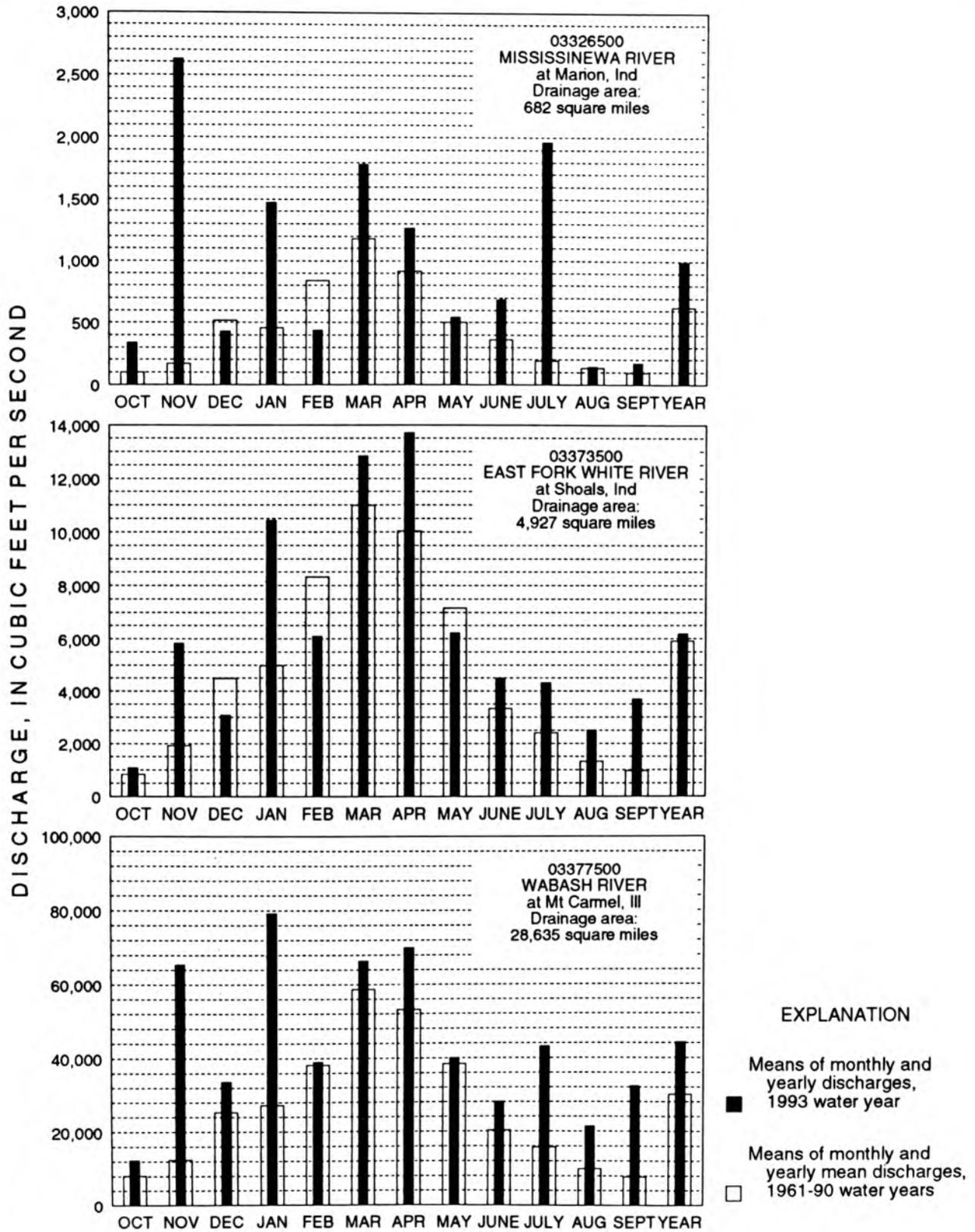


Figure 3.--Mean discharge at Indiana index stations during 1993 water year and median discharges for period 1961-90

Groundwater

Changes in ground-water levels are produced by natural influences such as precipitation and by man-made causes such as ground water withdrawals. Generally, in Indiana, ground water levels follow a fairly consistent seasonal pattern, reaching annual high levels in late April or early May, and then beginning a slow but continuous decline throughout the summer. In the fall ground-water levels begin to rise with increasing precipitation and reductions in evapotranspiration. (Clark, 1980).

This seasonal pattern is generally followed over a relatively long period in three index ground-water observation wells in Indiana. The three wells are designated Elkhart 4, Decatur 2, and Martin 5. While the seasonal water level pattern is generally followed in the long term, levels can diverge significantly from the pattern in a given year.

The index observation well Elkhart 4 is located in the north-central climactic division, in a sand and gravel aquifer. For 1993 water year, the normal seasonal pattern of ground-water levels is generally followed (in this discussion the term ground-water level(s) will refer to a height above an arbitrary datum; however, ground-water level data is normally quantified in terms of distance below a land-surface datum). The normal (normal refers for ground-water level data for the period 1982-92) high monthly mean ground-water level occurs in May at this index well. For the 1993 water year, the highest monthly mean ground-water level occurred in June, most likely due to much higher than normal precipitation which occurred in the north-central climactic region during June. The 1993 ground water-levels were higher than normal for the entire 1993 water year. Monthly and annual mean of daily minimum ground-water levels for this observation well during the 1993 water year and for the period 1983-92 are shown in figure 4 (note that ground-water levels in the figure are give in feet below land-surface datum).

The observation well Decatur 2 is located in a Devonian brown limestone aquifer, in the central climactic division. During the 1993 water year, Ground-water levels varied considerably from normal levels and from the normal seasonal pattern. The high monthly mean for the water year occurred in January; normally it occurs in April. Generally, 1993 levels were higher than normal, except for December February, and May, in which levels were below normal. The majority of higher than normal mean monthly levels most likely reflects the generally wetter than normal year in the central part of Indiana. Monthly and annual mean of daily minimum ground-water levels for this observation well during the 1993 water year and for the period 1983-92 are shown in figure 4.

Martin 5 is located in a Pennsylvanian rock aquifer in the southwest climactic division of Indiana. Monthly ground-water levels during the 1993 water year were all below normal, while the precipitation in the southwest climactic division was slightly above normal for the water year. The 1993 water year ground-water levels follow the normal seasonal pattern for Martin 5. Monthly and annual mean of daily minimum ground-water levels for this observation well during the 1993 water year and for the period 1983-92 are shown in figure 4.

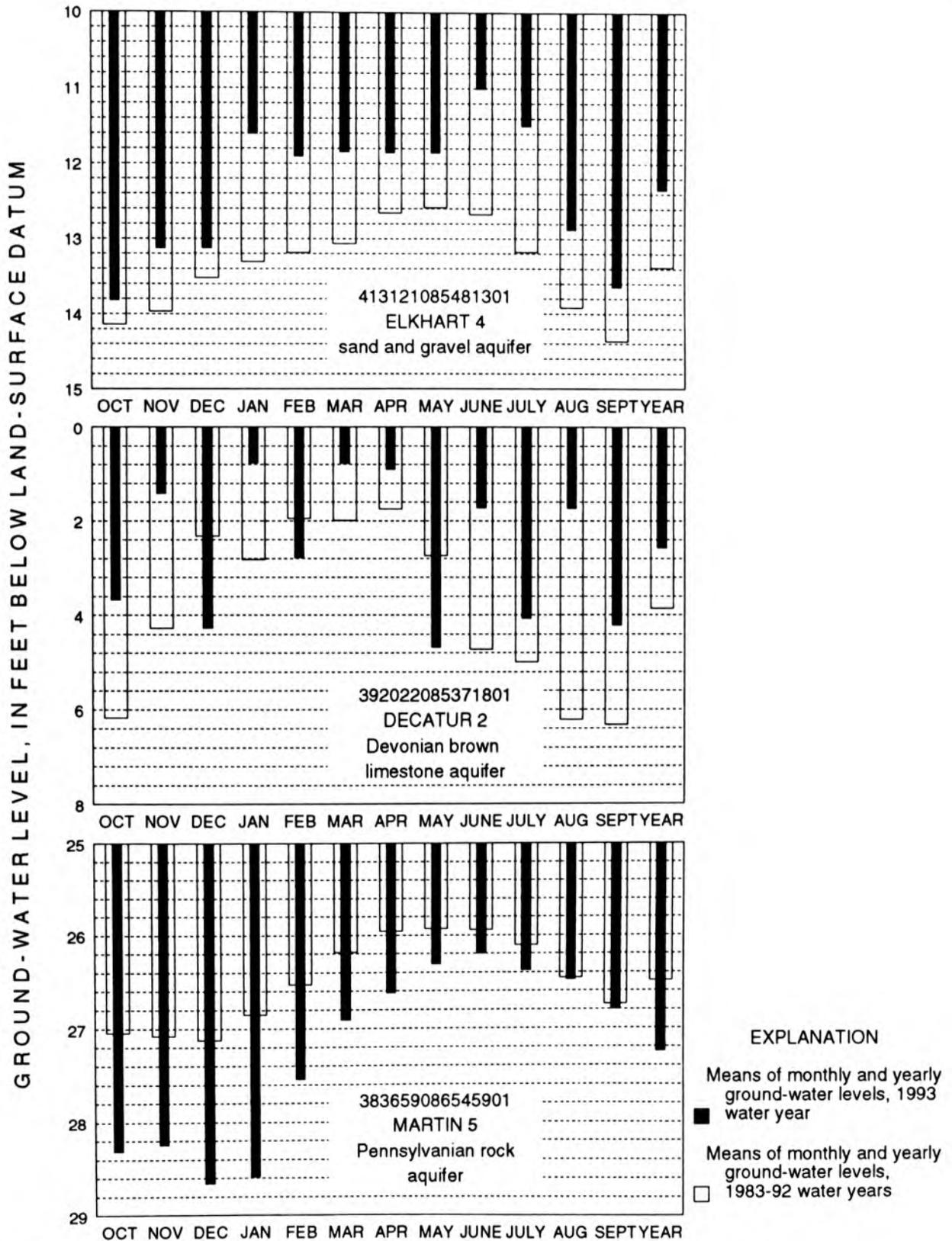


Figure 4.--Monthly and yearly mean of daily minimum ground-water levels at three Indiana ground-water observation wells during 1993 water year and mean of monthly and annual ground-water levels for water years 1983-92

SPECIAL NETWORKS AND PROGRAMS

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

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

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1993 water year that began October 1, 1992, and ended September 30, 1993. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow and stage data, stage and content data for a reservoir, water-quality data for surface water, and ground-water, lake-level data, peak-flow data, and ground-water-level data. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station, whether streamsite or well, in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-

water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and for surface-water stations where only miscellaneous measurements are made; the "latitude-longitude" system is used for wells.

Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in U.S. Geological Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indentation in the "List of Stations" in the front of this report. Each indentation represents one rank. This downstream order and system of indentation show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

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

Records in this report are in Part 03 (Ohio River basin), Part 04 (St. Lawrence River basin), and Part 05 (Upper Mississippi River basin). All records for a drainage basin encompassing more than one State can be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

Latitude-Longitude System

The identification numbers for wells are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last

two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description.

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

Records of Surface-Water Stage and Discharge

Data Collection and Computation

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

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

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

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

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

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

Data Presentation

Streamflow data in this report are presented in a new format that is considerably different from the format in data reports prior to the 1991 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table and less information is provided in the text or station manuscript above the table. These changes represent the results of a pilot program to reformat the annual water-data report to meet current user needs and data preferences.

The records published for each continuous-record surface-water discharge station (gaging station) now consist of four parts: the manuscript or station description; the data table of daily mean values of discharge for the current water year with summary data; a tabular statistical summary of monthly mean flow data for a designated period, by water year; and a summary statistics table that includes statistical data of annual, daily, and instantaneous flows as well as data pertaining to annual runoff, 7-day low-flow minimums, and flow duration.

Station manuscript

The manuscript provides, under various headings, descriptive information, such as station location; period of record; historical extremes outside the period of record; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

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

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

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

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

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

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

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

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

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

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

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton stage-capacity table when daily contents are given.

Headings for AVERAGE DISCHARGE, EXTREMES FOR PERIOD OF RECORD, AND EXTREMES FOR CURRENT YEAR have been deleted and the information contained in these paragraphs, except for the listing of secondary instantaneous peak discharges in the EXTREMES FOR CURRENT YEAR paragraph, is now presented in the tabular summaries following the discharge table or in the REMARKS paragraph, as appropriate. No changes have been made to the data presentations of lake contents.

Data table of daily mean values

The daily table for stream-gaging stations gives mean discharge for each day of the water year. In the monthly summary for the table, the line headed "TOTAL" gives the sum of the daily figures for each month. the line headed "MEAN" gives the average flow in cubic feet per second for the month; and the lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for each month. Discharge for the month also is usually expressed in cubic feet per second per square mile (line headed "CFSM"); or in inches (line headed "IN."); or in acre-feet (line headed "ACFT"). Figures for cubic feet per second per square mile and runoff in inches or in acre-feet may be omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversion data or reservoir contents are gives. These figures are identified by a symbol and corresponding footnote.

Statistics of monthly mean data

A tabular summary of the mean (line headed "MEAN"), maximum (line headed "MAX"), and minimum (line headed "MIN") of monthly mean flows for each month for a designated period is provided below the mean values table. The water years of the first occurrence of the maximum and minimum monthly flows are provided immediately below those figures. The designated period of will be expressed as "FOR WATER YEARS ____ - ____, BY WATER YEAR (WY)," and will list the first and last water years of the range of years selected from the PERIOD OF RECORD paragraph in the station manuscript. It will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript.

Summary statistics

A table titled "SUMMARY STATISTICS" follows the statistics of monthly mean data tabulation. This table consists of four columns, with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar year and for a designated period, as appropriate. The designated period selected, "WATER YEARS ____ - ____, " will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water year for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (See line headings below.), except for the "ANNUAL" 7-DAY MINIMUM" statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

The date or water year, as appropriate, of the first occurrence of each statistic reporting extreme values of discharge is provided adjacent to the statistic. Repeated occurrences may be noted in the REMARKS paragraph of the manuscript or in footnotes. Because the designated period may not be the same as the station period of record published in the manuscript, occasionally the dates of occurrence listed for the daily and instantaneous extremes in the designated-period column may not be within the selected water years listed in the heading. When this occurs, it will be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration curve statistics and runoff data are also given. Runoff data may be omitted if there is extensive regulation or diversion of flow in the drainage basin.

The following summary statistics data, as appropriate, are provided with each continuous record of discharge. Comments to follow clarify information presented under the various line headings of the summary statistics table. ANNUAL TOTAL.--The sum of the daily mean values of discharge for the year. At some stations the annual total discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

ANNUAL TOTAL.--The sum of the daily mean values of discharge for the year. At some stations the annual total discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

ANNUAL MEAN.--The arithmetic mean of the individual daily mean discharges for the year noted or for the designated period. At some stations the yearly mean discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

HIGHEST ANNUAL MEAN.--The maximum annual mean discharge occurring for the designated period.

LOWEST ANNUAL MEAN.--The minimum annual mean discharge occurring for the designated period.

HIGHEST DAILY MEAN.--The maximum daily mean discharge for the year or for the designated period.

LOWEST DAILY MEAN.--The minimum daily mean discharge for the year or for the designated period.

ANNUAL 7-DAY MINIMUM.--The lowest mean discharge for seven consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1-March 31). The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic.)

INSTANTANEOUS PEAK FLOW.--The maximum instantaneous discharge occurring for the water year or for the designated period. Note that secondary instantaneous peak discharges above a selected base discharge are stored in District computer files for stations meeting certain criteria. Those discharge values may be obtained by writing to the District Office. (See address on back of title page of this report.)

INSTANTANEOUS PEAK STAGE.--The maximum instantaneous stage occurring for the water year or for the designated period. If the dates of occurrence for the instantaneous peak flow and instantaneous peak stage differ, the REMARKS paragraph in the manuscript or a footnote may be used to provide further information.

INSTANTANEOUS LOW FLOW.--The minimum instantaneous discharge occurring for the water year or for the designated period.

ANNUAL RUNOFF.--Indicates the total quantity of water in runoff for a drainage area for the year. Data reports may use any of the following units of measurement in presenting annual runoff data:

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

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.

Inches (INCHES) indicates the depth to which the drainage area would be covered if all of the runoff for a given time period were uniformly distributed on it.

10 PERCENT EXCEEDS.--The discharge that has been exceeded 10 percent of the time for the designated period.

50 PERCENT EXCEEDS.--The discharge that has been exceeded 50 percent of the time for the designated period.

90 PERCENT EXCEEDS.--The discharge that has been exceeded 90 percent of the time for the designated period.

Identifying Estimated Daily Discharge

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

Accuracy of the Records

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

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

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1 ft³/s; to the nearest tenth between 1.0 and 10 ft³/s; to whole numbers between 10 and 1,000 ft³/s; and to 3 significant figures for more than 1,000 ft³/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

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

Other Records Available

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

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data.

Classification of Records

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

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

Records of surface-water quality in this report are for continuing-record stations only. These stations are part of the Hydrologic Bench-Mark Network or the National Stream Quality Accounting Network (NASQAN). Locations of stations for which records on the quality of surface water appear in this report are shown on figures 5 and 6.

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records.

On-site Measurements and Sample Collection

The major concern in obtaining water-quality data is assuring that the data represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, specific conductance, alkalinity, and dissolved oxygen, are made on-site when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for on-site measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed under "PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS" which appears at the end of the introductory text. Detailed information on collecting, treating, and shipping samples also may be obtained from the U.S. Geological Survey, Indiana District Office.

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

NOTE: In March 1989 the National Water-Quality Laboratory discovered a bias in the turbidimetric method for sulfate analysis, indicating that values below 75 mg/L have a median positive bias of 2 mg/L above the true value for the period between 1982 and 1989. Correct sulfate values have been made by the laboratory and published in this report since April 17, 1989.

Laboratory Measurements

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

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, and type of data available.

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

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

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

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station.

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

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

Remark Codes

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

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

NOTE: Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter ($\mu\text{g/L}$) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are with the range of 10's to 100's of nanograms per liter (ng/L). Present data above the $\mu\text{g/L}$ level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey will begin using new trace-element protocols in the near future.

Records of Lake Levels

Water-level data from a network of lake gaging stations are given in this report. These data are intended to provide a historical record of water-level changes in lakes where established average legal levels have been designated by the State. Numbers of lakes by county having current water-level records are shown on figure 7.

Data Collection and Computation

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

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

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

Data Presentation

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

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

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

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

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

DATUM OF GAGE.--This entry indicates the datum of the current gage referred to sea level (see glossary).

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

ESTABLISHED LEGAL LEVEL.--This entry indicates the average level in feet above gage datum and sea level at which the lake is to be maintained, the date of decree, and court specifying the decreed level.

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

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

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

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

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

Records of Ground-Water Levels

Only water-level data from a representative network of observation wells are given in this report. These data are intended to provide a sampling and historical record of water-level changes in the State's most important aquifers. Locations of the observation wells in this network in Indiana are shown on figure 8.

Data Collection and Computation

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

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

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

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

Data Presentation

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

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

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

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

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

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

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

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

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

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

Records of Ground-Water Quality

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

Sample Collection and Analysis

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

Data Presentation

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

ACCESS TO WATSTORE DATA

The U. S. Geological Survey is the principal Federal water-data agency and, as such, collects and disseminates about 70 percent of the water data currently being used by numerous State, local, private, and other Federal agencies to develop and manage our water resources. As part of the Geological Survey's program of releasing water data to the public, a large-scale computerized system has been developed for the storage and retrieval of water data collected through its activities. The National WATer Data STOrage and REtrieval System (WATSTORE) was established in 1972 to provide an effective and efficient means for the processing and maintenance of water data collected through the

the activities of the U.S. Geological Survey and to facilitate release of the data to the public. A variety of useful products, ranging from data tables to complex statistical analyses such as Log Pearson Type III, can be produced using WATSTORE. The system resides on the central computer facilities of the U.S. Geological Survey at its National Center in Reston, Virginia and consists of related files and data bases.

- ★ Station Header File - Contains descriptive information on more than 440,000 sites throughout the United States and its territories where the U.S. Geological Survey collects or has collected data.
- ★ Daily Values File - Contains more than 220 million daily values of stream flows, stages, reservoir contents, water temperatures, specific conductances, sediment concentrations, sediment discharges, and ground-water levels.
- ★ Peak Flow File - Contains approximately 500,000 maximum (peak) streamflow gage-heights values at surface-water sites.
- ★ Water Quality File - Contains approximately 2 million analyses of water samples that describe the chemical, physical, biological, and radio-chemical characteristics of both surface- and ground-water.
- ★ Ground-Water Site Inventory Data Base - Contains inventory data for more than 900,000 wells, springs, and other sources of ground water. The data includes site location, geohydrologic characteristics, well-construction history, and one-time field measurements such as water temperature.

In 1976, the U.S. Geological Survey opened WATSTORE to the public for direct access. The signing of a Memorandum of Agreement with the Survey is required to obtain direct access to WATSTORE. The system can be accessed either synchronously or asynchronously. The requestor will be expected to pay all computer costs he/she incurs. Direct access may be obtained by contacting:

U.S. Geological Survey
National Water Data Exchange
421 USGS National Center
Reston, Virginia 22092

In addition to providing direct access to WATSTORE, data can be provided in various machine-readable formats on magnetic tape or 5-1/4 inch floppy disk; and, as noted in the introduction, on CD-ROM discs. Beginning with the 1990 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Divisions's District offices. (See address on the back of the title page.) A limited number of CD-ROM discs will be available for sale by the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, Colorado 80225.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. Also, see table for converting English units to International System (SI) units on the inside of the back cover.

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

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

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

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

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

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

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

Bottom material: See Bed material.

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

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

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

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

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

Cubic foot per second-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons, or 2,445 cubic meters.

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

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

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

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

Annual 7-day minimum is the lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1 - March 31). The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic.)

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

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

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

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

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

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

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

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

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

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

Micrograms per gram ($\mu\text{g/g}$) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per liter (UG/L, $\mu\text{g/L}$) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

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

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

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

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

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

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

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

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

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

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

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

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

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

Sea level: In this report "sea Level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)--a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

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

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

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

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

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

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

Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: Concentration (mg/L) \times discharge (ft³/s) \times 0.0027.

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

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

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

7-day 10-year low flow (7 Q¹⁰) is the discharge at the 10-year recurrence interval taken from a frequency curve of annual values of the lowest mean discharge for 7 consecutive days (the 7-day low flow).

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

Solute is any substance that is dissolved in water.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Table 2.--Factors for conversion of chemical constituents in milligrams or micrograms per liter to milliequivalents per liter

Ion	Multiply by	Ion	Multiply by
Aluminum (Al ⁺³)	0.11119	Iodide (I ⁻¹)	0.00788
Ammonia as NH ₄ ⁺¹	.05544	Iron (Fe ⁺³)*	.05372
Barium (Ba ⁺²)	.01456	Lead (Pb ⁺²)*	.00965
Bicarbonate (HCO ₃ ⁻¹)	.01639	Lithium (Li ⁺¹)*	.14411
Bromide (Br ⁻¹)	.01251	Magnesium (Mg ⁺²)	.08226
Calcium (Ca ⁺²)	.04990	Manganese (Mn ⁺²)*	.03640
Carbonate (CO ₃ ⁻²)	.03333	Nickel (Ni ⁺²)*	.03406
Chloride (Cl ⁻¹)	.02821	Nitrate (NO ₃ ⁻¹)	.01613
Chromium (Cr ⁺⁶)*	.11539	Nitrite (NO ₂ ⁻¹)	.02174
Cobalt (Co ⁺²)*	.03394	Phosphate (PO ₄ ⁻³)	.03159
Copper (Cu ⁺²)*	.03148	Potassium (K ⁺¹)	.02557
Cyanide (CN ⁻¹)	.03844	Sodium (Na ⁺¹)	.04350
Fluoride (F ⁻¹)	.05264	Strontium (Sr ⁺²)*	.02283
Hydrogen (H ⁺¹)	.99209	Sulfate (SO ₄ ⁻²)	.02082
Hydroxide (OH ⁻¹)	.05880	Zinc (Zn ⁺²)*	.03060

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

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

Range of concentration in 1,000 mg/L	Divide by	Range of concentration in 1,000 mg/L	Divide by	Range of concentration in 1,000 mg/L	Divide by	Range of concentration in 1,000 mg/L	Divide by
0 - 8	1.00	201-217	1.13	411-424	1.26	619-634	1.39
8.05 - 24	1.01	218-232	1.14	427-440	1.27	636-650	1.40
24.2 - 40	1.02	234-248	1.15	443-457	1.28	652-666	1.41
40.5 - 56	1.03	250-264	1.16	460-473	1.29	668-682	1.42
56.5 - 72	1.04	266-280	1.17	476-489	1.30	684-698	1.43
72.5 - 88	1.05	282-297	1.18	492-508	1.31	700-715	1.44
88.5 - 104	1.06	299-313	1.19	508-522	1.32	717-730	1.45
105 - 120	1.07	315-329	1.20	524-538	1.33	732-747	1.46
121 - 136	1.08	331-345	1.21	540-554	1.34	749-762	1.47
137 - 152	1.09	347-361	1.22	556-570	1.35	765-780	1.48
153 - 169	1.10	363-378	1.23	572-585	1.36	782-796	1.49
170 - 185	1.11	380-393	1.24	587-602	1.37	798-810	1.50
186 - 200	1.12	395-409	1.25	604-617	1.38		

*Based on water density of 1.000 mg/L and a specific gravity of sediment of 2.65.

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

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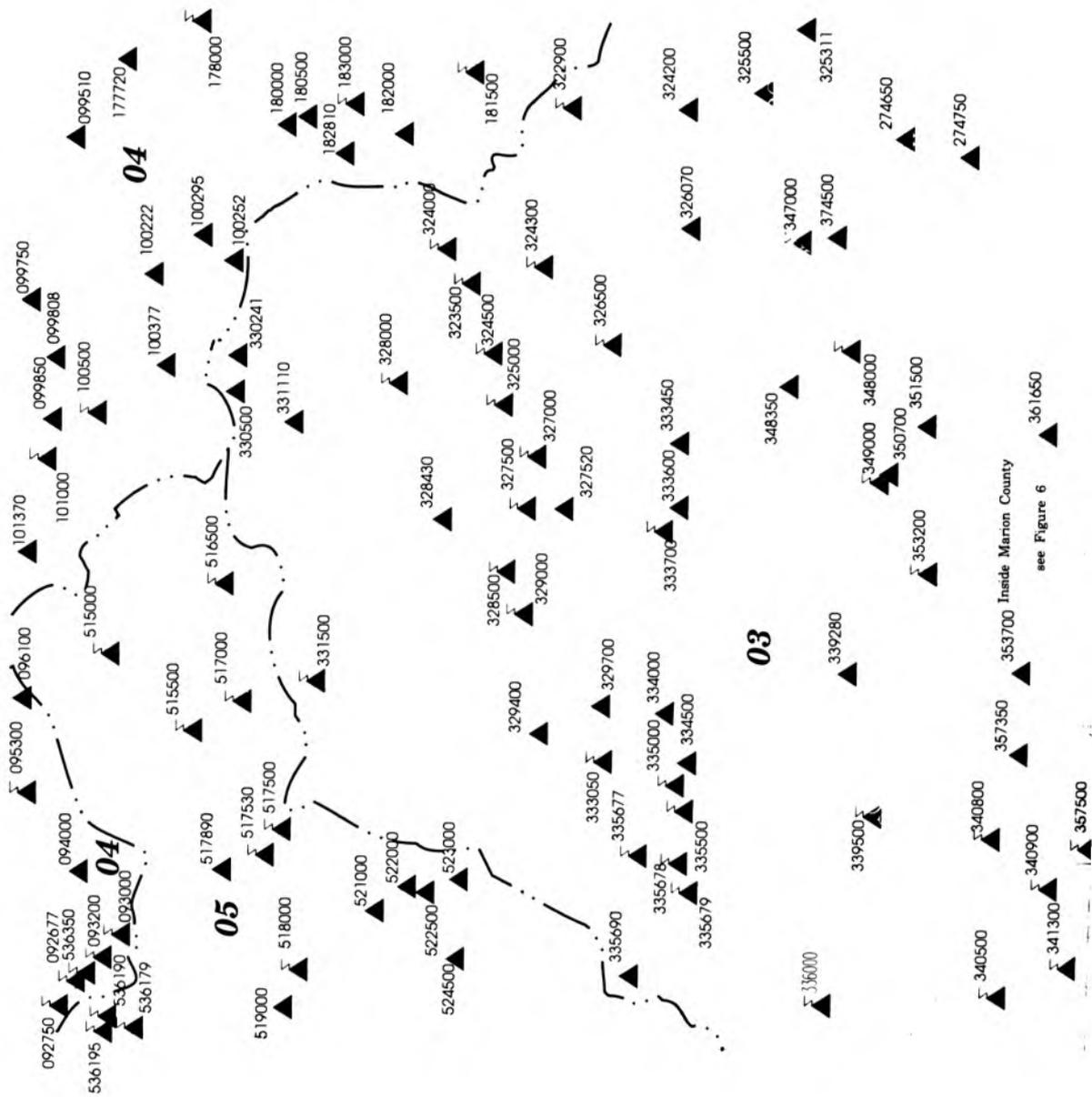
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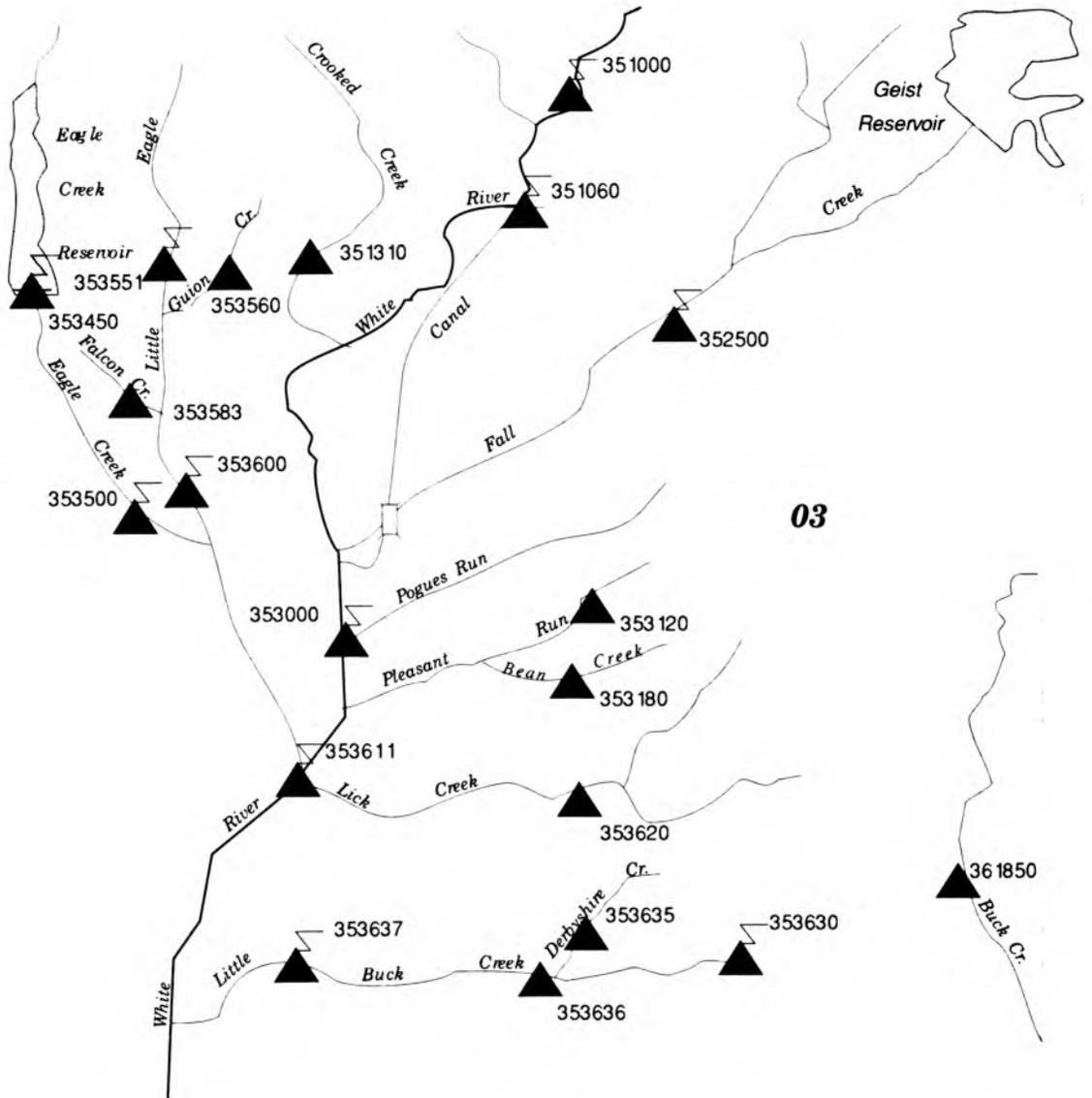
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03

EXPLANATION

-  Active surface-water station
-  Active data-collection platform or telemark
- 03** PART NUMBER
Abbreviated station number : complete
302500 number includes part number

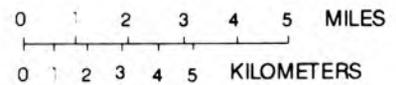


Figure 6.--Locations of streamflow gaging stations in Marion County.

03274650 WHITEWATER RIVER NEAR ECONOMY, IN

LOCATION.--Lat 40°00'05", long 85°06'56", in NW¹/₄, NE¹/₄, sec.19, T.18 N., R.13 E., Wayne County, Hydrologic Unit 05080003, on right bank 15 ft downstream from bridge on Wayne County Line Road, 1.7 mi upstream from Little Creek, 2.4 mi northwest of Economy, and at mile 91.9.

DRAINAGE AREA.--10.4 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 1,066.00 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	38	6.4	●19	5.9	●4.3	43	7.7	5.3	52	2.2	2.1
2	1.6	63	6.1	●6.2	4.9	7.7	25	7.2	5.3	106	2.2	2.2
3	1.5	37	4.9	●6.1	4.9	56	14	7.0	5.3	81	2.2	3.3
4	1.4	23	4.9	●86	4.5	124	9.7	7.1	12	25	2.3	2.4
5	1.4	14	4.3	●98	4.5	58	8.2	7.1	15	17	2.2	2.1
6	1.4	8.8	4.1	●40	4.7	43	7.2	6.3	7.6	11	2.2	2.1
7	1.4	6.9	4.2	●10	5.1	78	6.3	5.9	6.0	6.9	2.2	2.1
8	1.6	6.0	4.4	●9.0	4.6	85	5.9	5.8	5.4	5.8	2.2	2.1
9	4.5	5.3	3.9	●7.4	4.1	45	40	5.5	14	4.3	2.2	2.1
10	3.1	5.3	4.4	●7.0	4.0	36	70	5.5	10	19	2.4	2.0
11	2.5	36	4.2	●6.2	4.0	31	27	5.8	6.2	95	2.4	2.0
12	2.0	225	●4.9	●6.0	10	21	15	10	5.4	47	2.3	2.0
13	1.8	90	●4.7	●25	12	15	9.9	17	5.3	14	2.3	2.0
14	1.7	41	●4.8	●17	8.2	9.0	93	8.5	21	8.9	2.3	2.0
15	2.7	30	●4.9	11	6.6	6.9	67	6.4	25	6.6	2.2	2.0
16	6.5	24	●5.4	8.9	6.9	8.2	66	5.7	12	5.1	3.1	2.0
17	5.5	17	●5.2	7.7	●5.0	18	35	5.5	7.1	4.7	2.6	2.0
18	4.1	11	●5.0	5.8	●4.0	11	25	5.5	6.1	4.3	2.4	2.0
19	3.0	8.3	●4.8	5.1	●3.6	8.3	21	5.5	6.8	62	2.3	1.9
20	2.9	7.3	●5.4	5.2	3.3	7.9	32	5.5	5.4	14	2.2	1.9
21	2.7	14	●5.2	35	15	9.3	27	5.4	95	7.5	2.2	2.0
22	2.2	86	●5.0	35	42	9.7	17	5.3	30	5.2	2.2	2.0
23	2.1	81	●4.9	20	22	48	13	5.6	18	4.0	2.2	2.0
24	2.2	37	●4.6	30	14	28	12	6.0	9.8	3.2	2.2	2.0
25	2.1	28	●4.5	18	●7.9	17	16	8.7	9.5	2.8	2.1	2.3
26	2.1	21	●4.3	12	●5.8	12	14	5.9	13	2.4	2.1	3.2
27	2.1	15	●4.4	9.8	●5.2	9.2	11	5.5	13	2.2	2.1	2.2
28	2.0	9.6	●4.5	9.3	●4.7	7.7	9.5	5.3	103	2.2	2.1	2.2
29	2.0	7.9	●4.7	9.0	---	7.0	8.6	5.3	52	2.2	2.1	2.1
30	2.0	7.1	●5.2	7.1	---	6.4	8.2	5.3	24	2.2	2.1	2.1
31	2.0	---	●21	7.1	---	11	---	5.4	---	2.2	2.1	---
TOTAL	75.7	1003.5	165.2	578.9	227.4	838.6	756.5	204.2	553.5	625.7	69.9	64.4
MEAN	2.44	33.4	5.33	18.7	8.12	27.1	25.2	6.59	18.4	20.2	2.25	2.15
MAX	6.5	225	21	98	42	124	93	17	103	106	3.1	3.3
MIN	1.4	5.3	3.9	5.1	3.3	4.3	5.9	5.3	5.3	2.2	2.1	1.9
CFSM	.23	3.22	.51	1.80	.78	2.60	2.42	.63	1.77	1.94	.22	.21
IN.	.27	3.59	.59	2.07	.81	3.00	2.71	.73	1.98	2.24	.25	.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1993, BY WATER YEAR (WY)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	
MEAN	3.95	9.82	13.5	12.1	19.7	21.6	17.9	11.7	8.46	7.56	5.32	3.59												
MAX	39.9	53.0	39.7	33.0	56.0	41.6	38.0	42.6	22.4	27.5	61.5	32.2												
(WY)	1987	1973	1978	1975	1985	1978	1989	1989	1973	1979	1979	1989												
MIN	.46	.45	.51	.33	3.31	2.58	2.96	1.47	1.03	.57	.41	.40												
(WY)	1992	1972	1977	1977	1978	1981	1971	1988	1977	1977	1988	1988												

SUMMARY STATISTICS FOR 1992 CALENDAR YEAR FOR 1993 WATER YEAR WATER YEARS 1971 - 1993

	1992 CALENDAR YEAR	1993 WATER YEAR	1971 - 1993
ANNUAL TOTAL	3635.6	5163.5	
ANNUAL MEAN	9.93	14.1	11.2
HIGHEST ANNUAL MEAN			18.8
LOWEST ANNUAL MEAN			3.26
HIGHEST DAILY MEAN	225	Nov 12	569
LOWEST DAILY MEAN	1.4	Oct 4	.22
ANNUAL SEVEN-DAY MINIMUM	1.5	Oct 1	.24
INSTANTANEOUS PEAK FLOW			1100
INSTANTANEOUS PEAK STAGE			6.00
ANNUAL RUNOFF (CFSM)	.96		1.36
ANNUAL RUNOFF (INCHES)	13.00		18.47
10 PERCENT EXCEEDS	21		36
50 PERCENT EXCEEDS	3.8		5.9
90 PERCENT EXCEEDS	2.0		2.1

● Estimated

03274750 WHITEWATER RIVER NEAR HAGERSTOWN, IN

LOCATION.--Lat 39°52'25", long 85°09'47", in NE¹/₄/NE¹/₄, sec.3, T.16 N., R.12 E., Wayne County, Hydrologic Unit 05080003, on left bank at downstream side of bridge on Jerry Meyers Road, 1.0 mi upstream from Pronghorn Run, 1.5 mi north of Interstate 70, 2.0 mi downstream from Nettle Creek, 2.6 mi south of Hagerstown, and at mile 84.9.

DRAINAGE AREA.--58.7 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 950.00 ft above sea level (Indiana Flood Control and Water Resources Commission bench mark).

REMARKS.--Records good except estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	136	71	87	57	•47	186	68	51	144	27	21
2	29	211	69	69	54	58	127	66	49	308	26	24
3	30	141	65	69	53	207	93	66	49	308	24	55
4	33	97	63	396	52	619	80	66	72	131	28	32
5	38	78	60	447	51	255	75	64	80	105	25	25
6	42	66	58	150	51	180	72	61	62	93	24	23
7	45	59	58	110	49	320	68	59	57	89	24	22
8	61	54	56	95	50	371	66	57	54	85	24	21
9	45	51	56	81	48	206	162	55	70	77	26	20
10	56	51	58	75	47	162	307	54	65	97	29	20
11	55	144	57	69	48	142	122	55	56	581	30	19
12	66	810	55	69	67	115	95	181	53	294	31	20
13	86	337	53	113	71	102	83	254	50	94	30	19
14	61	166	53	90	60	87	346	93	232	69	28	18
15	59	127	54	76	56	79	243	78	133	58	28	19
16	58	110	61	69	57	80	299	70	75	51	38	18
17	57	99	58	66	•50	106	144	65	63	47	33	18
18	52	86	54	59	•46	86	113	65	56	43	29	17
19	49	79	54	56	•44	78	105	63	57	278	27	17
20	49	74	62	55	•43	76	124	59	52	66	30	17
21	48	83	59	159	73	77	116	57	266	50	27	17
22	46	260	57	131	155	76	95	55	99	44	26	17
23	46	396	55	93	93	206	86	59	75	39	25	17
24	46	160	51	122	72	133	83	60	65	36	25	17
25	49	123	•49	90	•62	99	92	66	62	34	26	23
26	50	105	•48	76	•54	86	87	58	75	33	24	40
27	45	92	•47	71	•51	78	78	55	75	31	22	29
28	42	83	•48	68	•49	74	75	53	272	31	22	26
29	41	78	53	65	---	71	73	55	175	30	22	23
30	44	74	60	60	---	68	71	53	107	28	21	21
31	43	---	95	60	---	72	---	54	---	27	21	---
TOTAL	1493	4430	1797	3286	1663	4416	3766	2224	2707	3401	822	675
MEAN	48.2	148	58.0	106	59.4	142	126	71.7	90.2	110	26.5	22.5
MAX	86	810	95	447	155	619	346	254	272	581	38	55
MIN	22	51	47	55	43	47	66	53	49	27	21	17
CFSM	.82	2.52	.99	1.81	1.01	2.43	2.14	1.22	1.54	1.87	.45	.38
IN.	.95	2.81	1.14	2.08	1.05	2.80	2.39	1.41	1.72	2.16	.52	.43

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1993, BY WATER YEAR (WY)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	
MEAN	30.7	53.4	76.1	70.9	105	118	108	79.4	56.7	52.8	40.4	26.2												
MAX	188	230	205	170	233	224	189	196	114	219	312	121												
(WY)	1987	1973	1978	1975	1975	1973	1972	1990	1980	1979	1979	1989												
MIN	11.6	12.1	12.0	8.48	29.4	25.6	28.0	23.0	14.6	8.18	8.56	8.37												
(WY)	1977	1977	1977	1977	1978	1981	1971	1988	1977	1977	1988	1983												

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1971 - 1993

ANNUAL TOTAL	23737	30680		
ANNUAL MEAN	64.9	84.1		
HIGHEST ANNUAL MEAN			117	1979
LOWEST ANNUAL MEAN			25.4	1977
HIGHEST DAILY MEAN	1230	Jul 24	810	Nov 12
LOWEST DAILY MEAN	20	Jan 11	17	Sep 18
ANNUAL SEVEN-DAY MINIMUM	21	Jan 7	17	Sep 18
INSTANTANEOUS PEAK FLOW			1140	Jul 11
INSTANTANEOUS PEAK STAGE			7.91	Jul 11
ANNUAL RUNOFF (CFSM)	1.10		1.43	
ANNUAL RUNOFF (INCHES)	15.04		19.44	
10 PERCENT EXCEEDS	103		157	126
50 PERCENT EXCEEDS	40		60	38
90 PERCENT EXCEEDS	23		25	14

• Estimated

GREAT MIAMI RIVER BASIN

03275000 WHITEWATER RIVER NEAR ALPINE, IN
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL ANALYSIS: October 1986 to current year.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	TUR- BID- ITY (NTU) (00076)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	
NOV 03...	1430	8950	566	7.4	22.0	12.0	743	9.7	93	3.5	15000
DEC 08...	1350	330	691	8.3	0.0	4.0	758	13.0	100	0.50	180
MAR 09...	1345	2550	505	8.3	6.0	4.0	748	12.4	97	33	620
MAY 11...	1340	389	656	8.2	28.0	20.0	746	11.1	125	1.3	52
JUL 20...	1450	583	592	8.1	31.0	23.5	750	9.2	111	21	3600
SEP 01...	1110	167	664	7.7	26.0	21.0	749	7.0	80	0.30	3900

DATE	STREP- TOCOCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY WAT DIS FIX END FIELD CACO3 (MG/L) (39036)	ALKA- LINITY WAT DIS TOT IT FIELD CACO3 (MG/L AS CACO3) (39086)	BICAR- BONATE WATER DIS IT FIELD HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD AS CO3 (00452)
NOV 03...	35000	270	50	68	24	7.6	4.6	210	218	266	0
DEC 08...	51	360	56	92	32	11	2.1	310	306	373	0
MAR 09...	2600	250	50	62	22	6.2	2.4	200	195	238	0
MAY 11...	K10	310	38	76	30	10	2.0	270	275	336	0
JUL 20...	260	290	41	73	26	8.0	3.1	250	248	303	0
SEP 01...	120	340	51	84	31	12	2.0	280	287	350	0

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)
NOV 03...	32	22	0.2	8.7	313	316	--	0.04	3.9	0.08
DEC 08...	43	23	0.2	8.4	407	414	363	0.02	4.0	0.03
MAR 09...	39	--	0.1	6.7	309	--	--	--	--	--
MAY 11...	40	20	0.2	1.8	350	359	368	0.04	3.0	--
JUL 20...	30	17	0.2	8.1	340	328	535	0.02	3.0	--
SEP 01...	44	25	0.2	8.9	389	394	175	0.07	3.2	--

GREAT MIAMI RIVER BASIN

03275000 WHITEWATER RIVER NEAR ALPINE, IN --Continued
(National stream-quality accounting network station)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)
NOV 03...	0.07	1.1	0.27	0.13	0.12	--	--	--	--	--
DEC 08...	0.03	<0.2	0.07	0.06	0.06	<10	80	<3	<3	<4
MAR 09...	--	--	--	--	--	20	43	<3	10	<4
MAY 11...	0.10	0.4	0.02	<0.01	0.01	<10	77	<3	16	<4
JUL 20...	0.07	0.7	0.13	0.09	0.06	--	--	--	--	--
SEP 01...	0.18	0.4	0.10	0.08	0.07	<10	86	<3	8	<4

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE 'DIAM. '% FINER THAN .062 MM (70331)
NOV 03...	--	--	--	--	--	--	--	86	--	70
DEC 08...	9	10	1	<1	<1	410	<6	16	14	34
MAR 09...	6	10	1	<1	<1	190	<6	106	730	67
MAY 11...	7	20	2	<1	<1	360	<6	23	24	24
JUL 20...	--	--	--	--	--	--	--	52	82	78
SEP 01...	8	10	3	<1	<1	340	<6	38	17	30

03275600 EAST FORK WHITEWATER RIVER AT ABINGTON, IN

LOCATION.--Lat 39°43'59", long 84°57'35", in NE¹/₄SW¹/₄, sec.2, T.12 N., R.2 W., Wayne County, Hydrologic Unit 05080003, 15 ft downstream of bridge on county road at Abington, 3 mi downstream from Elkhorn Creek, 8 mi southwest of Richmond, and at mile 26.7.

DRAINAGE AREA.--200 mi².

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

REVISED RECORDS.--WSP 2108: Drainage area. WDR IN-90-1: 1966(M), 1967-75(P), 1976-77(M), 1978-79(P), 1982(P), 1987(P), 1989(P).

GAGE.--Water-stage recorder. Datum of gage is 791.00 ft above sea level. Prior to Aug. 2, 1991 at site 250 ft downstream at same datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	72	182	276	232	e210	531	214	125	792	50	39
2	36	122	174	211	201	e240	463	198	122	1230	47	41
3	35	135	160	195	194	749	328	199	120	1050	44	306
4	36	106	152	947	187	2490	266	204	271	490	57	140
5	35	88	139	2480	180	1370	241	190	356	326	52	86
6	34	75	129	755	181	832	219	176	211	245	49	64
7	34	68	130	453	172	893	194	163	162	261	43	55
8	36	62	125	361	170	1240	184	152	145	424	40	48
9	66	59	121	302	161	800	644	147	934	240	39	44
10	39	63	136	278	160	602	2440	159	566	181	40	38
11	38	114	136	250	165	515	843	294	292	186	50	35
12	37	1480	127	270	229	418	535	806	203	346	61	55
13	36	1450	121	577	e250	356	417	1000	167	222	63	54
14	35	475	118	480	e210	276	868	462	438	170	48	38
15	88	290	120	347	e195	232	982	316	289	149	41	40
16	85	231	124	298	e180	234	1580	239	167	135	102	36
17	57	208	123	269	e170	347	759	200	138	169	87	34
18	47	193	117	229	e168	302	544	200	122	129	62	33
19	44	179	116	206	e170	244	486	187	115	202	51	31
20	44	166	151	201	e180	227	444	166	108	127	66	31
21	43	191	141	438	240	213	375	158	361	107	50	33
22	42	734	138	787	611	205	326	146	231	99	41	32
23	41	1390	134	444	431	689	298	145	148	91	36	33
24	41	482	e120	820	e280	715	281	149	121	85	35	34
25	42	335	e108	607	e260	428	353	163	234	83	55	83
26	41	277	e100	387	e240	323	419	142	325	77	51	110
27	41	237	113	334	e218	265	316	131	230	70	35	104
28	40	214	109	301	e205	227	274	122	672	68	32	73
29	40	200	122	279	---	202	251	122	481	62	32	55
30	40	187	160	254	---	185	240	111	301	57	29	46
31	40	---	241	246	---	226	---	151	---	51	32	---
TOTAL	1349	9883	4187	14282	6240	16255	16101	7212	8155	7924	1520	1851
MEAN	43.5	329	135	461	223	524	537	233	272	256	49.0	61.7
MAX	88	1480	241	2480	611	2490	2440	1000	934	1230	102	306
MIN	34	59	100	195	160	185	184	111	108	51	29	31
CFSM	.22	1.65	.68	2.30	1.11	2.62	2.68	1.16	1.36	1.28	.25	.31
IN.	.25	1.84	.78	2.66	1.16	3.02	2.99	1.34	1.52	1.47	.28	.34

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1993, BY WATER YEAR (WY)

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	81.3	167	292	256	335	385	364	318	168	171	116	59.3																
MAX	615	558	929	708	901	884	748	1049	419	773	773	242																
(WY)	1967	1973	1991	1969	1975	1978	1970	1968	1980	1979	1979	1979																
MIN	22.5	32.7	26.5	21.3	83.8	111	88.7	55.9	24.6	22.9	18.6	19.9																
(WY)	1989	1977	1977	1977	1992	1992	1976	1976	1988	1988	1988	1983																

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1966 - 1993	
ANNUAL TOTAL	62631		94959			
ANNUAL MEAN	171		260		226	
HIGHEST ANNUAL MEAN					388	
LOWEST ANNUAL MEAN					92.3	
HIGHEST DAILY MEAN	3350		2490		9990	
LOWEST DAILY MEAN	34		29		11	
ANNUAL SEVEN-DAY MINIMUM	35		32		13	
INSTANTANEOUS PEAK FLOW			4420		20000	
INSTANTANEOUS PEAK STAGE			10.36		16.18	
ANNUAL RUNOFF (CFSM)	.86		1.30		1.13	
ANNUAL RUNOFF (INCHES)	11.65		17.66		15.33	
10 PERCENT EXCEEDS	238		570		458	
50 PERCENT EXCEEDS	101		170		112	
90 PERCENT EXCEEDS	42		40		34	

e Estimated

GREAT MIAMI RIVER BASIN

03276000 EAST FORK WHITEWATER RIVER AT BROOKVILLE, IN

LOCATION.--Lat 39°26'02", long 85°00'12", in NE¹/₄NE¹/₄ sec.20, T.9 N., R.2 W., Franklin County, Hydrologic Unit 05080003, on right bank 100 ft upstream from bridge on State Highway 101, at Brookville, 0.4 mi downstream from Brookville Lake, and 1.8 mi upstream from mouth.

DRAINAGE AREA.--380 mi².

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

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

GAGE.--Water-stage recorder. Datum of gage is 621.76 ft above sea level. Prior to May 22, 1954, nonrecording gage site 100 ft downstream at datum 2.00 ft higher. May 22, 1954 to Aug. 20, 1965, water-stage recorder at site 165 ft downstream at datum 2.00 ft higher. Aug. 21, 1965 to Sept. 30, 1981, water-stage recorder at same site and datum. Data Collection Platform with water temperature probe since Nov. 5, 1986.

REMARKS.--Flow regulated by The U.S. Army Corps of Engineers from Brookville Lake since January 1974.

COOPERATION.--Records of Daily discharge provided by U.S. Army Corps. of Engineers beginning Oct. 1, 1991.

AVERAGE DISCHARGE.--39 years, 404 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,100 ft³/s Jan. 21, 1959, gage height 17.35 ft; no flow Nov. 27, 1991, July 14-16, 21-26, Aug. 4-27, 1992.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,080 ft³/s April 17; minimum daily discharge 39 ft³/s July 31 - Sept. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	586	1470	340	162	991	100	877	386	397	39	39
2	57	586	527	356	240	650	141	556	270	294	39	39
3	57	586	175	371	240	481	141	386	200	388	39	105
4	57	586	247	440	240	483	141	550	200	712	39	144
5	57	592	247	484	240	486	141	632	200	883	39	144
6	57	531	247	1070	240	1160	141	632	200	1230	39	144
7	57	625	247	1820	240	1830	86	632	317	1420	39	144
8	57	796	247	2020	240	2020	56	478	387	1420	39	144
9	57	563	247	2010	240	2020	56	386	387	730	39	144
10	57	563	247	2010	240	2020	57	386	1080	386	39	144
11	57	529	247	932	240	1390	57	386	1420	386	39	144
12	57	795	247	481	240	999	471	387	730	386	39	144
13	57	1240	247	481	240	998	690	1040	387	386	39	144
14	57	1510	247	801	240	557	691	1850	387	386	39	144
15	57	1510	247	993	240	242	1170	2070	1040	386	39	144
16	263	1130	248	992	240	242	1850	1380	1760	386	39	144
17	386	1070	248	991	240	242	2080	601	1920	386	39	144
18	386	1510	248	672	240	242	2070	387	1490	386	39	144
19	386	1500	248	240	240	242	2070	387	550	386	39	144
20	386	1500	248	96	240	242	1430	387	386	270	39	144
21	386	1490	248	320	240	242	549	387	708	200	39	144
22	386	1490	248	641	241	243	635	387	879	200	39	101
23	503	1500	305	738	241	159	635	387	878	99	39	57
24	587	1500	340	738	241	159	635	387	550	57	39	57
25	587	1500	340	1260	712	162	635	387	386	57	39	57
26	587	1490	340	2010	994	162	638	387	387	57	39	57
27	587	1490	340	1620	993	162	1190	386	387	57	39	57
28	587	1490	340	991	992	244	1530	386	1060	57	39	57
29	587	1480	340	469	---	180	1250	386	1740	57	39	151
30	586	1480	340	96	---	140	878	386	1290	46	39	200
31	586	---	340	96	---	140	---	386	---	39	39	---
TOTAL	8631	33218	9897	26579	9376	19530	22214	18642	21962	12530	1209	3569
MEAN	278	1107	319	857	335	630	740	601	732	404	39.0	119
MAX	587	1510	1470	2020	994	2020	2080	2070	1920	1420	39	200
MIN	57	529	175	96	162	140	56	386	200	39	39	39

CAL YR 1992 TOTAL 135595.00 MEAN 370 MAX 3910 MIN .00
WTR YR 1993 TOTAL 187357 MEAN 513 MAX 2080 MIN 39

HOGAN CREEK BASIN

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL ANALYSES: October 1968 to current year.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT) (00300)	OXYGEN, SATUR-ATION (00301)	TUR-BID-ITY (NTU) (00076)	COLI-FORM, FECAL, UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV 04...	1145	3.8	545	8.3	9.0	11.5	749	11.2	104	1.9	77	100
MAR 10...	1240	54	420	8.4	10.0	6.5	744	13.2	110	8.3	46	31
MAY 12...	1155	8.4	508	8.1	25.0	21.0	747	9.2	106	2.0	930	610

DATE	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY WAT DIS FIX END FIELD CAC03 (MG/L) (39036)	ALKA-LINITY WAT DIS TOT IT FIELD CAC03 (MG/L) (39086)	BICAR-BONATE WATER DIS IT FIELD HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD CO3 (00452)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
NOV 04...	240	19	74	14	15	6.2	220	224	273	0	61	25
MAR 10...	210	42	66	11	7.3	2.6	170	168	205	0	29	16
MAY 12...	250	51	75	15	9.9	3.0	220	198	242	0	58	13

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS P) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00610)	NITRO-GEN, AMMONIA + ORGANIC TOTAL DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AMMONIA + ORGANIC TOTAL DIS-SOLVED (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)
NOV 04...	0.2	2.8	338	333	3.44	<0.01	<0.05	<0.01	0.02	0.3	0.11	0.08
MAR 10...	0.1	5.4	293	239	42.5	--	--	--	--	--	--	--
MAY 12...	0.2	1.4	304	296	6.88	<0.01	0.23	--	0.04	0.5	0.06	0.02

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LITHIUM, DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)
NOV 04...	0.08	<10	41	<3	10	4	6	<10	<1	<1	<1	240
MAR 10...	--	50	30	<3	45	<4	9	<10	<1	<1	<1	170
MAY 12...	0.02	<10	44	<3	44	<4	35	<10	<1	<1	<1	250

HOGAN CREEK BASIN

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

DATE	WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DIS- SOLVED (UG/L AS U) (22703)	SEDI- MENT, DIS- SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 04...	<6	1.8	0.2	11	0.4	7.9	0.4	0.43	0.51	5	0.05	58
MAR 10...	<6	--	--	--	--	--	--	--	--	19	2.8	71
MAY 12...	<6	0.9	<0.6	3.6	<0.6	2.7	<0.6	0.05	0.61	10	0.23	37

INDIAN-KENTUCK CREEK BASIN

03291780 INDIAN-KENTUCK CREEK NEAR CANAAN, IN

LOCATION.--Lat 38°52'41", long 85°15'26", in SW¹/₄/NW¹/₄ sec.13, T.5 N., R.11 E., Jefferson County, Hydrologic Unit 05140101, on downstream end of left pier of bridge on State Highway 62, 1,500 ft upstream from Wilson Fork, 2.0 mi northeast of Canaan, and at mile 16.7.

DRAINAGE AREA.--27.5 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 590 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges and those below 1 ft³/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.30	2.1	8.8	39	e12	e12	258	25	3.3	3.5	.00	.49
2	.23	2.4	8.2	25	e9.6	e25	86	21	2.7	3.5	.42	.43
3	.22	3.2	7.1	22	e8.4	289	53	20	2.9	77	.93	164
4	.17	4.2	6.1	491	e7.2	759	41	30	150	21	.32	22
5	.13	4.3	5.3	371	e6.6	200	35	25	134	8.7	.10	6.6
6	.11	4.1	4.8	81	e6.0	98	30	19	38	4.1	.00	2.7
7	.09	3.6	4.8	45	e5.4	73	26	16	25	2.6	.00	1.7
8	.23	3.2	4.7	34	e5.2	118	23	13	19	1.8	.00	1.2
9	4.5	2.9	4.3	26	e5.0	64	41	12	16	1.2	.00	.88
10	2.6	2.9	8.9	26	e4.8	48	64	11	13	.86	.00	.71
11	1.9	3.5	23	37	e5.2	38	35	9.3	9.3	.64	.00	.51
12	1.2	186	14	44	23	31	27	20	7.5	7.4	29	.43
13	1.1	69	12	111	21	e24	24	257	5.5	2.0	29	.37
14	1.0	23	9.8	46	17	e20	236	41	177	1.1	3.5	.30
15	2.0	15	9.4	32	15	e17	242	25	99	2.0	1.3	.15
16	10	10	9.6	26	23	e18	217	19	26	1.8	.70	.09
17	9.0	8.5	8.2	e21	e19	43	83	15	15	2.0	5.2	.04
18	5.3	7.1	7.3	e17	e16	e28	54	52	9.6	1.6	4.9	.01
19	3.6	5.6	6.8	e14	e14	e22	43	42	5.7	1.1	1.8	.00
20	2.8	4.9	14	e12	e13	28	36	24	6.7	1.0	.97	.00
21	2.5	8.9	13	306	613	49	30	17	8.3	.60	.64	.00
22	2.4	267	11	148	272	35	26	13	3.8	.40	.41	.00
23	2.4	72	10	62	83	270	22	11	2.4	.25	.31	.09
24	2.4	31	e7.6	363	e45	90	22	9.1	2.0	.15	.16	.25
25	2.4	27	e6.8	91	e27	54	94	8.2	2.5	.07	1.7	1.3
26	2.4	22	e5.9	48	e19	43	115	6.2	2.6	.00	.75	16
27	2.4	17	e5.6	35	e15	35	49	4.7	63	.00	.35	3.4
28	2.3	14	e6.8	28	e13	29	36	3.9	73	.00	.19	1.6
29	2.1	12	19	22	---	26	30	3.1	25	.00	.08	.96
30	2.1	9.8	59	e18	---	22	30	2.8	7.7	.00	.02	.71
31	2.1	---	39	e14	---	96	---	4.7	---	.00	.11	---
TOTAL	71.98	846.2	360.8	2655	1323.4	2704	2108	780.0	955.5	146.37	82.86	226.92
MEAN	2.32	28.2	11.6	85.6	47.3	87.2	70.3	25.2	31.8	4.72	2.67	7.56
MAX	10	267	59	491	613	759	258	257	177	77	29	164
MIN	.09	2.1	4.3	12	4.8	12	22	2.8	2.0	.00	.00	.00
CFSM	.08	1.03	.42	3.11	1.72	3.17	2.56	.91	1.16	.17	.10	.28
IN.	.10	1.14	.49	3.59	1.79	3.66	2.85	1.06	1.29	.20	.11	.31

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1993, BY WATER YEAR (WY)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	
MEAN	11.4	35.3	49.3	46.0	57.0	69.0	56.2	38.9	21.0	11.9	11.0	7.74													
MAX	83.6	137	173	169	136	134	104	193	64.6	45.9	58.6	57.9													
(WY)	1984	1980	1991	1982	1990	1975	1981	1983	1992	1992	1979	1979													
MIN	.000	.22	3.95	.60	5.24	11.7	6.55	3.82	.44	.12	.001	.000													
(WY)	1988	1988	1977	1977	1992	1983	1976	1992	1988	1975	1975	1987													

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1970 - 1993	
ANNUAL TOTAL	8719.63		12261.03			
ANNUAL MEAN	23.8		33.6		34.4	
HIGHEST ANNUAL MEAN					55.8	
LOWEST ANNUAL MEAN					17.0	
HIGHEST DAILY MEAN	1470	Jun 18	759	Mar 4	1630	May 16 1990
LOWEST DAILY MEAN	.09	Oct 7	.00	Jul 26	.00	Oct 1 1969
ANNUAL SEVEN-DAY MINIMUM	.17	Oct 2	.00	Jul 26	.00	Jun 27 1970
INSTANTANEOUS PEAK FLOW			2810		7800	
INSTANTANEOUS PEAK STAGE			7.89		11.34	
ANNUAL RUNOFF (CFSM)	.87		1.22		1.25	
ANNUAL RUNOFF (INCHES)	11.80		16.59		17.02	
10 PERCENT EXCEEDS	37		75		73	
50 PERCENT EXCEEDS	6.6		9.4		8.8	
90 PERCENT EXCEEDS	1.4		.23		.14	

e Estimated

BUCK CREEK BASIN

03302220 BUCK CREEK NEAR NEW MIDDLETOWN, IN

LOCATION.--Lat 38°07'13", long 86°05'16", in SE¹/₄NE¹/₄, sec.32, T.4 S., R.4 E., Harrison County, Hydrologic Unit 05140104, on right bank at downstream side of bridge on State Highway 337 (revised), 0.6 mi downstream from South Fork Buck Creek, 3.6 mi southwest of New Middletown, and 14.6 mi upstream from mouth.
 DRAINAGE AREA.--65.2 mi², of which 28.1 mi² does not contribute directly to surface runoff.
 PERIOD OF RECORD.--October 1969 to current year.
 REVISED RECORDS.--WDR IN-72-1: 1971(P).
 GAGE.--Water-stage recorder. Datum of gage is 501.63 ft above sea level (levels by State of Indiana, Department of Natural Resources).
 REMARKS.--Records good except for estimated daily discharges and those below 10 ft³/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e2.9	e4.5	29	45	66	e94	426	46	12	24	1.8	3.2
2	e2.5	e8.4	27	44	57	118	199	44	11	17	1.8	6.5
3	e2.2	e12	24	46	52	414	144	44	11	13	1.7	12
4	e2.0	e11	22	89	36	730	122	268	16	9.7	1.8	6.0
5	e1.8	e14	19	282	34	449	107	139	59	8.9	1.8	4.0
6	e1.6	e12	17	164	33	261	83	100	29	7.9	1.7	3.0
7	e2.5	e10	16	125	31	203	73	90	29	6.5	1.6	2.6
8	e3.8	e9.0	15	100	30	197	68	82	24	5.8	1.4	2.5
9	e6.0	e7.3	14	81	27	164	73	61	27	5.1	1.3	2.6
10	e8.4	e6.8	21	75	22	162	126	47	29	4.5	1.3	2.5
11	e8.0	e45	29	75	23	142	96	42	53	4.2	1.3	2.3
12	e7.5	e265	25	115	43	128	82	37	56	5.1	2.1	2.3
13	e7.0	e160	23	194	48	e110	81	38	32	4.0	19	2.4
14	e6.3	e100	22	144	41	e90	126	31	30	11	5.5	2.2
15	e6.4	e70	22	119	39	78	218	26	62	14	2.7	3.0
16	e6.6	e48	23	101	82	76	328	23	30	5.7	2.1	4.3
17	e7.1	e35	20	e85	118	121	214	20	22	5.6	240	4.2
18	e8.0	e25	19	e71	e90	108	167	76	18	4.0	84	4.1
19	e7.9	e20	18	e59	e70	99	124	70	14	3.4	33	3.7
20	e7.0	e17	84	48	e62	94	105	42	13	3.0	16	4.0
21	e5.8	e95	71	457	941	90	85	33	12	2.6	12	4.4
22	e4.7	259	59	256	709	90	74	27	10	2.5	9.5	4.6
23	e4.3	169	50	166	e300	417	68	23	8.5	2.6	8.6	25
24	e4.0	113	38	440	e190	259	69	23	7.6	2.5	18	17
25	e3.8	87	e33	251	e140	186	67	21	7.7	2.3	9.8	10
26	e3.3	70	e29	169	e120	164	70	18	8.2	5.0	7.8	16
27	e3.0	56	e27	131	e110	146	63	16	7.0	8.4	4.6	8.4
28	e2.4	42	27	107	e97	130	58	14	51	3.1	3.5	4.8
29	e2.0	37	27	91	---	107	54	13	179	3.3	3.2	3.6
30	e1.8	32	38	75	---	81	51	13	46	2.6	3.4	3.0
31	e1.8	---	46	72	---	247	---	15	---	1.7	3.4	---
TOTAL	142.4	1840.0	934	4277	3611	5755	3621	1542	914.0	199.0	505.7	174.2
MEAN	4.59	61.3	30.1	138	129	186	121	49.7	30.5	6.42	16.3	5.81
MAX	8.4	265	84	457	941	730	426	268	179	24	240	25
MIN	1.6	4.5	14	44	22	76	51	13	7.0	1.7	1.3	2.2
CFSM	.07	.94	.46	2.12	1.98	2.85	1.85	.76	.47	.10	.25	.09
IN.	.08	1.05	.53	2.44	2.06	3.28	2.07	.88	.52	.11	.29	.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1993, BY WATER YEAR (WY)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	
MEAN	18.3	59.9	100	101	137	144	150	94.5	49.7	30.2	17.9	18.2													
MAX	71.8	228	262	201	368	342	412	558	222	219	67.2	217													
(WY)	1971	1980	1991	1974	1989	1975	1970	1983	1990	1979	1992	1979													
MIN	.76	3.16	6.01	2.64	24.8	40.4	22.4	16.3	1.56	4.59	2.11	.72													
(WY)	1988	1988	1977	1977	1992	1983	1986	1976	1988	1975	1987	1987													

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1970 - 1993

ANNUAL TOTAL	17176.1	23515.3		
ANNUAL MEAN	46.9	64.4		
HIGHEST ANNUAL MEAN			146	1979
LOWEST ANNUAL MEAN			32.8	1981
HIGHEST DAILY MEAN	1120	Mar 19	941	Feb 21
LOWEST DAILY MEAN	1.6	Oct 6	1.3	Aug 9
ANNUAL SEVEN-DAY MINIMUM	2.2	Oct 1	1.5	Aug 5
INSTANTANEOUS PEAK FLOW			3380	Feb 21
INSTANTANEOUS PEAK STAGE			8.55	Feb 21
ANNUAL RUNOFF (CFSM)	.72	.99	14.40	Apr 2 1970
ANNUAL RUNOFF (INCHES)	9.80	13.42	1.17	
10 PERCENT EXCEEDS	100	164	170	
50 PERCENT EXCEEDS	22	27	27	
90 PERCENT EXCEEDS	4.3	2.6	3.5	

e Estimated

INDIAN CREEK BASIN

03302300 LITTLE INDIAN CREEK NEAR GALENA, IN

LOCATION.--Lat 38°19'19", long 85°55'53", in NE¹/₄SW¹/₄ sec.23, T.2 S., R.5 E., Floyd County, Hydrologic Unit 05140104, on right bank at downstream side of county road bridge, 2 mi south of Galena, 3.6 mi upstream from mouth, and 7.0 mi northwest of New Albany.
 DRAINAGE AREA.--16.1 mi².
 PERIOD OF RECORD.--October 1968 to current year.
 GAGE.--Water-stage recorder. Datum of gage is 703.00 ft above sea level.
 REMARKS.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.27	.26	4.3	8.2	12	13	70	16	3.5	3.1	0.68	1.1
2	0.22	.97	4.2	7.4	9.5	41	40	15	3.0	2.7	26	1.6
3	0.19	1.4	3.9	7.1	9.0	118	32	15	2.9	2.5	3.0	1.8
4	0.16	1.3	3.7	48	8.5	316	27	51	121	2.4	2.0	1.4
5	0.14	1.5	3.5	61	8.0	93	25	29	75	2.2	1.4	1.2
6	0.12	1.4	3.3	28	7.6	48	22	22	23	2.1	1.2	1.0
7	0.17	1.1	3.4	20	7.2	40	19	17	14	2.0	0.94	0.83
8	0.33	.90	3.1	18	7.1	58	18	13	9.8	1.8	0.76	0.72
9	0.56	.76	3.3	14	6.7	37	36	11	8.0	1.8	0.66	0.61
10	0.84	.74	4.6	15	6.4	31	53	9.0	7.9	1.5	0.56	0.54
11	0.80	1.6	5.2	16	6.9	26	33	7.7	85	1.4	0.47	0.39
12	0.73	26	4.3	41	18	24	26	7.1	33	5.3	6.4	0.39
13	0.70	7.9	4.1	50	15	21	30	26	15	6.1	11	0.39
14	0.66	2.7	3.9	28	14	18	68	12	17	2.2	3.0	0.36
15	0.66	1.8	3.9	21	17	16	113	8.9	19	2.5	2.5	0.35
16	0.69	1.3	3.9	16	42	17	103	7.3	10	2.2	2.2	0.39
17	0.73	.93	3.9	13	32	27	55	6.2	7.5	2.9	98	0.35
18	0.76	1.1	3.7	11	23	22	39	12	5.7	2.5	10	0.30
19	0.70	.91	3.7	9.4	18	21	32	9.4	4.9	2.3	5.4	0.23
20	0.62	.75	11	8.8	16	21	26	7.0	6.6	2.0	9.8	0.14
21	0.53	6.7	7.5	200	431	22	23	5.9	6.3	1.6	4.4	0.10
22	0.48	42	6.8	67	117	21	20	5.2	4.6	1.2	3.4	0.10
23	0.45	18	6.2	36	46	112	18	4.6	4.2	1.2	3.2	0.97
24	0.41	9.9	5.6	143	31	49	24	4.3	3.9	1.1	6.0	0.60
25	0.38	8.9	5.2	49	23	35	24	4.4	3.7	1.1	3.7	0.73
26	0.35	7.4	5.0	31	21	61	29	3.9	3.6	1.0	2.8	0.73
27	0.30	6.3	4.8	23	17	41	23	3.6	3.3	0.96	2.2	0.54
28	.27	5.5	4.7	20	15	32	20	3.4	3.1	0.89	1.7	0.43
29	.20	4.9	6.5	16	---	27	18	2.9	3.9	0.77	1.5	0.30
30	.20	4.5	9.4	13	---	24	19	3.2	3.6	0.73	1.3	0.20
31	.20	---	8.5	12	---	48	---	4.8	---	0.70	1.2	---
TOTAL	13.82	169.42	155.1	1050.9	984.9	1480	1085	347.8	512.0	62.75	217.37	18.79
MEAN	.45	5.65	5.00	33.9	35.2	47.7	36.2	11.2	17.1	2.02	7.01	.63
MAX	.84	42	11	200	431	316	113	51	121	6.1	98	1.8
MIN	.12	.26	3.1	7.1	6.4	13	18	2.9	2.9	.70	.47	.10
CFSM	.03	.35	.31	2.11	2.18	2.97	2.25	.70	1.06	.13	.44	.04
IN.	.03	.39	.36	2.43	2.28	3.42	2.51	.80	1.18	.14	.50	.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1993, BY WATER YEAR (WY)

	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	4.81	15.9	31.0	31.6	41.4	45.5	45.1	25.4	14.0	9.11	5.91	4.51													
MAX	42.2	70.6	103	64.3	111	112	120	116	75.1	50.7	30.5	62.1													
(WY)	1978	1980	1991	1969	1990	1975	1970	1983	1990	1979	1978	1979													
MIN	.000	.25	1.80	.46	2.91	10.9	7.78	1.48	.002	.088	.15	.000													
(WY)	1988	1992	1981	1977	1992	1976	1976	1988	1988	1991	1987	1987													

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1969 - 1993	
ANNUAL TOTAL	3175.69		6097.85			
ANNUAL MEAN	8.68		16.7		22.7	
HIGHEST ANNUAL MEAN					45.0	
LOWEST ANNUAL MEAN					8.23	
HIGHEST DAILY MEAN	393		431		1300	
LOWEST DAILY MEAN	.12		.10		.00	
ANNUAL SEVEN-DAY MINIMUM	.18		.18		.00	
INSTANTANEOUS PEAK FLOW			2100		5500	
INSTANTANEOUS PEAK STAGE			6.54		9.30	
ANNUAL RUNOFF (CFSM)	.54		1.04		1.41	
ANNUAL RUNOFF (INCHES)	7.34		14.09		19.19	
10 PERCENT EXCEEDS	16		40		45	
50 PERCENT EXCEEDS	3.3		5.6		6.2	
90 PERCENT EXCEEDS	.39		.54		.26	

• Estimated

INDIAN CREEK BASIN

03302500 INDIAN CREEK NEAR CORYDON, IN

LOCATION.--Lat 38°16'35", long 86°06'35", in SW¹/₄, SE¹/₄, sec.6, T.3 S., R.4 E., Harrison County, Hydrologic Unit 05140104, on upstream side of bridge on State Highway 335, 0.6 mi upstream from Raccoon Branch, 4.5 mi north of Corydon, and at mile 33.7.

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

PERIOD OF RECORD.--October 1943 to September 1993 (discontinued). Prior to October 1961, published as Big Indian Creek near Corydon.

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

GAGE.--Water-stage recorder. Datum of gage is 577.12 ft above 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.

REMARKS.--Records good except for estimated daily discharges, and daily discharges below 10 ft³/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	7.0	36	79	98	130	916	125	25	34	3.7	9.7
2	2.8	11	34	74	80	202	479	110	23	25	125	13
3	2.1	15	31	71	70	888	322	104	20	21	93	40
4	1.7	15	28	110	64	2090	253	597	335	17	23	56
5	1.5	14	26	773	58	1230	211	364	797	15	12	31
6	1.3	12	24	338	53	647	178	233	204	13	8.3	20
7	1.9	9.6	22	223	50	451	148	174	122	10	6.2	14
8	3.2	8.1	22	171	47	528	131	136	88	8.7	4.8	10
9	7.0	7.2	20	137	44	407	142	110	68	7.8	3.9	7.1
10	9.0	6.8	23	121	41	315	451	92	62	6.5	3.3	6.3
11	8.4	37	29	146	40	244	273	79	52	5.9	2.8	5.5
12	7.5	141	32	162	72	197	199	70	204	26	3.0	4.8
13	7.1	221	29	360	115	160	198	139	95	30	33	4.2
14	6.7	75	26	270	94	130	483	110	66	25	62	3.7
15	6.6	47	26	201	86	110	746	79	160	16	21	3.6
16	7.3	36	26	160	120	116	1120	64	94	14	11	3.1
17	8.1	30	25	134	267	172	568	56	62	14	1070	3.2
18	8.2	27	23	107	150	162	376	61	46	12	319	3.5
19	7.5	25	23	88	130	141	283	114	36	12	127	4.4
20	6.6	23	42	77	120	138	226	75	31	9.9	84	6.1
21	5.5	34	78	1110	1040	150	177	59	42	7.5	98	7.3
22	5.0	177	63	803	2110	141	144	50	40	6.2	47	7.9
23	4.7	258	55	435	626	724	124	45	28	6.6	31	16
24	4.3	114	47	1160	330	567	123	41	23	6.6	28	18
25	4.1	85	39	630	260	361	172	39	126	6.1	86	27
26	3.7	72	37	370	200	407	402	36	52	5.7	48	35
27	3.2	58	36	264	160	375	258	31	32	5.1	27	28
28	2.6	50	35	199	140	276	196	27	26	4.3	19	17
29	2.1	44	38	154	---	220	158	25	41	4.3	14	12
30	2.0	39	63	117	---	181	147	24	44	4.3	11	9.0
31	1.9	---	79	105	---	245	---	25	---	4.0	9.4	---
TOTAL	147.3	1698.7	1117	9149	6665	12105	9604	3294	3044	383.5	2434.4	426.4
MEAN	4.75	56.6	36.0	295	238	390	320	106	101	12.4	78.5	14.2
MAX	9.0	258	79	1160	2110	2090	1120	597	797	34	1070	56
MIN	1.3	6.8	20	71	40	110	123	24	20	4.0	2.8	3.1
CFSM	.04	.44	.28	2.29	1.85	3.03	2.48	.82	.79	.10	.61	.11
IN.	.04	.49	.32	2.64	1.92	3.49	2.77	.95	.88	.11	.70	.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1993, BY WATER YEAR (WY)

MEAN	27.0	98.7	187	265	317	379	298	179	111	63.9	43.8	30.6
MAX	301	553	652	1248	1008	1573	943	923	579	647	268	281
(WY)	1978	1980	1958	1950	1950	1964	1970	1983	1990	1973	1949	1979
MIN	.077	.44	1.16	5.94	16.8	49.3	68.0	17.8	2.24	.23	.24	.060
(WY)	1954	1954	1944	1977	1944	1947	1976	1988	1988	1954	1951	1953

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1944 - 1993	
ANNUAL TOTAL	22168.9		50068.3			
ANNUAL MEAN	60.6		137		166	
HIGHEST ANNUAL MEAN					345	
LOWEST ANNUAL MEAN					32.5	
HIGHEST DAILY MEAN	2260	Mar 19	2110	Feb 22	13900	Jul 22 1973
LOWEST DAILY MEAN	1.3	Oct 6	1.3	Oct 6	.00	Oct 5 1943
ANNUAL SEVEN-DAY MINIMUM	2.1	Oct 2	2.1	Oct 2	.00	Oct 17 1943
INSTANTANEOUS PEAK FLOW			4520	Feb 22	26700	Mar 5 1964
INSTANTANEOUS PEAK STAGE			13.59	Feb 22	22.64	Mar 5 1964
ANNUAL RUNOFF (CFSM)	.47		1.06		1.29	
ANNUAL RUNOFF (INCHES)	6.39		14.44		17.49	
10 PERCENT EXCEEDS	125		347		364	
50 PERCENT EXCEEDS	25		47		43	
90 PERCENT EXCEEDS	6.4		5.1		1.9	

• Estimated

BLUE RIVER BASIN

03302680 WEST FORK BLUE RIVER AT SALEM, IN

LOCATION.--Lat 38°36'19", long 86°05'40", in SW¹/₄/SE¹/₄ sec.17, T.2 N., R.4 E., Washington County, Hydrologic Unit 05140104, on left bank at downstream side of bridge on East Market Street, 0.35 mi east of County Court House in Salem, 6.0 mi upstream from Hoggatt Branch, and 6.9 mi upstream from mouth.

DRAINAGE AREA.--19.0 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 713.00 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.79	.62	e4.0	14	16	e20	190	20	3.2	.92	.22	2.2
2	.71	.51	e3.6	13	12	36	88	19	2.7	1.4	108	21
3	.64	.31	e3.4	13	10	122	59	20	2.7	168	6.6	146
4	.58	.14	e3.2	161	8.9	378	46	78	35	18	4.2	30
5	.51	.06	e3.0	120	7.9	155	40	53	29	9.6	2.7	16
6	.49	.03	e2.9	63	7.5	87	32	41	13	6.5	2.2	9.7
7	.41	.01	e2.7	46	6.8	66	27	33	10	5.0	1.7	6.6
8	.41	.01	e2.6	38	6.3	71	24	25	7.8	3.7	1.3	5.5
9	.34	.01	e2.6	29	5.7	52	29	20	6.6	2.8	1.0	4.7
10	.29	.02	e2.7	32	5.3	46	32	16	5.7	2.3	.85	3.7
11	.28	1.2	e2.8	34	5.7	37	26	13	5.3	2.1	.79	3.1
12	.26	35	e2.8	36	13	30	22	12	4.9	7.1	2.7	2.8
13	.17	15	e2.8	42	11	27	20	11	3.8	4.3	2.4	2.3
14	.17	8.7	e2.8	36	10	e20	93	9.1	13	2.2	1.6	2.0
15	.34	6.0	e2.7	32	9.0	e18	92	7.8	17	6.4	.98	3.0
16	1.1	4.9	e2.7	27	e15	19	79	8.9	8.0	6.3	.71	2.5
17	.86	4.3	2.7	e20	e20	21	53	6.7	5.7	5.0	274	2.0
18	.84	3.7	2.6	e17	e19	17	43	19	4.3	3.2	37	1.9
19	.94	3.1	2.6	e14	e18	16	37	14	3.4	2.5	18	1.7
20	.86	e2.7	3.7	14	e17	17	31	9.6	3.1	2.0	12	1.6
21	.94	e4.0	3.2	121	251	17	24	7.9	3.1	1.7	7.0	1.6
22	.90	e5.6	3.1	89	157	19	20	6.5	2.4	1.4	5.4	1.7
23	.65	e45	3.1	58	76	89	18	5.5	2.0	1.2	4.3	4.5
24	.53	e23	2.8	111	49	62	18	5.2	1.8	.96	3.5	3.1
25	.48	e13	2.6	68	e36	47	57	4.9	1.8	.75	3.2	4.9
26	.40	e7.3	e2.3	50	e27	71	67	3.9	1.5	.61	2.8	10
27	.40	e6.2	e2.4	41	e21	53	43	3.4	1.1	.51	2.6	5.1
28	.46	e5.4	3.2	33	e18	43	35	3.1	1.5	.45	2.3	3.8
29	.51	e4.7	6.2	25	---	36	28	2.8	2.2	.33	2.1	3.1
30	.51	e4.3	16	20	---	30	25	4.6	1.3	.25	2.2	2.8
31	.46	---	15	19	---	75	---	4.9	---	.24	2.1	---
TOTAL	17.23	204.82	118.8	1436	859.1	1797	1398	488.8	202.9	267.72	516.45	308.9
MEAN	.56	6.83	3.83	46.3	30.7	58.0	46.6	15.8	6.76	8.64	16.7	10.3
MAX	1.1	45	16	161	251	378	190	78	35	168	274	146
MIN	.17	.01	2.3	13	5.3	16	18	2.8	1.1	.24	.22	1.6
CFSM	.03	.36	.20	2.44	1.61	3.05	2.45	.83	.36	.45	.88	.54
IN.	.03	.40	.23	2.81	1.68	3.52	2.74	.96	.40	.52	1.01	.60

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1993, BY WATER YEAR (WY)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	7.44	23.8	33.4	32.5	41.5	45.9	43.0	24.2	10.8	15.0	8.41	6.85												
MAX	45.7	89.9	98.2	103	106	104	136	140	38.0	65.7	30.5	40.0												
(WY)	1984	1986	1991	1982	1989	1989	1972	1983	1985	1988	1985	1982												
MIN	.14	.74	2.33	.97	5.41	9.65	4.21	1.91	.088	.29	.13	.36												
(WY)	1988	1972	1977	1977	1992	1976	1976	1988	1988	1991	1987	1984												

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1970 - 1993

ANNUAL TOTAL	3901.13	7615.72	
ANNUAL MEAN	10.7	20.9	24.4
HIGHEST ANNUAL MEAN			43.1
LOWEST ANNUAL MEAN			10.7
HIGHEST DAILY MEAN	507	Aug 8	1730
LOWEST DAILY MEAN	.01	Nov 7	.01
ANNUAL SEVEN-DAY MINIMUM	.04	Nov 4	.03
INSTANTANEOUS PEAK FLOW			9240
INSTANTANEOUS PEAK STAGE			15.58
ANNUAL RUNOFF (CFSM)	.56		1.28
ANNUAL RUNOFF (INCHES)	7.64		17.45
10 PERCENT EXCEEDS	23		52
50 PERCENT EXCEEDS	4.0		7.4
90 PERCENT EXCEEDS	.63		.49

e Estimated

BLUE RIVER BASIN

03302800 BLUE RIVER AT FREDERICKSBURG, IN

LOCATION.--Lat 38°26'02", long 86°11'31", in NE¹/₄, NW¹/₄, sec.16, T.1 S., R.3 E., Washington County, Hydrologic Unit 05140104, on downstream side of bridge on U.S. Highway 150 at Fredericksburg, 0.5 mi downstream from South Fork Blue River, and at mile 57.1.

DRAINAGE AREA.--283 mi², of which 76.9 mi² does not contribute directly to surface runoff.

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

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

REMARKS.--Records good except for estimated daily discharges, which are fair.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.8	7.2	52	109	207	e250	2230	278	76	37	7.8	32
2	8.6	26	51	101	171	325	1250	244	62	31	876	34
3	8.0	32	47	98	149	1340	819	235	57	648	247	1260
4	7.5	27	42	155	138	3830	628	927	83	282	97	546
5	8.2	14	38	2210	127	2820	510	798	857	126	64	243
6	8.0	14	35	762	120	1330	421	557	306	83	47	151
7	7.8	13	31	472	115	932	349	422	186	62	36	101
8	6.5	12	31	347	109	881	307	331	142	50	28	78
9	5.2	11	30	271	102	737	294	266	117	41	23	66
10	4.7	10	32	236	96	617	430	220	104	35	20	57
11	4.8	8.6	37	285	93	492	375	187	93	30	17	49
12	6.0	19	44	299	138	401	307	168	93	34	17	40
13	6.1	210	42	366	212	350	319	177	85	74	43	38
14	5.7	121	39	349	188	e280	835	157	78	58	40	35
15	5.6	76	38	285	172	e240	1570	131	180	35	28	38
16	5.9	55	32	246	198	232	1570	119	137	53	25	38
17	5.4	42	31	215	319	268	968	113	91	64	1940	29
18	9.4	34	30	179	e270	287	691	161	74	51	682	24
19	17	27	29	148	e240	252	555	308	63	40	281	20
20	12	24	33	133	e230	246	459	188	57	32	167	18
21	11	27	36	1070	1310	263	361	145	52	25	129	17
22	12	47	40	1480	3860	263	298	116	50	20	93	16
23	12	226	39	758	1200	1100	260	101	43	17	74	22
24	12	174	37	1280	743	1040	241	92	39	15	58	34
25	10	122	37	1100	569	693	290	85	41	14	53	35
26	9.6	99	e31	664	459	718	1020	77	39	15	46	44
27	9.2	81	e31	500	368	701	649	70	33	14	40	62
28	8.9	69	36	383	e275	543	470	67	31	12	37	45
29	9.4	61	39	310	---	436	373	61	39	11	32	34
30	10	55	67	246	---	364	324	57	45	10	29	27
31	6.7	---	121	222	---	368	---	106	---	8.3	29	---
TOTAL	263.0	1743.8	1258	15279	12178	22599	19173	6964	3353	2019.3	5305.8	3233
MEAN	8.48	58.1	40.6	493	435	729	639	225	112	65.1	171	108
MAX	17	226	121	2210	3860	3830	2230	927	857	648	1940	1260
MIN	4.7	7.2	29	98	93	232	241	57	31	8.3	7.8	16
CFSM	.03	.21	.14	1.74	1.54	2.58	2.26	.79	.39	.23	.60	.38
IN.	.03	.23	.17	2.01	1.60	2.97	2.52	.92	.44	.27	.70	.42

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1993, BY WATER YEAR (WY)

	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	65.8	258	415	460	556	623	586	352	208	161	99.3	67.5													
MAX	305	1135	1166	1341	1236	1193	1280	1808	743	588	463	239													
(WY)	1984	1980	1991	1982	1990	1978	1972	1983	1990	1973	1977	1979													
MIN	6.35	12.5	29.4	11.6	56.1	142	86.8	35.2	8.36	13.1	18.8	8.37													
(WY)	1988	1988	1977	1977	1992	1969	1976	1988	1988	1991	1975	1987													

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1969 - 1993	
ANNUAL TOTAL	43728.3		93368.9			
ANNUAL MEAN	119		256		320	
HIGHEST ANNUAL MEAN					544	
LOWEST ANNUAL MEAN					129	
HIGHEST DAILY MEAN	3440		3860		11500	
LOWEST DAILY MEAN	4.7		4.7		2.5	
ANNUAL SEVEN-DAY MINIMUM	5.4		5.4		3.0	
INSTANTANEOUS PEAK FLOW			6260		13500	
INSTANTANEOUS PEAK STAGE			15.91		24.37	
ANNUAL RUNOFF (CFSM)	.42		.90		1.13	
ANNUAL RUNOFF (INCHES)	5.75		12.27		15.35	
10 PERCENT EXCEEDS	239		696		734	
50 PERCENT EXCEEDS	58		83		114	
90 PERCENT EXCEEDS	11		12		15	

e Estimated

BLUE RIVER BASIN

03302849 WHISKEY RUN AT MARENGO, IN

LOCATION.--Lat 38°22'32", long 86°20'41", in SW¹/₄NW¹/₄ sec.6, T.2 S., R.2 E., Crawford County, Hydrologic Unit 05140104, on left (north) bank about 100 ft upstream from bridge and intersection of North Main Street and North Water Street in Marengo, known as Old Town.

DRAINAGE AREA.--7.02 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 561.446 ft above sea level.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 26, 1979 reached a stage of 15.89 ft. Stage determined from levels to high-water mark in Old Town grocery store just downstream and across bridge from gage. Reports from local residents indicate this event as highest known flood.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.27	2.8	1.6	3.2	65	3.4	.86	.22	.02	.03
2	.00	.07	.26	1.8	1.3	20	24	2.9	.79	.20	.03	.10
3	.00	.04	.23	1.5	1.1	60	13	16	.71	.26	.02	10
4	.00	.03	.20	100	1.0	99	8.2	130	34	.19	.02	1.0
5	.00	.06	.20	52	.89	54	6.2	32	37	.16	.02	.24
6	.00	.04	.20	13	.84	25	4.5	14	6.5	.16	.02	.16
7	.00	.03	.20	6.4	.79	16	3.4	7.9	2.7	.16	.02	.14
8	.00	.03	.20	4.1	.70	22	2.8	4.6	1.5	.15	.02	.12
9	.00	.02	.18	2.5	.64	13	11	3.0	1.5	.13	.02	.07
10	.00	.02	.27	3.9	.59	9.0	22	1.9	1.4	.13	.02	.04
11	.00	.07	.27	5.3	.73	5.9	11	1.5	1.1	.12	.02	.03
12	.00	4.5	.20	5.7	4.1	4.4	6.9	2.5	1.8	.14	.02	.03
13	.00	4.6	.20	7.4	3.9	3.8	8.1	7.0	1.3	.14	.04	.02
14	.00	.84	.20	5.2	2.9	2.9	31	3.1	40	.13	.03	.02
15	.00	.34	.20	3.6	2.3	2.0	51	1.8	35	8.1	.02	.11
16	.00	.22	.20	2.7	6.1	2.1	44	1.4	7.3	1.6	.01	.04
17	.00	.20	.20	2.0	8.1	5.4	21	1.1	2.8	.58	.34	.03
18	.00	.20	.18	1.6	5.8	4.4	12	32	1.5	.24	.16	.03
19	.00	.17	.19	1.3	4.0	3.7	8.7	18	.98	.18	.04	.02
20	.00	.16	.31	1.2	3.4	3.8	6.3	6.7	.73	.16	.03	.02
21	.00	.64	.24	63	115	6.0	4.5	3.7	.60	.13	.02	.02
22	.00	10	.22	32	65	5.6	3.4	2.2	.43	.13	.02	.03
23	.00	9.4	.21	13	22	57	2.9	1.6	.34	.13	.02	.40
24	.00	2.3	.20	51	11	23	4.4	1.4	.29	.11	.02	.23
25	.00	1.3	.20	21	7.4	12	12	1.3	.26	.04	.10	.19
26	.00	.81	.20	10	5.6	8.7	24	.93	.25	.03	.08	.23
27	.00	.50	.20	6.1	3.7	6.6	11	.81	.22	.03	.02	.19
28	.00	.40	.22	4.1	2.9	4.9	7.1	.81	.29	.03	.02	.15
29	.00	.33	.76	2.6	---	3.7	5.2	.78	.53	.03	.02	.13
30	.00	.29	6.2	1.9	---	2.9	4.4	.78	.28	.03	.02	.11
31	.00	---	2.9	1.8	---	39	---	1.2	---	.03	.02	---
TOTAL	0.00	37.61	15.91	430.5	283.38	529.0	439.0	306.31	182.96	13.87	1.28	13.93
MEAN	.000	1.25	.51	13.9	10.1	17.1	14.6	9.88	6.10	.45	.041	.46
MAX	.00	10	6.2	100	115	99	65	130	40	8.1	.34	10
MIN	.00	.00	.18	1.2	.59	2.0	2.8	.78	.22	.03	.01	.02
CFSM	.00	.18	.07	1.98	1.44	2.43	2.08	1.41	.87	.06	.01	.07
IN.	.00	.20	.08	2.28	1.50	2.80	2.33	1.62	.97	.07	.01	.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1993, BY WATER YEAR (WY)

	1987	1988	1989	1990	1991	1992	1993	1987	1988	1989	1990	1991	1992	1993
MEAN	.34	1.97	5.93	7.60	12.7	11.6	8.72	6.80	6.57	.53	.13	.87		
MAX	1.75	5.94	32.2	14.6	22.8	22.0	14.6	26.8	37.3	1.93	.60	5.23		
(WY)	1991	1989	1991	1990	1990	1991	1993	1990	1990	1989	1988	1989		
MIN	.000	.001	.51	.59	.20	2.66	5.17	.22	.009	.010	.000	.000		
(WY)	1988	1988	1993	1992	1992	1990	1988	1987	1988	1991	1991	1987		

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1987 - 1993
ANNUAL TOTAL	630.63	2253.75	
ANNUAL MEAN	1.72	6.17	5.27
HIGHEST ANNUAL MEAN			9.46
LOWEST ANNUAL MEAN			1.66
HIGHEST DAILY MEAN	108	Mar 18	130
LOWEST DAILY MEAN	.00	Jul 9	.00
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 9	.00
INSTANTANEOUS PEAK FLOW			626
INSTANTANEOUS PEAK STAGE			5.47
ANNUAL RUNOFF (CFSM)	.25	.88	12.39
ANNUAL RUNOFF (INCHES)	3.34	11.94	.75
10 PERCENT EXCEEDS	2.8	15	8.9
50 PERCENT EXCEEDS	.19	.71	.32
90 PERCENT EXCEEDS	.00	.02	.00

CROOKED CREEK BASIN

03303400 CROOKED CREEK NEAR SANTA CLAUS, IN

LOCATION.--Lat 38°07'05", long 86°53'24", in SW¹/₄/SE¹/₄ sec.31, T.4 S., R.4 W., Spencer County, Hydrologic Unit 05140201, on right bank at upstream side of bridge on county road, 1.3 mi east of Santa Claus Post Office, and 1.8 mi upstream from unnamed right-bank tributary.

DRAINAGE AREA.--7.86 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 404.34 ft above sea level.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.09	●7.0	1.5	●5.0	70	●5.0	●1.0	4.2	.13	.03
2	.00	.00	.08	●5.0	.98	74	21	●4.5	●.90	2.7	.09	4.4
3	.00	.00	.06	●4.5	.92	122	13	●80	●.80	2.3	.16	26
4	.00	.03	.07	●80	.77	100	9.8	●230	●1.5	1.5	.11	1.7
5	.00	.04	.03	●50	.76	49	8.4	●35	●2.5	1.2	.08	.72
6	.00	.03	.05	●15	.69	27	6.8	●15	●1.1	1.0	.07	.58
7	.00	.02	.06	●10	.64	20	5.9	●9.0	●.80	1.1	.06	.59
8	.00	.02	.04	●7.2	.56	17	5.4	●5.0	●.70	.82	.05	.33
9	.00	.01	.09	●5.4	.48	13	78	●3.5	●2.0	.51	.05	.23
10	.00	.01	4.9	●14	.46	12	49	●2.5	3.7	.42	.04	.14
11	.00	4.1	●4.0	●11	1.7	9.4	18	●1.8	57	.44	.03	.10
12	.00	19	●2.5	●12	7.2	8.5	11	●1.6	20	24	.96	.08
13	●.00	1.5	●1.8	●15	3.3	8.9	25	●1.3	5.8	1.7	.26	.06
14	●.00	.33	●1.5	●9.0	2.2	6.7	35	●1.2	25	9.8	.10	.07
15	●.00	.22	●1.4	●7.0	1.8	5.8	174	●1.1	11	2.4	.07	3.4
16	.05	.31	●1.3	●5.4	16	9.3	60	●1.0	1.9	73	.06	.38
17	.04	.32	●1.2	●4.7	11	18	28	●.90	.77	28	5.0	.15
18	.02	.24	●1.0	●3.5	●5.0	11	19	●11	.44	12	.29	.10
19	.01	.20	●1.0	●3.7	●4.0	9.3	14	●4.0	.31	4.6	.10	.09
20	.00	.26	●1.9	●2.9	4.9	10	12	●2.5	.26	1.9	.08	.17
21	.00	2.6	●1.5	●100	294	11	9.4	●1.5	.15	1.1	.06	.07
22	.00	22	●1.3	●25	54	27	8.4	●1.2	.09	2.4	.09	3.7
23	.00	2.7	●1.2	●15	21	80	7.5	●1.0	.06	1.3	.06	28
24	.00	.67	●1.1	●80	●7.0	23	10	●.90	47	.75	.05	5.3
25	.00	.43	●1.0	●20	●5.0	16	15	●.96	9.9	.60	.04	5.6
26	.00	.19	●.96	●9.0	●4.5	17	●15	●.72	1.4	.46	.03	2.5
27	.00	.24	●1.0	●7.5	●4.0	13	●13	●.64	.52	.44	.02	3.4
28	.00	.15	●1.5	5.5	●3.8	10	●10	●.58	52	.33	.01	1.0
29	.00	.10	●15	2.8	---	8.6	●9.0	●1.5	32	.22	.00	.52
30	.00	.10	●14	1.9	---	7.6	●6.0	●1.3	8.1	.14	.00	.35
31	.00	---	●10	2.0	---	82	---	●1.8	---	.13	.01	---
TOTAL	0.12	55.82	71.63	541.0	450.16	831.1	766.6	428.00	288.70	191.46	8.16	89.76
MEAN	.004	1.86	2.31	17.5	16.4	26.8	25.6	13.8	9.62	5.85	.26	2.99
MAX	.05	22	15	100	294	122	174	230	57	73	5.0	28
MIN	.00	.00	.03	1.9	.46	5.0	5.4	.58	.06	.13	.00	.03
CFSM	.00	.24	.29	2.22	2.08	3.41	3.25	1.76	1.22	.74	.03	.38
IN.	.00	.26	.34	2.56	2.17	3.93	3.63	2.03	1.37	.86	.04	.42

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1993, BY WATER YEAR (WY)

	1991	1980	1991	1982	1989	1975	1983	1990	1976	1988	1988	1974	1983	1970
MEAN	2.40	9.53	14.8	13.7	21.6	21.9	19.7	9.48	5.32	5.07	2.68	2.35		
MAX	9.54	28.8	49.1	43.7	51.7	51.9	60.7	56.1	19.6	47.5	19.4	11.6		
(WY)	1991	1980	1991	1982	1989	1975	1983	1990	1986	1979	1977	1982		
MIN	.000	.28	.51	.058	1.12	5.35	2.27	.17	.000	.001	.000	.000		
(WY)	1988	1992	1977	1977	1992	1990	1976	1988	1988	1974	1983	1970		

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1970 - 1993
ANNUAL TOTAL	1416.17	3720.51	
ANNUAL MEAN	3.87	10.2	10.7
HIGHEST ANNUAL MEAN			17.4
LOWEST ANNUAL MEAN			3.97
HIGHEST DAILY MEAN	187	294	833
LOWEST DAILY MEAN	.00	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.00	.00	.00
INSTANTANEOUS PEAK FLOW		1020	4100
INSTANTANEOUS PEAK STAGE		9.14	10.13
ANNUAL RUNOFF (CFSM)	.49	1.30	1.36
ANNUAL RUNOFF (INCHES)	6.70	17.61	18.42
10 PERCENT EXCEEDS	6.2	23	22
50 PERCENT EXCEEDS	.45	1.5	1.6
90 PERCENT EXCEEDS	.00	.01	.00

● Estimated

PIGEON CREEK BASIN

03322011 PIGEON CREEK NEAR FORT BRANCH, IN

LOCATION.--Lat 38°15'08", long 87°31'11", in NW¹/₄SW¹/₄, sec.15, T.3 S., R.10 W., Gibson County, Hydrologic Unit 05140202, on right bank 20 ft downstream from bridge on State Highway 168, 1.1 mi upstream from West Fork Pigeon Creek and 2.6 mi east of intersection of U.S. Highway 41 at Fort Branch.

DRAINAGE AREA.--35.4 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 400.00 ft above sea level.

REMARKS.--Records fair except those for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	1.8	8.5	25	11	112	47	13	5.0	3.5	2.1	8.0
2	1.6	5.1	8.0	14	9.7	108	24	13	4.9	2.9	1.9	1.7
3	1.6	3.2	7.0	14	9.5	574	18	302	4.8	2.8	1.8	41
4	1.5	3.5	7.0	613	9.2	335	16	374	5.5	2.7	1.8	3.2
5	1.4	2.7	6.3	256	9.1	171	17	73	5.3	2.5	1.6	1.7
6	1.3	2.1	6.1	51	9.2	79	15	31	4.8	3.9	1.7	1.5
7	1.3	1.9	6.4	32	8.6	52	14	19	5.3	3.3	1.7	1.4
8	1.4	1.9	6.0	26	8.7	41	14	13	5.1	2.8	1.6	1.5
9	1.4	1.9	5.9	20	8.0	27	779	79	5.4	2.6	1.6	1.5
10	1.5	2.3	23	86	7.8	24	211	59	4.9	2.4	1.7	1.5
11	1.4	38	19	35	9.1	19	49	12	4.5	2.4	1.7	1.5
12	1.4	185	11	32	21	17	27	11	4.7	50	4.1	1.5
13	1.4	45	9.3	51	14	16	114	10	4.5	4.1	8.6	1.6
14	1.6	15	8.6	21	13	15	223	8.7	4.3	3.0	2.3	2.0
15	1.8	11	8.8	17	12	12	842	7.6	4.0	31	1.8	58
16	3.6	9.2	9.1	16	17	18	170	7.1	3.9	695	1.6	3.9
17	2.1	8.1	8.1	15	11	47	48	6.8	3.9	121	1.7	2.7
18	1.6	7.0	7.4	11	10	20	32	24	3.9	32	1.7	2.4
19	1.5	6.3	7.8	10	10	20	26	11	3.7	94	1.6	2.2
20	1.6	6.1	10	11	11	23	24	7.9	3.8	8.2	1.5	2.3
21	1.7	7.4	8.3	229	511	23	18	6.8	3.8	5.0	1.4	2.4
22	1.6	153	8.1	57	123	22	16	6.2	3.6	7.9	1.5	3.8
23	1.7	44	7.9	30	32	123	15	5.9	3.5	7.1	1.5	326
24	1.7	18	6.7	192	19	38	17	6.2	4.4	4.5	1.5	19
25	1.8	21	6.4	38	17	28	15	5.8	4.9	3.6	1.5	51
26	1.8	16	6.0	24	16	27	15	5.3	3.6	3.0	1.4	18
27	1.8	12	5.8	19	13	21	13	5.3	3.3	2.7	1.5	6.4
28	1.8	10	6.4	17	11	18	13	5.1	3.1	2.6	1.6	4.3
29	1.8	9.2	50	13	---	16	13	4.9	3.7	2.3	1.5	3.2
30	1.8	8.8	44	12	---	15	14	4.9	3.2	2.1	1.3	2.7
31	1.9	---	38	12	---	42	---	5.2	---	2.1	18	---
TOTAL	52.1	656.5	370.9	1999	960.9	2003	2859	1143.7	129.3	1113.0	76.8	577.9
MEAN	1.68	21.9	12.0	64.5	34.3	64.6	95.3	36.9	4.31	35.9	2.48	19.3
MAX	3.6	185	50	613	511	574	842	374	5.5	695	18	326
MIN	1.3	1.8	5.8	10	7.8	12	13	4.9	3.1	2.1	1.3	1.4
CFSM	.05	.62	.34	1.82	.97	1.83	2.69	1.04	.12	1.01	.07	.54
IN.	.05	.69	.39	2.10	1.01	2.10	3.00	1.20	.14	1.17	.08	.61

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1993, BY WATER YEAR (WY)

	1987	1988	1989	1990	1991	1992	1993
MEAN	10.8	21.6	43.6	50.0	78.9	65.9	39.6
MAX	38.8	62.9	176	98.4	170	164	95.3
(WY)	1991	1989	1991	1991	1989	1989	1993
MIN	.55	2.13	12.0	6.96	4.66	15.3	14.6
(WY)	1992	1988	1993	1987	1992	1990	1991

SUMMARY STATISTICS FOR 1992 CALENDAR YEAR FOR 1993 WATER YEAR WATER YEARS 1987 - 1993

ANNUAL TOTAL	4638.8	11942.1	
ANNUAL MEAN	12.7	32.7	35.1
HIGHEST ANNUAL MEAN			62.3
LOWEST ANNUAL MEAN			12.7
HIGHEST DAILY MEAN	368	Mar 30	842
LOWEST DAILY MEAN	1.0	Jun 29	1.3
ANNUAL SEVEN-DAY MINIMUM	1.0	Aug 15	1.4
INSTANTANEOUS PEAK FLOW			1090
INSTANTANEOUS PEAK STAGE			14.13
ANNUAL RUNOFF (CFSM)	.36	.92	16.86
ANNUAL RUNOFF (INCHES)	4.87	12.55	13.47
10 PERCENT EXCEEDS	24	50	45
50 PERCENT EXCEEDS	4.2	8.0	5.8
90 PERCENT EXCEEDS	1.3	1.6	1.1

• Estimated

WABASH RIVER BASIN

03323500 WABASH RIVER AT HUNTINGTON, IN

LOCATION.--Lat 40°51'20", long 85°29'53", in SW¹/₄NE¹/₄, sec.27, T.28 N., R.9 E., Huntington County, Hydrologic Unit 05120101, on right bank at the Huntington Water and Light Plant, 2 mi south of Huntington, 2.4 mi downstream from Huntington Lake, 3.2 mi upstream from Little River, and at mile 409.0.

DRAINAGE AREA.--721 mi².

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

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

GAGE.--Water-stage recorder. Datum of gage is 700.04 ft above sea level, (levels by State of Indiana, Department of Natural Resources). Prior to July 5, 1951, nonrecording gage at same site and datum.

REMARKS.--Flow regulated by Huntington Lake since January 1969. Daily discharge computed from relation between discharge, head, and gate openings for Huntington Lake beginning Oct. 1, 1974.

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

AVERAGE DISCHARGE.--42 years, 609 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,900 ft³/s Feb. 10, 1959; maximum gage height 23.20 ft Feb 10, 1959 (backwater from ice); minimum daily discharge, 0.00 ft³/s Sept. 12, 1989.

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

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 4550 ft³/s Mar. 13; minimum daily discharge, 61 ft³/s Sept. 8, and 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	232	260	1090	693	172	460	1360	731	291	704	746	75
2	250	317	774	910	293	236	3070	751	391	445	444	75
3	299	785	723	904	442	375	2280	472	386	868	325	99
4	317	1800	440	296	376	901	533	329	296	932	272	158
5	314	2560	257	645	217	3150	369	291	254	2530	251	180
6	296	2250	295	2390	249	3890	379	319	423	3440	269	161
7	279	1860	208	3930	266	3820	436	473	700	3490	265	106
8	277	1810	218	4310	172	4000	1750	465	780	3500	251	61
9	278	2240	237	4200	192	4150	3260	402	436	3700	242	87
10	311	2390	237	3420	235	4230	3100	272	647	3770	238	94
11	350	1990	237	2950	122	4300	3220	168	1170	3550	260	78
12	350	1160	205	2160	207	4280	2760	174	938	2460	341	75
13	332	1100	235	951	437	4550	1000	216	356	2800	333	66
14	322	1210	201	973	568	2680	702	242	170	3010	279	61
15	315	1750	236	969	414	633	735	242	896	3580	233	104
16	464	2700	479	1410	197	193	1920	242	1260	3760	201	175
17	990	3610	773	1430	136	417	2650	240	545	3750	207	199
18	1320	3840	833	908	790	1570	2480	155	167	3700	218	197
19	1330	3740	799	878	405	1950	1630	113	181	2160	221	146
20	1040	3610	590	840	312	1280	1400	113	196	2650	221	121
21	775	3450	470	1090	320	945	687	113	188	3410	221	113
22	595	2690	213	929	446	943	657	113	410	3500	211	89
23	370	1460	289	2230	640	1050	549	113	512	3410	201	79
24	297	2070	536	2780	305	2290	397	113	307	2860	201	78
25	292	3270	401	3420	420	3340	438	168	112	2180	201	78
26	290	3960	237	3570	517	4000	1730	208	138	1520	188	78
27	289	4020	211	2940	1180	1710	2310	300	177	1200	124	111
28	286	3830	259	1040	1040	631	924	380	586	1170	82	129
29	284	3430	262	685	---	412	1310	319	1100	1140	54	154
30	281	2070	272	1360	---	423	1050	211	1490	1100	43	177
31	266	---	315	671	---	440	---	154	---	1060	65	---
TOTAL	13691	71232	12532	55882	11060	63249	45086	8602	15503	77349	7408	3404
MEAN	442	2374	404	1803	395	2040	1503	277	517	2495	239	113
MAX	1330	4020	1090	4310	1180	4550	3260	751	1490	3770	746	199
MIN	232	260	201	296	122	193	369	113	112	445	43	61

CAL YR 1992 TOTAL 271243 MEAN 741 MAX 4060 MIN 53
WTR YR 1993 TOTAL 384998 MEAN 1055 MAX 4550 MIN 43

WABASH RIVER BASIN

03325000 WABASH RIVER AT WABASH, IN

LOCATION.--Lat 40°47'25", long 85°49'13", in SE¹/₄NW¹/₄ sec.14, T.27 N., R.6 E., Wabash County, Hydrologic Unit 05120101, on right bank on upstream side of Wabash Street bridge in Wabash, 7.1 mi downstream from Salamonie River, and at mile 387.2.

DRAINAGE AREA.--1,768 mi².

PERIOD OF RECORD.--August 1923 to current year. Monthly discharge only for some periods, published in WSP 1305. REVISED RECORDS.--WSP 1275: 1931-37(M), 1938-39, 1940(M). WSP 1385: 1942. WSP 1505: 1955. WSP 2109:

Drainage area. WDR IN-84-1: 1983.

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

REMARKS.--Records good except for estimated daily discharges, which are fair. Flow regulated by Huntington Lake and Salamonie Lake. Annual mean does not include the 1936 water-year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 28.7 ft Mar. 26, 1913, from floodmark, determined by U.S. Army Corps of Engineers, discharge, 90,000 ft³/s, from rating curve extended above 49,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	616	1850	5100	3310	1580	1050	5130	1660	1330	4380	4980	157
2	593	6140	4140	2490	1100	1080	6930	1760	978	3710	4570	200
3	689	4610	4190	2920	1180	715	5650	2220	1470	4510	3180	899
4	633	3950	4270	10300	1130	2590	1560	1860	926	3030	2990	1030
5	615	4150	4180	9990	884	4460	1170	1680	883	3020	1390	449
6	600	3800	4050	e6550	752	5680	1030	1470	1060	4810	1040	523
7	541	2800	4170	e6000	893	6240	976	1370	1590	4880	697	1220
8	518	2820	4150	e5650	785	8270	1280	1250	2460	4870	517	740
9	560	2910	4170	e5850	683	8400	3960	1120	5000	4980	506	567
10	648	3370	4130	e5800	688	7670	5080	1290	3980	5100	529	302
11	647	3640	4090	e5400	770	7510	6120	1090	4100	5320	798	238
12	670	7800	4180	e5150	478	7100	6010	1420	3820	5790	1180	203
13	646	8310	4230	4790	943	6820	2630	1440	2120	4920	857	194
14	643	5380	4270	5180	1270	5810	1690	1160	1160	4820	579	191
15	637	4400	4220	5160	1460	3350	1990	961	2280	4940	525	1260
16	2440	3850	5130	5100	1100	2900	2960	738	3030	4990	412	1230
17	3640	4250	3910	5120	573	3690	4050	621	2110	4950	425	732
18	3290	4640	2290	4560	1240	4040	3790	519	848	5070	450	493
19	3130	4560	2350	4230	1110	4230	2420	378	560	5090	494	434
20	2910	4560	2110	3330	842	3720	2590	359	615	4480	441	441
21	2470	4570	2040	3170	915	2560	1540	344	643	4880	420	569
22	2330	5300	1740	5860	940	2600	1480	321	989	4980	411	603
23	2030	8190	795	5600	1370	5130	2480	356	1410	5070	357	531
24	1610	6590	1260	6440	1660	5550	2340	384	1230	4900	331	505
25	1410	6620	1100	6030	929	5480	5560	575	720	4630	321	521
26	1390	6350	939	5600	1480	5140	6370	1320	920	4850	311	848
27	1370	6340	739	5330	1360	3680	6620	1400	807	4990	292	1350
28	1350	6820	860	3980	1980	1540	5560	835	2620	5020	235	2120
29	1320	6840	894	3380	---	1210	4710	838	4360	4980	196	1240
30	1280	5900	1730	3560	---	1050	2980	777	4170	5030	163	963
31	1260	---	4650	3010	---	1140	---	881	---	5070	151	---
TOTAL	42486	151310	96077	158840	30095	130405	106656	32397	58189	148060	29748	20753
MEAN	1371	5044	3099	5124	1075	4207	3555	1045	1940	4776	960	692
MAX	3640	8310	5130	10300	1980	8400	6930	2220	5000	5790	4980	2120
MIN	518	1850	739	2490	478	715	976	321	560	3020	151	157
CFSM	.78	2.85	1.75	2.90	.61	2.38	2.01	.59	1.10	2.70	.54	.39
IN.	.89	3.18	2.02	3.34	.63	2.74	2.24	.68	1.22	3.12	.63	.44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1993, BY WATER YEAR (WY)

	1988	1989	1990	1991	1992	1993	1988	1989	1990	1991	1992	1993
MEAN	1122	1896	2035	2913	2292	2267	1319	1936	1845	897	1236	
MAX	2534	5044	4452	5731	5732	4207	3555	3103	4648	4776	2179	2552
(WY)	1991	1993	1991	1991	1990	1993	1993	1990	1989	1993	1990	1992
MIN	444	860	345	844	829	831	1219	155	78.3	109	111	272
(WY)	1989	1988	1990	1988	1989	1989	1990	1988	1988	1988	1991	1991

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1988 - 1993	
ANNUAL TOTAL	741218		1005016			
ANNUAL MEAN	2025		2753		1822	
HIGHEST ANNUAL MEAN					2753	
LOWEST ANNUAL MEAN					979	
HIGHEST DAILY MEAN	8310	Nov 13	10300	Jan 4	14900	Dec 30 1990
LOWEST DAILY MEAN	180	Jul 7	151	Aug 31	48	Jul 8 1988
ANNUAL SEVEN-DAY MINIMUM	210	Jul 3	199	Aug 27	51	Jul 4 1988
INSTANTANEOUS PEAK FLOW			13600	Jan 4	49600	May 18 1943
INSTANTANEOUS PEAK STAGE			15.95	Jan 4	24.44	Feb 11 1959
ANNUAL RUNOFF (CFSM)	1.15		1.56		1.03	
ANNUAL RUNOFF (INCHES)	15.60		21.15		14.01	
10 PERCENT EXCEEDS	4640		5650		4700	
50 PERCENT EXCEEDS	1120		2040		920	
90 PERCENT EXCEEDS	384		513		213	

e Estimated

WABASH RIVER BASIN

03325311 LITTLE MISSISSINEWA RIVER AT UNION CITY, IN

LOCATION.--Lat 40°11'46", long 84°49'45", in SE¹/₄SE¹/₄ sec.26, T.18 N., R.1 W., Randolph County, Hydrologic Unit 05120103, on right bank 85 ft downstream from Westinghouse Road, 0.5 mi downstream from Little Ditch, 0.8 mi upstream from City Drain, and 1.2 mi west of the Post Office in Union City.
 DRAINAGE AREA.--9.67 mi².
 PERIOD OF RECORD.--October 1982 to current year.
 GAGE.--Water-stage recorder. Datum of gage is 1075.50 ft above sea level.
 REMARKS.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	44	6.5	10	e4.2	e5.4	20	5.5	5.1	95	1.1	.24
2	1.6	73	6.1	7.1	e3.7	e5.8	19	5.4	4.5	182	1.1	.27
3	1.5	44	4.4	12	e3.5	30	12	5.2	4.2	135	.93	.94
4	1.4	25	4.7	81	e3.3	89	9.4	5.6	14	50	1.0	.51
5	1.3	14	3.8	98	e3.3	68	8.4	5.7	16	27	.82	.31
6	1.1	8.9	3.9	53	e3.1	50	7.2	4.8	8.5	18	.79	.24
7	1.2	6.6	3.8	31	e3.0	71	6.4	4.5	6.8	12	.73	.23
8	1.9	5.4	3.1	23	e2.9	107	6.4	4.3	5.9	9.0	.63	.20
9	8.2	4.9	3.2	15	e2.9	77	23	13	29	6.4	.57	.21
10	4.1	5.0	4.1	9.9	e2.8	53	58	39	16	37	.90	.20
11	3.0	34	3.1	7.3	3.1	43	27	24	8.8	149	.85	.19
12	2.6	139	2.6	7.4	10	30	15	23	6.9	65	.71	.26
13	2.3	111	2.5	35	13	24	10	18	5.8	30	.64	.26
14	2.4	55	2.9	21	8.0	16	43	11	5.8	23	.56	.24
15	19	31	4.2	13	6.4	9.9	47	7.4	4.9	16	.53	.37
16	33	23	6.9	9.5	6.7	11	63	5.8	4.1	11	.57	.27
17	14	16	5.7	7.7	e4.8	26	31	4.9	3.7	8.0	.51	.27
18	7.6	12	4.4	5.5	e4.1	15	21	4.8	3.4	5.8	.47	.25
19	5.2	9.0	4.5	e4.3	e3.9	12	16	4.2	3.2	14	.43	.25
20	4.6	7.6	6.4	4.6	e3.9	11	17	3.8	3.2	6.8	.56	.21
21	3.3	13	6.0	33	15	13	13	3.5	20	4.7	.44	.28
22	2.5	66	5.0	41	37	13	11	3.0	7.9	3.8	.39	.32
23	2.6	71	4.6	25	20	45	8.8	6.4	5.3	3.2	.38	.38
24	2.8	38	3.6	39	e14	30	8.2	7.5	4.3	2.7	.37	.40
25	2.3	26	e3.0	22	e9.0	18	8.7	5.8	4.0	2.4	.34	.77
26	2.3	18	e2.7	14	e7.0	13	8.1	4.4	3.4	2.1	.33	1.3
27	2.0	12	e2.6	9.9	e6.4	10	7.3	4.0	3.7	1.8	.27	.85
28	2.0	9.6	e2.7	e8.0	e5.8	8.7	6.9	3.9	47	1.7	.24	.95
29	1.9	8.0	3.1	e7.0	---	7.7	6.6	19	45	1.6	.25	.70
30	2.0	7.4	4.8	e5.6	---	6.9	6.0	9.2	18	1.4	.24	.56
31	1.8	---	15	e4.8	---	8.0	---	7.3	---	1.2	.24	---
TOTAL	143.1	937.4	139.9	664.6	210.8	927.4	544.4	273.9	318.4	926.6	17.89	12.43
MEAN	4.62	31.2	4.51	21.4	7.53	29.9	18.1	8.84	10.6	29.9	.58	.41
MAX	33	139	15	98	37	107	63	39	47	182	1.1	1.3
MIN	1.1	4.9	2.5	4.3	2.8	5.4	6.0	3.0	3.2	1.2	.24	.19
CFSM	.48	3.23	.47	2.22	.78	3.09	1.88	.91	1.10	3.09	.06	.04
IN.	.55	3.61	.54	2.56	.81	3.57	2.09	1.05	1.22	3.56	.07	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1993, BY WATER YEAR (WY)

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	
MEAN	4.03	9.39	13.1	8.06	15.5	16.6	17.6	10.4	9.05	12.3	2.23	2.79
MAX	23.1	31.2	53.4	21.4	38.6	29.9	33.7	26.4	24.2	33.5	11.2	24.0
(WY)	1987	1993	1991	1993	1990	1993	1989	1989	1987	1992	1990	1989
MIN	.035	.084	.91	1.19	4.66	3.05	8.60	.93	.23	.065	.004	.000
(WY)	1983	1988	1992	1988	1989	1983	1991	1988	1988	1988	1988	1983

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1983 - 1993	
ANNUAL TOTAL	4464.16		5116.82			
ANNUAL MEAN	12.2		14.0		10.0	
HIGHEST ANNUAL MEAN					14.8	
LOWEST ANNUAL MEAN					3.53	
HIGHEST DAILY MEAN	226	Jul 13	182	Jul 2	480	Dec 30 1990
LOWEST DAILY MEAN	.60	Jan 1	.19	Sep 11	.00	Oct 1 1982
ANNUAL SEVEN-DAY MINIMUM	.84	Aug 20	.22	Sep 6	.00	Aug 20 1983
INSTANTANEOUS PEAK FLOW			412	Jul 1	586	Dec 30 1990
INSTANTANEOUS PEAK STAGE			7.01	Jul 1	8.67	Jun 3 1987
ANNUAL RUNOFF (CFSM)	1.26		1.45		1.04	
ANNUAL RUNOFF (INCHES)	17.17		19.68		14.12	
10 PERCENT EXCEEDS	31		37		27	
50 PERCENT EXCEEDS	3.9		5.8		2.8	
90 PERCENT EXCEEDS	1.4		.51		.08	

e Estimated

WARASH RIVER BASIN

03326070 BIG LICK CREEK NEAR HARTFORD CITY, IN

LOCATION.--Lat 40°25'20", long 85°21'04", in SE¹/₄/SE¹/₄ sec.23, T.23 N., R.10 E., Blackford County, Hydrologic Unit 05120103, on right bank 6 ft downstream from bridge on County Road 100 East, and 2.0 mi southeast of Hartford City.

DRAINAGE AREA.--29.2 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 865.00 ft above sea level.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	262	13	28	13	12	190	5.8	18	278	2.0	1.6
2	2.4	476	12	16	12	13	39	5.1	13	847	2.0	1.7
3	2.3	205	10	105	11	221	22	5.3	12	410	1.9	5.7
4	2.4	64	9.8	533	10	413	15	5.1	136	65	2.0	3.5
5	2.4	27	7.4	446	9.7	230	12	13	119	23	2.0	2.2
6	2.6	12	6.7	130	9.2	132	8.9	6.8	20	15	1.8	1.8
7	2.7	5.4	6.6	48	8.8	277	7.5	4.9	14	9.2	1.7	1.7
8	2.8	2.8	6.0	33	8.5	349	7.2	4.0	12	6.7	1.7	1.6
9	4.8	2.6	5.8	27	8.2	219	156	3.6	11	5.4	1.7	1.5
10	5.5	6.2	7.4	24	8.2	139	310	23	8.8	9.2	2.6	1.5
11	4.8	294	7.9	21	9.0	101	48	6.2	6.7	20	4.0	1.5
12	4.3	764	12	20	18	40	23	5.4	5.9	20	2.2	1.7
13	4.1	588	12	152	27	29	15	20	6.3	6.9	2.0	2.1
14	4.8	161	13	74	21	21	200	5.5	11	75	1.8	1.7
15	5.9	58	21	31	18	15	93	3.7	13	17	1.6	2.6
16	135	35	69	25	15	17	116	3.1	6.6	7.8	1.6	2.6
17	86	30	23	22	12	104	25	2.8	5.2	5.1	1.6	1.9
18	28	25	17	19	10	28	17	2.7	4.5	4.1	1.5	1.7
19	13	22	15	17	8.8	19	16	2.7	4.0	24	1.6	1.6
20	12	19	81	17	8.0	21	23	2.4	21	7.5	3.0	1.5
21	11	19	22	245	14	32	16	2.3	53	4.2	2.2	1.5
22	7.5	241	15	263	99	37	11	2.2	14	3.4	1.7	1.5
23	5.8	393	12	86	34	285	8.1	33	8.0	3.0	1.6	1.6
24	6.6	102	10	216	20	104	7.1	113	5.7	2.7	1.5	1.6
25	5.4	38	7.8	68	15	34	52	54	5.8	2.8	1.8	2.1
26	4.4	29	6.7	31	14	24	20	17	6.5	2.5	1.6	6.3
27	3.8	23	6.2	26	13	18	10	12	5.1	2.3	1.5	1.9
28	3.0	19	6.0	23	12	14	7.6	8.5	22	2.2	1.4	3.1
29	2.7	16	7.8	20	---	11	6.5	101	19	2.6	1.4	1.4
30	2.7	14	21	18	---	9.0	7.0	20	8.8	2.2	1.5	.82
31	3.1	---	65	14	---	48	---	72	---	2.1	1.6	---
TOTAL	384.4	3953.0	535.1	2798	466.4	3016.0	1488.9	566.1	595.9	1885.9	58.1	63.52
MEAN	12.4	132	17.3	90.3	16.7	97.3	49.6	18.3	19.9	60.8	1.87	2.12
MAX	135	764	81	533	99	413	310	113	136	847	4.0	6.3
MIN	2.3	2.6	5.8	14	8.0	9.0	6.5	2.2	4.0	2.1	1.4	.82
CFSM	.42	4.51	.59	3.09	.57	3.33	1.70	.63	.68	2.08	.06	.07
IN.	.49	5.04	.68	3.56	.59	3.84	1.90	.72	.76	2.40	.07	.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1993, BY WATER YEAR (WY)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
MEAN	8.06	27.8	39.9	31.2	46.4	61.4	42.7	24.1	28.4	20.3	9.02	8.73
MAX	53.4	135	157	92.7	124	152	112	114	148	99.4	45.9	55.0
(WY)	1991	1986	1991	1974	1990	1978	1972	1981	1981	1992	1980	1972
MIN	.92	1.26	1.63	.76	3.41	9.38	4.85	2.37	1.21	1.11	.95	.61
(WY)	1983	1977	1977	1977	1978	1983	1976	1988	1988	1977	1988	1983

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1972 - 1993	
ANNUAL TOTAL	13924.5		15811.32			
ANNUAL MEAN	38.0		43.3		28.9	
HIGHEST ANNUAL MEAN					43.3	
LOWEST ANNUAL MEAN					9.21	
HIGHEST DAILY MEAN	1100		847		1580	
LOWEST DAILY MEAN	1.6		.82		.19	
ANNUAL SEVEN-DAY MINIMUM	1.8		1.5		.32	
INSTANTANEOUS PEAK FLOW			1090		1940	
INSTANTANEOUS PEAK STAGE			13.98		16.14	
ANNUAL RUNOFF (CFSM)	1.30		1.48		.99	
ANNUAL RUNOFF (INCHES)	17.74		20.14		13.44	
10 PERCENT EXCEEDS	64		114		68	
50 PERCENT EXCEEDS	6.9		11		6.0	
90 PERCENT EXCEEDS	2.6		1.8		1.3	

• Estimated

WABASH RIVER BASIN

03327520 PIPE CREEK NEAR BUNKER HILL, IN

LOCATION.--Lat 40°40'06", long 86°05'44", in NE¹/₄SE¹/₄, sec.29, T.26 N., R.4 E., Miami County, Hydrologic Unit 05120101, on right bank 150 ft downstream from bridge on County Road 125 West, 0.5 mi northeast of Bunker Hill, and at mile 11.4.

DRAINAGE AREA.--159 mi².

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

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

REMARKS.--Records good except for estimated daily discharges, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	344	148	326	127	●54	1180	185	100	418	30	38
2	76	2000	136	184	99	●66	877	154	80	1490	28	34
3	68	2240	112	307	92	269	485	220	74	1850	26	142
4	60	1430	102	2080	84	746	315	346	69	1150	25	228
5	54	679	91	2980	78	740	231	251	70	462	22	112
6	49	458	81	2100	76	529	182	203	60	273	21	62
7	46	325	80	928	70	703	150	166	63	178	21	45
8	46	241	72	532	66	1130	136	141	84	136	19	36
9	63	189	66	377	60	1040	145	122	808	106	19	31
10	64	170	73	264	60	768	286	109	291	139	50	28
11	55	571	71	194	60	635	270	101	148	619	58	24
12	47	2070	62	161	65	457	184	100	101	273	33	24
13	43	2970	58	183	65	344	142	155	129	148	29	29
14	40	2500	59	198	59	231	238	101	289	603	24	30
15	45	1360	73	165	54	164	462	88	496	322	21	398
16	283	588	254	141	56	157	569	76	216	165	20	284
17	353	453	229	126	55	269	347	68	132	117	21	135
18	206	339	167	100	●52	234	227	64	99	95	20	86
19	137	257	141	●84	●50	180	195	62	85	135	25	62
20	106	212	176	●80	56	162	252	57	76	94	332	51
21	91	185	164	588	63	168	235	53	175	71	97	44
22	74	374	136	913	121	308	176	49	139	59	48	40
23	65	1120	115	615	107	889	150	80	92	54	36	37
24	64	936	91	623	●90	778	135	377	72	50	32	34
25	61	552	●75	492	●80	471	1530	601	65	78	27	37
26	57	415	●66	310	●70	316	1990	303	93	64	23	306
27	54	313	●62	229	●63	235	761	181	67	50	21	435
28	50	244	65	193	●58	189	454	133	63	45	19	482
29	47	197	66	205	---	159	306	109	87	40	18	249
30	44	167	123	168	---	137	238	92	69	35	17	154
31	42	---	396	152	---	234	---	130	---	31	33	---
TOTAL	2579	23899	3610	15998	2036	12762	12848	4877	4392	9350	1215	3697
MEAN	83.2	797	116	516	72.7	412	428	157	146	302	39.2	123
MAX	353	2970	396	2980	127	1130	1990	601	808	1850	332	482
MIN	40	167	58	80	50	54	135	49	60	31	17	24
CFSM	.52	5.01	.73	3.25	.46	2.59	2.69	.99	.92	1.90	.25	.78
IN.	.60	5.59	.84	3.74	.48	2.99	3.01	1.14	1.03	2.19	.28	.86

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1993, BY WATER YEAR (WY)

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
MEAN	53.1	141	189	175	234	311	249	160	132	92.7	52.0	45.7												
MAX	238	797	563	731	648	902	637	411	429	334	296	226												
(WY)	1991	1993	1991	1974	1990	1982	1972	1989	1980	1986	1973	1972												
MIN	6.66	8.79	6.57	3.70	25.1	49.7	45.6	28.5	12.4	8.17	7.63	5.16												
(WY)	1989	1981	1977	1977	1978	1981	1971	1976	1988	1988	1971	1991												

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1968 - 1993	
ANNUAL TOTAL	78655		97263			
ANNUAL MEAN	215		266		153	
HIGHEST ANNUAL MEAN					266	
LOWEST ANNUAL MEAN					67.6	
HIGHEST DAILY MEAN	2970	Nov 13	2980	Jan 5	4210	Feb 24 1985
LOWEST DAILY MEAN	14	Sep 5	17	Aug 30	3.3	Feb 1 1977
ANNUAL SEVEN-DAY MINIMUM	16	Sep 1	22	Aug 3	3.5	Jan 27 1977
INSTANTANEOUS PEAK FLOW			3150	Jan 5	5140	Dec 31 1990
INSTANTANEOUS PEAK STAGE			13.31	Jan 5	17.91	Dec 31 1990
ANNUAL RUNOFF (CFSM)	1.35		1.68		.96	
ANNUAL RUNOFF (INCHES)	18.40		22.76		13.08	
10 PERCENT EXCEEDS	445		608		369	
50 PERCENT EXCEEDS	97		127		56	
90 PERCENT EXCEEDS	34		36		11	

● Estimated

WABASH RIVER BASIN

03328430 WEESAU CREEK NEAR DEEDSVILLE, IN

LOCATION.--Lat 40°54'34", long 86°07'36", in NW¹/₄/NW¹/₄, sec.6, T.28 N., R.4 E., Miami County, Hydrologic Unit 05120104, on left bank 100 ft downstream from bridge on County Road 1000 North, and 1.5 mi west of Deedsville.
 DRAINAGE AREA.--8.87 mi².
 PERIOD OF RECORD.--October 1970 to current year.
 GAGE.--Water-stage recorder. Datum of gage is 785.00 ft above sea level.
 REMARKS.--Records fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	16	9.6	41	15	5.4	75	18	5.4	32	3.1	2.7
2	5.6	108	8.1	23	14	6.2	39	15	5.3	47	2.9	4.3
3	4.5	62	6.9	35	12	18	26	29	5.5	63	2.7	14
4	3.5	33	6.6	313	11	47	20	54	5.3	33	2.9	12
5	2.9	20	5.5	167	11	35	17	50	6.8	23	2.6	7.6
6	2.6	14	4.8	93	11	30	14	28	5.5	17	2.7	42
7	2.3	11	4.5	73	10	57	12	21	5.0	14	2.6	29
8	2.3	8.5	3.7	61	9.9	65	11	17	37	13	2.3	11
9	2.4	7.1	3.6	50	9.8	60	20	14	66	12	2.1	6.9
10	2.3	9.4	4.3	41	9.8	48	22	12	32	12	2.2	5.1
11	2.0	35	3.9	35	10	47	16	11	20	21	2.1	3.9
12	1.9	140	4.3	30	11	35	13	10	14	28	2.1	4.6
13	1.8	117	5.0	34	10	25	11	9.3	11	17	2.1	4.0
14	1.6	59	5.3	33	9.9	17	10	8.3	8.9	23	2.0	4.7
15	2.1	40	8.9	30	9.7	14	17	7.7	8.9	16	2.0	42
16	40	29	52	26	9.3	17	35	7.2	7.1	13	2.3	21
17	24	24	26	23	8.2	42	22	6.8	5.6	11	2.0	12
18	12	19	16	20	6.7	25	17	6.6	4.7	10	1.9	7.7
19	6.3	17	12	17	6.3	18	14	6.6	4.4	10	3.3	5.7
20	4.9	15	12	16	6.2	16	24	6.1	5.6	8.7	9.3	4.9
21	3.8	14	8.0	120	7.7	19	17	5.9	7.0	7.3	4.4	4.4
22	3.0	34	6.2	110	8.5	27	12	5.6	5.4	6.6	3.5	4.1
23	2.6	55	4.8	76	7.2	75	9.7	6.8	4.6	6.0	3.2	3.8
24	2.4	33	3.9	74	6.4	53	8.3	6.8	4.3	5.8	4.2	3.1
25	2.2	26	3.2	45	6.0	33	97	5.9	4.0	5.6	3.4	4.3
26	1.9	26	2.5	31	5.7	26	60	5.4	3.8	4.9	3.1	9.9
27	1.8	21	2.0	25	5.6	20	34	5.0	19	4.5	2.8	9.6
28	1.6	17	1.6	24	5.5	16	25	5.0	58	4.1	2.7	9.7
29	1.6	14	3.4	22	---	13	21	6.0	44	3.7	2.9	6.8
30	1.5	12	45	19	---	9.9	20	5.5	29	3.5	3.1	5.3
31	1.5	---	93	18	---	31	---	6.1	---	3.0	2.6	---
TOTAL	156.0	1036.0	376.6	1725	253.4	950.5	739.0	401.6	443.1	478.7	91.1	306.1
MEAN	5.03	34.5	12.1	55.6	9.05	30.7	24.6	13.0	14.8	15.4	2.94	10.2
MAX	40	140	93	313	15	75	97	54	66	63	9.3	42
MIN	1.5	7.1	1.6	16	5.5	5.4	8.3	5.0	3.8	3.0	1.9	2.7
CFSM	.57	3.89	1.37	6.27	1.02	3.46	2.78	1.46	1.67	1.74	.33	1.15
IN.	.65	4.34	1.58	7.23	1.06	3.99	3.10	1.68	1.86	2.01	.38	1.28

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1993, BY WATER YEAR (WY)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	
MEAN	5.04	9.74	13.6	11.7	17.1	22.1	16.1	10.7	8.78	6.13	4.51	4.66												
MAX	28.5	34.5	35.9	55.6	47.6	53.7	34.5	24.6	31.6	28.9	47.0	21.6												
(WY)	1991	1993	1991	1993	1985	1982	1983	1983	1986	1992	1990	1989												
MIN	.79	.95	.61	.30	2.62	3.50	4.60	3.30	1.17	.80	.66	.45												
(WY)	1975	1977	1977	1977	1978	1981	1971	1977	1988	1988	1988	1988												

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1971 - 1993

ANNUAL TOTAL	4567.78	6957.1	
ANNUAL MEAN	12.5	19.1	10.8
HIGHEST ANNUAL MEAN			19.1
LOWEST ANNUAL MEAN			5.52
HIGHEST DAILY MEAN	142	Jul 13	313
LOWEST DAILY MEAN	.62	Sep 4	1.5
ANNUAL SEVEN-DAY MINIMUM	.66	Sep 1	1.7
INSTANTANEOUS PEAK FLOW			408
INSTANTANEOUS PEAK STAGE			7.30
ANNUAL RUNOFF (CFSM)	1.41		2.15
ANNUAL RUNOFF (INCHES)	19.16		29.18
10 PERCENT EXCEEDS	30		45
50 PERCENT EXCEEDS	5.4		10
90 PERCENT EXCEEDS	1.3		2.7

• Estimated

WABASH RIVER BASIN

03329400 RATTLESNAKE CREEK NEAR PATTON, IN

LOCATION.--Lat 40°42'46", long 86°41'49", in NW¹/₄SW¹/₄ sec.7, T.26 N., R.2 W., Carroll County, Hydrologic Unit 05120105, on left bank 5 ft downstream from bridge on County Road 900 West, and 2.5 mi northeast of Patton.
 DRAINAGE AREA.--6.83 mi².
 PERIOD OF RECORD.--October 1968 to September 1993 (discontinued).
 GAGE.--Water-stage recorder. Datum of gage is 644.97 ft above sea level. Prior to Nov. 28, 1979, at datum 1.00 ft higher.
 REMARKS.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	31	8.2	22	6.7	e2.0	83	8.7	4.1	70	1.4	2.7
2	4.5	148	7.6	15	6.0	2.1	35	8.1	3.9	51	1.3	18
3	4.0	51	6.5	22	5.9	7.5	24	7.7	3.8	27	1.3	66
4	3.8	27	6.5	203	5.4	11	19	7.3	8.1	17	1.2	22
5	3.6	19	5.7	89	5.4	17	14	6.6	23	11	1.1	10
6	3.5	14	5.7	36	5.2	32	11	6.3	11	8.2	1.1	72
7	3.5	11	5.5	27	5.1	35	9.9	6.0	11	6.5	1.1	26
8	4.1	9.7	5.0	22	4.8	27	9.3	5.6	55	5.4	.97	10
9	4.3	8.5	5.0	19	4.6	19	9.5	5.3	42	4.6	.95	5.8
10	4.1	9.4	5.5	16	4.5	20	8.8	5.0	21	4.1	1.1	2.7
11	3.8	19	4.6	14	4.5	18	8.3	4.9	14	3.9	.99	1.6
12	3.9	108	4.4	13	4.9	14	6.9	5.0	10	3.3	1.0	1.7
13	3.8	64	4.3	16	4.5	12	6.5	4.3	7.8	4.6	1.0	1.1
14	3.9	28	4.4	15	4.5	9.1	10	4.1	50	72	.90	13
15	4.3	20	8.6	13	4.2	7.9	19	4.0	37	18	.88	51
16	28	16	18	12	4.4	8.1	20	3.6	18	10	.88	15
17	14	13	11	11	3.7	10	12	3.5	13	7.0	.83	8.0
18	9.8	10	9.0	9.2	e3.6	8.7	10	3.6	13	5.4	.78	4.9
19	7.7	9.4	8.3	8.4	e3.5	7.8	9.7	3.4	9.5	4.6	2.7	3.0
20	7.2	9.0	8.2	8.5	e3.1	7.7	28	3.2	26	3.8	8.4	2.3
21	6.0	8.4	7.6	71	e3.2	8.7	15	3.1	44	3.3	1.4	1.6
22	5.2	41	6.7	64	e4.0	26	11	3.0	19	2.9	1.1	1.4
23	5.1	55	6.2	42	e3.8	74	9.7	6.8	12	2.7	1.0	1.3
24	5.2	26	5.3	35	e3.2	33	8.6	6.2	8.3	2.6	.99	1.1
25	5.0	19	e5.0	21	e2.6	22	70	4.4	6.6	2.6	8.9	4.3
26	4.9	16	e4.5	16	e2.7	16	30	3.8	5.3	2.2	11	10
27	4.5	13	e4.4	12	e2.5	13	19	3.6	4.7	2.0	2.1	39
28	4.4	11	4.6	11	e2.2	11	14	3.6	10	1.9	1.4	21
29	4.3	9.9	5.4	9.3	---	9.2	11	4.0	9.1	1.6	8.5	11
30	4.1	9.0	31	8.4	---	8.2	9.8	4.0	36	1.5	5.9	8.0
31	3.9	---	49	8.3	---	50	---	5.2	---	1.5	3.1	---
TOTAL	179.4	833.3	271.7	889.1	118.7	547.0	552.0	153.9	536.2	362.2	75.27	435.5
MEAN	5.79	27.8	8.76	28.7	4.24	17.6	18.4	4.96	17.9	11.7	2.43	14.5
MAX	28	148	49	203	6.7	74	83	8.7	55	72	11	72
MIN	3.5	8.4	4.3	8.3	2.2	2.0	6.5	3.0	3.8	1.5	.78	1.1
CFSM	.85	4.07	1.28	4.20	.62	2.58	2.69	.73	2.62	1.71	.36	2.13
IN.	.98	4.54	1.48	4.84	.65	2.98	3.01	.84	2.92	1.97	.41	2.37

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1993, BY WATER YEAR (WY)

	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	3.26	5.63	7.80	7.40	9.20	11.8	11.0	9.19	7.94	4.29	2.87	3.81													
MAX	12.4	27.8	19.5	28.7	27.4	29.2	23.6	28.4	22.1	19.5	22.5	21.5													
(WY)	1991	1993	1991	1993	1990	1982	1974	1981	1975	1969	1990	1977													
MIN	.27	.39	.11	.069	1.73	1.57	2.38	2.04	.93	.45	.19	.073													
(WY)	1989	1977	1977	1977	1978	1981	1971	1976	1977	1977	1988	1988													

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1969 - 1993

ANNUAL TOTAL	2723.53	4954.27	
ANNUAL MEAN	7.44	13.6	7.00
HIGHEST ANNUAL MEAN			13.6
LOWEST ANNUAL MEAN			3.02
HIGHEST DAILY MEAN	148	Nov 2	203
LOWEST DAILY MEAN	.95	Jul 9	.78
ANNUAL SEVEN-DAY MINIMUM	1.0	Jul 5	.90
INSTANTANEOUS PEAK FLOW			278
INSTANTANEOUS PEAK STAGE			4.70
ANNUAL RUNOFF (CFSM)	1.09		1.99
ANNUAL RUNOFF (INCHES)	14.83		26.98
10 PERCENT EXCEEDS	14		31
50 PERCENT EXCEEDS	4.4		7.8
90 PERCENT EXCEEDS	1.4		2.1
			16
			3.0
			.54
			491
			5.30
			1.03
			13.93
			16
			3.0
			.54
			491
			5.30
			1.03
			13.93
			16
			3.0
			.54

e Estimated

03330241 TIPPECANOE RIVER AT NORTH WEBSTER, IN

LOCATION.--Lat 41°18'58", long 85°41'32", in SE¹/₄NE¹/₄, sec.15, T.33 N., R.7 E., Kosciusko County, Hydrologic Unit 05120106, on right upstream corner of State Road 13 bridge, at the intersection of State Road 13 and County Road 550 North, and 0.4 mi southeast of North Webster.

DRAINAGE AREA.--49.3 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 840.00 ft above sea level.

REMARKS.--Records fair, except for estimated daily discharges, which are poor. Flow regulated at times by dams at Webster Lake, 0.25 mi upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	46	112	135	85	45	124	96	33	33	7.9	14
2	19	55	75	133	83	47	149	92	33	59	7.8	31
3	14	130	32	134	62	46	143	78	33	128	7.5	135
4	10	139	32	197	44	46	90	65	40	88	7.2	47
5	10	140	32	301	50	46	29	67	94	21	7.2	9.0
6	11	138	32	382	54	47	34	68	49	22	7.0	9.2
7	11	130	32	401	54	47	60	69	52	23	6.8	9.0
8	13	122	31	420	53	53	121	69	157	45	6.5	8.8
9	15	118	30	411	53	69	135	69	183	60	6.4	8.6
10	15	113	31	412	52	76	149	70	79	37	5.4	8.4
11	18	112	31	374	52	94	91	69	194	16	5.2	8.1
12	19	116	30	335	52	94	38	67	172	11	6.1	7.9
13	20	120	29	267	53	95	32	61	95	12	6.8	7.7
14	20	143	29	224	52	94	50	41	61	13	7.1	7.6
15	21	171	28	107	51	91	106	25	130	15	7.6	28
16	22	174	28	139	52	89	117	15	85	20	8.0	33
17	20	176	27	170	52	99	74	16	49	22	8.5	7.2
18	21	172	29	163	51	98	34	17	48	23	9.9	7.1
19	22	165	31	146	50	97	35	18	51	23	9.9	6.9
20	24	156	34	117	50	97	39	19	71	20	9.4	6.9
21	43	148	36	137	50	96	39	20	95	13	9.0	7.2
22	48	144	37	187	50	96	40	31	34	12	9.1	7.8
23	48	142	37	181	50	98	41	56	17	12	8.9	8.7
24	51	133	36	168	49	99	44	83	33	11	9.0	9.3
25	52	137	34	153	45	103	76	35	70	9.8	8.9	24
26	55	137	32	150	38	108	113	16	40	9.6	8.4	27
27	54	134	30	124	38	119	111	17	23	9.4	8.4	9.6
28	52	130	28	101	39	135	110	19	79	9.2	8.4	5.9
29	49	124	28	104	---	130	115	20	119	8.8	8.4	6.4
30	47	118	32	106	---	120	120	26	23	8.4	8.4	6.4
31	44	---	77	95	---	116	---	33	---	8.1	11	---
TOTAL	886	3983	1142	6474	1464	2690	2459	1447	2242	802.3	246.1	512.7
MEAN	28.6	133	36.8	209	52.3	86.8	82.0	46.7	74.7	25.9	7.94	17.1
MAX	55	176	112	420	85	135	149	96	194	128	11	135
MIN	10	46	27	95	38	45	29	15	17	8.1	5.2	5.9
CFSM	.58	2.69	.75	4.24	1.06	1.76	1.66	.95	1.52	.52	.16	.35
IN.	.67	3.01	.86	4.89	1.10	2.03	1.86	1.09	1.69	.61	.19	.39

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1993, BY WATER YEAR (WY)

	1987	1988	1989	1990	1991	1992	1993
MEAN	51.2	61.0	57.8	92.6	60.4	63.0	67.0
MAX	142	133	98.8	209	119	102	88.0
(WY)	1991	1993	1987	1993	1990	1990	1991
MIN	15.2	23.7	14.0	28.6	31.5	30.6	46.8
(WY)	1990	1990	1990	1992	1989	1989	1992

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1987 - 1993

ANNUAL TOTAL	13887.8	24348.1	
ANNUAL MEAN	37.9	66.7	50.7
HIGHEST ANNUAL MEAN			70.5
LOWEST ANNUAL MEAN			29.6
HIGHEST DAILY MEAN	176	Nov 17	420
LOWEST DAILY MEAN	8.3	Sep 15	5.2
ANNUAL SEVEN-DAY MINIMUM	11	Jul 4	6.2
INSTANTANEOUS PEAK FLOW			430
INSTANTANEOUS PEAK STAGE			6.17
ANNUAL RUNOFF (CFSM)	.77		1.35
ANNUAL RUNOFF (INCHES)	10.48		18.37
10 PERCENT EXCEEDS	75		141
50 PERCENT EXCEEDS	29		46
90 PERCENT EXCEEDS	12		8.4

• Estimated

WABASH RIVER BASIN

03331110 WALNUT CREEK NEAR WARSAW, IN

LOCATION.--Lat 41°12'17", long 85°52'11", in NW¹/₄/NE¹/₄, sec.30, T.32 N., R.6 E., Kosciusko County, Hydrologic Unit 05120106, on left bank 10 ft upstream from bridge on County Road 200 South, 0.3 mi downstream from small right-bank tributary, and 2.5 mi south of court house in Warsaw.

DRAINAGE AREA.--19.6 mi².

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

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

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow occasionally regulated by lakes upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	7.8	24	85	31	7.6	41	30	14	18	3.4	3.9
2	9.8	41	23	65	28	6.9	45	26	13	19	3.1	7.0
3	8.6	66	22	56	26	8.7	42	29	12	25	3.0	14
4	7.5	66	20	217	24	16	36	32	13	25	3.1	16
5	6.2	51	19	255	23	19	31	35	34	19	3.0	12
6	5.6	37	17	212	22	18	27	33	27	15	3.0	13
7	5.5	29	16	146	21	22	25	28	23	12	3.0	13
8	5.2	23	15	102	20	31	25	24	44	11	2.9	11
9	4.9	19	15	79	19	44	27	21	71	10	2.9	8.9
10	7.4	17	16	69	18	45	31	18	59	9.6	2.9	7.2
11	7.8	21	16	62	18	42	29	16	44	11	2.9	6.1
12	7.1	61	16	56	17	40	26	16	32	11	2.8	5.9
13	6.2	107	17	58	16	37	23	15	24	9.2	2.9	5.8
14	6.2	99	17	55	16	30	21	13	28	11	2.8	6.2
15	6.6	78	17	52	15	24	21	12	54	10	2.8	13
16	11	57	27	47	15	25	24	11	40	8.9	2.8	15
17	16	43	31	43	14	37	23	10	28	8.0	2.8	13
18	13	37	28	39	13	36	21	9.6	21	7.4	2.7	11
19	12	35	25	35	13	30	21	9.3	18	7.7	3.6	8.9
20	11	32	25	30	12	27	26	8.9	17	7.2	4.4	7.3
21	10	30	22	58	12	28	26	8.6	23	6.5	3.8	6.4
22	8.9	37	19	92	11	30	23	8.2	23	5.9	3.4	5.8
23	8.1	66	18	88	11	57	21	9.3	19	5.6	3.1	5.6
24	8.0	64	16	80	12	67	20	11	16	5.4	3.6	5.5
25	7.5	54	15	68	11	59	48	12	14	5.4	3.3	5.8
26	6.6	45	17	56	10	50	60	11	12	5.1	4.8	6.8
27	6.2	38	12	48	9.2	43	55	9.5	11	4.8	4.8	9.4
28	6.4	33	12	43	8.4	38	45	9.4	13	4.6	3.8	12
29	6.1	28	13	42	---	33	38	13	19	4.2	3.3	11
30	6.4	26	30	37	---	30	35	13	19	3.9	3.2	10
31	6.1	---	89	34	---	28	---	16	---	3.6	3.7	---
TOTAL	248.9	1347.8	669	2409	465.6	1009.2	936	517.8	785	310.0	101.6	276.5
MEAN	8.03	44.9	21.6	77.7	16.6	32.6	31.2	16.7	26.2	10.0	3.28	9.22
MAX	16	107	89	255	31	67	60	35	71	25	4.8	16
MIN	4.9	7.8	12	30	8.4	6.9	20	8.2	11	3.6	2.7	3.9
CFSM	.41	2.29	1.10	3.96	.85	1.66	1.59	.85	1.34	.51	.17	.47
IN.	.47	2.56	1.27	4.57	.88	1.92	1.78	.98	1.49	.59	.19	.52

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1993, BY WATER YEAR (WY)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	
MEAN	8.63	14.9	21.6	20.0	24.8	36.2	34.6	20.3	17.6	7.03	5.95	6.88													
MAX	54.6	44.9	48.3	77.7	60.6	110	66.5	60.8	80.3	20.9	53.7	27.0													
(WY)	1991	1993	1991	1993	1985	1982	1981	1981	1981	1981	1990	1980													
MIN	1.04	2.18	1.43	.91	2.87	14.0	14.3	6.35	2.34	1.73	1.07	.80													
(WY)	1977	1979	1977	1977	1979	1989	1976	1988	1988	1988	1971	1976													

SUMMARY STATISTICS FOR 1992 CALENDAR YEAR FOR 1993 WATER YEAR WATER YEARS 1970 - 1993

	1992 CALENDAR YEAR	1993 WATER YEAR	1970 - 1993
ANNUAL TOTAL	5950.7	9076.4	
ANNUAL MEAN	16.3	24.9	18.1
HIGHEST ANNUAL MEAN			28.2
LOWEST ANNUAL MEAN			10.0
HIGHEST DAILY MEAN	107	Nov 13	389
LOWEST DAILY MEAN	1.9	Jul 7	2.7
ANNUAL SEVEN-DAY MINIMUM	2.4	Jul 4	2.8
INSTANTANEOUS PEAK FLOW			277
INSTANTANEOUS PEAK STAGE			4.09
ANNUAL RUNOFF (CFSM)	.83	1.27	5.38
ANNUAL RUNOFF (INCHES)	11.29	17.23	.93
10 PERCENT EXCEEDS	30	55	12.58
50 PERCENT EXCEEDS	13	17	42
90 PERCENT EXCEEDS	3.7	4.8	10
			1.7

• Estimated

WABASH RIVER BASIN

03333050 TIPPECANOE RIVER NEAR DELPHI, IN

LOCATION.--Lat 40°35'38", long 86°46'12", in SW¹/₄/SW¹/₄, sec.21, T.25 N., R.3 W., Carroll County, Hydrologic Unit 05120106, on left bank 20 ft upstream from bridge on State Highway 18, 1,400 ft east of Springboro, 8.1 mi downstream from Big Creek, 5 mi west of Delphi, and at mile 8.7.

DRAINAGE AREA.--1,869 mi².

PERIOD OF RECORD.--March to December 1903, March to December 1904, March 1905 to July 1906, November and December 1908, July 1939 to September 1987, October 1987 to current year. as "at Springboro" 1903-08. Published as "03333000 Tippecanoe River near Delphi;" July 1939 to September 1987.

REVISED RECORDS.--WSP 973; 1942. WSP 1335; 1905-6. WSP 2109; Drainage area. WDR IN-92-1; 1988-1991 (above 5900 ft³/s).

GAGE.--Water-stage recorder. Datum of gage is 535.00 ft above sea level. Mar. 14, 1903, to July 20, 1906, and Nov. 2 to Dec. 31, 1908, nonrecording gage at present site at different datum. July 1939 to Sept. 30, 1987, at site 6.4 mi upstream at datum 17.01 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by upstream reservoirs.

REVISIONS.--The maximum discharge for the water year 1992 has been revised to 18,900 ft³/s, Dec. 30, 1990, gage height, 12.87 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1400	840	2740	5540	3470	1830	9130	3420	2430	4630	1060	1470
2	1090	3400	2740	4360	2950	1830	7970	3040	2430	5700	962	1250
3	1380	7470	2420	4270	2920	2300	6190	3100	2190	5210	904	4780
4	953	5680	2290	12100	2870	4230	5230	2920	2290	4420	769	3980
5	823	4320	2200	17000	2510	4610	4540	3540	3220	3410	705	2650
6	1060	3340	2020	13300	2590	4670	4160	3460	3100	3190	808	4010
7	1110	2880	1900	11800	2440	5470	3610	3030	2710	2540	833	5120
8	1210	2530	1780	11000	2440	5140	3390	3070	3330	2260	874	3590
9	816	2430	1950	9260	2290	4840	3380	2800	6400	2170	498	2540
10	793	2280	1930	7870	2210	4750	3340	2380	4910	2160	1020	1980
11	903	2820	1650	6690	2120	4780	2850	2520	4280	2350	832	1890
12	778	5080	1780	5930	2230	4340	3000	2070	3840	2070	1030	1690
13	637	8850	1480	5710	2130	4010	2730	2000	3720	2020	785	1870
14	847	6710	1690	5510	2390	3250	2830	1900	4020	3750	792	2100
15	677	5500	1660	5230	1910	3060	3540	1960	5490	3520	801	6300
16	777	4930	2930	4860	2220	3020	5290	1570	3920	2910	848	5840
17	1900	4470	3270	4660	1800	3330	4090	1530	3450	2140	796	4370
18	1880	3870	2710	4220	1930	3220	3610	1530	3220	2540	813	3290
19	1360	3670	2710	3610	1330	3100	3290	1440	2580	2540	706	2530
20	1010	3360	2410	3360	1650	3020	3820	1480	2870	2240	1820	2210
21	1250	3120	2210	5580	2150	2890	4100	1380	3360	2030	1350	1950
22	809	3350	2130	8610	2410	3700	3350	1250	2960	1820	868	1840
23	1090	6030	2000	8020	1890	6870	3160	1530	2700	1530	984	1830
24	1090	5010	1710	8020	1670	6520	2900	1570	2310	1610	886	1370
25	632	4460	1600	7100	1360	5280	4820	1460	2360	1660	1090	1730
26	1110	4170	1430	6030	1540	4650	5460	1430	1950	1620	1190	2190
27	885	3570	1260	5470	1480	4410	4520	1280	1980	1360	890	4190
28	606	3410	1590	4890	1540	4090	4150	1320	3370	1280	1040	5640
29	765	3150	1780	4580	---	3450	3870	1390	5270	1080	832	4670
30	819	2910	2410	4050	---	3470	3430	1700	4150	1130	827	3900
31	766	---	6230	3840	---	4150	---	2440	---	847	986	---
TOTAL	31226	123610	68510	212470	60440	124280	125750	65510	100810	77737	28599	92770
MEAN	1007	4120	2210	6854	2159	4009	4192	2113	3360	2508	923	3092
MAX	1900	8850	6230	17000	3470	6870	9130	3540	6400	5700	1820	6300
MIN	606	840	1260	3360	1330	1830	2730	1250	1950	847	498	1250
CFSM	.54	2.20	1.18	3.67	1.15	2.15	2.24	1.13	1.80	1.34	.49	1.65
IN.	.62	2.46	1.36	4.23	1.20	2.47	2.50	1.30	2.01	1.55	.57	1.85

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1993, BY WATER YEAR (WY)

	1988	1989	1990	1991	1992	1993
MEAN	1353	2023	2293	3380	2633	3234
MAX	4185	4120	3819	6854	4660	4950
(WY)	1991	1993	1991	1993	1990	1993
MIN	518	929	810	1460	1324	1326
(WY)	1989	1988	1990	1992	1989	1989

SUMMARY STATISTICS FOR 1992 CALENDAR YEAR FOR 1993 WATER YEAR WATER YEARS 1988 - 1993

ANNUAL TOTAL	636732	1111712	
ANNUAL MEAN	1740	3046	2161
HIGHEST ANNUAL MEAN			3046
LOWEST ANNUAL MEAN			1516
HIGHEST DAILY MEAN	8850	Nov 13	17000
LOWEST DAILY MEAN	382	Aug 22	498
ANNUAL SEVEN-DAY MINIMUM	503	Aug 20	770
INSTANTANEOUS PEAK FLOW			18900
INSTANTANEOUS PEAK STAGE			12.93
INSTANTANEOUS LOW FLOW			362
ANNUAL RUNOFF (CFSM)	.93	1.63	1.16
ANNUAL RUNOFF (INCHES)	12.67	22.13	15.71
10 PERCENT EXCEEDS	3110	5480	4320
50 PERCENT EXCEEDS	1490	2540	1660
90 PERCENT EXCEEDS	651	898	485

WABASH RIVER BASIN

03334000 WILDCAT CREEK AT OWASCO, IN

LOCATION.--Lat 40°27'50", long 86°38'15", in SE¹/₄, SE¹/₄ sec.4, T.23 N., R.2 W., Carroll County, on left bank 200 ft downstream from bridge on State Highway 39, 0.5 mi northwest of Owasco, and 15 mi upstream from South Fork Wildcat Creek.

DRAINAGE AREA.--396 mi².

PERIOD OF RECORD.--October 1943 to September 1973. Annual maximum, water years 1975-81. October 1988 to current year. Prior to March 1944 monthly discharge only, published in WSP 1305.

REVISED RECORDS.--WSP 1625: 1958. WSP 2109: Drainage area.

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

REMARKS.--Records good except for estimated daily discharges, which are poor. Some regulation at low stages for municipal water supply by Kokomo Water Company since 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 18, 1943, reached a stage of 14.00 ft, from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	312	362	530	646	493	250	1840	649	276	684	148	94
2	271	2850	488	581	432	264	2260	544	260	2680	140	111
3	240	4230	435	586	372	471	1670	551	249	3100	132	231
4	213	4320	404	2220	343	1240	1120	907	243	3180	127	447
5	200	2670	356	4510	324	1970	855	807	282	2370	131	410
6	176	1500	337	5820	312	1910	686	679	279	1120	120	280
7	159	1100	324	4240	298	1790	572	588	267	737	114	207
8	154	845	307	2190	287	2210	508	497	246	528	114	166
9	163	676	292	1430	277	2620	513	437	457	401	102	142
10	182	592	296	1100	267	2660	652	387	337	486	98	130
11	180	1020	304	851	260	2010	862	360	251	1760	103	123
12	176	2940	287	693	280	1550	709	452	220	1220	119	112
13	155	5980	271	674	271	1230	562	391	284	957	114	124
14	147	7580	260	661	262	966	795	340	464	928	112	122
15	154	5660	260	638	250	725	1510	301	594	1010	100	495
16	350	2560	333	555	251	607	2030	279	613	867	93	585
17	417	1570	463	496	252	693	1750	264	417	539	91	404
18	544	1220	494	428	213	718	1200	248	305	403	87	292
19	437	1010	437	377	200	649	901	243	280	488	89	225
20	361	839	420	354	210	574	936	234	255	355	839	188
21	310	722	421	1010	243	538	992	220	274	278	781	166
22	286	733	417	2060	320	579	837	213	365	238	388	154
23	273	1440	384	2080	347	1210	650	297	314	215	230	142
24	267	2100	341	1720	300	1850	552	859	240	203	190	135
25	265	1790	300	1570	280	1610	2150	1390	216	550	183	135
26	256	1260	260	1260	300	1130	3400	1040	213	465	142	179
27	243	1010	240	941	270	865	2400	628	196	294	135	386
28	195	844	230	765	260	696	1370	438	230	239	120	646
29	168	704	262	669	---	584	999	363	303	202	112	539
30	157	600	312	604	---	515	806	318	317	174	100	395
31	155	---	468	535	---	669	---	296	---	162	95	---
TOTAL	7566	60727	10933	42264	8174	35353	36087	15220	9247	26833	5449	7765
MEAN	244	2024	353	1363	292	1140	1203	491	308	866	176	259
MAX	544	7580	530	5820	493	2660	3400	1390	613	3180	839	646
MIN	147	362	230	354	200	250	508	213	196	162	87	94
CFSM	.62	5.11	.89	3.44	.74	2.88	3.04	1.24	.78	2.19	.44	.65
IN.	.71	5.70	1.03	3.97	.77	3.32	3.39	1.43	.87	2.52	.51	.73

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1993, BY WATER YEAR (WY)

	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945
MEAN	155	262	343	563	538	643	720	436	365	292	138	149
MAX	670	2024	1325	3083	1725	1270	1857	984	2536	1589	707	1339
(WY)	1970	1993	1958	1950	1959	1973	1957	1952	1958	1992	1958	1989
MIN	20.0	30.3	25.9	24.6	50.0	154	137	120	84.8	41.5	37.1	20.6
(WY)	1945	1945	1945	1945	1963	1954	1971	1954	1949	1954	1954	1954

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR
ANNUAL TOTAL	227024	265618				
ANNUAL MEAN	620	728			383	
HIGHEST ANNUAL MEAN					733	1950
LOWEST ANNUAL MEAN					104	1954
HIGHEST DAILY MEAN	8990	Jul 16	7580	Nov 14	9850	Jan 5 1950
LOWEST DAILY MEAN	82	Sep 7	87	Aug 18	12	Oct 23 1944
ANNUAL SEVEN-DAY MINIMUM	92	Sep 2	98	Aug 13	15	Sep 23 1954
INSTANTANEOUS PEAK FLOW			7900	Nov 14	10200	Jan 5 1950
INSTANTANEOUS PEAK STAGE			11.03	Nov 14	13.30	Jan 5 1950
ANNUAL RUNOFF (CFSM)	1.57		1.84		.97	
ANNUAL RUNOFF (INCHES)	21.33		24.95		13.14	
10 PERCENT EXCEEDS	1300		1770		905	
50 PERCENT EXCEEDS	287		401		166	
90 PERCENT EXCEEDS	133		148		39	

• Estimated

WABASH RIVER BASIN

03335677 MARSHALL DITCH NEAR MONTMORENCI, IN

LOCATION.--Lat 40°30'42", long 87°01'10", in NW¹/₄SW¹/₄ sec.20, T.24 N., R.5 W., Tippecanoe County, Hydrologic Unit 05120108, on right bank at mile 1.7, and 2.9 mi northeast of Montmorenci.

DRAINAGE AREA.--1.58 mi².

PERIOD OF RECORD.--October 1990 to current year.

GAGE.--Water-stage recorder. Datum of gage is 710.00 ft. above sea level.

REMARKS.--Records poor except for estimated daily discharges which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.71	11	1.2	2.0	.82	.47	18	1.0	.92	23	.39	.06
2	.65	26	1.1	1.5	.80	.93	3.9	1.0	.76	8.4	.33	.42
3	.56	4.5	.96	5.7	.74	6.4	2.5	1.0	.68	4.2	.30	1.0
4	.46	2.3	.94	52	.71	9.0	1.9	.92	2.0	2.1	.27	.47
5	.39	1.7	.81	8.7	.74	8.4	1.5	.84	3.3	1.5	.26	.39
6	.40	1.3	.86	3.6	.67	9.4	1.2	.78	1.2	1.2	.26	.39
7	.40	1.0	.76	2.5	.68	5.7	1.1	.76	.89	.99	.23	.31
8	.42	.91	.71	1.9	.69	4.2	1.1	.72	1.3	.86	.21	.30
9	.33	.82	.75	1.4	.69	2.8	1.2	.67	7.2	.76	.19	.28
10	.31	1.2	.78	1.1	.62	2.4	1.1	.64	1.6	21	.19	.25
11	.27	3.4	.62	1.0	.62	1.8	1.0	.70	.96	10	.16	.18
12	.27	37	.61	1.0	.72	1.5	.88	.84	.79	1.9	.19	.40
13	.25	7.4	.58	1.5	.63	1.4	.84	.76	.71	1.3	.17	.27
14	.25	2.8	.61	1.3	.60	1.0	7.9	.66	.66	2.5	.15	2.0
15	.24	1.9	1.9	1.2	.56	.96	17	.60	.58	1.3	.19	3.8
16	2.1	1.6	3.5	1.1	.50	.96	5.1	.52	.53	1.1	.23	.91
17	.83	1.3	1.9	.95	.46	.92	2.5	.48	.51	.91	.14	.55
18	.61	1.1	1.4	.80	.45	.83	1.8	.44	.48	.81	.09	.39
19	.50	1.2	1.3	.74	.43	.84	1.5	.42	.47	.72	.46	.32
20	.49	1.2	1.3	.91	.45	.85	5.6	.36	1.7	.66	1.3	.30
21	.39	1.1	1.2	20	.53	.95	2.2	.33	1.4	.60	.32	.29
22	.43	6.0	1.0	8.7	.48	2.9	1.6	.39	.59	.56	.23	.28
23	.48	6.5	.96	7.4	.44	14	1.3	2.2	.50	.53	.19	.24
24	.43	3.1	.87	5.3	.42	3.6	1.2	2.3	1.4	1.0	.17	.23
25	.38	2.5	.78	2.4	.42	2.4	22	1.2	1.8	1.6	.15	.45
26	.36	2.3	.66	1.8	.43	2.0	3.3	.83	.84	.73	.14	.52
27	.33	1.8	.66	1.4	.44	1.5	2.1	.73	.95	.60	.09	1.4
28	.32	1.6	.68	1.5	.43	1.2	1.6	.64	19	.54	.08	.85
29	.31	1.4	.74	1.2	---	1.1	1.4	.56	3.1	.47	.07	.55
30	.30	1.3	3.8	1.1	---	1.0	1.1	1.4	14	.40	.07	.47
31	.25	---	5.2	1.0	---	15	---	2.2	---	.40	.07	---
TOTAL	14.42	137.23	39.14	142.70	16.17	106.41	115.42	26.89	70.82	92.64	7.29	18.27
MEAN	.47	4.57	1.26	4.60	.58	3.43	3.85	.87	2.36	2.99	.24	.61
MAX	2.1	37	5.2	52	.82	15	22	2.3	19	23	1.3	3.8
MIN	.24	.82	.58	.74	.42	.47	.84	.33	.47	.40	.07	.06
CFSM	.29	2.90	.80	2.91	.37	2.17	2.44	.55	1.49	1.89	.15	.39
IN.	.34	3.23	.92	3.36	.38	2.51	2.72	.63	1.67	2.18	.17	.43

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1993, BY WATER YEAR (WY)

	1990	1991	1992	1993
MEAN	.80	1.81	2.59	2.08
MAX	1.87	4.57	6.22	4.60
(WY)	1991	1993	1991	1993
MIN	.049	.20	.29	.25
(WY)	1992	1992	1992	1993

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	FOR 1990 CALENDAR YEAR	FOR 1991 CALENDAR YEAR	FOR 1992 CALENDAR YEAR	FOR 1993 CALENDAR YEAR
ANNUAL TOTAL	522.16	787.40				
ANNUAL MEAN	1.43	2.16				
HIGHEST ANNUAL MEAN			1.49	2.16		
LOWEST ANNUAL MEAN			.95			1993
HIGHEST DAILY MEAN	65	Jul 14	128	Dec 29	1990	
LOWEST DAILY MEAN	.02	Jul 2	.00	Aug 3	1991	
ANNUAL SEVEN-DAY MINIMUM	.02	Jul 2	.00	Aug 14	1991	
INSTANTANEOUS PEAK FLOW			366	Jul 10	1990	
INSTANTANEOUS PEAK STAGE			6.18	Jul 10	1993	
INSTANTANEOUS LOW FLOW			.07	Aug 18		
ANNUAL RUNOFF (CFSM)	.90		1.37			.94
ANNUAL RUNOFF (INCHES)	12.29		18.54			12.81
10 PERCENT EXCEEDS	2.7		4.2			2.5
50 PERCENT EXCEEDS	.43		.85			.48
90 PERCENT EXCEEDS	.05		.27			.02

• Estimated

WABASH RIVER BASIN

03335678 INDIAN CREEK NEAR MONTMORENCI, IN

LOCATION.--Lat 40°25'53", long 87°02'16", in SE¹/₄SE¹/₄, sec.13, T.23 N., R.6 W., Tippecanoe County, Hydrologic Unit 05120108, on right bank 1.8 mile upstream from mouth, 1.4 mile downstream from Goose Creek and 3.0 miles southwest on Montmorenci.
 DRAINAGE AREA.--27.8 mi².
 PERIOD OF RECORD.--October 1990 to current year.
 GAGE.--Water-stage recorder. Datum of gage is 530.05 ft above sea level.
 REMARKS.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	130	19	43	17	99.0	325	27	25	272	6.0	3.0
2	9.8	397	18	27	15	18	88	27	21	148	5.6	36
3	8.3	115	15	79	15	121	59	27	18	86	5.1	72
4	6.9	66	15	776	13	178	46	25	29	47	5.2	27
5	5.8	47	13	245	13	129	39	25	74	32	4.3	12
6	5.3	35	12	97	13	119	33	20	30	23	4.3	8.7
7	5.1	26	12	68	12	106	29	19	21	18	3.9	7.0
8	5.2	21	11	52	12	79	27	17	20	15	3.4	5.9
9	5.7	18	11	40	11	58	30	15	182	13	3.2	5.1
10	4.7	23	13	34	11	51	28	14	48	40	3.3	4.4
11	4.1	70	11	27	11	41	25	13	27	164	3.1	3.6
12	3.6	445	9.4	26	13	34	21	14	20	40	5.4	20
13	3.5	188	9.1	36	12	31	20	15	16	24	4.8	12
14	3.3	74	9.7	31	11	28	121	13	14	39	3.3	45
15	4.5	50	18	27	10	25	210	12	12	22	5.1	121
16	54	40	56	24	99.2	24	120	10	10	17	17	41
17	23	32	32	22	88.6	25	61	9.9	9.5	15	6.3	22
18	14	23	23	20	88.2	22	47	9.9	9.0	14	4.0	14
19	10	20	21	18	88.0	21	42	9.5	8.7	12	6.4	10
20	8.9	18	22	37	77.6	22	82	9.1	15	10	22	8.8
21	8.1	17	21	291	99.0	22	50	8.5	24	9.2	6.8	7.6
22	6.7	82	16	169	99.6	42	40	7.9	12	8.4	4.6	6.5
23	6.3	91	15	104	88.4	204	34	73	9.2	8.1	4.0	6.3
24	6.5	55	14	86	88.0	76	31	55	9.6	22	4.9	5.7
25	5.7	44	12	50	77.6	51	545	27	29	56	3.7	13
26	5.5	42	11	38	77.8	41	107	19	14	19	3.6	21
27	5.2	33	10	31	77.6	34	66	15	11	12	2.9	57
28	5.0	27	11	28	77.8	29	49	13	179	9.5	2.6	33
29	4.9	23	13	22	---	26	39	12	79	8.0	2.4	17
30	4.6	21	52	26	---	23	34	40	200	7.0	2.3	13
31	4.4	---	93	20	---	122	---	53	---	6.4	2.8	---
TOTAL	260.6	2273	618.2	2594	296.4	1811.0	2448	654.8	1176.0	1216.6	162.3	658.6
MEAN	8.41	75.8	19.9	83.7	10.6	58.4	81.6	21.1	39.2	39.2	5.24	22.0
MAX	54	445	93	776	17	204	545	73	200	272	22	121
MIN	3.3	17	9.1	18	7.6	9.0	20	7.9	8.7	6.4	2.3	3.0
CFSM	.30	2.73	.72	3.01	.38	2.10	2.94	.76	1.41	1.41	.19	.79
IN.	.35	3.04	.83	3.47	.40	2.42	3.28	.88	1.57	1.63	.22	.88

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1993, BY WATER YEAR (WY)

	1990	1991	1992	1993	1990	1991	1992	1993	1990	1991	1992	1993
MEAN	10.8	31.4	36.3	42.2	17.4	47.0	44.4	14.7	15.3	31.2	4.52	13.6
MAX	22.6	75.8	81.7	83.7	22.6	59.7	81.6	21.1	39.2	52.3	7.01	22.0
(WY)	1991	1993	1991	1993	1992	1991	1993	1993	1993	1992	1992	1993
MIN	1.38	5.14	7.27	13.2	10.6	22.9	22.4	5.86	1.58	2.16	1.32	.23
(WY)	1992	1992	1992	1992	1993	1992	1991	1992	1992	1991	1991	1991

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1990 - 1993
ANNUAL TOTAL	8432.63	14169.5	
ANNUAL MEAN	23.0	38.8	25.8
HIGHEST ANNUAL MEAN			38.8
LOWEST ANNUAL MEAN			15.6
HIGHEST DAILY MEAN	445	776	997
LOWEST DAILY MEAN	.22	2.3	.08
ANNUAL SEVEN-DAY MINIMUM	.55	2.8	.11
INSTANTANEOUS PEAK FLOW		1310	1660
INSTANTANEOUS PEAK STAGE		6.88	7.60
INSTANTANEOUS LOW FLOW		2.0	
ANNUAL RUNOFF (CFSM)	.83	1.40	.93
ANNUAL RUNOFF (INCHES)	11.28	18.96	12.61
10 PERCENT EXCEEDS	51	84	52
50 PERCENT EXCEEDS	9.9	19	11
90 PERCENT EXCEEDS	1.6	5.1	1.4

• Estimated

WABASH RIVER BASIN

03335679 LITTLE PINE CREEK AT GREEN HILL, IN

LOCATION.--Lat 40°24'34", long 87°06'53", in NE¹/₄ SE¹/₄ sec.29, T.23 N., R.6 W., Warren County, Hydrologic Unit 05120108, on right bank at southwest edge of Green Hill, 1.2 mile downstream from Armstrong Creek and at mile 6.1.

DRAINAGE AREA.--42.3 mi².

PERIOD OF RECORD.--October 1990 to current year.

GAGE.--Water-stage recorder. Datum of gage is 599.80 ft above sea level. (Prior to Oct. 1, 1992 erroneously published as 599.90 ft above sea level).

REMARKS.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e36	204	47	77	41	15	367	65	72	389	14	6.5
2	e29	382	44	54	34	23	255	59	56	364	13	39
3	e25	348	39	83	32	168	151	55	49	301	12	120
4	e22	212	38	673	29	305	99	54	73	211	11	73
5	e18	147	34	648	27	271	77	53	174	128	9.8	34
6	e16	97	33	346	26	235	63	46	88	90	9.4	22
7	e16	78	32	241	25	219	54	43	62	70	8.8	19
8	e16	67	29	171	24	168	49	39	55	59	7.9	15
9	e17	59	28	126	21	123	49	36	198	51	7.3	14
10	e15	60	32	93	21	101	48	33	88	69	7.3	12
11	e13	114	27	77	21	81	43	31	56	215	7.0	9.7
12	e11	396	24	70	24	66	37	36	47	141	10	23
13	e11	450	23	82	22	60	35	37	42	75	9.1	32
14	e10	259	23	73	20	51	153	30	38	90	7.8	45
15	e15	171	31	61	18	43	276	27	35	64	7.5	197
16	e150	116	86	53	19	42	289	23	31	50	18	131
17	e110	89	63	47	e15	42	160	22	29	43	11	66
18	e45	74	49	40	e14	36	100	21	28	40	8.3	41
19	e34	65	45	37	e13	34	82	19	26	38	16	30
20	e28	60	45	35	e13	35	159	18	43	31	51	25
21	e23	56	41	295	e14	36	109	16	72	27	20	22
22	e21	111	39	365	e17	59	78	15	45	24	13	19
23	e19	204	36	289	e15	250	65	83	36	22	10	18
24	e20	135	32	252	e14	200	58	118	35	27	10	16
25	e18	96	e30	152	e13	111	507	58	43	62	8.9	24
26	e17	85	e25	102	e14	82	337	40	33	40	8.9	46
27	e16	70	e23	81	e13	66	204	33	30	29	8.1	79
28	e15	61	23	72	e13	55	127	29	201	24	7.0	71
29	e14	55	26	60	---	48	97	24	310	20	6.4	43
30	e13	50	62	50	---	43	80	98	332	17	6.0	32
31	e13	---	134	48	---	94	---	154	---	16	6.3	---
TOTAL	826	4371	1243	4853	572	3162	4208	1415	2427	2827	350.8	1324.2
MEAN	26.6	146	40.1	157	20.4	102	140	45.6	80.9	91.2	11.3	44.1
MAX	150	450	134	673	41	305	507	154	332	389	51	197
MIN	10	50	23	35	13	15	35	15	26	16	6.0	6.5
CFSM	.63	3.44	.95	3.70	.48	2.41	3.32	1.08	1.91	2.16	.27	1.04
IN.	.73	3.84	1.09	4.27	.50	2.78	3.70	1.24	2.13	2.49	.31	1.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1993, BY WATER YEAR (WY)

	1990	1991	1992	1993	1990	1991	1992	1993	1990	1991	1992	1993
MEAN	31.5	64.1	63.5	84.9	30.3	78.4	75.8	34.7	35.2	68.8	14.1	28.6
MAX (WY)	61.5	146	133	157	38.0	102	140	48.9	80.9	111	27.6	44.1
MIN (WY)	6.29	14.7	17.2	12.8	20.4	36.3	41.8	9.59	4.08	3.93	3.46	1.06

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1990 - 1993

ANNUAL TOTAL	16206.5	27579.0		
ANNUAL MEAN	44.3	75.6		51.0
HIGHEST ANNUAL MEAN				75.6
LOWEST ANNUAL MEAN				29.9
HIGHEST DAILY MEAN	465	Jul 15	673	Jan 4
LOWEST DAILY MEAN	1.5	Feb 12	6.0	Aug 30
ANNUAL SEVEN-DAY MINIMUM	2.5	Jun 24	7.0	Aug 26
INSTANTANEOUS PEAK FLOW			934	Jan 4
INSTANTANEOUS PEAK STAGE			8.45	Jan 4
ANNUAL RUNOFF (CFSM)	1.05		1.79	
ANNUAL RUNOFF (INCHES)	14.25		24.25	
10 PERCENT EXCEEDS	112		200	121
50 PERCENT EXCEEDS	22		42	26
90 PERCENT EXCEEDS	4.8		13	2.9

e Estimated

WABASH RIVER BASIN

03335690 MUD PINE CREEK NEAR OXFORD, IN

LOCATION.--Lat 40°31'24", long 87°20'30", in NE¹/₄SE¹/₄ sec.17, T.24 N., R.8 W., Benton County, Hydrologic Unit 05120108, on right bank 5 ft downstream from county road bridge, 0.3 mi north of Chase, 2 mi east of Boswell, and 5 mi west of Oxford.
 DRAINAGE AREA.--39.4 mi².
 PERIOD OF RECORD.--June 1971 to current year.
 REVISED RECORDS.--WDR IN-80-1: 1971-79 (P).
 GAGE.--Water-stage recorder. Datum of gage is 718.00 ft above sea level.
 REMARKS.--Records fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	162	50	101	37	e15	349	58	60	842	25	5.1
2	14	837	45	70	30	e20	175	54	56	730	21	44
3	12	238	37	88	29	124	122	50	54	348	18	327
4	11	134	37	1970	26	206	96	160	105	162	17	126
5	9.7	100	29	534	26	207	81	513	306	119	14	76
6	8.7	78	30	179	23	263	69	153	115	95	14	408
7	9.0	65	27	127	22	279	61	102	84	81	12	213
8	9.7	56	23	101	20	217	56	78	70	72	11	120
9	8.9	51	23	83	19	185	52	64	65	64	9.8	87
10	8.0	62	27	70	19	152	44	53	51	92	9.7	63
11	7.5	111	20	61	19	121	42	47	44	262	9.0	45
12	7.1	337	18	58	23	98	35	96	41	109	10	95
13	6.7	332	18	65	23	e80	34	137	38	82	17	85
14	6.9	142	18	60	23	e70	158	82	38	121	9.2	159
15	7.5	106	35	56	20	60	401	65	33	81	8.1	847
16	163	90	116	51	22	65	362	53	31	69	14	206
17	100	78	75	44	e17	75	147	47	29	61	8.7	134
18	66	67	58	e36	e15	60	111	44	31	53	7.3	99
19	47	61	51	e33	e14	55	97	40	44	81	9.0	77
20	39	58	54	e32	e14	57	143	36	107	53	43	63
21	30	54	47	178	e15	62	99	32	116	44	13	50
22	26	222	39	235	e18	122	81	28	72	38	9.4	42
23	25	420	35	207	e17	373	71	106	56	34	8.1	36
24	24	156	29	186	e15	175	64	115	45	127	7.1	29
25	22	117	e26	108	e14	123	302	73	39	349	6.2	58
26	21	100	e23	83	e14	98	156	56	32	123	5.9	111
27	18	83	e21	69	e13	82	106	46	33	84	5.4	160
28	18	71	20	63	e13	70	83	40	222	63	5.1	112
29	16	63	23	53	---	61	72	35	161	45	4.8	76
30	15	57	110	47	---	54	65	73	421	34	4.6	60
31	14	---	203	46	---	120	---	98	---	28	5.0	---
TOTAL	785.7	4508	1367	5094	560	3749	3734	2634	2599	4546	361.4	4013.1
MEAN	25.3	150	44.1	164	20.0	121	124	85.0	86.6	147	11.7	134
MAX	163	837	203	1970	37	373	401	513	421	842	43	847
MIN	6.7	51	18	32	13	15	34	28	29	28	4.6	5.1
CFSM	.64	3.81	1.12	4.17	.51	3.07	3.16	2.16	2.20	3.72	.30	3.40
IN.	.74	4.26	1.29	4.81	.53	3.54	3.53	2.49	2.45	4.29	.34	3.79

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1993, BY WATER YEAR (WY)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	
MEAN	14.4	32.7	49.9	40.3	61.0	77.4	63.8	58.5	47.3	25.3	17.0	20.3											
MAX	91.2	169	154	164	158	237	147	159	145	147	122	134											
(WY)	1978	1986	1991	1993	1990	1979	1979	1981	1980	1993	1981	1993											
MIN	.89	.79	.98	.47	3.41	6.54	17.2	8.49	2.85	.65	.79	.40											
(WY)	1981	1981	1977	1977	1977	1981	1977	1976	1988	1988	1988	1983											

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1972 - 1993

ANNUAL TOTAL	19000.6	33951.2	
ANNUAL MEAN	51.9	93.0	42.2
HIGHEST ANNUAL MEAN			93.0
LOWEST ANNUAL MEAN			16.2
HIGHEST DAILY MEAN	837	Nov 2	1970
LOWEST DAILY MEAN	3.6	Sep 7	4.6
ANNUAL SEVEN-DAY MINIMUM	4.3	Sep 1	5.1
INSTANTANEOUS PEAK FLOW			3230
INSTANTANEOUS PEAK STAGE			11.76
ANNUAL RUNOFF (CFSM)	1.32		2.36
ANNUAL RUNOFF (INCHES)	17.94		32.06
10 PERCENT EXCEEDS	116		185
50 PERCENT EXCEEDS	28		57
90 PERCENT EXCEEDS	8.2		13
			13
			16
			.97

e Estimated

WABASH RIVER BASIN

03339280 PRAIRIE CREEK NEAR LEBANON, IN

LOCATION.--Lat 40°06'16", long 86°31'32", in NW¹/₄SW¹/₄ sec.10, T.19 N., R.1 W., Boone County, Hydrologic Unit 05120110, on right bank 50 ft upstream from bridge on County Road 450 North, 4.0 mi upstream from Deer Creek, 4.9 mi northwest of Lebanon, and 7.7 mi upstream from mouth.

DRAINAGE AREA.--33.2 mi².

PERIOD OF RECORD.--October 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is 860.00 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	315	33	57	29	●17	105	24	16	406	13	7.7
2	22	751	32	39	24	27	61	24	18	278	11	13
3	19	306	27	89	23	142	43	193	18	196	10	53
4	17	155	26	990	21	410	36	152	54	93	10	19
5	14	98	22	775	21	267	33	197	60	58	8.7	11
6	13	68	21	244	21	201	30	101	35	40	8.6	8.4
7	13	53	22	142	20	224	27	67	29	32	8.2	7.6
8	14	46	19	93	20	184	26	49	26	30	7.6	7.2
9	13	40	20	67	18	113	43	38	38	27	7.4	6.6
10	13	55	23	54	17	86	69	32	31	44	7.4	6.8
11	12	304	19	42	17	66	48	28	24	58	7.5	5.7
12	11	1700	16	39	22	56	34	27	28	73	8.5	16
13	11	833	16	50	20	48	30	25	26	36	12	10
14	11	257	16	44	18	38	●250	21	155	382	7.4	9.8
15	●45	153	19	37	16	30	●210	21	142	163	6.5	84
16	●190	108	28	33	19	34	177	18	58	83	6.7	28
17	●64	84	26	30	16	36	82	16	38	59	21	17
18	●43	64	22	24	●15	30	59	17	30	43	8.4	13
19	●31	53	23	23	●14	28	50	17	25	87	7.1	11
20	●25	46	35	27	●13	28	56	15	31	46	19	9.5
21	●20	44	29	257	29	27	42	15	88	33	8.3	11
22	●16	97	26	195	43	32	35	13	43	28	7.1	9.1
23	●14	120	24	117	31	146	32	27	30	24	6.7	8.4
24	●24	79	●18	169	●26	92	30	53	25	22	7.5	7.6
25	●21	71	●16	99	●22	62	60	35	24	157	6.3	18
26	●17	70	●15	67	●27	49	41	25	22	70	5.8	24
27	18	55	●14	52	●23	41	33	21	19	37	5.8	54
28	16	47	●15	46	●20	35	30	19	36	26	5.0	40
29	15	40	24	43	---	31	28	19	45	20	5.4	25
30	16	37	50	35	---	28	27	18	78	16	5.3	20
31	15	---	83	34	---	54	---	24	---	14	9.9	---
TOTAL	800	6149	779	4013	605	2662	1827	1351	1292	2681	269.1	561.4
MEAN	25.8	205	25.1	129	21.6	85.9	60.9	43.6	43.1	86.5	8.68	18.7
MAX	190	1700	83	990	43	410	250	197	155	406	21	84
MIN	11	37	14	23	13	17	26	13	16	14	5.0	5.7
CFSM	.78	6.17	.76	3.90	.65	2.59	1.83	1.31	1.30	2.60	.26	.56
IN.	.90	6.89	.87	4.50	.68	2.98	2.05	1.51	1.45	3.00	.30	.63

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1993, BY WATER YEAR (WY)

	1988	1989	1990	1991	1992	1993
MEAN	12.5	46.9	38.3	44.0	49.3	64.2
MAX	25.8	205	158	129	139	109
(WY)	1993	1993	1991	1993	1990	1989
MIN	3.52	6.68	6.03	11.0	8.62	25.6
(WY)	1989	1988	1989	1989	1989	1992

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1988 - 1993	
ANNUAL TOTAL	17013.7		22989.5			
ANNUAL MEAN	46.5		63.0		40.8	
HIGHEST ANNUAL MEAN					63.0	
LOWEST ANNUAL MEAN					19.3	
HIGHEST DAILY MEAN	1700		1700		1900	
LOWEST DAILY MEAN	4.6		5.0		.71	
ANNUAL SEVEN-DAY MINIMUM	5.1		5.9		.93	
INSTANTANEOUS PEAK FLOW			2220		2710	
INSTANTANEOUS PEAK STAGE			12.54		13.99	
ANNUAL RUNOFF (CFSM)	1.40		1.90		1.23	
ANNUAL RUNOFF (INCHES)	19.06		25.76		16.70	
10 PERCENT EXCEEDS	78		142		83	
50 PERCENT EXCEEDS	19		28		16	
90 PERCENT EXCEEDS	7.2		10		3.2	

● Estimated

03339500 SUGAR CREEK AT CRAWFORDSVILLE, IN

LOCATION.--Lat 40°02'56", long 86°53'58", in SW¹/₄NW¹/₄, sec.32, T.19 N., R.4 W., Montgomery County, Hydrologic Unit 05120110, on left bank 327 ft upstream from Crawfordsville Electric Light and Power Co.'s dam at Crawfordsville, 700 ft (corrected) upstream from bridge on U.S. Highway 231, 1.0 mi downstream from Walnut Fork Sugar Creek, and at mile 40.4.

DRAINAGE AREA.--509 mi².

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

REVISED RECORDS.--WSP 973; 1939(M). WSP 1275; Drainage area. WSP 1335; 1949.

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

REMARKS.--Records good except for estimated daily discharges, which are fair.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 17.3 ft from information by local resident, discharge, about 36,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	390	2920	675	1300	631	●330	2060	524	323	3460	141	50
2	318	8090	624	847	489	●380	1490	475	276	5660	153	68
3	271	7120	527	1030	439	●1300	1010	694	273	4230	129	1080
4	236	3730	473	6360	407	4290	779	1800	482	2470	122	720
5	203	2190	429	10700	380	3980	654	1410	1210	1380	113	280
6	180	1580	380	6310	371	2640	558	1180	769	960	99	156
7	163	1250	381	2730	352	3650	471	870	522	695	91	111
8	161	1060	351	1710	344	3600	447	673	426	676	82	87
9	160	914	325	1210	318	2570	554	537	428	499	73	74
10	151	993	360	947	305	1800	1010	448	454	588	71	66
11	142	3330	351	727	301	1370	887	395	331	1910	69	57
12	130	11400	296	609	334	1110	658	391	424	3300	79	78
13	123	14500	274	760	346	●840	510	483	540	1550	111	179
14	114	7690	269	784	318	●640	1510	342	681	2200	93	132
15	155	3240	295	632	285	●480	2490	299	2020	2280	80	1820
16	1650	2230	457	532	301	●520	2910	266	1020	1330	66	1180
17	1960	1790	533	●400	279	643	1610	238	599	1040	106	593
18	1190	1430	461	●300	●250	616	1100	231	418	773	116	346
19	779	1200	428	●240	●230	535	903	231	326	943	80	239
20	558	1040	528	●220	●220	503	1010	210	352	734	137	183
21	454	951	578	2980	●450	466	881	195	840	496	106	155
22	358	1510	510	4010	●940	528	670	180	534	387	75	139
23	303	3060	442	2500	●720	1620	577	236	344	326	65	127
24	284	1960	●300	2600	●540	1810	517	1570	266	312	63	116
25	267	1470	●260	2070	●420	1170	2100	1720	259	556	59	131
26	249	1360	●240	1390	●450	927	2270	970	234	904	52	383
27	235	1170	●230	1120	●410	769	1260	622	197	500	48	1000
28	212	1000	●220	967	●360	639	920	473	461	318	45	1100
29	197	859	339	932	---	543	738	387	1060	239	43	658
30	189	754	852	770	---	483	637	327	981	189	41	411
31	181	---	1530	713	---	581	---	362	---	157	47	---
TOTAL	11963	91791	13918	58400	11190	41333	33191	18739	17050	41062	2655	11719
MEAN	386	3060	449	1884	400	1333	1106	604	568	1325	85.6	391
MAX	1960	14500	1530	10700	940	4290	2910	1800	2020	5660	153	1820
MIN	114	754	220	220	220	330	447	180	197	157	41	50
CFSM	.76	6.01	.88	3.70	.79	2.62	2.17	1.19	1.12	2.60	.17	.77
IN.	.87	6.71	1.02	4.27	.82	3.02	2.43	1.37	1.25	3.00	.19	.86

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1993, BY WATER YEAR (WY)

	1939	1941	1944	1950	1957	1964	1971	1978	1985	1992	1993	
MEAN	150	341	509	635	736	905	885	633	549	325	175	172
MAX	1098	3060	2084	4163	2229	2390	2592	3297	2648	1325	1801	1991
(WY)	1978	1993	1991	1950	1985	1978	1964	1943	1957	1993	1958	1989
MIN	13.1	25.1	17.0	17.1	68.4	79.2	148	74.9	32.5	16.6	8.42	4.80
(WY)	1964	1941	1964	1977	1964	1941	1976	1941	1988	1988	1941	1941

SUMMARY STATISTICS FOR 1992 CALENDAR YEAR FOR 1993 WATER YEAR WATER YEARS 1939 - 1993

ANNUAL TOTAL	272820	353011	
ANNUAL MEAN	745	967	500
HIGHEST ANNUAL MEAN			1086
LOWEST ANNUAL MEAN			65.0
HIGHEST DAILY MEAN	14500	14500	20100
LOWEST DAILY MEAN	66	41	2.4
ANNUAL SEVEN-DAY MINIMUM	75	47	2.7
INSTANTANEOUS PEAK FLOW		16400	26300
INSTANTANEOUS PEAK STAGE		11.57	14.48
ANNUAL RUNOFF (CFSM)	1.46	1.90	.98
ANNUAL RUNOFF (INCHES)	19.94	25.80	13.34
10 PERCENT EXCEEDS	1600	2140	1170
50 PERCENT EXCEEDS	303	500	180
90 PERCENT EXCEEDS	106	120	29

● Estimated

WABASH RIVER BASIN

03340800 BIG RACCOON CREEK NEAR FINCASTLE, IN

LOCATION.--Lat 39°48'45", long 86°57'14", in NW¹/₄SW¹/₄, sec.22, T.16 N., R.5 W., Putnam County, Hydrologic Unit 05120108, on left bank at downstream side of county road bridge, 1.6 mi upstream from Ramp Creek, 3.1 mi west of Fincastle, and at mile 48.8.

DRAINAGE AREA.--139 mi².

PERIOD OF RECORD.--August 1957 to current year. Prior to October 1963, published as Raccoon Creek near Fincastle. REVISED RECORDS.--WSP 1909; 1958. WSP 2109; Drainage area. WDR IN-79-1; 1978.

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

REMARKS.--Records good except for estimated daily discharges, which are fair.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	153	898	155	309	133	880	261	112	64	380	35	20
2	123	2540	149	203	106	95	222	102	56	571	39	20
3	103	1390	128	330	98	443	178	104	57	621	33	82
4	88	515	119	2750	91	1710	152	180	109	315	32	83
5	74	362	108	4570	85	1220	141	279	264	199	30	44
6	63	269	98	733	85	574	129	242	163	141	28	32
7	56	212	100	459	80	582	114	174	117	107	27	26
8	54	177	91	348	79	475	111	137	96	87	26	24
9	55	155	86	269	73	354	175	111	171	70	25	22
10	48	208	96	227	71	292	284	93	211	65	24	21
11	41	1270	91	183	70	246	221	82	128	81	24	19
12	36	5890	80	168	81	214	172	79	136	589	36	22
13	31	5890	76	229	85	180	145	93	209	255	39	28
14	28	734	76	236	80	150	1680	69	231	582	31	26
15	72	466	83	192	73	130	842	62	451	398	27	251
16	664	369	108	166	78	140	810	56	228	484	24	188
17	490	313	118	130	68	167	396	51	145	543	83	96
18	299	268	104	110	60	149	290	52	105	291	56	60
19	204	235	101	96	56	139	243	55	82	475	35	44
20	152	210	130	84	54	136	274	48	68	298	64	38
21	128	201	139	770	82	128	231	44	298	197	39	33
22	103	341	125	730	226	134	186	41	193	150	31	30
23	90	605	110	434	180	272	165	61	112	118	27	30
24	86	389	91	690	120	301	149	229	81	98	25	28
25	81	311	80	443	100	230	184	221	70	85	23	35
26	74	288	72	292	110	194	183	132	62	69	22	121
27	68	245	68	234	96	170	142	95	51	58	21	243
28	62	214	64	200	88	153	126	79	70	52	20	242
29	57	186	84	184	---	138	116	69	105	45	21	143
30	55	169	202	154	---	124	136	62	121	39	20	94
31	58	---	370	149	---	143	---	75	---	36	19	---
TOTAL	3696	25320	3502	16072	2608	9463	8458	3289	4254	7499	986	2145
MEAN	119	844	113	518	93.1	305	282	106	142	242	31.8	71.5
MAX	664	5890	370	4570	226	1710	1680	279	451	621	83	251
MIN	28	155	64	84	54	80	111	41	51	36	19	19
CFSM	.86	6.07	.81	3.73	.67	2.20	2.03	.76	1.02	1.74	.23	.51
IN.	.99	6.78	.94	4.30	.70	2.53	2.26	.88	1.14	2.01	.26	.57

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1993, BY WATER YEAR (WY)

	53.5	131	204	169	209	270	231	168	111	99.2	53.2	46.6
MEAN	53.5	131	204	169	209	270	231	168	111	99.2	53.2	46.6
MAX	312	844	913	616	694	683	730	540	496	430	268	545
(WY)	1970	1993	1991	1974	1985	1978	1964	1974	1974	1979	1979	1989
MIN	3.13	5.89	4.93	4.69	26.2	28.6	43.5	19.5	11.1	4.83	2.75	1.72
(WY)	1967	1964	1964	1977	1964	1981	1976	1976	1988	1991	1991	1991

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1958 - 1993	
ANNUAL TOTAL	62457.9		87292			
ANNUAL MEAN	171		239		145	
HIGHEST ANNUAL MEAN					292	
LOWEST ANNUAL MEAN					38.5	
HIGHEST DAILY MEAN	5890		5890		12200	
LOWEST DAILY MEAN	9.1		19		1.0	
ANNUAL SEVEN-DAY MINIMUM	10		20		1.1	
INSTANTANEOUS PEAK FLOW			12300		16000	
INSTANTANEOUS PEAK STAGE			15.34		16.10	
ANNUAL RUNOFF (CFSM)	1.23		1.72		1.04	
ANNUAL RUNOFF (INCHES)	16.72		23.36		14.19	
10 PERCENT EXCEEDS	312		443		301	
50 PERCENT EXCEEDS	58		117		54	
90 PERCENT EXCEEDS	17		32		7.5	

• Estimated

WABASH RIVER BASIN

03340900 BIG RACCOON CREEK AT FERNDAL, IN

LOCATION.--Lat 39°42'40", long 87°04'15", in SE¹/₄SE¹/₄ sec.28, T.15 N., R.6 W., Parke County, Hydrologic Unit 05120108, on right bank at upstream side of bridge on New Discovery Road, 0.5 mi downstream from Cecil M. Harden Lake, 3.7 mi upstream from Rocky Fork Creek, and at mile 33.3.

DRAINAGE AREA.--222 mi².

PERIOD OF RECORD.--October 1956 to current year. Prior to October 1963, published as Raccoon Creek at Ferndale.

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 590.00 ft above sea level (U.S. Army Corps of Engineers benchmark). Prior to Oct. 1, 1974, water-stage recorder at site 1.7 mi downstream and at datum 7.64 ft lower.

REMARKS.--Flow regulated by Cecil M. Harden Lake since December 1960.

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

AVERAGE DISCHARGE.--36 years, 232 ft³/s.

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

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,520 ft³/s, Dec. 6; minimum daily 23 ft³/s, Sept. 13, 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1180	388	1160	1080	1120	130	104	242	29	146	29	49
2	993	54	1290	1070	1350	137	105	242	29	50	29	49
3	709	57	1290	1060	1330	184	106	242	35	50	29	49
4	705	57	1310	441	1420	220	96	242	64	51	29	122
5	665	58	1430	78	1500	235	72	291	166	51	29	166
6	286	58	1520	81	1470	356	58	473	166	51	29	166
7	89	58	1510	82	1440	418	58	560	262	51	29	166
8	81	58	1500	83	1410	421	58	282	326	51	29	165
9	81	59	1490	83	1380	423	36	165	325	589	29	165
10	182	455	1480	84	1350	424	26	165	325	842	29	165
11	103	289	738	84	1320	492	26	165	325	837	29	74
12	103	63	217	84	1280	558	26	165	204	428	29	26
13	112	68	1500	285	1240	555	26	165	83	204	29	23
14	80	69	1480	534	713	553	27	165	135	204	29	23
15	40	69	1500	776	286	366	28	123	234	205	29	225
16	40	70	1510	921	166	181	28	82	548	206	49	548
17	339	70	1500	1040	139	245	29	82	662	324	37	428
18	357	70	1480	1110	84	277	29	82	337	377	29	165
19	304	70	1460	1100	65	277	78	82	165	346	146	216
20	460	70	1450	1220	65	276	109	82	165	346	30	137
21	505	70	1280	831	94	276	314	82	165	479	151	45
22	824	70	1030	361	136	276	516	82	166	610	353	41
23	990	71	938	206	252	276	601	82	166	698	461	67
24	981	71	931	208	340	278	599	133	166	806	527	82
25	972	71	922	209	338	278	597	266	166	811	525	82
26	963	71	913	210	194	207	596	432	166	806	258	82
27	748	71	904	210	136	156	411	324	165	414	49	234
28	611	71	896	211	136	157	319	96	166	91	49	449
29	608	72	962	376	---	121	223	23	166	46	49	522
30	604	568	1100	821	---	103	213	23	200	29	49	442
31	600	---	1090	1010	---	104	---	29	---	29	49	---
TOTAL	15315	3416	37781	15949	20754	8960	5514	5669	6277	10228	3246	5173
MEAN	494	114	1219	514	741	289	184	183	209	330	105	172
MAX	1180	568	1520	1220	1500	558	601	560	662	842	527	548
MIN	40	54	217	78	65	103	26	23	29	29	29	23

CAL YR 1992 TOTAL 87718 MEAN 240 MAX 1520 MIN 20
WTR YR 1993 TOTAL 138282 MEAN 379 MAX 1520 MIN 23

WABASH RIVER BASIN

03342000 WABASH RIVER AT RIVERTON, IN

LOCATION.--Lat 39°01'13", long 87°34'07", in NE¹/₄ SW¹/₄ sec.30, T.7 N., R.10 W., Sullivan County, Hydrologic Unit 05120111, on left bank at downstream side of Illinois Central Railroad bridge at Riverton, 0.5 mi downstream from Turtle Creek, and at mile 162.0.

DRAINAGE AREA.--13,161 mi².

PERIOD OF RECORD.--October 1938 to current year. Prior to April 1939 monthly discharge only, published in WSP 1305. June 1911 to December 1914 (gage heights only) available in the U.S. Army Corps of Engineers office, Louisville, Ky.

REVISED RECORDS.--WSP 1335: 1939, 1950. WDR IN-73-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 414.65 ft above sea level. Prior to July 17, 1951, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Flow partially regulated by upstream reservoirs.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 28, 1913, reached a stage of 26.4 ft, from graph based on once-daily readings by Illinois Central Railroad Co., discharge, 250,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15200	6110	32900	22600	39000	11300	25300	34600	10700	18900	13600	6240
2	13100	9790	30700	24700	35600	11800	24600	35200	11600	23500	12700	6090
3	11000	22000	27800	26000	32000	14300	25500	34500	12500	26400	12700	8990
4	9410	25800	25000	29200	26900	22300	26500	32800	12700	28300	12600	19200
5	8200	27600	22400	34000	22500	28900	27600	30100	13800	30600	11300	21700
6	7640	29600	20300	37200	19800	30700	28900	27200	15200	33200	10300	20400
7	7220	31700	19000	42600	18000	31900	29600	25300	17300	35800	9570	18200
8	6720	33900	18200	50400	16600	33200	28600	23700	16800	38600	8810	15400
9	6270	35500	17400	58500	15600	34800	25600	21400	16100	39000	7980	15200
10	5930	35200	16600	66200	14800	36500	23300	19100	16200	36200	7370	15600
11	5490	32500	16100	69100	14300	38000	20600	17100	18300	32000	6980	14000
12	5120	33700	16000	67200	14700	39100	19800	15600	21300	28000	6790	11300
13	4980	38600	15800	63000	15600	39500	20400	14900	21300	27400	11900	9690
14	4860	44300	15600	57200	15300	38900	22100	14800	19600	28200	13900	9010
15	4890	52900	15900	51400	14900	38100	26200	14400	17900	29000	11000	11000
16	5100	59800	16600	46100	14000	37100	30100	14000	17200	29100	9600	17700
17	6210	63700	17400	41600	13400	36500	31600	13300	18300	29000	9180	21700
18	9300	64800	19600	37700	12900	34700	32800	12800	17900	27800	19400	23100
19	11400	63700	21900	34900	12000	31900	34300	12100	16600	27000	20200	22400
20	12800	60500	22600	32800	11100	28200	35900	11400	15200	26700	13200	18500
21	12400	55900	21800	33100	11400	25500	36300	10700	14900	25800	13600	14700
22	11200	50300	20700	34400	15000	24000	34700	10100	15100	24000	14800	12300
23	10000	45700	19600	34800	14900	23600	32600	9810	15400	21300	13500	13600
24	8990	40900	18300	36000	14000	24400	29800	9670	14200	19400	11900	13800
25	8370	37700	16600	38000	13000	26000	26300	10800	12900	18800	10000	12200
26	8050	36400	14700	40100	11900	27400	25700	13000	12400	19000	8790	13700
27	7600	36000	14200	42300	11600	28900	27300	13500	12200	20500	7980	15100
28	7100	35700	14100	43900	11400	29900	29400	13300	11400	20900	7380	17000
29	6720	35300	14700	44400	---	30400	31200	12800	10900	19300	7150	19600
30	6340	34500	18200	43600	---	30100	33100	11900	13500	17400	6870	21000
31	6130	---	20000	41700	---	27700	---	11000	---	15500	6570	---
TOTAL	253740	1180100	600700	1324700	482200	915600	845700	550880	459400	816600	337620	458420
MEAN	8185	39340	19380	42730	17220	29540	28190	17770	15310	26340	10890	15280
MAX	15200	64800	32900	69100	39000	39500	36300	35200	21300	39000	20200	23100
MIN	4860	6110	14100	22600	11100	11300	19800	9670	10700	15500	6570	6090
CFSM	.62	2.99	1.47	3.25	1.31	2.24	2.14	1.35	1.16	2.00	.83	1.16
IN.	.72	3.34	1.70	3.74	1.36	2.59	2.39	1.56	1.30	2.31	.95	1.30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1993, BY WATER YEAR (WY)

MEAN	4802	7168	11040	14170	17250	21060	21390	16870	13090	8925	5669	4708
MAX	18350	39340	39250	80210	54530	60520	41840	68010	45640	36240	23680	25370
(WY)	1991	1993	1986	1950	1950	1982	1957	1943	1958	1957	1958	1989
MIN	1382	1437	1213	1318	2057	2763	6363	3435	2601	1968	1215	1261
(WY)	1957	1954	1964	1977	1963	1941	1941	1941	1977	1988	1941	1940

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1940 - 1993

ANNUAL TOTAL	5109270	8225660	
ANNUAL MEAN	13960	22540	12150
HIGHEST ANNUAL MEAN			24340
LOWEST ANNUAL MEAN			3206
HIGHEST DAILY MEAN	64800	Nov 18	200000
LOWEST DAILY MEAN	3820	Sep 9	858
ANNUAL SEVEN-DAY MINIMUM	4320	Sep 5	870
INSTANTANEOUS PEAK FLOW			69500
INSTANTANEOUS PEAK STAGE			22.04
ANNUAL RUNOFF (CFSM)	1.06	1.71	29.36
ANNUAL RUNOFF (INCHES)	14.44	23.25	.92
10 PERCENT EXCEEDS	31700	38000	12.54
50 PERCENT EXCEEDS	9290	19300	29600
90 PERCENT EXCEEDS	5090	9000	7140
			2170

03342100 BUSSEYON CREEK NEAR HYMERA, IN

LOCATION.--Lat 39°12'54", long 87°18'41", in NW¹/₄/NW¹/₄, sec.21, T.9 N., R.8 W., Sullivan County, Hydrologic Unit 05120111, on right bank at downstream side of bridge on County Road 900 North, 1.3 mi upstream from East Fork Busseron Creek, 1.9 mi northwest of Hymera, 4.1 mi upstream from West Fork Busseron Creek, and at mile 30.3.

DRAINAGE AREA.--16.7 mi².

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

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

GAGE.--Water-stage recorder. Datum of gage is 480.00 ft above sea level (U.S. Soil Conservation Service bench mark).

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow affected by U.S. Soil Conservation Service floodwater-retarding structures.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	6.8	12	47	15	12	41	12	2.8	18	2.2	1.7
2	3.3	80	10	35	12	23	24	11	2.7	31	18	2.1
3	3.0	36	8.8	64	9.6	81	19	25	2.8	21	4.5	68
4	2.7	25	7.7	432	9.0	285	16	47	39	13	3.2	12
5	2.5	17	6.3	223	16	147	14	41	16	9.9	2.6	8.6
6	2.3	11	6.0	50	9.2	71	13	25	13	8.8	2.5	6.5
7	2.2	8.0	5.7	38	4.2	54	11	20	11	8.4	2.1	5.6
8	2.0	6.1	5.2	29	3.6	44	12	16	9.3	8.0	2.1	4.5
9	1.9	4.8	5.1	22	3.1	33	119	13	21	6.9	1.9	3.6
10	1.8	6.7	9.2	18	3.6	26	63	11	14	6.3	2.0	3.0
11	1.7	205	12	14	6.2	22	39	9.9	13	5.7	1.9	2.5
12	1.6	700	15	23	42	19	32	9.3	14	5.2	14	2.5
13	1.4	256	14	49	25	17	29	14	12	4.9	7.7	2.1
14	1.3	76	13	22	19	16	76	8.8	11	5.6	4.8	2.8
15	2.4	61	13	16	14	15	206	7.4	10	4.9	3.6	8.0
16	17	50	19	12	13	28	127	6.3	9.2	5.8	2.8	4.2
17	7.0	41	15	8.5	12	45	50	5.7	8.2	5.1	41	4.1
18	4.3	33	12	7.0	11	26	44	9.6	7.5	4.7	12	5.2
19	3.0	27	11	5.6	9.7	20	38	8.2	7.0	5.2	8.8	4.4
20	3.0	22	12	11	9.1	19	61	6.6	6.4	4.2	10	3.8
21	2.6	24	9.9	185	105	17	39	5.8	11	3.8	7.0	3.3
22	2.3	88	9.0	70	65	15	32	5.2	22	3.6	6.3	3.4
23	2.1	71	8.6	48	39	43	27	4.8	12	3.3	5.2	5.8
24	1.9	44	7.4	88	29	29	24	6.1	10	3.2	4.8	4.3
25	1.8	36	6.5	45	21	22	25	5.0	9.6	3.0	4.0	17
26	1.8	29	5.5	40	17	17	21	4.4	8.5	2.7	3.4	12
27	1.6	24	4.6	49	14	15	18	4.1	7.5	2.6	3.0	16
28	1.5	20	4.8	60	13	12	16	3.7	8.4	2.5	2.7	8.7
29	1.5	16	106	32	---	11	14	3.3	7.4	2.3	2.3	7.0
30	1.5	14	86	27	---	9.3	15	3.1	6.7	2.2	1.9	6.3
31	1.5	---	91	24	---	38	---	3.1	---	2.3	1.9	---
TOTAL	88.6	2038.4	551.3	1794.1	549.3	1231.3	1265	355.4	333.0	214.1	190.2	239.0
MEAN	2.86	67.9	17.8	57.9	19.6	39.7	42.2	11.5	11.1	6.91	6.14	7.97
MAX	17	700	106	432	105	285	206	47	39	31	41	68
MIN	1.3	4.8	4.6	5.6	3.1	9.3	11	3.1	2.7	2.2	1.9	1.7
CFSM	.17	4.07	1.06	3.47	1.17	2.38	2.52	.69	.66	.41	.37	.48
IN.	.20	4.54	1.23	4.00	1.22	2.74	2.82	.79	.74	.48	.42	.53

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1993, BY WATER YEAR (WY)

	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	
MEAN	2.67	15.9	26.7	23.2	28.4	36.8	33.5	21.6	9.61	13.6	5.15	8.43																
MAX	14.7	72.6	96.8	105	67.4	112	74.9	86.2	41.1	79.3	25.4	60.9																
(WY)	1970	1986	1983	1969	1971	1973	1992	1981	1980	1973	1979	1989																
MIN	.020	.058	.026	.006	1.63	7.23	1.48	1.23	.22	.17	.065	.018																
(WY)	1988	1972	1977	1977	1978	1969	1971	1976	1977	1972	1983	1976																

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1967 - 1993	
ANNUAL TOTAL	6915.45		8849.7			
ANNUAL MEAN	18.9		24.2		18.7	
HIGHEST ANNUAL MEAN					36.1	
LOWEST ANNUAL MEAN					6.93	
HIGHEST DAILY MEAN	700	Nov 12	700	Nov 12	828	Jan 29 1969
LOWEST DAILY MEAN	.27	Jun 29	1.3	Oct 14	.00	Oct 12 1966
ANNUAL SEVEN-DAY MINIMUM	.35	Jun 26	1.6	Oct 25	.00	Oct 23 1966
INSTANTANEOUS PEAK FLOW			848		1890	
INSTANTANEOUS PEAK STAGE			18.11		19.16	
ANNUAL RUNOFF (CFSM)	1.13		1.45		1.12	
ANNUAL RUNOFF (INCHES)	15.40		19.71		15.25	
10 PERCENT EXCEEDS	35		49		47	
50 PERCENT EXCEEDS	5.3		11		3.6	
90 PERCENT EXCEEDS	1.4		2.5		.09	

* Estimated

WABASH RIVER BASIN

03342500 BUSSERON CREEK NEAR CARLISLE, IN

LOCATION.--Lat 38°58'27", long 87°25'33", in NW¹/₄ survey 17, Vincennes Tract, Sullivan County, Hydrologic Unit 05120111, on left bank 10 ft downstream from bridge on State Highway 58, 1.5 mi northwest of Carlisle, and 6.7 mi upstream from mouth.

DRAINAGE AREA.--228 mi².

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

REVISED RECORDS.--WSP 1335; Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 425.36 ft above sea level (Indiana Department of Highways bench mark). Prior to Nov. 8, 1950, nonrecording gage at same site and datum. Nov. 8, 1950, to Oct. 31, 1969, at site 200 ft upstream at same datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Flow affected by U.S. Soil Conservation Service floodwater-retarding structures and surface-mined areas.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	31	111	829	215	●180	764	192	52	75	65	44
2	47	239	100	508	173	●185	611	169	49	123	223	48
3	42	469	87	353	150	739	355	398	47	336	133	1070
4	38	248	82	920	134	1410	284	863	46	200	94	709
5	35	167	73	1870	128	1770	243	1000	147	125	76	297
6	34	122	61	1740	131	1640	222	682	84	97	70	187
7	32	104	59	1800	122	1420	190	394	66	83	67	132
8	29	91	55	1370	107	979	177	295	58	80	66	102
9	28	72	51	895	96	625	852	238	76	77	63	86
10	27	66	70	729	89	438	1070	251	140	62	62	76
11	25	268	137	725	91	357	955	197	91	50	61	106
12	24	1300	138	756	318	302	617	165	155	47	186	100
13	22	1750	121	922	372	273	410	428	135	43	287	90
14	21	1730	102	752	280	●220	623	312	99	40	161	60
15	21	2040	92	520	228	●190	1020	223	86	40	105	223
16	73	1640	119	412	215	218	1290	178	72	70	89	118
17	140	1080	126	343	●170	480	1190	149	64	76	381	78
18	72	697	95	276	●135	407	964	249	57	55	370	67
19	50	530	81	●230	●130	294	585	279	49	236	177	61
20	42	450	91	●220	●140	264	573	191	45	80	137	57
21	41	383	85	888	537	244	539	144	74	54	120	55
22	48	526	75	1120	931	223	375	116	121	46	90	85
23	44	819	70	869	736	368	312	97	57	43	77	1110
24	37	562	60	791	396	437	270	102	47	262	70	872
25	34	347	●48	726	●288	322	324	111	46	203	64	680
26	33	283	●47	494	●260	266	330	88	49	91	58	777
27	31	227	●45	404	●230	234	255	76	43	79	54	647
28	29	186	●48	366	●210	205	213	67	69	75	51	412
29	27	155	364	329	---	177	185	60	151	71	49	269
30	29	131	902	272	---	156	204	56	83	69	47	216
31	28	---	948	244	---	230	---	55	---	67	45	---
TOTAL	1236	16713	4543	22673	7012	15253	16002	7825	2358	3055	3598	8834
MEAN	39.9	557	147	731	250	492	533	252	78.6	98.5	116	294
MAX	140	2040	948	1870	931	1770	1290	1000	155	336	381	1110
MIN	21	31	45	220	89	156	177	55	43	40	45	44
CFSM	.17	2.44	.64	3.21	1.10	2.16	2.34	1.11	.34	.43	.51	1.29
IN.	.20	2.73	.74	3.70	1.14	2.49	2.61	1.28	.38	.50	.59	1.44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1993, BY WATER YEAR (WY)

	MEAN	44.3	159	266	316	373	465	432	304	170	113	54.3	75.2
MAX	263	1137	1421	2380	1317	1284	1102	1230	988	1101	633	701	
(WY)	1950	1986	1983	1950	1950	1978	1945	1981	1945	1979	1979	1989	
MIN	1.39	.94	2.87	3.64	11.3	12.8	35.6	31.6	8.88	.035	1.89	.88	
(WY)	1944	1955	1954	1977	1954	1954	1954	1954	1954	1954	1953	1953	

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1944 - 1993	
ANNUAL TOTAL	59248.0		109102			
ANNUAL MEAN	162		299		230	
HIGHEST ANNUAL MEAN					548	
LOWEST ANNUAL MEAN					10.8	
HIGHEST DAILY MEAN	2280		2040		8500	
LOWEST DAILY MEAN	18		21		.00	
ANNUAL SEVEN-DAY MINIMUM	21		24		.00	
INSTANTANEOUS PEAK FLOW			2100		8800	
INSTANTANEOUS PEAK STAGE			12.75		20.30	
ANNUAL RUNOFF (CFSM)	.71		1.31		1.01	
ANNUAL RUNOFF (INCHES)	9.67		17.80		13.71	
10 PERCENT EXCEEDS	284		838		642	
50 PERCENT EXCEEDS	68		147		54	
90 PERCENT EXCEEDS	29		46		5.1	

● Estimated

03347000 WHITE RIVER AT MUNCIE, IN

LOCATION.--Lat 40°12'15", long 85°23'14", in SE¹/₄NW¹/₄, Delaware County, Hydrologic Unit 05120201, on right bank 200 ft downstream from Walnut Street bridge in Muncie, 6 mi upstream from Bell Creek, and at mile 315.8.

DRAINAGE AREA.--241 mi².

PERIOD OF RECORD.--November 1930 to current year. Prior to October 1948, published as West Fork White River at Muncie. Daily gage heights from July 1923 to December 1929 are available in the district office.

REVISED RECORDS.--WSP 1335: 1931-32(M), 1936(M), 1938, 1948. WSP 1435: 1955. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 917.10 ft above 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.

REMARKS.--Records good except for estimated daily discharges, which are fair. Natural flow affected by regulation of Prairie Creek Reservoir and by diversion of municipal water supply by Muncie Water Works Co. above gage. Records of diversion available since October 1937.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 22.6 ft in March 1913, present datum, discharge, 20,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	496	210	327	184	198	508	197	153	999	67	23
2	46	2130	198	212	155	203	545	184	124	3770	61	31
3	49	1300	179	191	143	486	381	186	113	3660	54	98
4	44	602	162	928	135	1720	291	182	266	1460	71	107
5	38	395	150	2000	129	1850	249	180	405	669	70	62
6	36	293	139	1050	126	971	227	166	238	457	55	49
7	35	231	135	537	121	1100	207	150	169	375	52	36
8	37	199	129	383	114	2160	195	143	151	320	48	32
9	105	173	125	299	111	1460	301	134	416	269	44	30
10	105	167	134	250	106	857	1660	144	488	242	68	25
11	82	523	137	214	104	701	902	182	256	587	73	24
12	67	2400	132	195	131	529	491	199	189	766	82	37
13	51	3490	123	398	258	418	354	374	162	450	75	37
14	52	1150	127	502	229	327	913	228	511	364	62	34
15	142	668	135	321	181	283	1400	160	1150	365	53	49
16	396	462	191	250	155	271	1620	132	406	260	49	36
17	310	378	199	215	130	350	935	111	278	231	70	31
18	185	308	168	177	110	354	564	102	214	210	55	29
19	130	259	154	162	100	282	443	101	186	521	46	26
20	108	234	192	157	120	260	432	94	184	370	59	21
21	86	248	199	337	173	263	439	88	710	239	53	22
22	76	956	180	857	684	283	357	86	504	190	43	21
23	70	2210	160	519	564	660	307	176	271	163	38	31
24	70	1060	150	688	400	795	287	253	192	141	38	29
25	74	593	140	587	300	470	286	216	184	133	32	80
26	72	435	135	359	250	348	273	149	465	117	29	150
27	76	349	130	287	220	291	245	119	243	103	26	108
28	68	294	150	252	210	258	224	133	727	95	25	89
29	53	259	138	257	---	233	215	368	1350	87	25	76
30	61	230	150	218	---	214	212	236	532	77	21	58
31	65	---	230	200	---	219	---	287	---	71	26	---
TOTAL	2836	22492	4881	13329	5643	18814	15463	5460	11237	17761	1570	1481
MEAN	91.5	750	157	430	202	607	515	176	375	573	50.6	49.4
MAX	396	3490	230	2000	684	2160	1660	374	1350	3770	82	150
MIN	35	167	123	157	100	198	195	86	113	71	21	21
CFSM	.38	3.11	.65	1.78	.84	2.52	2.14	.73	1.55	2.38	.21	.20
IN.	.44	3.47	.75	2.06	.87	2.90	2.39	.84	1.73	2.74	.24	.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1993, BY WATER YEAR (WY)

	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
MEAN	56.1	135	226	295	344	421	402	254	210	119	71.5	59.0							
MAX	409	947	1119	1654	1122	963	1476	1239	1492	750	816	825							
(WY)	1987	1973	1991	1950	1950	1978	1964	1933	1958	1992	1979	1989							
MIN	2.30	7.33	6.57	6.38	21.2	39.0	46.4	16.4	13.6	9.55	4.80	1.96							
(WY)	1957	1957	1961	1977	1935	1941	1941	1941	1988	1944	1940	1954							

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1932 - 1993	
ANNUAL TOTAL	101022		120967			
ANNUAL MEAN	276		331		215	
HIGHEST ANNUAL MEAN					421	
LOWEST ANNUAL MEAN					42.1	
HIGHEST DAILY MEAN	3490	Nov 13	3770	Jul 2	11600	Apr 21 1964
LOWEST DAILY MEAN	33	Jun 13	21	Aug 30	1.1	Sep 16 1954
ANNUAL SEVEN-DAY MINIMUM	41	Oct 2	25	Aug 26	1.2	Sep 21 1954
INSTANTANEOUS PEAK FLOW			4270	Jul 2	14300	Apr 21 1964
INSTANTANEOUS PEAK STAGE			8.91	Jul 2	21.07	Jan 15 1937
ANNUAL RUNOFF (CFSM)	1.15		1.38		.89	
ANNUAL RUNOFF (INCHRS)	15.59		18.67		12.14	
10 PERCENT EXCEEDS	540		693		483	
50 PERCENT EXCEEDS	116		192		74	
90 PERCENT EXCEEDS	61		46		11	

* Estimated

03350700 STONY CREEK NEAR NOBLESVILLE, IN

LOCATION.--Lat 40°01'44", long 85°59'44", in NE¹/₄NE¹/₄, sec.7, T.18 N., R.5 E., Hamilton County, Hydrologic Unit 05120201, on right bank, between dual bridges on State Highway 37, 1.4 mi upstream from mouth, and 1.4 mi southeast of Noblesville.

DRAINAGE AREA.--50.8 mi².

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

REVISED RECORDS.--WDR IN-82-1; 1981.

GAGE.--Water-stage recorder. Datum of gage is 749.00 ft above sea level (Indiana Department of Highways bench mark). Prior to Oct. 1, 1988, water-stage recorder at county road bridge 200 ft upstream at same datum.

REMARKS.--Records good except for estimated daily discharges, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	227	74	76	54	36	243	43	41	160	13	8.3
2	18	710	69	58	46	40	133	43	34	344	12	7.6
3	17	579	59	63	44	129	92	60	33	288	11	9.3
4	15	299	56	380	42	431	74	69	57	149	12	61
5	14	189	50	713	40	391	65	158	91	95	11	29
6	13	127	48	317	40	250	58	104	52	68	9.7	21
7	13	95	47	184	39	339	53	74	42	51	9.5	16
8	15	76	42	134	38	309	52	61	38	42	8.8	13
9	21	63	41	103	35	196	118	53	40	35	8.0	12
10	20	62	46	83	35	142	377	48	41	31	9.2	9.9
11	18	328	44	69	35	109	172	45	34	46	12	8.8
12	15	898	42	65	39	91	105	42	31	53	23	9.8
13	13	976	44	127	42	80	80	41	29	35	23	11
14	12	534	48	116	39	66	422	37	28	141	14	9.2
15	52	314	49	83	36	55	363	36	48	110	11	48
16	184	217	52	69	39	57	317	33	33	60	9.9	33
17	127	164	49	62	35	78	169	32	28	45	17	21
18	71	124	44	51	33	69	119	31	25	36	12	16
19	50	97	44	45	32	60	96	31	24	61	10	14
20	40	82	64	45	30	57	89	29	37	45	19	11
21	36	77	60	172	40	57	76	28	58	32	13	10
22	30	350	53	216	90	60	66	28	36	27	9.8	9.9
23	27	814	48	129	70	239	61	42	29	24	8.9	9.3
24	25	381	41	206	57	195	57	60	25	22	8.5	9.0
25	24	231	39	158	61	115	63	48	23	34	12	18
26	23	175	36	100	47	87	60	39	33	23	13	9.2
27	22	137	34	82	42	74	52	35	27	19	9.9	69
28	21	113	34	75	39	64	49	33	31	18	7.3	65
29	20	94	35	70	---	58	47	34	47	16	6.8	41
30	20	82	48	60	---	53	47	33	35	15	6.4	30
31	19	---	81	58	---	76	---	47	---	14	9.3	---
TOTAL	1014	8615	1521	4169	1219	4063	3775	1497	1130	2139	360.0	805.8
MEAN	32.7	287	49.1	134	43.5	131	126	48.3	37.7	69.0	11.6	26.9
MAX	184	976	81	713	90	431	422	158	91	344	23	9.3
MIN	12	62	34	45	30	36	47	28	23	14	6.4	7.6
CFSM	.64	5.65	.97	2.65	.86	2.58	2.48	.95	.74	1.36	.23	.53
IN.	.74	6.31	1.11	3.05	.89	2.98	2.76	1.10	.83	1.57	.26	.59

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1993, BY WATER YEAR (WY)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	17.7	44.4	61.0	55.5	82.2	90.9	82.9	54.5	43.5	32.5	24.2	19.8
MAX	68.0	287	235	145	190	203	160	146	142	128	80.5	210
(WY)	1991	1993	1991	1974	1990	1978	1972	1981	1974	1979	1979	1989
MIN	3.63	5.51	5.84	3.87	11.0	17.6	16.9	16.1	6.50	3.25	3.84	3.62
(WY)	1988	1988	1977	1977	1978	1981	1971	1988	1988	1977	1988	1991

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1968 - 1993	
ANNUAL TOTAL	25842.7		30307.8			
ANNUAL MEAN	70.6		83.0		50.6	
HIGHEST ANNUAL MEAN					83.0	
LOWEST ANNUAL MEAN					19.5	
HIGHEST DAILY MEAN	976	Nov 13	976	Nov 13	1760	Dec 30 1990
LOWEST DAILY MEAN	9.8	Jun 16	6.4	Aug 30	1.2	Oct 12 1991
ANNUAL SEVEN-DAY MINIMUM	10	Jun 11	7.9	Aug 27	1.5	Oct 9 1991
INSTANTANEOUS PEAK FLOW			1170	Nov 12	2090	Dec 30 1990
INSTANTANEOUS PEAK STAGE			6.77	Nov 12	9.21	Dec 30 1990
ANNUAL RUNOFF (CFSM)	1.39		1.63		1.00	
ANNUAL RUNOFF (INCHES)	18.92		22.19		13.52	
10 PERCENT EXCEEDS	160		184		116	
50 PERCENT EXCEEDS	32		46		24	
90 PERCENT EXCEEDS	14		12		6.0	

• Estimated

03351060 WHITE RIVER AT BROAD RIPPLE

LOCATION.--Lat 39°52'17", long 86°08'16", IN SW¹/₄ sec.36, T.17 N., R.3 E., Marion County, Hydrologic Unit 05120201, on left bank at Indianapolis Water Company, 75 ft downstream from diversion canal, and 500 ft upstream from Broad Ripple dam.

DRAINAGE AREA.--1,238 mi².

PERIOD OF RECORD.--October 1989 to current year. Fragmentary record November 1927 to Jan. 24, 1947 and continuous record, Jan. 24, 1947 to Sept. 30, 1989, available in District office.

REVISED RECORDS.--WDR IN-93-1: 1992.

GAGE.--Water-stage recorder. Datum of gage is 709.91 ft above sea level.

REMARKS.--Stage affected by diversion through canal for water supply.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 10.16 ft, Jan. 1, 1991; minimum, 2.51 ft, Sept. 11, 1991.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 7.25 ft, Nov. 14; minimum 2.83 ft, Aug. 30, 31.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.62	2.93	3.18	3.00	3.30	3.14	3.39	3.54	3.07	3.13	5.75	3.06
2	2.64	2.89	3.22	3.00	3.31	3.13	3.39	3.45	3.03	3.13	4.56	3.02
3	2.69	2.88	3.31	3.00	3.29	3.12	3.37	3.39	3.01	3.22	4.10	3.01
4	2.67	2.83	3.54	3.02	3.36	3.10	3.43	3.30	2.99	3.20	3.81	3.03
5	2.82	2.81	3.34	2.99	3.41	3.08	3.33	3.27	3.00	3.76	3.64	3.06
6	2.79	2.81	3.21	2.99	3.37	3.10	3.28	3.22	3.01	3.35	3.50	2.98
7	2.77	2.81	3.14	2.99	3.33	3.17	3.23	3.17	2.99	3.27	3.41	3.35
8	2.73	2.81	3.11	2.99	3.27	3.18	3.22	3.17	2.95	3.18	3.37	3.18
9	2.74	2.80	3.09	3.00	3.20	3.13	3.20	3.21	2.95	3.13	3.30	3.14
10	2.69	2.80	3.04	3.00	3.13	3.26	3.13	3.21	2.90	3.10	3.23	3.46
11	2.73	2.79	3.02	2.97	3.13	3.24	3.17	3.15	2.87	3.11	3.17	3.87
12	2.72	2.76	3.07	2.96	3.10	3.26	3.17	3.21	2.82	4.75	3.13	3.47
13	2.74	2.78	3.12	3.00	3.08	3.22	3.10	3.20	2.82	5.18	3.10	3.28
14	2.68	2.80	3.24	3.22	3.11	3.21	3.09	3.14	2.82	6.31	3.07	3.13
15	2.70	2.81	3.19	3.43	3.35	3.16	3.08	3.12	2.83	6.86	3.04	3.07
16	2.70	2.81	3.11	3.26	3.68	3.11	3.51	3.07	2.96	6.23	3.00	3.03
17	2.70	2.78	3.10	3.23	3.77	3.12	5.19	3.05	3.00	5.68	2.97	2.98
18	2.71	2.79	3.07	3.23	3.73	3.33	5.99	3.09	6.15	5.87	2.96	2.99
19	2.70	2.92	3.00	3.17	3.81	3.74	6.52	3.04	7.21	5.11	2.96	2.95
20	2.71	3.39	3.00	3.17	3.84	3.94	6.08	3.01	7.38	4.43	2.95	2.93
21	2.71	3.67	3.01	3.19	3.70	3.70	5.10	3.00	5.00	4.33	2.91	4.09
22	2.69	3.77	3.00	3.18	3.56	3.57	4.76	3.04	4.32	4.26	2.89	4.60
23	2.75	3.48	3.07	3.26	3.48	3.45	4.34	3.25	3.96	4.16	2.88	4.14
24	2.76	3.29	3.11	3.55	3.39	3.35	4.09	3.19	3.81	4.94	2.86	3.72
25	2.98	3.15	3.15	3.62	3.35	3.33	3.91	3.14	3.82	5.43	2.87	3.49
26	3.39	3.06	3.13	3.40	3.27	3.32	3.76	3.08	3.60	4.48	2.92	3.37
27	3.50	3.01	3.07	3.31	3.25	3.35	3.64	3.03	3.43	4.16	3.37	3.44
28	3.34	3.04	3.06	3.22	3.22	3.29	3.54	2.99	3.32	3.88	3.51	3.43
29	3.13	3.04	3.05	3.19	3.20	3.29	3.48	3.00	3.22	3.72	3.59	3.31
30	3.00	3.18	3.02	3.16	---	3.34	3.45	3.07	3.16	4.09	3.31	3.20
31	2.92	---	3.02	3.23	---	3.35	---	3.11	---	5.76	3.15	---
MEAN	2.82	2.99	3.12	3.16	3.38	3.29	3.86	3.16	3.61	4.36	3.33	3.33
MAX	3.50	3.77	3.54	3.62	3.84	3.94	6.52	3.54	7.38	6.86	5.75	4.60
MIN	2.62	2.76	3.00	2.96	3.08	3.08	3.08	2.99	2.82	3.10	2.86	2.93

WTR YR 1992 MEAN 3.37 MAX 7.38 MIN 2.62

WABASH RIVER BASIN

03351310 CROOKED CREEK AT INDIANAPOLIS, IN

LOCATION.--Lat 39°49'47", long 86°12'22", in NW¹/₄ SE¹/₄ sec.16, T.16 N., R.3 E., Marion County, Hydrologic Unit 05120201, on left bank 150 ft downstream from 42nd Street bridge in Indianapolis, and at mile 1.6.

DRAINAGE AREA.--17.9 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 711.00 ft above sea level (Indiana Department of Highways bench mark).

REMARKS.--Records fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	119	11	22	12	7.8	76	10	6.5	140	5.1	2.4
2	2.5	151	10	14	10	22	35	11	6.7	54	4.4	34
3	2.1	51	8.8	25	10	87	23	70	9.2	61	3.5	286
4	2.0	24	8.7	320	9.3	202	18	55	44	23	6.3	45
5	1.8	15	8.3	167	9.1	101	15	124	19	15	4.2	17
6	1.7	11	7.2	54	9.6	55	14	34	9.2	12	3.1	9.5
7	1.7	8.7	7.5	32	8.2	54	13	21	8.8	11	2.8	7.3
8	9.6	9.9	6.8	24	7.9	56	12	15	8.2	13	2.2	6.0
9	11	9.1	7.3	19	7.7	33	59	11	53	9.1	1.8	5.2
10	3.8	23	14	17	7.9	26	115	9.9	10	7.9	15	4.6
11	3.0	119	12	15	8.1	23	41	8.9	27	18	11	3.9
12	2.6	503	8.0	17	16	18	25	8.8	40	49	76	54
13	2.2	176	6.8	53	14	16	19	8.9	11	13	44	33
14	2.2	54	6.2	29	11	13	263	7.3	54	112	12	11
15	26	29	7.0	21	9.3	11	158	6.8	35	30	7.6	100
16	48	22	15	16	10	15	98	6.4	23	22	17	25
17	16	17	11	12	8.6	31	39	5.6	15	18	18	14
18	8.4	14	9.6	10	7.4	20	26	7.5	11	13	8.0	9.0
19	5.6	12	8.6	9.0	6.6	15	23	8.3	9.2	83	7.1	7.4
20	4.3	11	17	13	6.0	16	34	6.1	19	25	57	6.5
21	3.8	14	11	116	32	16	21	5.2	74	15	10	6.1
22	3.4	247	9.4	63	54	14	16	4.7	22	11	6.6	5.5
23	2.8	112	8.6	36	27	88	13	43	15	9.6	5.2	5.2
24	4.1	47	7.3	62	15	48	12	29	11	8.6	12	5.6
25	2.7	35	6.6	38	10	28	18	12	9.0	528	7.6	69
26	2.4	27	5.9	25	12	22	15	7.9	8.0	53	5.7	72
27	2.7	20	5.6	20	10	17	11	6.6	6.0	24	4.0	89
28	2.4	16	5.9	18	8.6	15	10	5.9	12	15	3.3	41
29	2.4	13	14	16	---	14	9.8	12	15	12	2.9	20
30	3.0	13	31	14	---	13	11	8.2	60	7.6	2.9	12
31	8.5	---	40	13	---	25	---	9.2	---	6.1	4.1	---
TOTAL	195.6	1922.7	336.1	1310.0	357.3	1121.8	1242.8	579.2	650.8	1418.9	370.4	1006.2
MEAN	6.31	64.1	10.8	42.3	12.8	36.2	41.4	18.7	21.7	45.8	11.9	33.5
MAX	48	503	40	320	54	202	263	124	74	528	76	286
MIN	1.7	8.7	5.6	9.0	6.0	7.8	9.8	4.7	6.0	6.1	1.8	2.4
CFSM	.35	3.58	.61	2.36	.71	2.02	2.31	1.04	1.21	2.56	.67	1.87
IN.	.41	4.00	.70	2.72	.74	2.33	2.58	1.20	1.35	2.95	.77	2.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1993, BY WATER YEAR (WY)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	9.33	20.0	23.8	18.0	26.1	33.4	30.6	24.5	16.1	14.2	8.64	9.10												
MAX	60.9	69.3	95.4	54.8	79.4	63.7	58.2	71.9	73.4	57.7	30.8	69.9												
(WY)	1987	1973	1991	1974	1975	1991	1972	1990	1978	1979	1978	1989												
MIN	1.86	.88	1.23	.94	4.17	5.65	5.63	4.31	1.59	2.51	1.94	1.07												
(WY)	1983	1972	1977	1977	1978	1981	1971	1988	1988	1991	1991	1991												

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1970 - 1993	
ANNUAL TOTAL	7167.89		10511.8			
ANNUAL MEAN	19.6		28.8		19.4	
HIGHEST ANNUAL MEAN					29.6	
LOWEST ANNUAL MEAN					8.30	
HIGHEST DAILY MEAN	540		528		1570	
LOWEST DAILY MEAN	.84		1.7		.00	
ANNUAL SEVEN-DAY MINIMUM	.97		2.1		.00	
INSTANTANEOUS PEAK FLOW			1520		5500	
INSTANTANEOUS PEAK STAGE			8.08		13.31	
ANNUAL RUNOFF (CFSM)	1.09		1.61		1.09	
ANNUAL RUNOFF (INCHES)	14.90		21.85		14.76	
10 PERCENT EXCEEDS	40		59		39	
50 PERCENT EXCEEDS	8.7		13		7.8	
90 PERCENT EXCEEDS	2.4		4.4		1.8	

• Estimated

03353000 WHITE RIVER AT INDIANAPOLIS, IN

LOCATION.--Lat 39°45'05", long 86°10'30", in NW¹/₄, NW¹/₄, sec.14, T.15 N., R.3 E., Marion County, Hydrologic Unit 05120201, on downstream side of second pier from right bank of Morris Street bridge in Indianapolis, 2.6 mi downstream from Fall Creek, 3.4 mi upstream from Eagle Creek, 4.0 mi upstream from Indianapolis Power and Light Company dam, and at mile 230.3.

DRAINAGE AREA.--1,635 mi².

PERIOD OF RECORD.--March 1904 to July 1906 and April 1930 to current year. Gage-height record published in reports of National Weather Service for site 1.1 mi upstream Feb. 8, 1911, to Mar. 25, 1913, and at site 2.3 mi upstream since Oct. 16, 1913. Prior to October 1948, published as West Fork White River at Indianapolis.

REVISED RECORDS.--WSP 1335: 1932-33, 1937, 1939-41. WSP 1505: 1938. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 662.26 ft above sea level. March 1904 to July 1906, nonrecording gage at railroad bridge 0.8 mi upstream at datum approximately 2.9 ft higher. April 1930 to July 20, 1931, nonrecording gage at Indianapolis sanitation plant, 2.5 mi downstream at datum 660.00 ft lower. July 21, 1931 to Mar. 2, 1932, nonrecording gage and March 3, 1932, to September 30, 1960, water-stage recorder at present site at datum 660.00 ft lower.

REMARKS.--Records good except for estimated daily discharges, which are fair. Natural flow affected by regulation of Morse Reservoir and Geist Reservoir, and by diversion of municipal water supply by the Indianapolis Water Company. Stage-discharge relation affected at times by large releases from Eagle Creek and by variable leakage at Indianapolis Power and Light Company dam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 26, 1913, reached a stage of 30.0 ft, from floodmarks determined by Indianapolis Water Company, discharge, 70,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	742	2480	2140	2490	1720	1070	3280	1660	1600	3790	642	390
2	661	7800	1930	2350	1530	1400	4430	1580	1410	5420	590	583
3	582	10700	1780	2000	1380	2090	3530	2340	1230	8900	533	3860
4	533	9660	1620	5220	1310	5750	2570	2610	1870	10200	569	3040
5	557	5890	1520	12300	1280	9450	2070	3350	2170	8580	583	2110
6	493	3680	1360	13400	1220	8810	1800	3010	2670	3890	564	1430
7	440	2790	1260	10100	1180	7070	1630	2320	2060	2660	509	1120
8	583	2270	1270	5500	1110	7550	1570	1850	1590	2120	476	892
9	728	1880	1230	3880	1130	8780	2500	1640	2150	1730	458	807
10	645	1830	1300	3050	1050	7810	4800	1440	1980	1470	484	738
11	619	3720	1320	2460	1010	5410	6330	1380	2260	1620	635	690
12	583	11800	1260	2210	1170	3930	4560	1330	1900	3930	1630	979
13	514	18100	1220	2510	1130	3210	3110	1420	1760	3900	1270	1190
14	484	18900	1140	3040	1190	2650	5020	2120	1910	4060	743	842
15	866	15200	1130	3090	1290	2090	8020	1850	2310	5510	527	1810
16	1460	7310	1250	2440	1310	1870	8960	1380	4060	4360	461	1340
17	2940	4540	1510	2070	1100	2050	6580	1180	2460	2710	813	1130
18	2820	3610	1620	1760	1000	2240	4580	1120	1790	2240	490	907
19	1830	2960	1480	1480	920	2100	3450	1060	1450	2240	466	814
20	1260	2530	1510	1420	1000	1890	3160	969	1250	1820	1210	753
21	983	2320	1670	2810	1410	1780	2850	906	1620	1730	703	689
22	899	4140	1640	5000	1920	1780	2530	865	2030	1340	577	661
23	768	9930	1530	5720	2460	3320	2210	1080	2140	1100	465	624
24	724	11400	1330	5070	2200	5640	2010	1760	1500	961	714	488
25	646	8570	1210	5430	1620	5110	2080	2420	1580	4460	478	840
26	622	5200	1090	4240	1460	3500	3060	2200	1520	2700	559	1690
27	626	3960	1030	3080	1200	2600	2820	1650	1530	1650	488	2480
28	575	3200	1050	2560	1100	2170	2230	1360	1600	1200	823	2140
29	543	2720	1240	2280	---	1890	1910	1220	2540	908	548	1640
30	588	2340	1410	2060	---	1680	1820	1590	3990	770	417	1260
31	570	---	1910	1870	---	1970	---	1770	---	759	389	---
TOTAL	26884	191430	43960	122890	37400	118660	105470	52430	59930	98728	19814	37937
MEAN	867	6381	1418	3964	1336	3828	3516	1691	1998	3185	639	1265
MAX	2940	18900	2140	13400	2460	9450	8960	3350	4060	10200	1630	3860
MIN	440	1830	1030	1420	920	1070	1570	865	1230	759	389	390
CFSM	.53	3.90	.87	2.42	.82	2.34	2.15	1.03	1.22	1.95	.39	.77
IN.	.61	4.36	1.00	2.80	.85	2.70	2.40	1.19	1.36	2.25	.45	.86

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1993, BY WATER YEAR (WY)

MEAN	429	860	1394	1931	2180	2758	2721	1839	1397	907	546	433
MAX	2081	6381	5826	12120	6452	6610	7777	8594	7910	4259	3399	5063
(WY)	1991	1993	1991	1950	1950	1963	1964	1943	1958	1992	1979	1989
MIN	70.1	110	77.3	78.4	178	207	274	113	126	90.3	42.5	31.5
(WY)	1941	1935	1964	1977	1964	1941	1941	1941	1988	1936	1941	1941

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1931 - 1993	
ANNUAL TOTAL	748054		915533			
ANNUAL MEAN	2044		2508		1445	
HIGHEST ANNUAL MEAN					2698	
LOWEST ANNUAL MEAN					233	
HIGHEST DAILY MEAN	18900	Nov 14	18900	Nov 14	36800	Dec 31 1990
LOWEST DAILY MEAN	300	Aug 25	389	Aug 31	8.0	Sep 29 1941
ANNUAL SEVEN-DAY MINIMUM	327	Aug 20	516	Aug 26	12	Sep 24 1941
INSTANTANEOUS PEAK FLOW			19100		38000	
INSTANTANEOUS PEAK STAGE			14.66		21.57	
ANNUAL RUNOFF (CFSM)	1.25		1.53		.88	
ANNUAL RUNOFF (INCHES)	17.02		20.83		12.01	
10 PERCENT EXCEEDS	4780		5300		3350	
50 PERCENT EXCEEDS	1020		1720		654	
90 PERCENT EXCEEDS	459		589		146	

* Estimated

03353180 BEAN CREEK AT INDIANAPOLIS, IN

LOCATION.--Lat 39°43'45", long 86°07'14", in NW¹/₄SW¹/₄ sec.20, T.15 N., R.4 E., Marion County, Hydrologic Unit 05120201, on left bank 80 ft upstream from Keystone Avenue bridge and west edge of Sarah Shank Golf Course in Indianapolis, and at mile 1.8.

DRAINAGE AREA.--4.40 mi².

PERIOD OF RECORD.--October 1970 to September 1993 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 735.00 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	36	3.1	4.1	3.2	4.5	20	2.6	1.2	28	0.74	1.5
2	1.6	33	3.0	3.2	3.1	9.5	9.1	3.1	1.5	12	0.70	6.2
3	1.5	8.4	2.6	6.5	2.9	16	7.5	15	1.6	6.0	0.80	64
4	1.3	6.5	2.5	40	2.9	33	6.7	6.6	22	2.1	0.11	5.0
5	1.4	5.5	2.2	15	2.9	13	6.0	5.7	2.8	1.4	0.82	2.4
6	1.6	5.0	2.1	5.9	2.8	8.2	5.3	3.7	1.7	1.2	0.70	1.7
7	1.4	5.0	2.1	4.5	2.6	7.6	4.8	2.9	1.5	1.1	0.60	1.4
8	6.5	4.5	2.0	3.8	2.6	7.5	5.8	2.5	1.6	1.2	0.50	1.4
9	2.6	4.2	2.1	3.2	2.6	5.6	38	2.2	14	.79	0.86	1.4
10	1.7	8.0	3.9	3.0	2.8	5.2	18	2.0	2.4	.70	0.14	1.3
11	1.9	36	2.5	2.8	3.1	5.0	8.2	2.0	1.8	6.9	0.46	1.0
12	1.7	100	2.2	5.9	4.3	4.5	6.3	2.4	7.9	3.2	0.35	11
13	2.0	24	2.0	9.8	3.0	4.2	5.6	2.6	3.2	.95	0.15	1.7
14	1.9	12	2.0	4.7	2.7	0.40	27	2.2	7.7	11	0.24	1.8
15	15	8.5	2.2	4.1	2.6	3.6	23	1.8	3.3	1.8	0.15	14
16	9.2	6.8	2.7	3.7	0.23	5.6	13	1.7	2.1	8.4	0.12	2.0
17	3.4	6.0	2.1	3.4	0.22	6.4	7.4	1.6	1.6	2.6	0.28	1.6
18	2.8	5.9	2.0	3.0	0.22	4.2	5.8	3.8	1.5	20	0.39	1.3
19	2.7	5.0	2.6	2.8	0.22	4.0	6.4	1.8	1.4	14	0.19	1.1
20	0.25	4.7	3.5	5.6	0.26	4.9	7.7	1.6	2.0	6.4	0.41	1.0
21	0.23	8.2	1.9	23	13	4.5	5.6	1.6	6.0	0.22	0.15	1.1
22	0.20	51	1.9	10	8.2	6.2	4.4	1.5	1.8	0.13	0.18	1.1
23	0.19	15	1.9	6.7	4.7	21	4.0	2.2	1.6	0.11	0.12	1.3
24	0.18	6.7	1.6	14	0.44	7.4	3.7	4.3	1.4	0.56	0.18	1.1
25	0.19	6.0	1.6	6.5	0.42	7.2	5.1	1.8	16	0.26	0.40	21
26	0.20	4.8	0.15	5.2	0.40	7.8	3.3	1.6	3.3	0.28	0.15	5.1
27	0.21	4.2	1.4	4.6	0.39	7.0	3.1	1.5	1.5	0.35	0.16	20
28	0.22	3.7	1.4	4.3	0.35	6.2	2.9	1.4	5.7	0.60	58	3.4
29	0.24	3.3	7.8	3.7	---	5.8	2.8	1.3	2.3	0.17	5.9	2.0
30	0.28	3.2	6.7	3.4	---	5.4	3.2	2.8	2.8	0.82	2.6	1.6
31	0.23	---	9.7	3.4	---	26	---	2.3	---	0.80	2.0	---
TOTAL	88.0	431.1	86.8	219.8	101.5	261.0	269.7	90.1	125.2	181.56	319.84	180.5
MEAN	2.84	14.4	2.80	7.09	3.62	8.42	8.99	2.91	4.17	5.86	10.3	6.02
MAX	15	100	9.7	40	13	33	38	15	22	28	58	64
MIN	1.3	3.2	1.4	2.8	2.2	3.6	2.8	1.3	1.2	.70	.50	1.0
CFSM	.65	3.27	.64	1.61	.82	1.91	2.04	.66	.95	1.33	2.34	1.37
IN.	.74	3.64	.73	1.86	.86	2.21	2.28	.76	1.06	1.54	2.70	1.53

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1993, BY WATER YEAR (WY)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993		
MEAN	3.21	5.40	5.83	4.56	6.46	8.21	6.70	6.31	4.46	6.15	4.18	2.95	12.5	16.2	15.4	10.0	16.0	16.4	12.2	18.9	11.4	29.9	11.6	11.5	
MAX	12.5	16.2	15.4	10.0	16.0	16.4	12.2	18.9	11.4	29.9	11.6	11.5	(WY)	1987	1986	1991	1975	1971	1991	1972	1981	1973	1992	1979	1989
MIN	1.37	1.57	1.49	.82	1.72	2.10	2.31	1.76	1.32	.95	1.23	.93	(WY)	1983	1982	1977	1977	1978	1981	1976	1988	1988	1991	1983	1983

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1971 - 1993
ANNUAL TOTAL	2476.93	2355.10	
ANNUAL MEAN	6.77	6.45	5.37
HIGHEST ANNUAL MEAN			7.44
LOWEST ANNUAL MEAN			3.51
HIGHEST DAILY MEAN	250	100	250
LOWEST DAILY MEAN	.90	.50	.30
ANNUAL SEVEN-DAY MINIMUM	.91	1.1	.56
INSTANTANEOUS PEAK FLOW		494	1180
INSTANTANEOUS PEAK STAGE		6.37	9.42
ANNUAL RUNOFF (CFSM)	1.54	1.47	1.22
ANNUAL RUNOFF (INCHES)	20.94	19.91	16.57
10 PERCENT EXCEEDS	11	15	11
50 PERCENT EXCEEDS	2.5	3.3	2.7
90 PERCENT EXCEEDS	1.5	1.4	1.2

• Estimated

WABASH RIVER BASIN

03353200 EAGLE CREEK AT ZIONSVILLE, IN

LOCATION.--Lat 39°56'56", long 86°15'22", in SW¹/₄/NW¹/₄, sec.1, T.17 N., R.2 E., Boone County, Hydrologic Unit 05120201, on downstream side of second pier from right bank of bridge on State Highway 334 at Zionsville, 200 ft upstream from Long Branch, and at mile 24.7.

DRAINAGE AREA.--103 mi².

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

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 816.85 ft above sea level. Prior to Oct. 9, 1957, nonrecording gage at same site and datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Low flow affected by the Zionsville well field located on the right bank below the gage before 1989.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 28, 1957, reached a stage of 19.20 ft. from floodmark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	772	96	172	86	448	419	87	49	451	21	4.2
2	36	2100	92	118	69	70	229	83	44	502	17	7.4
3	32	831	81	281	63	420	154	511	52	367	14	173
4	27	414	73	2350	58	1190	117	444	99	166	13	45
5	22	264	67	2360	55	730	102	603	198	94	10	20
6	18	174	62	608	55	560	89	317	113	62	8.5	9.6
7	16	129	60	384	52	698	78	207	85	47	8.0	6.5
8	14	105	53	270	51	657	77	149	71	58	6.8	4.4
9	16	90	49	191	46	406	195	116	66	39	5.6	3.2
10	15	108	58	157	45	299	381	98	64	32	9.1	2.2
11	13	842	52	131	45	227	209	86	49	46	7.4	1.9
12	12	3800	47	110	56	179	132	81	48	171	22	2.5
13	10	2130	46	176	58	147	101	76	44	77	31	5.0
14	9.0	580	47	158	51	115	945	68	45	747	15	3.7
15	43	368	58	129	45	102	815	63	79	412	9.2	66
16	358	268	106	100	52	96	766	56	44	184	7.3	42
17	255	212	96	80	45	114	357	51	32	110	7.1	22
18	119	166	79	70	40	96	243	51	26	73	6.5	11
19	78	137	76	60	38	88	196	52	22	88	6.0	7.2
20	61	118	108	80	37	90	225	45	23	61	13	5.5
21	51	114	98	714	230	89	171	41	69	40	8.8	4.4
22	37	504	84	575	330	104	133	38	47	31	7.2	3.9
23	32	654	74	351	180	570	117	92	29	25	5.4	5.1
24	34	341	60	505	100	365	107	137	21	51	5.2	3.5
25	31	247	52	311	107	232	180	107	18	1830	4.8	18
26	27	222	45	196	83	172	177	74	17	268	4.5	55
27	26	177	41	153	58	135	127	61	13	134	4.6	117
28	22	149	38	136	52	111	109	55	33	79	4.3	96
29	21	123	41	127	---	94	99	52	98	48	4.3	53
30	21	108	115	106	---	84	99	51	114	34	4.0	35
31	21	---	246	99	---	158	---	59	---	26	3.8	---
TOTAL	1524.0	16247	2300	11258	2187	8446	7149	4011	1712	6353	294.4	833.2
MEAN	49.2	542	74.2	363	78.1	272	238	129	57.1	205	9.50	27.8
MAX	358	3800	246	2360	330	1190	945	603	198	1830	31	173
MIN	9.0	90	38	60	37	48	77	38	13	25	3.8	1.9
CFSM	.48	5.26	.72	3.53	.76	2.65	2.31	1.26	.55	1.99	.09	.27
IN.	.55	5.87	.83	4.07	.79	3.05	2.58	1.45	.62	2.29	.11	.30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1993, BY WATER YEAR (WY)

	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993				
MEAN	23.2	86.3	135	119	155	206	183	94.4	88.1	67.4	40.7	23.9																												
MAX	131	542	530	452	423	459	532	289	523	520	444	332																												
(WY)	1970	1993	1991	1974	1976	1963	1964	1974	1958	1979	1958	1989																												
MIN	.000	1.16	1.65	1.23	9.05	28.7	30.0	12.0	1.55	1.52	.000	.000																												
(WY)	1967	1965	1977	1977	1964	1966	1971	1988	1988	1966	1966	1966																												

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1958 - 1993	
ANNUAL TOTAL	44581.3		62314.6			
ANNUAL MEAN	122		171		101	
HIGHEST ANNUAL MEAN					188	
LOWEST ANNUAL MEAN					22.2	
HIGHEST DAILY MEAN	3800	Nov 12	3800	Nov 12	6840	Dec 30 1990
LOWEST DAILY MEAN	3.9	Sep 6	1.9	Sep 11	.00	Sep 9 1959
ANNUAL SEVEN-DAY MINIMUM	4.4	Aug 31	3.3	Sep 8	.00	Sep 15 1959
INSTANTANEOUS PEAK FLOW			5550	Nov 12	12400	Apr 20 1964
INSTANTANEOUS PEAK STAGE			11.25	Nov 12	14.64	Apr 20 1964
ANNUAL RUNOFF (CFSM)	1.18		1.66		.98	
ANNUAL RUNOFF (INCHES)	16.10		22.51		13.37	
10 PERCENT EXCEEDS	230		393		220	
50 PERCENT EXCEEDS	47		76		31	
90 PERCENT EXCEEDS	10		8.9		1.4	

• Estimated

WABASH RIVER BASIN

03353450 EAGLE CREEK RESERVOIR NEAR INDIANAPOLIS, IN

RESERVOIR RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is sea level. (Prior to 1993 water year, erroneously published as 780.00 ft above sea level).

REMARKS.--Reservoir is formed by earth-fill dam. Low flow is controlled through a 48-inch diameter conduit. Spillway elevation, 783 ft is an ogee section with 6 taintor gates, each 40 ft wide and 25 ft high. Permanent pool capacity is 24,000 acre-ft, elevation, 790.00 ft. Reservoir is used for flood control, low-flow maintenance, water supply, and recreation. Reservoir put into operation Nov. 27, 1969.

COOPERATION.--Water-stage elevations and capacity tables furnished by Indianapolis Flood Control District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 30,580 acre-ft Dec. 30, 1990, elevation, 794.61 ft; minimum, 11,390 acre-ft Nov. 17-18, 1991, elevation, 778.70 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 26,230 acre-ft Nov. 12, elevation, 791.59 ft; minimum, 22,530 acre-ft Mar. 2, elevation, 788.87 ft.

CORRECTION.--1992 Water year total change in contents (acre-feet) is erroneously labled as 1990 water year.

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	790.18	24,250	
Oct. 31.....	790.05	24,070	-180
Nov. 30.....	790.05	24,070	0
Dec. 31.....	789.76	23,690	-380
CAL YR 1992.....			+10,120
Jan. 31.....	789.08	22,800	-890
Feb. 28.....	789.30	23,090	+290
Mar. 31.....	789.06	22,780	-310
Apr. 30.....	789.89	23,860	+1,080
May 31.....	790.73	25,020	+1,160
June 30.....	790.67	24,940	-80
July 31.....	790.61	24,850	-90
Aug. 31.....	790.42	24,590	-260
Sept. 30.....	790.68	24,950	+360
WYR YR 1993.....			+700

03353551 LITTLE EAGLE CREEK AT 52ND STREET AT INDIANAPOLIS, IN

LOCATION.--Lat 39°50'45", long 86°14'55", in NE¹/₄, SW¹/₄, sec.7, T.16 N., R.2 E., Marion County, Hydrologic Unit 05120201, on right bank at downstream side of West 52nd Street, 0.4 mi east of Lafayette Road, 1.1 mi upstream from Guion Creek, and at mile 7.2.

DRAINAGE AREA.--6.94 mi².

PERIOD OF RECORD.--October 1989 to current year.

GAGE.--Water-stage recorder. Datum of gage is 766.34 ft above sea level.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	126	4.0	9.5	3.4	6.0	24	4.3	1.8	61	1.5	.91
2	1.2	121	3.9	6.0	3.1	12	11	12	2.8	29	1.2	38
3	1.0	23	3.3	21	2.8	35	6.2	64	3.4	20	1.1	183
4	.97	9.2	3.4	141	2.5	67	4.6	27	28	5.1	3.3	9.6
5	.82	4.7	2.8	40	2.6	21	4.2	52	5.6	3.1	1.4	4.7
6	.48	3.2	2.7	15	2.4	14	3.5	9.4	2.7	2.4	1.2	3.1
7	.47	3.0	3.1	9.9	2.3	15	3.1	5.4	2.3	2.1	1.1	2.5
8	1.0	5.0	2.7	8.0	2.3	20	3.5	3.8	2.1	2.1	.88	1.9
9	4.0	3.0	2.6	6.3	2.2	11	83	3.1	36	1.3	.82	1.6
10	1.1	26	5.7	5.6	2.3	9.5	37	2.5	4.2	24	7.2	1.4
11	.82	97	5.4	5.0	2.4	8.6	11	3.0	2.4	16	3.4	1.0
12	.65	221	5.0	9.3	10	6.9	6.1	3.1	68	3.0	64	41
13	.55	36	5.0	24	5.7	5.8	4.8	3.4	13	58	14	12
14	.45	15	4.1	9.6	3.8	4.8	176	2.4	192	6.1	4.4	4.6
15	28	9.3	4.0	6.8	3.1	4.1	73	2.1	22	4.7	2.7	38
16	49	6.7	6.7	5.8	3.6	11	31	1.9	6.2	7.1	13	6.0
17	9.6	5.5	4.1	4.8	3.0	14	11	2.0	3.6	5.2	18	3.5
18	2.9	5.1	3.5	4.3	2.6	6.7	7.1	5.5	2.4	3.0	4.2	2.7
19	2.3	4.3	3.6	3.9	2.4	5.3	7.9	4.6	1.9	39	4.3	2.2
20	2.0	4.0	9.4	9.8	2.7	7.2	16	2.4	6.1	5.1	31	2.0
21	1.8	6.9	4.1	60	31	6.0	6.2	2.2	22	2.7	4.3	1.8
22	1.6	105	3.7	21	23	8.3	4.6	1.9	3.5	2.1	2.5	1.6
23	1.4	36	3.7	12	11	45	3.9	32	1.9	1.6	2.1	1.7
24	1.4	14	3.2	27	6.6	14	3.2	13	1.5	1.5	5.2	1.8
25	1.4	15	2.9	12	8.6	8.7	7.5	3.7	11	169	2.1	46
26	1.3	11	2.7	7.9	6.0	6.8	3.5	2.4	4.1	7.9	1.5	21
27	1.3	7.2	2.6	5.8	4.4	5.9	2.7	2.1	1.6	4.0	1.5	40
28	1.4	5.9	2.8	5.5	3.6	5.3	2.6	1.9	15	2.9	1.3	8.0
29	1.2	5.1	12	4.6	---	4.7	2.6	5.5	4.5	2.6	1.0	4.6
30	8.9	4.6	20	5.3	---	4.2	3.9	2.5	15	2.0	1.2	3.2
31	6.8	---	24	3.5	---	39	---	3.6	---	1.7	1.0	---
TOTAL	137.41	938.7	166.7	510.2	159.4	432.8	564.7	284.7	486.6	495.3	202.40	489.41
MEAN	4.43	31.3	5.38	16.5	5.69	14.0	18.8	9.18	16.2	16.0	6.53	16.3
MAX	49	221	24	141	31	67	176	64	192	169	64	183
MIN	.45	3.0	2.6	3.5	2.2	4.1	2.6	1.9	1.5	1.3	.82	.91
CFSM	.64	4.51	.77	2.37	.82	2.01	2.71	1.32	2.34	2.30	.94	2.35
IN.	.74	5.03	.89	2.73	.85	2.32	3.03	1.53	2.61	2.65	1.08	2.62

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1993, BY WATER YEAR (WY)

	1989	1990	1991	1992	1993
MEAN	7.66	15.3	15.6	9.52	14.3
MAX	13.3	31.3	49.8	16.5	31.1
(WY)	1991	1993	1991	1993	1990
MIN	1.69	0.49	1.15	5.94	5.69
(WY)	1990	1990	1990	1992	1993

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1989 - 1993
ANNUAL TOTAL	3885.16	4868.32	
ANNUAL MEAN	10.6	13.3	11.3
HIGHEST ANNUAL MEAN			13.3
LOWEST ANNUAL MEAN			9.57
HIGHEST DAILY MEAN	323	221	542
LOWEST DAILY MEAN	.42	.45	.15
ANNUAL SEVEN-DAY MINIMUM	.59	.85	.28
INSTANTANEOUS PEAK FLOW		980	1260
INSTANTANEOUS PEAK STAGE		7.29	8.30
ANNUAL RUNOFF (CFSM)	1.53	1.92	1.63
ANNUAL RUNOFF (INCHES)	20.83	26.10	22.13
10 PERCENT EXCEEDS	24	31	24
50 PERCENT EXCEEDS	3.7	4.6	3.5
90 PERCENT EXCEEDS	1.0	1.5	.77

• Estimated

03353560 GUION CREEK ABOVE 52ND STREET AT INDIANAPOLIS, IN

LOCATION.--Lat 39°50'45", long 86°13'57", in NW¹/₄/SW¹/₄ sec.08., T.16 N., R.3 E., Marion County, Hydrologic Unit 05120201, on right bank 25 ft upstream from private bridge, 0.2 mi north of West 52nd Street along Guion Road, and 1.25 mi upstream of the confluence with Little Eagle Creek.
 DRAINAGE AREA.--3.91 mi².
 PERIOD OF RECORD.--October 1989 to current year.
 GAGE.--Water-stage recorder. Datum of gage is 760.11 ft above sea level.
 REMARKS.--Records fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	31	2.1	6.2	1.7	2.0	14	1.3	.64	23	.45	.60
2	.14	45	2.0	3.9	1.3	7.7	7.5	1.4	.79	20	.38	11
3	.13	13	1.6	9.1	1.3	32	4.6	22	.72	16	.31	62
4	.11	5.8	1.6	79	1.2	72	3.4	14	8.8	6.2	.32	12
5	.11	3.3	1.3	42	1.1	28	2.9	24	3.0	3.6	.26	4.5
6	.11	2.3	1.3	14	1.0	18	2.4	7.1	1.6	2.6	.27	2.4
7	.80	2.1	1.3	8.2	.95	15	2.2	4.1	1.1	2.4	.26	1.5
8	2.4	2.2	1.2	5.8	.92	13	2.3	2.9	.86	2.3	.19	.88
9	.84	1.8	1.2	3.9	.87	7.2	33	2.1	16	1.7	.17	.68
10	.63	8.6	2.2	3.3	.87	6.6	25	1.7	3.8	.89	3.1	.54
11	.79	46	1.9	2.8	1.1	4.9	9.4	1.5	3.5	4.8	.88	.42
12	.89	127	1.9	4.3	3.0	4.1	5.5	1.5	39	8.3	16	18
13	.48	37	2.2	14	2.0	3.1	3.9	1.4	15	2.3	9.3	19
14	.41	13	2.0	6.4	1.6	2.3	71	1.0	91	19	8.8	6.3
15	3.4	6.9	2.2	4.2	1.4	2.0	44	.91	30	5.0	1.7	29
16	9.1	5.0	3.0	3.2	1.7	4.0	27	.79	9.6	4.3	10	6.7
17	1.9	4.0	2.2	2.6	1.3	6.0	10	.76	4.7	3.2	13	3.2
18	.78	3.3	1.7	1.9	1.0	3.6	6.3	1.8	2.7	1.9	2.7	1.9
19	.90	3.5	1.9	1.8	.90	3.2	5.2	1.2	1.8	10	3.1	1.3
20	1.2	2.5	3.7	4.5	1.1	3.6	7.2	.99	2.3	2.9	18	1.1
21	1.1	2.9	2.2	37	12	3.0	4.2	.68	11	1.8	3.5	.87
22	.87	68	1.9	15	15	4.8	2.8	.57	2.9	1.4	1.9	.90
23	.89	38	1.8	8.7	6.9	26	2.4	8.5	1.8	1.0	1.3	1.9
24	.90	13	1.3	19	2.5	9.9	2.1	4.8	1.3	.95	1.0	.76
25	.70	9.8	1.2	8.3	1.5	6.1	3.0	2.1	1.7	68	.68	21
26	.52	7.2	1.0	5.2	1.7	4.4	1.9	1.6	1.4	9.6	.51	19
27	.60	4.6	.96	4.0	1.5	3.7	2.4	1.0	1.2	3.7	.88	27
28	.48	3.6	1.1	3.6	1.3	3.4	1.9	.75	8.2	1.9	.90	8.8
29	.46	2.9	4.3	2.6	---	2.6	1.7	.83	3.6	1.1	.85	4.6
30	1.4	2.4	8.5	2.0	---	2.2	1.6	1.1	8.1	.76	1.2	3.2
31	1.9	---	14	2.0	---	13	---	1.1	---	.54	.95	---
TOTAL	35.08	515.7	76.76	328.5	68.71	317.4	310.8	115.48	278.11	231.14	102.86	271.05
MEAN	1.13	17.2	2.48	10.6	2.45	10.2	10.4	3.73	9.27	7.46	3.32	9.03
MAX	9.1	127	14	79	15	72	71	24	91	68	18	62
MIN	.11	1.8	.96	1.8	.87	2.0	1.6	.57	.64	.54	.17	.42
CFSM	.29	4.40	.63	2.71	.63	2.62	2.65	.95	2.37	1.91	.85	2.31
IN.	.33	4.91	.73	3.13	.65	3.02	2.96	1.10	2.65	2.20	.98	2.58

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1993, BY WATER YEAR (WY)

	1990	1991	1992	1993
MEAN	2.53	7.33	6.22	5.15
MAX	5.45	17.2	19.6	10.6
(WY)	1991	1993	1991	1993
MIN	.68	3.61	.52	1.94
(WY)	1990	1990	1990	1992

SUMMARY STATISTICS FOR 1992 CALENDAR YEAR FOR 1993 WATER YEAR WATER YEARS 1990 - 1993

ANNUAL TOTAL	1667.53	2651.59	
ANNUAL MEAN	4.56	7.26	5.28
HIGHEST ANNUAL MEAN			7.26
LOWEST ANNUAL MEAN			3.59
HIGHEST DAILY MEAN	127	Nov 12	201
LOWEST DAILY MEAN	.03	Aug 24	.00
ANNUAL SEVEN-DAY MINIMUM	.05	Aug 20	.01
INSTANTANEOUS PEAK FLOW			421
INSTANTANEOUS PEAK STAGE			7.35
ANNUAL RUNOFF (CFSM)	1.17	5.73	1.35
ANNUAL RUNOFF (INCHES)	15.86	25.23	18.35
10 PERCENT EXCEEDS	9.0	18	11
50 PERCENT EXCEEDS	1.6	2.4	1.7
90 PERCENT EXCEEDS	.18	.76	.16

* Estimated

03353583 FALCON CREEK AT 30TH ST. AT INDIANAPOLIS, IN

LOCATION.--Lat 39°48'33", long 86°13'56", in NW¹/₄/NW¹/₄, sec.29, T.16 N., R.03 E., Marion County, Hydrologic Unit 05120201, on left bank, 150 ft downstream from bridge on West 30th Street, 0.6 mi west of Lafayette Road, and 0.6 mi upstream of confluence with Little Eagle Creek.

DRAINAGE AREA.--2.95 mi².

PERIOD OF RECORD.--October 1989 to current year.

GAGE.--Water-stage recorder. Datum of gage is 727.27 ft above sea level.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.27	33	e1.7	5.1	1.5	2.9	11	1.5	.63	27	e.82	.37
2	.27	35	e1.6	3.1	1.3	8.7	6.0	2.1	1.5	16	e.72	16
3	.29	7.0	e1.5	8.7	1.2	20	3.7	26	1.1	10	.63	47
4	.20	3.2	1.4	70	1.1	54	2.7	15	15	3.3	.59	5.4
5	.20	2.0	1.2	38	1.1	21	2.3	16	2.7	1.7	.45	2.5
6	.21	1.3	1.1	9.0	1.1	10	2.1	5.4	1.2	1.0	.49	1.3
7	.20	1.3	1.3	5.4	1.0	9.3	1.8	3.1	.80	2.0	.48	.83
8	5.2	1.1	1.0	4.0	1.0	9.5	2.9	2.0	.68	1.3	.38	.65
9	.70	.81	1.1	3.0	.98	5.8	27	1.5	15	.87	.34	.63
10	.15	e7.0	3.6	2.7	.95	4.6	18	1.3	2.8	.66	5.8	.48
11	.18	e40	2.3	2.3	1.8	4.1	6.5	1.4	1.0	5.9	.94	.45
12	.13	e100	1.8	5.6	3.8	3.2	3.9	2.6	13	2.3	20	14
13	.11	e19	1.8	10	2.5	2.6	3.0	1.9	4.7	.65	5.1	3.6
14	.11	e6.8	1.6	4.9	1.8	2.2	48	1.0	70	14	1.6	7.1
15	5.8	e3.6	2.5	3.3	1.5	1.9	34	.79	25	2.1	.68	23
16	9.0	e2.6	2.4	2.5	1.9	5.2	22	.72	4.9	6.9	1.7	3.3
17	1.2	e2.0	1.8	2.1	1.6	5.7	7.8	.74	2.6	2.6	5.6	1.7
18	.80	e2.0	1.5	1.6	1.2	3.2	5.0	3.3	1.5	1.4	1.0	1.2
19	.51	e1.6	2.5	1.2	.98	2.6	5.0	1.3	.95	7.0	5.3	.92
20	.41	e1.3	3.6	5.6	1.2	3.3	7.3	1.1	.69	1.8	7.9	.91
21	.36	e1.9	1.9	26	12	2.8	4.3	1.0	3.0	e1.3	1.3	.90
22	.27	e60	1.6	12	9.5	6.1	3.1	.94	1.3	e.96	.70	.81
23	.25	e25	1.5	6.5	4.5	19	2.6	9.2	.88	e.80	.47	1.2
24	.27	e11	1.3	14	2.6	7.9	2.5	5.9	.85	e.72	6.9	.78
25	.34	e6.6	1.1	6.1	1.8	4.8	4.0	1.8	2.9	31	.62	19
26	.51	e4.3	.80	3.8	2.0	3.5	2.4	1.1	1.3	4.2	.54	7.6
27	.52	e3.0	.77	3.0	1.6	3.0	2.0	.82	.88	2.9	.60	17
28	.44	e2.4	.86	2.8	1.4	2.5	1.7	.71	10	e1.8	.81	4.1
29	.23	e2.1	7.0	2.2	---	2.1	2.0	.61	2.1	e1.4	.51	2.3
30	2.0	e1.9	7.6	1.7	---	1.9	2.4	4.7	8.6	e1.1	.50	1.5
31	.45	---	11	1.6	---	11	---	1.2	---	e.94	.99	---
TOTAL	31.58	388.81	72.73	267.8	64.91	244.4	247.0	116.73	197.56	155.60	74.46	186.53
MEAN	1.02	13.0	2.35	8.64	2.32	7.88	8.23	3.77	6.59	5.02	2.40	6.22
MAX	9.0	100	11	70	12	54	48	26	70	31	20	47
MIN	.11	.81	.77	1.2	.95	1.9	1.7	.61	.63	.65	.34	.37
CFSM	.35	4.39	.80	2.93	.79	2.67	2.79	1.28	2.23	1.70	.81	2.11
IN.	.40	4.90	.92	3.38	.82	3.08	3.11	1.47	2.49	1.96	.94	2.35

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1993, BY WATER YEAR (WY)

	1989	1990	1991	1992	1993	1990	1991	1992	1993	1990	1991	1992	1993
MEAN	2.64	6.31	5.90	4.42	5.98	7.24	7.71	5.84	3.36	4.57	1.69	2.65	
MAX	4.37	13.0	17.8	8.64	13.7	12.3	11.4	14.8	6.59	10.0	2.40	6.22	
(WY)	1991	1993	1991	1993	1990	1991	1992	1990	1993	1992	1993	1993	
MIN	1.02	3.66	1.66	1.44	1.96	2.16	3.53	1.57	.82	.61	1.02	.52	
(WY)	1993	1990	1990	1992	1992	1992	1990	1992	1991	1991	1991	1991	

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1989 - 1993	
ANNUAL TOTAL	1592.32		2048.11			
ANNUAL MEAN	4.35		5.61		4.85	
HIGHEST ANNUAL MEAN					5.61	
LOWEST ANNUAL MEAN					3.88	
HIGHEST DAILY MEAN	122	Apr 17	100	Nov 12	185	Dec 30 1990
LOWEST DAILY MEAN	.11	Oct 13	.11	Oct 13	.00	Sep 21 1991
ANNUAL SEVEN-DAY MINIMUM	.23	Oct 1	.23	Oct 1	.07	Sep 26 1991
INSTANTANEOUS PEAK FLOW			336		528	
INSTANTANEOUS PEAK STAGE			5.66		6.60	
ANNUAL RUNOFF (CFSM)	1.47		1.90		1.64	
ANNUAL RUNOFF (INCHES)	20.08		25.83		22.34	
10 PERCENT EXCEEDS	9.2		14		11	
50 PERCENT EXCEEDS	1.3		2.0		1.5	
90 PERCENT EXCEEDS	.32		.57		.26	

e Estimated

03353611 WHITE RIVER AT STOUT GEN. STN. AT INDIANAPOLIS, IN

LOCATION.--Lat 39°44'38", long 86°12'03", in SE¹/₄NE¹/₄, sec.28, T.15N., R.3E., Marion County, Hydrologic Unit 05120201, on right bank 0.30 mi above confluence with Lick Creek and 0.31 mi above dam at Stout Generating Plant, and at mile 226.32
 DRAINAGE AREA.--1,898 mi².
 PERIOD OF RECORD.--Oct. 1, 1992 to September 1993.
 GAGE.--Water-stage recorder. Datum of gage is 663.40 above sea level.
 REMARKS.--Records good except for estimated daily discharges, which are poor. An unknown instantaneous peak stage greater than 8.58 ft occurred on Nov. 14, 1992 during a period of no record.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e860	e2800	2550	3090	1990	e1700	4110	1890	1770	4890	661	555
2	e720	e9000	2270	2910	1760	1980	5190	1850	1570	6770	604	864
3	e640	e12000	2110	2510	1650	2930	4210	2970	1390	9940	514	5320
4	e610	e11000	1910	7170	1590	7430	3100	3340	2270	11000	592	3370
5	e640	e6500	1810	15300	1560	11100	2530	4150	2530	9030	592	2110
6	e570	e4000	1570	15200	1520	9930	2210	3480	2960	4410	572	1330
7	e530	e3100	1500	11000	1470	7980	2000	2590	2340	3220	493	1040
8	e700	e2500	1500	6290	1370	8500	1930	2090	1770	2610	443	862
9	e830	e2100	1460	4600	1420	9520	3250	1880	2570	2150	417	794
10	e760	e2100	1540	3590	1320	8560	5850	1600	2240	1900	468	748
11	e690	e4000	1550	2900	e1180	6240	7190	1600	2480	2090	667	705
12	e630	e12000	1500	e2700	e1310	4350	5280	1500	2220	4750	2000	1020
13	e600	e20000	1380	e3050	1400	3720	3630	1560	2100	4600	1750	1150
14	e900	e21000	1370	e3500	1460	3140	6360	2230	2490	4990	1070	827
15	e1200	e17000	1280	3600	1590	2430	9760	1990	2800	6640	713	2400
16	e1900	e8000	1500	2880	1680	2220	10400	1520	4630	5310	617	1770
17	e3500	e5300	1770	2440	1480	2490	7440	1280	2730	3390	1190	1480
18	e3000	e3800	1970	2030	1320	2710	5370	1240	2050	2930	678	1150
19	e2900	e3200	1790	1710	1220	2510	4040	1170	1660	3000	617	1030
20	e1500	e2900	1850	1710	1320	2320	3820	1060	1410	2400	1760	939
21	e1100	e2900	1970	3790	1830	2200	3380	987	1920	2290	972	860
22	e980	e8000	1910	6200	2360	2230	2980	929	2290	1810	787	824
23	e890	e12000	1830	6550	3000	4100	2570	1210	2390	1460	627	765
24	e830	e13000	1540	6150	2790	6550	2320	2030	1710	1290	1020	535
25	e740	e8000	1450	6350	2050	5870	2530	2680	1920	5850	654	1070
26	e700	5920	1330	4830	e1700	4240	3570	2420	1880	3310	773	2110
27	e700	4610	1280	3800	e1550	3110	3200	1820	1810	1910	666	2870
28	e640	3770	1290	3070	e1400	2640	2540	1550	1940	1370	1260	2580
29	e620	3240	1560	2760	---	2320	2200	1350	2960	986	840	1960
30	e660	2780	1740	2400	---	2080	2130	1730	4770	826	601	1510
31	e660	---	2440	2180	---	2620	---	2040	---	849	557	---
TOTAL	32200	216520	52520	146260	46290	139720	125090	59736	69570	117971	25175	44548
MEAN	1039	7217	1694	4718	1653	4507	4170	1927	2319	3806	812	1485
MAX	3500	21000	2550	15300	3000	11100	10400	4150	4770	11000	2000	5320
MIN	530	2100	1280	1710	1180	1700	1930	929	1390	826	417	535
CFSM	.55	3.80	.89	2.49	.87	2.37	2.20	1.02	1.22	2.01	.43	.78
IN.	.63	4.24	1.03	2.87	.91	2.74	2.45	1.17	1.36	2.31	.49	.87

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1993, BY WATER YEAR (WY)

	1992	1993	1992	1993	1992	1993	1992	1993	1992	1993	1992	1993
MEAN	1039	7217	1694	4718	1653	4507	4170	1927	2319	3806	812	1485
MAX	1039	7217	1694	4718	1653	4507	4170	1927	2319	3806	812	1485
(WY)	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993
MIN	1039	7217	1694	4718	1653	4507	4170	1927	2319	3806	812	1485
(WY)	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993

SUMMARY STATISTICS

FOR 1993 WATER YEAR

WATER YEARS 1992 - 1993

ANNUAL TOTAL	1075600	
ANNUAL MEAN	2947	
HIGHEST ANNUAL MEAN	2947	1993
LOWEST ANNUAL MEAN	2947	1993
HIGHEST DAILY MEAN	e21000	Nov 14 1992
LOWEST DAILY MEAN	417	Aug 9 1993
ANNUAL SEVEN-DAY MINIMUM	511	Aug 4 1993
INSTANTANEOUS PEAK FLOW	e22500	Nov 14 1992
INSTANTANEOUS PEAK STAGE	unknown	
ANNUAL RUNOFF (CFSM)	1.55	1.55
ANNUAL RUNOFF (INCHES)	21.08	21.10
10 PERCENT EXCEEDS	6350	6350
50 PERCENT EXCEEDS	2040	2040
90 PERCENT EXCEEDS	703	703

e Estimated

03353620 LICK CREEK AT INDIANAPOLIS, IN

LOCATION.--Lat 39°42'21", long 86°06'13", in NE¹/₄NE¹/₄ sec.32, T.15 N., R.4 E., Marion County, Hydrologic Unit 05120201, on left bank at upstream side of Sherman Drive bridge in Indianapolis, and at mile 6.2.

DRAINAGE AREA.--15.6 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 742.00 ft above sea level (Indiana Flood Control and Water Resources Commission bench mark).

REMARKS.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	144	11	35	11	23	90	5.3	2.2	105	1.5	4.7
2	1.3	233	11	21	8.7	47	37	6.2	1.2	60	1.3	13
3	1.3	66	9.2	36	8.4	100	22	47	2.0	67	1.0	229
4	1.4	37	8.4	193	7.9	172	14	24	58	59	4.9	46
5	1.4	23	7.7	114	7.8	87	12	19	13	22	1.7	15
6	1.0	16	7.3	49	8.3	50	10	9.0	4.7	14	2.8	5.8
7	.56	14	7.6	31	7.7	41	8.6	6.9	2.7	12	2.2	2.8
8	7.3	12	6.8	23	7.7	40	11	5.3	2.3	11	.85	1.7
9	7.4	9.3	6.7	17	7.8	24	155	4.4	39	6.4	.67	1.3
10	1.4	24	17	15	7.3	19	113	3.8	9.1	4.7	3.5	1.3
11	1.1	235	14	12	8.4	17	41	3.4	4.2	20	4.1	.72
12	.68	e400	11	24	19	13	24	3.2	43	27	55	42
13	.68	e220	10	69	14	11	19	4.5	25	8.4	21	19
14	.69	e90	9.8	28	11	e11	108	2.6	27	53	7.4	7.0
15	62	e27	9.8	18	9.8	e12	83	2.1	15	17	2.4	79
16	44	e17	12	14	e9.7	14	61	1.6	6.7	33	2.7	14
17	12	e15	9.5	e11	e9.5	25	30	1.3	5.0	18	43	6.0
18	7.1	e14	8.1	e9.0	e9.3	12	23	7.1	4.3	48	8.4	3.2
19	3.9	13	9.8	8.0	e9.50	9.7	22	3.9	2.2	46	8.0	1.8
20	3.5	11	26	13	e10	11	32	1.9	1.3	20	80	1.1
21	2.9	30	13	112	71	10	21	1.4	18	13	15	.85
22	2.2	260	11	72	75	12	13	1.4	2.6	8.4	6.3	.83
23	1.7	117	9.8	40	e32	109	11	2.7	1.5	5.7	3.7	.88
24	2.1	50	7.7	81	e22	40	9.5	10	1.9	4.4	11	.95
25	2.6	36	7.4	40	e18	24	17	3.2	74	68	6.4	63
26	2.5	26	e6.3	25	e17	17	9.7	1.4	32	11	4.9	54
27	3.0	19	e5.7	19	e16	13	7.5	1.0	8.7	7.1	1.8	91
28	3.1	16	e5.6	17	e17	13	9.5	.82	21	6.5	193	26
29	3.2	14	32	14	---	12	11	.74	10	6.2	64	9.6
30	5.0	12	53	13	---	7.2	7.0	3.8	9.1	2.7	16	5.9
31	5.6	---	70	11	---	64	---	9.7	---	1.8	6.1	---
TOTAL	194.01	2200.3	434.2	1184.0	460.80	1059.9	1031.8	198.66	446.7	786.3	580.62	747.43
MEAN	6.26	73.3	14.0	38.2	16.5	34.2	34.4	6.41	14.9	25.4	18.7	24.9
MAX	62	400	70	193	75	172	155	47	74	105	193	229
MIN	.56	9.3	5.6	8.0	7.3	7.2	7.0	.74	1.2	1.8	.67	.72
CFSM	.40	4.70	.90	2.45	1.05	2.19	2.20	.41	.95	1.63	1.20	1.60
IN.	.46	5.25	1.04	2.82	1.10	2.53	2.46	.47	1.07	1.88	1.38	1.78

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1993, BY WATER YEAR (WY)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	
MEAN	8.47	19.9	25.2	19.2	28.6	33.5	25.9	23.0	14.9	20.0	12.8	8.61												
MAX	53.1	73.3	76.4	49.5	57.1	64.6	46.4	80.1	48.5	95.5	54.1	48.2												
(WY)	1987	1993	1991	1975	1975	1978	1972	1981	1978	1992	1979	1989												
MIN	1.03	1.44	2.14	1.00	4.67	7.43	3.92	1.87	.39	2.55	1.28	.53												
(WY)	1983	1982	1981	1981	1978	1981	1971	1988	1988	1991	1986	1983												

SUMMARY STATISTICS FOR 1992 CALENDAR YEAR FOR 1993 WATER YEAR WATER YEARS 1971 - 1993

ANNUAL TOTAL	10021.11	9324.72	
ANNUAL MEAN	27.4	25.5	20.0
HIGHEST ANNUAL MEAN			27.6
LOWEST ANNUAL MEAN			11.7
HIGHEST DAILY MEAN	838	Jun 18	400
LOWEST DAILY MEAN	.56	Oct 7	.56
ANNUAL SEVEN-DAY MINIMUM	1.2	Oct 1	1.2
INSTANTANEOUS PEAK FLOW			975
INSTANTANEOUS PEAK STAGE			5.65
ANNUAL RUNOFF (CFSM)	1.76		1.64
ANNUAL RUNOFF (INCHES)	23.90		22.24
10 PERCENT EXCEEDS	56		65
50 PERCENT EXCEEDS	9.2		11
90 PERCENT EXCEEDS	2.7		1.7

e Estimated

03353630 LITTLE BUCK CREEK NEAR SOUTHPORT, IN

LOCATION.--Lat 39°40'11", long 86°04'57", in SW¹/₄SW¹/₄ sec.10, T.14 N., T.4 E., Marion County, Hydrologic Unit 05120201, on right bank 5 ft upstream from Emerson Avenue bridge in Indianapolis, 1.1 mi downstream from Bunker Creek, and 2.5 mi upstream from Derbyshire Creek.

DRAINAGE AREA.--5.73 mi².

PERIOD OF RECORD.--October 1989 to current year.

GAGE.--Water-stage recorder. Datum of gage is 783.17 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.54	24	4.5	14	3.8	4.3	47	3.0	.84	34	.53	.68
2	.42	94	4.2	8.2	3.2	12	21	3.2	.67	12	.41	8.8
3	.38	23	3.5	14	3.0	61	13	16	.70	13	.32	85
4	.33	11	3.4	109	2.7	123	8.9	9.9	35	23	1.7	15
5	.23	7.5	2.7	54	2.7	42	7.4	7.6	9.1	7.3	.59	5.5
6	.21	5.4	2.7	21	2.6	24	6.0	5.1	4.1	4.3	.41	3.1
7	.23	4.4	2.7	13	2.5	19	5.2	3.8	2.7	3.0	.57	2.1
8	2.0	3.7	2.5	10	2.4	20	4.8	2.9	2.2	2.5	.31	1.5
9	2.7	3.0	2.5	7.5	2.3	12	76	2.5	19	1.8	.21	1.3
10	.84	4.5	4.2	6.5	2.3	9.6	53	2.1	5.9	1.3	.21	1.1
11	1.1	102	4.0	5.6	2.4	8.4	21	1.9	3.2	4.1	.43	.72
12	.62	280	3.8	8.6	4.1	6.6	12	2.0	52	8.5	13	18
13	.65	64	3.9	24	3.5	5.6	8.7	2.4	26	2.6	5.0	9.8
14	.90	25	3.7	12	3.1	4.7	72	1.4	26	3.6	1.7	3.9
15	19	14	4.1	7.9	2.8	4.1	40	1.1	16	2.4	.85	26
16	17	10	4.4	6.2	2.6	4.9	29	.94	6.9	27	.52	7.4
17	6.9	7.9	3.8	5.3	2.6	7.9	16	.78	4.6	12	1.9	4.1
18	4.0	7.9	3.4	5.1	2.5	4.9	11	2.0	3.6	16	.77	2.8
19	2.5	6.4	3.6	5.0	2.6	4.2	11	1.5	3.1	14	.49	2.1
20	2.2	5.5	7.7	4.4	2.8	4.9	11	1.0	2.3	6.1	10	1.7
21	1.9	11	5.1	47	22	4.4	7.9	.83	5.1	4.1	1.8	1.6
22	1.5	176	4.3	27	27	4.7	6.1	.68	2.5	3.1	.95	1.4
23	1.3	55	3.5	15	12	57	5.3	.65	1.7	2.2	.54	1.6
24	1.4	21	2.8	27	8.0	23	4.9	1.3	1.8	1.6	.35	1.5
25	1.4	15	2.6	14	6.2	14	14	.97	35	3.4	.23	14
26	1.4	11	2.4	9.1	5.2	9.8	7.6	.69	14	1.8	.16	14
27	1.4	8.2	2.1	7.4	4.6	7.4	5.2	.51	5.3	1.0	.12	23
28	1.3	6.7	2.2	6.8	4.4	6.0	4.3	.43	7.6	3.7	4.5	9.3
29	1.2	5.7	8.9	5.5	---	5.0	3.9	.36	5.5	3.5	2.7	5.0
30	1.2	5.1	17	4.9	---	4.0	3.8	.89	3.8	1.4	.92	3.5
31	1.5	---	29	4.3	---	30	---	2.5	---	.79	.55	---
TOTAL	78.25	1017.9	155.2	509.3	145.9	548.4	537.0	80.93	306.21	225.09	52.74	275.50
MEAN	2.52	33.9	5.01	16.4	5.21	17.7	17.9	2.61	10.2	7.26	1.70	9.18
MAX	19	280	29	109	27	123	76	16	52	34	13	85
MIN	.21	3.0	2.1	4.3	2.3	4.0	3.8	.36	.67	.79	.12	.68
CFSM	.44	5.92	.87	2.87	.91	3.09	3.12	.46	1.78	1.27	.30	1.60
IN.	.51	6.61	1.01	3.31	.95	3.56	3.49	.53	1.99	1.46	.34	1.79

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1993, BY WATER YEAR (WY)

	1990	1991	1992	1993	1990	1991	1992	1993	1990	1991	1992	1993
MEAN	3.77	13.9	12.1	9.58	11.8	15.5	13.9	10.2	6.75	13.4	2.63	3.16
MAX	6.50	33.9	34.3	16.4	23.2	26.9	20.1	30.6	14.0	39.0	4.94	9.18
(WY)	1991	1993	1991	1993	1990	1991	1992	1990	1992	1990	1991	1993
MIN	.96	6.60	2.32	4.39	4.41	4.90	8.03	2.61	.18	.23	.74	.065
(WY)	1990	1990	1990	1992	1992	1992	1990	1993	1991	1991	1991	1991

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1990 - 1993	
ANNUAL TOTAL	4183.26		3932.42			
ANNUAL MEAN	11.4		10.8		9.71	
HIGHEST ANNUAL MEAN					10.8	
LOWEST ANNUAL MEAN					8.90	
HIGHEST DAILY MEAN	309		280		418	
LOWEST DAILY MEAN	.21		.12		.00	
ANNUAL SEVEN-DAY MINIMUM	.33		.33		.00	
INSTANTANEOUS PEAK FLOW			770		1260	
INSTANTANEOUS PEAK STAGE			7.38		8.93	
ANNUAL RUNOFF (CFSM)	1.99		1.88		1.70	
ANNUAL RUNOFF (INCHES)	27.16		25.53		23.03	
10 PERCENT EXCEEDS	20		24		21	
50 PERCENT EXCEEDS	3.0		4.3		3.0	
90 PERCENT EXCEEDS	.66		.71		.29	

• Estimated

03353635 DERBYSHIRE CREEK AT SOUTHPORT, IN

LOCATION.--Lat 39°40'15", long 86°07'21", in NE¹/₄SE¹/₄ sec.07, T.14 N., R.04 E., Marion County Hydrologic Unit 05120201, on left bank, 10 ft downstream from bridge on Derbyshire Road, and 0.3 mi upstream from mouth.
 DRAINAGE AREA.--1.79 mi².
 PERIOD OF RECORD.--September 1989 to current year.
 GAGE.--Water-stage recorder. Datum of gage is 746.37 ft above sea level.
 REMARKS.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.41	6.5	1.6	3.3	1.3	1.7	16	1.0	.47	6.7	.59	.51
2	.39	14	1.5	2.3	1.2	4.6	5.0	1.1	.51	3.0	.55	2.0
3	.37	3.2	1.4	4.7	1.1	17	3.4	3.9	.42	2.0	.50	17
4	.37	2.0	1.3	30	1.1	34	2.7	2.7	6.9	1.4	.86	3.0
5	.34	1.6	1.2	15	1.1	11	2.4	2.0	1.5	1.0	.63	1.5
6	.32	1.3	1.2	5.2	1.1	6.1	2.3	1.5	.89	.83	.63	.93
7	.32	1.2	1.2	3.5	.99	4.7	2.1	1.2	.74	.75	.63	.86
8	.85	1.0	1.1	2.8	.97	4.6	2.1	1.0	.64	.67	.55	.78
9	.44	.96	1.1	2.3	.96	3.3	25	.84	3.6	.58	.62	1.9
10	.51	1.4	1.6	2.1	.91	2.9	16	.70	1.2	.52	.91	1.4
11	.39	1.0	1.3	1.8	.95	2.6	4.8	.60	.84	4.3	.77	5.9
12	.40	1.2	1.2	3.3	1.4	2.4	2.9	.55	2.8	2.0	5.8	4.2
13	.48	16	1.1	7.3	1.3	2.3	2.4	.68	2.5	1.2	1.8	1.8
14	.45	4.8	1.1	3.3	1.2	1.8	19	.63	8.7	2.3	1.1	1.3
15	4.2	3.1	1.1	2.6	1.1	1.7	14	.60	4.2	1.7	.89	.99
16	2.6	2.5	1.1	2.1	1.0	2.1	9.0	.55	1.7	15	.90	.83
17	1.3	2.0	1.0	1.8	.96	2.5	4.0	.52	1.1	5.7	1.5	.99
18	1.1	2.2	.94	1.4	.92	2.0	2.8	.79	1.0	4.6	.80	.70
19	.96	1.8	1.1	1.2	.90	1.9	2.7	.60	.81	4.6	.80	.73
20	.91	1.6	1.7	2.3	.97	2.0	3.0	.55	.75	2.8	3.1	.70
21	.81	4.4	1.3	12	7.9	1.9	2.3	.53	1.2	2.3	.90	.62
22	.70	34	1.1	6.7	7.2	2.3	1.8	.57	.72	2.0	.69	5.6
23	.65	13	1.1	3.9	3.3	16	1.6	.60	.62	1.8	.59	4.0
24	.63	4.8	.87	6.5	2.2	5.2	1.4	.76	.74	1.5	.53	4.1
25	.62	3.9	.82	3.7	1.8	3.5	2.7	.64	14	1.6	.49	1.8
26	.60	3.0	.73	2.7	1.7	2.7	1.5	.58	4.2	1.1	.46	1.3
27	.60	2.4	.73	2.2	1.4	2.4	1.3	.56	1.6	.69	.43	1.0
28	.54	2.1	.76	2.0	1.3	2.2	1.1	.53	2.1	2.9	2.8	1.3
29	.42	1.8	2.5	1.7	---	2.0	1.1	.61	1.4	1.1	.80	.63
30	.47	1.7	3.8	1.5	---	1.7	1.1	.84	1.1	.78	.59	.58
31	.44	---	6.7	1.4	---	11	---	.71	---	.66	.59	---
TOTAL	23.59	210.26	45.25	142.6	48.23	162.1	157.5	28.94	68.95	78.08	32.80	68.95
MEAN	.76	7.01	1.46	4.60	1.72	5.23	5.25	.93	2.30	2.52	1.06	2.30
MAX	4.2	62	6.7	30	7.9	34	25	3.9	14	15	5.8	17
MIN	.32	.96	.73	1.2	.90	1.7	1.1	.52	.42	.52	.43	.51
CFSM	.43	3.92	.82	2.57	.96	2.92	2.93	.52	1.28	1.41	.59	1.28
IN.	.49	4.37	.94	2.96	1.00	3.37	3.27	.60	1.43	1.62	.68	1.43

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1993, BY WATER YEAR (WY)

	1990	1991	1992	1993	1990	1991	1992	1993	1990	1991	1992	1993
MEAN	1.02	3.16	5.30	3.67	5.04	5.55	4.12	3.84	1.83	3.82	1.25	1.06
MAX	2.49	7.01	17.0	5.74	13.1	8.25	5.25	11.5	3.33	10.8	2.54	2.30
(WY)	1991	1993	1991	1990	1990	1991	1993	1990	1992	1992	1990	1993
MIN	.30	1.25	1.27	1.32	1.17	1.39	3.05	.74	.28	.26	.17	.052
(WY)	1990	1992	1990	1992	1992	1992	1991	1992	1991	1991	1991	1991

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1990 - 1993	
ANNUAL TOTAL	1057.90		1067.25			
ANNUAL MEAN	2.89		2.92		3.30	
HIGHEST ANNUAL MEAN					4.25	
LOWEST ANNUAL MEAN					2.40	
HIGHEST DAILY MEAN	100	Jul 9	62	Nov 12	273	Dec 30 1990
LOWEST DAILY MEAN	.32	Oct 6	.32	Oct 6	.03	Sep 14 1991
ANNUAL SEVEN-DAY MINIMUM	.36	Oct 1	.36	Oct 1	.04	Sep 13 1991
INSTANTANEOUS PEAK FLOW			207		1010	
INSTANTANEOUS PEAK STAGE			4.02		5.14	
ANNUAL RUNOFF (CFSM)	1.61		1.63		1.84	
ANNUAL RUNOFF (INCHES)	21.99		22.18		25.04	
10 PERCENT EXCEEDS	4.3		5.7		6.1	
50 PERCENT EXCEEDS	1.1		1.4		1.1	
90 PERCENT EXCEEDS	.46		.57		.25	

• Estimated

03353636 LITTLE BUCK CREEK AT SOUTHPORT, IN

LOCATION.--Lat 39°39'54", long 86°08'11", in SW¹/₄/SW¹/₄, sec.7, T.14 N., R.4 E., Marion County, Hydrologic Unit 05120201, on left bank 50 ft downstream from Southport Road bridge in Indianapolis.

DRAINAGE AREA.--12.3 mi².

PERIOD OF RECORD.--October 1989 to current year.

GAGE.--Water-stage recorder. Datum of gage is 725.50 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	37	11	31	10	10	86	6.9	1.6	47	2.2	2.2
2	1.8	106	11	21	8.0	25	37	7.0	1.4	25	2.0	17
3	1.5	33	8.7	28	7.5	89	25	32	1.3	17	1.5	155
4	1.3	19	7.9	160	7.3	194	19	24	54	29	6.1	30
5	1.1	13	7.3	99	6.8	77	16	19	18	12	2.4	13
6	.96	9.6	6.8	44	6.8	44	14	12	7.8	6.7	1.9	7.3
7	.91	7.8	6.8	30	6.5	36	12	8.5	4.8	5.0	1.9	4.9
8	4.2	6.9	6.5	24	6.4	35	12	6.7	3.5	4.2	1.6	3.8
9	5.9	6.1	6.3	20	6.0	25	118	5.8	31	3.1	1.4	3.2
10	2.9	9.1	10	18	5.5	21	95	5.0	12	2.3	2.2	2.7
11	2.4	146	11	16	6.1	19	36	4.5	6.5	23	1.8	2.1
12	1.8	379	11	21	11	16	24	5.3	42	22	35	29
13	1.5	109	10	45	9.4	13	19	5.2	33	6.8	15	19
14	1.5	40	9.6	28	8.2	10	108	3.2	42	10	5.8	9.1
15	28	26	9.6	21	7.2	8.9	71	2.7	29	6.6	3.6	50
16	28	19	10	17	6.8	12	54	2.1	13	81	3.1	17
17	12	15	9.5	15	6.6	18	30	1.9	8.0	35	11	9.3
18	8.1	17	8.5	12	6.4	12	23	4.9	6.5	27	3.9	6.1
19	5.9	14	9.1	11	6.3	10	22	3.6	5.8	29	3.9	4.4
20	5.2	11	17	12	6.1	12	23	2.2	4.4	14	22	3.7
21	4.6	22	13	73	40	11	18	1.7	11	9.7	5.9	3.1
22	3.9	203	11	50	50	13	14	1.6	5.3	7.8	3.5	2.6
23	3.5	89	8.6	32	27	87	11	1.6	3.8	5.9	2.5	4.0
24	3.2	37	7.4	45	18	37	10	3.2	4.7	4.9	1.9	3.7
25	3.2	28	6.7	31	15	25	26	2.1	67	6.7	1.6	26
26	3.1	23	6.2	23	12	19	17	1.5	30	4.6	1.4	26
27	2.9	18	6.0	19	11	16	11	1.2	11	3.1	1.3	40
28	2.8	15	6.4	17	11	13	9.1	1.0	16	14	15	20
29	2.6	13	20	14	---	11	8.2	1.0	12	9.9	8.1	12
30	2.8	12	32	11	---	9.6	7.8	2.7	8.4	4.3	3.4	8.5
31	3.1	---	49	11	---	53	---	4.3	---	2.8	2.6	---
TOTAL	152.67	1483.5	353.9	999	328.9	981.5	976.1	184.4	494.8	479.4	175.5	534.7
MEAN	4.92	49.4	11.4	32.2	11.7	31.7	32.5	5.95	16.5	15.5	5.66	17.8
MAX	28	379	49	160	50	194	118	32	67	81	35	155
MIN	.91	6.1	6.0	11	5.5	8.9	7.8	1.0	1.3	2.3	1.3	2.1
CFSM	.40	4.02	.93	2.62	.95	2.57	2.65	.48	1.34	1.26	.46	1.45
IN.	.46	4.49	1.07	3.02	.99	2.97	2.95	.56	1.50	1.45	.53	1.62

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1993, BY WATER YEAR (WY)

	1990	1991	1992	1993
MEAN	7.58	22.3	25.2	17.8
MAX	14.0	49.4	72.5	32.2
(WY)	1991	1993	1991	1990
MIN	3.48	11.6	4.99	8.27
(WY)	1990	1991	1990	1992

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1990 - 1993	
ANNUAL TOTAL	7487.87		7144.37			
ANNUAL MEAN	20.5		19.6		18.9	
HIGHEST ANNUAL MEAN					19.9	
LOWEST ANNUAL MEAN					17.8	
HIGHEST DAILY MEAN	547	Jul 9	379	Nov 12	1110	Dec 30 1990
LOWEST DAILY MEAN	.91	Oct 7	.91	Oct 7	.13	Sep 30 1991
ANNUAL SEVEN-DAY MINIMUM	1.4	Oct 1	1.4	Oct 1	.16	Sep 26 1991
INSTANTANEOUS PEAK FLOW			819		2120	
INSTANTANEOUS PEAK STAGE			6.79		9.14	
ANNUAL RUNOFF (CFSM)	1.66		1.59		1.54	
ANNUAL RUNOFF (INCHES)	22.65		21.61		20.92	
10 PERCENT EXCEEDS	36		40		37	
50 PERCENT EXCEEDS	7.3		10		7.5	
90 PERCENT EXCEEDS	2.3		2.2		1.3	

• Estimated

03353637 LITTLE BUCK CREEK NEAR INDIANAPOLIS, IN

LOCATION.--Lat 39°40'00", long 86°11'48", in SW¹/₄SW¹/₄ sec.10, T.14 N., R.3 E., Marion County, Hydrologic Unit 05120201, on right bank, 10 ft upstream from bridge on South Belmont Street, and 2.2 mi above mouth.
 DRAINAGE AREA.--16.6 mi².
 PERIOD OF RECORD.--October 1989 to current year.
 GAGE.--Water-stage recorder. Datum of gage is 666.20 above sea level.
 REMARKS.--Records fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	63	15	45	15	16	145	12	5.2	63	4.3	4.9
2	2.5	165	15	26	13	34	54	13	4.9	40	3.7	22
3	2.4	59	13	33	12	118	34	41	4.7	28	3.3	196
4	2.3	33	12	222	11	271	26	28	77	38	9.3	52
5	2.1	22	10	169	11	138	23	23	27	20	4.1	26
6	2.0	15	9.1	73	11	72	20	17	13	13	3.5	17
7	2.1	13	9.3	49	10	56	17	14	9.1	11	3.1	13
8	9.7	11	8.3	40	10	53	17	12	7.2	10	2.7	10
9	7.6	9.0	7.8	33	9.4	38	136	11	42	7.3	2.5	8.9
10	3.4	14	15	30	8.9	32	159	9.9	17	7.0	3.6	7.2
11	3.6	192	14	26	9.4	29	58	8.7	11	28	3.3	5.7
12	2.8	477	11	32	15	24	36	10	52	46	53	41
13	2.4	212	11	74	13	22	28	12	53	15	32	34
14	2.3	95	10	45	12	18	149	8.0	66	20	12	17
15	46	61	11	34	10	16	121	7.1	49	14	6.9	79
16	43	44	12	28	8.0	20	97	6.4	21	104	5.3	29
17	17	35	10	25	6.4	25	46	5.9	13	64	26	18
18	9.8	38	8.5	18	5.5	20	33	10	13	42	10	14
19	6.4	30	8.8	14	4.6	17	30	8.8	11	48	5.2	11
20	5.1	26	21	16	5.2	19	32	6.2	8.2	26	36	8.9
21	4.6	41	13	116	47	18	26	5.5	18	19	11	8.3
22	4.2	265	11	89	79	18	21	5.1	9.5	15	6.2	6.8
23	3.8	170	8.7	50	40	133	18	5.2	7.1	12	4.8	9.7
24	3.6	78	7.1	72	28	58	17	7.8	6.1	10	3.9	8.4
25	3.6	58	6.7	48	16	36	33	6.1	100	11	3.4	40
26	3.5	44	5.8	35	18	27	22	4.9	57	8.8	3.2	45
27	3.4	32	5.0	29	16	23	17	4.6	23	5.9	2.8	57
28	3.3	26	5.3	26	13	20	15	4.3	25	23	28	31
29	3.1	22	25	22	---	18	14	4.2	23	19	16	20
30	3.3	18	51	18	---	16	14	5.5	17	8.2	6.3	16
31	3.4	---	82	16	---	67	---	10	---	5.2	5.3	---
TOTAL	214.9	2368.0	452.4	1553	457.4	1472	1458	327.2	790.0	781.4	320.7	856.8
MEAN	6.93	78.9	14.6	50.1	16.3	47.5	48.6	10.6	26.3	25.2	10.3	28.6
MAX	46	477	92	222	79	271	159	41	100	104	53	196
MIN	2.0	9.0	5.0	14	4.6	16	14	4.2	4.7	5.2	2.5	4.9
CFSM	.42	4.76	.88	3.02	.98	2.86	2.93	.64	1.59	1.52	.62	1.72
IN.	.48	5.31	1.01	3.48	1.03	3.30	3.27	.73	1.77	1.75	.72	1.92

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1993, BY WATER YEAR (WY)

	1990	1991	1992	1993	1990	1991	1992	1993	1990	1991	1992	1993
MEAN	10.9	33.4	34.1	27.0	31.2	41.0	37.0	26.4	19.2	33.0	10.3	10.3
MAX	20.6	78.9	99.4	50.1	54.5	68.0	51.7	66.9	34.7	85.7	18.3	28.6
(WY)	1991	1993	1991	1993	1990	1991	1992	1990	1992	1992	1990	1993
MIN	6.15	17.2	8.16	10.4	10.0	14.1	22.5	9.22	4.99	2.67	1.35	.13
(WY)	1990	1992	1990	1992	1992	1992	1990	1992	1991	1991	1991	1991

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1990 - 1993
ANNUAL TOTAL	10149.2	11051.8	
ANNUAL MEAN	27.7	30.3	26.1
HIGHEST ANNUAL MEAN			30.3
LOWEST ANNUAL MEAN			22.9
HIGHEST DAILY MEAN	590	477	1390
LOWEST DAILY MEAN	2.0	2.0	.00
ANNUAL SEVEN-DAY MINIMUM	2.3	2.3	.00
INSTANTANEOUS PEAK FLOW		877	2300
INSTANTANEOUS PEAK STAGE		6.92	9.10
ANNUAL RUNOFF (CFSM)	1.67	1.82	1.57
ANNUAL RUNOFF (INCHES)	22.74	24.77	21.39
10 PERCENT EXCEEDS	48	63	53
50 PERCENT EXCEEDS	10	16	11
90 PERCENT EXCEEDS	3.5	4.3	2.7

• Estimated

WABASH RIVER BASIN

03354000 WHITE RIVER NEAR CENTERTON, IN --Continued
(National stream-quality accounting network station)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993										
DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)
NOV 05...	0.03	0.9	0.28	0.15	0.14	--	--	--	--	--
DEC 09...	0.12	0.5	0.28	0.20	0.21	10	64	<3	11	5
MAR 11...	--	--	--	--	--	20	42	<3	17	<4
MAY 13...	0.06	0.8	0.34	0.20	0.19	<10	60	<3	22	<4
JUL 21...	0.04	0.9	0.32	0.22	0.17	--	--	--	--	--
SEP 02...	0.10	0.9	0.44	0.37	0.35	<10	69	<3	12	8

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 05...	--	--	--	--	--	--	--	108	2990	44
DEC 09...	40	<10	3	<1	<1	250	<6	9	54	65
MAR 11...	9	<10	1	<1	<1	150	<6	108	2660	50
MAY 13...	7	20	3	<1	<1	210	<6	68	431	69
JUL 21...	--	--	--	--	--	--	--	54	437	52
SEP 02...	37	20	4	<1	<1	270	<6	24	63	39

03357350 PLUM CREEK NEAR BAINBRIDGE, IN

LOCATION.--Lat 39°45'42", long 86°43'46", in SW¹/₄SE¹/₄ sec.3, T.15 N., R.3 W., Putnam County, Hydrologic Unit 05120203, on right upstream wingwall of bridge on U.S. Highway 36, 0.5 mi west of Groveland, and 4.5 mi east of Bainbridge.

DRAINAGE AREA.--3.00 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 828.44 ft above sea level (Indiana Department of Highways bench mark).

REMARKS.--Records fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	30	3.5	7.1	2.4	1.7	7.4	2.3	.60	46	.25	.19
2	1.1	59	3.3	5.3	1.9	5.9	5.2	2.1	.67	22	.48	1.9
3	.93	14	2.3	22	1.8	25	4.0	5.2	.66	14	.21	50
4	.84	8.6	2.3	90	1.5	49	3.5	6.1	6.9	7.5	.19	8.8
5	.71	6.4	1.6	24	1.6	15	3.2	8.8	3.7	4.8	.18	4.2
6	.67	4.9	1.6	11	1.5	11	2.5	5.8	1.8	2.8	.18	1.9
7	.65	4.0	1.6	8.2	1.4	9.1	2.2	4.3	1.3	1.9	.18	1.2
8	.63	3.2	1.3	6.6	1.3	7.7	2.3	3.0	.92	1.4	.17	.77
9	.65	2.6	1.4	5.2	1.2	5.8	11	2.3	4.2	.90	.16	.59
10	.60	7.6	1.8	4.6	1.2	5.2	9.2	1.9	1.7	.67	.17	.45
11	.54	50	1.3	4.0	1.3	4.3	5.7	1.6	1.1	3.5	.18	.34
12	.49	184	1.2	4.1	2.7	3.9	4.1	2.6	2.2	4.8	.67	4.7
13	.46	22	1.3	6.5	2.0	3.5	3.6	3.9	1.5	1.5	.48	4.1
14	.41	10	1.4	5.1	1.6	2.4	54	1.8	14	7.9	.20	6.2
15	.76	7.6	1.9	4.4	1.4	2.2	20	1.4	9.4	3.3	.17	23
16	5.0	6.4	2.7	3.8	1.6	3.1	14	1.0	5.0	4.6	.32	8.5
17	1.8	5.3	2.1	3.0	1.0	3.7	9.6	.81	2.5	4.1	8.8	5.2
18	1.1	5.1	1.7	1.9	.90	2.8	7.9	1.5	1.7	2.6	1.1	3.0
19	.86	4.6	1.9	1.6	.86	2.6	7.2	1.2	1.4	8.9	.99	1.9
20	.84	4.3	2.9	3.6	.96	2.7	9.3	.84	2.2	3.6	5.9	1.5
21	.77	5.0	2.3	25	6.0	2.5	7.0	.68	6.9	2.0	1.1	1.2
22	.67	15	1.9	12	8.4	3.1	6.1	.56	1.8	1.4	.60	.96
23	.67	15	1.7	8.6	5.5	11	5.6	1.9	1.0	1.0	.42	1.2
24	.69	8.8	1.0	15	3.7	6.7	5.1	4.0	.69	.80	.29	.89
25	.65	8.4	.90	8.2	2.6	5.1	6.4	1.7	5.3	.61	.22	6.5
26	.65	7.6	.82	6.3	2.7	4.2	4.9	1.1	2.7	.44	.19	9.3
27	.59	6.1	.76	5.2	1.8	3.6	3.9	.80	1.3	.37	.19	16
28	.55	5.3	.98	4.9	1.4	3.1	3.2	.64	1.5	.37	.20	8.8
29	.53	4.6	4.7	3.9	---	2.5	3.0	.55	1.3	.31	.19	5.9
30	.58	4.1	9.5	3.3	---	2.1	3.6	.90	7.0	.26	.18	4.1
31	.63	---	12	3.5	---	6.4	---	1.1	---	.23	.19	---
TOTAL	27.22	519.5	75.66	317.9	62.22	216.9	234.7	72.38	92.94	154.56	24.75	183.29
MEAN	.88	17.3	2.44	10.3	2.22	7.00	7.82	2.33	3.10	4.99	.80	6.11
MAX	5.0	184	12	90	8.4	49	54	8.8	14	46	8.8	50
MIN	.41	2.6	.76	1.6	.86	1.7	2.2	.55	.60	.23	.16	.19
CFSM	.29	5.77	.81	3.42	.74	2.33	2.61	.78	1.03	1.66	.27	2.04
IN.	.34	6.44	.94	3.94	.77	2.69	2.91	.90	1.15	1.92	.31	2.27

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1993, BY WATER YEAR (WY)

	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	1.22	4.07	5.41	3.75	6.04	7.07	5.46	3.84	1.98	2.59	1.38	1.29													
MAX	5.80	20.6	18.4	13.5	17.1	19.1	10.7	16.1	6.53	12.9	7.90	12.8													
(WY)	1987	1986	1991	1974	1971	1978	1992	1981	1973	1979	1979	1989													
MIN	.000	.019	.011	.000	.76	1.46	.92	.14	.007	.019	.001	.000													
(WY)	1989	1977	1977	1977	1978	1981	1971	1976	1988	1988	1991	1988													

SUMMARY STATISTICS FOR 1992 CALENDAR YEAR FOR 1993 WATER YEAR WATER YEARS 1969 - 1993

	1992 CALENDAR YEAR	1993 WATER YEAR	1969 - 1993
ANNUAL TOTAL	1429.79	1982.02	
ANNUAL MEAN	3.91	5.43	3.66
HIGHEST ANNUAL MEAN			5.71
LOWEST ANNUAL MEAN			1.60
HIGHEST DAILY MEAN	184	184	218
LOWEST DAILY MEAN	.03	.16	.00
ANNUAL SEVEN-DAY MINIMUM	.03	.17	.00
INSTANTANEOUS PEAK FLOW		494	940
INSTANTANEOUS PEAK STAGE		4.67	6.50
ANNUAL RUNOFF (CFSM)	1.30	1.81	1.22
ANNUAL RUNOFF (INCHES)	17.73	24.58	16.55
10 PERCENT EXCEEDS	7.8	9.3	7.6
50 PERCENT EXCEEDS	1.4	2.4	1.0
90 PERCENT EXCEEDS	.21	.51	.02

• Estimated

03359000 MILL CREEK NEAR MANHATTAN, IN

LOCATION.--Lat 39°29'16", long 86°55'30", in SE¹/₄SE¹/₄, sec.11, T.12 N., R.5 W., Putnam County, Hydrologic Unit 05120203, on left bank 0.3 mi upstream from Cagles Mill Dam, 0.4 mi downstream from Cagles Mill Lake, 1.3 mi upstream from Deer Creek, 5.0 mi south of Manhattan, and at mile 2.3.

DRAINAGE AREA.--294 mi².

PERIOD OF RECORD.--May to September 1931 (fragmentary), October 1938 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 1335: 1940-41. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 581.83 ft above sea level. May 12, 1941 to Sept. 30, 1974, water-stage recorder at site 0.3 mi downstream. See WSP 1725 for history of changes prior to May 12, 1941.

REMARKS.--Flow regulated by U.S. Army Corps of Engineers from Cagles Mill Lake since July 1953.

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

AVERAGE DISCHARGE.--55 years (1938 to current year), 319 ft³/s. The figure published in the 1992 report was in error; the correct figure is 54 years, 314 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,960 ft³/s, Jan. 5, 1950, gage height, 18.38 ft; no flow Aug. 7, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,880 ft³/s Aug. 28; minimum daily, 20 ft³/s July 31, and Aug. 1, 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	150	1580	255	1330	222	889	858	90	113	20	1810
2	50	165	1560	683	1400	223	839	708	90	466	20	1790
3	50	103	1550	988	1520	227	1060	634	106	390	77	633
4	50	104	1710	417	1590	145	1050	646	302	210	173	94
5	50	104	1770	106	1560	104	1040	654	769	210	87	95
6	39	105	1750	110	1540	107	827	921	897	210	33	642
7	33	353	1730	112	1510	108	622	1210	251	209	33	1380
8	33	803	1710	112	1050	109	618	1270	120	135	33	1570
9	33	888	1680	113	480	109	618	912	186	104	33	1700
10	33	879	1660	113	227	110	280	510	571	104	33	1770
11	33	347	1640	361	227	110	102	420	959	68	33	1740
12	33	106	1610	517	227	241	350	314	837	51	46	1720
13	33	112	1590	839	323	742	626	367	958	157	313	1700
14	33	117	1560	1010	563	975	394	639	779	209	699	1670
15	44	120	1540	1000	481	1130	105	635	371	209	988	864
16	50	121	1510	1210	223	1380	107	631	475	209	1040	482
17	51	121	1480	1450	223	909	109	347	801	210	348	481
18	262	122	1300	1430	223	850	109	161	1150	210	118	480
19	340	444	954	1510	124	1220	110	209	1270	211	124	478
20	208	647	416	1630	96	1330	490	209	1250	352	128	477
21	128	645	62	647	337	1310	864	209	610	420	248	475
22	68	645	84	109	437	1300	1090	208	209	273	424	473
23	68	241	219	110	442	1290	1150	208	209	146	856	321
24	68	96	289	111	583	852	1140	168	103	81	1490	110
25	68	97	224	113	856	437	1130	74	51	57	1650	110
26	68	97	99	277	846	437	1250	69	51	50	1640	112
27	68	284	131	671	548	437	1330	69	144	50	1810	113
28	68	702	148	916	222	436	1310	69	278	50	1880	114
29	68	1270	149	1220	---	856	1150	69	241	50	1870	337
30	67	1590	155	1210	---	1270	866	82	89	31	1850	496
31	67	---	161	1200	---	1250	---	90	---	20	1830	---
TOTAL	2314	11578	32021	20550	19188	20226	21625	13570	14217	5265	19927	24237
MEAN	74.6	386	1033	663	685	652	721	438	474	170	643	808
MAX	340	1590	1770	1630	1590	1380	1330	1270	1270	466	1880	1810
MIN	33	96	62	106	96	104	102	69	51	20	20	94

CAL YR 1992 TOTAL 127431 MEAN 348 MAX 1770 MIN 33
WTR YR 1993 TOTAL 204718 MEAN 561 MAX 1880 MIN 20

WABASH RIVER BASIN

03360895 KESSINGER DITCH NEAR MONROE CITY, IN

LOCATION.--Lat 38°34'14", long 87°16'37", in SE¹/₄SE¹/₄ sec.27 T.2N., R.8W., Knox County, Hydrologic Unit 05120202 on left bank at county road bridge 1.7 miles upstream of the confluence with White River, and approximately 4.7 miles southeast of Monroe City.

DRAINAGE AREA.--58 mi².

PERIOD OF RECORD.--October 1992 to September 1993.

GAGE.--Water-stage recorder. Elevation of gage is 425 ft, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Stage affected by backwater from White River during times of flood.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e3.6	7.1	22	133	26	e24	92	25	9.9	7.7	2.2	2.5
2	e3.3	28	21	54	20	80	41	25	8.7	6.1	10	26
3	e3.1	23	16	49	20	433	31	179	8.6	49	5.8	447
4	e3.0	11	16	274	19	804	32	659	12	14	21	78
5	e2.9	8.7	14	604	18	e450	31	410	14	7.9	5.9	20
6	e2.6	7.0	13	163	18	e240	27	148	14	10	3.3	11
7	e2.5	6.0	14	167	17	e113	23	89	8.4	6.6	2.9	13
8	e2.7	5.5	12	224	17	e92	23	46	9.3	5.4	2.5	6.7
9	e2.8	5.3	12	338	16	e74	481	34	7.4	4.8	2.1	3.9
10	e3.0	6.0	42	536	15	e60	645	28	7.4	3.9	2.2	3.3
11	e2.8	16	86	e210	17	e47	230	23	63	3.4	2.4	2.9
12	e2.8	274	37	e100	92	e39	220	21	209	47	e3.0	2.9
13	e2.7	396	28	e140	48	e31	268	23	38	5.4	e2.3	2.7
14	e4.0	88	25	53	36	e28	e560	19	22	3.6	e2.5	9.0
15	e7.0	50	24	38	29	e25	e920	16	17	22	e2.7	84
16	e13	e35	25	34	33	32	e320	15	13	84	e30	13
17	e5.0	e24	20	31	27	61	e98	14	11	45	e165	5.0
18	e3.9	e19	18	23	e25	39	e62	53	9.2	12	104	3.4
19	e3.1	e17	18	28	e23	35	e47	41	7.9	61	11	3.1
20	e3.2	e16	23	24	e22	37	e40	23	7.3	15	5.5	2.9
21	e3.3	e80	18	424	342	36	e37	20	7.4	7.9	8.0	5.3
22	e3.0	412	19	236	583	34	e33	16	6.5	6.3	29	19
23	e3.1	185	18	85	110	144	e30	15	5.6	6.2	31	687
24	e3.2	56	14	221	53	79	e32	15	5.2	5.1	5.9	397
25	e3.4	e69	e13	e130	36	54	34	16	6.0	4.1	2.9	276
26	e3.3	e54	e12	e56	e32	45	58	13	20	3.4	2.5	239
27	e3.3	e41	12	e43	e28	40	36	11	6.2	3.2	2.3	105
28	e3.2	e33	14	e37	e26	35	30	11	7.3	3.0	2.3	55
29	e3.3	e29	85	e31	---	29	26	9.8	54	2.7	2.4	30
30	e3.4	e25	195	26	---	26	29	9.3	12	2.3	2.5	22
31	e3.5	---	128	27	---	33	---	12	---	2.0	2.5	---
TOTAL	113.0	2026.6	1014	4539	1748	3299	4536	2039.1	627.3	460.0	477.6	2575.6
MEAN	3.65	67.6	32.7	146	62.4	106	151	65.8	20.9	14.8	15.4	85.9
MAX	13	412	195	604	583	804	920	659	209	84	165	687
MIN	2.5	5.3	12	23	15	24	23	9.3	5.2	2.0	2.1	2.5
CFSM	.06	1.16	.56	2.52	1.08	1.83	2.61	1.13	.36	.26	.27	1.48
IN.	.07	1.30	.65	2.91	1.12	2.12	2.91	1.31	.40	.30	.31	1.65

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1993, BY WATER YEAR (WY)

	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993
MEAN	3.65	67.6	32.7	146	62.4	106	151	65.8	20.9	14.8	15.4	85.9
MAX	3.65	67.6	32.7	146	62.4	106	151	65.8	20.9	14.8	15.4	85.9
(WY)	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993
MIN	3.65	67.6	32.7	146	62.4	106	151	65.8	20.9	14.8	15.4	85.9
(WY)	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993

SUMMARY STATISTICS

FOR 1993 WATER YEAR

ANNUAL TOTAL	23455.2
ANNUAL MEAN	64.3
HIGHEST DAILY MEAN	920 Apr 15
LOWEST DAILY MEAN	2.0 Jul 31
ANNUAL SEVEN-DAY MINIMUM	2.4 Aug 8
INSTANTANEOUS PEAK FLOW	1140 Apr 9
INSTANTANEOUS PEAK STAGE	a15.83 Apr 15
ANNUAL RUNOFF (CFSM)	1.11
ANNUAL RUNOFF (INCHES)	15.04
10 PERCENT EXCEEDS	181
50 PERCENT EXCEEDS	22
90 PERCENT EXCEEDS	3.0

- e Estimated
- a Backwater

03361650 SUGAR CREEK AT NEW PALESTINE, IN

LOCATION.--Lat 39°42'51", long 85°53'08", in SE¹/₄, SW¹/₄, sec.29, T.15 N., R.6 E., Hancock County, Hydrologic Unit 05120204, on left bank 10 ft downstream from bridge on County Road 450 West, 0.5 mi south of New Palestine, 3.1 mi upstream from Little Sugar Creek, and 37.3 mi upstream from mouth.

DRAINAGE AREA.--93.9 mi².

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

REVISED RECORDS.--WDR IN-76-1: 1975.

GAGE.--Water-stage recorder. Datum of gage is 786.00 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	67	98	231	97	68	432	68	36	336	24	11
2	13	327	90	166	82	72	354	64	33	502	22	21
3	13	326	80	131	73	245	227	69	31	894	20	177
4	12	204	72	408	68	763	167	69	55	680	21	83
5	11	120	65	678	65	883	138	68	97	388	20	48
6	10	86	60	592	62	768	118	62	100	156	19	29
7	10	69	57	342	61	579	104	57	66	108	17	21
8	10	57	55	231	58	564	93	54	55	86	16	17
9	10	49	52	174	56	498	294	51	95	79	16	15
10	10	45	55	138	53	344	700	49	168	62	16	13
11	12	207	55	111	52	264	579	46	132	54	18	11
12	11	742	54	99	59	212	305	46	133	70	21	20
13	12	1110	52	177	65	182	204	57	107	63	22	33
14	11	915	51	242	74	147	332	60	89	159	19	19
15	14	549	51	181	67	120	519	55	190	126	17	74
16	24	295	53	134	67	110	478	46	347	87	17	51
17	23	212	54	110	63	140	300	41	154	64	20	42
18	18	172	54	91	55	149	214	40	99	77	18	33
19	17	132	53	78	52	126	173	39	73	64	15	26
20	16	109	64	72	50	113	155	37	77	49	72	23
21	14	108	70	208	86	106	133	34	126	44	37	20
22	14	389	69	387	253	105	112	32	365	36	30	19
23	14	882	64	334	270	303	101	32	215	31	19	18
24	13	684	55	382	170	408	95	36	97	27	22	18
25	12	397	50	395	120	296	99	39	152	237	17	45
26	13	270	50	248	100	206	90	49	166	66	14	146
27	14	201	48	178	80	162	81	44	93	43	12	224
28	21	158	45	148	70	134	75	36	193	34	126	146
29	14	129	48	132	---	114	71	33	272	35	30	98
30	14	110	91	116	---	100	71	32	235	28	15	66
31	14	---	173	105	---	164	---	35	---	25	12	---
TOTAL	428	9121	1988	7019	2428	8445	6814	1480	4051	4710	764	1567
MEAN	13.8	304	64.1	226	86.7	272	227	47.7	135	152	24.6	52.2
MAX	24	1110	173	678	270	883	700	69	365	894	126	224
MIN	10	45	45	72	50	68	71	32	31	25	12	11
CFSM	.15	3.24	.68	2.41	.92	2.90	2.42	.51	1.44	1.62	.26	.56
IN.	.17	3.61	.79	2.78	.96	3.35	2.70	.59	1.60	1.87	.30	.62

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1993, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1968	38.4	309	1987	4.14	1989
1969	88.3	328	1973	10.4	1988
1970	131	352	1991	9.11	1977
1971	128	345	1969	5.35	1977
1972	176	439	1982	35.7	1978
1973	180	413	1978	35.0	1981
1974	156	279	1972	30.0	1971
1975	110	321	1990	23.4	1976
1976	83.8	232	1973	8.47	1988
1977	69.7	241	1969	9.21	1977
1978	50.7	306	1979	4.06	1988
1979	31.5	314	1989	3.42	1983

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1968 - 1993

ANNUAL TOTAL	38893	48815	
ANNUAL MEAN	106	134	103
HIGHEST ANNUAL MEAN			150
LOWEST ANNUAL MEAN			37.7
HIGHEST DAILY MEAN	1310	Jun 18	1870
LOWEST DAILY MEAN	10	Oct 6	2.4
ANNUAL SEVEN-DAY MINIMUM	10	Oct 4	3.0
INSTANTANEOUS PEAK FLOW			2220
INSTANTANEOUS PEAK STAGE			10.34
ANNUAL RUNOFF (CFSM)	1.13	7.48	1.10
ANNUAL RUNOFF (INCHES)	15.41	1.42	14.95
10 PERCENT EXCEEDS	215	19.34	245
50 PERCENT EXCEEDS	55	70	48
90 PERCENT EXCEEDS	15	16	9.7

• Estimated

03363500 FLATROCK RIVER AT ST. PAUL, IN

LOCATION.--Lat 39°25'03", long 85°38'03", in SE¹/₄, NE¹/₄, sec.9, T.11 N., R.8 E., Shelby County, Hydrologic Unit 05120205, on right bank 500 ft downstream from highway bridge, 0.8 mi southwest of St. Paul, 1.5 mi downstream from Mill Creek, and at mile 34.4.

DRAINAGE AREA.--303 mi².

PERIOD OF RECORD.--October 1930 to current year. Prior to October 1958, published as Flatrock Creek at St. Paul.

REVISED RECORDS.--WSP 853: 1934-36. WSP 973: 1942. WSP 1335: 1933, 1936. WSP 1725: 1957(M). WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 764.84 ft above sea level (levels by State of Indiana, Department of Natural Resources). Prior to Oct. 21, 1938, nonrecording gage at site 500 ft upstream at same datum.

REMARKS.--Records good except for estimated daily discharges, which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of approximately 20.5 ft, from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	76	279	627	311	268	868	300	154	314	52	46
2	38	230	253	456	258	300	1080	277	138	433	49	38
3	37	558	227	352	234	707	831	269	133	515	46	961
4	36	430	202	669	221	2200	621	264	303	601	41	1010
5	34	309	187	2330	207	2460	515	245	690	364	39	397
6	32	242	167	2060	205	2230	447	219	445	273	39	204
7	31	192	163	1340	194	1470	391	202	306	226	38	135
8	32	162	156	798	188	1320	360	189	244	231	36	106
9	65	144	142	621	177	1230	682	177	325	208	33	90
10	115	139	155	510	167	909	2580	165	806	169	31	77
11	86	145	168	430	167	722	1820	157	451	153	31	66
12	68	1110	150	392	199	619	985	200	561	465	53	67
13	57	2060	139	623	232	558	666	2780	1260	473	80	286
14	49	1930	137	717	234	468	858	2780	659	253	61	167
15	63	1110	138	548	202	401	1510	1060	1870	203	43	117
16	386	658	145	437	209	363	1390	605	1020	186	45	106
17	353	524	147	379	195	406	1080	450	540	169	91	93
18	229	431	142	320	170	431	746	384	412	250	61	82
19	159	368	134	260	155	379	612	353	383	381	44	72
20	124	332	146	350	150	352	540	303	284	275	57	65
21	110	365	178	1150	280	335	463	265	546	198	61	59
22	99	638	184	1200	921	324	408	233	677	145	46	57
23	89	1180	168	1100	813	716	370	212	416	122	39	60
24	85	1280	147	1000	558	1110	345	205	301	108	33	56
25	84	835	130	946	400	827	467	198	295	106	29	75
26	80	608	115	652	300	625	681	178	697	98	28	527
27	77	479	115	514	275	511	490	166	379	86	46	410
28	76	403	125	430	270	440	397	158	295	78	35	359
29	71	350	136	385	---	389	356	150	438	71	78	259
30	70	311	211	336	---	351	330	142	381	63	47	176
31	67	---	358	325	---	424	---	167	---	57	35	---
TOTAL	2942	17599	5244	22257	7892	23845	22889	13453	15409	7274	1447	6223
MEAN	94.9	587	169	718	282	769	763	434	514	235	46.7	207
MAX	386	2060	358	2330	921	2460	2580	2780	1870	601	91	1010
MIN	31	76	115	260	150	268	330	142	133	57	28	38
CFSM	.31	1.94	.56	2.37	.93	2.54	2.52	1.43	1.70	.77	.15	.68
IN.	.36	2.16	.64	2.73	.97	2.93	2.81	1.65	1.89	.89	.18	.76

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1993, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)
1931	82.4	208	347	495	533	599	561	423	262	193	96.1	70.2				
1932	585	1115	1567	3450	1808	1605	1534	1284	991	915	716	392				
1933	1937	1956	1991	1937	1950	1961	1964	1968	1947	1979	1979	1989				
1934	1.96	9.67	9.98	15.1	27.7	41.8	51.9	42.9	19.7	9.28	4.06	3.37				
1935	1964	1954	1964	1977	1935	1941	1941	1934	1934	1936	1988	1953				

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1931 - 1993	
ANNUAL TOTAL	92960		146474			
ANNUAL MEAN	254		401		321	
HIGHEST ANNUAL MEAN					642	
LOWEST ANNUAL MEAN					40.6	
HIGHEST DAILY MEAN	3660		2780		16500	
LOWEST DAILY MEAN	31		28		.60	
ANNUAL SEVEN-DAY MINIMUM	34		34		.80	
INSTANTANEOUS PEAK FLOW			3570		18500	
INSTANTANEOUS PEAK STAGE			509.00		1237.00	
ANNUAL RUNOFF (CFSM)	.84		1.32		1.06	
ANNUAL RUNOFF (INCHES)	11.41		17.98		14.41	
10 PERCENT EXCEEDS	528		931		750	
50 PERCENT EXCEEDS	132		260		130	
90 PERCENT EXCEEDS	60		57		16	

• Estimated

WABASH RIVER BASIN

03363900 FLATROCK RIVER AT COLUMBUS, IN

LOCATION.--Lat 39°14'06", long 85°55'36", in NE¹/₄/SW¹/₄, sec.12, T.9 N., R.5 E., Bartholomew County, Hydrologic Unit 05120205, on left bank at downstream side of bridge on U.S. Highway 31, 0.2 mi northwest of Columbus city limits, and 2.6 mi upstream from mouth.
 DRAINAGE AREA.--534 mi².
 PERIOD OF RECORD.--October 1967 to current year.
 GAGE.--Water-stage recorder. Datum of gage is 610.14 ft above sea level.
 REMARKS.--Records good except for estimated daily discharges, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	100	133	557	938	569	475	1340	557	261	445	114	91
2	96	158	518	866	515	500	1710	516	242	460	116	94
3	93	654	481	664	458	684	1510	493	228	560	107	639
4	91	809	431	618	433	2330	1130	481	253	623	102	2130
5	88	635	400	2690	412	3980	918	458	780	573	96	1130
6	85	523	373	3030	398	3490	800	423	800	416	91	579
7	83	436	352	2400	388	2650	708	394	552	345	85	377
8	83	372	342	1550	372	2080	646	375	443	306	84	275
9	83	326	320	1170	362	1860	657	358	396	299	84	223
10	97	298	317	945	343	1590	2720	337	811	275	82	190
11	150	289	334	811	332	1260	2950	319	830	245	81	165
12	132	625	328	720	340	1040	1950	309	563	249	94	156
13	116	2990	302	841	380	921	1260	1320	1540	547	127	168
14	106	2780	285	1160	400	816	1120	3270	1140	410	133	386
15	113	2170	282	985	380	690	2070	2200	1680	300	118	267
16	165	1310	288	798	374	628	2440	1060	1740	276	107	249
17	588	982	288	696	370	643	1950	763	942	269	209	224
18	472	808	280	611	311	705	1430	638	671	245	194	191
19	363	688	269	508	265	665	1100	582	595	401	139	168
20	285	615	266	450	260	620	958	511	501	387	126	153
21	236	601	280	500	320	588	836	448	476	343	125	145
22	210	852	319	1290	1250	566	734	404	888	258	126	137
23	192	2160	315	1350	1510	805	671	369	735	214	113	139
24	174	2010	289	1280	1050	1760	628	348	529	187	102	136
25	163	1660	253	1690	730	1510	642	334	447	172	95	140
26	158	1160	200	1270	625	1120	1130	313	605	167	89	684
27	152	917	195	967	565	908	926	290	610	163	84	1000
28	146	768	203	809	520	783	739	270	455	147	88	774
29	143	671	237	716	---	697	650	260	472	141	91	615
30	137	601	372	632	---	634	603	247	529	130	107	450
31	134	---	524	584	---	618	---	248	---	122	102	---
TOTAL	5234	29001	10200	33539	14232	37616	36926	18895	20714	9675	3411	12075
MEAN	169	967	329	1082	508	1213	1231	610	690	312	110	402
MAX	588	2990	557	3030	1510	3980	2950	3270	1740	623	209	2130
MIN	83	133	195	450	260	475	603	247	228	122	81	91
CFSM	.32	1.81	.62	2.03	.95	2.27	2.30	1.14	1.29	.58	.21	.75
IN.	.36	2.02	.71	2.34	.99	2.62	2.57	1.32	1.44	.67	.24	.84

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1993, BY WATER YEAR (WY)

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	147	425	713	724	1007	1009	941	811	466	419	281	167														
MAX	547	1452	2092	1827	2524	2223	1768	2281	1100	1556	1296	837														
(WY)	1987	1986	1991	1969	1982	1978	1989	1968	1968	1979	1979	1989														
MIN	33.2	47.6	44.8	30.6	189	204	251	132	77.2	50.8	35.0	30.1														
(WY)	1992	1977	1977	1977	1992	1992	1976	1976	1988	1988	1988	1988														

SUMMARY STATISTICS FOR 1992 CALENDAR YEAR FOR 1993 WATER YEAR WATER YEARS 1968 - 1993

ANNUAL TOTAL	151563	231518	
ANNUAL MEAN	414	634	591
HIGHEST ANNUAL MEAN			842
LOWEST ANNUAL MEAN			271
HIGHEST DAILY MEAN	4040	Jul 18	3980
LOWEST DAILY MEAN	83	Oct 7	81
ANNUAL SEVEN-DAY MINIMUM	87	Oct 3	86
INSTANTANEOUS PEAK FLOW			4220
INSTANTANEOUS PEAK STAGE			9.82
ANNUAL RUNOFF (CFSM)	.78		1.19
ANNUAL RUNOFF (INCHES)	10.56		16.13
10 PERCENT EXCEEDS	864		1380
50 PERCENT EXCEEDS	228		447
90 PERCENT EXCEEDS	119		116

• Estimated

03365500 EAST FORK WHITE RIVER AT SEYMOUR, IN

LOCATION.--Lat 38°58'57", long 85°53'57", in NW¹/₄/NE¹/₄, sec.7, T.6 N., R.6 E., Jackson County, Hydrologic Unit 05120206, on left bank 1,700 ft downstream from highway bridge, 1 mi north of Seymour, 9.5 mi downstream from Sand Creek, and at mile 214.6.

DRAINAGE AREA.--2,341 mi².

PERIOD OF RECORD.--October 1927 to current year. Yearly maximum discharge only for water years 1924-27 published in WSP 1305. Daily gage heights from May 1923 to September 1927 are available in the district office.

REVISED RECORDS.--WSP 743: 1928-29, 1931-32. WSP 783: 1934. WSP 873: 1938. WSP 1335: 1928(M), 1929-30, 1932-33(M), 1937(M), 1942. WSP 1435: 1949. WSP 1705: 1958. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 550.67 ft above 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.

REMARKS.--Records good except for estimated daily discharges, which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 26, 1913, reached a stage of 21.0 ft, from information by Corps of Engineers and Indiana Department of Highways, discharge, 120,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	625	635	2410	3070	2460	e2150	5940	2760	1500	2720	773	746
2	598	693	2230	3670	2290	2130	7710	2620	1410	2590	903	674
3	579	1850	2070	2930	2070	3090	7830	2530	1280	3700	940	1450
4	561	3370	1910	2600	1920	7550	5940	2580	1430	4270	727	4970
5	547	2760	1770	8610	1820	15600	4580	2660	3530	4480	666	6240
6	532	2150	1660	12000	1740	17100	3910	2500	3900	3310	637	3560
7	518	1760	1560	11500	1680	14900	3470	2320	2930	2520	617	2390
8	507	1500	1510	8430	1630	10800	3150	2190	2330	2200	593	1680
9	523	1330	1450	5460	1570	8930	3030	2090	2020	2220	568	1300
10	522	1210	1420	4230	1510	7710	7120	2010	2180	1920	554	1110
11	592	1150	1500	3690	1460	6210	11800	1930	3090	1680	544	963
12	602	1880	1540	3230	1480	5100	11200	1860	2620	1510	601	871
13	567	8530	1450	3290	1630	4390	7730	3060	2480	1780	2050	970
14	539	10900	1380	4190	1690	3940	5440	4760	4650	1950	1270	1130
15	536	11600	1340	4300	1670	3490	7620	5300	5160	1630	882	1260
16	1570	9510	1340	3560	1640	3180	10100	3720	6080	1710	711	1300
17	1800	5100	1330	3010	e1450	3090	10200	2760	4790	1700	3880	1620
18	1700	3760	1300	2620	e1350	3090	7980	2410	3320	1650	4930	1290
19	1360	3120	1260	2250	1310	3100	5690	2350	3120	1490	1870	1070
20	1130	2720	1230	2000	1380	2920	4700	2210	3000	1890	1230	940
21	991	2490	1250	2650	1730	2800	4210	2010	3140	1870	1050	855
22	901	2970	1330	6510	6480	2700	3730	1870	3960	1550	1110	797
23	837	6180	1350	7060	6770	3730	3360	1730	4070	1300	922	797
24	788	7110	e1250	6710	5390	7070	3130	1630	3210	1150	801	833
25	744	9120	e1150	8270	3800	7210	3150	1570	3190	1050	728	822
26	715	6710	e1080	6900	2890	5650	6220	1540	4410	1110	677	1940
27	694	4540	1030	4950	e2500	4470	4650	1480	4420	1460	642	3780
28	680	3620	1060	3890	e2300	3790	3600	1420	3140	1150	622	3730
29	667	3120	1110	3320	---	3370	3140	1350	2670	1000	598	3520
30	657	2680	1210	2910	---	3060	2900	1320	2950	904	946	2610
31	646	---	1730	2620	---	3050	---	1330	---	833	868	---
TOTAL	24228	124068	45210	150430	65610	175370	173230	71870	95980	60297	33910	55218
MEAN	782	4136	1458	4853	2343	5657	5774	2318	3199	1945	1094	1841
MAX	1800	11600	2410	12000	6770	17100	11800	5300	6080	4480	4930	6240
MIN	507	635	1030	2000	1310	2130	2900	1320	1280	833	544	674
CFSM	.33	1.77	.62	2.07	1.00	2.42	2.47	.99	1.37	.83	.47	.79
IN.	.38	1.97	.72	2.39	1.04	2.79	2.75	1.14	1.53	.96	.54	.88

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1993, BY WATER YEAR (WY)

	679	1515	2547	3817	4031	4643	4245	3217	2033	1586	960	651
MEAN	679	1515	2547	3817	4031	4643	4245	3217	2033	1586	960	651
MAX	3271	8564	9245	19560	12290	10690	9211	9379	7164	6040	8795	4244
(WY)	1987	1986	1928	1950	1950	1963	1944	1968	1947	1979	1979	1989
MIN	162	182	207	192	373	299	356	264	394	199	148	136
(WY)	1941	1935	1964	1977	1931	1941	1941	1941	1931	1941	1941	1941

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1928 - 1993
ANNUAL TOTAL	697821	1075421	
ANNUAL MEAN	1907	2946	2486
HIGHEST ANNUAL MEAN			4575
LOWEST ANNUAL MEAN			287
HIGHEST DAILY MEAN	12500	Apr 21	63500
LOWEST DAILY MEAN	507	Oct 8	86
ANNUAL SEVEN-DAY MINIMUM	530	Oct 4	93
INSTANTANEOUS PEAK FLOW		17400	78500
INSTANTANEOUS PEAK STAGE		15.57	19.67
ANNUAL RUNOFF (CFSM)	.81	1.26	1.06
ANNUAL RUNOFF (INCHES)	11.09	17.09	14.43
10 PERCENT EXCEEDS	3820	6490	5610
50 PERCENT EXCEEDS	1210	2130	1200
90 PERCENT EXCEEDS	701	713	294

e Estimated

03371520 BACK CREEK AT LEESVILLE, IN

LOCATION.--Lat 38°50'48", long 86°18'06", in SW¹/₄SE¹/₄, sec.21, T.5 N., R.2 E., Lawrence County, Hydrologic Unit 05120208, on left bank at downstream side of county road bridge, 0.9 mi west of Leesville, 2.5 mi upstream from Jones Defeat Hollow, and 7 mi above mouth.

DRAINAGE AREA.--24.1 mi².

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

REVISED RECORDS.--WDR IN-72-1: 1971.

GAGE.--Water-stage recorder. Datum of gage is 575.00 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1913 reached a stage of 18.1 ft from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	2.9	13	47	20	25	69	23	2.7	3.4	.57	27
2	1.8	4.8	13	34	15	42	59	22	2.5	12	30	127
3	1.7	13	11	31	14	187	46	88	2.5	618	3.8	171
4	1.6	8.1	10	365	13	812	37	157	13	57	2.6	52
5	1.4	7.4	9.2	245	12	227	33	100	8.4	24	1.8	24
6	1.3	6.1	8.4	96	12	112	28	60	5.0	16	1.4	14
7	1.2	5.3	8.4	62	11	78	25	42	4.0	12	1.1	9.5
8	1.4	4.7	7.9	46	10	72	23	31	3.3	9.5	.90	6.8
9	2.1	4.4	7.4	34	9.8	55	116	24	3.2	7.0	.77	5.6
10	2.5	4.7	11	33	9.2	46	139	18	3.0	5.4	.65	4.3
11	2.0	6.9	13	31	9.5	37	71	14	5.2	4.4	.63	3.3
12	1.7	141	11	32	15	31	48	12	6.7	8.7	1.2	2.7
13	1.5	78	10	38	14	28	39	17	4.3	7.1	15	2.3
14	1.3	36	9.8	30	13	23	372	11	23	4.2	4.3	2.1
15	5.9	25	10	26	12	22	274	9.4	19	3.9	2.5	9.3
16	12	20	10	24	15	23	178	8.0	7.5	4.8	1.8	5.1
17	6.5	17	9.4	20.0	12.5	32	87	7.1	5.3	5.3	523	3.5
18	4.5	14	8.8	17.0	11.5	26	60	29	4.0	4.1	48	2.6
19	3.3	12	8.5	15.5	11	24	49	22	3.2	3.4	20	2.1
20	3.3	11	9.8	15	13	24	42	14	5.9	2.8	12	1.9
21	3.3	47	8.8	300	156	22	32	11	7.1	2.3	7.5	2.1
22	3.3	158	9.0	144	162	22	27	9.0	3.7	1.9	5.5	2.3
23	3.0	97	8.6	80	74	220	24	7.6	2.9	1.7	4.3	13
24	2.7	51	7.7	152	52	99	23	6.8	2.5	1.4	3.6	15
25	2.4	36	7.0	84	42	61	45	6.4	3.2	1.4	2.8	29
26	2.4	28	6.5	57	35	56	53	5.2	2.5	1.3	2.3	43
27	2.5	23	6.3	43	30	46	37	4.4	2.1	1.2	1.9	33
28	2.3	19	6.9	34	27	37	30	3.8	6.4	.95	1.6	23
29	2.1	16	24	27	---	32	27	3.3	14	.83	1.4	15
30	2.3	14	51	23	---	27	27	3.0	4.8	.79	1.2	11
31	2.5	---	49	21	---	46	---	2.8	---	.67	76	---
TOTAL	87.8	911.3	384.4	2206.5	830.5	2594	2120	771.8	180.9	827.44	780.12	662.5
MEAN	2.83	30.4	12.4	71.2	29.7	83.7	70.7	24.9	6.03	26.7	25.2	22.1
MAX	12	158	51	365	162	812	372	157	23	618	523	171
MIN	1.2	2.9	6.3	15	9.2	22	23	2.8	2.1	.67	.57	1.9
CFSM	.12	1.26	.51	2.95	1.23	3.47	2.93	1.03	.25	1.11	1.04	.92
IN.	.14	1.41	.59	3.41	1.28	4.00	3.27	1.19	.28	1.28	1.20	1.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1993, BY WATER YEAR (WY)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	
MEAN	8.58	29.9	41.5	38.3	50.8	66.8	57.0	35.1	14.5	23.9	15.9	6.48												
MAX	48.0	132	101	147	105	168	176	150	63.3	195	92.4	60.9												
(WY)	1984	1986	1983	1982	1979	1989	1972	1990	1973	1973	1979	1974												
MIN	.000	1.05	2.37	.98	5.78	9.74	8.62	2.70	.25	.014	.080	.000												
(WY)	1989	1988	1990	1977	1992	1981	1976	1988	1988	1991	1988	1988												

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1971 - 1993

ANNUAL TOTAL	8057.15	12357.26	
ANNUAL MEAN	22.0	33.9	32.3
HIGHEST ANNUAL MEAN			64.6
LOWEST ANNUAL MEAN			14.4
HIGHEST DAILY MEAN	1470	812	5000
LOWEST DAILY MEAN	.14	.57	.00
ANNUAL SEVEN-DAY MINIMUM	1.1	.90	.00
INSTANTANEOUS PEAK FLOW		3550	15300
INSTANTANEOUS PEAK STAGE		7.65	14.00
ANNUAL RUNOFF (CFSM)	.91	1.40	1.34
ANNUAL RUNOFF (INCHES)	12.44	19.07	18.22
10 PERCENT EXCEEDS	39	73	72
50 PERCENT EXCEEDS	6.8	12	9.0
90 PERCENT EXCEEDS	2.0	2.0	.36

• Estimated

03373530 LOST RIVER NEAR LEIPSIC, IN

LOCATION.--Lat 38°38'11", long 86°21'55", in NE¹/₄SE¹/₄, sec.2, T.2N., R.1E., Orange County, Hydrologic Unit 05120208, on left bank 5 ft upstream from bridge on Potato Road, and 2.2 mile south of Leipsic.

DRAINAGE AREA.--35 mi².

PERIOD OF RECORD.--October 1992 to September 1993.

GAGE.--Water-stage recorder. Datum of gage is 645.00 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	●7.8	●9.7	13	22	34	38	149	45	22	9.7	2.9	4.9
2	●7.1	●15	12	19	30	48	69	42	22	9.8	2150	8.1
3	●6.5	14	11	18	27	175	58	45	21	78	31	207
4	●6.3	14	9.8	278	25	512	50	185	23	20	18	32
5	●6.2	13	8.9	188	23	222	45	81	23	12	14	19
6	●6.2	12	8.3	87	22	132	41	70	20	9.2	11	14
7	●6.0	12	8.0	71	20	104	37	59	19	7.7	9.8	11
8	●5.2	12	7.3	59	19	115	34	50	19	6.6	8.5	9.3
9	●4.3	12	7.1	49	18	84	45	44	19	5.9	6.8	8.3
10	●4.0	12	7.9	54	17	73	72	39	19	5.3	6.4	7.4
11	●4.6	13	8.3	58	17	62	43	33	26	5.0	6.2	6.6
12	●4.9	30	7.5	56	28	54	37	29	32	5.8	6.7	6.2
13	●4.8	37	6.8	65	24	49	39	27	22	5.4	6.7	5.8
14	●4.9	21	6.5	49	21	43	263	24	20	4.6	5.8	5.7
15	●5.1	16	6.3	43	19	38	202	23	19	6.7	5.0	6.7
16	●5.2	13	6.6	39	22	36	146	28	17	7.3	4.7	6.0
17	●6.0	11	6.1	36	24	42	83	23	16	6.1	163	●5.5
18	●10	9.7	5.8	31	●22	45	72	44	15	5.6	22	●4.8
19	●13	8.6	5.7	27	●20	43	64	39	14	5.0	13	●4.6
20	●10	7.8	6.2	30	●19	41	58	29	14	4.5	11	●4.5
21	●8.8	11	5.9	311	863	41	50	26	14	4.2	9.2	4.4
22	●8.9	37	5.6	120	216	40	44	23	13	4.0	7.6	4.3
23	●9.7	57	5.5	83	102	152	41	21	12	3.9	6.7	6.0
24	●9.1	34	5.1	203	76	70	40	20	12	3.8	6.1	5.6
25	●8.2	28	●4.9	98	67	59	352	19	12	3.6	6.8	6.6
26	●7.1	23	●4.8	76	58	73	156	18	11	3.5	7.3	13
27	●7.0	19	●4.8	64	49	59	79	17	11	3.3	6.0	9.3
28	●7.0	17	5.0	56	42	51	66	16	11	3.2	5.4	7.6
29	●7.0	15	6.2	47	---	46	57	15	12	3.1	5.0	6.7
30	●6.6	14	25	40	---	47	51	15	11	3.0	4.7	6.0
31	●5.4	---	21	37	---	95	---	17	---	2.9	4.9	---
TOTAL	212.9	547.8	252.9	2414	1924	2689	2543	1166	521	250.7	2572.2	446.9
MEAN	6.87	18.3	8.16	77.9	68.7	86.7	84.8	37.6	17.4	8.35	83.0	14.9
MAX	13	57	25	311	863	512	352	185	32	78	2150	207
MIN	4.0	7.8	4.8	18	17	36	34	15	11	2.9	2.9	4.3
CFSM	.20	.52	.23	2.22	1.96	2.48	2.42	1.07	.50	.24	2.37	.43
IN.	.23	.58	.27	2.57	2.04	2.86	2.70	1.24	.55	.27	2.73	.47

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1993, BY WATER YEAR (WY)

MEAN	6.87	18.3	8.16	77.9	68.7	86.7	84.8	37.6	17.4	8.35	83.0	14.9
MAX	6.87	18.3	8.16	77.9	68.7	86.7	84.8	37.6	17.4	8.35	83.0	14.9
(WY)	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993
MIN	6.87	18.3	8.16	77.9	68.7	86.7	84.8	37.6	17.4	8.35	83.0	14.9
(WY)	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993

SUMMARY STATISTICS

FOR 1993 WATER YEAR

ANNUAL TOTAL	15548.4	
ANNUAL MEAN	42.6	
HIGHEST DAILY MEAN	2150	Aug 2
LOWEST DAILY MEAN	2.9	Jul 31
ANNUAL SEVEN-DAY MINIMUM	3.1	Jul 26
INSTANTANEOUS PEAK FLOW	8850	Aug 2
INSTANTANEOUS PEAK STAGE	12.69	Aug 2
ANNUAL RUNOFF (CFSM)	1.22	
ANNUAL RUNOFF (INCHES)	16.53	
10 PERCENT EXCEEDS	74	
50 PERCENT EXCEEDS	17	
90 PERCENT EXCEEDS	5.0	

● Estimated

03373700 LOST RIVER NEAR WEST BADEN SPRINGS, IN

LOCATION.--Lat 38°35'10", long 86°38'03", in SW¹/₄/SE¹/₄ sec.21, T.2 N., R.2 W., Orange County, Hydrologic Unit 05120208, on left bank 20 ft downstream from bridge on U.S. Highway 150, 1.7 mi northwest of West Baden Springs, 3.8 mi downstream from Lick Creek, and at mile 34.8.

DRAINAGE AREA.--287 mi².

PERIOD OF RECORD.--December 1964 to September 1993 (discontinued). Prior to October 1965, published as Lost River near West Baden.

GAGE.--Water-stage recorder. Datum of gage is 457.92 ft above sea level (levels by State of Indiana, Department of Natural Resources).

REMARKS.--Records fair except for estimated daily discharges, which are poor.

EXTREMES OUTSIDE PERIOD OF RECORDS.--Flood in March 1964 reached a stage of 28.1 ft, from floodmarks, discharge, 14,500 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	10	36	151	280	328	929	421	127	74	31	e33
2	18	16	32	119	249	371	930	393	119	82	38	e45
3	15	14	29	103	221	713	674	540	113	224	418	e100
4	14	16	27	151	202	1250	536	1460	145	450	251	e160
5	14	15	24	996	185	1880	464	1600	336	224	124	e130
6	16	14	22	883	173	1780	416	1180	217	132	87	e110
7	16	14	20	557	164	1210	379	740	160	106	74	e100
8	16	13	19	430	156	800	348	546	138	87	63	e92
9	17	12	19	352	146	648	471	465	123	73	56	e80
10	17	12	20	298	136	548	957	413	114	65	50	e70
11	19	17	24	294	131	481	723	376	106	59	46	e60
12	18	56	29	312	187	429	515	381	125	56	45	e52
13	16	173	26	317	256	398	496	368	136	63	56	e45
14	15	164	23	334	229	366	1030	317	173	56	50	e42
15	14	94	21	298	198	325	1880	264	455	84	45	e40
16	17	49	21	257	198	302	e2400	297	228	115	41	e38
17	21	34	20	229	201	312	e2200	290	152	89	51	e35
18	17	28	20	198	192	316	e1300	334	124	76	161	e32
19	14	24	19	168	186	291	874	511	108	66	140	e30
20	12	21	19	153	187	275	605	412	98	58	83	e28
21	11	23	19	e1000	552	269	511	314	95	52	64	e26
22	12	56	19	e900	1670	266	453	264	88	47	56	e25
23	11	200	18	e800	1540	703	414	233	80	45	48	e60
24	9.9	215	18	e840	885	953	388	211	75	42	43	e74
25	9.2	146	17	e960	559	682	479	197	78	40	40	e50
26	9.3	97	17	e800	469	537	1060	183	78	37	39	e56
27	8.9	69	15	e600	406	481	882	167	69	35	47	e60
28	8.5	53	15	e460	365	426	613	155	72	34	41	e62
29	9.0	44	21	407	---	381	502	146	110	36	37	e62
30	9.2	38	113	350	---	345	455	137	90	34	34	e54
31	9.9	---	163	306	---	349	---	133	---	32	e33	---
TOTAL	434.9	1737	905	14023	10323	18415	23884	13448	4132	2673	2392	1851
MEAN	14.0	57.9	29.2	452	369	594	796	434	138	86.2	77.2	61.7
MAX	21	215	163	1000	1670	1880	2400	1600	455	450	418	160
MIN	0.5	10	15	103	131	266	348	133	69	32	31	25
CFSM	.05	.20	.10	1.58	1.28	2.07	2.77	1.51	.48	.30	.27	.21
IN.	.06	.23	.12	1.82	1.34	2.39	3.10	1.74	.54	.35	.31	.24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1993, BY WATER YEAR (WY)

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	
MEAN	76.0	285	443	452	557	672	679	481	246	178	130	74.4																	
MAX	203	1463	1069	1123	1166	1306	1402	2326	935	969	739	543																	
(WY)	1964	1966	1978	1982	1982	1978	1972	1983	1990	1973	1979	1974																	
MIN	10.9	14.7	19.5	12.7	85.3	112	97.1	52.9	18.6	20.1	14.5	11.3																	
(WY)	1988	1988	1981	1981	1992	1981	1976	1988	1988	1991	1991	1988																	

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1966 - 1993	
ANNUAL TOTAL	31613.9		94217.9			
ANNUAL MEAN	86.4		258		355	
HIGHEST ANNUAL MEAN					657	
LOWEST ANNUAL MEAN					99.5	
HIGHEST DAILY MEAN	1070	Mar 19	2400	Apr 16	12800	May 17 1990
LOWEST DAILY MEAN	8.5	Oct 28	8.5	Oct 28	5.9	Sep 9 1988
ANNUAL SEVEN-DAY MINIMUM	9.1	Oct 24	9.1	Oct 24	6.5	Sep 8 1988
INSTANTANEOUS PEAK FLOW			2460	Apr 16	14000	May 17 1990
INSTANTANEOUS PEAK STAGE			20.76	Apr 16	27.21	May 17 1990
ANNUAL RUNOFF (CFSM)	.30		.90		1.24	
ANNUAL RUNOFF (INCHES)	4.10		12.21		16.80	
10 PERCENT EXCEEDS	201		677		900	
50 PERCENT EXCEEDS	44		115		140	
90 PERCENT EXCEEDS	15		17		21	

e Estimated

WABASH RIVER BASIN

03374455 PATOKA RIVER NEAR HARDINSBURG, IN

LOCATION.--Lat 38°26'41", long 86°23'14", in NW¹/₄, SE¹/₄, sec.10, T.1 S., R.1 E., Orange County, Hydrologic Unit 05120209, on downstream edge of center pier of county road bridge, 0.3 mi downstream from Fudge Creek, 0.7 mi northeast of Valeene, 6.0 mi southwest of Hardinsburg, and at mile 158.0.

DRAINAGE AREA.--12.8 mi².

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 606.89 ft above sea level.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	.08	1.9	5.9	8.0	13	221	13	2.7	1.1	.10	.22
2	.11	.13	1.7	4.9	6.8	46	84	11	2.4	1.0	.10	9.3
3	.10	.10	1.5	4.1	6.2	158	39	38	2.3	1.4	.09	53
4	.11	.10	1.4	138	5.7	285	25	319	4.1	1.1	.09	6.2
5	.16	.09	1.2	135	5.4	164	19	87	23	.97	.09	2.0
6	.15	.07	1.2	34	5.2	78	15	38	6.6	.81	.07	1.1
7	.14	.05	1.2	19	5.0	50	12	22	4.3	.70	.07	.96
8	.13	.04	1.1	13	4.7	46	10	15	3.4	.60	.07	.79
9	.14	.04	1.0	10	4.3	34	20	11	3.3	.53	.07	.73
10	.14	.04	1.3	12	4.2	27	53	9.2	3.1	.47	.07	.62
11	.14	.06	1.5	18	4.5	20	28	7.6	3.3	.39	.07	.51
12	.12	4.1	1.7	23	15	16	18	6.9	4.2	.41	.08	.50
13	.11	7.2	1.6	25	15	15	35	6.7	3.5	.43	.32	.47
14	.12	2.5	1.5	18	12	13	119	5.8	17	.40	.28	.40
15	.10	1.5	1.4	13	10	11	143	5.1	19	.96	.15	.52
16	.11	1.2	1.4	11	13	11	131	4.6	6.2	1.4	.11	.52
17	.11	.92	1.3	9.4	17	16	55	4.1	4.2	.90	6.5	.30
18	.10	.74	1.3	7.4	15	17	32	9.0	3.3	.64	2.6	.39
19	.10	.66	1.1	6.5	13	15	23	11	2.8	.51	.86	.30
20	.06	.53	1.2	6.0	11	14	19	6.7	2.5	.35	.55	.26
21	.04	1.3	1.1	189	269	17	15	5.1	2.4	.25	.44	.23
22	.04	19	1.3	102	198	17	12	4.4	2.1	.21	.36	.24
23	.05	20	1.3	40	66	175	10	4.0	1.7	.21	.30	.44
24	.07	6.5	1.1	139	36	77	10	3.7	1.6	.21	.23	.39
25	.07	4.6	1.1	66	26	42	139	3.6	1.4	.18	.30	.59
26	.07	3.5	1.0	33	20	31	160	3.2	1.3	.15	.35	2.7
27	.08	3.0	.98	21	15	25	56	3.1	1.1	.14	.29	2.0
28	.08	2.6	1.1	16	13	20	30	2.8	1.2	.12	.29	1.3
29	.07	2.2	2.0	12	---	16	21	2.6	2.4	.12	.25	.90
30	.07	1.9	12	9.6	---	14	17	2.5	1.3	.11	.25	.70
31	.08	---	6.7	9.0	---	57	---	2.7	---	.10	.24	---
TOTAL	3.08	84.75	57.18	1149.8	824.0	1540	1571	668.4	137.7	16.87	15.64	88.58
MEAN	.099	2.82	1.84	37.1	29.4	49.7	52.4	21.6	4.59	.54	.50	2.95
MAX	.16	20	12	189	269	285	221	319	23	1.4	6.5	53
MIN	.04	.04	.98	4.1	4.2	11	10	2.5	1.1	.10	.07	.22
CFSM	.01	.22	.14	2.90	2.30	3.88	4.09	1.68	.36	.04	.04	.23
IN.	.01	.25	.17	3.34	2.39	4.48	4.57	1.94	.40	.05	.05	.26

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1993, BY WATER YEAR (WY)

	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	3.53	20.0	32.5	32.8	39.8	50.2	47.3	29.9	14.3	9.90	4.84	3.51													
MAX	11.9	77.3	109	107	89.6	101	102	138	59.0	89.6	33.4	18.9													
(WY)	1991	1980	1991	1982	1990	1973	1972	1983	1990	1979	1977	1981													
MIN	.001	.20	1.17	.61	2.58	8.80	6.79	2.66	.46	.26	.000	.003													
(WY)	1992	1992	1981	1981	1992	1981	1976	1988	1988	1983	1991	1991													

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1969 - 1993	
ANNUAL TOTAL	2174.29		6157.00			
ANNUAL MEAN	5.94		16.9		24.0	
HIGHEST ANNUAL MEAN					43.6	
LOWEST ANNUAL MEAN					6.35	
HIGHEST DAILY MEAN	278	Mar 18	319	May 4	1770	Jul 26 1979
LOWEST DAILY MEAN	.00	Sep 14	.04	Oct 21	.00	Oct 4 1970
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 14	.06	Nov 5	.00	Sep 11 1972
INSTANTANEOUS PEAK FLOW			670	May 4	9270	Jul 26 1979
INSTANTANEOUS PEAK STAGE			5.29	May 4	11.35	Jul 26 1979
ANNUAL RUNOFF (CFSM)	.46		1.32		1.87	
ANNUAL RUNOFF (INCHES)	6.32		17.89		25.43	
10 PERCENT EXCEEDS	10		38		51	
50 PERCENT EXCEEDS	1.7		2.6		5.2	
90 PERCENT EXCEEDS	.09		.10		.32	

WABASH RIVER BASIN

03374500 PATOKA RIVER NEAR CUZCO, IN

LOCATION.--Lat 38°26'30", long 86°43'01", in SW¹/₄/SW¹/₄, sec.11, T.1 S., R.3 W., Dubois County, Hydrologic Unit 05120209, on right bank 20 ft upstream from bridge on Cuzco Road South, 2.3 mi south of Cuzco, 0.7 mi downstream from Patoka Lake, 4.5 mi upstream from Dillon Creek, and at mile 117.8.

DRAINAGE AREA.--170 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 477.00 ft above sea level, (levels by State of Indiana, Department of Natural Resources). Prior to Oct. 1, 1961, nonrecording gage on downstream side of bridge, 1.7 mi downstream at same datum. Oct. 1, 1961 to Sept. 30, 1981, water-stage recorder at site described above. Prior to October 1979, published as "near Ellsworth".

REMARKS.--Flow regulated by U.S. Army Corps of Engineers from Patoka Lake since February 1978.

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

AVERAGE DISCHARGE.--32 years, 216 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 14,700 ft³/s Mar. 10, 1964, gage height, 20.02 ft; no flow Oct. 30, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 19.1 ft according to information by local resident, discharge, 12,300 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 596 ft³/s Mar. 30; minimum daily, 20 ft³/s Aug. 25 to Sept. 10 and Sept 13 - 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	25	25	25	367	280	98	504	151	50	98	20
2	26	25	25	25	398	198	340	504	151	50	98	20
3	26	25	25	25	398	181	498	505	151	50	98	20
4	26	25	25	25	397	198	498	231	151	50	98	20
5	26	25	25	26	397	199	497	99	151	117	98	20
6	26	25	25	26	397	170	497	99	151	151	98	20
7	26	25	25	26	396	26	497	169	151	76	98	20
8	26	25	25	141	396	149	496	205	63	55	98	20
9	26	25	25	195	396	199	496	204	26	151	64	20
10	26	25	25	198	395	199	496	134	104	151	46	20
11	26	25	25	198	395	199	497	99	151	151	46	112
12	26	25	25	198	395	199	497	99	151	151	46	85
13	25	25	25	198	395	199	496	99	151	151	46	20
14	25	25	25	263	394	199	243	99	151	151	46	20
15	25	25	25	304	394	199	104	99	79	151	46	20
16	25	25	25	303	394	199	105	99	50	151	46	20
17	25	25	25	303	394	199	105	132	50	151	46	20
18	25	25	25	303	394	199	105	152	92	151	46	20
19	25	25	25	303	393	199	293	152	152	151	46	20
20	25	25	25	303	393	199	420	152	151	151	46	20
21	25	25	25	303	394	199	420	152	151	151	46	20
22	25	25	25	135	395	199	419	152	151	151	46	20
23	25	25	25	51	396	200	420	151	151	151	46	20
24	25	25	25	52	396	200	420	151	151	151	29	20
25	25	25	25	52	396	200	210	151	151	151	20	20
26	25	25	25	150	396	334	99	151	151	151	20	20
27	25	25	25	270	396	390	259	151	151	150	20	39
28	25	25	25	306	395	389	505	151	151	114	20	53
29	25	25	25	305	---	527	505	151	79	98	20	53
30	25	25	25	305	---	596	505	151	50	98	20	53
31	25	---	25	305	---	383	---	151	---	98	20	---
TOTAL	787	750	775	5622	11042	7406	11040	5499	3765	3875	1661	875
MEAN	25.4	25.0	25.0	181	394	239	368	177	125	125	53.6	29.2
MAX	26	25	25	306	398	596	505	505	152	151	98	112
MIN	25	25	25	25	367	26	98	99	26	50	20	20

CAL YR 1992 TOTAL 9358 MEAN 25.6 MAX 26 MIN 25
WTR YR 1993 TOTAL 53097 MEAN 145 MAX 596 MIN 20

WABASH RIVER BASIN

03375800 HALL CREEK NEAR ST. ANTHONY, IN

LOCATION.--Lat 38°21'45", long 86°49'43", in NW¹/₄/NW¹/₄, sec.11, T.2 S., R.4 W., Dubois County, Hydrologic Unit 05120209, on right bank 10 ft downstream of bridge on County Road 125 South, 0.7 mi upstream from Grassy Fork, 3.3 mi north of St. Anthony, and at mile 4.1.

DRAINAGE AREA.--21.8 mi².

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

REVISED RECORDS.--WDR IN-75-1: 1971-74.

GAGE.--Water-stage recorder. Datum of gage is 459.22 ft above sea level (levels by State of Indiana, Department of Natural Resources).

REMARKS.--Records good except for estimated daily discharges, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	.16	4.2	23	10	15	109	18	2.8	7.5	.10	.24
2	1.3	.35	3.9	15	8.1	84	63	16	2.4	5.2	.07	92
3	.97	.44	3.1	13	7.6	209	38	226	2.2	4.0	.03	451
4	.79	.24	3.0	216	6.9	258	28	398	3.0	3.2	.02	25
5	.61	.16	2.4	135	6.4	144	25	85	5.7	2.4	.00	9.2
6	.32	.11	2.3	47	6.2	82	20	43	3.0	1.9	.00	5.0
7	.26	.10	2.5	30	5.8	53	17	27	2.5	1.8	.00	3.3
8	.29	.06	2.2	22	5.4	51	16	19	2.1	1.4	.00	2.5
9	.37	.03	2.1	16	4.8	34	151	14	3.4	1.2	.00	2.0
10	.24	.08	9.5	37	4.5	28	97	11	3.5	.99	.00	1.5
11	.16	4.7	11	31	6.0	21	48	9.0	4.2	.94	.00	1.1
12	.24	87	6.9	36	28	18	30	8.0	5.4	4.3	.25	.92
13	.21	28	5.6	44	17	17	80	7.6	3.6	1.6	25	.85
14	.25	11	5.2	24	14	14	263	6.0	137	.74	1.6	.69
15	.65	7.7	5.1	18	12	12	239	4.8	48	.83	.54	4.3
16	2.0	6.2	4.8	15	23	15	127	4.0	13	2.1	.26	1.5
17	.94	5.1	4.2	13	24	35	65	3.5	7.7	3.0	9.9	.99
18	.65	4.3	3.7	9.7	19	22	42	30	5.1	1.1	3.0	1.1
19	.87	3.8	3.7	10	16	19	32	14	3.7	.86	1.1	.96
20	1.3	3.5	5.2	8.4	14	21	27	8.4	4.5	.73	.73	.93
21	1.3	12	4.3	279	388	24	20	6.1	4.2	.35	.54	1.1
22	.97	77	4.2	81	130	45	18	4.7	3.1	.30	.37	1.3
23	.95	25	3.9	43	52	187	15	3.9	2.5	.39	.34	30
24	1.0	13	3.1	221	34	66	25	3.6	13	7.3	.30	11
25	.64	11	3.0	59	26	41	434	3.7	11	3.1	.09	51
26	.46	8.0	3.0	35	20	32	153	2.8	4.6	.88	.08	47
27	.39	6.4	3.1	25	18	25	62	2.3	3.3	.52	.05	17
28	.34	5.6	4.3	20	16	20	37	2.0	56	.31	.04	9.8
29	.25	4.8	39	15	---	17	27	4.0	50	.25	.01	6.4
30	.21	4.4	39	12	---	15	23	3.6	12	.19	.00	4.7
31	.19	---	30	12	---	43	---	4.7	---	.13	.32	---
TOTAL	20.72	330.23	227.5	1565.1	922.7	1667	2331	993.7	422.5	59.51	44.74	784.38
MEAN	.67	11.0	7.34	50.5	33.0	53.8	77.7	32.1	14.1	1.92	1.44	26.1
MAX	2.0	87	39	279	388	258	434	398	137	7.5	25	451
MIN	.16	.03	2.1	8.4	4.5	12	15	2.0	2.1	.13	.00	.24
CFSM	.03	.50	.34	2.32	1.51	2.47	3.56	1.47	.65	.09	.07	1.20
IN.	.04	.56	.39	2.67	1.57	2.84	3.98	1.70	.72	.10	.08	1.34

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1993, BY WATER YEAR (WY)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	
MEAN	9.16	34.6	42.5	39.2	60.0	63.0	52.8	29.8	18.8	20.3	12.4	11.8												
MAX	34.1	147	125	154	131	131	142	153	73.7	247	52.5	68.0												
(WY)	1978	1980	1991	1982	1985	1989	1972	1983	1979	1979	1979	1986												
MIN	.003	.38	3.28	.17	4.96	13.9	5.83	.35	.003	.32	.040	.022												
(WY)	1988	1988	1977	1977	1992	1981	1986	1988	1988	1983	1991	1987												

SUMMARY STATISTICS FOR 1992 CALENDAR YEAR FOR 1993 WATER YEAR WATER YEARS 1971 - 1993

ANNUAL TOTAL	3892.96	9369.08	
ANNUAL MEAN	10.6	25.7	32.7
HIGHEST ANNUAL MEAN			78.4
LOWEST ANNUAL MEAN			11.5
HIGHEST DAILY MEAN	325	Mar 18	451
LOWEST DAILY MEAN	.03	Nov 9	.00
ANNUAL SEVEN-DAY MINIMUM	.11	Nov 4	.00
INSTANTANEOUS PEAK FLOW			1360
INSTANTANEOUS PEAK STAGE			11.10
ANNUAL RUNOFF (CFSM)	.49		1.18
ANNUAL RUNOFF (INCHES)	6.64		15.99
10 PERCENT EXCEEDS	21		54
50 PERCENT EXCEEDS	4.1		5.2
90 PERCENT EXCEEDS	.66		.25

* Estimated

WABASH RIVER BASIN

03378500 WABASH RIVER AT NEW HARMONY, IN

LOCATION.--Lat 38°07'55", long 87°56'25" in SE¹/₄SE¹/₄ sec.35, T.4 S., R.14 W., Posey County, Hydrologic Unit 05120113, at bridge on U.S. Highway 66 at New Harmony, at Indiana-Illinois state line, and at mile 51.5.

DRAINAGE AREA.--29,234 mi².

PERIOD OF RECORD.--August 1988 to current year. Water discharge published October 1938 to September 1947.

GAGE.--Water-stage recorder. Datum of gage is 353.20 ft above sea level. (Furnished by National Weather Service). (Prior to October 1992, erroneously published as 353.30 ft above sea level).

REMARKS.--Water-quality data collected October 1974 to September 1986.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 23.84 ft. May 26, 1943. Beginning August 1988, minimum gage height 0.46 ft. Oct. 12, 1988.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1913 reached a stage of 27.7 ft. Flood of Jan. 31, 1937, reached a stage of 24.4 ft.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 17.78 ft. Jan. 14; minimum gage height, 1.96 ft., Oct. 15, 16.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.92	2.38	13.97	8.95	14.92	---	12.08	12.90	4.28	5.73	5.19	3.20
2	4.56	2.36	12.99	9.62	14.30	7.80	11.88	12.98	4.10	6.53	4.67	3.22
3	4.04	2.98	11.91	9.88	13.51	8.61	12.14	13.48	4.24	7.43	4.86	3.65
4	3.58	5.59	10.92	10.79	12.63	10.48	12.44	13.85	4.47	8.42	4.58	5.00
5	3.20	7.54	9.97	12.23	11.56	12.61	12.56	14.40	4.50	9.85	4.46	8.04
6	2.91	8.61	9.03	13.42	10.21	13.79	12.60	14.58	4.85	10.79	4.10	9.46
7	2.74	9.31	8.20	14.31	8.97	14.53	12.62	14.43	5.96	11.25	3.74	9.64
8	2.62	9.90	7.58	14.99	8.20	15.03	12.54	13.89	6.67	11.62	3.44	9.40
9	2.50	10.19	7.18	15.67	7.60	15.43	12.90	12.98	6.74	11.90	3.20	8.55
10	2.36	10.05	6.84	16.28	7.13	15.76	13.33	11.65	6.56	11.84	2.95	7.25
11	2.25	9.95	6.76	16.81	6.76	15.99	13.64	10.23	6.46	11.43	2.76	6.40
12	2.14	10.36	---	17.33	6.48	16.24	13.45	8.99	7.19	11.08	2.68	5.63
13	2.04	11.18	6.46	17.69	6.64	16.42	13.15	7.92	8.34	10.53	2.70	4.82
14	2.00	12.31	6.36	17.71	6.88	---	13.62	7.50	8.06	9.66	3.54	4.37
15	1.99	13.24	6.28	17.42	6.98	16.09	14.60	7.64	7.78	9.04	4.24	4.24
16	2.03	14.18	6.21	16.74	6.76	15.60	15.21	7.46	7.58	9.43	4.26	4.79
17	2.09	15.15	6.28	15.92	6.42	14.84	15.66	7.20	7.64	10.34	3.98	6.47
18	2.24	16.07	6.42	---	6.15	14.08	15.93	7.34	8.14	10.58	4.12	7.37
19	2.93	16.66	6.80	14.25	5.87	13.59	16.11	7.62	8.24	11.12	6.46	7.64
20	3.56	17.00	7.20	13.44	5.56	13.07	16.19	7.30	7.88	10.92	7.95	7.39
21	4.04	17.32	7.39	13.13	5.89	12.30	16.20	6.58	7.09	10.44	7.66	6.53
22	4.14	17.50	7.32	13.38	7.92	11.59	16.26	5.88	6.47	10.11	7.92	5.62
23	3.90	17.30	7.03	13.94	9.71	11.21	16.19	5.36	6.38	9.58	8.22	5.97
24	3.56	16.79	6.70	14.47	10.44	11.22	15.92	4.96	6.27	8.73	7.96	7.89
25	3.26	16.09	6.32	14.80	---	11.71	15.16	4.64	5.90	7.73	6.89	7.94
26	3.04	15.40	5.87	15.08	---	12.24	14.00	4.68	5.60	7.03	5.23	8.07
27	2.90	15.02	5.42	15.40	---	12.50	12.91	5.04	5.40	6.52	4.30	8.40
28	2.78	14.82	5.15	15.58	---	12.68	12.55	5.15	5.24	6.44	3.90	9.12
29	2.63	14.68	5.14	15.74	---	12.86	12.57	5.06	5.14	6.62	3.59	9.70
30	2.52	14.48	5.98	15.72	---	12.76	12.72	4.87	5.26	6.33	3.40	10.10
31	2.42	---	7.62	15.43	---	12.42	---	4.59	---	5.74	3.28	---
MEAN	2.96	12.15	---	---	---	---	13.90	8.75	6.28	9.19	4.72	6.86
MAX	4.92	17.50	---	---	---	---	16.26	14.58	8.34	11.90	8.22	10.10
MIN	1.99	2.36	---	---	---	---	11.88	4.59	4.10	5.73	2.68	3.20

WABASH RIVER BASIN

03378550 BIG CREEK NEAR WADESVILLE, IN

LOCATION.--Lat 38°04'58", long 87°46'10", in SW¹/₄/SW¹/₄ sec.16, T.5 S., R.12 W., Posey County, Hydrologic Unit 05120113, on left bank at downstream side of bridge on State Highway 66, 0.6 mi northwest of Blairsville, and 1.6 mi southeast of Wadesville.

DRAINAGE AREA.--104 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 370.00 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	2.0	13	92	45	57	338	45	13	7.7	1.2	2.0
2	2.3	5.0	12	54	35	370	149	52	13	5.7	5.2	.83
3	1.8	6.7	9.9	46	33	1460	95	1180	13	4.4	3.5	80
4	1.6	9.0	9.1	678	30	1430	79	1340	15	3.3	1.5	30
5	1.5	5.5	7.8	1180	29	501	74	343	12	2.6	1.2	4.6
6	1.4	4.3	7.0	255	29	291	66	155	11	2.1	1.1	2.0
7	1.3	3.1	8.4	147	27	187	58	101	12	1.8	.71	1.2
8	1.4	2.5	7.6	111	26	157	56	73	13	1.6	.57	.79
9	1.2	2.2	6.7	86	23	107	1360	67	18	1.4	.43	.49
10	1.2	2.5	13	184	22	93	1230	180	25	1.2	.58	.45
11	1.2	73	29	154	25	70	262	67	51	.99	.52	.38
12	1.1	452	16	114	54	61	129	112	94	.94	.90	.26
13	1.0	264	13	147	42	58	145	89	24	.83	1.8	.18
14	1.1	61	12	93	35	44	186	50	17	.84	2.7	.20
15	1.4	37	13	71	32	40	1240	39	13	5.3	1.7	24
16	9.2	27	15	64	42	59	1030	32	9.4	83	1.1	15
17	8.8	23	14	59	36	195	224	27	7.9	84	.76	3.1
18	5.0	18	12	45	33	89	135	611	7.2	26	.56	1.3
19	2.3	15	11	38	30	76	105	248	6.1	247	.45	1.1
20	1.6	13	14	39	35	77	96	83	5.5	29	.37	.95
21	1.4	13	14	458	922	82	70	57	5.6	6.8	.29	.76
22	1.3	62	13	297	949	77	58	43	5.1	26	.23	3.2
23	1.4	125	13	131	193	351	53	38	4.2	94	.23	710
24	1.7	33	10	467	102	155	136	37	5.1	11	.19	233
25	2.0	29	9.2	211	74	118	100	33	40	5.5	.15	16
26	2.0	27	8.6	111	64	140	111	26	23	3.6	.13	36
27	1.8	20	8.3	89	57	110	70	23	8.2	2.7	.11	9.6
28	1.8	18	9.4	76	52	82	57	20	6.6	2.2	.09	4.7
29	1.6	15	35	59	---	68	51	17	32	1.6	.06	2.5
30	1.5	14	179	48	---	59	52	18	11	1.2	.01	1.3
31	2.0	---	80	50	---	163	---	15	---	.93	.56	---
TOTAL	68.6	1381.8	623.0	5654	3076	6827	7815	5221	520.9	665.23	28.90	1185.89
MEAN	2.21	46.1	20.1	182	110	220	260	168	17.4	21.5	.93	39.5
MAX	9.2	452	179	1180	949	1460	1360	1340	94	247	5.2	710
MIN	1.0	2.0	6.7	38	22	40	51	15	4.2	.83	.01	.18
CFSM	.02	.44	.19	1.75	1.06	2.12	2.50	1.62	.17	.21	.01	.38
IN.	.02	.49	.22	2.02	1.10	2.44	2.80	1.87	.19	.24	.01	.42

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1993, BY WATER YEAR (WY)

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	
MEAN	21.2	79.0	142	143	203	230	189	148	76.0	73.5	45.9	30.9																	
MAX	131	513	710	559	727	581	577	742	285	264	341	233																	
(WY)	1978	1986	1983	1982	1990	1975	1983	1990	1973	1992	1977	1982																	
MIN	.019	.96	.30	.13	9.15	14.3	8.73	2.98	.62	.37	.18	.000																	
(WY)	1969	1966	1966	1977	1992	1981	1981	1988	1988	1991	1988	1983																	

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1966 - 1993	
ANNUAL TOTAL	19330.71		33067.32			
ANNUAL MEAN	52.8		90.6		115	
HIGHEST ANNUAL MEAN					205	
LOWEST ANNUAL MEAN					38.7	
HIGHEST DAILY MEAN	4090	Jul 11	1460	Mar 3	6440	Jan 31 1982
LOWEST DAILY MEAN	.00	Aug 13	.01	Aug 30	.00	Jul 22 1966
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 13	.11	Aug 24	.00	Jul 29 1966
INSTANTANEOUS PEAK FLOW			2760		Apr 9	
INSTANTANEOUS PEAK STAGE			18.10		Apr 9	
ANNUAL RUNOFF (CFSM)	.51		.87		19.72	
ANNUAL RUNOFF (INCHES)	6.91		11.83		14.99	
10 PERCENT EXCEEDS	60		185		214	
50 PERCENT EXCEEDS	7.8		22		16	
90 PERCENT EXCEEDS	.95		1.0		.22	

* Estimated

STREAMS TRIBUTARY TO LAKE MICHIGAN

04092677 GRAND CALUMET RIVER AT GARY, IN

LOCATION.--Lat 41°36'29", long 87°23'39", in NW¹/₄ NW¹/₄ sec. 6, T. 37 N., R. 8W., Lake County, Hydrologic Unit 04040001, on left bank, 100 feet streamward of the centerline of Interstate 90, 30 feet upstream of U.S. 12 (Industrial Highway).

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1991 to current year.

GAGE.--Water-stage recorder. Datum of gage is 580.00 ft above sea level.

REMARKS.--Stage affected by backwater from indeterminate sources.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 4.60 ft, June 8, 1993; minimum gage height, 1.08 ft, Feb. 13, 1992.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 4.60 ft, June 8; minimum gage height, 1.12 ft, Feb. 18.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.06	2.28	1.52	1.57	1.55	1.46	2.39	2.18	2.77	3.33	3.42	2.53
2	2.08	2.05	1.74	1.50	1.35	1.57	1.99	2.15	2.84	3.34	3.38	2.64
3	2.19	2.28	1.18	1.71	1.32	1.72	1.87	2.17	2.84	3.39	3.42	2.57
4	2.19	1.84	1.46	2.22	1.39	1.95	1.89	2.26	3.46	3.30	3.37	2.36
5	2.22	1.96	1.37	1.88	1.56	1.64	1.90	2.10	2.96	3.13	3.17	2.42
6	2.13	2.03	1.36	1.76	1.54	1.54	1.91	2.15	2.94	3.17	3.54	2.46
7	2.22	1.93	1.46	1.76	1.53	1.52	1.85	2.15	3.80	3.27	3.30	2.33
8	2.16	1.76	1.54	1.84	1.49	1.62	1.92	2.16	3.89	3.33	3.24	2.24
9	2.08	1.82	1.44	1.86	1.49	1.52	1.92	2.19	3.33	3.25	3.23	2.20
10	2.08	1.88	1.71	1.74	1.63	1.69	1.90	2.22	3.30	3.29	3.22	2.22
11	2.10	1.87	1.63	1.62	1.76	1.64	2.08	2.16	3.29	3.38	3.14	2.13
12	2.08	2.17	1.44	1.86	1.78	1.53	2.02	2.63	3.16	3.29	3.16	1.92
13	1.94	1.88	1.47	1.91	1.49	1.98	2.01	2.27	3.11	3.49	3.10	1.98
14	2.28	1.86	1.43	1.56	1.43	1.52	2.23	2.31	3.12	3.43	3.08	2.68
15	2.30	1.81	1.71	1.56	1.53	1.47	2.44	2.38	3.06	3.45	2.99	2.43
16	2.15	1.87	1.60	1.40	1.55	1.67	2.26	2.30	3.10	3.43	3.01	2.19
17	2.00	1.96	1.58	1.59	1.22	1.62	2.08	2.40	3.47	3.53	2.96	2.04
18	2.04	1.84	1.46	1.53	1.32	1.55	2.04	2.46	3.53	3.62	2.97	2.12
19	1.96	1.80	1.56	1.51	1.42	1.60	2.94	2.35	4.25	3.52	2.95	2.14
20	2.07	1.87	1.38	1.53	1.52	1.64	2.48	2.41	3.40	3.42	3.06	2.10
21	1.95	1.86	1.47	1.80	1.76	1.59	2.12	2.50	3.28	3.50	2.92	2.06
22	1.88	2.11	1.43	1.66	1.61	2.00	2.08	2.62	3.26	3.48	2.57	2.13
23	1.90	1.92	1.66	1.58	1.44	1.89	2.07	2.55	3.29	3.45	2.78	1.95
24	1.94	1.84	1.16	1.53	1.42	1.75	2.21	2.65	3.34	3.46	2.63	1.95
25	1.89	1.86	1.29	1.47	1.43	1.74	2.15	2.54	3.17	3.67	2.97	2.52
26	1.80	1.75	1.26	1.46	1.51	1.71	2.10	2.66	3.10	3.40	2.57	2.10
27	1.83	1.67	1.35	1.50	1.43	1.75	2.05	2.75	3.22	3.44	2.63	2.18
28	1.92	1.61	1.51	1.83	1.28	1.75	2.16	2.81	3.61	3.42	2.62	2.10
29	1.99	1.59	1.74	1.32	---	1.78	2.13	2.75	3.48	3.46	3.07	2.16
30	1.91	1.66	2.14	1.35	---	1.83	2.14	3.00	3.50	3.42	3.48	1.75
31	1.89	---	1.76	1.55	---	2.59	---	3.04	---	3.42	2.80	---
MEAN	2.04	1.89	1.51	1.64	1.49	1.70	2.11	2.43	3.30	3.40	3.06	2.22
MAX	2.30	2.28	2.14	2.22	1.78	2.59	2.94	3.04	4.25	3.67	3.54	2.68
MIN	1.80	1.59	1.16	1.32	1.22	1.46	1.85	2.10	2.77	3.13	2.57	1.75

WTR YR 1993 MEAN 2.24 MAX 4.25 MIN 1.16

STREAMS TRIBUTARY TO LAKE MICHIGAN

04092750 INDIANA HARBOR CANAL AT EAST CHICAGO, IN

LOCATION.--Lat 41°39'27", long 87°27'21", in NE¹/₄SE¹/₄ sec.16, T.37N., R.9W., Lake County, Hydrologic Unit 04040001, on right bank 1200 ft downstream (northeast) of Dickey Road bridge.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1991 to current year.

GAGE.--Water-stage recorder, ultrasonic velocity meter and responder. Datum of gage is 570.00 ft above sea level.

REMARKS.--Records fair, except for estimated discharges and discharges for the period Sept. 7-30, which are poor. Positive discharges denote flow in a northeasterly direction, towards Lake Michigan, while negative discharges denote flow in a southwesterly direction, away from Lake Michigan. No value days are a result of equipment failure or damage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	668	609	---	681	701	981	764	835
2	---	---	582	---	664	625	---	733	541	905	803	911
3	---	---	591	---	630	640	---	733	658	896	751	833
4	---	---	463	---	711	659	---	738	558	869	707	820
5	---	---	299	---	616	820	---	736	845	915	681	761
6	---	565	183	---	684	709	---	625	667	842	783	914
7	---	666	327	---	612	605	---	661	1100	742	706	835
8	---	---	463	---	598	547	792	693	●1800	808	637	1.7
9	---	678	601	---	588	629	---	758	●1180	824	803	-793
10	---	655	565	---	642	---	768	703	●904	636	747	-919
11	---	713	657	---	612	---	---	707	●834	767	773	-889
12	---	793	647	633	655	---	757	541	●804	661	689	-2570
13	---	818	597	---	667	---	735	684	●772	766	689	-1060
14	---	---	---	---	634	---	---	746	●831	766	685	-2220
15	623	---	---	---	608	---	---	733	●783	746	858	-1470
16	700	---	---	---	645	---	726	694	●677	804	766	---
17	578	---	---	---	493	---	774	673	●818	732	849	-774
18	597	---	---	---	92	---	755	618	●1020	731	803	-848
19	620	---	635	---	218	---	753	685	●1280	794	858	-1170
20	583	---	403	207	390	---	908	581	●1180	724	656	-1280
21	577	---	-424	846	535	---	892	---	---	720	665	-1520
22	---	---	537	803	570	---	774	---	---	750	806	-583
23	561	---	587	760	400	---	711	---	---	648	746	-34
24	584	---	---	661	-875	---	708	---	---	684	794	165
25	---	671	118	670	-1050	---	673	---	---	869	772	-88
26	498	640	---	---	129	---	529	589	---	815	1050	-50
27	574	644	-139	649	436	---	776	706	---	621	874	130
28	480	571	483	623	486	---	659	728	---	865	758	334
29	503	574	---	677	---	---	711	690	---	716	1040	340
30	538	484	---	280	---	---	730	644	873	571	1100	339
31	---	---	---	598	---	---	---	768	---	695	1190	---
TOTAL	---	---	---	---	12058	---	---	---	---	23863	24803	---
MEAN	---	---	---	---	431	---	---	---	---	770	800	---
MAX	---	---	---	---	711	---	---	---	---	981	1190	---
MIN	---	---	---	---	-1050	---	---	---	---	571	637	---

● Estimated

STREAMS TRIBUTARY TO LAKE MICHIGAN

04093200 LITTLE CALUMET RIVER AT GARY, IN

LOCATION.--Lat 41°34'19", long 87°19'13", in NE¹/₄SE¹/₄, sec.15, T.36 N., R.8 W., Lake County, Hydrologic Unit 04040001, on right bank 100 ft upstream of Conrail Railroad bridge, 800 ft upstream of Martin Luther King Avenue bridge at Gary, 1.3 mi downstream of highway 53, and 1.5 mi upstream from confluence with Deep River.

DRAINAGE AREA.--5.82 mi², approximately.

PERIOD OF RECORD.--June 1958 to September 1967, October 1968 to September 30, 1971 (discharge), December, 1984 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is 580.00 ft above sea level.

REMARKS.--Stage affected by backwater from Deep River during times of flood. Minimum gage height for the period of record may have been lower prior to December 13, 1984.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 13.31 ft, Nov. 30, 1990; minimum gage height, 5.27 ft, Aug. 7, 8, 1991. Minimum gage height was not published prior to December 13, 1984.

EXTREMES OUTSIDE PERIOD OF RECORD.-- Flood in October 1954 reached a stage of 13.09 ft, from flood mark.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 9.60 ft, Dec. 4; minimum gage height, 5.74 ft, Oct. 2.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.53	8.51	8.93	---	---	---	9.48	9.09	8.62	9.71	8.67	9.56
2	8.47	8.94	8.91	---	---	8.71	9.64	9.03	8.63	9.69	8.60	9.44
3	8.42	9.06	8.88	---	---	8.78	9.66	9.00	8.63	9.67	8.59	9.45
4	8.32	9.10	8.87	---	---	8.96	9.63	8.98	8.73	9.68	8.56	9.46
5	8.26	9.10	8.82	10.05	---	9.11	9.56	8.99	8.80	9.65	8.55	9.42
6	8.21	9.09	8.78	10.57	---	9.21	9.48	9.00	8.81	9.57	8.70	9.40
7	8.19	9.05	8.76	10.26	---	9.27	9.40	8.98	9.14	9.48	8.71	9.38
8	8.21	9.00	8.75	9.98	---	9.32	9.33	8.94	9.57	9.40	8.68	9.34
9	8.22	8.98	8.74	9.98	---	9.34	9.28	8.89	10.88	9.32	8.67	9.29
10	8.25	9.06	8.74	9.99	---	---	9.24	8.86	11.36	9.25	8.66	9.19
11	8.26	9.04	8.75	10.01	---	---	9.20	8.80	10.85	9.20	8.65	9.09
12	8.26	9.22	8.76	10.21	---	---	9.16	8.76	10.03	9.12	8.66	9.01
13	8.25	9.25	8.77	---	---	---	9.10	8.73	9.72	9.03	8.65	9.00
14	8.26	9.31	8.77	---	---	---	9.04	8.71	9.63	8.96	8.64	9.15
15	8.57	9.31	8.86	---	---	---	9.09	8.68	9.55	8.86	8.63	9.32
16	8.53	9.28	9.03	---	---	9.14	9.21	8.65	9.47	8.82	8.62	9.43
17	8.55	9.20	9.18	---	---	9.16	9.24	8.62	9.44	8.76	8.64	9.44
18	8.47	9.13	9.21	---	---	9.21	9.22	8.58	9.41	8.74	8.64	9.40
19	8.41	9.03	9.21	---	---	9.19	9.24	8.56	9.53	8.79	8.64	9.34
20	8.40	8.96	9.16	---	---	9.14	9.40	8.54	9.78	8.77	8.66	9.25
21	8.39	8.94	9.11	---	---	9.11	9.54	8.52	10.12	8.72	8.67	9.16
22	8.39	8.92	9.06	10.39	---	9.14	9.55	8.53	9.98	8.71	8.65	9.08
23	8.40	8.92	9.02	10.25	---	9.31	9.51	8.58	9.73	8.71	8.68	9.00
24	8.37	8.93	8.94	10.18	---	9.56	9.47	8.61	9.65	8.68	8.72	8.95
25	8.37	8.93	8.89	---	---	9.63	9.41	8.59	9.58	8.85	8.79	8.97
26	8.37	8.94	8.81	---	---	9.61	9.37	8.57	9.50	8.93	8.81	9.10
27	8.37	8.94	8.78	---	---	9.55	9.29	8.56	9.41	8.90	8.86	9.32
28	8.37	8.91	8.77	10.32	---	9.50	9.23	8.56	9.53	8.86	8.86	9.46
29	8.37	8.88	8.96	---	---	9.43	9.17	8.55	9.62	8.78	9.22	9.49
30	8.37	8.91	9.28	---	---	9.36	9.12	8.58	9.69	8.73	9.43	9.43
31	8.37	---	9.47	---	---	9.34	---	8.60	---	8.70	9.54	---
MEAN	8.36	9.03	8.93	---	---	---	9.34	8.73	9.58	9.07	8.74	9.28
MAX	8.57	9.31	9.47	---	---	---	9.66	9.09	11.36	9.71	9.54	9.56
MIN	8.19	8.51	8.74	---	---	---	9.04	8.52	8.62	8.68	8.55	8.95

STREAMS TRIBUTARY TO LAKE MICHIGAN

04095300 TRAIL CREEK AT MICHIGAN CITY, IN

LOCATION.--Lat 41°43'00", long 86°51'35", in NE¹/₄SE¹/₄, sec.27, T.38 N., R.4 W., LaPorte County, Hydrologic Unit 04040001, on right upstream side of bridge on Springland Avenue in Michigan City, 1.0 mi upstream from Otter Creek, and 4.2 mi upstream from mouth.

DRAINAGE AREA.--54.1 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 584.02 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	58	65	268	65	47	393	76	54	178	40	48
2	41	319	66	156	60	61	231	69	50	212	40	107
3	39	239	64	144	59	82	173	74	50	149	48	92
4	38	183	61	527	58	163	120	117	61	102	49	59
5	37	127	57	576	59	147	101	160	88	81	41	49
6	37	117	54	263	60	148	92	96	55	72	55	70
7	38	99	55	161	60	166	86	76	493	68	48	58
8	46	86	55	117	61	168	87	67	2530	66	43	49
9	47	90	55	96	60	183	95	60	2350	64	42	46
10	40	118	61	87	60	167	83	59	460	70	47	42
11	39	166	81	82	60	148	78	57	251	66	42	40
12	37	322	95	83	62	109	76	56	160	63	43	40
13	37	381	86	166	61	92	72	53	117	58	50	40
14	57	189	82	144	61	78	77	52	125	57	43	75
15	104	121	87	114	59	69	221	51	100	57	43	140
16	101	94	193	94	60	147	273	51	85	53	44	67
17	64	83	111	84	58	219	137	50	79	52	42	56
18	52	75	84	74	54	113	101	50	208	59	41	52
19	48	72	78	64	e52	91	125	50	301	66	51	49
20	51	70	90	66	49	88	690	49	624	57	51	48
21	50	80	68	164	57	103	293	48	273	53	42	48
22	47	135	63	258	56	161	158	48	157	50	39	48
23	46	280	63	169	54	369	109	59	108	49	42	47
24	45	143	59	192	52	261	91	58	94	49	56	45
25	45	104	53	114	e51	165	89	51	104	59	42	51
26	44	102	e52	81	e50	127	77	48	91	54	48	73
27	44	86	51	76	e48	106	72	47	87	47	41	229
28	44	76	51	78	46	93	70	46	118	46	39	173
29	43	70	121	75	---	84	86	49	128	43	96	86
30	44	67	338	63	---	78	99	52	133	43	82	76
31	44	---	724	64	---	186	---	64	---	41	60	---
TOTAL	1491	4152	3223	4700	1592	4219	4455	1943	9534	2184	1490	2103
MEAN	48.1	138	104	152	56.9	136	148	62.7	318	70.5	48.1	70.1
MAX	104	381	724	576	65	369	690	160	2530	212	96	229
MIN	37	58	51	63	46	47	70	46	50	41	39	40
CFSM	.89	2.56	1.92	2.80	1.05	2.52	2.74	1.16	5.87	1.30	.89	1.30
IN.	1.03	2.85	2.22	3.23	1.09	2.90	3.06	1.34	6.56	1.50	1.02	1.45

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1993, BY WATER YEAR (WY)

	1991	1992	1993	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	55.9	84.6	83.5	75.3	88.4	116	106	86.7	77.9	50.1	47.2	47.9
MAX	142	236	148	152	189	249	172	159	318	121	190	88.6
(WY)	1991	1991	1991	1993	1985	1982	1983	1990	1993	1986	1990	1981
MIN	35.3	37.6	40.4	38.7	51.8	56.8	47.1	46.5	33.7	28.9	28.8	29.2
(WY)	1980	1972	1990	1977	1978	1981	1971	1977	1971	1971	1970	1988

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1970 - 1993	
ANNUAL TOTAL	25582		41086			
ANNUAL MEAN	69.9		113		76.5	
HIGHEST ANNUAL MEAN					113	
LOWEST ANNUAL MEAN					50.5	
HIGHEST DAILY MEAN	724	Dec 31	2530	Jun 8	2550	Nov 28 1990
LOWEST DAILY MEAN	27	Aug 21	37	Oct 5	20	Aug 1 1977
ANNUAL SEVEN-DAY MINIMUM	27	Aug 20	39	Oct 1	22	Jul 27 1977
INSTANTANEOUS PEAK FLOW			4240		4240	
INSTANTANEOUS PEAK STAGE			12.97		12.97	
ANNUAL RUNOFF (CFSM)	1.29		2.08		1.41	
ANNUAL RUNOFF (INCHES)	17.59		28.25		19.21	
10 PERCENT EXCEEDS	110		184		125	
50 PERCENT EXCEEDS	59		67		55	
90 PERCENT EXCEEDS	33		44		33	

e Estimated

04095300 TRAIL CREEK AT MICHIGAN CITY, IN

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1990 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: June 1990 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 394 mg/L. Mar. 23, 1993; minimum daily mean, 1 mg/L, Feb. 10, 1992.

SEDIMENT LOADS: Maximum daily, 1610 tons, June 8, 1993; minimum daily, 0.21 ton, Feb. 10, 1992.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 394 mg/L. Mar. 23; minimum daily mean, 2 mg/L, May 16.

SEDIMENT LOADS: Maximum daily, 1610 tons, June 8; minimum daily, 0.30 ton, May 16.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	GAGE HEIGHT (FEET) (00065)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
13...	1602	2.38	36	7	0.69	48
NOV						
18...	1300	2.94	72	9	1.8	71
DEC						
09...	1430	2.66	54	6	0.87	85
FEB						
04...	1505	2.70	58	63	9.9	14
APR						
01...	1530	5.73	394	167	178	56
MAY						
27...	1500	2.56	46	11	1.4	43
SEP						
07...	1440	2.65	56	17	2.6	62

STREAMS TRIBUTARY TO LAKE MICHIGAN
 04095300 TRAIL CREEK AT MICHIGAN CITY, IN --Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993										
DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
	OCTOBER			NOVEMBER			DECEMBER			
1	42	13	1.4	58	34	6.0	65	29	5.2	
2	41	17	1.9	319	212	210	66	27	4.9	
3	39	13	1.4	239	63	46	64	9	1.5	
4	38	11	1.2	183	40	20	61	14	2.3	
5	37	12	1.2	127	30	10	57	14	2.2	
6	37	10	.98	117	13	4.4	54	7	.99	
7	38	13	1.4	99	10	2.7	55	8	1.2	
8	46	26	4.6	86	13	3.0	55	10	1.6	
9	47	22	3.0	90	26	6.5	55	8	1.2	
10	40	14	1.5	118	33	12	61	16	2.7	
11	39	7	.73	166	27	12	81	27	6.1	
12	37	10	.99	322	209	222	95	21	5.4	
13	37	18	1.9	381	120	139	86	10	2.3	
14	57	29	6.1	189	29	15	82	9	1.9	
15	104	50	14	121	18	5.8	87	17	4.9	
16	101	49	13	94	17	4.4	193	85	47	
17	64	26	4.6	83	15	3.5	111	24	7.3	
18	52	16	2.3	75	15	2.9	84	13	3.0	
19	48	18	2.3	72	27	5.3	78	11	2.3	
20	51	30	4.1	70	27	5.1	90	16	3.9	
21	50	28	3.8	80	29	6.4	68	9	1.7	
22	47	30	3.8	135	53	33	63	8	1.4	
23	46	24	3.0	280	102	82	63	11	1.9	
24	45	19	2.3	143	37	14	59	13	2.1	
25	45	22	2.6	104	22	6.2	53	16	2.4	
26	44	48	5.7	102	18	5.1	52	27	5.1	
27	44	44	5.3	86	9	2.0	51	11	1.6	
28	44	34	4.1	76	8	1.7	51	14	1.9	
29	43	26	3.0	70	22	4.1	121	101	42	
30	44	32	3.7	67	24	4.3	338	277	333	
31	44	28	3.3	---	---	---	724	200	426	
TOTAL	1491	---	109.20	4152	---	894.4	3223	---	926.99	
DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
	JANUARY			FEBRUARY			MARCH			
1	268	82	60	65	21	3.7	47	20	2.7	
2	156	51	22	60	18	2.9	61	19	3.2	
3	144	49	21	59	16	2.6	82	27	7.0	
4	527	301	482	58	14	2.1	163	83	37	
5	576	227	385	59	11	1.8	147	51	21	
6	263	74	53	60	13	2.2	148	38	16	
7	161	42	18	60	9	1.5	166	49	23	
8	117	34	11	61	12	1.9	168	49	23	
9	96	25	6.6	60	11	1.8	183	51	25	
10	87	22	5.1	60	10	1.7	167	37	17	
11	82	22	5.0	60	12	2.0	148	31	13	
12	83	20	4.7	62	14	2.3	109	26	7.7	
13	166	48	22	61	18	3.0	92	26	6.4	
14	144	34	13	61	17	2.8	78	20	4.5	
15	114	25	7.6	59	10	1.5	69	19	3.9	
16	94	18	4.5	60	11	1.8	147	115	61	
17	84	15	3.3	58	13	2.1	219	149	96	
18	74	16	3.1	54	19	2.8	113	62	19	
19	64	25	4.6	52	33	5.7	91	47	11	
20	66	18	3.2	49	20	2.6	88	42	10	
21	164	79	46	57	9	1.4	103	40	12	
22	258	90	64	56	13	2.0	161	137	64	
23	169	55	26	54	12	1.7	369	394	403	
24	192	60	32	52	13	1.9	261	168	121	
25	114	36	11	51	24	4.0	165	107	48	
26	81	22	4.9	50	15	2.1	127	38	13	
27	76	17	3.6	48	21	2.9	106	23	6.6	
28	78	17	3.6	46	19	2.4	93	19	4.8	
29	75	18	3.7	---	---	---	84	18	4.1	
30	63	19	3.2	---	---	---	78	15	3.2	
31	64	22	3.8	---	---	---	186	88	72	
TOTAL	4700	---	1336.5	1592	---	67.2	4219	---	1159.1	

• Estimated

STREAMS TRIBUTARY TO LAKE MICHIGAN
04095300 TRAIL CREEK AT MICHIGAN CITY, IN --Continued

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SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	393	170	185	76	7	1.5	54	45	6.6
2	231	70	44	69	8	1.5	50	67	9.1
3	173	44	21	74	14	2.8	50	51	6.8
4	120	35	11	117	71	29	61	49	8.7
5	101	25	7.0	160	81	37	88	63	16
6	92	26	6.5	96	29	7.6	55	48	7.1
7	86	29	6.8	76	15	3.2	493	144	447
8	87	28	6.6	67	10	1.9	2530	225	1610
9	95	23	5.9	60	6	.96	2350	156	1060
10	83	14	3.2	59	10	1.5	460	109	135
11	78	17	3.5	57	10	1.5	251	81	55
12	76	14	2.8	56	6	.83	160	65	28
13	72	12	2.3	53	5	.66	117	52	16
14	77	20	4.5	52	4	.56	125	70	24
15	221	115	82	51	3	.42	100	49	13
16	273	138	109	51	2	.30	85	50	11
17	137	46	17	50	3	.39	79	32	7.0
18	101	20	5.4	50	4	.59	208	136	81
19	125	38	19	50	4	.51	301	208	186
20	690	285	561	49	3	.41	624	170	301
21	293	108	89	48	5	.67	273	61	45
22	158	62	27	48	8	1.0	157	39	17
23	109	41	12	59	14	2.3	108	25	7.2
24	91	23	5.7	58	17	2.6	94	33	8.6
25	89	21	5.1	51	12	1.7	104	43	12
26	77	16	3.2	48	12	1.5	91	25	6.1
27	72	15	2.9	47	26	3.3	87	28	6.6
28	70	13	2.4	46	37	4.6	118	63	23
29	86	15	3.7	49	32	4.2	128	57	20
30	99	13	3.6	52	38	5.7	133	60	22
31	---	---	---	64	47	8.2	---	---	---
TOTAL	4455	---	1258.1	1943	---	128.90	9534	---	4195.8

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	178	108	59	40	18	1.9	48	30	3.9
2	212	82	50	40	20	2.2	107	96	38
3	149	42	17	48	34	5.1	92	41	11
4	102	29	8.0	49	28	3.7	59	13	2.1
5	81	24	5.1	41	14	1.5	49	11	1.4
6	72	23	4.5	55	37	6.0	70	29	6.1
7	68	24	4.5	48	25	3.4	58	16	2.5
8	66	21	3.7	43	16	1.8	49	13	1.7
9	64	24	4.1	42	20	2.3	46	12	1.5
10	70	29	5.4	47	28	3.6	42	16	1.9
11	66	23	4.0	42	14	1.6	40	12	1.2
12	63	25	4.2	43	14	1.8	40	13	1.5
13	58	22	3.4	50	28	3.7	40	9	.96
14	57	20	3.1	43	19	2.2	75	46	15
15	57	16	2.5	43	20	2.3	140	78	33
16	53	15	2.1	44	18	2.1	67	22	4.0
17	52	15	2.1	42	25	2.8	56	13	1.9
18	59	23	4.0	41	18	2.0	52	12	1.7
19	66	33	5.8	51	27	5.2	49	15	2.0
20	57	24	3.8	51	25	3.6	48	17	2.3
21	53	20	2.8	42	12	1.4	48	12	1.6
22	50	21	2.8	39	16	1.7	48	10	1.3
23	49	24	3.1	42	24	3.9	47	10	1.2
24	49	20	2.6	56	49	7.6	45	13	1.6
25	59	34	5.7	42	18	2.1	51	24	3.8
26	54	24	3.5	48	27	3.5	73	30	6.1
27	47	18	2.3	41	14	1.5	229	162	120
28	46	13	1.6	39	13	1.4	173	71	36
29	43	13	1.5	96	172	66	86	28	6.6
30	43	16	1.8	82	123	29	76	18	3.6
31	41	20	2.2	60	67	11	---	---	---
TOTAL	2184	---	226.2	1490	---	187.9	2103	---	315.46

STREAMS TRIBUTARY TO LAKE MICHIGAN

04096100 GALENA RIVER NEAR LAPORTE, IN

LOCATION.--Lat 41°44'54", long 86°40'30", in SE¹/₄NW¹/₄ sec.17, T.38 N., R.2 W., LaPorte County, Hydrologic Unit 04040001, on left bank at downstream side of bridge on County Road 125 East, 1.3 mi upstream from Indiana-Michigan State line, and 9.8 mi north of Courthouse in LaPorte.

DRAINAGE AREA.--17.2 mi², of which 2.30 mi² does not contribute directly to surface runoff.

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

REVISED RECORDS.--WDR IN-80-1: 1970, 1971(P), 1972, 1973, 1974(P), 1975 (M), 1976 (P), and 1978 (P).

GAGE.--Water-stage recorder. Datum of gage is 625.00 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum instantaneous gage height may have occurred Nov. 28, 1990 during period of no gage height record.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	25	25	72	24	●19	84	32	20	96	15	23
2	15	103	25	44	22	●22	54	27	19	91	15	41
3	14	80	25	46	21	29	42	29	18	54	17	45
4	14	53	24	153	21	44	33	40	20	40	18	29
5	13	44	22	159	22	44	29	62	30	32	16	26
6	13	40	22	69	22	41	27	37	22	29	21	29
7	13	35	22	45	22	44	26	28	97	27	20	28
8	14	32	21	38	22	49	26	25	397	25	18	23
9	18	34	21	33	22	57	27	24	310	27	18	21
10	17	39	24	31	23	53	25	23	124	29	17	19
11	17	46	31	33	23	43	25	21	62	28	16	18
12	16	83	32	30	23	35	24	20	42	26	16	18
13	15	111	29	50	24	30	23	19	36	24	18	20
14	24	50	27	42	24	●27	23	19	36	23	17	29
15	51	39	28	35	23	●25	51	18	33	23	17	62
16	49	34	48	32	23	46	60	18	30	21	18	33
17	33	31	32	30	23	63	34	18	27	20	17	27
18	28	28	27	27	●21	37	28	17	53	38	16	26
19	23	27	26	●25	●20	31	36	18	88	34	16	24
20	26	27	29	24	●21	31	209	18	192	25	19	23
21	25	29	24	53	23	34	78	17	67	23	18	24
22	22	38	22	74	●22	47	45	16	46	20	15	24
23	21	62	23	49	●21	114	36	20	35	19	14	23
24	21	39	22	54	●20	80	31	22	32	19	21	21
25	21	33	●20	36	●19	57	29	18	39	22	16	23
26	20	33	●20	28	●19	46	28	17	32	24	25	36
27	20	29	●19	28	●18	40	26	17	32	19	20	107
28	20	28	19	29	●18	40	25	16	58	18	17	81
29	19	26	35	27	---	35	31	17	42	17	33	41
30	19	26	84	●25	---	30	34	18	51	16	41	35
31	18	---	203	24	---	43	---	24	---	15	27	---
TOTAL	655	1304	1031	1445	606	1336	1249	715	2090	924	592	979
MEAN	21.1	43.5	33.3	46.6	21.6	43.1	41.6	23.1	69.7	29.8	19.1	32.6
MAX	51	111	203	159	24	114	209	62	397	96	41	107
MIN	13	25	19	24	18	19	23	16	18	15	14	18
CFSM	1.23	2.53	1.93	2.71	1.26	2.51	2.42	1.34	4.05	1.73	1.11	1.90
IN.	1.42	2.82	2.23	3.13	1.31	2.89	2.70	1.55	4.52	2.00	1.28	2.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1993, BY WATER YEAR (WY)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	
MEAN	22.9	30.1	31.2	26.7	30.5	38.8	34.9	26.9	23.6	16.2	14.9	17.5													
MAX	43.8	64.4	51.8	46.6	51.6	70.1	56.0	45.2	69.7	29.8	26.3	32.6													
(WY)	1991	1991	1973	1993	1985	1982	1970	1981	1993	1993	1990	1993													
MIN	14.8	16.8	15.6	15.0	19.2	19.4	18.2	15.5	12.3	10.3	9.71	10.4													
(WY)	1990	1981	1990	1976	1980	1981	1971	1992	1971	1988	1970	1988													

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1970 - 1993	
ANNUAL TOTAL	8928.4		12926			
ANNUAL MEAN	24.4		35.4		26.2	
HIGHEST ANNUAL MEAN					35.4	
LOWEST ANNUAL MEAN					21.0	
HIGHEST DAILY MEAN	203		Dec 31		397	
LOWEST DAILY MEAN	9.7		Jul 9		13	
ANNUAL SEVEN-DAY MINIMUM	10		Jul 5		14	
INSTANTANEOUS PEAK FLOW					617	
INSTANTANEOUS PEAK STAGE					7.04	
ANNUAL RUNOFF (CFSM)	1.42		2.06		1.52	
ANNUAL RUNOFF (INCHES)	19.31		27.96		20.66	
10 PERCENT EXCEEDS	37		55		42	
50 PERCENT EXCEEDS	23		26		21	
90 PERCENT EXCEEDS	12		17		12	

● Estimated

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099750 PIGEON RIVER NEAR SCOTT, IN

LOCATION.--Lat 41°44'56", long 85°34'35", in SE¹/₄, NW¹/₄, sec.14, T.38 N., R.8 E., Lagrange County, Hydrologic Unit 04050001, on right bank 20 ft downstream from bridge on County Road 750 North, 1,200 ft downstream from Page Ditch, 0.7 mi south of Indiana-Michigan State line, and 1.2 mi northwest of Scott.
 DRAINAGE AREA.--361 mi² of which 53.9 mi² does not contribute directly to surface runoff.
 PERIOD OF RECORD.--June 1968 to current year.
 REVISED RECORDS.--WSP 2111; Drainage area. WDR IN-92-1: 1991.
 GAGE.--Water-stage recorder. Datum of gage is 815.00 ft above sea level.
 REMARKS.--Records good.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	273	228	786	1120	628	●345	1140	608	334	489	231	227
2	257	366	726	1190	582	●340	1170	564	290	482	231	268
3	247	548	670	1200	568	367	1110	560	295	468	221	333
4	244	575	618	1430	538	408	1050	609	306	446	228	287
5	236	533	572	1740	522	439	1010	705	385	421	219	263
6	230	534	526	1920	510	448	963	751	420	397	227	276
7	225	566	504	1850	493	470	909	674	436	380	246	296
8	223	545	486	1800	478	512	857	616	886	366	238	274
9	246	505	465	1710	468	554	816	574	1480	338	228	262
10	251	482	467	1640	458	585	790	543	1680	410	233	249
11	243	470	460	1590	453	600	755	521	1370	436	242	239
12	234	534	450	1520	452	599	719	507	1170	452	233	233
13	225	719	442	1450	450	595	686	475	1090	422	228	225
14	227	838	437	1350	443	567	651	449	1070	396	217	224
15	257	830	434	1240	432	537	639	428	1140	392	210	281
16	279	811	474	1130	429	530	650	406	1130	372	216	281
17	262	821	515	1030	424	589	630	389	927	348	213	263
18	252	831	501	930	●410	610	598	374	808	335	203	253
19	246	790	478	●840	●400	582	585	367	713	333	198	246
20	251	741	517	●770	●395	581	665	357	703	319	200	238
21	258	682	520	●760	●400	595	692	347	790	303	206	238
22	255	646	518	878	●395	624	640	337	781	285	207	232
23	251	753	493	916	●390	756	596	340	690	278	205	228
24	260	888	470	878	●385	964	575	362	606	275	214	222
25	243	884	●440	859	●370	1090	616	363	558	297	208	220
26	245	876	●420	821	●365	1140	702	336	546	295	209	244
27	234	888	●390	796	●360	1200	661	320	503	272	215	248
28	227	897	●370	768	●355	1220	616	313	505	245	226	269
29	226	891	●375	744	---	1200	607	296	516	231	224	259
30	223	855	487	691	---	1170	627	298	493	235	234	266
31	222	---	792	666	---	1120	---	328	---	232	234	---
TOTAL	7552	20527	15803	36227	12553	21337	22725	14117	22621	10950	6844	7644
MEAN	244	684	510	1169	448	688	757	455	754	353	221	255
MAX	279	897	792	1920	628	1220	1170	751	1680	489	246	333
MIN	222	228	370	666	355	340	575	296	290	231	198	220
CFSM	.67	1.90	1.41	3.24	1.24	1.91	2.10	1.26	2.09	.98	.61	.71
IN.	.78	2.12	1.63	3.73	1.29	2.20	2.34	1.45	2.33	1.13	.71	.79

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1993, BY WATER YEAR (WY)

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	227	309	384	407	433	617	614	450	380	270	213	209														
MAX	575	684	719	1169	836	1389	1089	811	1103	654	516	538														
(WY)	1987	1993	1983	1993	1969	1982	1978	1983	1981	1981	1981	1981														
MIN	96.3	96.7	157	173	143	311	324	233	132	104	92.5	85.8														
(WY)	1972	1972	1972	1977	1972	1970	1971	1971	1988	1988	1988	1971														

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR
ANNUAL TOTAL		128809		198900																						
ANNUAL MEAN		352		545																						
HIGHEST ANNUAL MEAN																										
LOWEST ANNUAL MEAN																										
HIGHEST DAILY MEAN		897	Nov 28	1920	Jan 6	2340	Mar 21 1982																			
LOWEST DAILY MEAN		125	Jul 7	198	Aug 19	42	Oct 21 1971																			
ANNUAL SEVEN-DAY MINIMUM		140	Jul 4	205	Aug 17	69	Aug 27 1971																			
INSTANTANEOUS PEAK FLOW				1930	Jan 6	2370	Mar 21 1982																			
INSTANTANEOUS PEAK STAGE					7.16	Jan 6	7.85	Mar 21 1982																		
ANNUAL RUNOFF (CFSM)		.97		1.51																						
ANNUAL RUNOFF (INCHES)		13.27		20.50																						
10 PERCENT EXCEEDS		564		1020																						
50 PERCENT EXCEEDS		302		465																						
90 PERCENT EXCEEDS		208		228																						

● Estimated

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099808 LITTLE ELKHART RIVER AT MIDDLEBURY, IN

LOCATION.--Lat 41°40'31", long 85°42'01", in NE¹/₄SE¹/₄, sec.10, T.37 N., R.7 E., Elkhart County, Hydrologic Unit 04050001, on left bank 15 ft downstream from bridge on County Road 16, 0.1 mi east of Middlebury, and 1.7 mi downstream from Rowe Eden Ditch.

DRAINAGE AREA.--97.6 mi², of which 5.89 mi² does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1979 to current year.

REVISED RECORDS.--WDR IN-82-1: 1980, 1981. WDR IN-92-1: 1991.

GAGE.--Water-stage recorder. Datum of gage is 810.00 ft above sea level.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	66	124	550	143	95	411	133	85	148	69	61
2	74	247	121	393	136	95	301	125	81	142	65	86
3	71	296	120	328	133	100	237	132	80	137	67	95
4	69	187	115	960	129	124	199	138	82	127	68	79
5	68	149	109	942	128	122	182	223	102	119	63	71
6	66	130	105	560	127	118	170	187	89	114	63	81
7	65	117	102	456	124	132	161	159	163	110	66	79
8	65	109	99	370	121	179	155	142	680	109	64	71
9	70	105	97	302	119	222	164	136	1760	111	61	68
10	68	105	102	261	117	237	163	145	662	143	67	65
11	66	118	99	235	115	177	151	127	454	131	66	64
12	64	309	99	221	117	159	146	118	339	159	64	63
13	64	548	101	236	114	150	139	112	270	128	64	61
14	68	321	104	216	113	136	135	109	324	119	61	65
15	75	240	110	198	110	127	141	104	459	112	59	93
16	79	202	220	185	111	154	145	102	279	105	61	81
17	73	182	159	176	108	340	135	99	221	101	58	74
18	69	164	135	165	105	230	129	97	189	99	56	70
19	67	151	127	155	103	175	136	96	177	98	56	67
20	69	142	138	149	103	160	240	94	199	94	58	65
21	70	139	119	274	105	182	177	93	254	91	55	66
22	66	149	112	423	103	246	151	90	203	86	53	65
23	64	360	108	283	102	552	139	92	172	82	54	65
24	63	241	103	278	99	515	132	96	157	87	57	63
25	62	196	98	220	98	430	226	90	152	89	55	66
26	61	181	92	188	98	355	197	87	146	86	55	83
27	60	160	89	175	96	292	158	85	143	82	54	86
28	59	147	88	171	95	249	144	83	140	80	56	97
29	58	137	104	163	---	216	140	81	136	76	61	90
30	57	130	252	150	---	193	146	82	138	72	62	88
31	56	---	1200	148	---	190	---	91	---	68	65	---
TOTAL	2063	5728	4751	9531	3172	6652	5250	3548	8336	3305	1883	2228
MEAN	66.5	191	153	307	113	215	175	114	278	107	60.7	74.3
MAX	79	548	1200	960	143	552	411	223	1760	159	69	97
MIN	56	66	88	148	95	95	129	81	80	68	53	61
CFSM	.68	1.96	1.57	3.15	1.16	2.20	1.79	1.17	2.85	1.09	.62	.76
IN.	.79	2.18	1.81	3.63	1.21	2.54	2.00	1.35	3.18	1.26	.72	.85

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1993, BY WATER YEAR (WY)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	83.0	109	121	119	128	160	143	105	106	74.9	58.0	62.5		
MAX	172	202	207	307	280	404	210	191	278	189	117	118		
(WY)	1991	1986	1991	1993	1985	1982	1985	1983	1993	1981	1981	1981		
MIN	43.7	38.6	42.9	53.8	75.2	84.5	93.3	55.3	36.7	37.9	39.9	40.5		
(WY)	1988	1981	1990	1981	1980	1981	1986	1988	1988	1988	1987	1983		

SUMMARY STATISTICS FOR 1992 CALENDAR YEAR FOR 1993 WATER YEAR WATER YEARS 1980 - 1993

ANNUAL TOTAL	35437	56447		
ANNUAL MEAN	96.8	155	106	
HIGHEST ANNUAL MEAN			155	1993
LOWEST ANNUAL MEAN			75.9	1988
HIGHEST DAILY MEAN	1200	Dec 31	1760	Jun 9
LOWEST DAILY MEAN	37	Jul 9	53	Aug 22
ANNUAL SEVEN-DAY MINIMUM	41	Jul 4	55	Aug 21
INSTANTANEOUS PEAK FLOW			2180	Jun 9
INSTANTANEOUS PEAK STAGE			10.20	Jun 9
ANNUAL RUNOFF (CFSM)	.99	1.58	1.08	
ANNUAL RUNOFF (INCHES)	13.51	21.51	14.71	
10 PERCENT EXCEEDS	143	265	179	
50 PERCENT EXCEEDS	84	117	82	
90 PERCENT EXCEEDS	51	64	45	

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099850 PINE CREEK NEAR ELKHART, IN

LOCATION.--Lat 41°40'53", long 85°52'57", in NE¹/₄NW¹/₄ sec.7, T.37 N., R.6 E., Elkhart County, Hydrologic Unit 04050001, on right bank 50 ft upstream from bridge on County Road 14, 0.3 mi east of the intersection of County Roads 17 and 14, and 3.1 mi east of Elkhart.

DRAINAGE AREA.--31.0 mi², of which 8.75 mi² does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 755.00 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	11	18	98	20	•13	112	31	22	25	13	15
2	13	41	18	44	19	•14	63	29	22	25	14	37
3	12	38	18	40	18	16	50	33	22	26	13	46
4	12	27	18	175	18	22	42	36	22	24	14	24
5	11	23	17	245	18	21	39	55	29	23	13	19
6	11	22	16	72	18	19	36	39	24	22	14	23
7	11	21	16	44	18	23	35	33	105	22	14	22
8	11	20	16	36	17	32	34	31	375	22	13	18
9	11	20	16	30	17	39	38	29	500	21	14	17
10	11	20	16	27	17	38	38	28	166	22	17	15
11	11	23	16	25	17	28	34	27	62	24	15	15
12	10	71	16	25	17	24	33	26	47	24	15	15
13	9.8	101	17	29	17	23	32	25	42	22	14	14
14	10	41	18	26	17	21	31	25	65	21	14	24
15	11	30	18	24	16	19	35	25	83	21	14	50
16	13	26	33	23	•16	29	36	24	46	20	14	27
17	12	24	23	21	•15	59	32	24	38	20	13	22
18	11	22	20	20	•15	36	30	23	35	19	13	20
19	11	20	19	18	•15	30	32	23	33	19	13	18
20	11	20	22	18	•14	30	59	23	33	19	13	17
21	11	20	19	44	•14	37	40	23	32	17	12	17
22	11	22	18	72	•14	52	34	22	30	17	11	17
23	10	35	18	43	•14	166	32	23	28	17	12	16
24	10	25	17	43	•13	130	31	24	27	19	13	15
25	10	23	16	32	•13	76	49	23	26	19	12	16
26	10	22	15	27	•13	59	41	22	26	18	12	21
27	9.7	21	15	25	•13	50	34	22	25	17	12	31
28	9.6	20	15	24	•13	45	32	22	27	17	12	36
29	9.4	19	17	23	---	40	32	21	26	16	13	26
30	8.9	18	65	21	---	38	35	22	25	15	15	23
31	9.1	---	265	21	---	42	---	25	---	14	19	---
TOTAL	334.5	846	851	1415	446	1271	1201	838	2043	627	420	676
MEAN	10.8	28.2	27.5	45.6	15.9	41.0	40.0	27.0	68.1	20.2	13.5	22.5
MAX	13	101	265	245	20	166	112	55	500	26	19	50
MIN	8.9	11	15	18	13	13	30	21	22	14	11	14
CFSM	.35	.91	.89	1.47	.51	1.32	1.29	.87	2.20	.65	.44	.73
IN.	.40	1.02	1.02	1.70	.54	1.53	1.44	1.01	2.45	.75	.50	.81

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1993, BY WATER YEAR (WY)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	15.9	18.9	22.7	20.7	23.1	29.0	27.4	21.5	22.0	16.4	12.8	13.8		
MAX	42.4	32.8	52.7	45.6	47.6	82.3	40.0	40.6	68.1	39.2	25.5	23.7		
(WY)	1991	1986	1991	1993	1985	1982	1993	1983	1993	1981	1981	1981		
MIN	7.27	7.39	6.93	8.23	11.7	14.4	16.3	11.9	7.79	6.58	6.75	6.34		
(WY)	1990	1981	1990	1981	1980	1981	1981	1988	1988	1988	1988	1988		

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1980 - 1993

ANNUAL TOTAL	7207.5	10968.5		
ANNUAL MEAN	19.7	30.1		
HIGHEST ANNUAL MEAN			20.3	
LOWEST ANNUAL MEAN			30.1	1993
HIGHEST DAILY MEAN	265	Dec 31	13.3	1988
LOWEST DAILY MEAN	8.9	Oct 30	532	Dec 30 1990
ANNUAL SEVEN-DAY MINIMUM	9.5	Oct 25	3.8	Jul 26 1980
INSTANTANEOUS PEAK FLOW			4.7	Jul 3 1988
INSTANTANEOUS PEAK STAGE			607	Dec 30 1990
ANNUAL RUNOFF (CFSM)	.64		9.74	Jul 26 1981
ANNUAL RUNOFF (INCHES)	8.65		.66	
10 PERCENT EXCEEDS	27		13.16	
50 PERCENT EXCEEDS	18		44	
90 PERCENT EXCEEDS	11		22	
			16	
			13	
			8.3	

• Estimated

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100222 NORTH BRANCH ELKHART RIVER AT COSPERVILLE, IN

LOCATION.--Lat 41°28'54", long 85°28'32", in NE¹/₄NW¹/₄, sec.22, T.35 N., R.9 E., Noble County, Hydrologic Unit 04050001, on right bank at downstream side of bridge on County Road 900 North at Cosperville, 1,300 ft downstream from Boyd Ditch, 1.7 mi upstream from Hustin Ditch, and 3.1 mi downstream from Waldron Lake.

DRAINAGE AREA.--142 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 880.12 ft above sea level (levels by State of Indiana, Department of Natural Resources).

REMARKS.--Records good. Flow regulated at times by dam at Waldron Lake.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	156	80	354	445	310	●129	433	263	177	222	42	53
2	146	147	339	472	291	●128	435	254	175	214	41	62
3	137	196	326	488	275	135	430	254	169	210	38	96
4	128	209	312	606	261	150	422	262	171	199	46	96
5	117	214	294	757	248	161	411	279	198	188	42	88
6	107	214	281	821	237	164	397	281	211	176	40	92
7	99	212	266	837	223	173	383	276	241	164	44	97
8	94	206	252	832	213	191	369	267	343	156	42	90
9	94	201	239	806	202	213	361	256	408	151	39	82
10	94	197	232	774	195	232	355	244	419	147	46	74
11	92	197	223	736	190	239	344	231	411	133	49	68
12	89	239	215	693	184	245	331	219	397	124	44	65
13	85	313	208	656	178	246	318	205	382	130	43	61
14	86	349	201	620	173	236	305	191	377	135	41	59
15	89	361	197	583	168	231	294	178	369	131	39	89
16	91	362	211	546	165	234	286	168	355	120	39	94
17	93	360	219	511	161	264	277	157	338	109	38	85
18	93	354	218	478	●153	272	267	148	321	100	36	76
19	91	342	215	●445	●150	269	262	139	307	95	35	86
20	91	327	214	416	●147	266	272	130	305	89	38	106
21	91	312	209	413	150	269	274	123	312	83	42	92
22	91	315	202	430	147	283	266	116	304	78	41	81
23	90	362	197	431	●144	342	259	115	291	75	39	73
24	89	392	190	430	●142	393	251	113	274	71	40	67
25	87	402	180	419	●139	417	263	110	264	70	40	65
26	85	404	159	400	●135	428	276	105	259	65	38	65
27	83	403	163	385	●132	434	275	108	252	58	41	67
28	81	395	160	371	●130	434	270	125	246	54	41	71
29	79	382	160	356	---	432	266	142	237	49	43	72
30	77	367	214	334	---	426	267	157	229	47	47	71
31	75	---	373	321	---	422	---	174	---	44	52	---
TOTAL	3000	8814	7223	16812	5243	8458	9619	5790	8742	3687	1286	2343
MEAN	96.8	294	233	542	187	273	321	187	291	119	41.5	78.1
MAX	156	404	373	837	310	434	435	281	419	222	52	106
MIN	75	80	159	321	130	128	251	105	169	44	35	53
CFSM	.68	2.07	1.64	3.82	1.32	1.92	2.26	1.32	2.05	.84	.29	.55
IN.	.79	2.31	1.89	4.40	1.37	2.22	2.52	1.52	2.29	.97	.34	.61

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1993, BY WATER YEAR (WY)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	
MEAN	88.0	127	153	166	156	268	250	169	143	86.4	60.0	69.2											
MAX	272	314	341	542	272	553	530	324	400	211	130	161											
(WY)	1987	1973	1986	1993	1990	1985	1985	1981	1981	1981	1981	1972											
MIN	17.8	17.8	46.5	42.2	43.2	118	133	67.2	18.1	16.4	18.3	22.1											
(WY)	1975	1972	1972	1977	1972	1989	1987	1988	1988	1988	1978	1974											

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1972 - 1993
ANNUAL TOTAL	51172	81017	
ANNUAL MEAN	140	222	145
HIGHEST ANNUAL MEAN			222
LOWEST ANNUAL MEAN			85.7
HIGHEST DAILY MEAN	404	837	916
LOWEST DAILY MEAN	13	35	2.2
ANNUAL SEVEN-DAY MINIMUM	26	38	2.8
INSTANTANEOUS PEAK FLOW		839	919
INSTANTANEOUS PEAK STAGE		7.60	8.12
ANNUAL RUNOFF (CFSM)	.98	1.56	1.02
ANNUAL RUNOFF (INCHES)	13.41	21.22	13.83
10 PERCENT EXCEEDS	222	414	307
50 PERCENT EXCEEDS	121	199	113
90 PERCENT EXCEEDS	52	56	32

● Estimated

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100252 FORKER CREEK NEAR BURR OAK, IN

LOCATION.--Lat 41°19'58", long 85°25'25", in SE¹/₄/NE¹/₄, sec.12, T.33 N., R.9 E., Noble County, Hydrologic Unit 04050001, on right bank 300 ft downstream from bridge on State Highway 9,400 ft downstream from Miller Lake Outlet, 0.8 mi northeast of Burr Oak, and 4.5 mi south of Albion.

DRAINAGE AREA.--19.2 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 889.00 ft above sea level (Indiana Department of Highways bench mark).

REMARKS.--Records fair except for estimated daily discharges, which are poor. Occasional regulation at Miller Lake Outlet.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	5.3	23	135	22	●11	37	31	9.3	19	3.4	5.3
2	11	11	21	106	20	●12	44	27	9.4	22	3.2	6.5
3	10	28	●20	81	19	●14	45	30	10	32	3.2	7.8
4	9.4	45	●19	154	18	17	40	35	9.9	31	3.3	8.4
5	8.5	44	●17	246	17	20	35	39	11	27	3.1	8.8
6	7.7	37	●16	204	17	22	30	36	11	23	3.1	9.4
7	7.2	30	●16	135	16	23	26	33	13	19	3.2	8.1
8	7.0	24	●15	94	16	27	24	29	24	18	3.3	7.5
9	6.9	21	●14	71	●15	38	23	24	45	17	3.2	7.4
10	7.2	19	●15	57	●15	44	25	21	53	16	3.8	7.2
11	7.6	19	●15	47	●16	42	26	18	47	16	4.1	6.7
12	7.2	32	●14	42	●16	39	25	17	40	16	4.1	6.3
13	6.7	74	●14	40	●15	34	24	16	39	15	4.1	5.8
14	6.3	89	●15	39	●15	30	●23	15	33	14	3.9	5.7
15	6.4	74	●16	35	●15	25	●22	14	28	14	4.0	7.4
16	6.5	58	●19	31	●14	24	●26	14	24	13	4.5	7.5
17	6.5	46	28	28	●13	30	●25	13	21	12	4.4	7.7
18	6.5	38	34	25	●13	36	●21	13	18	11	4.2	7.5
19	6.5	31	32	23	●13	34	●20	13	17	8.7	4.0	7.1
20	6.6	25	28	22	●12	30	●27	12	17	6.7	4.0	6.9
21	6.5	21	22	28	●12	29	●26	●11	16	6.2	3.9	6.9
22	6.2	27	20	50	●13	32	●22	●11	16	5.6	3.7	6.5
23	6.0	64	18	61	●13	55	●20	12	15	5.1	3.5	6.5
24	5.9	92	17	62	●12	85	●19	12	16	4.8	3.6	5.8
25	5.8	80	16	58	●12	85	●35	11	17	4.9	3.7	5.5
26	5.6	63	15	49	●12	72	56	8.7	18	4.7	3.6	5.3
27	5.5	50	14	41	●11	61	57	7.0	20	4.4	3.5	5.7
28	5.2	41	14	35	●11	52	49	7.2	20	4.2	3.7	5.9
29	5.1	33	14	31	---	46	42	7.5	20	4.0	4.0	5.4
30	5.1	28	22	27	---	42	37	7.9	18	3.8	3.9	5.4
31	4.8	---	94	24	---	35	---	9.1	---	3.7	4.3	---
TOTAL	215.4	1249.3	657	2081	413	1146	931	554.4	655.6	401.8	115.5	203.9
MEAN	6.95	41.6	21.2	67.1	14.7	37.0	31.0	17.9	21.9	13.0	3.73	6.80
MAX	12	92	94	246	22	85	57	39	53	32	4.5	9.4
MIN	4.8	5.3	14	22	11	11	19	7.0	9.3	3.7	3.1	5.3
CFSM	.36	2.17	1.10	3.50	.77	1.93	1.62	.93	1.14	.68	.19	.35
IN.	.42	2.42	1.27	4.03	.80	2.22	1.80	1.07	1.27	.78	.22	.40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1993, BY WATER YEAR (WY)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	8.66	15.5	20.7	18.3	25.6	38.0	34.4	18.7	20.4	9.54	5.32	6.21												
MAX	50.6	48.8	52.5	67.1	62.5	111	60.5	41.1	90.7	49.5	36.4	33.4												
(WY)	1991	1989	1978	1993	1985	1982	1978	1983	1981	1986	1990	1990												
MIN	.36	.28	2.59	1.22	2.96	13.6	9.61	4.70	1.98	.41	.25	.23												
(WY)	1972	1972	1977	1977	1979	1989	1971	1988	1988	1971	1971	1978												

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1970 - 1993	
ANNUAL TOTAL	4883.76		8623.9		18.4	
ANNUAL MEAN	13.3		23.6		29.0	
HIGHEST ANNUAL MEAN					1982	
LOWEST ANNUAL MEAN					1979	
HIGHEST DAILY MEAN	94	Dec 31	246	Jan 5	431	Feb 25 1985
LOWEST DAILY MEAN	.91	Jul 9	3.1	Aug 5	.13	Sep 10 1972
ANNUAL SEVEN-DAY MINIMUM	1.0	Jul 5	3.2	Aug 2	.17	Sep 6 1978
INSTANTANEOUS PEAK FLOW			254		480	
INSTANTANEOUS PEAK STAGE			6.27		7.03	
ANNUAL RUNOFF (CFSM)	.69		1.23		.96	
ANNUAL RUNOFF (INCHES)	9.46		16.71		13.01	
10 PERCENT EXCEEDS	28		47		47	
50 PERCENT EXCEEDS	9.9		16		9.3	
90 PERCENT EXCEEDS	1.8		4.6		.87	

● Estimated

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100295 RIMMELL BRANCH NEAR ALBION, IN

LOCATION.--Lat 41°23'07", long 85°22'14", in NE¹/₄SE¹/₄ sec.21, T.34 N., R.10 E., Noble County, Hydrologic Unit 04050001, on right bank 900 ft downstream from culvert on County Road 300 East, 0.75 mi south of State Highway 8, 3.0 mi east of intersection of State Highway 9 and State Highway 8 in Albion.

DRAINAGE AREA.--10.7 mi².

PERIOD OF RECORD.--November 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 934.49 ft above sea level.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Minimum daily discharge, 0.14 ft³/s, many days during 1980.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	9.8	8.9	87	10	2.3	53	11	2.6	7.1	.90	.97
2	3.8	85	8.2	53	8.3	2.7	35	10	2.4	11	.89	2.7
3	3.3	50	8.2	53	7.2	6.0	23	20	2.3	11	.91	11
4	3.1	24	7.5	259	6.9	19	18	21	2.6	6.5	.95	5.7
5	2.7	14	6.2	213	7.2	13	15	19	6.5	4.8	.87	2.5
6	2.4	10	5.2	95	7.2	11	13	14	4.3	3.9	.97	3.9
7	2.2	7.7	4.5	65	6.4	20	12	11	32	3.2	1.0	3.3
8	2.8	6.2	4.1	49	5.8	38	11	8.8	105	2.8	.87	2.2
9	9.9	5.5	3.8	37	5.5	40	15	7.5	65	2.5	.82	1.8
10	5.6	5.2	4.2	30	5.5	31	18	6.6	31	2.4	1.0	1.6
11	4.6	12	4.0	26	5.7	23	13	6.0	18	2.5	.89	1.5
12	4.0	102	4.1	22	5.8	21	12	5.6	13	2.7	.85	1.5
13	3.4	111	4.3	23	5.6	18	11	5.1	9.4	2.1	.86	1.4
14	3.4	54	4.5	19	5.3	13	9.5	4.6	8.6	2.3	.77	1.6
15	4.3	33	8.4	16	5.1	10	9.7	4.2	7.5	2.1	.75	9.2
16	8.3	22	54	14	4.8	21	12	3.9	5.9	1.9	.87	4.1
17	6.8	17	23	13	4.2	49	10	3.6	5.1	1.7	.77	2.6
18	5.2	12	14	11	3.7	25	8.9	3.4	4.5	1.5	.84	2.1
19	4.4	10	12	9.5	3.5	14	10	3.4	8.7	1.6	.70	1.9
20	4.8	8.6	11	8.5	3.2	17	19	3.2	8.6	1.5	.73	1.7
21	6.7	9.2	8.0	43	3.4	26	13	3.0	8.0	1.4	.69	1.6
22	5.4	66	6.4	70	3.3	40	10	2.9	6.2	1.3	.68	1.6
23	4.6	148	6.2	42	3.1	126	8.5	3.3	4.9	1.2	.65	1.6
24	4.3	71	5.2	55	2.9	86	7.8	3.6	4.2	1.2	.68	1.5
25	3.8	46	4.4	29	2.7	60	64	3.1	16	1.3	.65	1.6
26	3.5	32	3.7	19	2.6	46	36	2.8	16	1.2	.67	2.1
27	3.2	21	3.2	16	2.5	35	21	2.6	7.6	1.1	.71	3.7
28	3.0	16	2.9	16	2.4	28	16	2.5	6.3	1.0	.87	5.2
29	2.7	12	6.1	16	---	23	14	2.5	5.5	.99	.74	3.0
30	2.5	10	80	12	---	18	14	2.4	4.7	.94	.77	2.8
31	2.3	---	200	11	---	16	---	2.9	---	.94	1.0	---
TOTAL	131.4	1030.2	526.2	1432.0	139.8	898.0	532.4	203.5	422.4	87.67	25.32	87.97
MEAN	4.24	34.3	17.0	46.2	4.99	29.0	17.7	6.56	14.1	2.83	.82	2.93
MAX	9.9	148	200	259	10	126	64	21	105	11	1.0	11
MIN	2.2	5.2	2.9	8.5	2.4	2.3	7.8	2.4	2.3	.94	.65	.97
CFSM	.40	3.21	1.59	4.32	.47	2.71	1.66	.61	1.32	.26	.08	.27
IN.	.46	3.58	1.83	4.98	.49	3.12	1.85	.71	1.47	.30	.09	.31

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1993, BY WATER YEAR (WY)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	7.06	13.4	14.4	12.1	18.0	22.5	18.1	9.98	10.2	6.14	2.78	2.71	
MAX	26.8	34.3	38.7	46.2	44.8	69.9	31.8	24.9	39.1	33.0	16.1	12.7	
(WY)	1991	1993	1991	1993	1985	1982	1981	1990	1981	1986	1990	1992	
MIN	.62	1.38	1.00	2.27	4.99	6.68	5.94	2.05	.72	.51	.31	.37	
(WY)	1984	1981	1990	1981	1993	1981	1986	1985	1988	1988	1988	1987	

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1981 - 1993
ANNUAL TOTAL	3681.04	5516.86	
ANNUAL MEAN	10.1	15.1	11.4
HIGHEST ANNUAL MEAN			15.1
LOWEST ANNUAL MEAN			6.95
HIGHEST DAILY MEAN	200	259	349
LOWEST DAILY MEAN	.48	.65	.15
ANNUAL SEVEN-DAY MINIMUM	.52	.68	.17
INSTANTANEOUS PEAK FLOW		307	418
INSTANTANEOUS PEAK STAGE		10.39	12.82
ANNUAL RUNOFF (CFSM)	.94	1.41	1.07
ANNUAL RUNOFF (INCHES)	12.80	19.18	14.48
10 PERCENT EXCEEDS	19	37	26
50 PERCENT EXCEEDS	5.1	5.8	4.8
90 PERCENT EXCEEDS	.98	1.1	.59

• Estimated

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100377 SOLOMON CREEK NEAR SYRACUSE, IN

LOCATION.--Lat 41°27'30", long 85°43'12", in NW¹/₄SE¹/₄, sec.28, T.35 N., R.7 E., Elkhart County, Hydrologic Unit 04050001, on right bank 40 ft upstream from County Road 52 East bridge over Solomon Creek, and 2.5 mi northeast of Syracuse.

DRAINAGE AREA.--36.1 mi².

PERIOD OF RECORD.--October 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is 840.00 ft above sea level.

REMARKS.--Records good.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	26	50	116	60	44	81	61	56	52	27	23
2	34	64	49	89	58	44	80	59	54	53	26	26
3	32	73	48	82	57	45	73	61	53	58	25	32
4	31	63	47	225	56	51	67	63	53	53	26	29
5	30	58	46	241	55	50	64	77	62	50	24	27
6	29	54	45	167	55	49	61	70	59	48	23	28
7	29	51	44	128	54	54	59	66	101	46	25	28
8	29	48	43	108	53	66	58	63	253	45	24	27
9	29	47	43	94	52	71	59	61	256	44	24	26
10	29	45	43	87	52	72	61	60	155	42	26	25
11	28	48	42	82	51	66	59	59	111	42	26	24
12	28	70	41	80	52	64	57	59	90	42	25	24
13	27	107	41	81	51	63	55	58	78	41	26	24
14	27	83	41	78	50	59	55	57	87	40	25	25
15	28	72	42	75	49	55	56	56	84	39	25	31
16	28	65	51	73	49	60	57	55	73	39	26	29
17	27	61	50	71	48	74	55	54	67	38	26	27
18	26	57	48	67	47	67	54	54	62	36	25	26
19	26	54	46	64	46	62	55	53	59	37	24	26
20	26	52	46	63	46	60	71	52	63	37	24	26
21	26	51	44	79	47	60	66	52	85	35	21	25
22	26	55	43	106	47	64	62	51	71	36	20	25
23	26	80	42	92	46	97	59	52	64	36	20	25
24	25	72	41	91	45	97	58	52	59	35	20	24
25	25	67	41	82	45	86	70	51	56	34	20	25
26	25	63	40	77	45	79	74	50	54	33	20	26
27	24	58	39	73	44	74	68	49	52	31	21	29
28	24	55	39	71	44	70	64	49	51	30	21	33
29	24	53	40	68	---	67	63	48	50	30	22	30
30	24	51	67	65	---	64	64	50	51	30	23	29
31	24	---	175	63	---	63	---	61	---	28	23	---
TOTAL	850	1803	1517	2938	1404	1997	1885	1763	2469	1240	733	804
MEAN	27.4	60.1	48.9	94.8	50.1	64.4	62.8	56.9	82.3	40.0	23.6	26.8
MAX	34	107	175	241	60	97	81	77	256	58	27	33
MIN	24	26	39	63	44	44	54	48	50	28	20	23
CFSM	.76	1.66	1.36	2.63	1.39	1.78	1.74	1.58	2.28	1.11	.65	.74
IN.	.88	1.86	1.56	3.03	1.45	2.06	1.94	1.82	2.54	1.28	.76	.83

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1993, BY WATER YEAR (WY)

	1988	1989	1990	1991	1992	1993	1993	1993	1993	1993	1993	1993
MEAN	28.5	40.7	39.8	51.3	42.2	46.1	50.0	41.7	49.8	28.7	21.2	24.8
MAX	61.5	60.1	60.3	94.8	50.1	64.4	62.8	59.4	82.3	40.0	33.2	36.5
(WY)	1991	1993	1991	1993	1993	1993	1993	1990	1993	1993	1990	1990
MIN	12.9	14.0	14.8	27.4	32.8	30.8	37.9	24.4	16.5	12.1	10.5	13.7
(WY)	1988	1988	1990	1988	1989	1989	1989	1989	1988	1988	1988	1988

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1988 - 1993
ANNUAL TOTAL	12996	19403	
ANNUAL MEAN	35.5	53.2	38.7
HIGHEST ANNUAL MEAN			53.2
LOWEST ANNUAL MEAN			24.2
HIGHEST DAILY MEAN	175	256	256
LOWEST DAILY MEAN	15	20	7.9
ANNUAL SEVEN-DAY MINIMUM	16	20	9.0
INSTANTANEOUS PEAK FLOW		333	333
INSTANTANEOUS PEAK STAGE		6.35	6.35
ANNUAL RUNOFF (CFSM)	.98	1.47	1.07
ANNUAL RUNOFF (INCHES)	13.39	19.99	14.56
10 PERCENT EXCEEDS	51	79	64
50 PERCENT EXCEEDS	33	51	34
90 PERCENT EXCEEDS	20	25	16

e Estimated

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100500 ELKHART RIVER AT GOSHEN, IN

LOCATION.--Lat 41°35'36", long 85°50'55", in NE¹/₄NE¹/₄ sec.8, T.36 N., R.6 E., Elkhart County, Hydrologic Unit 04050001, on right bank 20 ft downstream from River Avenue bridge at Goshen, 0.4 mi upstream from Rock Run, and at mile 16.1.

DRAINAGE AREA.--594 mi².

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

REVISED RECORDS.--WSP 1337: 1939(M). WSP 1557: 1954. WSP 2111: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 769.43 ft above sea level. Prior to Nov. 20, 1931, nonrecording gage at same site and datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Occasional low-flow regulation at Goshen Dam, 3.4 mi upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	543	387	1000	3200	1140	e540	1800	999	589	865	265	289
2	559	423	1180	2130	1080	e560	2020	956	558	867	269	359
3	553	1100	1120	1740	1030	590	1630	972	542	933	264	494
4	533	1290	1050	2690	991	709	1430	1040	541	911	271	457
5	504	1070	969	4420	950	765	1340	1410	652	833	279	415
6	429	742	908	3600	927	738	1280	1460	663	783	292	443
7	284	612	862	3060	891	786	1220	1130	740	754	285	482
8	458	932	794	2760	866	974	1170	1020	2320	728	280	435
9	494	656	751	2550	833	1200	1160	956	4570	686	269	398
10	398	816	817	2410	820	1290	1180	935	3550	656	301	370
11	374	802	656	2300	800	1180	1130	896	2380	666	317	344
12	313	1040	636	2190	794	1100	1080	842	1900	740	307	332
13	261	1810	730	2150	778	1080	1030	801	1560	629	320	320
14	284	2080	736	2070	762	1010	995	767	1530	596	295	330
15	555	1580	736	1920	746	934	997	731	1570	577	278	450
16	368	1320	935	1780	e720	964	1020	686	1380	549	291	497
17	252	1270	1030	1660	e700	1370	1000	649	1230	518	283	430
18	270	1230	878	1540	e620	1330	941	607	1130	492	270	398
19	320	1190	829	1380	e585	1100	931	570	1060	481	259	370
20	461	1150	832	1310	e580	1030	1180	544	1030	443	254	358
21	430	1120	813	1490	e580	1040	1230	519	1160	408	236	380
22	358	1100	790	2020	e575	1140	1020	500	1190	386	229	358
23	276	1060	806	1980	e560	1740	951	518	1040	371	231	341
24	242	1520	e780	1750	e550	2300	895	546	956	361	232	324
25	257	1320	e740	1670	e550	1930	1040	508	914	384	229	324
26	264	1250	e710	1490	e550	1680	1300	483	872	379	224	373
27	357	1240	e700	1430	e550	1550	1040	466	839	350	210	410
28	400	1220	424	1380	e540	1490	967	457	832	324	213	537
29	315	1200	582	1330	---	1430	963	462	849	301	231	507
30	231	1180	968	1230	---	1370	1010	481	830	292	285	456
31	281	---	3240	1180	---	1360	---	582	---	274	295	---
TOTAL	11624	33710	28002	63810	21068	36280	34950	23493	38977	17537	8264	11981
MEAN	375	1124	903	2058	752	1170	1165	758	1299	566	267	399
MAX	559	2080	3240	4420	1140	2300	2020	1460	4570	933	320	537
MIN	231	387	424	1180	540	540	895	457	541	274	210	289
CFSM	.63	1.89	1.52	3.47	1.27	1.97	1.96	1.28	2.19	.95	.45	.67
IN.	.73	2.11	1.75	4.00	1.32	2.27	2.19	1.47	2.44	1.10	.52	.75

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1993, BY WATER YEAR (WY)

	315	394	501	595	695	948	947	703	494	355	268	254
MEAN	315	394	501	595	695	948	947	703	494	355	268	254
MAX	1652	1132	1276	2058	1657	2497	2424	2354	1516	1079	712	784
(WY)	1955	1973	1983	1993	1959	1982	1950	1943	1981	1951	1958	1958
MIN	75.9	95.9	122	122	108	301	363	222	101	94.0	73.0	58.5
(WY)	1965	1965	1964	1963	1963	1964	1946	1958	1934	1934	1941	1941

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1932 - 1993	
ANNUAL TOTAL	215203		329696			
ANNUAL MEAN	588		903		538	
HIGHEST ANNUAL MEAN					1005	
LOWEST ANNUAL MEAN					197	
HIGHEST DAILY MEAN	3240		4570		6010	
LOWEST DAILY MEAN	20		210		7.0	
ANNUAL SEVEN-DAY MINIMUM	162		224		50	
INSTANTANEOUS PEAK FLOW			4870		6360	
INSTANTANEOUS PEAK STAGE			10.09		11.94	
ANNUAL RUNOFF (CFSM)	.99		1.52		.91	
ANNUAL RUNOFF (INCHES)	13.48		20.65		12.31	
10 PERCENT EXCEEDS	969		1600		1110	
50 PERCENT EXCEEDS	531		786		387	
90 PERCENT EXCEEDS	265		290		154	

e Estimated

STREAMS TRIBUTARY TO LAKE MICHIGAN

04101370 JUDY CREEK NEAR SOUTH BEND, IN

LOCATION.--Lat 41°43'43", long 85°15'46", in NW¹/₄, SE¹/₄, sec.23, T.38N., R.2E., St. Joseph County, Hydrologic Unit 04050001, on right bank at downstream side of bridge on access road to Isaac Walton League property, 0.1 mi south of Darden Road in Roseland, IN.
 DRAINAGE AREA.--Approx. 38 mi².
 PERIOD OF RECORD.--October 1992 to September 1993.
 GAGE.--Water-stage recorder. Datum of gage about 690.00 ft above sea level.
 REMARKS.--Records fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	21	23	57	e27	22	39	33	20	e33	14	e14
2	22	42	23	48	27	22	38	32	20	e31	13	31
3	19	39	22	46	28	23	35	33	20	e32	14	35
4	23	23	21	71	27	26	34	33	21	e30	15	25
5	22	20	20	67	27	27	32	34	21	e29	15	22
6	21	18	21	57	27	26	31	32	20	e28	15	24
7	19	17	21	48	26	26	30	31	37	e27	14	22
8	18	16	20	42	26	28	30	29	103	e27	13	20
9	18	16	20	39	26	35	32	29	163	e26	e13	19
10	17	16	21	38	26	40	31	30	85	26	21	21
11	16	16	20	37	25	39	31	28	61	27	17	19
12	16	27	20	37	26	37	31	28	46	27	16	19
13	16	34	20	35	26	37	30	26	55	24	16	20
14	18	32	21	34	25	35	31	25	72	24	15	27
15	20	29	20	35	25	33	33	24	59	21	16	39
16	30	25	24	34	25	35	37	24	44	21	18	32
17	29	25	24	32	24	41	34	23	42	22	16	26
18	27	24	23	31	24	37	33	23	40	21	15	21
19	24	24	22	30	e23	34	35	23	42	21	15	19
20	24	24	22	29	23	33	56	23	40	20	20	19
21	22	24	21	32	24	32	49	22	37	20	e20	20
22	20	24	21	32	23	36	41	21	34	19	e19	18
23	20	26	21	36	23	49	39	22	e33	19	e16	18
24	20	25	20	35	e22	46	38	22	e32	19	e16	17
25	18	25	20	32	e21	42	39	20	e35	19	e17	19
26	e16	24	e20	30	e21	38	35	20	e33	19	e15	25
27	15	24	e19	e29	21	36	33	19	e32	17	e13	32
28	e15	23	e19	e29	21	34	33	20	e34	17	e13	37
29	e14	23	e26	e28	---	33	35	20	e32	16	e13	32
30	e14	23	45	e28	---	32	33	22	e33	15	e15	29
31	e15	---	71	e28	---	34	---	21	---	15	16	---
TOTAL	614	729	731	1186	689	1048	1058	792	1346	712	484	721
MEAN	19.8	24.3	23.6	38.3	24.6	33.8	35.3	25.5	44.9	23.0	15.6	24.0
MAX	30	42	71	71	28	49	56	34	163	33	21	39
MIN	14	16	19	28	21	22	30	19	20	15	13	14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1993, BY WATER YEAR (WY)

	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993
MEAN	19.8	24.3	23.6	38.3	24.6	33.8	35.3	25.5	44.9	23.0	15.6	24.0
MAX	19.8	24.3	23.6	38.3	24.6	33.8	35.3	25.5	44.9	23.0	15.6	24.0
(WY)	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993
MIN	19.8	24.3	23.6	38.3	24.6	33.8	35.3	25.5	44.9	23.0	15.6	24.0
(WY)	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993

SUMMARY STATISTICS

FOR 1993 WATER YEAR

ANNUAL TOTAL	10110
ANNUAL MEAN	27.7
HIGHEST DAILY MEAN	163 Jun 9
LOWEST DAILY MEAN	13 Aug 2
ANNUAL SEVEN-DAY MINIMUM	14 Aug 2
INSTANTANEOUS PEAK FLOW	226 Jun 9
INSTANTANEOUS PEAK STAGE	3.39 Jun 9
10 PERCENT EXCEEDS	39
50 PERCENT EXCEEDS	25
90 PERCENT EXCEEDS	16

e Estimated

STREAMS TRIBUTARY TO LAKE ERIE

04177720 FISH CREEK AT HAMILTON, IN

LOCATION.--Lat 41°31'55", long 84°54'12", in SE¹/₄ SW¹/₄, sec.34, T.36 N., R.14 E., Steuben County, Hydrologic Unit 04100003, on left bank 6 ft upstream from bridge on County Road 775 South, 0.5 mi downstream from Hamilton Lake outlet, and 0.5 mi southeast of Hamilton.

DRAINAGE AREA.--37.5 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 876.00 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	19	48	564	e35	e16	224	45	12	14	4.3	7.1
2	12	158	47	314	33	e18	218	37	10	19	4.9	15
3	11	178	44	228	31	37	146	37	10	21	4.4	47
4	9.1	116	40	513	30	74	105	62	11	17	4.8	36
5	7.4	83	36	687	30	66	83	135	23	13	3.7	22
6	6.7	63	30	469	30	e50	72	98	17	10	5.0	28
7	6.4	49	29	294	28	e56	63	74	27	8.9	5.8	25
8	6.9	39	27	203	27	100	56	57	104	9.6	4.6	17
9	11	33	25	151	26	114	64	45	126	8.5	3.9	13
10	9.7	31	33	124	25	101	77	38	86	8.9	7.9	10
11	10	42	32	105	26	80	63	36	59	33	6.8	6.0
12	8.7	181	29	90	29	72	62	35	43	83	5.3	5.5
13	7.2	334	29	87	29	64	54	27	32	46	4.9	5.0
14	16	212	29	77	27	51	47	22	31	34	4.7	5.9
15	20	140	31	68	26	43	51	20	28	25	4.3	20
16	27	101	83	61	e24	52	77	17	21	18	5.0	14
17	20	80	71	56	e21	110	68	15	18	14	4.3	11
18	17	64	56	49	e20	89	55	15	16	12	3.9	9.0
19	14	52	48	43	e19	66	57	16	19	15	4.6	7.5
20	15	44	50	39	e18	62	87	14	22	12	12	5.7
21	17	47	40	59	e20	77	72	14	23	8.8	7.3	5.3
22	15	103	35	111	e20	106	56	13	18	6.8	5.0	4.7
23	15	411	33	96	e19	265	46	16	14	5.8	4.0	5.3
24	15	294	29	107	e18	302	41	20	12	6.0	5.2	4.2
25	13	192	25	90	e17	249	119	17	11	6.2	4.2	5.3
26	12	141	22	68	e18	208	117	15	11	6.2	3.9	9.3
27	11	104	19	58	e17	168	80	14	10	5.1	3.9	20
28	9.6	81	19	53	e16	139	65	15	10	5.3	3.6	25
29	9.2	66	27	49	---	115	57	13	9.2	4.8	4.2	18
30	8.4	56	144	41	---	96	54	12	10	4.1	4.7	15
31	7.8	---	716	e37	---	90	---	15	---	3.6	7.8	---
TOTAL	381.1	3514	1926	4991	679	3136	2436	1009	843.2	484.6	158.9	421.8
MEAN	12.3	117	62.1	161	24.2	101	81.2	32.5	28.1	15.6	5.13	14.1
MAX	27	411	716	687	35	302	224	135	126	83	12	47
MIN	6.4	19	19	37	16	16	41	12	9.2	3.6	3.6	4.2
CFSM	.33	3.12	1.66	4.29	.65	2.70	2.17	.87	.75	.42	.14	.37
IN.	.38	3.49	1.91	4.95	.67	3.11	2.42	1.00	.84	.48	.16	.42

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1993, BY WATER YEAR (WY)

	1987	1993	1991	1993	1976	1982	1978	1990	1981	1992	1979	1981
MEAN	14.0	31.0	39.6	37.7	48.8	74.8	61.4	35.6	28.2	16.6	10.9	11.2
MAX	69.5	117	91.3	161	129	219	112	88.4	118	64.3	35.0	47.1
(WY)	1987	1993	1991	1993	1976	1982	1978	1990	1981	1992	1979	1981
MIN	2.70	2.46	7.25	5.96	7.84	28.1	18.7	8.24	2.05	2.02	1.89	1.88
(WY)	1977	1972	1977	1977	1979	1981	1971	1985	1988	1988	1970	1988

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1970 - 1993	
ANNUAL TOTAL	13429.4		19980.6			
ANNUAL MEAN	36.7		54.7		34.1	
HIGHEST ANNUAL MEAN					54.7	
LOWEST ANNUAL MEAN					17.8	
HIGHEST DAILY MEAN	716		716		716	
LOWEST DAILY MEAN	1.9	Jul 7	3.6	Jul 31	.52	Dec 31 1992
ANNUAL SEVEN-DAY MINIMUM	2.4	Jul 3	4.1	Aug 23	.82	Aug 26 1971
INSTANTANEOUS PEAK FLOW			757		757	
INSTANTANEOUS PEAK STAGE			10.28		11.95	
ANNUAL RUNOFF (CFSM)	.98		1.46		.91	
ANNUAL RUNOFF (INCHES)	13.32		19.82		12.34	
10 PERCENT EXCEEDS	70		115		81	
50 PERCENT EXCEEDS	22		27		17	
90 PERCENT EXCEEDS	4.7		5.4		3.0	

e Estimated

STREAMS TRIBUTARY TO LAKE ERIE

04180500 ST. JOSEPH RIVER NEAR FORT WAYNE, IN

LOCATION.--Lat 41°10'41", long 85°03'19", in NW¹/₄, NE¹/₄, sec.3, T.31 N., R.13 E., Allen County, Hydrologic Unit 04100003, on left bank 0.8 mi downstream from Ely Run, 1.3 mi upstream from Ely Bridge and Mayhew Road, 8.0 mi northeast of the Fort Wayne Court House.

DRAINAGE AREA.--1,060 mi².

PERIOD OF RECORD.--October 1983 to current year. July 1941 to September 1955 gage located 1.3 mi downstream at Ely Bridge.

GAGE.--Water-stage recorder. Datum of gage is 750.00 ft above sea level (levels by State of Indiana).

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated by Cedarville Reservoir and some flow diverted into storage of Hurshtown Reservoir.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	404	515	1780	8120	1020	519	4160	1100	303	349	172	191
2	380	2500	1550	6950	1070	458	4760	1100	283	499	166	224
3	366	4250	1220	7230	1010	562	4030	970	293	710	168	489
4	347	3160	1260	9950	871	1410	3600	896	299	451	165	700
5	285	2660	1110	13100	875	1520	2970	2870	411	403	164	497
6	267	2280	927	13100	864	1510	2540	2380	390	361	155	734
7	264	1960	881	11700	812	1660	2090	2120	711	323	156	601
8	257	1730	795	10000	765	2780	1660	1790	3750	342	152	371
9	317	1350	701	8110	719	3910	1500	1380	3740	308	147	371
10	335	1080	721	6100	697	3490	2300	1170	2710	288	155	324
11	426	1120	717	4450	681	2920	1680	940	2210	286	172	254
12	454	3520	689	3450	660	2730	1660	861	2010	317	163	215
13	400	6750	593	2990	659	2220	1600	709	1850	477	165	213
14	379	6240	688	2740	624	1750	1370	591	1850	592	165	204
15	396	4440	842	2380	604	1260	1220	539	1600	462	162	522
16	701	4010	2170	1950	605	1270	1750	490	1010	344	168	504
17	1030	3660	2460	1750	560	2970	1880	388	884	278	172	366
18	1120	3210	1900	1520	520	2970	1510	377	729	277	157	376
19	942	2710	1630	1300	480	2220	1510	445	620	283	156	314
20	886	2110	1450	1080	427	1930	1570	344	572	254	151	251
21	839	1710	1360	1530	651	2310	1560	376	1210	300	151	222
22	696	2300	1100	3480	584	2780	1530	370	1280	358	145	211
23	635	7200	984	3070	522	5870	1430	356	1010	355	157	189
24	583	6990	871	3420	500	6760	1310	371	984	216	174	185
25	558	5120	761	3150	490	5890	2750	364	647	209	173	188
26	476	4460	670	2270	480	5320	4430	368	556	210	168	203
27	417	4000	549	2120	470	5090	2750	336	502	202	168	321
28	398	3570	567	1840	470	4670	2200	329	543	195	153	588
29	396	2960	726	1660	---	4270	1570	381	416	200	147	423
30	377	2340	1550	1340	---	3710	1520	335	419	191	148	359
31	341	---	7080	1200	---	3290	---	362	---	185	169	---
TOTAL	15672	99905	40302	143050	18690	90019	66410	25408	33792	10225	4984	10610
MEAN	506	3330	1300	4615	667	2904	2214	820	1126	330	161	354
MAX	1120	7200	7080	13100	1070	6760	4760	2870	3750	710	174	734
MIN	257	515	549	1080	427	458	1220	329	283	185	145	185
CFSM	.48	3.14	1.23	4.35	.63	2.74	2.09	.77	1.06	.31	.15	.33
IN.	.55	3.51	1.41	5.02	.66	3.16	2.33	.89	1.19	.36	.17	.37

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1993, BY WATER YEAR (WY)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993		
MEAN	685	1315	1436	1573	1625	2034	1776	878	903	503	292	368
MAX	1984	3330	2421	4615	3315	3612	2843	2270	2915	1413	748	766
(WY)	1987	1993	1991	1993	1990	1985	1985	1990	1989	1986	1990	1992
MIN	144	447	167	305	605	980	607	272	153	122	125	121
(WY)	1988	1988	1990	1984	1989	1989	1986	1988	1988	1988	1988	1991

SUMMARY STATISTICS FOR 1992 CALENDAR YEAR FOR 1993 WATER YEAR WATER YEARS 1984 - 1993

ANNUAL TOTAL	382727	559067	
ANNUAL MEAN	1046	1532	1112
HIGHEST ANNUAL MEAN			1532
LOWEST ANNUAL MEAN			716
HIGHEST DAILY MEAN	7200	Nov 23	13100
LOWEST DAILY MEAN	150	Jul 1	145
ANNUAL SEVEN-DAY MINIMUM	180	Jul 1	156
INSTANTANEOUS PEAK FLOW			13400
INSTANTANEOUS PEAK STAGE			18.40
ANNUAL RUNOFF (CFSM)			1.44
ANNUAL RUNOFF (INCHES)	13.43		19.62
10 PERCENT EXCEEDS	2110	3720	2710
50 PERCENT EXCEEDS	709	719	562
90 PERCENT EXCEEDS	253	191	158

• Estimated

STREAMS TRIBUTARY TO LAKE ERIE

04182810 SPY RUN CREEK AT FORT WAYNE, IN

LOCATION.--Lat 41°06'18", long 85°09'12", in SW¹/₄, SW¹/₄, sec.26, T.31 N., R.12 E., Allen County, Hydrologic Unit 04100004, on right bank 50 ft upstream from Sherman Boulevard bridge in Fort Wayne, and at mile 2.2.

DRAINAGE AREA.--14.0 mi².

PERIOD OF RECORD.--October 1983 to current year.

GAGE.--Water-stage recorder. Datum of gage is 760.00 ft above sea level, (levels by City of Fort Wayne).

REMARKS.--Records good except for estimated daily discharges, which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 14, 1982 reached a stage of 10.75 ft, present site and datum.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	135	7.0	36	9.0	65.6	131	8.7	8.5	45	2.7	12
2	4.2	237	6.8	15	6.9	19	31	7.2	6.7	43	2.7	79
3	3.6	36	6.6	44	6.7	33	18	10	6.5	38	8.1	76
4	3.4	17	6.2	500	6.4	41	13	15	9.1	13	9.1	18
5	3.5	11	5.6	270	6.4	31	11	23	35	8.3	3.2	7.9
6	3.5	8.5	4.9	40	6.8	30	9.3	11	9.9	6.7	6.1	365
7	3.5	7.1	5.0	24	5.7	65	8.4	8.1	33	5.8	6.9	34
8	10	6.3	5.0	18	5.8	82	8.2	6.6	78	6.9	2.9	17
9	17	5.7	5.1	13	5.4	55	39	5.8	65	9.6	2.6	13
10	8.2	12	7.0	69.4	5.8	41	36	6.0	19	19	25	11
11	13	33	11	68.8	6.6	34	16	14	11	90	7.4	7.6
12	7.3	447	13	69.6	11	30	12	20	7.9	26	4.1	13
13	5.8	96	13	33	13	21	9.8	7.5	6.2	10	3.3	7.9
14	8.6	25	12	26	12	12	11	5.6	13	20	2.5	24
15	9.4	15	21	17	9.3	8.8	14	4.7	8.8	8.3	2.1	169
16	63	11	63	12	67.6	51	26	4.3	5.3	6.1	2.5	18
17	14	9.1	22	9.9	66.2	69	14	4.1	4.4	4.8	2.5	10
18	9.5	7.8	17	7.9	65.2	21	10	4.1	3.9	9.1	2.6	7.2
19	7.6	7.3	13	65.8	64.4	13	16	4.2	3.9	25	2.7	5.5
20	7.7	6.8	27	6.3	65.0	25	27	4.3	22	8.1	4.9	6.0
21	11	11	11	107	67.4	27	14	3.9	27	5.1	2.8	11
22	8.7	287	8.9	94	610	34	10	3.7	8.6	4.2	2.7	6.0
23	7.4	283	67.0	42	68.0	223	8.3	18	5.7	3.8	2.7	6.8
24	6.7	38	65.8	64	66.0	46	7.8	13	4.5	3.4	3.8	6.0
25	6.0	24	4.8	23	65.2	27	222	7.0	25	3.2	3.6	21
26	5.6	20	3.7	14	65.0	20	31	4.6	12	3.3	17	21
27	5.6	15	3.5	11	64.8	16	17	3.9	11	3.2	4.7	168
28	6.6	11	3.7	17	64.7	13	12	7.4	184	3.9	3.4	33
29	7.2	8.4	17	19	---	13	11	22	23	3.6	2.8	13
30	7.0	7.5	184	9.4	---	11	13	17	58	3.1	2.8	8.5
31	6.7	---	224	8.7	---	18	---	27	---	2.8	19	---
TOTAL	285.7	1838.5	744.6	1514.8	196.3	1135.4	806.8	301.7	715.9	442.3	169.2	1195.4
MEAN	9.22	61.3	24.0	48.9	7.01	36.6	26.9	9.73	23.9	14.3	5.46	39.8
MAX	63	447	224	500	13	223	222	27	184	90	25	365
MIN	3.4	5.7	3.5	5.8	4.4	5.6	7.8	3.7	3.9	2.8	2.1	5.5
CFSM	.66	4.38	1.72	3.49	.50	2.62	1.92	.70	1.70	1.02	.39	2.85
IN.	.76	4.89	1.98	4.03	.52	3.02	2.14	.80	1.90	1.18	.45	3.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1993, BY WATER YEAR (WY)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993		
MEAN	15.5	22.8	24.1	17.0	25.8	25.7	22.7	15.1	13.4	16.3	9.02	12.8
MAX	43.7	61.3	66.2	48.9	64.6	46.6	36.6	34.2	34.3	48.3	21.7	39.8
(WY)	1992	1993	1991	1993	1990	1984	1988	1984	1989	1986	1990	1993
MIN	2.79	10.2	3.03	3.76	5.32	11.4	8.56	4.15	2.16	3.85	4.10	3.94
(WY)	1988	1985	1990	1984	1989	1987	1986	1988	1988	1991	1984	1988

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1984 - 1993

ANNUAL TOTAL	7372.8	9346.6	
ANNUAL MEAN	20.1	25.6	18.3
HIGHEST ANNUAL MEAN			25.6
LOWEST ANNUAL MEAN			11.5
HIGHEST DAILY MEAN	447	Nov 12	500
LOWEST DAILY MEAN	1.8	Jul 5	2.1
ANNUAL SEVEN-DAY MINIMUM	2.7	Jun 10	2.6
INSTANTANEOUS PEAK FLOW			1010
INSTANTANEOUS PEAK STAGE			10.15
ANNUAL RUNOFF (CFSM)	1.44		1.83
ANNUAL RUNOFF (INCHES)	19.59		24.84
10 PERCENT EXCEEDS	35		43
50 PERCENT EXCEEDS	7.0		9.6
90 PERCENT EXCEEDS	3.4		3.8
			2.6

• Estimated

ILLINOIS RIVER BASIN

227

05515500 KANKAKEE RIVER AT DAVIS, IN

LOCATION.--Lat 41°24'00", long 86°42'04", in SE¹/₄NE¹/₄ sec.13, T.34 N., R.3 W., Starke County, Hydrologic Unit 07120001, on left bank at downstream side of bridge on U.S. Highway 30 at Davis, 0.5 mi downstream from Mill Creek, 4 mi east of Hanna, and at mile 110.9.

DRAINAGE AREA.--537 mi², of which 137 mi² does not contribute directly to surface runoff.

PERIOD OF RECORD.--July 1905 to July 1906 and October 1924 to current year. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 1338: 1953. WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 664.68 ft above 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 mi downstream at different datum. Apr. 19, 1931, to Nov. 3, 1953, nonrecording gage at present site and datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	586	390	656	1370	937	596	1200	953	629	865	431	426
2	546	669	644	1340	900	606	1270	907	597	905	426	485
3	511	1100	631	1300	872	622	1240	879	581	978	417	794
4	479	1130	620	1440	850	721	1180	877	570	934	423	758
5	449	1050	598	1580	836	805	1130	953	600	849	412	640
6	436	950	580	1590	826	816	1080	983	592	779	417	614
7	422	865	583	1580	803	846	1040	933	593	726	446	655
8	423	793	582	1560	789	875	1010	875	1120	696	436	613
9	438	741	571	1540	780	927	976	817	1520	664	419	558
10	434	727	584	1510	772	975	951	773	1550	644	426	519
11	421	766	588	1460	769	990	926	742	1530	643	424	486
12	409	903	596	1420	771	962	891	707	1500	632	413	471
13	400	1180	605	1390	760	927	862	674	1470	601	410	465
14	400	1220	610	1360	748	886	838	653	1420	583	404	494
15	408	1160	615	1310	732	838	873	640	1380	570	393	898
16	469	1070	723	1260	725	829	958	620	1300	553	399	1040
17	506	994	795	1210	712	927	952	609	1210	545	391	929
18	482	916	753	1160	681	947	897	603	1140	534	380	804
19	455	851	713	1100	662	912	879	596	1110	601	370	712
20	444	797	698	1050	656	900	1080	588	1090	592	372	658
21	442	759	672	1070	666	900	1210	573	1060	560	368	639
22	431	749	647	1160	672	924	1170	557	990	531	358	619
23	418	863	622	1180	657	1100	1090	566	921	515	357	597
24	410	893	595	1190	631	1270	1020	600	862	512	355	573
25	400	844	574	1170	619	1270	1040	597	834	515	331	569
26	399	799	553	1120	618	1230	1060	570	820	523	345	649
27	396	757	545	1080	605	1200	1020	549	780	502	341	793
28	390	724	542	1050	596	1160	963	540	796	482	329	991
29	388	693	559	1020	---	1120	940	536	827	461	362	969
30	383	672	744	983	---	1080	965	543	820	450	433	886
31	381	---	1260	957	---	1060	---	637	---	436	435	---
TOTAL	13556	26025	20058	39510	20645	29221	30711	21650	30212	19381	12223	20304
MEAN	437	867	647	1275	737	943	1024	698	1007	625	394	677
MAX	596	1220	1260	1590	937	1270	1270	983	1550	978	446	1040
MIN	381	390	542	957	596	596	838	536	570	436	329	426
CFSM	.81	1.62	1.20	2.37	1.37	1.76	1.91	1.30	1.88	1.16	.73	1.26
IN.	.94	1.80	1.39	2.74	1.43	2.02	2.13	1.50	2.09	1.34	.85	1.41

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 1993, BY WATER YEAR (WY)

	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	405	470	518	548	580	719	747	630	519	411	350	349																																																								
MAX	1162	988	1190	1275	990	1376	1218	1067	1057	839	791	718																																																								
(WY)	1955	1991	1928	1993	1991	1985	1982	1983	1950	1950	1990	1972																																																								
MIN	198	230	236	235	236	325	420	296	248	205	174	179																																																								
(WY)	1964	1965	1964	1963	1964	1934	1987	1934	1934	1934	1941	1941																																																								

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1926 - 1993
ANNUAL TOTAL	196319	283496	
ANNUAL MEAN	536	777	520
HIGHEST ANNUAL MEAN			823
LOWEST ANNUAL MEAN			293
HIGHEST DAILY MEAN	1260	Dec 31	1590
LOWEST DAILY MEAN	257	Aug 25	329
ANNUAL SEVEN-DAY MINIMUM	263	Aug 21	345
INSTANTANEOUS PEAK FLOW			1590
INSTANTANEOUS PEAK STAGE			13.39
ANNUAL RUNOFF (CFSM)	1.00	1.45	.97
ANNUAL RUNOFF (INCHES)	13.60	19.64	13.16
10 PERCENT EXCEEDS	767	1190	890
50 PERCENT EXCEEDS	529	726	448
90 PERCENT EXCEEDS	309	420	275

05516500 YELLOW RIVER AT PLYMOUTH, IN

LOCATION.--Lat 41°20'25", long 86°18'16", in SE¹/₄/NW¹/₄, sec.13, T.33 N., R.2 E., Marshall County, Hydrologic Unit 07120001, on left bank 50 ft upstream from LaPorte Street footbridge in Plymouth, 1.1 mi downstream from Elmer Seltenright (formerly Baker) Ditch, 8.1 mi upstream from Wolf Creek, and at mile 40.3.
 DRAINAGE AREA.--294 mi², of which 22 mi² does not contribute directly to surface runoff.
 PERIOD OF RECORD.--July 1948 to current year.
 REVISED RECORDS.--WSP 1338: 1950-51. WSP 2115: Drainage area. WDR IN-73-1: 1972(M).
 GAGE.--Water-stage recorder. Datum of gage is 764.78 ft above sea level (levels by State of Indiana, Department of Natural Resources). Prior to Aug. 27, 1959, nonrecording gage at same site and datum.
 REMARKS.--Records good except for estimated daily discharges, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	236	123	284	1960	302	●153	●600	456	202	298	83	130
2	204	578	271	2370	265	166	●1200	383	172	358	83	240
3	182	1030	261	2350	253	192	●1500	376	163	523	90	596
4	162	1320	245	2450	241	440	●1200	482	166	460	117	383
5	147	1230	230	2860	234	544	●650	824	235	292	91	239
6	136	823	211	3130	230	444	492	1100	249	232	96	258
7	128	461	208	3140	218	583	426	925	234	197	98	321
8	130	358	198	2810	216	769	394	561	892	179	87	226
9	136	317	189	2250	206	929	395	405	1630	165	82	159
10	141	315	199	1640	204	1070	451	344	2230	157	81	135
11	130	416	210	1180	201	1040	412	307	2510	151	81	118
12	120	777	240	859	206	873	366	280	2320	150	80	113
13	115	1250	275	717	206	711	331	254	1790	138	120	109
14	111	1660	298	731	199	494	319	232	1230	133	103	147
15	119	1710	310	645	191	●350	403	214	912	127	88	588
16	195	1350	603	532	187	370	670	189	668	121	83	667
17	254	922	829	460	186	707	665	177	433	116	80	370
18	189	567	615	392	155	822	463	171	335	113	79	259
19	159	420	407	339	●153	531	418	167	299	121	81	212
20	145	371	375	314	●160	399	769	160	295	116	81	185
21	141	352	346	492	179	452	988	154	334	107	74	170
22	138	381	301	957	185	552	764	147	311	101	71	158
23	131	671	270	1210	167	945	479	159	251	95	70	150
24	128	803	245	1130	●155	1430	403	175	219	112	71	140
25	126	599	●220	1000	●152	1690	620	167	202	161	69	144
26	121	471	●195	711	●150	1550	991	156	193	132	70	188
27	118	415	●180	477	●149	1210	918	150	180	112	82	217
28	112	362	●175	408	●148	895	562	148	251	103	72	359
29	110	328	●205	393	---	660	435	144	428	97	147	294
30	106	302	576	336	---	529	470	153	296	92	173	230
31	102	---	1340	324	---	478	---	198	---	87	142	---
TOTAL	4472	20682	10511	38567	5498	21978	18754	9758	19630	5346	2825	7505
MEAN	144	689	339	1244	196	709	625	315	654	172	91.1	250
MAX	254	1710	1340	3140	302	1690	1500	1100	2510	523	173	667
MIN	102	123	175	314	148	153	319	144	163	87	69	109
CFSM	.49	2.34	1.15	4.23	.67	2.41	2.13	1.07	2.23	.59	.31	.85
IN.	.57	2.62	1.33	4.88	.70	2.78	2.37	1.23	2.48	.68	.36	.95

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1993, BY WATER YEAR (WY)

MEAN	148	190	274	309	373	542	502	283	232	157	106	95.4
MAX	1583	689	733	1244	1007	1586	1190	811	719	664	494	536
(WY)	1955	1993	1983	1993	1959	1982	1950	1981	1975	1951	1958	1972
MIN	23.7	20.9	30.4	26.5	35.7	79.5	99.8	65.4	51.2	39.4	31.2	22.4
(WY)	1965	1965	1954	1963	1963	1957	1971	1958	1988	1988	1949	1949

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1949 - 1993	
ANNUAL TOTAL	103297		165526			
ANNUAL MEAN	282		453		267	
HIGHEST ANNUAL MEAN					453	
LOWEST ANNUAL MEAN					119	
HIGHEST DAILY MEAN	1710	Nov 15	3140	Jan 7	5310	Oct 13 1954
LOWEST DAILY MEAN	63	Jul 8	69	Aug 25	13	Dec 3 1964
ANNUAL SEVEN-DAY MINIMUM	67	Sep 1	72	Aug 22	15	Dec 2 1964
INSTANTANEOUS PEAK FLOW			3200		5390	
INSTANTANEOUS PEAK STAGE			14.25		17.13	
ANNUAL RUNOFF (CFSM)	.96		1.54		.91	
ANNUAL RUNOFF (INCHES)	13.07		20.94		12.34	
10 PERCENT EXCEEDS	620		1030		674	
50 PERCENT EXCEEDS	204		253		127	
90 PERCENT EXCEEDS	83		110		37	

● Estimated

ILLINOIS RIVER BASIN

231

05517530 KANKAKEE RIVER NEAR KOUTS, IN

LOCATION.--Lat 41°15'14", long 87°02'02", in SW¹/₄NE¹/₄ sec.6, T.32 N., R.5 W., Jasper County, Hydrologic Unit 07120001, on left bank, 20 ft downstream from bridge on State Highway 49, 4.5 mi south of Kouts, 0.7 mi upstream from Cook Ditch, and at mile 86.7.

DRAINAGE AREA.--1,376 mi², of which 194 mi² does not contribute directly to surface runoff.

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

REVISED RECORDS.--WDR IN-77-1: 1975(M).

GAGE.--Water-stage recorder. Datum of gage is 645.00 ft above sea level.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1730	935	1900	2860	2730	1490	3430	2910	1690	2670	973	1210
2	1570	1150	1840	3030	2600	1530	3500	2770	1650	2580	952	1340
3	1420	1760	1780	3170	2490	1550	3510	2660	1580	2920	951	2210
4	1330	2160	1740	3630	2420	1690	3500	2560	1570	2940	931	2380
5	1260	2370	1660	4340	2390	1930	3500	2510	1560	2840	901	2350
6	1200	2530	1590	4560	2330	2070	3470	2590	1560	2600	895	2150
7	1140	2580	1580	4660	2250	2150	3340	2690	1610	2320	942	2110
8	1070	2490	1530	4770	2180	2210	3170	2750	1960	2090	940	2050
9	1060	2300	1480	4910	2120	2350	3040	2740	3040	1940	921	1930
10	1070	2120	1520	4970	2070	2500	2940	2570	3320	1830	971	1710
11	1040	2000	1530	4960	2000	2640	2820	2320	3390	1800	1030	1540
12	1020	2120	1500	4830	2010	2720	2680	2160	3490	1770	944	1460
13	1030	2540	1510	4640	1950	2760	2570	2020	3570	1680	915	1470
14	1020	2790	1540	4430	1880	2690	2480	1900	3740	1650	933	1520
15	1020	2930	1580	4200	1860	2570	2500	1850	3880	1580	1010	2400
16	1020	3010	1720	4050	1830	2430	2690	1800	3850	1530	955	2770
17	1080	3070	1890	3870	1790	2440	2720	1730	3720	1490	912	2860
18	1120	3060	2020	3650	1690	2460	2710	1660	3560	1440	867	2800
19	1150	2960	2070	3450	1620	2510	2690	1610	3390	1420	874	2560
20	1130	2710	2070	3250	1630	2530	2920	1570	3270	1430	893	2310
21	1080	2460	1970	3170	1680	2470	3030	1520	3080	1360	850	2100
22	1020	2310	1870	3220	1680	2470	3060	1460	2890	1300	797	1950
23	1030	2380	1800	3240	1620	2800	3090	1450	2690	1310	760	1870
24	1040	2460	1710	3310	1540	3060	3070	1490	2490	1230	759	1780
25	1010	2520	1610	3330	1500	3140	3080	1530	2350	1260	726	1700
26	966	2540	1580	3330	1480	3230	3070	1480	2220	1320	691	1690
27	963	2440	1550	3290	1500	3360	3070	1410	2070	1290	694	1870
28	986	2280	1440	3240	1480	3440	3090	1410	2220	1230	688	2110
29	931	2150	1490	3100	---	3450	3090	1400	2690	1200	823	2110
30	938	2010	1640	2930	---	3340	3030	1400	2600	1110	1210	2110
31	943	---	2490	2800	---	3240	---	1590	---	1030	1250	---
TOTAL	34387	71135	53200	117190	54320	79220	90860	61510	80700	54160	27958	60420
MEAN	1109	2371	1716	3780	1940	2555	3029	1984	2690	1747	902	2014
MAX	1730	3070	2490	4970	2730	3450	3510	2910	3880	2940	1250	2860
MIN	931	935	1440	2800	1480	1490	2480	1400	1560	1030	688	1210
CFSM	.81	1.72	1.25	2.75	1.41	1.86	2.20	1.44	1.95	1.27	.66	1.46
IN.	.93	1.92	1.44	3.17	1.47	2.14	2.46	1.66	2.18	1.46	.76	1.63

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1993, BY WATER YEAR (WY)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	986	1268	1639	1576	1631	2445	2580	1892	1641	1095	893	883							
MAX	2770	2392	2889	3787	2614	4613	4229	3255	3172	1828	2432	2014							
(WY)	1991	1991	1991	1991	1991	1985	1985	1983	1981	1981	1990	1993							
MIN	477	542	704	634	718	1423	1144	1113	619	411	398	479							
(WY)	1979	1979	1979	1977	1978	1987	1987	1988	1988	1988	1988	1978							

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1975 - 1993
ANNUAL TOTAL	511902	785060	
ANNUAL MEAN	1399	2151	1543
HIGHEST ANNUAL MEAN			2160
LOWEST ANNUAL MEAN			1131
HIGHEST DAILY MEAN	3070	Nov 17	6410
LOWEST DAILY MEAN	482	Aug 24	292
ANNUAL SEVEN-DAY MINIMUM	516	Aug 21	309
INSTANTANEOUS PEAK FLOW		4990	6420
INSTANTANEOUS PEAK STAGE		13.74	14.52
ANNUAL RUNOFF (CFSM)	1.02	1.56	1.12
ANNUAL RUNOFF (INCHES)	13.84	21.22	15.23
10 PERCENT EXCEEDS	2070	3330	2930
50 PERCENT EXCEEDS	1350	2050	1300
90 PERCENT EXCEEDS	722	1020	599

ILLINOIS RIVER BASIN

05517890 COBB DITCH NEAR KOUTS, IN

LOCATION.--Lat 41°20'19", long 87°04'30", in NW¹/₄, SE¹/₄, sec. 2, T.33 N., R.6 W., Porter County, Hydrologic Unit 07120001, on left bank 15 ft upstream from bridge on County Road 50 West, 1.6 mi upstream from mouth, and 3 mi northwest of Kouts.

DRAINAGE AREA.--30.3 mi².

PERIOD OF RECORD.--July 1968 to current year. Prior to October 1971, published as State Ditch near Kouts.

GAGE.--Water-stage recorder. Datum of gage is 652.00 ft above sea level (Indiana Department of Highways bench mark). Prior to Oct. 19, 1978, water-stage recorder at site 1.4 mi downstream at same datum.

REMARKS.--Records good except estimated daily discharges, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	29	30	108	30	e19	242	41	32	84	20	34
2	25	91	29	74	29	e20	105	41	32	103	19	253
3	24	64	28	69	29	29	81	40	32	179	20	238
4	23	51	26	494	28	56	69	41	32	80	21	84
5	23	46	25	411	28	44	62	41	36	61	22	58
6	23	42	24	141	27	49	53	39	33	50	23	68
7	22	40	23	100	27	61	46	37	33	43	22	58
8	22	38	24	80	26	65	44	36	225	39	21	43
9	23	39	23	67	26	85	44	35	312	37	21	38
10	23	47	23	58	26	80	41	35	106	35	22	34
11	20	70	23	53	25	69	39	34	77	34	21	32
12	18	130	22	50	26	53	36	34	62	34	20	33
13	19	128	22	59	25	46	35	33	54	32	20	32
14	19	58	21	55	25	39	37	33	84	32	20	45
15	21	45	23	48	24	36	123	31	57	30	20	144
16	28	39	90	43	24	92	150	31	44	29	20	66
17	26	34	52	40	e23	116	76	33	39	29	19	48
18	24	31	37	37	e21	56	61	33	47	29	19	41
19	24	30	32	35	e20	45	59	31	101	29	19	37
20	25	30	31	33	e20	41	240	30	121	27	19	35
21	30	30	28	79	e20	44	91	30	68	26	18	34
22	37	48	27	109	e20	65	68	32	50	25	16	33
23	29	90	25	78	e19	385	55	34	41	25	15	32
24	28	60	24	91	e18	144	49	33	37	25	15	31
25	27	49	23	56	e18	95	57	32	37	28	16	31
26	27	43	22	45	e18	76	52	31	35	26	17	40
27	26	38	21	39	e18	63	45	31	32	24	17	63
28	26	34	21	38	e19	59	43	31	148	24	15	57
29	26	31	28	35	---	56	43	31	104	23	113	41
30	25	30	187	33	---	50	44	33	106	20	77	36
31	26	---	415	32	---	90	---	35	---	20	42	---
TOTAL	765	1535	1429	2690	659	2228	2190	1062	2217	1282	769	1819
MEAN	24.7	51.2	46.1	86.8	23.5	71.9	73.0	34.3	73.9	41.4	24.8	60.6
MAX	37	130	415	494	30	385	242	41	312	179	113	253
MIN	18	29	21	32	18	19	35	30	32	20	15	31
CFSM	.81	1.69	1.52	2.86	.78	2.37	2.41	1.13	2.44	1.36	.82	2.00
IN.	.94	1.88	1.75	3.30	.81	2.74	2.69	1.30	2.72	1.57	.94	2.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1993, BY WATER YEAR (WY)

	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	21.2	31.8	34.4	33.6	39.5	55.8	52.5	42.4	36.2	25.4	21.5	19.6													
MAX	67.8	112	88.9	86.8	79.3	142	103	89.4	95.4	71.5	99.0	60.6													
(WY)	1991	1986	1991	1993	1976	1982	1975	1974	1981	1983	1990	1993													
MIN	11.5	11.0	14.4	11.0	10.6	18.0	20.8	14.9	14.6	12.0	10.8	12.0													
(WY)	1981	1981	1990	1977	1978	1981	1986	1980	1988	1988	1988	1988													

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1969 - 1993	
ANNUAL TOTAL	10885		18645			
ANNUAL MEAN	29.7		51.1		34.5	
HIGHEST ANNUAL MEAN					53.1	
LOWEST ANNUAL MEAN					19.3	
HIGHEST DAILY MEAN	415	Dec 31	494	Jan 4	955	Nov 28 1990
LOWEST DAILY MEAN	12	Aug 23	15	Aug 23	8.9	Sep 11 1977
ANNUAL SEVEN-DAY MINIMUM	13	Aug 19	16	Aug 22	9.5	Feb 24 1978
INSTANTANEOUS PEAK FLOW			779	Jan 4	1160	Nov 28 1990
INSTANTANEOUS PEAK STAGE			14.83	Jan 4	17.95	Mar 29 1985
ANNUAL RUNOFF (CFSM)	.98		1.69		1.14	
ANNUAL RUNOFF (INCHES)	13.36		22.89		15.45	
10 PERCENT EXCEEDS	41		91		60	
50 PERCENT EXCEEDS	25		34		22	
90 PERCENT EXCEEDS	17		20		14	

e Estimated

05521000 IROQUOIS RIVER AT ROSEBUD, IN

LOCATION.--Lat 41°02'00", long 87°10'49", in NW¹/₄, SW¹/₄, sec.24, T.30 N., R.7 W., Jasper County, Hydrologic Unit 07120002, on right bank 100 ft downstream from bridge on county road, 0.5 mi north of Rosebud, 0.5 mi downstream from confluence of Swain and Dexter Ditches, 1.5 mi upstream from Davidson Ditch, 2 mi east of Parr, and at mile 93.5.

DRAINAGE AREA.--35.6 mi².

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

REVISED RECORDS.--WSP 1338: 1950-53. WSP 1728: 1959-60(M). WSP 1915: 1949-60. WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 661.47 ft above sea level (levels by State of Indiana, Department of Natural Resources). Prior to Oct. 1, 1953, nonrecording gage on downstream side of county road bridge at same datum.

REMARKS.--Records good, except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	38	40	e136	49	e26	277	62	95	147	15	33
2	32	164	39	e100	47	e26	182	55	74	162	14	127
3	31	117	36	e85	45	73	125	56	73	213	13	243
4	29	78	36	e120	43	108	101	62	67	119	13	130
5	28	60	33	e250	43	96	87	77	74	80	12	81
6	26	49	32	e230	42	96	74	64	61	63	13	117
7	26	43	31	e200	41	108	65	57	56	54	12	99
8	27	39	30	e165	41	100	61	51	222	49	12	62
9	26	40	29	e135	40	100	58	48	345	44	11	50
10	25	51	32	e100	40	99	53	46	206	52	13	41
11	25	81	29	e82	e39	97	50	44	131	56	11	35
12	24	140	28	e74	e38	81	46	42	91	44	11	62
13	24	154	28	e79	e36	74	44	40	68	38	12	62
14	23	95	29	e84	e34	65	49	38	118	51	11	108
15	25	71	35	64	e32	57	125	37	103	39	11	345
16	29	60	77	60	e30	62	147	36	68	35	15	184
17	27	53	56	55	e30	74	94	36	57	33	12	113
18	26	47	46	50	e29	61	75	36	64	36	11	82
19	25	45	43	e45	e28	56	69	35	79	38	24	63
20	26	43	42	e43	e27	55	102	35	75	32	108	57
21	25	43	39	97	e28	60	81	34	62	29	49	51
22	24	61	37	134	e28	91	66	34	52	26	32	47
23	24	104	36	114	e27	160	59	38	46	26	24	46
24	24	74	e32	106	e27	121	55	40	42	25	20	41
25	23	64	e31	86	e27	97	85	38	47	25	19	48
26	23	58	e30	72	e26	83	80	36	45	23	34	68
27	22	51	e29	64	e26	73	62	35	41	22	35	93
28	22	47	e28	62	e26	66	56	36	153	20	23	77
29	22	43	e30	57	---	61	57	42	181	18	22	56
30	21	41	e36	e51	---	58	73	79	170	16	27	47
31	21	---	e70	52	---	116	---	148	---	15	33	---
TOTAL	790	2054	1149	3052	969	2500	2558	1517	2966	1630	672	2668
MEAN	25.5	68.5	37.1	98.5	34.6	80.6	85.3	48.9	98.9	52.6	21.7	88.9
MAX	35	164	77	250	49	160	277	148	345	213	108	345
MIN	21	38	28	43	26	26	44	34	41	15	11	33
CFSM	.72	1.92	1.04	2.77	.97	2.27	2.40	1.37	2.78	1.48	.61	2.50
IN.	.83	2.15	1.20	3.19	1.01	2.61	2.67	1.59	3.10	1.70	.70	2.79

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1993, BY WATER YEAR (WY)

	14.1	19.2	28.8	30.5	37.8	50.9	52.4	38.8	31.1	16.6	9.64	12.7
MEAN	14.1	19.2	28.8	30.5	37.8	50.9	52.4	38.8	31.1	16.6	9.64	12.7
MAX	74.9	68.5	96.8	113	91.1	149	141	111	111	52.6	52.1	88.9
(WY)	1991	1993	1991	1950	1959	1982	1950	1974	1981	1993	1972	1993
MIN	1.19	1.80	2.43	3.52	3.13	7.69	17.2	10.2	5.47	3.08	1.97	1.53
(WY)	1965	1965	1964	1963	1964	1957	1986	1958	1988	1988	1964	1964

SUMMARY STATISTICS FOR 1992 CALENDAR YEAR FOR 1993 WATER YEAR WATER YEARS 1949 - 1993

	10511.7	22525	28.5	1993
ANNUAL TOTAL	10511.7	22525	28.5	1993
ANNUAL MEAN	28.7	61.7	61.7	1964
HIGHEST ANNUAL MEAN			6.38	1964
LOWEST ANNUAL MEAN				
HIGHEST DAILY MEAN	164	Nov 2	345	Jun 9
LOWEST DAILY MEAN	7.3	Sep 7	11	Aug 9
ANNUAL SEVEN-DAY MINIMUM	7.8	Sep 1	11	Aug 9
INSTANTANEOUS PEAK FLOW			396	Jun 9
INSTANTANEOUS PEAK STAGE			5.83	Jun 9
ANNUAL RUNOFF (CFSM)	.81		1.73	
ANNUAL RUNOFF (INCHES)	10.98		23.54	
10 PERCENT EXCEEDS	47		63	
50 PERCENT EXCEEDS	24		17	
90 PERCENT EXCEEDS	11		4.2	

e Estimated

ILLINOIS RIVER BASIN

237

05522500 IROQUOIS RIVER AT RENSSELAER, IN

LOCATION.--Lat 40°56'00", long 87°07'44", in NW¹/₄SE¹/₄, sec.29, T.29 N., R.6 W., Jasper County, Hydrologic Unit 07120002, on right bank 20 ft downstream from bridge on State Highway 114, 0.8 mi east of Rensselaer, 1.5 mi downstream from Ryan Ditch, 5.5 mi upstream from Slough Creek, and at mile 84.9.

DRAINAGE AREA.--203 mi².

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

REVISED RECORDS.--WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 642.29 ft above sea level (levels by State of Indiana, Department of Natural Resources). Prior to July 8, 1949, nonrecording gage at same site and datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Streamflow affected by irrigation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	201	137	283	911	266	149	1280	455	560	1050	70	136
2	167	750	270	733	236	166	1480	399	445	1070	67	302
3	147	982	251	546	226	330	1350	355	368	1180	58	802
4	136	918	232	968	212	646	1120	346	341	1210	57	863
5	120	737	207	1680	205	721	883	388	396	1040	53	722
6	110	565	201	1730	204	723	680	393	361	807	54	752
7	104	420	197	1640	199	814	538	342	290	585	53	776
8	109	330	179	1410	198	811	460	293	643	409	48	641
9	131	290	171	1090	190	799	426	250	1190	305	47	468
10	129	339	184	789	189	771	392	232	1310	328	49	311
11	115	507	182	615	190	767	348	213	1190	423	54	230
12	109	763	162	496	●183	690	308	205	963	359	50	317
13	99	1050	158	508	●180	581	278	189	743	278	55	442
14	94	1040	160	583	●179	470	288	176	672	591	51	525
15	99	870	181	567	●171	387	526	167	727	500	49	1350
16	156	683	481	492	●169	368	904	151	610	324	66	1570
17	165	550	554	427	●161	418	885	144	456	247	64	1500
18	150	439	464	370	●158	415	707	143	394	253	56	1240
19	128	369	379	299	●158	366	557	119	393	297	65	966
20	127	330	337	281	●158	325	587	115	388	253	324	732
21	121	317	288	444	●158	351	649	124	346	198	231	562
22	109	375	270	908	●156	503	567	123	278	165	121	439
23	108	681	248	1010	●155	907	469	141	227	150	88	377
24	104	710	203	971	●156	1050	401	157	196	147	74	332
25	100	611	●192	818	●155	931	567	142	180	144	68	321
26	98	529	●180	609	●151	748	692	130	181	130	76	443
27	100	478	●172	493	●150	598	601	123	166	116	93	542
28	92	394	●168	413	148	493	485	122	381	105	72	613
29	89	340	●175	362	---	423	412	151	815	88	60	536
30	86	314	381	298	---	366	442	202	965	69	78	424
31	82	---	858	304	---	533	---	528	---	72	101	---
TOTAL	3685	16818	8368	22765	5061	17620	19282	7018	16175	12893	2452	19234
MRAN	119	561	270	734	181	568	643	226	539	416	79.1	641
MAX	201	1050	858	1730	266	1050	1480	528	1310	1210	324	1570
MIN	82	137	158	281	148	149	278	115	166	69	47	136
CFSM	.59	2.76	1.33	3.62	.89	2.80	3.17	1.12	2.66	2.05	.39	3.16
IN.	.68	3.08	1.53	4.17	.93	3.23	3.53	1.29	2.96	2.36	.45	3.52

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1993, BY WATER YEAR (WY)

	75.4	119	182	205	249	335	344	234	190	94.8	48.7	71.2
MEAN	75.4	119	182	205	249	335	344	234	190	94.8	48.7	71.2
MAX	529	561	559	774	613	935	886	766	863	416	238	641
(WY)	1991	1993	1991	1950	1976	1982	1950	1974	1958	1993	1990	1993
MIN	5.77	7.75	7.04	14.5	13.9	40.8	87.8	47.6	22.9	12.5	4.61	5.26
(WY)	1965	1965	1964	1963	1964	1957	1986	1958	1988	1964	1964	1964

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1949 - 1993	
ANNUAL TOTAL	67821		151371			
ANNUAL MEAN	185		415		178	
HIGHEST ANNUAL MEAN					415	
LOWEST ANNUAL MEAN					29.7	
HIGHEST DAILY MEAN	1050	Nov 13	1730	Jan 6	2500	Jun 11 1958
LOWEST DAILY MEAN	20	Aug 24	47	Aug 9	2.2	Sep 9 1964
ANNUAL SEVEN-DAY MINIMUM	23	Aug 20	51	Aug 8	2.8	Sep 9 1964
INSTANTANEOUS PEAK FLOW			1730	Jan 6	2550	Jun 10 1958
INSTANTANEOUS PEAK STAGE			12.99	Jan 6	16.54	Jun 10 1958
ANNUAL RUNOFF (CFSM)	.91		2.04		.88	
ANNUAL RUNOFF (INCHES)	12.43		27.74		11.94	
10 PERCENT EXCEEDS	380		905		449	
50 PERCENT EXCEEDS	135		328		91	
90 PERCENT EXCEEDS	41		99		16	

● Estimated

DES PLAINES RIVER BASIN

05536179 HART DITCH AT DYER, IN

LOCATION.--Lat 41°30'28", long 87°30'36", in NE¹/₄ NE¹/₄, sec.12, T.35 N., R.10 W., Lake County, Hydrologic Unit 07120003, on right bank 50 ft upstream from 213th Street in Dyer, 0.8 mi upstream from Dyer Ditch.

DRAINAGE AREA.--37.6 mi².

PERIOD OF RECORD.--October 1989 to current year.

GAGE.--Water-stage recorder. Datum of gage is 607.38 ft above sea level.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Low-flow affected by sewage effluent.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	69	25	223	20	5.9	707	13	8.4	193	6.0	106
2	5.4	75	23	150	16	7.5	249	11	8.1	292	6.2	142
3	3.8	72	20	140	14	29	185	19	9.7	481	6.1	240
4	3.4	98	18	547	14	182	136	27	13	165	8.6	141
5	4.6	83	e14	837	13	165	92	66	14	105	6.3	98
6	3.4	47	14	298	12	202	54	27	9.8	70	10	117
7	3.5	29	15	187	12	249	36	16	81	49	8.1	108
8	4.8	23	13	138	11	170	34	11	636	39	7.0	61
9	7.0	25	11	100	10	170	54	7.4	829	32	8.2	40
10	4.8	60	11	e50	11	159	35	6.0	226	29	8.4	22
11	2.7	124	13	e45	10	149	22	4.8	151	26	8.4	16
12	3.9	188	11	e40	12	111	16	4.1	106	24	8.0	16
13	4.0	265	11	e34	12	96	13	3.8	71	21	8.9	15
14	3.3	137	12	e30	11	e48	11	3.6	79	18	8.3	158
15	4.3	97	21	e26	11	e48	71	3.8	84	15	9.5	356
16	2.6	73	208	e23	e9.0	96	170	3.7	47	13	23	156
17	e2.5	56	135	e20	e8.0	175	88	3.5	36	11	16	106
18	e2.4	44	86	e19	e7.2	97	47	3.4	72	19	11	66
19	e2.6	39	60	e17	6.2	65	56	3.6	344	19	11	38
20	4.4	39	46	e16	6.3	46	505	3.0	822	9.8	11	26
21	3.0	41	e35	147	7.3	58	267	3.4	280	9.8	15	18
22	e2.3	45	e25	278	8.7	118	147	3.4	164	8.5	13	14
23	e2.1	98	e17	213	8.1	613	101	4.5	116	8.1	16	11
24	e1.8	74	e15	238	6.6	351	61	5.8	81	7.7	14	9.1
25	e1.6	50	e12	e115	5.3	193	43	6.1	72	27	17	23
26	e1.5	55	e11	e82	5.3	147	36	5.6	51	24	37	212
27	e1.7	49	11	74	5.1	109	23	5.0	40	13	23	405
28	e2.0	36	12	53	4.8	72	18	5.4	286	9.3	15	237
29	e2.3	30	52	e35	---	49	16	5.6	477	7.5	169	139
30	e2.7	27	295	e28	---	32	18	7.2	260	6.8	343	94
31	e2.3	---	675	23	---	232	---	11	---	6.5	149	---
TOTAL	102.5	2148	1927	4226	276.9	4244.4	3311	303.7	5474.0	1759.0	1001.0	3190.1
MEAN	3.31	71.6	62.2	136	9.89	137	110	9.80	182	56.7	32.3	106
MAX	7.0	265	675	837	20	613	707	66	829	481	343	405
MIN	1.5	23	11	16	4.8	5.9	11	3.0	8.1	6.5	6.0	9.1
CFSM	.09	1.90	1.65	3.63	.26	3.64	2.94	.26	4.85	1.51	.86	2.83
IN.	.10	2.13	1.91	4.18	.27	4.20	3.28	.30	5.42	1.74	.99	3.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1993, BY WATER YEAR (WY)

	1990	1991	1992	1993
MEAN	27.2	97.5	59.9	57.6
MAX	57.6	195	106	136
(WY)	1991	1991	1991	1993
MIN	3.31	19.6	4.92	17.7
(WY)	1993	1990	1990	1992

SUMMARY STATISTICS FOR 1992 CALENDAR YEAR FOR 1993 WATER YEAR WATER YEARS 1990 - 1993

ANNUAL TOTAL	10382.4	27963.6	
ANNUAL MEAN	28.4	76.6	53.4
HIGHEST ANNUAL MEAN			76.6
LOWEST ANNUAL MEAN			34.4
HIGHEST DAILY MEAN	675	837	2580
LOWEST DAILY MEAN	1.5	1.5	1.5
ANNUAL SEVEN-DAY MINIMUM	1.9	1.9	1.9
INSTANTANEOUS PEAK FLOW		1110	3010
INSTANTANEOUS PEAK STAGE		9.17	15.33
ANNUAL RUNOFF (CFSM)	.75	2.04	1.42
ANNUAL RUNOFF (INCHES)	10.27	27.67	19.31
10 PERCENT EXCEEDS	72	204	138
50 PERCENT EXCEEDS	12	23	17
90 PERCENT EXCEEDS	2.9	4.5	3.7

e Estimated

DES PLAINES RIVER BASIN

05536195 LITTLE CALUMET RIVER AT MUNSTER, IN

LOCATION.--Lat 41°34'07", long 87°31'18", in SE¹/₄NW¹/₄ sec.13, T.36 N., R.10 W., Lake County, Hydrologic Unit 07120003, on left bank 200 ft upstream from Hohman Avenue bridge at north city limits of Munster, 0.4 mi upstream from Indiana-Illinois State line, and 4.6 mi upstream from Thorn Creek.

DRAINAGE AREA.--90.0 mi². During times of floods on Deep River, flow may enter basin from eastern portion of Little Calumet River Basin; or, during times of floods on Hart Ditch, flow may leave the basin and enter eastern portion of the Little Calumet River Basin.

PERIOD OF RECORD.--June 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 580.72 ft above sea level.

REMARKS.--Records poor. Flow from eastern portion of Little Calumet River Basin is diverted to Lake Michigan by Burns Ditch. Periods of high flow frequently are in backwater from downstream storage.

PROVISIONAL DATA

SUBJECT TO REVISION

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	62	36	437	•43	•22	•450	•68	•35	•253	18	258
2	22	92	33	257	•37	•40	•260	•60	•29	•244	17	194
3	19	81	31	202	•36	•75	•190	•75	•28	•479	22	239
4	18	92	29	469	•34	175	•150	•94	•60	•360	24	191
5	17	•71	25	751	•33	198	•125	•120	•63	•222	16	•140
6	16	•48	28	570	•32	209	•102	•85	•45	•155	38	181
7	15	•37	23	353	•31	237	•90	•70	187	•115	33	148
8	15	32	22	•240	•32	204	•100	•58	•500	•90	25	•90
9	14	46	21	•175	•31	194	•110	•51	•700	•75	22	•74
10	18	65	23	•120	•33	192	•90	•47	•300	•73	23	•59
11	16	105	23	•100	•30	•185	•75	•44	•200	•70	19	•50
12	15	227	23	•105	•34	•140	•67	•41	•160	•54	18	•65
13	14	261	24	154	•36	•120	•60	•37	•170	•47	17	•60
14	14	174	24	•125	•33	•85	•61	•35	•200	•44	16	214
15	34	•120	50	•102	•31	•80	153	•32	•160	•36	16	375
16	22	•95	171	•88	•32	•140	207	•31	•90	•32	21	239
17	17	•78	151	•80	•30	188	•150	•30	•75	•29	21	161
18	15	•67	110	•62	•28	•130	•100	•29	•200	58	19	•100
19	13	•59	89	•57	•27	•95	166	•27	•400	68	21	•80
20	13	55	78	•53	•27	•90	405	•26	•680	38	25	•68
21	14	60	60	209	•29	•95	•320	•25	•400	29	19	•59
22	14	58	52	287	•32	185	•190	•30	•242	25	17	•51
23	13	73	44	246	•28	447	•145	•45	•177	23	17	•44
24	12	80	41	253	•25	•340	•135	•40	•147	22	24	•38
25	12	70	•35	•180	•22	•225	•125	•30	•130	104	36	83
26	12	71	•30	•128	•21	•170	•94	•27	•107	61	64	203
27	12	63	•30	•100	•21	•133	•79	•24	•89	40	31	363
28	10	53	30	•80	•21	•105	•70	•25	•387	33	26	334
29	10	45	96	•70	---	•91	•88	•28	•404	25	218	194
30	11	41	276	•52	---	•82	•85	•36	•299	21	323	•130
31	11	---	567	•52	---	253	---	•50	---	19	446	---
TOTAL	483	2481	2275	6157	849	4925	4442	1420	6664	2944	1652	4485
MEAN	15.6	82.7	73.4	199	30.3	159	148	45.8	222	95.0	53.3	149
MAX	34	261	567	751	43	447	450	120	700	479	446	375
MIN	10	32	21	52	21	22	60	24	28	19	16	38
CFSM	.17	.92	.82	2.21	.34	1.77	1.65	.51	2.47	1.06	.59	1.66
IN.	.20	1.03	.94	2.54	.35	2.04	1.84	.59	2.75	1.22	.68	1.85

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1993, BY WATER YEAR (WY)

	34.4	61.8	81.8	65.2	87.0	141	140	97.6	70.8	39.0	37.1	44.8
MEAN	34.4	61.8	81.8	65.2	87.0	141	140	97.6	70.8	39.0	37.1	44.8
MAX	96.3	212	301	199	252	386	268	266	222	172	141	217
(WY)	1991	1973	1983	1993	1959	1979	1973	1959	1993	1983	1990	1965
MIN	6.47	5.29	7.12	7.32	8.49	32.4	21.3	18.1	11.2	9.56	7.28	5.54
(WY)	1969	1972	1961	1961	1963	1964	1963	1992	1965	1965	1964	1966

SUMMARY STATISTICS

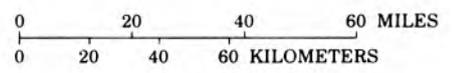
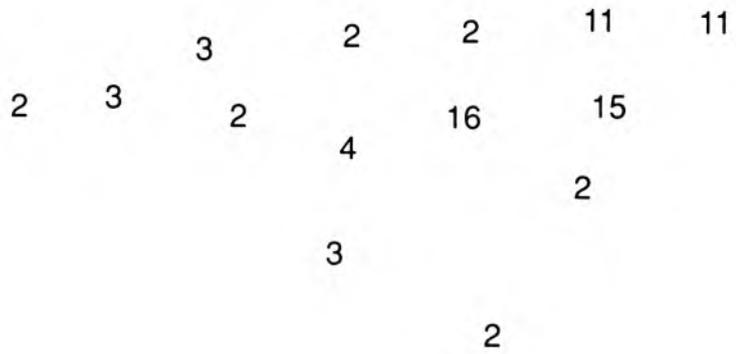
FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1959 - 1993

ANNUAL TOTAL	18588.8	38777	
ANNUAL MEAN	50.8	106	74.9
HIGHEST ANNUAL MEAN			121
LOWEST ANNUAL MEAN			23.5
HIGHEST DAILY MEAN	567	Dec 31	751
LOWEST DAILY MEAN	6.5	Jul 1	10
ANNUAL SEVEN-DAY MINIMUM	7.5	Aug 20	11
INSTANTANEOUS PEAK FLOW			773
INSTANTANEOUS PEAK STAGE			14.54
ANNUAL RUNOFF (CFSM)	.56		1.18
ANNUAL RUNOFF (INCHES)	7.68		.83
10 PERCENT EXCEEDS	102		249
50 PERCENT EXCEEDS	39		61
90 PERCENT EXCEEDS	11		19
			8.5

• Estimated



EXPLANATION

11 Number of lakes in designated county.

Figure 7.--Number of lakes by county having 1993 water-level records.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100030 ADAMS LAKE NEAR WOLCOTTVILLE, IN

LOCATION.--Lat 41°33'15", long 86°19'11", in NE¹/₄NW¹/₄ sec.25, T.36 N., R.10 E., Lagrange County, Hydrologic Unit 04050001 (WOLCOTTVILLE, IN quadrangle). The gage is on the east side of the lake on a dredged inlet, at the public access site, and 3.1 mi northeast of Wolcottville.

SURFACE AREA.--308 acres.

DRAINAGE AREA.--5.62 mi².

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--949.90 ft above sea level, as corrected on the basis of levels of the Indiana Department of Natural Resources, 1976.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the southwest wall of the dam on the outlet channel about 500 ft downstream from the lake.

ESTABLISHED LEGAL LEVEL.--3.59 ft gage datum or 953.59 ft above sea level as decreed on December 17, 1949, by the Lagrange County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 3.59 ft gage datum or 953.49 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest "V" notch weir.

INLET AND OUTLET.--One inlet enters on the east side from Blackman Lake 2.3 mi upstream. The other inlet enters on the northeastern shore from Eve Lake. The outlet flows from the lake on the southern shore and into Little Elkhart Creek 1.7 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.32 ft June 15, 1981; minimum stage, 2.12 ft Jan. 8, 1954.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.00	4.23	4.45	5.25	4.34	4.29	4.60	4.51	4.15	4.25	3.74	3.91
10	3.99	4.21	4.40	5.09	4.27	4.35	4.56	4.40	4.73	4.16	3.74	3.87
15	4.04	4.52	4.35	4.67	4.26	4.35	4.50	4.25	4.64	4.15	3.72	3.90
20	4.03	4.45	4.35	4.56	4.26	4.40	4.50	4.15	4.58	4.03	3.89	3.84
25	4.02	4.75	4.29	4.59	4.26	4.63	4.50	4.12	4.45	3.95	3.82	3.82
EOM	3.96	4.60	4.88	4.43	4.26	4.65	4.47	4.11	4.32	3.83	3.85	3.84

WTR YR 1993 MEAN 4.28 MAX 5.25 MIN 3.71

STREAMS TRIBUTARY TO LAKE ERIE

04177680 BALL LAKE NEAR HAMILTON, IN

LOCATION.--Lat 41°32'12", long 84°56'18", in SE¹/₄SW¹/₄NE¹/₄ sec.32, T.36 N., R.14 E., Steuben County, Hydrologic Unit 04100003 (HAMILTON, IN quadrangle). The gage is on the northeastern shore of the lake, south of the bridge over the outlet, and 1.3 mi west of Hamilton.

SURFACE AREA.--87 acres.

DRAINAGE AREA.--11.6 mi².

PERIOD OF RECORD.--1961 to current year.

DATUM OF GAGE.--889.81 ft above sea level, as corrected on the basis of levels of the Indiana Department of Natural Resources in February 1972.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is driven into the lake bed near the recording gage and a high-water staff gage is attached to the control dam.

ESTABLISHED LEGAL LEVEL.--4.95 ft gage datum or 894.76 ft above sea level as decreed on September 20, 1974, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete sill with movable boards.

INLET AND OUTLET.--Fish Creek flows through the lake, entering at the western end and leaving at the northeastern end. Fish Creek empties into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.02 ft Dec. 26, 1965; minimum stage, 3.96 ft Oct. 19-31, Nov. 1-12, 1978.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.79	4.99	4.88	---	5.03	5.02	4.97	5.05	4.85	4.79	4.75	4.81
10	4.80	4.87	4.87	---	5.03	5.03	4.98	4.87	4.98	4.77	4.81	4.75
15	4.85	5.06	4.91	4.97	5.02	5.03	4.96	4.83	4.83	4.83	4.77	4.83
20	4.83	4.90	4.92	4.97	5.02	5.03	5.03	4.84	4.83	4.78	4.79	4.76
25	4.81	5.21	4.86	5.12	5.02	5.05	5.28	4.85	4.79	4.77	4.76	4.78
EOM	4.79	4.94	---	5.03	5.02	5.09	4.95	4.81	4.79	4.75	4.79	4.83

WTR YR 1993 MEAN 4.92 MAX 6.07 MIN 4.75

ILLINOIS RIVER BASIN

05517200 BASS LAKE AT BASS LAKE, IN

LOCATION.--Lat 41°12'28", long 86°36'07", in NW¹/₄NW¹/₄SW¹/₄ sec.24, T.32 N., R.2 W., Starke County, Hydrologic Unit 07120001 (BASS LAKE, IN quadrangle). The gage is on the southern shore of the lake, just north of the junction of U.S. Highway 35 and State Highway 10, at the town of Bass Lake.

SURFACE AREA.--1,400 acres.

DRAINAGE AREA.--5.18 mi².

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--699.83 ft above sea level, as corrected from the unadjusted elevations.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in two sections is at the site.

ESTABLISHED LEGAL LEVEL.--13.65 ft gage datum or 713.65 ft above sea level as decreed on August 10, 1948, by the Starke County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 13.65 ft gage datum or 713.48 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet piling dam.

INLET AND OUTLET.--Several small unnamed ditches enter the lake at various locations. The outlet flows from the western shore, into Cedar Lake Ditch, and eventually into the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 15.03 ft June 18, 1981; minimum stage, 10.52 ft Nov. 12, 13, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.23	13.29	13.49	13.98	14.13	14.21	14.36	14.31	14.07	14.14	13.86	13.92
10	13.17	13.30	13.54	14.02	14.13	14.27	14.33	14.23	14.19	14.09	13.85	13.90
15	13.14	13.42	13.56	14.06	14.16	14.25	14.31	14.10	14.27	14.08	13.81	14.11
20	13.10	13.40	13.58	14.09	14.15	14.28	14.36	14.02	14.24	14.10	13.79	14.08
25	13.07	13.51	13.56	14.14	14.19	14.37	14.37	14.01	14.15	14.05	13.75	14.09
BOM	13.04	13.51	13.71	14.14	14.19	14.43	14.33	14.07	14.16	13.96	13.82	14.07

WTR YR 1993 MEAN 13.92 MAX 14.43 MIN 13.04

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100260 BEAR LAKE NEAR WOLFLAKE, IN

LOCATION.--Lat 41°19'07", long 85°30'49", in SW¹/₄NW¹/₄ sec.17, T.33 N., R.9 E., Noble County, Hydrologic Unit 04050001 (ORMAS, IN quadrangle). The gage is on the southern shore of the lake on a dredged channel, at the end of the gravel lane to the Merry Lea Nature Center, 1.1 mi southwest of the town of Wolflake.

SURFACE AREA.--136 acres.

DRAINAGE AREA.--6.98 mi².

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--889.90 ft above sea level, as corrected on the basis of levels of the Indiana Department of Natural Resources, 1974-75.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well on the west side of the dredged channel.

ESTABLISHED LEGAL LEVEL.--4.60 ft gage datum or 894.60 ft above sea level as decreed on September 23, 1959, by the Noble County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 4.60 ft gage datum or 894.50 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet piling dam.

INLET AND OUTLET.--There are two inlets to the lake, one enters on the southwest shore from High Lake, 0.6 mi upstream, and the other enters from the northeast. The outlet, Carrol Creek, leaves the lake on the southeast tip, flows into Muncie Lake, 3.1 mi downstream, and eventually into the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 8.25 ft Dec. 30, 1942 (before dredging of the outlet channel). Maximum stage, 6.61 ft Apr. 12, 1944 (after dredging); minimum stage, 2.90 ft Oct. 31, Nov. 1-3, 7-17, 1952, October 22-24, 29-31, Nov. 1-3, 6, 7, 1966.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.30	4.69	4.47	5.32	4.41	4.41	4.57	4.67	4.49	4.61	4.18	---
10	4.28	4.57	4.46	4.85	4.37	4.57	4.52	4.55	5.12	4.49	4.18	---
15	4.29	4.91	4.44	4.66	4.38	4.49	4.49	4.42	4.85	4.45	4.21	---
20	4.30	4.68	4.54	4.49	4.37	4.51	4.52	4.35	4.66	4.36	4.22	---
25	4.29	4.83	4.46	4.67	4.37	4.72	4.68	4.36	4.48	4.27	4.18	---
BOM	4.26	4.61	4.89	4.49	4.35	4.60	4.67	4.40	4.51	4.18	4.23	---

WTR YR 1993 MEAN 4.50 MAX 5.32 MIN 4.16

WABASH RIVER BASIN

03331010 BIG CHAPMAN LAKE NEAR WARSAW, IN

LOCATION.--Lat 41°16'53", long 85°46'47", in NW¹/₄SE¹/₄SW¹/₄ sec.25, T.33 N., R.6 E., Kosciusko County, Hydrologic Unit 05120106 (LEESBURG, IN quadrangle). The gage is on the southeastern shore of the lake, at the public fishing site, 4.9 mi northeast of Warsaw.

SURFACE AREA.--581 acres.

DRAINAGE AREA.--4.17 mi².

PERIOD OF RECORD.--1945-68, 1971, 1976 to current year.

DATUM OF GAGE.--820.00 ft above sea level.

GAGE.--A water-stage recorder and an electric tape gage (ETG) are installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--7.75 ft gage datum or 827.75 ft above sea level as established on October 18, 1949, by the Kosciusko County Circuit Court. Little Chapman Lake has the same control structure and established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest at the outlet channel downstream from Little Chapman Lake.

INLET AND OUTLET.--Several small ditches enter the lake at various points. The outlet flows into Little Chapman Lake to the south, then into Deeds Creek, and eventually into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.37 ft Oct. 11, 1954; minimum stage, 6.75 ft Oct. 20, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.62	7.89	7.60	8.17	7.55	7.56	7.76	7.69	7.63	7.69	---	7.50
10	7.63	7.94	7.58	7.85	7.53	7.68	7.78	7.57	7.84	---	---	7.48
15	7.58	8.20	7.57	7.72	7.56	7.67	7.79	7.46	7.74	---	---	7.56
20	7.58	7.87	7.57	7.60	7.53	7.73	7.84	7.41	7.71	---	---	7.53
25	7.59	7.84	7.52	7.75	7.54	7.89	7.97	7.50	7.58	---	---	7.61
DOM	7.57	7.69	7.82	7.61	7.51	7.81	7.79	7.60	7.79	---	7.37	7.64

WTR YR 1993 MEAN 7.67 MAX 8.23 MIN 7.35

WABASH RIVER BASIN

03330040 BIG LAKE NEAR WOLFLAKE, IN

LOCATION.--Lat 41°16'33", long 85°30'43", in NW¹/₄SE¹/₄NW¹/₄ sec.32, T.33 N., R.9 E., Noble County, Hydrologic Unit 05120106 (ORMAS, IN quadrangle). The gage is at the head of the outlet channel, approximately 20 feet north of the control structure and 4 mi southwest of the town of Wolflake.

SURFACE AREA.--228 acres.

DRAINAGE AREA.--8.89 mi².

PERIOD OF RECORD.--1943-74, 1978 to current year.

DATUM OF GAGE.--890.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--8.40 ft gage datum or 898.40 ft above sea level as decreed on July 18, 1956, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet piling dam with a fixed crest.

INLET AND OUTLET.--The main inlet enters from Crooked Lake to the east. Three other inlets flow from Crane Lake to the east, Green Lake to the north, and Sell Brook to the south. The outlet leaves the lake at the extreme west end and forms the headwaters of the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 12.76 ft Apr. 4, 1950; minimum stage, 7.12 ft Aug. 24, 1987.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.15	8.72	8.26	---	---	---	---	8.42	8.32	8.33	7.99	8.24
10	8.16	8.34	8.26	---	---	---	---	8.28	9.00	8.21	8.00	8.16
15	8.18	9.13	8.26	---	---	---	8.30	8.19	8.56	8.19	8.02	8.24
20	8.18	8.59	8.42	---	---	---	8.32	8.16	8.27	8.13	7.98	8.15
25	8.16	8.91	8.27	---	---	---	8.61	8.23	8.33	8.11	7.93	8.17
DOM	8.14	8.49	9.20	---	---	---	8.45	8.24	8.39	8.02	8.07	8.19

WTR YR 1993 MEAN 8.30 MAX 9.34 MIN 7.93

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099600 BIG LONG LAKE NEAR STROH, IN

LOCATION.--Lat 41°33'17", long 85°13'47", in NE¹/₄NW¹/₄NW¹/₄ sec.26, T.36 N., R.11 E., Lagrange County, Hydrologic Unit 04050001 (STROH, IN quadrangle). The gage is on the northeast shore near the east end of the Shady Nook Addition in the vicinity of the Shady Nook Tavern, 2.4 mi southwest of Stroh.

SURFACE AREA.--388 acres.

DRAINAGE AREA.-- 4.77 mi².

PERIOD OF RECORD.--1954 to current year.

DATUM OF GAGE.--950.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--6.21 ft gage datum or 956.21 ft above sea level as decreed on July 22, 1965, by the Lagrange County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed sill and removable boards.

INLET AND OUTLET.--The one inlet is a small ditch that enters at the extreme western tip. The outlet flows from the extreme northern tip, northeastward to Mud and Little Turkey Lakes, thence to Turkey Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.49 ft Mar. 31, 1978; minimum stage, 4.58 ft Nov. 27, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.22	6.43	6.41	6.91	6.32	6.37	6.47	6.44	6.32	6.24	5.94	6.16
10	6.26	6.42	6.39	6.59	6.29	6.38	6.44	6.35	6.59	6.26	5.99	6.12
15	6.31	6.58	6.42	6.48	6.31	6.34	6.43	6.28	6.40	6.24	6.02	6.17
20	6.31	6.45	6.40	6.37	6.30	6.39	6.43	6.21	6.45	6.15	6.14	6.11
25	6.28	6.66	6.34	6.46	6.34	6.57	6.43	6.21	6.34	6.19	6.06	6.13
EOM	6.25	6.49	6.82	6.36	6.34	6.56	6.40	6.25	6.26	6.03	6.06	6.19

WTR YR 1993 MEAN 6.33 MAX 6.94 MIN 5.91

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100140 BIXLER LAKE AT KENDALLVILLE, IN

LOCATION.--Lat 41°26'13", long 85°15'10", in NE¹/₄NE¹/₄NE¹/₄ sec.4, T.34 N., R.11 E., Noble County, Hydrologic Unit 04050001 (KENDALLVILLE, IN quadrangle). The gage is on the south bank of the outlet channel on the southwest shore of the lake and 0.7 mi southeast of City Hall in Kendallville.

SURFACE AREA.--120 acres.

DRAINAGE AREA.--5.28 mi².

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--960.10 ft above sea level, as corrected on the basis of levels of the Indiana Department of Natural Resources, 1974-75.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is bolted to a concrete pier 20 ft upstream from the control dam.

ESTABLISHED LEGAL LEVEL.--3.65 ft gage datum or 963.65 ft above sea level as decreed on April 25, 1952, by the Noble County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 3.65 ft gage datum or 963.75 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed deep-notch concrete dam with two flood gates.

INLET AND OUTLET.--Riddle Ditch enters the lake from the north, Sherman Ditch from the east, Shaffer Ditch from the southeast, and an unnamed ditch from the southwest. The outlet leaves at the southwest corner and flows into Henderson Lake 1.9 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.26 ft Feb. 24, 1985; minimum stage, 1.24 ft Jan. 13-15, 18, 1954.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.69	4.03	3.51	5.83	3.62	3.42	3.60	3.90	3.61	4.09	3.74	3.95
10	3.75	3.83	3.59	4.43	3.65	3.66	3.53	3.64	4.29	4.01	3.73	3.92
15	3.81	4.32	3.74	3.73	3.73	3.45	3.81	3.59	4.19	4.02	3.74	3.99
20	3.85	3.91	4.01	3.46	3.74	3.52	3.95	3.54	4.17	3.91	3.67	3.92
25	3.86	4.49	4.04	4.03	3.80	4.70	4.05	3.56	4.15	3.84	3.57	3.90
EOM	3.83	3.74	5.29	3.60	3.66	3.84	3.92	3.54	4.08	3.69	3.64	3.98

WTR YR 1993 MEAN 3.87 MAX 5.86 MIN 3.33

WABASH RIVER BASIN

03327600 BLUE LAKE NEAR CHURUBUSCO, IN

LOCATION.--Lat 41°14'30", long 85°21'04", in SW¹/₄NE¹/₄SE¹/₄ sec.10, T.32 N., R.10 E., Whitley County, Hydrologic Unit 05120104 (CHURUBUSCO, IN quadrangle). Gage is located on a dredged channel at the extreme east end of the lake, approximately 2.0 mi west of Churubusco.

SURFACE AREA.--239 acres.

DRAINAGE AREA.--3.58 mi².

PERIOD OF RECORD.--1946-68, 1976 to current year.

DATUM OF GAGE.--840.00 ft above sea level.

GAGE.--A water-stage recorder installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--10.28 ft gage datum or 850.28 ft above sea level as decreed on July 23, 1948, by the Whitley County Circuit Court.

LAKE-LEVEL CONTROL.--A concrete dam with a fixed crest is located in the outlet channel about 300 ft downstream from the lake.

INLET AND OUTLET.--Maloney Ditch enters at the eastern tip of the lake. The outlet flows from the lake at the northwest end and joins Carter Creek (Blue River) 0.2 mi downstream. Carter Creek eventually flows into Bel River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 15.80 ft Dec. 10, 1966; minimum stage, 7.64 ft Nov. 19, 20, 1952.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.26	10.86	10.42	12.26	10.30	10.23	10.43	10.31	9.93	9.98	9.48	9.69
10	10.28	10.74	10.48	11.38	10.25	10.49	10.29	10.24	10.42	9.91	9.56	9.68
15	10.31	11.04	10.53	10.80	10.25	10.42	10.17	10.15	10.19	9.88	9.46	9.76
20	10.39	10.56	10.67	10.50	10.23	10.47	10.15	9.98	10.08	9.76	9.42	9.69
25	10.41	10.72	10.64	10.67	10.21	10.74	10.37	9.98	9.98	9.69	9.37	9.75
DOM	10.41	10.46	11.27	10.43	10.18	10.48	10.35	9.92	9.95	9.53	9.56	9.77

WTR YR 1993 MEAN 10.24 MAX 12.26 MIN 9.30

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099250 BOWER LAKE NEAR PLEASANT LAKE, IN

LOCATION.--Lat 41°36'03", long 85°03'24", in SW¹/₄SW¹/₄SE¹/₄ sec.5, T.36 N., R.13 E., Steuben County, Hydrologic Unit 04050001 (ASHLEY, IN quadrangle). The gage is located at the public fishing site on the northwestern edge of the lake, 3.9 mi southwest of Angola.

SURFACE AREA.--25 acres.

DRAINAGE AREA.--84.6 mi².

PERIOD OF RECORD.--1946-1970, 1977 to current year.

DATUM OF GAGE.--940.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary wire-weight gage is attached to the bridge over the outlet.

ESTABLISHED LEGAL LEVEL.--8.50 ft gage datum or 948.50 ft above sea level, as decreed on October 28, 1959, by Steuben County Circuit Court. Golden Lake near Pleasant Lake has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The lake level is controlled by the outlet channel or the outlet of Golden Lake.

INLET AND OUTLET.--Pigeon Creek flows through the lake, entering at the southern shore and leaving at the western end to flow into Golden Lake and eventually into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 17.13 ft Mar. 22, 1982; minimum stage, 7.88 ft Sept. 14, 15, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.45	10.26	9.63	14.16	9.55	9.72	11.18	9.77	9.00	8.93	8.37	8.56
10	8.37	9.31	9.32	---	9.34	10.45	10.35	9.51	11.75	8.80	8.42	8.45
15	8.49	11.37	9.27	11.12	9.23	9.69	9.97	9.12	10.41	8.83	8.38	8.53
20	8.67	9.98	9.80	10.11	9.06	9.99	9.99	8.93	9.61	8.69	8.47	8.38
25	8.63	11.82	9.29	10.86	8.99	12.36	10.02	8.87	9.32	8.55	8.32	8.31
DOM	8.45	10.39	12.62	9.91	8.94	11.35	9.80	8.82	9.08	8.42	8.33	8.58

WTR YR 1993 MEAN 9.56 MAX 14.20 MIN 8.28

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099810 CASS LAKE NEAR SHIPSHAWANA, IN

LOCATION.--Lat 41°41'42", long 85°38'18", in SW¹/₄/NW¹/₄/NW¹/₄ sec.5, T.37 N, R.8 E., Lagrange County, Hydrologic Unit 04050001 (MIDDLEBURY, IN quadrangle). The gage is on the northeast shore of the lake, at the beach area in the Foxwood Hills Addition, and 3.3 mi northwest of Shishewana.

SURFACE AREA.--89 acres.

DRAINAGE AREA.--0.68 mi².

PERIOD OF RECORD.--1971 to current year.

DATUM OF GAGE.--840.95 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--A small unnamed ditch enters on the northwestern shore. The outlet leaves the lake at the southwest and flows into Mather Ditch 1.0 mi downstream. Mather Ditch eventually empties into the Little Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 3.89 ft June 14, 1993; minimum stage, 1.80 ft May 15, 1971.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.52	2.50	2.46	2.75	2.33	2.24	2.41	2.21	2.98	3.78	3.53	3.69
10	2.46	2.48	2.47	2.58	2.27	2.28	2.38	2.31	3.81	3.80	3.58	3.61
15	2.46	2.59	2.45	2.53	2.27	2.26	2.36	2.39	3.88	3.75	3.57	3.62
20	2.41	2.53	2.45	2.44	2.24	2.29	2.37	2.48	3.86	3.67	3.52	3.46
25	2.38	2.55	2.39	2.48	2.30	2.37	2.36	2.62	3.81	3.65	3.49	3.52
DOM	2.32	2.49	2.62	2.40	2.30	2.41	2.25	2.79	3.82	3.56	3.61	3.55

WTR YR 1993 MEAN 2.82 MAX 3.89 MIN 2.18

ILLINOIS RIVER BASIN

05518700 CEDAR LAKE AT CEDAR LAKE, IN

LOCATION.--Lat 41°21'58", long 87°25'36", in NE¹/₄/SW¹/₄/SW¹/₄ sec.26, T.34 N., R.9 W., Lake County, Hydrologic Unit 07120001 (LOWELL, IN quadrangle). The gage is on the south bank of outlet channel on the east shore of the lake, upstream from the first bridge over the outlet, and 0.5 mi east of the town of Cedar Lake.

SURFACE AREA.--781 acres.

DRAINAGE AREA.--8.14 mi².

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--690.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 24-inch diameter stilling well. An auxiliary staff gage is driven into the channel bed.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete dam.

INLET AND OUTLET.--Several small ditches enter the lake at various points. The outlet, Cedar Creek, flows from the lake on the eastern shore of the center lobe, into Dalecarlia Lake, 1.5 mi downstream, and eventually into the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 4.30 ft May 15, 1970; minimum stage not determined, below 1.22 ft during July, August, September, October 1988, and September 1991.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.33	2.17	2.68	3.60	2.97	2.98	3.32	3.05	2.73	3.39	2.73	3.31
10	2.34	2.51	2.78	3.40	2.92	3.06	3.17	2.91	3.10	3.25	2.74	3.14
15	2.11	2.83	2.85	3.28	2.90	3.05	3.15	2.75	3.10	3.06	2.76	3.20
20	2.08	2.85	2.91	3.12	2.88	3.09	3.32	2.64	3.50	2.93	2.75	3.08
25	2.07	2.88	2.86	3.21	2.88	3.33	3.21	2.68	3.29	2.97	2.76	3.05
DOM	2.05	2.89	3.28	3.06	2.87	3.36	3.07	2.69	3.49	2.84	3.13	3.11

WTR YR 1993 MEAN 2.93 MAX 3.61 MIN 2.05

WABASH RIVER BASIN

03331160 CENTER LAKE AT WARSAW, IN

LOCATION.--Lat 41°15'02", long 85°51'32", in NE¹/₄SW¹/₄SW¹/₄ sec.5, T.32 N., R.6 E., Kosciusko County, Hydrologic Unit 05120106 (LEESBURG, IN quadrangle). The gage is on the northwestern side of the lake, mounted on a sea wall behind the house at 300 Gilliam Drive, 0.8 mi north of the court house, Warsaw.

SURFACE AREA.--120 acres.

DRAINAGE AREA.--0.73 mi².

PERIOD OF RECORD.--1943-1968, 1971 to current year.

DATUM OF GAGE.--800.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the control dam at the outlet.

ESTABLISHED LEGAL LEVEL.--3.86 ft gage datum or 803.86 ft above sea level as decreed on December 3, 1963, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam at the western end of the lake.

INLET AND OUTLET.--The one inlet flows through a 24-inch diameter tile from Pike Lake and enters the lake on the southeastern side. The outlet flows from the western shore and joins Walnut Creek 0.65 mi downstream, which in turn flows into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.24 ft Oct. 15, 1954; minimum stage, 0.17 ft Oct. 4, 1955.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.17	4.79	4.85	5.58	4.69	4.35	4.84	4.50	4.28	4.88	4.10	4.54
10	4.11	4.90	4.71	5.89	4.44	4.33	4.74	4.37	4.90	4.64	4.12	4.39
15	4.11	5.34	4.63	5.95	4.37	4.32	4.62	4.43	5.16	4.44	4.15	4.48
20	4.09	5.32	4.59	5.95	4.37	4.32	4.44	4.17	5.07	4.33	4.14	4.39
25	4.08	5.44	4.56	5.73	4.37	4.56	4.42	4.18	4.71	4.24	4.13	4.30
EOM	4.17	5.11	4.79	5.40	4.37	4.71	4.50	4.23	4.77	4.14	4.23	4.43

WTR YR 1993 MEAN 4.61 MAX 5.96 MIN 4.07

STREAMS TRIBUTARY TO LAKE ERIE

04177200 CLEAR LAKE AT CLEAR LAKE, IN

LOCATION.--Lat 41°44'52", long 84°50'25", in SW¹/₄SW¹/₄ sec.17, T.38 N., R.15 E., Steuben County, Hydrologic Unit 04100003 (CLEAR LAKE, IN-OH-MI quadrangle). The gage is on the northern shore of the lake, at the channel between Clear and Round Lakes, and 4.75 mi northeast of Fremont.

SURFACE AREA.--800 acres.

DRAINAGE AREA.--6.86 mi².

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--1030.00 ft above sea level.

GAGE.--A water-stage recorder is installed in a wooden shelter over a 24-inch stilling well. An auxiliary staff gage is attached to the north end of the upstream culvert.

ESTABLISHED LEGAL LEVEL.--7.38 ft gage datum or 1037.38 ft above sea level as decreed on June 1, 1950, by the Steuben County Circuit Court. Round Lake at Clear Lake has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete dam with an auxiliary slide gate at the outlet of Round Lake.

INLET AND OUTLET.--Two unnamed ditches enter the lake on the southern shore. The outlet is a short channel connecting Clear and Round Lakes. The outlet of Round Lake flows from the northeast end and eventually into the West Branch of the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.24 ft May 20, 1943 (from high-water mark); maximum recorded stage, 8.58 ft Jan. 5, 1993; minimum stage, 6.24 ft Sept. 30, 1962.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	8.01	8.03	8.57	8.11	8.08	8.20	8.10	7.93	7.95	7.75	7.83
10	---	7.97	8.00	8.41	8.08	8.10	8.15	8.02	8.33	7.89	7.76	7.80
15	---	8.16	8.01	8.29	8.08	8.10	8.13	7.91	8.19	7.90	7.77	7.86
20	7.87	8.07	8.01	8.27	8.08	8.11	8.12	7.87	8.17	7.87	7.79	7.82
25	7.86	8.24	7.94	8.23	8.08	8.14	8.11	7.86	8.06	7.86	7.79	7.82
EOM	7.83	8.09	8.23	8.17	8.08	8.26	8.07	7.86	7.97	7.79	7.79	7.87

WTR YR 1993 MEAN 8.02 MAX 8.57 MIN 7.74

ILLINOIS RIVER BASIN

05515240 CLEAR LAKE AT LAPORTE, IN

LOCATION.--Lat 41°37'25", long 86°43'11", in NE¹/₄SE¹/₄SE¹/₄ sec.26, T.37 N., R.3 W., LaPorte County, Hydrologic Unit 07120001 (LAPORTE EAST, IN quadrangle). The gage is on the northeast shore of the lake, 100 ft south of the entrance to Fox Memorial Park, in LaPorte.

SURFACE AREA.--106 acres.

DRAINAGE AREA.--0.65 mi².

PERIOD OF RECORD.--1942-49, 1952-75, 1979 to current year.

DATUM OF GAGE.--790.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the north wingwall of the inlet culvert on the west side of the lake.

ESTABLISHED LEGAL LEVEL.--8.20 ft gage datum or 798.20 ft above sea level as decreed on August 31, 1949, by the LaPorte County Circuit Court.

LAKE-LEVEL CONTROL.--During periods of high water, water may be released through the main sewer system of the city of LaPorte and diverted into the Kankakee River.

INLET AND OUTLET.--A small ditch enters on the west shore. There is no outlet during periods of low and medium water levels. When water levels are high, water may flow from the lake into the city sewer system.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.36 ft June 6, 1993; minimum stage, 3.98 ft Nov. 27, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.59	9.70	9.86	10.41	10.41	10.50	10.81	11.06	10.74	11.17	10.73	10.84
10	9.58	9.75	9.88	10.40	10.38	10.53	10.79	10.97	11.31	11.06	10.70	10.80
15	9.59	9.89	9.92	10.43	10.38	10.53	10.89	10.85	11.18	10.97	10.65	10.94
20	9.55	9.86	9.91	10.41	10.38	10.60	11.09	10.76	11.25	10.97	10.59	10.89
25	9.50	9.96	9.88	10.48	10.45	10.71	11.04	10.74	11.12	10.92	10.63	10.90
EOM	9.42	9.90	10.14	10.44	10.43	10.82	11.03	10.73	11.13	10.80	10.71	11.06

WTR YR 1993 MEAN 10.51 MAX 11.34 MIN 9.42

STREAMS TRIBUTARY TO LAKE MICHIGAN

04097850 CROOKED LAKE AT CROOKED LAKE, IN

LOCATION.--Lat 41°40'14", long 85°02'04", in NE¹/₄NW¹/₄NE¹/₄ sec.16, T.37 N., R.13 E., Steuben County, Hydrologic Unit 04050001 (ANGOLA WEST, IN quadrangle). The gage is on an inlet channel on the lower eastern shore of the lake, 3.1 mi northwest of Angola.

SURFACE AREA.--828 acres.

DRAINAGE AREA.--10.4 mi².

PERIOD OF RECORD.--1946-70, 1972 to current year.

DATUM OF GAGE.--980.26 ft above sea level, as corrected on the basis of levels of Indiana Department of Natural Resources, 1977-78.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is driven into the channel bed between the Second and Third Basins under County Road 400 West.

ESTABLISHED LEGAL LEVEL.--8.17 ft gage datum or 988.17 ft above sea level as decreed on June 17, 1948, by the Steuben County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 8.17 ft gage datum or 988.43 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest dam with an adjustable gate at the western end of the Third Basin.

INLET AND OUTLET.--The principal inlets enter the lake from the south, from Loon and Buck Lakes, and the southeast, from Center Lake. Another ditch enters from the east. The outlet flows from the western end of the Third Basin into Lake Gage 1.4 mi downstream and eventually into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.07 ft Apr. 6, 1985; minimum stage, 7.05 ft Nov. 13-15, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.09	9.26	9.36	9.92	9.49	9.33	9.59	9.43	9.27	9.39	9.02	9.17
10	9.14	9.25	9.34	9.92	9.41	9.36	9.55	9.30	9.60	9.37	9.07	9.18
15	9.22	9.37	9.38	9.89	9.38	9.33	9.51	9.23	9.59	9.31	9.03	9.26
20	9.19	9.32	9.30	9.76	9.33	9.39	9.50	9.16	9.64	9.25	9.08	9.12
25	9.14	9.46	9.25	9.75	9.32	9.55	9.49	9.14	9.60	9.19	8.98	9.15
EOM	9.11	9.41	9.54	9.60	9.30	9.67	9.42	9.19	9.49	9.06	9.03	9.16

WTR YR 1993 MEAN 9.35 MAX 9.94 MIN 8.97

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100470 DEWART LAKE NEAR LEESBURG, IN

LOCATION.--Lat 41°22'27", long 85°47'07", in NW¹/₄, SW¹/₄, NW¹/₄ sec.25, T.34 N., R.6 E., Kosciusko County, Hydrologic Unit 04050001 (LEESBURG, IN quadrangle). The gage is on the west shore of the lake, 0.1 mi east of County Road 300 East at the Dewart Lake Marina, and 4.5 mi northeast of Leesburg.

SURFACE AREA.--551 acres.

DRAINAGE AREA.--8.05 mi².

PERIOD OF RECORD.--1945 to current year.

DATUM OF GAGE.--859.87 ft above sea level, as corrected on the basis of levels of Indiana Department of Natural Resources, 1973-74.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 24-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--7.70 ft gage datum or 867.70 ft above sea level as decreed on October 18, 1949, by the Kosciusko County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 7.70 ft gage datum or 867.57 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet piling dam.

INLET AND OUTLET.--Cable Run enters the lake on the southeastern tip, and an unnamed ditch enters on the eastern shore. The outlet, Hammond Ditch, flows from the lake on the northwestern shore and into Wabee Lake 2.3 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.57 ft June 14, 1981; minimum stage, 3.95 ft Dec. 21-24, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

(NO DATA COLLECTED DUE TO CONSTRUCTION)

WABASH RIVER BASIN

03331320 DIAMOND LAKE NEAR SILVER LAKE, IN

LOCATION.--Lat 41°06'23", long 85°56'05", in SW¹/₄, NW¹/₄, SE¹/₄ sec.26, T.31 N., R.5 E., Kosciusko County, Hydrologic Unit 05120106 (SILVER LAKE, IN quadrangle). The gage is on the inlet channel on the northern shore of the lake, 2.2 mi northwest of the town of Silver Lake.

SURFACE AREA.--79 acres.

DRAINAGE AREA.--3.92 mi².

PERIOD OF RECORD.--1954-72, 1975 to current year.

DATUM OF GAGE.--849.90 ft above sea level, as corrected on the basis of levels of Indiana Department of Natural Resources, 1976.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The lake level is controlled by Yellow Creek Lake, 0.3 mi downstream.

INLET AND OUTLET.--There are two inlets. One enters from the north and east from Hill Lake, one enters from the southeast. The one outlet flows from the western shore and into Yellow Creek Lake, 0.3 mi downstream. Yellow Creek Lake flows into Yellow Creek, which eventually discharges into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.47 July 9, 1964; minimum stage, 9.78 ft Sept. 18-19, 23, 27-30, Oct. 10-12, 1988.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	10.76	10.65	12.21	10.68	10.63	10.82	10.85	10.79	10.82	10.44	10.57
10	10.42	10.65	10.65	11.63	10.63	10.87	10.79	10.76	10.99	10.78	10.44	10.52
15	10.45	11.10	10.69	11.01	10.63	10.71	10.76	10.67	10.82	10.76	10.43	10.67
20	10.47	10.78	10.71	10.78	10.56	10.74	10.74	10.64	10.96	10.67	10.46	10.52
25	10.44	10.93	10.62	11.16	10.53	10.96	11.05	10.63	10.74	10.59	10.48	10.55
ROM	10.41	10.73	11.24	10.80	10.53	10.84	10.89	10.69	10.76	10.47	10.47	10.56

WTR YR 1993 MEAN 10.73 MAX 12.22 MIN 10.41

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100350 DIAMOND LAKE NEAR WAWAKA, IN

LOCATION.--Lat 41°26'15", long 85°31'05", in NE¹/₄NW¹/₄NW¹/₄, sec.5, T.34 N., R.9 E., Noble County, Hydrologic Unit 04050001 (LIGONIER, IN quadrangle). The gage is located on the southeastern edge of the lake at a public fishing site, 2.5 mi southwest of the town of Wawaka.

SURFACE AREA.--105 acres.

DRAINAGE AREA.--4.80 mi².

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--870.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is mounted on a piling driven into the lake bed on the northern edge of the lake.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The lake level is controlled by a riffle at the head of the outlet channel.

INLET AND OUTLET.--Willetts Ditch enters at the southwestern tip of the lake from Eagle Lake, 0.6 mi upstream. One unnamed ditch enters the lake from the south. The outlet flows from the lake at the southeastern edge and joins the South Branch of the Elkhart River 0.8 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.83 ft Mar. 20, 1982; minimum stage, 2.29 ft Oct. 17, 1946.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.86	5.24	5.14	6.42	5.03	4.89	5.58	5.22	4.76	4.97	4.91	4.58
10	4.80	5.24	5.04	6.62	4.91	5.06	5.31	5.08	5.74	4.88	4.87	4.52
15	4.79	5.63	4.99	6.33	4.88	5.07	5.08	4.85	5.78	4.84	4.70	4.57
20	4.79	5.47	5.04	6.02	4.90	5.07	5.07	4.76	5.55	4.75	4.55	4.60
25	4.77	5.52	4.97	5.46	4.89	5.41	5.09	4.76	5.28	4.69	4.47	4.96
DOM	4.71	5.33	5.56	5.21	4.89	5.50	4.97	4.76	5.05	4.77	4.49	4.86

WTR YR 1993 MEAN 5.08 MAX 6.66 MIN 4.45

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100370 ENGLE LAKE NEAR LIGONIER, IN

LOCATION.--Lat 41°26'08", long 85°34'30", in SE¹/₄NW¹/₄NW¹/₄, sec.2, T.34 N., R.8 E., Noble County, Hydrologic Unit 04050001 (LIGONIER, IN quadrangle). The gage is located at a public access site on the eastern side of the lake, 2.2 mi south of the town of Ligonier.

SURFACE AREA.--48 acres.

DRAINAGE AREA.--4.19 mi².

PERIOD OF RECORD.--1956-67, 1977 to current year.

DATUM OF GAGE.--870.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--8.90 ft gage datum or 878.90 ft above sea level as decreed on October 23, 1984, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The lake level is controlled by the outlet channel at low water and the first culvert downstream at higher stages.

INLET AND OUTLET.--Sparta Lake Ditch feeds the lake from the south, flowing from Sparta Lake. The outlet flows from the northern shore through Indian Lake and into the Elkhart River 1.7 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage 10.53 ft Mar. 29, 1985; minimum stage, 7.48 ft Nov. 17, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.96	9.18	9.14	9.66	9.29	9.29	9.34	9.39	9.22	9.18	8.89	9.04
10	8.95	9.09	9.15	9.39	9.29	9.30	9.33	9.24	9.49	9.08	8.97	8.93
15	8.97	9.27	9.15	9.35	9.28	9.30	9.32	9.13	9.35	9.04	8.94	8.99
20	8.95	9.17	9.17	9.30	9.29	9.30	9.36	9.11	9.40	8.98	8.87	8.91
25	8.93	9.27	9.09	9.39	9.29	9.45	9.37	9.15	9.21	8.96	8.81	8.92
DOM	8.89	9.18	9.59	9.30	9.29	9.40	9.30	9.21	9.20	8.86	8.90	8.97

WTR YR 1993 MEAN 9.17 MAX 9.75 MIN 8.79

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099670 FISH LAKE NEAR PLATO, IN

LOCATION.--Lat 41°37'27", long 85°19'56", in SW¹/₄, NE¹/₄, NE¹/₄, sec.35, T.37 N., R.10 E., Lagrange County, Hydrologic Unit 04050001 (WOLCOTTVILLE, IN quadrangle). The gage is on the northeast bank of the outlet channel, approximately 15 ft downstream of the lake on the northwest side, and 1.2 mi south of Plato.

SURFACE AREA.--100 acres.

DRAINAGE AREA.--10.6 mi².

PERIOD OF RECORD.--1945 to current year.

DATUM OF GAGE.--930.75 ft above sea level, as corrected on the basis of levels of the U.S. Geological Survey, 1966.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is mounted on a tree stump on the northern bank of the outlet channel at the same site.

ESTABLISHED LEGAL LEVEL.--6.50 ft gage datum or 936.50 ft above sea level as decreed on May 7, 1959, by the Lagrange County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 6.50 ft gage datum or 937.25 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--One inlet enters at the extreme southern tip from Royer Lake 700 ft upstream. The other enters on the north shore of the east lobe from Grass Lake, approximately 1.4 mi upstream. The outlet, East Fly Creek, flows from the lake on the northwest shore and joins Fly Creek, which empties into Pigeon River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.23 ft June 14, 15, 1981; minimum stage, 5.32 ft Nov. 17-20, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.77	7.47	7.23	8.74	7.08	6.97	7.48	7.42	6.95	6.89	6.52	6.59
10	6.80	7.23	7.15	7.86	7.01	7.17	7.31	7.24	8.03	6.80	6.56	6.58
15	6.85	7.81	7.13	7.54	7.00	7.07	7.23	7.02	7.39	6.77	6.54	6.68
20	6.88	7.39	7.23	7.25	6.98	7.15	7.32	6.93	7.19	6.70	6.58	6.63
25	6.88	7.79	7.05	7.58	6.94	8.04	7.37	6.89	7.07	6.66	6.53	6.62
DOM	6.81	7.41	8.32	7.22	6.94	7.65	7.32	6.88	6.96	6.56	6.57	6.73

WTR YR 1993 MEAN 7.10 MAX 8.74 MIN 6.51

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099760 FISH LAKE NEAR SCOTT, IN

LOCATION.--Lat 41°45'25", long 85°38'54", in NW¹/₄, NW¹/₄, SE¹/₄, sec.7, T.38 N., R.8 E., Lagrange County, Hydrologic Unit 04050001 (MIDDLEBURY, IN quadrangle). The gage is on the northwest shore of the lake, on the north side of the outlet channel, 4.8 mi northwest of Scott.

SURFACE AREA.--139 acres.

DRAINAGE AREA.--6.21 mi².

PERIOD OF RECORD.--1954-69, 1978 to current year.

DATUM OF GAGE.--809.84 ft above sea level, as corrected on the basis of levels of Indiana Department of Natural Resources, 1975.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the dam at the same site.

ESTABLISHED LEGAL LEVEL.--4.42 ft gage datum or 814.42 ft above sea level as decreed on September 11, 1959, by the Lagrange County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 4.42 ft gage datum or 814.26 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed concrete sill with removable boards.

INLET AND OUTLET.--The inlet, Fetch Ditch, enters on the southeastern shore. The outlet flows from the lake at the lower west shore and empties into Pigeon River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.61 ft Feb. 26, 1985; minimum stage, 1.54 ft Nov. 26, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.32	4.44	4.63	5.31	4.79	4.75	5.23	4.94	4.56	4.51	4.23	4.43
10	4.26	4.45	4.62	5.23	4.74	4.89	5.14	4.83	5.54	4.49	4.29	4.35
15	4.32	4.73	4.59	5.11	4.73	4.90	5.05	4.65	5.33	4.44	4.27	4.45
20	4.28	4.69	4.63	4.90	4.74	4.98	5.02	4.54	5.00	4.36	4.23	4.36
25	4.27	4.74	4.57	5.03	4.74	5.22	4.98	4.52	4.74	4.34	4.21	4.37
DOM	4.23	4.68	4.93	4.89	4.74	5.30	4.95	4.53	4.61	4.27	4.36	4.35

WTR YR 1993 MEAN 4.67 MAX 5.55 MIN 4.20

ILLINOIS RIVER BASIN

05517700 FLINT LAKE NEAR VALPARAISO, IN

LOCATION.--Lat 41°30'41", long 87°02'23", in NE¹/₄SW¹/₄ sec.6, T.35 N., R.5 W., Porter County, Hydrologic Unit 07120001 (CHESTERTON, IN quadrangle). The gage is on the southeast shore of the lake, at the outlet and the Valparaiso Water Works, 3.2 mi northeast of Valparaiso.

SURFACE AREA.--86 acres.

DRAINAGE AREA.--3.80 mi², revised.

PERIOD OF RECORD.--1946 to current year. From Jan. 1, 1911, to Aug. 14, 1946, readings of the lake level were taken approximately once per week by Water Works personnel. These data are available upon request.

DATUM OF GAGE.--780.00 ft above sea level.

GAGE.--A water-stage recorder is installed inside the Valparaiso Water Works. An auxiliary staff gage is located lakeward of the concrete block pumping station.

ESTABLISHED LEGAL LEVEL.--17.66 ft gage datum or 797.66 ft above sea level as decreed on August 19, 1963, by the Porter County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel and two 30-inch corrugated metal pipes under the road, 600 ft downstream.

INLET AND OUTLET.--There are three inlets. One drains Long Lake to the northwest and another drains Loomis Lake to the west and Listenberger drain enters from the south. The outlet flows from the lake at the southeast corner and into the West Branch of Crooked Creek approximately 5.0 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 21.18 ft July 2, 1983 as recorded by the Valparaiso Water Company; minimum stage, 12.59 ft Dec. 29, 1948.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.09	16.66	17.80	19.60	19.34	19.24	20.00	19.73	19.30	20.26	19.28	19.71
10	16.97	16.73	17.74	19.66	19.25	19.35	19.84	19.59	20.11	19.94	19.36	19.66
15	16.82	17.41	17.74	19.64	19.19	19.40	19.95	19.43	19.94	19.78	19.29	19.73
20	16.65	17.52	17.85	19.52	19.15	19.54	20.13	19.32	20.07	19.61	19.19	19.59
25	16.43	17.87	17.78	19.64	19.15	19.89	19.93	19.31	19.89	19.56	19.22	19.58
ROM	16.24	17.89	18.73	19.46	19.11	20.12	19.83	19.31	20.42	19.36	19.41	19.56

WTR YR 1993 MEAN 19.01 MAX 20.55 MIN 16.24

WABASH RIVER BASIN

03330160 GILBERT LAKE NEAR WASHINGTON CENTER, IN

LOCATION.--Lat 41°19'50", long 85°35'48", in NE¹/₄NE¹/₄SE¹/₄ sec.9, T.33 N., R.8 E., Noble County, Hydrologic Unit 05120106 (ORMAS, IN quadrangle). The gage is at the extreme west end of the lake on the east side of County Road 925 West, approximately 400 ft south of Gilbert Lake Road, and 0.4 mi north of Washington Center.

SURFACE AREA.--28 acres.

DRAINAGE AREA.--0.37 mi².

PERIOD OF RECORD.--1954-59, 1961 to current year.

DATUM OF GAGE.--884.85 ft above sea level, as corrected on the basis of levels of the Indiana Department of Natural Resources, 1974-75.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in one section is driven into the lake bed approximately 100 ft south of the primary gage.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level is controlled by the outlet through the swamp, east of the lake.

INLET AND OUTLET.--The lake has no inlet. The outlet leaves from the southeastern side and flows into Stump Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.81 ft Dec. 4-5, 1987; minimum stage, 3.53 ft Nov. 1, 1963.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	4.68	5.22	5.46	5.33	5.59	5.53	5.18	---	---	4.52	5.40
10	---	4.85	5.25	5.31	5.41	5.67	4.59	5.19	---	---	4.71	5.35
15	---	5.10	5.28	5.31	5.48	5.67	4.21	5.11	---	4.99	4.86	5.49
20	---	5.09	5.28	5.31	5.49	5.70	4.23	5.20	---	5.11	4.99	5.40
25	5.53	5.27	5.29	5.37	5.49	5.61	4.74	5.19	---	4.62	5.07	5.54
ROM	5.62	5.20	5.52	5.30	5.49	5.58	4.83	---	---	4.40	5.33	5.64

WTR YR 1993 MEAN 5.21 MAX 5.77 MIN 4.11

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100110 HACKENBURG LAKE NEAR WOLCOTTVILLE, IN

LOCATION.--Lat 41°33'25", long 85°26'17", in NE¹/₄SW¹/₄SW¹/₄, sec.24, T.36 N., R.9 E., Lagrange County, Hydrologic Unit 04050001 (OLIVER LAKE, IN quadrangle). The gage is on the north shore of the outlet channel at the bridge on County Road 75 West, and 4.2 mi northwest of Wolcottville.

SURFACE AREA.--42 acres.

DRAINAGE AREA.--55.4 mi².

PERIOD OF RECORD.--1945 to current year.

DATUM OF GAGE.--890.00 ft above sea level.

GAGE.--A water-stage recorder is installed in a wooden shelter over a 24-inch diameter stilling well. An auxiliary staff gage is bolted to the downstream side of the bridge at the same site.

ESTABLISHED LEGAL LEVEL.--7.36 ft gage datum or 897.36 ft above sea level as decreed on February 2, 1954, by the Lagrange County Circuit Court. Witmer, Westler, Dallas, and Messick Lakes, all near Wolcottville, have the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete sill with removable stop logs located at the outlet of Messick Lake.

INLET AND OUTLET.--One inlet enters on the north shore from Oliver Lake 1.6 mi upstream. The other inlet enters on the east shore from Dallas Lake 0.5 mi upstream, which is part of a chain of lakes including Westler and Witmer Lakes. The outlet flows from the lake on the southwest shore and into Messick Lake about 0.5 mi downstream. Messick Lake empties into the North Branch of the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.17 ft Apr. 7, 1978; minimum stage, 6.34 ft Oct. 10, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.99	8.22	8.82	---	---	---	---	8.61	7.88	8.10	7.49	7.74
10	7.82	8.35	8.57	---	---	---	8.98	8.49	8.83	7.88	7.56	7.72
15	7.77	8.88	---	9.67	---	---	8.75	8.16	8.94	7.85	7.58	7.75
20	7.75	8.91	---	9.16	---	---	8.66	7.89	8.76	7.70	7.66	7.68
25	7.71	9.10	---	9.14	---	---	8.61	7.76	8.51	7.63	7.64	7.68
EOM	7.59	9.07	---	8.88	---	---	8.56	7.77	8.28	7.52	7.66	7.69

WTR YR 1993 MEAN 8.20 MAX 9.78 MIN 7.49

STREAMS TRIBUTARY TO LAKE ERIE

04177700 HAMILTON LAKE AT HAMILTON, IN

LOCATION.--Lat 41°32'10", long 84°54'45", in SW¹/₄SW¹/₄NW¹/₄, sec.34, T.36 N., R.14 E., Steuben County, Hydrologic Unit 04100003 (HAMILTON, IN quadrangle). The gage is on the eastern shore of the southern lobe at the outlet, in the town of Hamilton.

SURFACE AREA.--802 acres.

DRAINAGE AREA.--16.5 mi².

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--890.12 ft above sea level, as corrected on the basis of levels of Indiana Department of Natural Resources, 1978.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--8.83 ft gage datum or 898.83 ft above sea level as decreed on July 3, 1947, by the Steuben County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 8.83 ft gage datum or 898.95 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by two dams. The northernmost dam is concrete and steel sheet piling with a fixed crest. The southern dam has a fixed concrete sill.

INLET AND OUTLET.--Black Creek enters the lake on the northeast shore. Two small ditches enter from the east and the north. There are two outlets, both on the southern lobe, that flow into Fish Creek thence into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.14 ft Dec. 30, 1965; minimum stage, 7.27 ft Jan. 4-9, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.48	8.75	8.61	9.47	8.59	8.70	8.77	8.87	8.57	8.51	8.36	8.58
10	8.50	8.62	8.62	9.00	8.56	8.78	8.72	8.66	8.78	8.52	8.44	8.50
15	8.55	8.88	8.61	8.69	8.58	8.65	8.72	8.56	8.62	8.57	8.46	8.54
20	8.54	8.65	8.66	8.64	8.59	8.71	8.78	8.53	8.61	8.51	8.50	8.48
25	8.53	8.94	8.59	8.75	8.59	9.03	8.84	8.56	8.53	8.47	8.47	8.49
EOM	8.49	8.67	9.55	8.61	8.59	8.85	8.70	8.54	8.51	8.38	8.49	8.52

WTR YR 1993 MEAN 8.64 MAX 9.61 MIN 8.36

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099860 HEATON LAKE NEAR ELKHART, IN

LOCATION.--Lat 41°44'14", long 85°54'42", in NW¹/₄/NE¹/₄/NE¹/₄ sec.23, T.38 N., R.5 E., Elkhart County, Hydrologic Unit 04050001 (ELKHART, IN quadrangle). The gage is on the east bank of the inlet on the north shore of the lake, 4.7 mi northeast of the main Post Office in Elkhart.

SURFACE AREA.--87 acres.

DRAINAGE AREA.--9.33 mi².

PERIOD OF RECORD.--1946-53, 1970-75, 1977 to current year.

DATUM OF GAGE.--760.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--7.30 ft gage datum or 767.30 ft above sea level as decreed on September 25, 1950, by the Elkhart County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete dam.

INLET AND OUTLET.--The one inlet enters the lake at the extreme northern point of the lake. The outlet, Puterbaugh Creek, flows from the west end of the lake and enters the St. Joseph River approximately 4.0 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.73 ft Feb. 26, 1985; minimum stage, 4.55 ft Nov. 12-18, 1971.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.98	8.27	8.21	8.79	8.35	8.35	8.40	8.38	8.25	8.30	7.62	7.78
10	7.95	8.22	8.17	8.75	8.30	8.33	8.35	8.29	9.35	8.18	7.49	7.90
15	8.01	8.37	8.19	8.74	8.26	8.32	8.39	8.24	8.77	8.21	7.31	8.20
20	8.05	8.28	8.22	8.59	8.26	8.32	8.44	8.22	8.49	8.12	7.18	8.12
25	8.02	8.29	8.18	8.54	8.26	8.56	8.38	8.17	8.38	8.07	7.11	8.07
BOM	7.95	8.23	8.53	8.40	8.26	8.44	8.41	8.13	8.26	7.90	7.28	8.18

WTR YR 1993 MEAN 8.20 MAX 9.35 MIN 7.11

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100258 HIGH LAKE NEAR WOLFLAKE, IN

LOCATION.--Lat 41°18'51", long 85°31'49", in SW¹/₄/NE¹/₄/SW¹/₄ sec.18, T.33 N., R.9 E., Noble County, Hydrologic Unit 04050001 (ORMAS, IN quadrangle). The gage is on a dredged channel on the west shore of the east lobe, 2.1 mi southwest of Wolflake.

SURFACE AREA.--123 acres.

DRAINAGE AREA.--4.43 mi².

PERIOD OF RECORD.--1961-68, 1970 to current year.

DATUM OF GAGE.--890.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is driven into the lake bed at the same site.

ESTABLISHED LEGAL LEVEL.--6.35 ft gage datum or 896.35 ft above sea level as decreed on February 25, 1963, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete, fixed-crest dam with a rectangular notch.

INLET AND OUTLET.--The one inlet, Beal Branch, enters the lake on the southeast shore. The outlet flows from the east side of the north lobe, through Bear Lake, 0.6 mi downstream, into Carrol Creek, and eventually into the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.70 ft June 28, 1968; minimum stage, 5.30 ft Nov. 15, 25-28, 1964, Oct. 13, 26-31, Nov. 1-3, 1966.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.63	6.96	6.75	7.50	6.77	6.72	6.82	6.88	6.74	6.83	6.54	6.70
10	6.64	6.80	6.73	7.40	6.74	6.74	6.79	6.73	7.15	6.69	6.54	6.60
15	6.65	7.14	6.74	6.99	6.73	6.75	6.75	6.64	6.85	6.64	6.54	6.66
20	6.67	6.88	6.84	6.97	6.73	6.74	6.77	6.60	6.78	6.59	6.53	6.60
25	6.66	7.06	6.76	7.06	6.73	7.07	6.95	6.62	6.68	6.57	6.49	6.59
BOM	6.66	6.84	7.23	6.83	6.72	6.89	6.86	6.64	6.79	6.49	6.54	6.61

WTR YR 1993 MEAN 6.77 MAX 7.50 MIN 6.49

WABASH RIVER BASIN

03331300 HILL LAKE NEAR SILVER LAKE, IN

LOCATION.--Lat 41°06'16", long 85°54'35", in SE¹/₄NE¹/₄SE¹/₄ sec.25, T.31 N., R.5 E., Kosciusko County, Hydrologic Unit 05120106 (SILVER LAKE, IN quadrangle). The gage is located on the northern shore of the southwestern lobe of the lake, 2.5 mi northwest of the town of Silver Lake.

SURFACE AREA.--67 acres.

DRAINAGE AREA.--0.85 mi².

PERIOD OF RECORD.--1952 to current year.

DATUM OF GAGE.--860.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is located on the southernmost tip of the lake. The staff is mounted on a board driven into the lake bed.

ESTABLISHED LEGAL LEVEL.--11.50 ft gage datum or 871.50 ft above sea level as decreed on September 10, 1959, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete fixed sill with removable boards.

INLET AND OUTLET.--There are no surface inlets. The one outlet flows from the western edge of the lake and empties into Diamond Lake 1.5 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 12.54 ft July 21, 1963; minimum stage, 9.86 ft Jan. 18, 19, 1954.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.32	11.58	11.40	12.10	11.43	11.45	11.51	11.48	11.46	11.41	11.26	11.39
10	11.31	11.46	11.43	11.81	11.41	11.57	11.49	11.41	11.52	11.39	11.26	11.36
15	11.32	11.66	11.44	11.57	11.43	11.56	11.46	11.34	11.45	11.39	11.26	11.46
20	11.34	11.48	11.46	11.50	11.45	11.55	11.46	11.32	11.45	11.35	11.28	11.38
25	11.34	11.57	11.49	11.69	11.45	11.61	11.61	11.36	11.39	11.32	11.26	11.40
DOM	11.33	11.45	11.77	11.49	11.45	11.54	11.52	11.45	11.39	11.25	11.28	11.42

WTR YR 1993 MEAN 11.45 MAX 12.17 MIN 11.23

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099500 HOGBACK LAKE NEAR ANGOLA, IN

LOCATION.--Lat 41°37'39", long 85°04'59", in SE¹/₄SE¹/₄SE¹/₄ sec.25, T.37 N., R.12 E., Steuben County, Hydrologic Unit 04050001 (ANGOLA WEST, IN quadrangle). The gage is on the northeast shore, 0.5 mi south of the Tri-State Airport, on County Road 500 West, and 4.4 mi southwest of Angola.

SURFACE AREA.--146 acres.

DRAINAGE AREA.--103 mi².

PERIOD OF RECORD.--1946-73, 1977 to current year.

DATUM OF GAGE.--940.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in one section is attached to a tree at the same site.

ESTABLISHED LEGAL LEVEL.--8.50 ft gage datum or 948.50 ft above sea level as decreed on October 28, 1959, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel (Pigeon Creek).

INLET AND OUTLET.--There are three inlets to the lake. One unnamed ditch enters from the north. A small tributary enters on the eastern tip from Silver Lake, 0.7 mi upstream. Pigeon Creek flows through the lake, entering at the southeastern shore from Golden Lake, 1.2 mi upstream and leaving at the north end of the western lobe. Pigeon Creek joins Turkey Creek to become Pigeon River and eventually empties into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 17.07 ft Mar. 22, 1982; minimum stage, 7.24 ft Sept. 9, 10, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.24	10.58	10.20	14.22	---	---	---	10.26	9.63	9.71	9.16	9.33
10	9.15	9.96	9.92	14.24	---	---	---	10.25	11.87	9.57	9.18	9.27
15	9.22	11.54	9.81	---	---	---	10.62	9.89	11.00	9.58	9.16	9.20
20	9.38	10.54	10.32	---	---	---	10.47	9.73	10.24	9.38	9.17	9.19
25	9.37	11.90	10.07	---	---	---	10.44	9.65	9.99	9.35	9.12	9.10
DOM	9.22	10.88	11.95	---	---	---	10.43	9.57	9.82	9.20	9.09	9.31

WTR YR 1993 MEAN 10.05 MAX 14.34 MIN 9.08

ILLINOIS RIVER BASIN

05514741 HUDSON LAKE AT HUDSON LAKE, IN

LOCATION.--Lat 41°42'42", long 86°32'13", in SE¹/₄SW¹/₄, sec.28, T.38 N., R.1 W., LaPorte County, Hydrologic Unit 07120001 (NEW CARLISLE, IN quadrangle). The gage is on the southeast shore of lake, and 0.7 mi west of the town line of New Carlisle.

SURFACE AREA.--432 acres.

DRAINAGE AREA.--7.92 mi².

PERIOD OF RECORD.--1946-76, 1978 to current year.

DATUM OF GAGE.--750.00 ft above sea level. Prior to Oct. 1, 1965, the datum of the gage was 760.00 ft above sea level. All levels listed below are at the present datum.

GAGE.--A water-stage recorder is installed in a wooden shelter over a 24-inch diameter stilling well. An auxiliary staff gage is driven into the lake bed.

ESTABLISHED LEGAL LEVEL.--13.09 ft gage datum or 763.09 ft above sea level as decreed on August 31, 1949, by the St. Joseph County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a 24-inch reinforced concrete pipe with a gate chamber and slide gate.

INLET AND OUTLET.--The one inlet flows into the lake at the extreme northeast tip from Saugany Lake, approximately 1.7 mi upstream. The outlet flows from the lake on the east shore to Geyer Ditch and eventually into the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 16.90 ft May 3, 1983; minimum stage, 7.60 ft Nov. 15, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.69	13.93	13.91	14.20	14.20	14.20	14.19	14.33	13.91	14.50	13.90	14.08
10	13.62	13.97	13.90	14.20	14.20	14.20	14.18	14.16	14.71	14.37	13.98	13.93
15	13.78	14.10	13.82	14.20	14.20	14.20	14.22	13.93	14.70	14.23	14.01	14.02
20	13.76	14.08	13.80	14.20	14.20	14.20	14.46	13.77	14.73	14.12	14.02	14.05
25	13.76	14.08	13.80	14.20	14.20	14.20	14.46	13.81	14.59	14.01	13.99	14.13
BOM	13.72	13.99	13.94	14.20	14.20	14.18	14.44	13.85	14.54	13.88	14.11	14.19

WTR YR 1993 MEAN 14.10 MAX 14.74 MIN 13.59

STREAMS TRIBUTARY TO LAKE MICHIGAN

04097680 JIMMERSON LAKE AT NEVADA MILLS, IN

LOCATION.--Lat 41°43'31", long 85°04'55", in SW¹/₄NW¹/₄, sec.30, T.38 N., R.13 E., Steuben County, Hydrologic Unit 04050001 (ANGOLA WEST, IN quadrangle). The gage is at the extreme west end of the lake on the abutment of the concrete spillway structure and dam in the town of Nevada Mills, 4.6 mi east of Orland.

SURFACE AREA.--434 acres.

DRAINAGE AREA.--51.6 mi².

PERIOD OF RECORD.--1937-44, 1946 to current year. (Lake level readings were made once a week by employees of Northern Indiana Public Service Company from 1937 to 1944.)

DATUM OF GAGE.--960.27 ft above sea level, as corrected on the basis of levels of Indiana Department of Natural Resources in June 1972.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 24-inch diameter stilling well attached to the control structure. An auxiliary staff gage is bolted to the same wall.

ESTABLISHED LEGAL LEVEL.--4.66 ft gage datum or 964.66 ft above sea level as decreed on July 3, 1947, by the Steuben County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 4.66 ft gage datum or 964.93 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete fixed-crest dam.

INLET AND OUTLET.--Crooked Creek flows through the lake, entering from Lake James at the extreme southeast end, and leaving from the northwest. Crooked Creek flows through Tamarack Lake and becomes Fawn River, which eventually empties into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.22 ft May 27, 1943; minimum stage, 3.71 ft Feb. 16, 17, 1948.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.92	5.15	5.33	5.85	5.30	5.26	5.59	5.33	5.07	5.21	4.85	4.87
10	4.91	5.12	5.27	5.85	5.25	5.36	5.48	5.26	5.66	5.12	4.85	4.86
15	5.00	5.39	5.27	5.70	5.23	5.33	5.45	5.10	5.58	5.10	4.85	4.92
20	5.00	5.35	5.26	5.54	5.22	5.35	5.40	5.02	5.48	5.02	4.83	4.89
25	4.98	5.54	5.16	5.55	5.23	5.59	5.41	4.99	5.39	4.98	4.81	4.88
EOM	4.95	5.44	5.42	5.40	5.22	5.66	5.37	4.96	5.29	4.89	4.80	4.97

WTR YR 1993 MEAN 5.22 MAX 5.91 MIN 4.76

WABASH RIVER BASIN

03331438 KING LAKE NEAR DELONG, IN

LOCATION.--Lat 41°07'48", long 86°25'23", in NW¹/₄SW¹/₄SE¹/₄, sec.16, T.31 N., R.1 E., Fulton County, Hydrologic Unit 05120106 (CULVER, IN quadrangle). The gage is located on the northern shore of the lake, on the lake access road, 0.6 mi southwest of DeLong.

SURFACE AREA.--18 acres.

DRAINAGE AREA.--1.98 mi².

PERIOD OF RECORD.--1970-72, 1975 to current year.

DATUM OF GAGE.--730.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The lake level is normally controlled by the outlet channel bed. At high stages the control changes to the outlet culvert under old State Highway 17. The culvert is located about 700 ft north of the lake.

INLET AND OUTLET.--The inlet is an unnamed ditch which enters the lake from the southeastern side. The outlet exits the lake on the northern side and flows north approximately 1.5 mi to the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 8.69 ft June 14, 1981; minimum stage, 3.60 ft Oct. 23-26, 28-31, November 1, 2, 1974.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.20	5.45	6.27	7.27	5.66	5.74	5.86	5.33	5.61	6.32	5.33	5.95
10	5.23	5.61	6.31	6.12	5.62	5.74	5.45	5.45	5.78	5.91	5.46	6.03
15	5.25	6.03	6.35	5.77	5.68	5.74	5.53	5.47	5.79	5.57	5.77	6.28
20	5.21	5.92	6.45	5.82	5.68	5.74	5.22	5.43	5.99	5.77	5.81	6.31
25	5.19	6.19	6.42	5.98	5.68	6.65	5.20	5.46	6.01	5.58	5.78	6.40
DOM	5.16	6.26	6.53	5.71	5.68	6.10	5.09	5.56	6.11	5.42	5.78	6.40

WTR YR 1993 MEAN 5.78 MAX 7.55 MIN 5.09

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100390 KNAPP LAKE NEAR WASHINGTON CENTER, IN

LOCATION.--Lat. 41°20'36", long 85°36'17", in SW¹/₄NE¹/₄SW¹/₄, sec.4, T.33 N., R.8 E., Noble County, Hydrologic Unit 04050001 (ORMAS, IN quadrangle). The gage is at a public fishing site on the east side of the lake, and 5.8 mi west of the town of Wolflake.

SURFACE AREA.--88 acres.

DRAINAGE AREA.--6.02 mi².

PERIOD OF RECORD.--1946-74, 1976 to current year.

DATUM OF GAGE.--870.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--8.25 ft gage datum or 878.25 ft above sea level as decreed on October 7, 1954, by the Noble County Circuit Court. Harper Lake, Moss Lake, and Hindman Lake, all near Washington Center, have the same established level as Knapp Lake and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The lake level is controlled by the outlet channel.

INLET AND OUTLET.--There are three inlets. The outlet of Little Knapp Lake enters at the southeastern corner, the outlet of Harper Lake enters at the southernmost tip, and Galloway Ditch enters on the eastern shore. The outlet flows from the lake on the western shore, through a series of lakes, into Turkey Creek and eventually into the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.10 ft June 27, 1968; minimum stage, 6.83 ft Oct. 31, and Nov. 1, 1992.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.98	7.81	7.27	9.44	7.31	7.27	7.74	7.74	7.41	7.86	7.15	6.99
10	6.93	7.40	7.16	8.68	7.20	7.73	7.58	7.62	8.71	7.46	7.40	6.93
15	6.91	8.36	7.14	7.94	7.17	7.71	7.43	7.47	8.11	7.29	7.50	7.00
20	6.91	7.71	7.31	7.52	7.11	7.71	7.50	7.33	7.80	7.16	7.04	6.94
25	6.89	7.95	7.15	8.14	7.13	8.23	7.87	7.30	7.53	7.12	6.88	6.95
DOM	6.84	7.54	8.47	7.56	7.13	7.74	7.70	7.27	7.69	7.07	6.92	7.10

WTR YR 1993 MEAN 7.46 MAX 9.44 MIN 6.84

ILLINOIS RIVER BASIN

05515600 KOONTZ LAKE AT KOONTZ LAKE, IN

LOCATION.--Lat 41°24'42", long 86°29'18", in SW¹/₄SE¹/₄NE¹/₄, sec.11, T.34 N., R.1 W., Starke County, Hydrologic Unit 07120001 (WALKERTON, IN quadrangle). The gage is on the western tip of the lake, at the control dam on State Highway 23, at the town of Koontz Lake.

SURFACE AREA.--346 acres.

DRAINAGE AREA.--6.25 mi².

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--710.12 ft above sea level, as corrected on the basis of levels of Indiana Department of Natural Resources, 1978.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--4.56 ft gage datum or 714.56 ft above sea level as decreed on September 15, 1948, by the Starke County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 4.56 ft gage datum or 714.68 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet piling dam with a fixed crest.

INLET AND OUTLET.--Lawrence Pontius Ditch and an unnamed ditch enter the lake on the south shore of the east lobe. The outlet flows from the lake at the western tip and into Robbins Ditch 1400 ft downstream. Robbins Ditch empties into the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.10 ft Oct. 11, 1954; minimum stage, 3.10 ft Oct. 12, 1970.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.51	4.65	4.54	5.05	4.57	4.66	4.65	4.67	4.56	4.57	4.42	4.62
10	4.50	4.60	4.59	4.73	4.56	4.66	4.61	4.58	4.81	4.53	4.45	4.53
15	4.56	4.69	4.60	4.69	4.57	4.59	4.63	4.52	4.64	4.50	4.46	4.82
20	4.52	4.59	4.61	4.64	4.56	4.61	4.74	4.51	4.59	4.50	4.48	4.60
25	4.51	4.63	4.56	4.67	4.58	4.74	4.69	4.54	4.53	4.51	4.44	4.59
DOM	4.50	4.58	4.92	4.59	4.58	4.71	4.66	4.55	4.56	4.45	4.64	4.58

WTR YR 1993 MEAN 4.59 MAX 5.10 MIN 4.42

ILLINOIS RIVER BASIN

05517800 LAKE ELIZA NEAR BEATRICE, IN

LOCATION.--Lat 41°25'55", long 87°10'33", in SW¹/₄NE¹/₄NW¹/₄, sec.1, T.34 N., R.7 W., Porter County, Hydrologic Unit 07120001 (PALMER, IN quadrangle). The gage is on the east bank of a boat channel off the northernmost end of the lake, south of the bridge over the channel, and at the town of Lake Eliza.

SURFACE AREA.--45 acres.

DRAINAGE AREA.--1.70 mi².

PERIOD OF RECORD.--1954-74, 1976 to current year.

DATUM OF GAGE.--735.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the bridge piling.

ESTABLISHED LEGAL LEVEL.--3.70 ft gage datum or 738.70 ft above sea level as decreed on February 7, 1982, by the Porter County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a reinforced concrete dam with fixed crest.

INLET AND OUTLET.--Two small inlets enter the lake from the northwest and the northeast. The outlet flows from the lake on the south side through a dredged channel, forms the head waters of Wolf Creek, and eventually joins the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.24 ft June 14, 1981; minimum stage, 2.45 ft Oct. 13-15, 1988.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.73	4.04	4.38	5.49	4.48	4.90	4.37	4.18	4.11	4.26	3.93	4.37
10	3.73	4.20	4.19	4.47	4.50	5.10	4.24	4.13	4.61	4.19	3.94	4.24
15	3.73	4.46	4.31	4.22	4.53	5.02	4.71	4.05	4.21	4.09	3.91	4.38
20	3.67	4.40	4.58	4.19	4.55	5.07	4.56	4.01	4.27	4.04	3.88	4.21
25	3.65	4.43	4.54	4.38	4.61	5.20	4.24	4.02	4.22	4.08	3.84	4.22
DOM	3.61	4.39	5.27	4.49	4.61	4.97	4.19	4.05	4.41	4.01	4.26	4.22

WTR YR 1993 MEAN 4.30 MAX 5.67 MIN 3.61

STREAMS TRIBUTARY TO LAKE MICHIGAN

04097950 LAKE GAGE AT PANAMA, IN

LOCATION.--Lat 41°42'32", long 85°06'53", in SE¹/₄SE¹/₄NW¹/₄ sec.35, T.38 N., R.12 E., Steuben County, Hydrologic Unit 04050001 (ANGOLA WEST, IN quadrangle). The gage is at the bridge over the outlet on the northern tip of the lake, 0.4 mi northwest of Panama, and 3.3 mi southeast of Orland.

SURFACE AREA.--332 acres.

DRAINAGE AREA.--17.3 mi².

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--950.00 ft above sea level.

GAGE.--A water-stage recorder is installed in a wooden shelter over a 24-inch diameter stilling well at the downstream side of the bridge. An auxiliary staff gage is at the same site.

ESTABLISHED LEGAL LEVEL.--4.25 ft gage datum or 954.25 ft above sea level as decreed on July 3, 1947, by the Steuben County Circuit Court. Lime Lake at Panama has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest and one adjustable gate at the outlet of Lime Lake.

INLET AND OUTLET.--The one inlet flows into the lake on the extreme eastern shore from the Third Basin of Crooked Lake, 1.4 mi upstream. The outlet flows from the northern tip into Lime Lake approximately 600 ft downstream, then eventually into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.55 ft Apr. 25, 1950; minimum stage, 3.41 ft Nov. 13, 15-20, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.46	4.24	4.70	5.00	4.85	4.74	4.75	4.75	4.83	4.59	4.52	4.53
10	4.48	4.24	4.70	5.05	4.77	4.76	4.85	4.62	5.09	4.69	4.53	4.51
15	4.52	4.52	4.72	5.12	4.74	4.71	4.85	4.59	4.97	4.68	4.53	4.57
20	4.48	4.53	4.65	5.03	4.71	4.71	4.86	4.62	4.96	4.65	4.51	4.52
25	4.29	4.74	4.56	5.05	4.72	4.71	4.84	4.66	4.76	4.65	4.50	4.52
DOM	4.14	4.72	4.75	4.94	4.70	4.73	4.73	4.70	4.65	4.57	4.50	4.56

WTR YR 1993 MEAN 4.67 MAX 5.14 MIN 4.14

STREAMS TRIBUTARY TO LAKE MICHIGAN

04092990 LAKE GEORGE AT HOBART, IN

LOCATION.--Lat 41°32'07", long 87°15'30", in NW¹/₄NW¹/₄NW¹/₄ sec.32, T.36 N., R.7 W., Lake County, Hydrologic Unit 04040001 (GARY, IN quadrangle). The gage is on the northeast end of the lake, 70 ft northwest of the dam and 400 ft upstream of the Ridge Road bridge, in Hobart.

SURFACE AREA.--282 acres.

DRAINAGE AREA.--124 mi².

PERIOD OF RECORD.--1947 to current year.

DATUM OF GAGE.--600.00 ft above sea level.

GAGE.--A water-stage recorder is installed in a steel shelter over an 18-inch diameter clay stilling well.

ESTABLISHED LEGAL LEVEL.--2.23 ft gage datum or 602.23 ft above sea level as decreed on September 18, 1959, by the Lake County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with removable boards.

INLET AND OUTLET.--The two principal inlets are Turkey Creek, entering from the extreme southwestern tip, and Deep River, entering on the northeastern shore of the southern lobe. Three unnamed tributaries enter from the northwest, south, and southeast. The outlet, Deep River, flows from the lake at the northeast end and eventually joins the Calumet River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.14 ft Oct. 11, 1954; minimum stage, 0.27 ft Nov. 6, 1978 (while the lake was being drained).

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.10	2.16	2.22	4.81	2.24	2.49	2.48	2.26	2.03	2.68	2.13	2.68
10	2.07	2.08	2.19	2.59	2.21	2.61	2.56	2.30	3.91	2.41	2.09	2.35
15	2.08	2.50	2.30	2.58	2.21	2.30	2.48	2.18	2.25	2.24	2.06	3.03
20	2.02	2.21	2.16	2.31	2.17	2.16	4.06	2.14	4.35	2.18	2.08	2.39
25	2.05	2.24	2.22	2.72	2.16	3.29	2.45	2.17	2.34	2.12	2.15	2.11
DOM	2.03	2.05	4.38	2.36	2.13	2.63	2.56	2.24	3.52	2.08	2.53	2.40

WTR YR 1993 MEAN 2.43 MAX 4.81 MIN 1.98

STREAMS TRIBUTARY TO LAKE MICHIGAN

04097550 LAKE GEORGE AT JAMESTOWN, IN

LOCATION.--Lat 41°44'58", long 85°01'01", in SE¹/₄/NW¹/₄/SE¹/₄, sec.15, T.38 N., R.13 E., Steuben County, Hydrologic Unit 04050001 (ANGOLA WEST, IN quadrangle). The gage is 25 ft east of the outlet dam on the southwest end of the lake at Jamestown, 8.0 mi north of Angola.

SURFACE AREA.--488 acres.

DRAINAGE AREA.--14.7 mi².

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--980.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--5.28 ft gage datum or 985.28 ft above sea level as decreed on October 12, 1945, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with removable boards.

INLET AND OUTLET.--The inlet flows from Silver Lake, 0.8 mi upstream, and enters on the north shore. The outlet flows from the southwest end of the lake and forms Crooked Creek. Crooked Creek flows into Mud Lake 0.8 mi downstream, then enters Snow Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.20 ft Apr. 4, 25, 1950; minimum stage, 4.20 ft Dec. 6, 7, 1946; Oct. 23-31, 1948.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.60	5.75	5.79	6.07	5.91	5.91	5.87	5.80	5.72	5.74	5.57	5.61
10	5.61	5.70	5.78	6.00	5.91	5.92	5.86	5.77	6.00	5.69	5.59	5.60
15	5.69	5.85	5.77	5.95	5.91	5.92	5.83	5.66	5.87	5.66	5.59	5.67
20	5.67	5.79	5.78	5.95	5.91	5.92	5.84	5.63	5.89	5.67	5.56	5.61
25	5.67	5.88	5.72	5.91	5.91	5.92	5.85	5.63	5.82	5.67	5.54	5.62
DOM	5.63	5.82	5.92	5.91	5.91	6.05	5.81	5.63	5.77	5.59	5.56	5.67

WTR YR 1993 MEAN 5.77 MAX 6.08 MIN 5.53

WABASH RIVER BASIN

03331380 LAKE MANITOU AT ROCHESTER, IN

LOCATION.--Lat 41°03'00", long 86°10'06", NW¹/₄/SW¹/₄/NW¹/₄, sec.14, T.30 N., R.3 E., Fulton County, Hydrologic Unit 05120106 (ROCHESTER, IN quadrangle). The gage is located at the Public Fishing Site on the eastern side of the lake, and 2.6 mi southeast of the courthouse in Rochester.

SURFACE AREA.--1,158 acres.

DRAINAGE AREA.--44.2 mi².

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--770.00 ft above sea level.

GAGE.--A water-stage recorder is installed in a aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is located at the northwest end of the lake at the fish hatchery.

ESTABLISHED LEGAL LEVEL.--8.41 ft gage datum or 778.41 ft above sea level as decreed on September 27, 1948, by the Fulton County Circuit Court.

LAKE-LEVEL CONTROL.--The lake level is controlled by a concrete dam and the gate of a feeder canal at the lake outlet.

INLET AND OUTLET.--Rain Creek is the main inlet and enters at the southeastern edge of the lake. The other inlet is located on the eastern shore of the lake at the site of the gage. The outlet is Mill Creek, which exits at the northwestern tip of the lake and flows 3.5 mi to the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.87 ft Aug. 19, 1990; minimum stage, 6.48 ft Nov. 14, 25-27, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.41	8.68	8.57	9.59	8.71	8.74	8.81	8.85	8.73	8.74	---	9.55
10	8.42	8.54	8.57	8.99	8.67	8.86	8.77	8.72	8.92	8.63	---	9.56
15	8.42	8.91	8.58	8.84	8.67	8.71	8.75	8.61	8.68	8.65	9.39	9.58
20	8.46	8.63	8.67	8.74	8.64	8.72	8.83	8.60	8.64	8.54	9.49	9.50
25	8.44	8.76	8.56	9.07	8.63	8.89	8.94	8.63	8.58	8.48	9.45	9.52
DOM	8.41	8.63	8.88	8.78	8.61	8.79	8.85	8.72	8.72	---	9.45	9.52

WTR YR 1993 MEAN 8.81 MAX 9.66 MIN 8.40

WABASH RIVER BASIN

03331440 LAKE MAXINKUCKEE AT CULVER, IN

LOCATION.--Lat 41°11'48", long 86°25'00", in NE¹/₄SE¹/₄NW¹/₄ sec.28, T.32 N., R.1 E., Marshall County, Hydrologic Unit 05120106 (CULVER, IN quadrangle). The gage is on the lower west side of the lake, at the public fishing site, 1.4 mi south of the center of Culver.

SURFACE AREA.--1,864 acres.

DRAINAGE AREA.--13.7 mi².

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--730.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the upstream side of the north abutment of the outlet dam.

ESTABLISHED LEGAL LEVEL.--3.12 ft gage datum or 733.12 ft above sea level as decreed on August 9, 1948, by the Marshall County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest at the outlet channel.

INLET AND OUTLET.--Wilson Ditch enters the lake at the northeast corner, Curtiss Ditch enters at the east center, and Norris Inlet enters at the southeast corner. The outlet leaves the lake at the western shore, north of the point, and flows into Lost Lake 1,600 ft downstream, thence into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.48 ft June 14, 15, 1981; minimum stage, 2.12 ft Nov. 19, 1953 and Nov. 19, 1956.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.21	3.34	3.51	4.19	3.92	3.72	3.91	4.10	3.64	---	---	3.46
10	3.20	3.35	3.51	4.29	3.86	3.73	3.90	4.02	3.76	---	---	3.43
15	3.19	3.54	3.51	4.28	3.80	3.71	3.92	3.85	3.76	---	3.17	3.62
20	3.14	3.52	3.52	4.11	3.75	3.72	3.93	3.72	---	---	3.40	3.55
25	3.13	3.62	3.48	4.18	3.74	3.83	3.96	3.68	---	---	3.37	3.57
DOM	3.11	3.57	3.66	4.05	3.74	3.89	3.96	3.65	---	---	3.37	3.46

WTR YR 1993 MEAN 3.66 MAX 4.32 MIN 3.11

ILLINOIS RIVER BASIN

05516200 LAKE OF THE WOODS NEAR BREMEN, IN

LOCATION.--Lat 41°25'04", long 86°13'44", in SW¹/₄NW¹/₄NW¹/₄ sec.7, T.34 N., R.3 E., Marshall County, Hydrologic Unit 07120001 (BREMEN, IN quadrangle). The gage is on the southwest shore of the lake, at the public fishing site, and 4.7 mi southwest of Bremen.

SURFACE AREA.--416 acres.

DRAINAGE AREA.--9.45 mi².

PERIOD OF RECORD.--1945 to current year.

DATUM OF GAGE.--800.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is driven into the outlet channel.

ESTABLISHED LEGAL LEVEL.--3.85 ft gage datum or 803.85 ft above sea level as decreed on August 9, 1948, by the Marshall County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a 13 ft by 1 ft notch. The dam is equipped with a lift gate.

INLET AND OUTLET.--Three ditches, Kimble, Martin, and Seltenright, enter the lake on the northwest shore. Scofield Ditch enters at the west lobe. The outlet, Clark Ditch, flows from the lake at the southern end and eventually into Yellow River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.68 ft Oct. 12, 1954; minimum stage, 2.75 ft Nov. 18-20, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.44	3.86	3.58	4.80	3.62	---	---	4.03	3.93	4.02	3.92	3.79
10	3.37	3.74	3.50	4.33	3.55	---	---	3.83	4.46	3.98	3.89	3.71
15	3.26	4.08	3.67	4.06	3.53	---	---	3.56	4.01	3.93	3.93	3.98
20	3.25	3.85	3.71	3.80	3.46	---	4.07	3.48	3.92	3.94	3.88	3.57
25	3.24	3.84	3.59	4.00	---	---	4.10	3.59	3.95	4.01	3.84	3.40
DOM	3.19	3.70	4.30	3.79	---	---	3.96	3.80	4.04	3.87	4.01	3.34

WTR YR 1993 MEAN 3.80 MAX 4.80 MIN 3.19

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099580 LAKE OF THE WOODS NEAR HELMER, IN

LOCATION.--Lat 41°32'30", long 85°11'42", in SE¹/₄SE¹/₄SE¹/₄ sec.25, T.36 N., R.11 E., Lagrange County, Hydrologic Unit 04050001 (STROH, IN quadrangle). The gage is on the west shore of Duck Pond, a basin connecting Lake of the Woods and McClish Lake, approximately 100 ft south of the bridge over the channel, and 1.5 mi northwest of Helmer.

SURFACE AREA.--136 acres.

DRAINAGE AREA.--5.25 mi².

PERIOD OF RECORD.--1951-74, 1977 to current year.

DATUM OF GAGE.--940.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--11.09 ft gage datum or 951.09 ft above sea level as decreed on July 21, 1960, by the Lagrange County Circuit Court. McClish Lake near Helmer has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed sill.

INLET AND OUTLET.--There are four inlets to the lake. Spectacle Lake drains into the west shore, Maumee Ditch enters from the south, Goose Pond flows through a short channel to the southwest shore, and McClish Lake drains into the lake on the southeast shore. The outlet flows to the north from the east end of the lake and through Taylor, Mud, and Little Turkey Lakes to Turkey Creek, thence into Pigeon River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.00 ft Dec. 24, 25, 1967; minimum stage, 9.81 ft Nov. 17-20, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.33	11.67	11.56	12.55	11.64	11.59	---	11.70	11.47	11.46	11.16	11.32
10	11.33	11.55	11.53	12.30	11.61	11.55	11.71	11.57	11.99	11.46	11.20	11.28
15	11.36	11.85	11.51	12.23	11.60	11.59	11.63	11.49	11.68	11.41	11.21	11.33
20	11.37	11.60	11.58	12.21	11.60	11.60	11.66	11.42	11.65	11.32	11.31	11.27
25	11.37	12.00	11.53	11.92	11.60	---	11.68	11.41	11.58	11.29	11.25	11.28
ROM	11.34	11.68	12.44	11.69	11.60	---	11.62	11.41	11.51	11.20	11.26	11.34

WTR YR 1993 MEAN 11.56 MAX 12.66 MIN 11.16

STREAMS TRIBUTARY TO LAKE MICHIGAN

04097520 LAKE PLEASANT NEAR NEVADA MILLS, IN

LOCATION.--Lat 41°45'18", long 85°06'10", in NW¹/₄SW¹/₄NW¹/₄ sec.13, T.38 N., R.12 E., Steuben County, Hydrologic Unit 04050001 (KINDERHOOK, MI-IN quadrangle). The gage is at a bridge over a boat channel on the south shore of the lake, 2.3 mi northwest of Nevada Mills.

SURFACE AREA.--424 acres.

DRAINAGE AREA.--3.18 mi².

PERIOD OF RECORD.--1954-69, 1971, 1976 to current year.

DATUM OF GAGE.--960.40 ft above sea level as corrected on the basis of levels of Indiana Department of Natural Resources, 1977-78.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the southwest bridge abutment at the site.

ESTABLISHED LEGAL LEVEL.--1.10 ft gage datum or 961.50 ft above sea level as decreed on April 11, 1986, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a metal plate welded across the bottom of a corrugated metal pipe.

INLET AND OUTLET.--The one inlet enters the lake on the west side. The outlet flows from the northern shore, enters Michigan, and eventually empties into Prairie River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 2.04 ft Mar. 17, 1980; minimum stage, -0.14 ft Nov. 6-14, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.46	1.61	1.65	1.93	1.62	1.64	1.70	1.69	1.53	1.62	1.33	1.35
10	1.47	1.58	1.65	1.86	1.58	1.66	1.69	1.62	1.89	1.57	1.34	1.34
15	1.56	1.71	1.65	1.82	1.59	1.63	1.67	1.52	1.82	1.56	1.33	1.43
20	1.53	1.66	1.65	1.82	1.60	1.65	1.68	1.48	1.84	1.48	1.28	1.39
25	1.50	1.79	1.59	1.78	1.63	1.74	1.69	1.49	1.75	1.47	1.26	1.39
ROM	1.46	1.71	1.79	1.66	1.63	1.76	1.66	1.47	1.68	1.36	1.28	1.46

WTR YR 1993 MEAN 1.59 MAX 1.95 MIN 1.24

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100160 LITTLE LONG LAKE AT KENDALLVILLE, IN

LOCATION.--Lat 41°27'49", long 85°15'27", in SE¹/₄NW¹/₄NE¹/₄ sec.28, T.35 N., R.11 E., Noble County, Hydrologic Unit 04050001 (KENDALLVILLE, IN quadrangle). The gage is on the south side of the lake at the bridge over the dredged channel in Wakeville Village, 1.6 mi northeast of City Hall in Kendallville.

SURFACE AREA.--71 acres.

DRAINAGE AREA.--4.55 mi².

PERIOD OF RECORD.--1954 to current year.

DATUM OF GAGE.--950.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in one section is attached to the west wingwall on the south side of the bridge.

ESTABLISHED LEGAL LEVEL.--4.50 ft gage datum or 954.50 ft above sea level as decreed on March 26, 1970. Round Lake at Kendallville has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete dam.

INLET AND OUTLET.--The one inlet enters on the east side from Round Lake. The outlet, Waterhouse Ditch, flows from the lake at the southwest end and into Henderson Lake Ditch, thence into Sylvan Lake 4.8 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.75 ft Jan. 31, 1969; minimum stage, 3.33 ft Nov. 17, 18, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.68	4.93	4.79	5.99	4.78	4.77	4.93	4.91	4.74	4.68	4.57	4.72
10	4.74	4.81	4.79	5.35	4.76	4.93	4.89	4.77	5.06	4.67	4.57	4.64
15	4.79	5.06	4.80	4.92	4.76	4.89	4.87	4.70	4.79	4.68	4.53	4.72
20	4.80	4.83	4.84	4.91	4.76	4.89	4.88	4.67	4.74	4.62	---	4.66
25	4.78	5.15	4.76	5.05	4.76	5.29	4.95	4.70	4.74	4.59	---	4.66
EOM	4.76	4.86	5.73	4.82	4.76	4.97	4.86	4.70	4.68	4.50	4.53	4.73

WTR YR 1993 MEAN 4.82 MAX 6.03 MIN 4.46

WABASH RIVER BASIN

03328100 LONG LAKE AT LAKETON, IN

LOCATION.--Lat 40°59'08", long 85°50'20", in NE¹/₄NW¹/₄NE¹/₄ sec.10, T.29 N., R.6 E., Wabash County, Hydrologic Unit 05120104 (NORTH MANCHESTER SOUTH, IN quadrangle). The gage is located on the north shore of the lake, 0.3 mi west of Crill Road, and 0.8 mi north of Laketon.

SURFACE AREA.--48 acres.

DRAINAGE AREA.--0.55 mi².

PERIOD OF RECORD.--1946-51, 1959 to current year.

DATUM OF GAGE.--740.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage, driven into the lake bed, is located 50 ft lakeward of the primary gage.

ESTABLISHED LEGAL LEVEL.--11.19 ft gage datum or 751.19 ft above sea level as decreed on July 26, 1951, by the Wabash County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by an 18-inch corrugated metal pipe draining into a clay tile.

INLET AND OUTLET.--Two tile ditches flow into the lake. The outlet flows from the west end of the lake, joins the outlet of Mud Lake, continues through Round Lake, then into Bel River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.66 ft Mar. 22, 1982; minimum stage, 8.68 ft Dec. 1-3, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.44	11.67	12.40	13.15	12.94	12.82	12.90	12.86	12.32	12.40	11.93	11.90
10	11.41	11.72	12.46	13.16	12.86	12.84	12.90	12.76	12.49	12.30	11.91	11.97
15	11.38	12.13	12.50	13.18	12.85	12.80	12.88	12.61	12.41	12.28	11.87	12.01
20	11.40	12.18	12.52	13.12	12.86	12.84	12.82	12.48	12.33	12.39	11.87	11.92
25	11.36	12.40	12.50	13.22	12.86	12.93	12.88	12.42	12.21	12.25	11.81	11.91
EOM	11.31	12.41	12.68	13.08	12.85	12.94	12.82	12.37	12.30	12.05	11.79	11.88

WTR YR 1993 MEAN 12.39 MAX 13.24 MIN 11.31

STREAMS TRIBUTARY TO LAKE MICHIGAN
04099200 LONG LAKE AT MOONLIGHT, IN

LOCATION.--Lat 41°35'01", long 85°01'43", in NE¹/₄NE¹/₄NE¹/₄ sec.16, T.36 N., R.13 E., Steuben County, Hydrologic Unit 04050001 (ASHLEY, IN quadrangle). The gage is located on the northern shore, 0.4 mi east of the lake outlet and 2.5 mi north of Steubenville.

SURFACE AREA.--92 acres.

DRAINAGE AREA.--67.9 mi².

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--940.10 ft above sea level as corrected on the basis of levels of Indiana Department of Natural Resources, 1977.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is located near the gage in two sections. One section is mounted on a post which is driven into the lake bed. The other section is mounted to a tree near the gage.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The lake level is controlled by the downstream channel.

INLET AND OUTLET.--Pigeon Creek flows into Long Lake at the eastern end of the lake and exits at the western end.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 17.42 ft Mar. 22, 1982; minimum stage, 8.78 ft Sept. 30, Oct. 1, 2, 1991.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.94	10.94	10.16	15.02	10.20	10.65	11.80	10.73	9.75	9.48	9.12	9.21
10	9.07	9.75	9.83	15.02	10.00	11.40	11.15	10.14	12.76	9.38	9.13	9.12
15	9.28	12.11	9.80	11.77	9.90	10.31	10.68	9.75	10.94	9.38	9.12	9.28
20	9.44	10.39	10.37	10.74	9.74	10.74	10.88	9.58	10.19	9.37	9.19	9.09
25	9.33	12.64	9.79	11.67	9.68	13.32	10.94	9.53	9.83	9.22	9.10	9.07
BOM	9.19	10.86	13.68	10.57	9.61	12.01	10.51	9.42	9.62	9.14	9.11	9.27

WTR YR 1993 MEAN 10.29 MAX 15.03 MIN 8.92

WABASH RIVER BASIN

03331460 LOST LAKE NEAR CULVER, IN

LOCATION.--Lat 41°12'02", long 86°25'17", in NE¹/₄NW¹/₄NW¹/₄ sec.28, T.32 N., R.1 E., Marshall County, Hydrologic Unit 05120106 (CULVER, IN quadrangle). The gage is on the northern shore of the lake at the east end of West 19th Road (lake access road), 1.1 mi south of the center of Culver.

SURFACE AREA.--40 acres.

DRAINAGE AREA.--14.2 mi².

PERIOD OF RECORD.--1954-61, 1963-74, 1976 to current year. (Formerly published as Hawks Lake near Culver.)

DATUM OF GAGE.--720.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--12.00 ft gage datum or 732.00 ft above sea level as decreed on February 17, 1960, by the Marshall County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam and sill with removable boards in the outlet channel approximately 850 ft downstream from the main body of the lake.

INLET AND OUTLET.--The one inlet flows into the lake from Maxinkuckee Lake and enters on the north shore. The outlet flows from the south end of the lake to the Tippecanoe River 3.7 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.05 ft June 15, 1981; minimum stage, 10.12 ft July 9, 1959.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.85	11.97	12.10	12.48	12.36	12.25	12.31	12.40	12.16	12.13	11.82	12.05
10	11.83	11.99	12.11	11.88	12.31	12.26	12.31	12.36	12.21	12.11	11.82	12.03
15	11.85	12.11	12.13	12.52	12.29	12.25	12.35	12.27	12.22	12.07	11.79	12.14
20	11.80	12.11	12.11	12.46	12.27	12.26	12.32	12.21	12.21	12.04	12.00	12.11
25	11.78	12.17	12.09	12.48	12.25	12.31	12.35	12.18	12.14	12.00	11.98	12.12
BOM	11.78	12.14	12.21	12.42	12.24	12.33	12.35	12.17	12.12	11.90	11.99	12.08

WTR YR 1993 MEAN 12.15 MAX 12.54 MIN 11.76

WABASH RIVER BASIN

03328400 LUKENS LAKE NEAR DISKO, IN

LOCATION.--Lat 40°58'09", long 85°56'06", in SW¹/₄/NW¹/₄/NE¹/₄, sec.14, T.29 N., R.5 E., Wabash County, Hydrologic Unit 05120104 (ROANN, IN quadrangle). The gage is 25 ft north of the outlet on the southwest side of the lake, 4.1 mi north of Roann.

SURFACE AREA.--46 acres.

DRAINAGE AREA.--1.76 mi².

PERIOD OF RECORD.--1948-49, 1959 to current year.

DATUM OF GAGE.--760.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in one section is driven into the lake bed about 5 ft upstream from the outlet culvert.

ESTABLISHED LEGAL LEVEL.--3.60 ft gage datum or 763.60 ft above the sea level as decreed on March 29, 1978, by the Wabash County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by two 18-inch corrugated metal culverts at the outlet.

INLET AND OUTLET.--The principal inlet is a tile drain from McColley Lake, 0.5 mi to the north. The outlet flows from the southwestern shore, into Bolley Ditch 0.7 mi downstream, thence into Squirrel Creek, and eventually into Bel River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.10 ft May 16, 1968; minimum stage, 2.32 ft Oct. 12, 1983.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.59	3.85	3.84	4.25	3.88	3.86	3.83	3.88	3.67	3.83	---	3.59
10	3.59	3.85	3.86	4.02	3.83	3.90	3.83	3.79	3.81	---	---	3.66
15	3.65	3.98	3.89	3.95	3.94	3.86	3.83	3.75	3.75	---	---	3.78
20	3.64	3.88	3.88	3.93	3.84	3.85	3.83	3.75	3.71	---	---	3.69
25	3.59	3.95	3.79	3.99	3.81	3.90	3.97	3.72	3.62	---	---	3.70
DOM	3.54	3.90	3.96	3.92	3.79	3.89	3.88	3.68	3.80	---	---	3.64

WTR YR 1993 MEAN 3.81 MAX 4.38 MIN 3.51

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100280 MUNCIE LAKE NEAR BURR OAK, IN

LOCATION.--Lat 41°19'37", long 85°27'28", in NE¹/₄/SW¹/₄/SW¹/₄, sec.11, T.33 N., R.9 E., Noble County, Hydrologic Unit 04050001 (MERRIAM, IN quadrangle). The gage is on the southwest shore of the lake, just north of the gravel road on the Addis farm, and 1.3 mi northwest of Burr Oak.

SURFACE AREA.--47 acres.

DRAINAGE AREA.--42.8 mi².

PERIOD OF RECORD.--1954 to current year.

DATUM OF GAGE.--880.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--There are three inlets to the lake. Parker Creek flows into the lake from the east, Brown Ditch from the southeast, and Carrol Creek from the west. The outlet flows from the northwest shore into Williams Lake, then into the South Branch of the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.47 ft Mar. 24, 25, 1978, Feb. 25, 26, 1985; minimum stage, 1.88 ft Aug. 8, 1988.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.97	4.28	3.41	8.54	3.30	3.12	4.04	4.04	3.13	3.70	2.32	3.04
10	2.84	3.51	3.17	6.53	3.08	4.34	3.56	3.34	5.31	3.06	2.40	2.87
15	2.80	5.64	3.14	4.65	3.03	3.72	3.31	2.95	4.15	2.85	2.39	2.97
20	2.82	4.19	3.84	4.58	2.90	3.83	3.31	2.83	3.40	2.73	2.36	2.83
25	2.76	5.61	3.25	5.21	2.89	5.60	4.20	2.88	3.26	2.55	2.30	2.72
DOM	2.57	4.22	6.17	3.70	2.83	4.21	3.98	2.88	3.50	2.36	2.41	2.78

WTR YR 1993 MEAN 3.55 MAX 8.54 MIN 2.30

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099700 NORTH TWIN LAKE NEAR HOWE, IN

LOCATION.--Lat 41°43'45", long 85°27'49", in SE¹/₄SW¹/₄ sec.23, T.38 N., R.9 E., Lagrange County, Hydrologic Unit 04050001 (LAGRANGE, IN quadrangle). The gage is in the channel between North and South Twin Lakes, 100 ft upstream from the county road bridge, and 2.2 mi northwest of Howe.

SURFACE AREA.--135 acres.

DRAINAGE AREA.--1.54 mi².

PERIOD OF RECORD.--1953 to current year.

DATUM OF GAGE.--840.00 ft above sea level.

GAGE.--A staff gage is attached to the east concrete retaining wall of the control dam.

ESTABLISHED LEGAL LEVEL.--3.56 ft gage datum or 843.56 ft above sea level as decreed on September 11, 1959, by the Lagrange County Circuit Court. South Twin Lake near Howe has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--Prior to October 1, 1982, the low water control was a fixed-crest dam with removable boards at the upstream end of the channel between the two lakes. At high stages the outlet channel of South Twin Lake was the control. After October 1, 1982, a concrete dam with a fixed crest was installed in the outlet of South Twin Lake. This is now the control structure for both North and South Twin Lakes, although the original structure is still in place.

INLET AND OUTLET.--There are two inlets to the lake. One enters at the southeast shore from Still Lake 0.9 mi upstream, and the other, which drains the adjacent marsh land, enters on the northwest shore. The outlet flows from the southwest shore and into South Twin Lake approximately 200 ft downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.20 ft Feb. 26, 1985; minimum stage, 2.97 ft Aug. 20, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.60	3.80	3.74	4.38	3.71	3.72	3.78	3.75	3.63	3.79	3.52	3.77
10	3.67	3.74	3.80	4.26	3.69	3.74	3.74	3.68	4.08	3.74	3.58	3.68
15	3.69	3.72	3.74	3.96	3.70	3.73	3.75	3.62	3.08	3.70	3.56	3.75
20	3.68	3.68	3.71	3.83	3.72	3.74	3.73	3.60	3.96	3.67	3.56	3.72
25	3.67	3.85	3.70	3.79	3.74	3.82	3.78	3.63	3.89	3.64	3.55	3.71
DOM	3.62	3.78	3.90	3.74	3.72	3.86	3.72	3.64	3.85	3.56	3.65	3.73

WTR YR 1993 MEAN 3.74 MAX 4.45 MIN 3.08

WABASH RIVER BASIN

03331400 NYONA LAKE NEAR GREENOAK, IN

LOCATION.--Lat 40°57'40", long 86°11'20", in SE¹/₄SE¹/₄NE¹/₄ sec.16, T.29 N., R.3 E., Fulton County, Hydrologic Unit 05120106 (MACY, IN quadrangle). The gage is on the northwest shore of the southern lobe of the lake, at the public fishing site, and 2.4 mi south of Greenoak.

SURFACE AREA.--104 acres.

DRAINAGE AREA.--7.59 mi².

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--790.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--3.91 ft gage datum or 793.91 ft above sea level as decreed on September 27, 1948, by the Fulton County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest.

INLET AND OUTLET.--The lake is fed by two small ditches entering from the east and northeast. The outlet flows from the lake at the southwest corner and into Mud Creek, which eventually joins the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.13 ft Aug. 18, 1990; minimum stage, 2.98 ft Oct. 12-19, 25, 26, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.02	4.28	4.18	5.23	4.23	4.38	4.35	4.39	4.17	4.31	---	4.19
10	4.02	4.20	4.20	4.52	4.21	4.51	4.33	4.25	4.48	4.21	---	4.17
15	4.08	4.52	4.24	4.39	4.21	4.28	4.37	4.18	4.21	4.29	4.06	4.34
20	4.09	4.26	4.26	4.29	4.18	4.30	4.43	4.15	4.20	4.16	4.12	4.14
25	4.05	4.39	4.17	4.59	4.16	4.47	4.73	4.16	4.11	4.13	4.05	4.16
DOM	4.04	4.25	4.62	4.30	4.15	4.45	4.37	4.15	4.35	---	4.05	4.13

WTR YR 1993 MEAN 4.27 MAX 5.52 MIN 4.01

WABASH RIVER BASIN

03371700 OGLE LAKE NEAR NASHVILLE, IN

LOCATION.--Lat 39°09'35", long 86°14'54", in NE¹/₄SE¹/₄NE¹/₄, sec.1, T.8 N., R.2 E., Brown County, Hydrologic Unit 05120208 (NASHVILLE, IN quadrangle). The gage is on the dam, near the concrete intake structure on the west side of the lake, 3.3 mi south of Nashville.

SURFACE AREA.--20 acres.

DRAINAGE AREA.--1.03 mi².

PERIOD OF RECORD.--1954 to current year.

DATUM OF GAGE.--710.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete flood spillway with a fixed crest.

INLET AND OUTLET.--Two ditches enter the lake, one from the east and one from the southeast. The outlet flows into Upper Schooner Creek, which joins Lower Schooner Creek, then flows into the North Fork of Salt Creek. The North Fork of Salt Creek empties into Monroe Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.80 ft June 23, 1960; minimum stage, -2.70 ft Feb. 12, 13, 1977.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.40	3.19	4.53	4.69	4.58	4.78	4.64	4.66	4.59	4.57	3.98	4.56
10	3.25	3.17	4.56	4.59	4.58	4.62	4.79	4.61	4.57	4.49	3.82	4.49
15	3.30	3.65	4.57	4.59	4.59	4.61	4.88	4.61	4.62	4.42	3.94	4.58
20	3.31	3.71	4.58	4.59	4.60	4.62	4.65	4.61	4.56	4.34	4.58	4.54
25	3.24	4.57	4.56	4.64	4.72	4.67	4.71	4.57	4.51	4.19	4.51	4.75
BOM	3.14	4.56	4.59	4.59	4.73	4.66	4.63	4.53	4.49	4.00	4.48	4.57

WTR YR 1993 MEAN 4.38 MAX 5.00 MIN 3.14

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100100 OLIVER LAKE NEAR VALENTINE, IN

LOCATION.--Lat 41°34'37", long 85°24'44", in SE¹/₄SW¹/₄NE¹/₄, sec.18, T.36 N., R.10 E., Lagrange County, Hydrologic Unit 04050001 (OLIVER LAKE, IN quadrangle). The gage is at the public fishing site on the northwest side of the lake, and 1.6 mi southwest of Valentine.

SURFACE AREA.--362 acres.

DRAINAGE AREA.--11.1 mi².

PERIOD OF RECORD.--1945 to current year.

DATUM OF GAGE.--889.78 ft above sea level as corrected on the basis of levels of Indiana Department of Natural Resources, 1975-76.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the dam in the outlet.

ESTABLISHED LEGAL LEVEL.--9.45 ft gage datum or 899.45 ft above sea level as decreed on September 29, 1952, by the Lagrange County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 9.45 ft gage datum or 899.23 ft above sea level. Martin and Olin Lakes near Valentine have the same established level as Oliver Lake and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed sill and dam with movable boards.

INLET AND OUTLET.--The lake has several inlets. Dove Creek enters on the northwest, the outlet of Holsinger Hole on the north, Hart Ditch on the east, and the channel between Oliver and Olin Lakes on the southeast shore. The Oliver Lake outlet flows from the southwest lobe of the lake, through a wetland, into Hackenburg Lake 1.6 mi downstream, and eventually into the North Branch of the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.77 ft June 14, 1981; minimum stage, 8.42 ft Jan. 18, 19, and Feb. 3-5, 1961.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.87	10.46	9.85	10.59	9.99	10.01	10.68	10.06	9.93	9.90	9.68	9.89
10	9.88	10.27	9.91	---	9.99	9.98	10.01	9.91	10.66	9.83	9.74	9.85
15	9.92	10.30	9.86	10.46	9.99	9.79	9.93	9.75	10.39	9.85	9.75	9.93
20	9.89	10.18	9.76	10.13	9.99	9.88	10.02	9.70	10.24	9.75	9.89	9.85
25	9.88	10.00	10.74	10.41	10.00	10.51	10.01	9.79	10.10	9.76	9.84	9.84
BOM	10.13	9.87	10.97	10.00	10.00	10.69	9.95	9.87	9.97	9.70	9.85	9.87

WTR YR 1993 MEAN 10.02 MAX 11.15 MIN 9.68

WABASH RIVER BASIN

03331180 PALESTINE LAKE AT PALESTINE, IN

LOCATION.--Lat 41°10'48", long 85°56'54", in NE¹/₄NE¹/₄SW¹/₄ sec.33, T.32 N., R.5 E., Kosciusko County, Hydrologic Unit 05120106 (BURKET, IN quadrangle). The gage is near the extreme northwestern corner of the lake, at the public access site, in the town of Palestine.

SURFACE AREA.--290 acres.

DRAINAGE AREA.--32.4 mi².

PERIOD OF RECORD.--1954 to current year.

DATUM OF GAGE.--815.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in one section is driven into the lake bed just north of the public access site.

ESTABLISHED LEGAL LEVEL.--1.62 ft gage datum or 816.62 ft above sea level as decreed on August 5, 1965, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by an old mill dam of stone and concrete (fixed crest) at the west lobe of the far northern shore.

INLET AND OUTLET.--There are four inlets to the lake. Magee Ditch enters from the north, Williamson Ditch from the west and the confluence of Adams and Sloan Ditches from the southeast. Trimble Creek flows through the lake, entering on the extreme southeastern end, leaving at the northwestern lobe and flowing into the Tippecanoe River 7.5 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 4.35 ft June 13, 1981; minimum stage, below -0.90 ft, lake drained, 1988.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.82	2.01	1.93	2.92	1.99	2.10	2.05	2.07	2.17	1.97	1.79	1.85
10	1.83	1.92	1.93	2.38	1.96	2.17	2.07	1.98	2.19	1.89	1.81	1.82
15	1.86	2.20	1.98	2.17	1.94	2.02	2.03	1.91	2.21	1.98	1.80	1.97
20	1.82	2.01	1.99	2.07	1.93	2.05	2.07	1.89	1.97	1.87	1.82	1.86
25	1.82	2.11	1.93	2.32	1.94	2.21	2.33	1.92	1.91	1.85	1.80	1.91
EOM	1.82	1.98	2.50	2.08	1.94	2.08	2.06	2.04	1.97	1.80	1.82	1.88

WTR YR 1993 MEAN 2.00 MAX 3.18 MIN 1.78

WABASH RIVER BASIN

03331040 PIKE LAKE AT WARSAW, IN

LOCATION.--Lat 41°15'44", long 85°51'00", in NE¹/₄NW¹/₄NE¹/₄ sec.5, T.32 N., R.6 E., Kosciusko County, Hydrologic Unit 05120106 (LEESBURG, IN quadrangle). The gage is on the extreme northwestern point of the lake at the bridge over the outlet, 1.6 mi north of Warsaw.

SURFACE AREA.--203 acres.

DRAINAGE AREA.--41.5 mi².

PERIOD OF RECORD.--1954 to current year.

DATUM OF GAGE.--800.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well attached to the upstream abutment of the control structure.

ESTABLISHED LEGAL LEVEL.--5.64 ft gage datum or 805.64 ft above sea level as decreed on December 12, 1963, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest and removable boards.

INLET AND OUTLET.--The one inlet, Deeds Creek, flows from Little Chapman Lake 3.4 mi upstream, and enters the lake on the lower northern shore. The outlet flows to the west from the extreme northern end of the lake through Lones Ditch and enters the Tippecanoe River 0.9 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.79 ft Oct. 15, 1954; minimum stage, 3.71 ft Sept. 21, 22, 1955.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.77	5.40	5.48	8.40	5.55	5.26	---	---	---	6.07	5.75	5.89
10	5.83	6.00	5.24	7.75	5.28	5.58	---	---	---	5.97	5.76	5.80
15	5.82	6.15	5.31	7.08	5.15	5.40	---	---	---	5.97	5.75	5.95
20	5.78	6.02	5.20	6.28	5.07	5.55	---	---	---	5.87	5.76	5.81
25	5.74	6.07	5.06	6.78	5.03	6.16	---	---	---	5.84	5.74	5.83
EOM	5.67	5.71	6.56	6.01	5.02	5.84	---	---	6.22	5.76	5.76	5.90

WTR YR 1993 MEAN 5.84 MAX 8.40 MIN 5.02

ILLINOIS RIVER BASIN

273

05515220 PINE LAKE AT LAPORTE, IN

LOCATION.--Lat 41°37'01", long 86°44'58", in NE¹/₄SE¹/₄NW¹/₄, sec.34, T.37 N., R.3 W., LaPorte County, Hydrologic Unit 07120001 (LAPORTE EAST, IN quadrangle). The gage is at the highway bridge over the channel connecting Pine and Stone Lakes, on Waverly Beach Road, in LaPorte.

SURFACE AREA.--564 acres.

DRAINAGE AREA.--10.7 mi².

PERIOD OF RECORD.--1946-75, 1980 to current year.

DATUM OF GAGE.--780.00 ft above sea level. Prior to Oct. 1, 1964, the datum of the gage was 790.00 ft. All levels given below are at the present datum.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is driven into the channel bed at the same site.

ESTABLISHED LEGAL LEVEL.--16.20 ft gage datum or 796.20 ft above sea level, as decreed on August 31, 1949, by the LaPorte County Circuit Court. Stone Lake at LaPorte has the same established level and hence the same lake levels during the periods of record when the channel between the two lakes is open and flowing, water years 1946-63 and 1968-85.

LAKE-LEVEL CONTROL.--Pine and Stone Lakes form a closed basin; however, there is a capability of pumping water from the lakes into the Little Kankakee River during times of high water.

INLET AND OUTLET.--Kabelin Ditch enters Pine Lake from the northwest through a large drain tile. Pine Lake is connected to Stone Lake by a channel on the southern tip.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 20.98 ft June 2, 3, 1993; minimum stage, 9.00 ft Nov. 14, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.75	18.70	18.94	19.40	19.53	---	20.04	20.37	20.13	20.93	20.51	20.54
10	18.73	18.81	18.99	19.49	19.51	---	20.04	20.32	20.78	20.87	20.47	20.48
15	18.75	18.94	18.97	19.54	19.51	---	20.13	20.22	20.74	20.78	20.41	20.58
20	18.67	18.91	18.99	19.51	19.52	---	20.34	20.14	20.92	20.77	20.34	20.53
25	18.63	19.03	18.95	19.59	19.54	---	20.33	20.13	20.87	20.72	20.40	20.54
ROM	18.56	18.99	19.19	19.56	19.51	20.01	20.34	20.12	20.89	20.59	20.44	20.63

WTR YR 1993 MEAN 19.86 MAX 20.98 MIN 18.56

ILLINOIS RIVER BASIN

05516600 PRETTY LAKE NEAR PLYMOUTH

LOCATION.--Lat 41°19'39", long 86°22'15", in NW¹/₄SE¹/₄NE¹/₄, sec. 11, T. 33 N., R. 1 E., Marshall County, Hydrologic Unit 07120001, the gage is on the north shore of the lake, 3.3 mi southwest of Plymouth.

SURFACE AREA.--97 acres.

DRAINAGE AREA.--0.85 mi².

PERIOD OF RECORD.--1954-66. 1989 to current year.

DATUM OF GAGE.--780.00 ft above sea level.

GAGE.--A staff gage in one section is driven into the lake bed near house at 10099 Pretty Lake Trail.

ESTABLISHED LEGAL LEVEL.--7.36 ft gage datum or 787.36 ft above sea level as decreed on July 16, 1965, by the Marshall County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the banks. At times of very high water levels, water overflows the southeastern shore.

INLET AND OUTLET.--There are no inlets. There is no well-defined outlet.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.10 ft June 1, 1991; minimum stage, 4.90 ft Nov. 26, 27, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.44	---	---	---	---	---	---	9.34	9.13	9.06	8.78	8.93
10	8.40	---	---	---	---	---	---	9.30	9.28	8.98	8.74	8.92
15	8.37	---	---	---	---	---	---	9.21	9.28	8.95	8.72	9.05
20	8.34	---	---	---	---	---	---	9.13	9.22	8.91	8.73	9.01
25	8.28	---	---	---	---	---	---	9.14	9.12	8.87	8.68	8.98
ROM	8.20	---	---	---	---	---	---	9.14	9.06	8.80	8.80	9.00

WTR YR 1993 MEAN 8.89 MAX 9.41 MIN 8.20

ILLINOIS RIVER BASIN

05515800 RIDDLES LAKE NEAR LAKEVILLE, IN

LOCATION.--Lat 41°30'19", long 86°15'31", in NW¹/₄NE¹/₄ sec.11, T.35 N., R.2 E., St. Joseph County, Hydrologic Unit 07120001 (LAKEVILLE, IN quadrangle). The gage is on the east side of the lake, about 1.4 mi southeast of Lakeville.

SURFACE AREA.--77 acres.

DRAINAGE AREA.--11.7 mi².

PERIOD OF RECORD.--1946-71, 1976 to current year.

DATUM OF GAGE.--810.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to a wingwall of the control dam.

ESTABLISHED LEGAL LEVEL.--7.50 ft gage datum or 817.50 ft above sea level as decreed on July 3, 1953, by the St. Joseph County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel and concrete dam with a fixed crest. Boards may be added to raise the water level.

INLET AND OUTLET.--Heston Ditch flows through the lake, entering on the northern shore and leaving on the southern. The outflow eventually enters Yellow River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.49 ft Apr. 5, 1950; minimum stage, 6.40 ft July 25-31, Aug. 1-9, 22-31, Sept. 1-30, 1971.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.27	7.46	7.30	8.24	7.32	7.37	7.41	7.41	7.33	7.28	7.19	7.31
10	7.27	7.38	7.31	7.49	7.32	7.46	7.39	7.32	7.83	7.26	7.21	7.26
15	7.30	7.46	7.35	7.42	7.30	7.33	7.49	7.27	7.49	7.26	7.22	7.60
20	7.27	7.36	7.35	7.36	7.29	7.39	7.53	7.28	7.39	7.25	7.21	7.30
25	7.26	7.37	7.31	7.41	7.28	7.57	7.45	7.31	7.33	7.26	7.21	7.32
DOM	7.23	7.33	8.24	7.34	7.27	7.52	7.41	7.29	7.31	7.22	7.29	7.40

WTR YR 1993 MEAN 7.37 MAX 8.50 MIN 7.18

WABASH RIVER BASIN

03330300 RIDINGER LAKE NEAR PIERCETON, IN

LOCATION.--Lat 41°15'07", long 85°39'34", in SW¹/₄SW¹/₄SE¹/₄ sec.1, T.32 N., R.7 E., Kosciusko County, Hydrologic Unit 05120106 (NORTH WEBSTER, IN quadrangle). The gage is on the inlet channel, attached to the Adams Road bridge, 0.4 mi upstream from the lake and 4.4 mi northeast of Pierceton.

SURFACE AREA.--136 acres.

DRAINAGE AREA.--34.6 mi².

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--840.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well attached to the right downstream wingwall of the bridge. An auxiliary staff gage in two sections is at the control dam.

ESTABLISHED LEGAL LEVEL.--3.12 ft gage datum or 843.12 ft above sea level, as decreed on April 11, 1949, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest and a sluice-way with a steel gate for controlling high water. The dam is located in the outlet, 300 ft downstream from the lake.

INLET AND OUTLET.--Grassy Creek flows through the lake, entering at the southwestern end. Grassy Creek is formed 1.5 mi upstream by the outlet of Robinson Lake and Cedar Lake Branch. Grassy Creek leaves the lake at the northwestern end and flows into Big Barbee Lake, 3.5 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.01 ft Feb. 24, 1985; minimum stage, 1.35 ft Jan. 17-19, 1944.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.63	3.39	2.80	6.45	2.83	2.96	3.01	3.10	3.26	2.91	2.55	2.74
10	2.65	2.96	2.82	3.43	2.79	3.29	3.00	2.87	3.41	2.73	2.62	2.80
15	2.71	3.61	2.92	3.16	2.77	2.91	2.90	2.76	2.95	2.77	2.66	3.13
20	2.79	3.04	2.99	2.93	2.78	3.07	2.93	2.67	2.87	2.62	2.81	3.01
25	2.68	3.36	2.86	3.38	2.78	3.43	3.74	2.78	2.70	2.60	2.64	2.79
DOM	2.76	2.97	4.79	2.95	2.78	3.05	2.99	2.86	3.14	2.54	2.85	2.80

WTR YR 1993 MEAN 3.00 MAX 6.45 MIN 2.53

WABASH RIVER BASIN

03330460 SAWMILL LAKE NEAR NORTH WEBSTER, IN

LOCATION.--Lat 41°17'22", long 85°42'52", in NE¹/₄SW¹/₄NE¹/₄ sec.28, T.33 N., R.7 E., Kosciusko County, Hydrologic Unit 05120106 (NORTH WEBSTER, IN quadrangle). The gage is near the southeastern corner of the county road bridge over the channel between Big Barbee Lake and Little Barbee Lake, 2.6 mi southwest of North Webster.

SURFACE AREA.--36 acres.

DRAINAGE AREA.--51.8 mi².

PERIOD OF RECORD.--1945-1970, 1972 to current year.

DATUM OF GAGE.--830.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the stilling well.

ESTABLISHED LEGAL LEVEL.--7.50 ft gage datum or 837.50 ft above sea level as decreed on October 18, 1949, by the Kosciusko County Circuit Court. All lakes in the Barbee Chain have the same established level and hence the same lake levels for the period of record. The lakes are as follows: Kuhn, Big Barbee, Little Barbee, Irish, Banning, Sechrist and Sawmill.

LAKE-LEVEL CONTROL.--The level of the lakes is controlled by a concrete dam with a fixed crest, located 600 ft upstream of the County Road 500 North bridge over the outlet of Sawmill Lake.

INLET AND OUTLET.--There are four inlets to the Barbee Chain. Grassy Creek flows into Big Barbee Lake at the southeastern side. The outlet of Heron Lake flows into Kuhn Lake from the north. Puntney ditch enters Little Barbee Lake from the south. The outlet from Shoe Lake flows into Banning Lake on the northeastern shore. The outlet, Grassy Creek, leaves Sawmill Lake at the northwestern tip and flows into Tippecanoe Lake 1.7 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.53 ft Mar. 20, 1982; minimum stage, 5.45 ft Jan. 29-31, Feb. 1-28, Mar. 1, 2, 1978.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.39	8.15	7.62	9.27	---	---	---	7.84	7.80	7.93	7.26	7.43
10	7.37	7.76	7.56	9.31	---	---	7.81	7.71	8.43	7.65	7.25	7.34
15	7.37	8.61	7.56	8.73	---	---	7.69	7.56	8.08	7.54	7.25	7.41
20	7.36	8.07	7.73	---	---	---	7.68	7.48	7.86	7.43	7.21	7.37
25	7.37	8.22	7.55	---	---	---	7.89	7.53	7.65	7.37	7.21	7.41
BOM	7.36	7.87	8.10	---	---	---	7.93	7.67	---	7.28	7.24	7.47

WTR YR 1993 MEAN 7.70 MAX 9.62 MIN 7.21

WABASH RIVER BASIN

03331120 SHERBURN LAKE NEAR PIERCETON, IN

LOCATION.--Lat 41°09'40", long 85°44'43", in SE¹/₄SE¹/₄SE¹/₄ sec.4, T.31 N., R.7 E., Kosciusko County, Hydrologic Unit 05120106 (PIERCETON, IN quadrangle). The gage is at the extreme northern end of the lake on the outlet channel just south of County Road 500 South, 3.4 mi southwest of Pierceton.

SURFACE AREA.--15 acres.

DRAINAGE AREA.--5.51 mi².

PERIOD OF RECORD.--1954 to current year. (Formerly published as Johnson Lake near Pierceton.)

DATUM OF GAGE.--870.00 ft above sea level. Prior to Oct. 1, 1980, the datum of the gage was 880.00 ft. All levels listed below are at the present datum.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is driven into the lake bed just south of the western lobe of the lake, 400 ft south of County Road 500 South on the first drive west of the outlet.

ESTABLISHED LEGAL LEVEL.--11.00 ft gage datum or 881.00 ft above sea level as decreed on December 19, 1974, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the invert of the culvert under the first east-west road north of the lake.

INLET AND OUTLET.--The one inlet flows from Sellers Lake 0.35 mi upstream. The outlet flows from the northern shore through Wyland ditch and into Winona Lake 6.7 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 15.34 ft Dec. 30, 1990; minimum stage, 9.20 ft Sept. 14-18, 1983.

PROVISIONAL DATA

SUBJECT TO REVISION

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

(NO DATA COLLECTED DUE TO CONSTRUCTION)

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099740 SHIPSEWANA LAKE NEAR SHIPSEWANA, IN

LOCATION.--Lat 41°40'53", long 85°36'03", in SE¹/₄NE¹/₄NE¹/₄ sec.9, T.37 N., R.8 E., Lagrange County, Hydrologic Unit 04050001 (SHIPSEWANA, IN quadrangle). The gage is on the south shore of the lake at the public fishing site, 1.1 mi northwest of Shipsewana.

SURFACE AREA.--202 acres.

DRAINAGE AREA.--6.74 mi².

PERIOD OF RECORD.--1951 to current year.

DATUM OF GAGE.--850.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to a wingwall of the control dam at the extreme eastern end of the lake.

ESTABLISHED LEGAL LEVEL.--2.04 ft gage datum or 852.04 ft above sea level as decreed on March 8, 1956, by the Lagrange County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a sheet piling dam with a fixed crest at three elevations.

INLET AND OUTLET.--The principal inlet enters on the southern shore from Cotton Lake 2.0 mi upstream. Another small ditch enters on the western shore. The outlet is on the extreme eastern tip of the lake and flows to the northeast through Page Ditch, which empties into Pigeon River, 6.1 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 3.33 ft Mar. 20, 1982; minimum stage, 1.39 ft Sept. 19-22, 1955.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.38	2.53	2.51	3.00	2.50	2.52	2.71	2.60	2.46	2.50	2.29	2.50
10	2.36	2.51	2.52	2.79	2.46	2.63	2.64	2.52	3.04	2.51	2.39	2.43
15	2.39	2.69	2.50	2.66	2.47	2.63	2.60	2.42	2.91	2.49	2.37	2.47
20	2.38	2.60	2.54	2.56	2.48	2.63	2.63	2.37	2.75	2.42	2.33	2.42
25	2.36	2.64	2.49	2.65	2.51	2.75	2.64	2.39	2.61	2.40	2.30	2.44
ROM	2.33	2.56	2.80	2.56	2.51	2.80	2.60	2.38	2.57	2.32	2.41	2.43

WTR YR 1993 MEAN 2.53 MAX 3.06 MIN 2.29

WABASH RIVER BASIN

03330380 SHOE LAKE NEAR OSWEGO, IN

LOCATION.--Lat 41°18'32", long 85°45'10", in SE¹/₄SW¹/₄SE¹/₄ sec.18, T.33 N., R.7 E., Kosciusko County, Hydrologic Unit 05120106 (LEESBURG, IN quadrangle). The gage is on the extreme western end of the lake on County Road 475 East, 2.0 mi southeast of Oswego.

SURFACE AREA.--40 acres.

DRAINAGE AREA.--0.34 mi².

PERIOD OF RECORD.--1946-52, 1972-74, 1977 to current year.

DATUM OF GAGE.--830.00 ft above sea level. Prior to 1972, the datum of the gage was 840.00 ft above sea level. All levels listed below are at the present datum.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--11.57 ft gage datum or 841.57 ft above sea level as decreed on October 18, 1948, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by removable boards placed in wooden support posts in the outlet channel, upstream of the culvert under County Road 450 North.

INLET AND OUTLET.--There is no inlet except for small drainage ditches. The outlet leaves the lake at the southeastern end and flows into Banning Lake 0.3 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 12.95 ft Dec. 13-15, 1972; minimum stage, 10.50 ft Oct. 15, 16, 1988.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.96	10.97	11.25	11.83	12.18	12.38	12.25	12.20	12.11	12.16	11.84	11.75
10	10.94	10.97	11.31	11.91	12.19	12.43	12.22	12.15	12.20	12.12	11.81	11.70
15	10.93	11.13	11.34	11.98	12.24	12.40	12.19	12.06	12.18	12.11	11.81	11.74
20	10.88	11.14	11.35	12.00	12.28	12.46	12.21	12.02	12.20	12.04	11.75	11.68
25	10.84	11.25	11.34	12.14	12.33	12.45	12.24	12.05	12.12	12.00	11.68	11.69
ROM	10.78	11.25	11.54	12.16	12.33	12.33	12.21	12.09	12.19	11.88	11.65	11.68

WTR YR 1993 MEAN 11.83 MAX 12.50 MIN 10.78

WABASH RIVER BASIN

03327650 SHRINER LAKE AT TRI-LAKES, IN

LOCATION.--Lat 41°14'37", long 85°26'24", in SE¹/₄SW¹/₄NW¹/₄ sec.12, T.32 N., R.9 E., Whitley County, Hydrologic Unit 05120104 (COLUMBIA CITY, IN quadrangle). The gage is at the head of outlet channel at the east end of the lake, 6.2 mi northeast of Columbia City.

SURFACE AREA.--111 acres.

DRAINAGE AREA.--0.94 mi².

PERIOD OF RECORD.--1943-74, 1976-78, 1980 to current year.

DATUM OF GAGE.--900.19 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in one section is attached to the concrete head wall at the outlet.

ESTABLISHED LEGAL LEVEL.--7.04 ft gage datum or 907.04 ft above sea level as decreed on May 22, 1949, by the Whitley County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 7.04 ft gage datum or 907.23 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam in the outlet channel 300 ft downstream of the lake.

INLET AND OUTLET.--A ditch from Catfish Lake, 650 ft upstream, enters at the extreme western end of the lake. Two small ditches enter on the southern shore. The outlet is a dredged channel at the eastern edge of the lake that empties into Round Lake 930 ft downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 8.26 ft Dec. 31, 1990; minimum stage, 5.44 ft Dec. 9-11, 23-30, 1944.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	7.46	6.97	7.87	6.96	6.94	7.09	7.14	6.92	6.93	6.60	6.79
10	---	7.47	6.96	7.95	6.92	6.94	7.05	7.01	7.11	6.89	6.58	6.75
15	---	8.06	6.97	7.19	6.94	6.94	7.00	6.86	6.96	6.91	6.56	6.84
20	---	7.55	7.06	7.19	6.94	6.94	6.98	6.75	6.91	6.83	6.52	6.76
25	7.10	7.40	7.03	7.22	6.94	7.42	7.14	6.80	6.86	6.76	6.48	6.76
DOM	7.07	7.12	7.47	7.09	6.94	7.14	7.06	6.87	6.89	6.66	6.61	6.79

WTR YR 1993 MEAN 7.00 MAX 8.06 MIN 6.46

WABASH RIVER BASIN

03328350 SILVER LAKE AT SILVER LAKE, IN

LOCATION.--Lat 41°04'49", long 85°54'29", in SE¹/₄SE¹/₄NE¹/₄ sec.1, T.30 N., R.5 E., Kosciusko County, Hydrologic Unit 05120104 (SILVER LAKE, IN quadrangle). The gage is located at the outlet channel on the west side of the lake, approximately 30 feet above the control structure and 1.1 mi northwest of the town of Silver Lake.

SURFACE AREA.--102 acres.

DRAINAGE AREA.--6.31 mi².

PERIOD OF RECORD.--1947 to current year.

DATUM OF GAGE.--859.85 ft above sea level, as corrected on the basis of levels of Indiana Department of Natural Resources, 1974.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in one section is attached to the dam.

ESTABLISHED LEGAL LEVEL.--1.73 ft gage datum or 861.73 ft above sea level as decreed on September 20, 1948, by the Kosciusko County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 1.73 ft gage datum or 861.58 ft above sea level. North Little Lake at Silver Lake has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet piling dam with a fixed crest.

INLET AND OUTLET.--The outlet from North Little Lake enters from the north and two ditches enter from the east and southeast. The outlet leaves from the western side and flows into South Little Lake, then into Silver Creek, which joins El River 12 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 3.80 ft Dec. 10, 1966; minimum stage, -0.20 ft Sept. 21, 1959.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	1.66	1.55	1.58	1.41	1.65
10	---	---	---	---	---	---	---	1.58	1.70	1.53	1.43	1.65
15	---	---	---	---	---	---	---	1.52	1.57	1.55	1.43	1.66
20	---	---	---	---	---	---	---	1.50	1.55	1.52	1.44	1.51
25	---	---	---	---	---	---	1.95	1.53	1.49	1.51	1.45	1.53
DOM	---	---	---	---	---	---	1.69	1.54	1.55	1.42	1.46	1.52

WTR YR 1993 MEAN 1.54 MAX 1.95 MIN 1.39

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099880 SIMONTON LAKE NEAR ELKHART, IN

LOCATION.--Lat 41°45'05", long 85°57'28", in NE¹/₄NE¹/₄NW¹/₄ sec.16, T.38 N., R.5 E., Elkhart County, Hydrologic Unit 04050001 (ELKHART, IN quadrangle). The gage is on the southern shore between the two large lobes of the lake, at the public fishing site, 4.5 mi north of the main Post Office in Elkhart.

SURFACE AREA.--303 acres.

DRAINAGE AREA.--7.44 mi².

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--770.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--2.19 ft gage datum or 772.19 ft above sea level as decreed on September 25, 1950, by the Elkhart County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--Two small drainage ditches enter the lake on the eastern shore. The outlet, Osolo Township Ditch, flows from the lake at the southeastern tip and into the St. Joseph River, 4.0 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 3.42 ft Feb. 24, 1985; minimum stage, 1.36 ft Sept. 7, 1946.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.76	2.89	2.88	3.05	2.92	---	---	---	---	2.29	2.29	2.34
10	2.76	2.89	2.91	2.98	2.91	---	---	---	---	2.28	2.29	2.27
15	2.87	2.92	2.91	2.96	2.91	---	---	---	---	2.29	2.29	2.42
20	2.84	2.90	2.90	2.94	2.92	---	---	---	---	2.29	2.30	2.34
25	2.82	2.91	2.89	2.95	---	---	---	---	---	2.29	2.30	2.35
EOM	2.80	2.88	3.02	2.93	---	---	---	---	2.28	2.30	2.32	2.35

WTR YR 1993 MEAN 2.67 MAX 3.11 MIN 2.27

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100300 SKINNER LAKE NEAR ALBION, IN

LOCATION.--Lat 41°24'12", long 85°22'37", in SE¹/₄SE¹/₄NW¹/₄ sec.16, T.34 N., R.10 E., Noble County, Hydrologic Unit 04050001 (ALBION, IN quadrangle). The gage is on the upstream side of the bridge over the outlet channel on the northwest lobe of the lake, and 2.5 mi northeast of Albion.

SURFACE AREA.--125 acres.

DRAINAGE AREA.--14.0 mi².

PERIOD OF RECORD.--1945-72, 1976 to current year.

DATUM OF GAGE.--920.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is driven into the channel bed at the same site.

ESTABLISHED LEGAL LEVEL.--7.74 ft gage datum or 927.74 ft above sea level, as decreed on August 31, 1955, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet piling dam with a fixed crest.

INLET AND OUTLET.--Rimmell Branch enters the lake on the southern shore, a small ditch enters on the southeast tip, and the outlet channel of Sweet Lake flows into the lake from the northeast. The outlet, Croft Ditch, flows from the lake on the south shore of the northwest lobe, and into the South Branch of the Elkhart River 5.6 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 12.60 ft Apr. 5, 1950; minimum stage, 6.14 ft Oct. 16, 17, 1946.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.81	8.06	7.94	11.13	7.93	8.03	8.04	8.11	7.90	7.88	7.76	---
10	7.88	7.92	7.93	8.28	7.90	8.24	8.05	7.91	8.53	7.83	---	7.76
15	7.84	8.43	7.98	8.08	7.89	7.98	7.98	7.83	7.94	7.81	---	7.88
20	7.85	7.98	8.03	7.97	7.90	8.09	8.05	7.82	7.95	7.77	---	7.77
25	7.84	8.67	7.88	8.24	7.90	8.77	8.46	7.83	8.00	7.78	---	7.78
EOM	7.81	8.00	10.11	7.98	7.90	8.11	8.02	7.83	7.87	7.74	---	7.81

WTR YR 1993 MEAN 8.05 MAX 11.13 MIN 7.74

WABASH RIVER BASIN

03330140 SMALLY LAKE NEAR WASHINGTON CENTER, IN

LOCATION.--Lat 41°18'52", long 85°35'04", in SW¹/₄/NW¹/₄/SE¹/₄ sec.15, T.33 N., R.8 E., Noble County, Hydrologic Unit 05120106 (ORMAS, IN quadrangle). The gage is located on the north side of the outlet channel, 300 ft upstream from the first bridge over the outlet, and 0.9 mi southeast of Washington Center.

SURFACE AREA.--69 acres.

DRAINAGE AREA.--27.1 mi².

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--880.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 24-inch diameter stilling well. An auxiliary staff gage is driven into the channel bed.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a riffle in the outlet channel 500 ft below the lake.

INLET AND OUTLET.--The Tippecanoe River flows through the lake, entering at the south end from Big Lake, 4.2 mi upstream, and flowing from the lake at the northwestern end into Baugher Lake, 1.2 mi downstream. Another inlet enters on the north shore from Gilbert Lake 0.9 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.00 ft Mar. 24, 1978; minimum stage, 1.10 ft Aug. 7, 1963.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	3.06	2.29	5.19	2.26	2.26	2.68	2.61	2.18	2.32	1.69	2.07
10	---	2.40	2.15	4.05	2.11	2.82	2.59	2.22	3.19	1.88	1.90	1.89
15	---	3.68	2.12	3.25	2.11	2.49	2.31	1.87	2.50	1.76	2.00	2.28
20	---	2.83	2.54	2.61	2.05	2.63	2.32	1.72	2.15	1.58	2.02	2.47
25	2.08	3.33	2.25	3.28	2.04	3.42	2.66	1.93	1.83	1.67	1.96	2.59
DOM	1.89	2.72	3.58	2.58	1.97	2.74	2.64	1.97	2.39	1.51	2.08	2.75

WTR YR 1993 MEAN 2.41 MAX 5.19 MIN 1.50

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099780 STONE LAKE NEAR SCOTT, IN

LOCATION.--Lat 41°44'32", long 85°39'03", in SE¹/₄/SE¹/₄/SW¹/₄ sec.18, T.38 N., R.8 E., Lagrange County, Hydrologic Unit 04050001 (MIDDLEBURY, IN quadrangle). The gage is on the southeast shore of the lake approximately 200 ft west of the intersection of County Road 1150 West and the lake access road, and 5.4 mi northeast of Middlebury.

SURFACE AREA.--152 acres.

DRAINAGE AREA.--1.51 mi².

PERIOD OF RECORD.--1954-71, 1975-76, 1978 to current year.

DATUM OF GAGE.--810.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--8.76 ft gage datum or 818.76 ft above sea level as decreed on July 28, 1966, by the Lagrange County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete sill.

INLET AND OUTLET.--The inlet enters on the eastern end of the south shore from Brokesha Lake 0.2 mi upstream. The outlet flows from the lake at the northern shore.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.60 ft Apr. 16-30, 1969; minimum stage, 5.34 ft Nov. 26, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.33	8.34	8.50	8.75	8.61	8.77	8.92	9.01	8.89	8.84	8.43	8.67
10	8.28	8.34	8.54	8.68	8.60	8.81	8.96	8.95	---	8.83	8.51	8.64
15	8.32	8.49	8.53	8.66	8.63	8.80	8.97	8.87	9.13	8.79	8.46	8.70
20	8.28	8.47	8.52	8.61	8.65	8.86	8.98	8.83	9.06	8.70	8.39	8.63
25	8.26	8.53	8.48	8.67	8.74	8.93	---	8.84	9.00	8.62	8.37	8.62
DOM	8.22	8.51	8.65	8.62	8.72	9.02	---	8.86	8.94	8.49	8.58	8.59

WTR YR 1993 MEAN 8.67 MAX 9.26 MIN 8.22

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100180 SYLVAN LAKE AT ROME CITY, IN

LOCATION.--Lat 41°29'53", long 85°22'38", in SE¹/₄SE¹/₄SW¹/₄ sec.9, T.35 N., R.10 E., Noble County, Hydrologic Unit 04050001 (ALBION, IN quadrangle). The gage is at the south, upstream side of the bridge over the outlet on the extreme western end of the lake, and at the northern edge of Rome City.

SURFACE AREA.--669 acres.

DRAINAGE AREA.--33.8 mi².

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--907.00 ft above sea level. Prior to Oct. 1, 1978, the datum of the gage was 910.00 ft. All levels listed below are at the present datum.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the north downstream wall of the footbridge.

ESTABLISHED LEGAL LEVEL.--9.20 ft present gage datum or 916.20 ft above sea level as decreed on June 14, 1951, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with movable gates.

INLET AND OUTLET.--Barr Lake, 0.2 mi upstream, empties into Sylvan Lake on the southeast shore of the northwest lobe. Oviatt Ditch and Henderson Lake Ditch both enter the lake on the extreme eastern end. The outlet flows from the lake at the western tip, into Jones Lake 2.8 mi downstream and eventually into the North Branch of the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.76 ft Feb. 25 1985; minimum stage, below -.14 ft Aug. 25, 1993.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.34	6.68	6.56	7.64	6.51	6.59	6.81	6.73	3.66	.58	---	.30
10	6.37	6.50	6.50	7.18	6.47	6.73	6.68	6.57	3.91	.43	---	.20
15	6.40	6.96	6.48	6.84	6.48	6.63	6.61	6.40	3.14	.43	---	.25
20	6.37	6.64	6.57	6.63	6.46	6.69	6.67	6.35	3.10	.18	---	.11
25	6.34	7.06	6.45	6.86	6.50	7.10	6.74	6.37	1.54	.07	---	.07
DOM	6.28	6.73	7.23	6.63	6.47	6.91	6.68	4.93	.85	---	---	.13

WTR YR 1993 MEAN 5.21 MAX 7.64 MIN .02

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100460 SYRACUSE LAKE AT SYRACUSE, IN

LOCATION.--Lat 41°25'26", long 85°44'59", in SW¹/₄SW¹/₄ sec.5, T.34 N., R.7 E., Kosciusko County, Hydrologic Unit 04050001 (LAKE WAWASEE, IN quadrangle). The gage is at the southwestern end of the lake, on the south abutment of the dam, and just west of the State Road 13 bridge in the town of Syracuse.

SURFACE AREA.--414 acres.

DRAINAGE AREA.--38.2 mi².

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--849.85 ft above sea level as corrected on the basis of levels of Indiana Department of Natural Resources, 1973-74.

GAGE.--A water-stage recorder is installed in a concrete shelter over a stilling well in the south abutment of the control structure. Two auxiliary staff gages are at the site. One is attached to the upstream side of the south abutment and the other is bolted to the seawall just west of the bridge over the outlet.

ESTABLISHED LEGAL LEVEL.--8.87 ft gage datum or 858.87 ft above sea level as decreed on September 20, 1948, by the Kosciusko County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 8.87 ft gage datum or 858.72 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with two steel lift gates.

INLET AND OUTLET.--The one inlet is the outlet channel from Lake Wawasee on the southern shore of the lake. The outlet, Turkey Creek, flows from the lake at the southwest end and eventually into the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.15 ft Jan. 27, 28, 1950; minimum stage, 7.00 ft Nov. 19-21, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.62	8.85	8.95	9.43	8.95	8.60	8.82	8.78	8.94	8.85	8.77	8.92
10	8.51	8.91	8.87	9.43	8.79	8.64	8.70	8.77	9.33	8.92	8.81	8.89
15	8.55	9.07	8.81	9.43	8.65	8.75	8.59	8.66	9.31	8.85	8.82	8.98
20	8.53	9.09	8.71	9.43	8.56	8.82	8.48	8.67	9.31	8.86	8.77	8.95
25	8.55	9.12	8.56	9.40	8.47	8.98	8.71	8.74	9.14	8.88	8.76	8.98
DOM	8.57	9.05	8.93	9.09	8.47	8.92	8.74	8.84	8.97	8.80	8.82	8.89

WTR YR 1993 MEAN 8.86 MAX 9.52 MIN 8.40

WABASH RIVER BASIN

03330480 TIPPECANOE LAKE AT OSWEGO, IN

LOCATION.--Lat 41°19'15", long 85°47'20", in NW¹/₄NE¹/₄NE¹/₄ sec.14, T.33 N., R.6 E., Kosciusko County, Hydrologic Unit 05120106 (LEESBURG, IN quadrangle). The gage is on the south side of the dam at the extreme southwest end of the lake, in the outlet channel, at Oswego.

SURFACE AREA.--768 acres.

DRAINAGE AREA.--113 mi².

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--830.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the upstream side of the south abutment of the dam.

ESTABLISHED LEGAL LEVEL.--6.40 ft gage datum or 836.40 ft above sea level as decreed on October 18, 1949, by the Kosciusko County Circuit Court. James Lake at Oswego and Oswego Lake at Oswego have the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with multiple slide gates on the outlet channel of the lake.

INLET AND OUTLET.--The lake has two principal inlets. The Tippecanoe River flows from Webster Lake, enters James Lake, and flows into Tippecanoe Lake on the eastern side. The outlet from the Barbee Chain of Lakes enters from the southeast. The outlet, the Tippecanoe River, leaves the lake on the southwestern side.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.43 ft May 21, 1943; minimum stage, 4.90 ft Feb. 13-17, 1963.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	6.74	6.63	7.88	---	---	---	6.86	6.63	6.55	6.52	6.43
10	6.55	6.79	6.25	8.46	---	---	---	6.60	7.01	6.58	6.54	6.59
15	6.35	7.26	6.02	7.92	---	---	---	6.56	7.07	6.60	6.61	6.45
20	6.25	7.34	6.06	7.45	---	---	---	6.52	6.69	6.55	6.59	6.59
25	6.28	7.30	6.07	7.59	---	---	6.67	6.56	6.63	6.56	6.54	6.46
EOM	6.26	7.12	6.40	7.17	---	---	7.13	6.50	6.54	6.54	6.57	6.58

WTR YR 1993 MEAN 6.72 MAX 8.46 MIN 6.00

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100320 UPPER LONG LAKE NEAR WOLFLAKE, IN

LOCATION.--Lat 41°21'33", long 85°29'09", in NE¹/₄NE¹/₄SE¹/₄ sec.33, T.34 N., R.9 E., Noble County, Hydrologic Unit 04050001 (MERRIAM, IN quadrangle). The gage is on the northeast shore of the lake, at the northernmost boat slip, and 1.8 mi north-northeast of the town of Wolflake.

SURFACE AREA.--86 acres.

DRAINAGE AREA.--2.08 mi².

PERIOD OF RECORD.--1956 to current year.

DATUM OF GAGE.--880.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is also located in the boat slip.

ESTABLISHED LEGAL LEVEL.--11.19 ft gage datum or 891.19 ft above sea level as decreed on February 20, 1968, by Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The lake level is controlled by a fixed-sill concrete dam.

INLET AND OUTLET.--There is one inlet that enters the lake from the eastern side. The outlet flows to the north through Dollar Lake, and eventually into the South Branch Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.40 ft June 27, 1968; minimum stage, 9.95 ft May 11, 1970.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.41	11.63	11.48	12.36	11.52	11.50	11.70	11.68	11.52	11.60	11.42	11.60
10	11.40	11.51	11.49	11.76	11.48	11.51	11.66	11.58	11.89	11.58	11.48	11.52
15	11.42	11.83	11.48	11.63	11.48	11.50	11.63	11.47	11.66	11.53	11.49	11.56
20	11.42	11.61	11.54	11.55	11.50	11.50	11.61	11.45	11.64	11.58	11.46	11.49
25	11.42	11.75	11.47	11.70	11.50	11.72	11.77	11.47	11.55	11.53	11.43	11.48
EOM	11.40	11.57	12.08	11.56	11.50	11.70	11.69	11.47	11.56	11.43	11.49	11.47

WTR YR 1993 MEAN 11.57 MAX 12.48 MIN 11.38

LAUGHERY CREEK BASIN

03276800 VERSAILLES LAKE NEAR VERSAILLES, IN

LOCATION.--Lat 39 04'50", long 85 14'02", in NE¹/₄NE¹/₄SW¹/₄ sec.6, T.7 N., R.12 E., Ripley County, Hydrologic Unit 05090203 (MILAN, IN quadrangle). The gage is on the eastern side of the lake, on the downstream side of the bridge over Falling Timber Creek in Versailles State Park.

SURFACE AREA.--232 acres.

DRAINAGE AREA.--168 mi².

PERIOD OF RECORD.--1958 to current year.

DATUM OF GAGE.--760.74 ft above sea level.

GAGE.--A water-stage recorder installed in an aluminum shelter over a 12-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete spillway dam with a movable gate.

INLET AND OUTLET.--The inlets are Laughery Creek, Falling Timber Creek, and Cedar Creek. The outlet is Laughery Creek, which flows southeasterly and empties into the Ohio River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 36.43 ft Jan. 21, 1959, as determined by the U.S. Geological Survey from high-water marks during an indirect measurement of discharge; minimum stage, 18.05 ft Apr. 12, 1970.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.15	29.27	29.26	30.56	29.29	30.14	29.46	29.44	29.46	29.26	29.28	29.46
10	29.26	29.21	29.27	29.43	29.27	29.54	30.13	29.36	29.30	29.17	29.21	29.35
15	29.27	29.37	29.28	29.47	29.40	29.39	30.44	29.41	30.13	29.29	29.41	29.37
20	29.24	29.28	29.28	29.32	29.41	29.44	29.49	29.36	30.15	29.31	29.47	29.34
25	29.20	29.50	29.26	29.73	29.62	29.73	30.84	29.23	29.64	29.33	29.37	29.38
DOM	29.20	29.31	29.51	29.34	29.51	29.66	29.46	29.18	29.26	29.34	29.34	29.37

WTR YR 1993 MEAN 29.46 MAX 31.84 MIN 29.15

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100220 WALDRON LAKE NEAR COSPERVILLE, IN

LOCATION.--Lat 41°29'34", long 85°26'55", in SE¹/₄NW¹/₄NE¹/₄ sec.14, T.35 N., R.9 E., Noble County, Hydrologic Unit 04050001 (ALBION, IN quadrangle). The gage is on a dredged channel at the public fishing site west of County Road 125 West at Dukes Bridge, and 6.8 mi northwest of Albion.

SURFACE AREA.--216 acres.

DRAINAGE AREA.--134 mi².

PERIOD OF RECORD.--1948 to current year.

DATUM OF GAGE.--880.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary wire-weight gage is attached to the upstream side of Dukes Bridge.

ESTABLISHED LEGAL LEVEL.--5.55 ft gage datum or 885.55 ft above sea level as decreed on May 6, 1968, by the Noble County Circuit Court. Jones, Steinbarger and Tamarack Lakes, all near Cosperville, have the same established level as Waldron Lake and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete dam with removable boards.

INLET AND OUTLET.--The North Branch of the Elkhart River flows through the lake, entering through Jones Lake at the north and leaving at the west end of Waldron Lake. Another inlet enters at the southeast from Steinbarger Lake, 0.1 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.16 ft Mar. 22, 1982; minimum stage, 4.44 ft Aug. 9-11, Sept. 14-17, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.10	6.78	7.33	9.63	6.98	6.25	7.81	6.91	---	6.19	5.71	5.88
10	5.91	6.66	6.91	9.73	6.61	6.77	7.44	6.62	---	5.83	5.75	5.83
15	5.86	7.73	6.69	8.90	6.41	6.69	7.03	6.11	---	5.93	5.72	5.90
20	5.84	7.51	6.80	8.41	6.21	6.88	6.90	5.79	---	5.84	5.74	5.57
25	5.80	7.99	6.52	8.05	6.14	7.88	6.86	5.66	---	5.79	5.73	5.28
DOM	5.66	7.77	7.98	7.47	6.06	7.92	6.83	---	---	5.72	5.79	5.34

WTR YR 1993 MEAN 6.66 MAX 9.78 MIN 5.28

ILLINOIS RIVER BASIN

283

05517600 WAUHOB LAKE NEAR VALPARAISO, IN

LOCATION.--Lat 41°32'02", long 87°02'42", in NW¹/₄NW¹/₄NW¹/₄ sec.31, T.36 N., R.5 W., Porter County, Hydrologic Unit 07120001 (CHESTERTON, IN quadrangle). The gage is on the northwest shore of the lake, 4.7 mi north of Valparaiso.

SURFACE AREA.--21 acres.

DRAINAGE AREA.--0.40 mi².

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--790.00 ft above sea level.

GAGE.--A staff gage in one section is driven into the lake bed, 75 ft from Arthur J. Knoblich's cottage. An auxiliary staff gage is 20 ft lakeward of the main gage.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--The lake has one inlet entering on the northeast side from Mink Lake 0.3 mi upstream. The outlet flows from the southeast shore, southwesterly through a swamp to Canada Lake 0.3 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.05 ft Apr. 23, 1973; minimum stage, 6.58 ft Sept. 17, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.05	9.10	9.14	---	---	---	---	---	---	---	---	---
10	8.99	9.00	9.16	---	---	---	---	---	---	---	---	---
15	8.96	9.10	9.18	---	---	---	---	---	---	---	---	---
20	8.94	9.14	9.20	---	---	---	---	---	---	---	---	---
25	8.90	9.14	---	---	---	---	---	---	---	---	---	---
DOM	8.90	9.14	---	---	---	---	---	---	---	---	---	---

WTR YR 1993 MEAN 9.06 MAX 9.20 MIN 8.90

WABASH RIVER BASIN

03330240 WEBSTER LAKE AT NORTH WEBSTER, IN

LOCATION.--Lat 41°19'09", long 85°41'20", in NE¹/₄SW¹/₄NW¹/₄ sec.14, T.33 N., R.7 E., Kosciusko County, Hydrologic Unit 05120106 (NORTH WEBSTER, IN quadrangle). The gage is on the southwest side of the lake at the outlet, 0.3 mi northeast of the intersection of State Road 13 and County Road 550 North and approximately 0.6 mi southeast of the center of North Webster.

SURFACE AREA.--774 acres.

DRAINAGE AREA.--49.2 mi².

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--839.93 ft above sea level, as corrected on the basis of levels of Indiana Department of Natural Resources, 1973-74.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in one section is bolted to the southeast face of the concrete wall of the approach channel to the control dam.

ESTABLISHED LEGAL LEVEL.--12.75 ft gage datum or 852.75 ft above sea level as decreed July 2, 1945, by the Kosciusko County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 12.75 ft gage datum or 852.68 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete notch dam with seven adjustable gates at the head of the outlet channel. North of this dam is another which used to serve as a mill race. This dam has one metal gage.

INLET AND OUTLET.--The Tippecanoe River flows through Webster Lake, entering at the southeast end and leaving at the southwest side. The Tippecanoe River enters James Lake, 2.1 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 15.15 ft Feb. 11, 1984; minimum stage, 9.79 ft (during repair of the dam) Oct. 5, 1962.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.93	13.34	13.20	14.07	13.16	12.98	13.25	13.20	13.28	13.18	13.16	13.08
10	12.95	13.12	13.19	14.03	13.09	13.20	12.98	13.22	13.47	13.08	13.18	13.12
15	13.01	13.54	13.14	13.92	13.06	13.09	13.07	13.09	13.21	13.26	13.20	13.07
20	13.10	13.44	13.31	13.85	13.05	12.99	13.10	13.26	13.21	13.13	13.20	12.95
25	13.01	13.41	13.31	13.15	13.03	13.27	13.36	13.12	13.13	13.17	13.18	12.90
DOM	12.89	13.22	13.53	13.15	13.03	13.28	13.21	13.35	13.15	13.16	13.27	12.90

WTR YR 1993 MEAN 13.20 MAX 14.23 MIN 12.79

ILLINOIS RIVER BASIN

05514770 WHARTON LAKE NEAR SOUTH BEND, IN

LOCATION.--Lat 41°36'11", long 86°18'36", in NW¹/₄SW¹/₄NW¹/₄ sec.4, T.36 N., R.2 E., St. Joseph County, Hydrologic Unit 07120001 (LAKEVILLE, IN quadrangle). The gage is on the east side of the lake, in a channel west of a storage shed at the Calvert Rod and Gun Club property, and 5.7 mi northwest of Lakeville.

SURFACE AREA.--18 acres (measured on U.S. Geological Survey topographic map, scale 1:24000).

DRAINAGE AREA.--1.85 mi².

PERIOD OF RECORD.--1960-76, 1982 to current year.

DATUM OF GAGE.--770.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a 48-inch round concrete tile in the outlet channel.

INLET AND OUTLET.--The one inlet enters the lake on the southeastern shore and drains the immediately surrounding area. The outlet flows from the lake on the western shore, and eventually into the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 8.51 ft Jan. 8, 9, 10, 1989; minimum stage, 4.90 ft Oct. 2, 1991.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.55	6.90	6.67	7.54	6.66	6.92	---	6.93	6.63	6.52	5.92	6.41
10	6.49	6.79	6.67	7.04	6.67	6.97	---	6.74	7.21	6.36	5.99	6.37
15	6.59	6.97	6.78	6.84	6.65	6.83	---	6.56	6.82	6.35	6.00	6.72
20	6.59	6.77	6.77	6.66	6.65	6.85	7.10	6.51	6.71	6.25	5.89	6.52
25	6.53	6.82	6.70	6.84	6.65	6.84	6.97	6.58	6.54	6.23	5.73	6.52
BOM	6.47	6.71	7.36	6.68	6.79	---	6.88	6.64	6.69	6.02	5.90	6.65

WTR YR 1993 MEAN 6.63 MAX 7.74 MIN 5.73

WABASH RIVER BASIN

03331140 WINONA LAKE AT WARSAW, IN

LOCATION.--Lat 41°13'34", long 85°50'46", in NW¹/₄NE¹/₄SE¹/₄ sec.17, T.32 N., R.6 E., Kosciusko County, Hydrologic Unit 05120106 (WARSAW, IN quadrangle). The gage is on the western side of the lake, 20 ft east of the dam on the northern side of the outlet channel, 1.0 mi south of Warsaw.

SURFACE AREA.--562 acres.

DRAINAGE AREA.--32.1 mi².

PERIOD OF RECORD.--1943-78, 1980 to current year.

DATUM OF GAGE.--800.10 ft above sea level. Prior to Nov. 17, 1977, the datum of the gage was 810.10 ft above sea level as corrected on the basis of levels of Indiana Department of Natural Resources, 1973-74. All levels listed below are at the present datum.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the stilling well.

ESTABLISHED LEGAL LEVEL.--11.06 ft gage datum or 811.06 ft above sea level as decreed on June 17, 1949, by the Kosciusko County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 11.06 ft gage datum or 811.16 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete fixed-crest dam with steel lift gates.

INLET AND OUTLET.--There are three inlets to the lake. Wyland Ditch enters on the eastern shore from Sherburn Lake 6.7 mi upstream. Keefer-Evans Ditch enters on the southeastern shore and Paterson Ditch on the southwestern shore. The outlet, Eagle Creek, flows from the western lobe of the lake into Walnut Creek 1.4 mi downstream, thence into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.31 ft June 14, 1981; minimum stage, 9.40 ft Feb. 15, 1982.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	9.99	10.04	10.10	10.96	10.93	11.04	10.84	10.75
10	---	---	---	---	9.95	10.22	10.08	11.15	11.05	11.03	10.86	10.96
15	---	---	---	---	9.95	10.05	10.05	11.06	11.12	11.08	10.86	11.12
20	---	---	---	10.08	9.93	10.08	10.06	11.03	11.11	11.03	10.92	10.86
25	---	---	---	10.38	9.93	10.31	10.28	11.07	11.04	10.97	10.91	10.99
BOM	---	---	---	10.08	9.91	10.12	10.12	10.92	10.94	10.88	10.94	11.11

WTR YR 1993 MEAN 10.63 MAX 11.22 MIN 9.90

For many years, records of the water-surface elevations of many of the lakes in Indiana have been collected by the Geological Survey under cooperative agreement with the Indiana Department of Natural Resources. Basic data for a few selected lakes have been published in WSP 1363, entitled "Hydrology of Indiana Lakes." Records which have not been published are available in the files of the District Office of the Geological Survey in Indianapolis, Indiana. In general, the records before 1976 were based on once-daily readings of a staff gage by a local observer and consist of daily, monthly, and yearly mean water-surface elevations. Starting in 1976, water-stage recorders were installed at many stations which had previously been nonrecording gages. Discharge measurements, made at the outflow, are also available in some instances.

The lakes for which records have been collected are listed by downstream order number in the following table. The established level, sometimes referred to as the legal level, is that elevation set by the courts to which the average level of the lake is to be held; it is normally set at about the average level that has prevailed for a number of years prior to the establishment of the level. Surface area and capacity of the lake is that surface area and capacity at the established level. Depth contour maps are only those surveyed by the Water Resources Division of the Geological Survey. The inclusive years that records of stage have been collected at a lake are shown in the last column. If records are still being collected on a current basis, there is no closing date shown.

Lakes in the Ohio River basin for which records are available

Station number	Lake	County	Drainage (square miles)	Surface area (acres)	Established level*	Capacity (acre-feet)	Contour map available	Records available
LAUGHERY CREEK BASIN								
03276800	Versailles Lake near Versailles	Ripley	168.0	232	-----	-----	-	1957-
BAYOU DRAIN BASIN								
03322300	Hovey Lake near Mount Vernon	Posey	6.36	253	-----	-----	-	1950-69
WABASH RIVER BASIN								
03327550	Everett Lake at Levert	Allen	1.07	43	835.13	650	+	1946-66
03327600	Blue Lake near Churubusco	Whitley	3.58	239	850.28	5,010	+	1946-69, 1976-
03327650	Shriner Lake at Tri-Lakes	Whitley	.94	111	907.04	-----	-	1943-
03327700	Cedar Lake at Tri-Lakes	Whitley	.79	131	901.90	-----	-	1943-49
03327750	Round Lake at Tri-Lakes	Whitley	3.36	125	901.90	-----	-	1943-53
03327800	Wilson Lake near Larwill	Whitley	.46	29	865.39	390	+	1946-52
03327850	Little Wilson Lake near Larwill	Whitley	.52	8	865.39	130	+	1946-52
03328100	Long Lake at Laketon	Wabash	.55	48	751.19	760	+	1946-51, 1959-
03328250	North Little Lake at Silver Lake	Kosciusko	2.89	12	861.73	170	+	1947-
03328350	Silver Lake at Silver Lake	Kosciusko	6.31	102	861.73	1,520	+	1947-
03328400	Lukens Lake near Disko	Wabash	1.76	46	763.60	1,010	+	1948-49, 1959-
03330020	Crooked Lake near Wolflake	Noble	1.51	206	905.69	9,040	+	1943-53
03330040	Big Lake near Wolflake	Noble	8.89	228	898.18	5,630	+	1943-75 1976-
03330060	Goose Lake near Lorane	Whitley	1.51	84	910.96	2,180	+	1945-53
03330080	Loon Lake at Ormas	Whitley	11.1	222	895.14	5,730	+	1943-66
03330100	New Lake near Etna	Whitley	.29	50	903.91	880	+	1945-53
03330120	Old Lake near Etna	Whitley	2.81	32	898.07	620	+	1949-66
03330140	Smalley Lake near Washington Center	Noble	27.1	69	-----	1,520	+	1943-
03330160	Gilbert Lake near Washington Center	Noble	.37	28	-----	490	+	1954-
03330180	Horseshoe Lake nr Washington Center	Noble	1.62	18	901.80	250	+	1945-66
03330200	Baughner Lake near Washington Center	Noble	31.0	32	878.52	390	+	1945-51
03330220	Wilmot Pond at Wilmot ¹	Noble	35.2	10	-----	-----	-	1945-51
03330240	Webster Lake at North Webster	Kosciusko	49.2	774	852.75	7,170	+	1943-
03330243	James Lake at Oswego	Kosciusko	55.9	282	836.40	7,580	+	1943-
03330260	Robinson Lake near Pierceton	Kosciusko	7.15	59	851.09	1,170	+	1946-51
03330280	Troy Cedar Lake near Lorane	Whitley	5.33	93	905.41	2,540	+	1945-52
03330300	Ridinger Lake near Pierceton	Kosciusko	34.6	136	843.12	2,900	+	1943-
03330320	Kuhn Lake near North Webster	Kosciusko	3.85	137	837.50	1,290	+	1945-
03330340	Big Barbee Lake near North Webster	Kosciusko	44.7	304	837.50	5,640	+	1945-
03330360	Little Barbee Lake nr North Webster	Kosciusko	49.0	74	837.50	960	+	1945-
03330380	Shoe Lake near Oswego	Kosciusko	.34	40	841.57	-----	-	1946-53, 1972,74, 1976-
03330400	Banning Lake near North Webster	Kosciusko	.48	12	837.50	110	+	1945-
03330420	Irish Lake near North Webster	Kosciusko	50.9	182	837.50	2,330	+	1945-
03330440	Sechrist Lake near North Webster	Kosciusko	.58	105	837.50	2,490	+	1945-
03330460	Sawmill Lake near North Webster	Kosciusko	51.8	36	837.50	370	+	1945-
03330480	Tippecanoe Lake at Oswego	Kosciusko	113	768	836.40	28,380	+	1943-
03330495	Oswego Lake at Oswego	Kosciusko	113	83	836.40	780	+	1943-
03331010	Big Chapman Lake near Warsaw ²	Kosciusko	4.17	581	827.75	6,080	+	1945-72, 1976-
03331020	Little Chapman Lake near Warsaw	Kosciusko	7.13	77	827.75	1,990	+	1945-72, 1976-
03331040	Pike Lake at Warsaw	Kosciusko	41.5	203	805.64	2,830	+	1954-
03331060	Fish Lake near Warsaw	Kosciusko	4.93	15	845.52	-----	-	1951-66
03331080	Muskellunge Lake near Warsaw	Kosciusko	11.8	32	842.67	300	+	1943-53, 1959-71
03331100	Carr Lake near Claypool	Kosciusko	2.27	79	848.88	1,340	+	1947-53
03331120	Sherburn Lake near Pierceton ³	Kosciusko	5.51	15	881.00	230	+	1954-
03331140	Winona Lake at Warsaw	Kosciusko	32.1	562	811.06	16,680	+	1943-

Lakes in the Ohio River basin for which records are available--Continued

Station number	Lake	County	Drainage (square miles)	Surface area (acres)	Established level*	Capacity (acre-feet)	Contour map available	Records available
WABASH RIVER BASIN--Continued								
03331160	Center Lake at Warsaw	Kosciusko	0.73	120	803.86	2,060	+	1945-
03331180	Palestine Lake at Palestine	Kosciusko	32.4	290	-----	1,170	+	1954-
03331200	Crystal Lake near Atwood	Kosciusko	.45	76	789.69	930	+	1945-51
03331220	Hoffman Lake at Atwood	Kosciusko	8.07	180	785.85	3,160	+	1945-53
03331240	Beaver Dam Lake near Silver Lake	Kosciusko	2.83	146	868.95	3,280	+	1947-53
03331260	Loon Lake near Silver Lake	Kosciusko	3.59	40	865.74	670	+	1947-53
03331280	McClures Lake near Silver Lake	Kosciusko	1.29	32	865.85	410	+	1945-52
03331300	Hill Lake near Silver Lake	Kosciusko	.85	67	871.50	1,300	+	1952-
03331320	Diamond Lake near Silver Lake	Kosciusko	3.92	79	-----	1,280	+	1954-
03331340	Yellow Creek Lake near Silver Lake	Kosciusko	11.1	151	860.50	4,730	+	1945-53
03331360	Rock Lake near Akron	Kosciusko	2.74	56	847.29	360	+	1946-66
03331370	Town Lake near Akron	Fulton	2.77	23	-----	220	+	1949-50
03331380	Lake Manitou at Rochester	Fulton	44.2	1,158	778.41	10,165	+	1943-
03331390	Zink Lake near Rochester	Fulton	1.11	19	810.68	-----	-	1952-55
03331400	Nyona Lake near Greenoak	Fulton	7.59	104	793.91	1,340	+	1946-
03331420	South Mud Lake near Fulton	Fulton	4.53	94	793.42	1,020	+	1946-66
03331438	King Lake near Delong	Fulton	1.98	18	-----	180	+	1971-
03331440	Maxinkuckee Lake at Culver	Marshall	13.7	1,864	733.12	45,600	+	1943-
03331460	Lost Lake near Culver ⁴	Marshall	14.2	40	732.00	-----	-	1954-
03331480	Langenbaum Lake near Monterey	Starke	.72	48	717.96	260	+	1954-66
03331700	Bruce Lake at Bruce Lake	Pulaski	6.38	245	723.69	1,790	+	1943-53
03332200	Fletcher Lake at Fletcher	Fulton	.67	45	783.20	880	+	1946-53
03370900	Starve Hollow Lake near Vallonia	Jackson	6.67	145	-----	980	+	1946-61
03371700	Ogle Lake near Nashville	Brown	1.03	20	-----	250	+	1963-71
								1954-

Lakes in the St. Lawrence River basin for which records are available

STREAMS TRIBUTARY TO LAKE MICHIGAN

04092500	Wolf Lake at Hammond ⁵	Lake	5.72	999	-----	-----	-	1946-49
04092990	Lake George at Hobart	Lake	124	282	602.23	-----	-	1946-
04097520	Lake Pleasant near Nevada Mills	Steuben	3.18	24	961.50	3,490	+	1954-69, 1971, 1976-
04097550	Lake George at Jamestown	Steuben	^a 14.7	488	985.28	-----	-	1946-
04097596	Marsh Lake near Fremont	Steuben	14.9	-----	-----	-----	-	1967-69
04097600	Little Otter Lake near Fremont	Steuben	15.7	34	965.18	740	-	1946-53
04097640	Big Otter Lake near Fremont	Steuben	21.3	69	965.18	1,780	+	1946-53
04097650	Snow Lake at Lake James	Steuben	^a 40.2	310	964.96	7,998	+	1943-49
04097660	Lake James at Lake James	Steuben	^a 47.8	1,034	964.96	33,585	+	1943-49
04097680	Jimmerson Lake at Nevada Mills ⁶	Steuben	^a 51.6	434	964.66	4,394	+	1946-
04097780	Loon Lake near Angola	Steuben	2.13	138	1,011.98	630	+	1954-66
04097850	Crooked Lake at Crooked Lake	Steuben	10.4	828	988.17	10,555	+	1946-
04097950	Lake Gage at Panama	Steuben	^a 17.3	332	954.25	10,140	+	1946-
04097960	Lime Lake at Panama	Steuben	^a 17.5	57	954.25	427	+	1946-
04098100	Wall Lake near Orland	Lagrange	1.61	141	942.25	1,640	+	1953-54
04098110	Mud Lake near Orland	Steuben	1.85	25	939.01	-----	-	1956-67
04098300	Cedar Lake near Ontario	Lagrange	1.60	120	871.90	1,020	+	1948-51
04099050	Pigeon Lake near Angola	Steuben	^a 35.2	61	988.24	930	+	1954-63
04099100	Fox Lake near Angola	Steuben	^a 1.25	142	1,018.83	3,150	+	1946-53
04099190	Pleasant Lake at Pleasant Lake	Steuben	^a 1.12	53	963.52	1,190	+	1946-66
04099200	Long Lake at Moonlight	Steuben	^a 67.9	92	-----	1,540	+	1946-
04099250	Bower Lake near Pleasant Lake	Steuben	^a 84.6	25	948.50	280	+	1946-71, 1976-
04099260	Golden Lake near Pleasant Lake	Steuben	^a 88.8	119	948.50	1,810	+	1946-71, 1976-
04099400	Silver Lake near Angola	Steuben	^a 3.79	238	959.40	2,540	+	1945-53
04099430	Bass Lake near Angola	Steuben	^a 3.39	61	979.68	450	+	1954-66
04099440	Howard Lake near Angola	Steuben	^a 3.90	27	977.34	130	+	1954-63
04099500	Hogback Lake near Angola	Steuben	^a 103	146	948.50	1,450	+	1946-
04099520	Otter Lake near Flint	Steuben	^a 6.91	118	934.15	1,960	+	1954-66
04099540	Story Lake near Hudson	DeKalb	3.16	77	942.20	1,020	+	1946, 1954-66
04099560	Big Turkey Lake at Stroh	Lagrange	35.8	450	926.61	7,300	+	1945-66
04099575	McClish Lake near Helmer	Lagrange	1.28	35	951.09	1,210	+	1951-74, 1976-
04099580	Lake of the Woods near Helmer	Lagrange	5.25	136	951.09	5,470	+	1951-74, 1976-
04099600	Big Long Lake near Stroh	Lagrange	4.77	388	956.2	-----	-	1954-
04099620	Pretty Lake near Stroh	Lagrange	2.89	184	965.50	4,720	+	1949-53, 1963-65
04099640	Little Turkey Lake at Elmira	Lagrange	56.5	135	925.72	1,550	+	1945-66
04099660	Royer Lake near Plato	Lagrange	4.69	69	936.50	1,630	+	1952-
04099670	Fish Lake near Plato	Lagrange	^a 10.6	100	936.50	4,050	+	1945-
04099700	North Twin Lake near Howe	Lagrange	1.54	135	843.56	2,120	+	1953-
04099710	South Twin Lake near Howe	Lagrange	2.22	116	843.56	3,600	+	1953-70
04099740	Shipshewana Lake near Shipshewana	Lagrange	^a 6.74	202	852.04	1,350	+	1951-

Lakes in the St. Lawrence River basin for which records are available

Station Number	Lake	County	Drainage (square miles)	Surface area (acres)	Established level*	Capacity (acres-foot)	Contour map available	Records available
04099760	Fish Lake near Scott	Lagrange	^a 6.21	139	814.42	2,560	+	1954-73, 1976-
04099780	Stone Lake near Scott	Lagrange	1.51	152	818.76	2,060	+	1954-73, 1976-
04099800	Emma Lake near Emma	Lagrange	13.6	42	880.87	700	+	1954-66
04099810	Cass Lake near Shipshewana	Lagrange	.68	89	-----	873	+	1970-
04099820	Hunter Lake near Middlebury	Elkhart	.51	99	856.90	1,120	+	1946-53
04099840	Wolf Lake near Goshen	Elkhart	^a 1.29	100	813.00	-----	-	1947-57
04099860	Heaton Lake near Elkhart	Elkhart	9.33	87	767.30	640	+	1946-53, 1969-74, 1976-

STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued

04099880	Simonton Lake near Elkhart	Elkhart	7.44	303	772.19	1,560	+	1946-
04099950	Indiana Lake near Bristol	Elkhart	.62	122	759.73	3,400	+	1946-53
04100010	Cree Lake near Kendallville	Noble	4.85	58	945.23	910	+	1949-66
04100020	Blackman Lake near Wolcottville	Lagrange	.98	67	974.20	1,210	+	1953-59
04100030	Adams Lake near Wolcottville	Lagrange	5.62	308	953.59	7,690	+	1946-
04100040	Atwood Lake near Wolcottville	Lagrange	1.23	170	899.99	1,560	+	1954-53
04100050	Witmer Laker near Wolcottville	Lagrange	36.1	204	897.36	7,040	+	1945-
04100060	Westler Lake near Wolcottville	Lagrange	37.8	88	897.36	1,770	+	1945-
04100070	Dallas Lake near Wolcottville	Lagrange	39.8	283	897.36	9,970	+	1945-
04100080	Martin Lake near Valentine	Lagrange	4.93	26	899.45	890	+	1945-
04100090	Olin Lake near Valentine	Lagrange	5.81	103	899.45	9,180	+	1945-
04100100	Oliver Lake near Valentine	Lagrange	11.1	362	899.45	15,358	+	1945-
04100110	Hackenburg Lake near Wolcottville	Lagrange	55.4	42	897.36	510	+	1945-
04100120	Messick Lake near Wolcottville	Lagrange	56.4	68	897.36	1,450	+	1945-
04100130	Jones Lake near Cosperville	Noble	70.3	114	885.55	960	+	1948-
04100140	Bixler Lake at Kendallville	Noble	5.28	120	963.65	2,090	+	1945-
04100150	Round Lake at Kendallville	Noble	3.47	99	954.50	2,140	+	1954-
04100160	Little Long Lake at Kendallville	Noble	4.55	71	954.50	1,750	+	1954-
04100170	Latta Lake near Rome City	Noble	2.52	42	918.71	900	+	1954-66
04100180	Sylvan Lake at Rome City	Noble	33.8	669	916.20	5,986	+	1943-
04100190	Sacarder Lake near Kendallville	Noble	1.43	33	-----	740	+	1954-63
04100200	Tamarack Lake near Cosperville	Noble	15.9	50	885.55	880	+	1948-
04100210	Steinbarger Lake near Cosperville	Noble	24.3	73	885.55	1,590	+	1948-
04100220	Waldron Lake near Cosperville	Noble	134	216	885.55	3,120	+	1948-
04100230	Long Lake near Burr Oak	Noble	12.0	40	895.82	630	+	1954-71
04100240	Sand Lake near Burr Oak	Noble	14.9	47	893.56	1,270	+	1946-51
04100250	Rivir Lake near Burr Oak	Noble	18.6	24	-----	380	+	1954-65
04100258	High Lake near Wolflake	Noble	4.43	123	896.35	1,240	+	1961-
04100260	Bear Lake near Wolflake	Noble	6.98	136	894.60	3,030	+	1943-
04100280	Muncie Lake near Burr Oak	Noble	42.8	47	-----	580	+	1954-
04100290	Silver Lake near Wolflake	Noble	.28	34	-----	220	+	1953-63
04100300	Skinner Lake near Albion	Noble	14.0	125	927.74	1,750	+	1945-72, 1977-
04100310	Pleasant Lake near Wolflake	Noble	.29	20	-----	540	+	1952-53
04100320	Upper Long Lake near Wolflake	Noble	2.08	86	891.19	1,900	+	1956-
04100330	Lower Long Lake near Albion	Noble	4.35	66	889.81	1,560	+	1946-52
04100340	Eagle Lake near Kimmel	Noble	3.22	81	-----	1,050	+	1946-48
04100350	Diamond Lake near Wawaka	Noble	4.80	105	-----	2,580	+	1946-
04100360	Sparta Lake at Kimmel	Noble	.69	31	888.50	170	+	1946-51
04100370	Engle Lake near Ligonier	Noble	^a 4.19	48	878.90	670	+	1956-71, 1977-
04100380	Harper Lake near Washington Center	Noble	2.76	11	878.25	160	+	1946-
04100390	Knapp Lake near Washington Center	Noble	6.02	88	878.25	3,040	+	1946-
04100400	Moss Lake near Washington Center	Noble	6.12	9	878.25	80	+	1946-
04100410	Hindman Lake near Washington Center	Noble	8.66	13	878.25	140	+	1946-
04100420	Gordy Lake near Cromwell	Noble	9.40	31	876.68	680	+	1953-66
04100425	Rider Lake near Cromwell	Noble	10.9	5	876.68	30	+	1953-66
04100430	Duely Lake near Cromwell ^b	Noble	11.2	21	876.68	180	+	1953-66
04100440	Village Lake near Cromwell	Noble	12.0	12	876.68	160	+	1953-66
04100446	Flatbelly Lake near Syracuse	Kosciusko	4.66	326	-----	-----	-	1964-69
04100448	Papakeechee Lake near Syracuse	Kosciusko	5.52	300	-----	-----	-	1964-69
04100450	Wawasee Lake at Wawasee	Kosciusko	36.9	3,060	858.89	67,210	+	1943-66
04100460	Syracuse Lake at Syracuse	Kosciusko	38.2	414	858.87	5,360	+	1943-
04100470	Dewart Lake near Leesburg	Kosciusko	^a 8.05	551	867.70	9,000	+	1945-
04100480	Wabee Lake near Milford	Kosciusko	^a 14.6	187	829.79	4,750	+	1946-53

STREAMS TRIBUTARY TO LAKE ERIE

04177200	Clear Lake at Clear Lake	Steuben	6.86	800	1,037.38	24,990	+	1943-
04177210	Round Lake at Clear Lake	Steuben	7.25	30	1,037.38	340	+	1943-
04177300	Long Lake near Ray	Steuben	2.80	154	-----	1,840	+	1961-63
04177680	Ball Lake near Hamilton	Steuben	11.6	87	894.76	3,520	+	1961-
04177700	Hamilton Lake at Hamilton	Steuben	16.5	802	898.83	16,600	+	1943-
04179200	Indian Lake near Corunna	DeKalb	3.76	56	-----	1,220	+	1945-
04179300	Cedar lake near Waterloo	DeKalb	23.4	28	896.76	230	+	1943-56

Lakes in the Upper Mississippi River basin for which records are available--Continued

Station Number	Lake	County	Drainage (square miles)	Surface area (acres)	Established level*	Capacity (acre-feet)	Contour map available	Records available
ILLINOIS RIVER BASIN								
05514740	Saugany Lake near Rolling Prairie	LaPorte	^a 2.34	74	781.21	2,190	+	1946-50
05514741	Hudson Lake at Hudson Lake	LaPorte	7.92	432	763.09	5,060	+	1946-
05514750	North Chain Lake at Lydick	St. Joseph	^a 3.89	88	721.17	1,400	+	1946-53
05514760	South Chain Lake at Westfield	St. Joseph	^a 6.32	90	717.04	270	-	1946-53
05514770	Wharton Lake near South Bend	St. Joseph	^a 1.85	-----	-----	-----	-	1960-
05514900	Silver Lake near Rolling Prairie	LaPorte	1.72	54	795.20	-----	-	1946-66
05515200	Upper Fish Lake near Stillwell	LaPorte	^a 9.65	139	688.22	1,040	+	1946-53
05515210	Lower Fish Lake near Stillwell	LaPorte	^a 10.4	134	688.22	870	+	1946-53
05515220	Pine Lake at LaPorte	LaPorte	^a 10.7	564	796.20	-----	-	1946-75 1980-
05515230	Stone Lake at LaPorte	LaPorte	^a 10.7	140	796.20	-----	-	1946-75 1980-
05515240	Clear Lake at LaPorte	LaPorte	.65	106	798.20	760	+	1942-49, 1952-75 1980-
05515600	Koontz Lake at Koontz Lake	Starke	^a 6.25	346	714.56	3,170	+	1943-
05515800	Riddles Lake near Lakeville	St. Joseph	^a 11.7	77	817.50	640	+	1946-73, 1976-
05516200	Lake of the Woods near Bremen	Marshall	^a 9.45	416	803.85	6,810	+	1945-
05516600	Pretty Lake near Plymouth	Marshall	.85	97	787.36	2,140	+	1954-66
05516700	Myers Lake near Twin Lakes	Marshall	1.41	96	768.69	2,000	+	1945-53
05516800	Mill Pond and Kreighbaum Lake near Twin Lakes	Marshall	^a 5.34	168	767.75	1,020	+	1945-53
05516900	Eagle Lake near Ober	Starke	^a 25.5	24	713.25	160	+	1946-53
05517100	Skitz Lake near Knox	Starke	-----	1,000	-----	-----	-	1949-53
05517200	Bass Lake at Bass Lake	Starke	5.18	1,400	713.65	-----	-	1943-
05517600	Wauhob Lake near Valparaiso	Porter	.40	21	-----	-----	-	1946-
05517650	Long Lake near Valparaiso	Porter	1.31	65	797.66	520	+	1947-52
05517670	Spectacle Lake near Valparaiso	Porter	.53	62	812.82	540	+	1946-53
05517700	Flint Lake near Valparaiso	Porter	2.62	86	797.66	-----	-	1946-
05517800	Lake Eliza near Beatrice	Porter	1.70	45	738.70	-----	-	1954-74, 1976-
05518700	Cedar Lake at Cedar Lake	Lake	8.14	781	-----	6,750	+	1943-
05518800	Dalecarlia Lake near Creston	Lake	20.1	193	-----	-----	-	1947-52
05521300	Ringneck Lake near Medaryville	Jasper	1.94	1,400	-----	-----	-	1949-55
05525700	J.C. Murphy Lake near Morocco	Newton	13.0	1,515	-----	-----	-	1952-61

+ Depth contour maps available for sale by Indiana Department of Natural Resources, State Office Building, Indianapolis, Indiana.

* Elevation, in feet, above mean sea level.

¹ Formerly published as Rider Lake at Wilmot.

² Formerly published as Chapman Lake near Warsaw.

³ Formerly published as Johnson Lake near Pierceton.

⁴ Formerly published as Hawks Lake near Culver.

⁵ Same as Wolf Lake at Chicago, Illinois WRD District.

⁶ Formerly published as Jimerson Lake at Nevada Mills.

⁷ Formerly published as Sanford Lake near Cosperville.

⁸ Formerly published as Duley Lake near Cromwell, and Druely Lake near Cromwell, and Druely Lake near Cromwell.

^a Contains drainage area (5 percent or greater) that does not contribute directly to surface-water runoff.

OTHER LAKE MAPS AVAILABLE

The lakes in Indiana which are not included in the cooperative stabilization program but which have been mapped for recreational purposes are shown in the following table. Surface area and capacities are related to reference mean sea level elevation at time of mapping. Additional data is shown on map, which are available for sale by the Indiana Department of Natural Resources, State Office Building, Indianapolis, Indiana.

Lake	County	Surface area (acres)	Capacity (acre-feet)	Lake	County	Surface area (acres)	Capacity (acre-feet)
OHIO RIVER BASIN							
Barr Lake	Fulton	22	470	Lake 16	Fulton	27	220
Bischoff Reservoir	Ripley	200	1,920	Larwill Lake	Whitley	9	170
Black Lake	Whitley	24	400	Lenape Lake	Greene	36	330
Bowen Lake	Scott	7	60	Lincoln Park Lake	Spencer	58	520
Brown Lake	Whitley	23	580	Little Pike Lake	Kosciusko	25	140
Caldwell Lake	Kosciusko	45	800	McColley Lake	Wabash	28	410
Crane Lake	Noble	28	360	Round Lake	Wabash	48	540
Crosley Lake	Jennings	14	130	Scales Lake	Warrick	66	520
Ferdinand Lake	Dubois	42	440	Schlamm Lake	Clark	19	170
Franke Lake	Clark	9	70	Sellers Lake	Kosciusko	32	340
Hartz Lake	Starke	28	370	Shakamak Lake	Sullivan	56	610
Kunkel Lake	Wells	25	150	Twin Lakes	Wabash	18	190
Lake Freeman	Carroll	1,547	26,000	Whitewater Lake	Union	199	3,650
Lake Shafer	White	1,291	13,120	Yellowwood Lake	Brown	133	1,890

STREAMS TRIBUTARY TO LAKE MICHIGAN

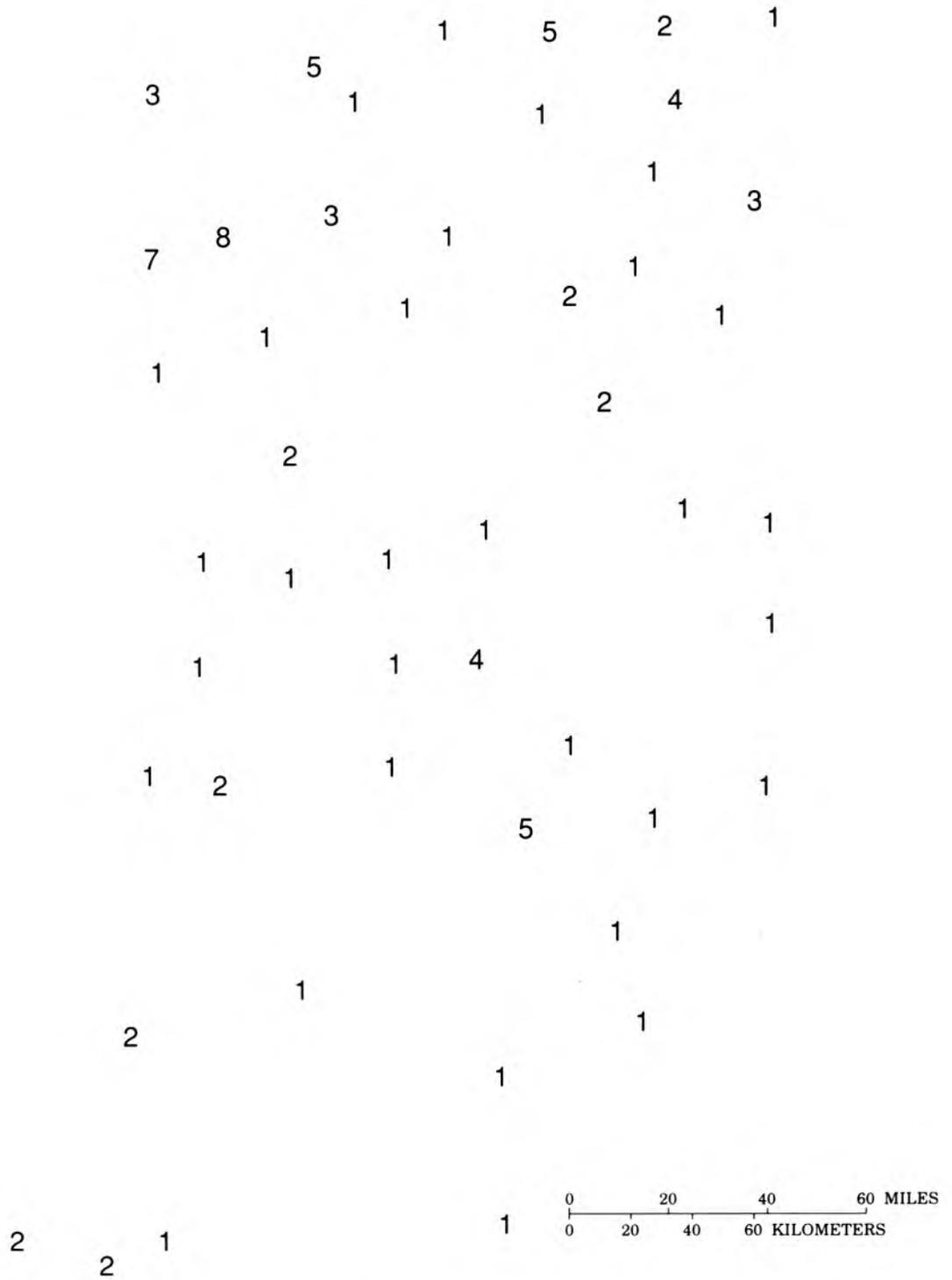
Appleman Lake	Lagrange	52	590	Mateer Lake	Lagrange	18	150
Bartley Lake	Noble	34	430	Miller Lake	Noble	11	160
Barton Lake	Steuben	94	1,340	Millers Lake	Noble	28	410
Bell Lake	Steuben	38	510	Mud Lake	Noble	8	70
Boner Lake	Kosciusko	40	370	Norman Lake	Noble	14	280
Bowen Lake	Noble	30	1,080	Pigeon Lake	Lagrange	61	1,160
Bristol Lake	Noble	27	740	Port Mitchell Lake	Noble	15	180
Buck Lake	Lagrange	18	150	Rainbow Lake	Lagrange	16	250
Center Lake	Steuben	46	390	Schockopee Lake	Noble	21	280
Cline Lake	Lagrange	20	350	Shock Lake	Kosciusko	37	1,210
Deer Lake	Noble	36	420	Smith Hole	Lagrange	2	10
Dock Lake	Noble	16	230	Still Lake	Lagrange	30	620
Eve Lake	Lagrange	31	670	Sweet Lake	Noble	16	210
Fish Lake	Steuben	59	750	Tamarack Lake	Noble	84	1,340
Hog Lake	LaPorte	59	690	Walters Lake	Steuben	53	550
Hog Lake	Steuben	48	570	Weir Lake	Lagrange	6	70
Lime Lake	Steuben	30	330	Wible Lake	Noble	49	650
Little Turkey Lake	Steuben	58	780	Williams Lake	Noble	46	1,070
Marl Lake	Noble	30	510	Wyland Lake	Kosciusko	6	100

STREAMS TRIBUTARY TO LAKE ERIE

Dunton Lake	DeKalb	21	340	Mirror Lake	Steuben	9	120
Handy Lake	Steuben	16	290	Terry Lake	DeKalb	17	160
Lake Anne	Steuben	17	280				

UPPER MISSISSIPPI RIVER BASIN

Cook Lake	Marshall	93	1,650	Gilbert Lake	Marshall	37	490
Dixon Lake	Marshall	33	480	Holem Lake	Marshall	40	390
Flat Lake	Marshall	26	210	Lawrence Lake	Marshall	69	1,580



EXPLANATION

3 Number of ground-water wells in designated county.

Figure 8.-- Number of ground-water wells by county having 1993 water-level records.

GROUND-WATER DATA

291

ALLEN COUNTY

410426084495201. Local number, AL 5.

LOCATION.--Lat 41°04'26", long 84°49'52", in NW¹/₄NE¹/₄SE¹/₄ sec.9, T.30 N., R.15 E., Allen County, Hydrologic Unit 04100005, 1.3 mi west of Edgerton.
 Owner: Noel Gerig.

AQUIFER.--Limestone of Salina Formation of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 4 in., depth 97 ft, cased to 40 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 760 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 0.10 ft above land-surface datum.

REMARKS.--Nearby quarry operations were shut down in 1980, and since that time water levels have been rising.

PERIOD OF RECORD.--July 1962 to December 1971, January 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.04 ft below land-surface datum, July 8, 9, 1962; lowest, 38.41 ft below land-surface datum, May 4, 1967.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.01	12.72	13.03	12.38	12.87	13.04	13.28	12.53	12.72	12.40	12.09	12.14
10	12.67	12.82	12.43	13.30	12.87	13.09	12.80	12.64	12.45	12.54	12.07	11.98
15	12.56	13.00	12.48	13.08	13.11	13.63	12.41	12.27	12.60	12.38	12.13	12.24
20	12.94	12.56	12.59	---	13.03	13.58	12.52	12.69	12.72	12.16	12.11	12.20
25	12.67	12.43	13.04	13.07	13.72	13.42	12.51	12.71	12.58	12.16	12.28	12.05
DOM	12.84	12.66	12.49	12.73	13.47	12.48	12.65	12.21	12.21	12.16	12.32	12.55

WTR YR 1993 HIGH 11.95 SEP 9

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.63	13.22	13.61	13.40	13.54	13.50	13.86	13.14	13.27	13.03	12.44	12.19
10	13.14	13.36	13.06	13.81	13.41	13.62	13.28	13.30	13.03	13.17	12.47	12.22
15	12.77	13.55	13.19	13.61	13.60	14.38	13.19	12.86	13.21	12.80	12.63	12.67
20	13.55	13.32	13.37	---	13.70	14.07	13.00	13.18	13.29	12.90	12.61	12.42
25	13.17	13.05	13.62	13.56	14.37	13.90	13.00	13.35	13.07	12.79	12.82	12.54
DOM	13.28	13.22	13.37	13.42	14.00	13.19	13.22	13.45	12.58	12.55	12.79	13.14

WTR YR 1993 LOW 14.49 MAR 19

ALLEN COUNTY

410932084561101. Local number, AL 6.

LOCATION.--Lat 41°09'32", long 84°56'11", in SW¹/₄SW¹/₄NE¹/₄ sec.10, T.31 N., R.14 E., Allen County, Hydrologic Unit 04100005, at the intersection of Ehle and Thimler Roads, 10 mi northeast of New Haven.
 Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 84 ft, cased to 81.5 ft, screened to 83.5 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 760 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 2.50 ft above land-surface datum.

REMARKS.--Water level affected by pumpage.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.90 ft below land-surface datum, Feb. 24, 1990; lowest, 14.77 ft below land-surface datum, Oct. 29, 1978.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.54	9.43	9.93	7.93	9.95	10.26	9.38	9.01	10.63	9.25	11.52	12.62
10	10.54	9.99	10.19	8.77	10.29	8.96	9.45	9.53	9.14	9.89	11.76	12.08
15	10.63	8.72	10.43	9.20	10.53	9.23	9.75	9.93	9.64	10.24	11.97	12.13
20	10.23	9.44	9.92	9.78	10.70	9.40	9.77	10.38	10.19	10.51	12.20	12.19
25	10.36	8.66	10.09	8.89	10.89	8.66	9.42	10.65	10.20	10.80	12.58	11.90
DOM	10.70	9.34	9.13	9.32	10.96	9.25	9.44	10.68	9.94	11.25	12.82	11.81

WTR YR 1993 HIGH 7.93 JAN 5

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.81	9.70	10.21	8.17	10.13	10.45	9.63	9.55	10.87	9.51	11.68	12.83
10	10.69	10.22	10.40	9.06	10.52	9.12	9.64	9.75	9.34	10.17	11.94	12.29
15	10.78	8.98	10.69	9.42	10.75	9.47	9.93	10.12	9.94	10.43	12.14	12.30
20	10.41	9.66	10.13	9.97	10.93	9.64	10.02	10.62	10.41	10.73	12.43	12.37
25	10.54	8.86	10.30	9.15	11.07	8.88	10.04	10.92	10.39	11.04	12.82	12.12
DOM	10.95	9.54	9.84	9.53	11.14	9.49	9.66	10.82	10.15	11.44	12.96	12.06

WTR YR 1993 LOW 13.00 AUG 30

GROUND-WATER DATA

ALLEN COUNTY

410335085190701. Local number, AL 8.

LOCATION.--Lat 41°03'35", long 85°19'07", in SE¹/₄, SW¹/₄, SW¹/₄, sec. 8, T.30N., R.11E., Allen County, Hydrologic Unit 05120101, on Covington Road about 5 mi west of Interstate Highway 69 on the northeast corner of the United Telephone Company property.
Owner: U.S. Geological Survey.

AQUIFER.--Limestone.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 193 ft, cased to 173 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 850.60 ft above sea level. Measuring point: Top of casing, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--July 1988 to current year. Records for WY1988, WY1989, WY1990 published as AL 7.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 55.70 ft below land-surface datum, April 26, 1989; lowest, 70.83 ft below land-surface datum, Sept. 5, 6, 1993.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	63.45	62.02	61.82	61.51	62.15	61.31	61.48	61.24	62.63	65.48	65.22	69.63
10	62.12	62.56	61.41	61.65	61.30	60.99	60.88	62.91	62.36	63.41	65.50	64.63
15	62.39	62.03	62.07	61.38	61.56	62.02	61.36	61.34	62.54	63.93	67.33	64.56
20	62.36	61.55	61.63	61.96	60.54	61.44	61.45	62.73	63.26	63.30	---	63.57
25	61.71	62.15	61.78	62.33	61.84	61.23	61.15	62.11	63.48	63.47	---	62.74
DOM	61.79	62.11	61.43	61.03	61.79	61.31	61.45	61.30	68.04	66.55	---	62.89

WTR YR 1993 HIGH 60.54 FEB 20

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	65.51	63.68	64.60	63.47	64.28	62.79	62.68	63.15	64.69	65.76	67.70	70.83
10	64.46	64.61	63.34	64.17	62.89	62.40	62.88	65.72	64.25	65.76	68.04	66.71
15	64.16	64.63	64.31	62.77	63.01	63.39	62.39	64.53	64.46	65.82	69.56	66.52
20	63.97	63.88	63.99	63.46	63.05	63.82	62.94	64.36	65.39	65.10	---	65.84
25	64.38	64.09	63.52	63.39	62.94	63.53	63.11	63.96	65.50	67.19	---	64.96
DOM	64.13	64.10	63.54	62.98	64.07	62.81	63.79	64.95	68.04	68.04	---	64.91

WTR YR 1993 LOW 70.83 SEP 5

BARTHOLOMEW COUNTY

391627085534401. Local number, BA 4.

LOCATION.--Lat 39°16'27", long 85°53'44", in NE¹/₄, NE¹/₄, NE¹/₄, sec.31, T.10 N., R.6 E., Bartholomew County, Hydrologic Unit 05120205, by a cemetery on the north side of Bakalar AFB at the northern city limits of Columbus.
Owner: Bartholomew County.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 93 ft, cased to 85 ft, screened to 90 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 654.04 ft above sea level. Measuring point: Top of floor of shelter, 2.60 ft above land-surface datum.

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

REVISED RECORDS.--WDR IN-80-1: 1979.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.11 ft below land-surface datum, April 8, 9, 1991; lowest, 21.18 ft below land-surface datum, July 2, 1992.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	19.17	18.72	18.67	18.19	17.92	16.99	16.42	16.80	17.19	18.80	18.17
10	---	19.19	18.67	18.62	18.09	17.81	16.98	16.43	16.92	18.17	19.63	18.14
15	---	19.17	18.64	18.50	18.02	17.47	16.93	16.53	16.96	18.52	19.12	18.16
20	---	19.02	18.64	18.43	17.99	17.22	16.82	16.50	16.97	18.05	18.34	18.23
25	19.06	18.92	18.64	18.39	17.97	17.10	16.64	16.57	17.02	18.63	18.17	18.28
DOM	19.11	18.80	18.66	18.28	17.96	17.00	16.50	16.66	17.07	19.60	18.14	18.33

WTR YR 1993 HIGH 16.42 MAY 4

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	19.18	18.73	18.69	18.23	17.93	17.01	16.43	16.86	17.47	18.90	18.17
10	---	19.20	18.67	18.63	18.11	17.86	17.00	16.69	16.93	18.49	19.93	18.16
15	---	19.19	18.66	18.52	18.04	17.55	16.94	16.54	16.97	18.83	19.21	18.19
20	---	19.06	18.66	18.45	18.00	17.26	16.83	16.51	16.98	18.09	18.42	18.23
25	19.06	18.94	18.66	18.41	18.00	17.11	16.66	16.60	17.03	18.90	18.19	18.29
DOM	19.13	18.83	18.69	18.30	17.97	17.02	16.52	16.71	17.08	19.77	18.15	18.35

WTR YR 1993 LOW 20.09 AUG 11

GROUND-WATER DATA

293

BARTHOLOMEW COUNTY

39095008553501. Local number, BA 8.

LOCATION.--Lat 39°09'50", long 85°55'35", in NE¹/₄NW¹/₄SW¹/₄ sec.1, T.8 N., R.5 E., Bartholomew County, Hydrologic Unit 05120206, on property of Meadows Metal Products Co., 4 mi south of Columbus.
 Owner: Meadows Metal Products Co., Inc.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 49 ft, casing length unknown.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 615.48 ft above sea level. Measuring point: Top of floor of shelter, 3.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.06 ft below land-surface datum, June 3, 1968; lowest, 24.13 ft below land-surface datum, Dec. 27, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.31	22.73	21.69	21.71	20.59	20.34	18.51	17.26	18.00	18.49	19.14	20.03
10	22.39	22.77	21.58	21.56	20.50	19.95	18.42	17.34	18.21	18.51	19.35	20.20
15	22.42	22.65	21.57	21.35	20.48	19.27	18.17	17.42	18.30	18.58	19.47	20.26
20	22.52	22.42	21.60	21.17	20.49	18.91	17.76	17.58	18.40	18.67	19.56	20.38
25	22.61	22.12	21.66	21.02	20.46	18.76	17.43	17.71	18.37	18.81	19.69	20.46
DOM	22.67	21.86	21.74	20.76	20.44	18.57	17.25	17.87	18.40	19.01	19.86	20.57

WTR YR 1993 HIGH 17.22 MAY 3

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.35	22.74	21.71	21.74	20.63	20.35	18.56	17.29	18.08	18.50	19.19	20.07
10	22.40	22.77	21.59	21.59	20.52	20.08	18.44	17.36	18.25	18.52	19.38	20.23
15	22.47	22.69	21.58	21.39	20.51	19.39	18.24	17.47	18.36	18.62	19.51	20.30
20	22.54	22.47	21.63	21.21	20.51	18.96	17.83	17.61	18.43	18.70	19.58	20.41
25	22.62	22.19	21.70	21.05	20.52	18.79	17.48	17.75	18.38	18.83	19.74	20.49
DOM	22.69	21.90	21.76	20.81	20.45	18.62	17.27	17.93	18.44	19.04	19.94	20.60

WTR YR 1993 LOW 22.78 NOV 11

BARTHOLOMEW COUNTY

391035085560401. Local number, BA 9.

LOCATION.--Lat 39°10'35", long 85°56'04", in SW¹/₄NE¹/₄SW¹/₄ sec.35, T.9 N., R.5 E., Bartholomew County, Hydrologic Unit 05120206, at the Bartholomew County Home on the 4-H Fairgrounds, 3.0 mi south of Columbus.
 Owner: City of Columbus.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 115 ft, cased to 106 ft, screened to 111 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 621.58 ft above sea level. Measuring point: Top of floor of shelter, 1.65 ft above land-surface datum.

REMARKS.--Water level affected by pumpage from municipal supply well field.

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

REVISED RECORDS.--WDR IN-80-1: 1979.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.75 ft below land-surface datum, Apr. 27-30, 1973; lowest, 42.01 ft below land-surface datum, Nov. 14, 1992.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	36.60	37.19	35.29	35.09	35.49	---	31.52	30.15	31.62	31.62	34.23	35.58
10	37.30	36.90	35.97	34.56	34.53	---	33.22	30.55	31.57	37.22	35.92	35.57
15	36.62	36.86	35.24	34.91	34.00	---	30.75	31.18	34.90	37.81	39.05	35.21
20	36.54	36.31	35.12	33.88	34.71	---	30.60	30.35	30.89	32.53	34.41	38.73
25	36.43	36.16	34.91	33.75	34.58	---	30.67	32.07	31.64	38.42	40.33	35.46
DOM	36.45	35.42	34.81	34.58	---	---	30.20	32.02	31.37	33.11	40.68	34.94

WTR YR 1993 HIGH 29.62 APR 23

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	40.91	41.79	39.91	39.28	38.35	---	36.10	35.54	36.56	36.90	39.76	40.75
10	41.12	41.79	40.15	39.25	38.35	---	36.06	35.77	36.77	37.38	40.08	40.78
15	41.72	41.98	39.64	39.26	38.38	---	35.87	35.96	35.01	37.91	40.25	40.74
20	41.43	41.21	39.90	38.95	38.31	---	35.98	35.36	34.55	38.12	40.27	40.71
25	41.68	40.92	39.83	38.21	36.24	---	35.52	35.59	34.33	38.51	40.42	40.67
DOM	41.69	40.61	39.57	38.38	---	---	35.54	35.87	34.15	39.54	40.72	40.42

WTR YR 1993 LOW 42.01 NOV 14

GROUND-WATER DATA

BARTHOLOMEW COUNTY

390317085523701. Local number, BA 10.

LOCATION.--Lat 39°03'17", long 85°52'37", in NE¹/₄NE¹/₄NE¹/₄, sec.16, T.7 N., R.6 E., Bartholomew County, Hydrologic Unit 05120206, 0.8 mi east of State Highway 11 and 1.0 mi southeast of Jonesville.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 85 ft, cased to 80 ft, screened to 85 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 580 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--October 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.67 ft below land-surface datum, Apr. 14, 1979; lowest, 12.65 ft below land-surface datum, Oct. 29, Nov. 2, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.27	10.42	7.36	6.88	7.24	3.58	6.13	6.81	8.24	7.67	9.29	8.88
10	10.35	10.41	7.66	5.82	7.68	4.78	5.27	7.21	8.31	8.07	9.53	9.12
15	10.48	4.77	8.10	6.52	7.92	6.24	4.95	7.19	7.99	8.33	9.54	9.28
20	10.34	6.49	8.44	7.09	8.14	6.67	5.44	7.50	7.93	8.51	9.22	9.41
25	10.45	5.28	8.57	6.14	7.22	6.37	6.09	7.86	7.99	8.78	9.47	9.38
DOM	10.66	6.65	8.87	6.72	7.46	6.52	6.39	8.10	8.01	9.04	9.62	9.07

WTR YR 1993 HIGH 3.23 MAR 7

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.35	10.54	7.50	8.47	7.43	5.84	6.39	6.98	8.42	7.78	9.39	9.03
10	10.51	10.56	7.98	6.12	7.76	5.27	6.44	7.32	8.37	8.11	9.57	9.23
15	10.64	6.32	8.17	6.64	8.03	6.33	5.04	7.28	8.16	8.45	9.71	9.45
20	10.47	6.70	8.63	7.21	8.25	6.88	5.88	7.64	8.12	8.67	9.36	9.49
25	10.61	5.59	8.87	6.38	7.40	6.52	6.49	7.98	8.04	8.85	9.55	9.53
DOM	10.71	6.77	8.97	6.87	7.54	6.84	6.57	8.28	8.09	9.20	9.76	9.23

WTR YR 1993 LOW 10.74 NOV 3

BARTHOLOMEW COUNTY

390658085572201. Local number, BA 13.

LOCATION.--Lat 39°06'58", long 85°57'22", in SW¹/₄NW¹/₄SE¹/₄, sec.22, T.8 N., R.5 E., Bartholomew County, Hydrologic Unit 05120206, at the end of farm access road, 0.3 mi north of County Road 600 South at its intersection with Interstate Highway 65.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 55.6 ft, cased to 50.6 ft, screened to 55.6 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 633.91 ft above sea level. Measuring point: Top of floor of shelter, 3.40 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 19.91 ft below land-surface datum, March 27, 1991; lowest, 24.17 ft below land-surface datum, Feb. 16, 1989.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.76	21.55	21.64	21.08	21.11	20.36	20.62	20.52	20.29	20.56	20.88	20.89
10	21.48	21.80	21.01	21.35	20.98	20.45	20.29	20.62	20.58	20.71	20.91	20.77
15	21.57	21.84	21.05	21.24	20.87	20.92	19.95	20.33	20.66	20.76	20.83	20.87
20	21.73	21.42	21.24	21.20	20.63	20.97	20.15	20.43	20.65	20.75	20.80	20.94
25	21.61	21.26	21.36	21.41	20.85	20.78	20.32	20.55	20.65	20.75	20.94	20.59
DOM	21.64	21.41	21.25	20.80	21.09	20.04	20.61	20.29	20.51	20.80	20.85	21.08

WTR YR 1993 HIGH 19.95 APR 15

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.95	21.73	21.88	21.48	21.41	20.76	20.75	20.72	20.74	20.65	21.02	20.95
10	21.62	21.94	21.22	21.52	21.10	20.79	20.48	20.71	20.69	20.80	21.00	21.07
15	21.73	21.99	21.49	21.36	21.20	21.13	20.21	20.42	20.77	20.84	20.94	21.16
20	21.96	21.74	21.69	21.61	20.94	21.04	20.52	20.47	20.73	20.82	20.88	21.04
25	21.74	21.48	21.67	21.49	21.28	20.89	20.63	20.78	20.76	20.81	21.04	21.02
DOM	21.73	21.59	21.67	21.17	21.25	20.37	20.66	20.56	20.63	20.92	20.92	21.37

WTR YR 1993 LOW 22.22 OCT 22

GROUND-WATER DATA

295

BENTON COUNTY

402851087213501. Local number, BE 4.

LOCATION.--Lat 40°28'51", long 87°21'35", in SE¹/₄, NE¹/₄, SE¹/₄, sec.31, T.24 N., R.8 W., Benton County, Hydrologic Unit 05120108, on north side of county road, 3.6 mi southeast of Boswell.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 310 ft, cased to 300 ft, screened to 305 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 710 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 2.19 ft above land-surface datum.

PERIOD OF RECORD.--November 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.57 ft below land-surface datum, May 4, 1993; lowest, 16.55 ft below land-surface datum, Dec. 4, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.23	13.06	11.93	---	10.67	10.63	10.21	9.59	10.01	---	---	11.11
10	13.17	12.99	11.62	---	10.61	10.62	10.01	9.76	10.15	---	---	11.18
15	13.13	12.80	11.53	11.05	10.61	10.64	9.75	9.68	10.30	---	---	11.18
20	13.27	12.46	11.60	10.95	10.56	10.62	9.75	9.85	---	---	10.64	11.29
25	13.27	12.15	11.30	10.86	10.70	10.49	9.66	9.93	---	---	10.87	11.16
BOM	13.28	11.99	---	10.62	10.82	10.05	9.76	9.98	---	---	11.09	11.32

WTR YR 1993 HIGH 9.57 MAY 4

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.30	13.11	11.98	---	10.76	10.72	10.28	9.70	10.15	---	---	11.16
10	13.20	13.09	11.72	---	10.62	10.71	10.05	9.77	10.22	---	---	11.28
15	13.26	12.82	11.72	11.09	10.65	10.69	9.90	9.74	10.37	---	---	11.33
20	13.36	12.63	11.69	11.10	10.65	10.65	9.86	9.88	---	---	10.73	11.33
25	13.32	12.26	11.56	10.88	10.79	10.52	9.79	10.02	---	---	10.94	11.36
BOM	13.31	12.07	---	10.72	10.85	10.26	9.77	10.07	---	---	11.13	11.40

WTR YR 1993 LOW 13.43 OCT 22

BOONE COUNTY

400532086183901. Local number, BO 17.

LOCATION.--Lat 40°05'32", long 86°18'39", in SW¹/₄, SE¹/₄, NW¹/₄, sec.16, T.19 N., R.2 E., Boone County, Hydrologic Unit 05120201, 0.6 mi north along U.S. Highway 421 from the intersection of U.S. Highway 421 and County Road 300 North at Waugh on the west side of the highway at the residence of John Sheets.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 171.8 ft, cased to 166.8 ft, screened to 171.8 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 956.50 ft above sea level. Measuring point: Mark on top of casing, 3.50 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 45.87 ft below land-surface datum, July 11-13, 1986; lowest, 51.98 ft below land-surface datum, Oct. 13, 14, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.67	48.19	47.74	47.33	47.31	47.09	47.12	46.71	47.46	47.48	48.01	48.73
10	48.56	48.15	47.49	47.43	47.29	47.16	46.95	46.76	47.47	47.52	48.24	48.72
15	48.48	48.06	47.47	47.38	47.24	47.28	46.77	46.68	47.46	47.57	48.34	48.72
20	48.46	47.91	47.55	46.37	47.15	47.29	46.79	46.96	47.41	47.60	48.43	48.72
25	48.39	47.74	47.52	47.36	47.23	47.24	46.77	47.27	47.55	47.58	48.43	48.72
BOM	48.34	47.73	47.48	47.22	47.30	46.98	46.84	47.37	47.52	47.72	48.72	48.72

WTR YR 1993 HIGH 46.37 JAN 20

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.70	48.22	47.80	47.49	47.41	47.21	47.18	46.78	47.59	47.50	48.04	48.73
10	48.58	48.25	47.60	47.50	47.31	47.24	47.02	46.77	47.51	47.53	48.26	48.73
15	48.52	48.09	47.62	47.40	47.30	47.33	46.88	46.75	47.49	47.60	48.37	48.73
20	48.55	48.01	47.66	47.50	47.25	47.33	46.91	47.03	47.47	47.64	48.43	48.72
25	48.41	47.85	47.64	47.39	47.34	47.27	46.87	47.38	47.56	47.59	48.51	48.72
BOM	48.34	47.78	47.59	47.31	47.34	47.13	46.87	47.49	47.58	47.79	48.73	48.72

WTR YR 1993 LOW 48.83 OCT 1

GROUND-WATER DATA

CASS COUNTY

403407086175701. Local number, CS 3.

LOCATION.--Lat 40°34'07", long 86°17'57", in NE¹/₄/NE¹/₄/SE¹/₄ sec.33, T.25 N., R.2 E., Cass County, Hydrologic Unit 05120105, at intersection of State Highway 18 and County Road 400 East, 2.5 mi east of Young America.
 Owner: U.S. Geological Survey.

AQUIFER.--Dolomitic limestone of Devonian-Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 130 ft, cased to 78ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 781.74 ft above sea level. Measuring point: Top of floor of shelter, 2.65 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.85 ft below land-surface datum, Feb. 2, 1968; lowest, 10.12 ft below land-surface datum, Nov. 26, 1991.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.28	6.30	6.36	6.20	6.01	6.34	5.89	5.20	5.66	6.29	---	6.88
10	6.18	6.19	6.13	6.35	6.13	6.14	5.60	5.59	5.92	---	---	6.61
15	6.21	6.22	6.25	6.27	6.33	6.35	5.49	5.52	6.04	---	---	6.41
20	6.33	5.93	6.29	6.31	6.40	6.27	5.49	5.56	6.20	---	---	6.26
25	6.25	5.73	6.54	6.35	6.75	6.00	5.34	5.62	6.23	---	7.06	6.09
EOM	6.37	5.93	6.26	6.14	6.64	5.43	5.42	5.59	6.10	---	7.35	6.40

WTR YR 1993 HIGH 5.17 MAY 4

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.36	6.45	6.51	6.32	6.23	6.54	6.08	5.34	5.83	6.48	---	7.03
10	6.28	6.36	6.37	6.46	6.20	6.31	5.68	5.85	5.98	---	---	6.67
15	6.32	6.28	6.42	6.34	6.39	6.44	5.64	5.64	6.14	---	---	6.57
20	6.44	6.11	6.52	6.46	6.56	6.40	5.71	5.81	6.45	---	---	6.36
25	6.40	5.92	6.84	6.41	6.89	6.08	5.54	5.71	6.33	---	7.20	6.28
EOM	6.44	5.99	6.49	6.24	6.79	5.63	5.51	5.74	6.24	---	7.47	6.59

WTR YR 1993 LOW 7.47 AUG 30

CLAY COUNTY

392653087120501. Local number, CY 6.

LOCATION.--Lat 39°26'53", long 87°12'05", in SE¹/₄/SE¹/₄/SE¹/₄ sec.29, T.12 N., R.7 W., Clay County, Hydrologic Unit 05120111, 2.8 mi southwest of Staunton and 4.0 mi west of State Highway 59 just north of State Highway 42.
 Owner: U.S. Geological Survey.

AQUIFER.--Sandstone of the Mansfield Formation, Pennsylvanian Period.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 400 ft, cased to 347 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 653.16 ft above sea level. Measuring point: Top of casing, 3.40 ft above land-surface datum.

PERIOD OF RECORD.--September 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 151.36 ft below land-surface datum, Jan. 19, 1988; lowest, 165.28 ft below land-surface datum, June 8, 1992.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	154.92	154.61	154.77	154.45	154.39	154.10	154.21	154.18	154.18	154.40	154.68	154.56
10	154.68	154.69	154.26	154.47	154.34	154.06	154.09	154.30	154.31	154.52	154.74	154.52
15	154.72	154.76	154.29	154.46	154.34	154.40	153.81	154.11	154.37	154.54	154.59	154.78
20	154.76	154.46	154.57	154.42	154.12	154.37	153.96	154.19	154.39	154.51	154.45	154.77
25	154.68	154.40	154.50	154.58	154.26	154.31	154.07	154.28	154.45	154.52	154.57	154.76
EOM	154.72	154.54	154.43	154.26	154.46	153.89	154.22	154.13	154.38	154.62	154.50	154.74

WTR YR 1993 HIGH 153.81 APR 15

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	155.06	154.82	154.92	154.69	154.74	154.40	154.42	154.43	154.52	154.56	154.86	154.63
10	154.87	154.95	154.57	154.64	154.47	154.37	154.26	154.41	154.41	154.61	154.85	154.74
15	154.92	154.86	154.57	154.55	154.53	154.52	153.98	154.23	154.53	154.72	154.82	154.79
20	154.94	154.74	154.84	154.80	154.40	154.54	154.30	154.35	154.58	154.71	154.58	154.77
25	154.93	154.69	154.80	154.71	154.59	154.47	154.33	154.50	154.53	154.63	154.73	154.76
EOM	154.83	154.67	154.74	154.48	154.55	154.07	154.32	154.37	154.54	154.84	154.68	154.75

WTR YR 1993 LOW 155.15 OCT 22

GROUND-WATER DATA

297

CLAY COUNTY

391124087134701. Local number, CY 7.

LOCATION.--Lat 39°11'24", long 87°13'47", in SW¹/₄NW¹/₄SE¹/₄ sec. 30, T.9N., R.7W., Clay County, Hydrologic Unit 05120111, 300 ft east of State Highway 159 just south of Coalmont and about 3.6 mi northwest of Jasonville.
 Owner: U.S. Geological Survey

AQUIFER.--Sandstone of Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 121 ft, cased to 80 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 616.80 ft (revised) above sea level. Measuring point: Top of casing, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--September 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 25.59 ft below land-surface datum, Sept. 4, 5, 1988; lowest, 33.05 ft below land-surface datum, Dec. 26, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.64	29.44	29.09	28.73	28.53	28.25	28.12	27.99	28.10	28.42	28.97	28.96
10	29.63	29.41	28.96	28.68	28.53	28.24	28.04	28.06	28.17	28.54	29.08	29.01
15	29.58	29.28	28.94	28.66	28.45	28.29	27.94	28.01	28.22	28.63	28.96	---
20	29.57	29.20	28.94	28.61	28.36	28.24	27.98	28.01	28.30	28.65	28.90	---
25	29.55	29.09	28.93	28.57	28.32	28.18	28.01	28.04	28.33	28.75	28.98	28.81
EOM	29.55	29.08	28.83	28.51	28.34	28.05	28.05	28.10	28.38	28.95	29.08	28.86

WTR YR 1993 HIGH 27.94 APR 15

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.67	29.47	29.11	28.77	28.58	28.29	28.16	28.04	28.17	28.45	28.99	28.98
10	29.66	29.47	29.03	28.72	28.54	28.27	28.08	28.07	28.19	28.56	29.09	29.06
15	29.71	29.29	29.00	28.67	28.49	28.30	28.02	28.04	28.25	28.66	28.99	---
20	29.61	29.25	28.98	28.70	28.41	28.26	28.03	28.04	28.33	28.69	28.93	---
25	29.58	29.14	28.96	28.59	28.42	28.20	28.04	28.09	28.37	28.78	29.01	28.90
EOM	29.56	29.10	28.86	28.55	28.36	28.15	28.07	28.14	28.40	28.97	29.11	28.89

WTR YR 1993 LOW 29.71 OCT 15

GROUND-WATER DATA

DECATUR COUNTY

392022085371801. Local number, DC 2.

LOCATION.--Lat 39°20'22", long 85°37'18", in SE¹/₄, NE¹/₄, SW¹/₄, sec.3, T.10 N., R.8 E., Decatur County, Hydrologic Unit 05120206, at the intersection of County Roads 50 North and 750 West and 7.5 mi west of Greensburg.
 Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 49 ft, cased to 12.5 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 840.8 ft above sea level. Measuring point: Top of floor of shelter, 3.02 ft above land-surface datum.

PERIOD OF RECORD.--September 1966 to October 1971, September 1974 to current year.

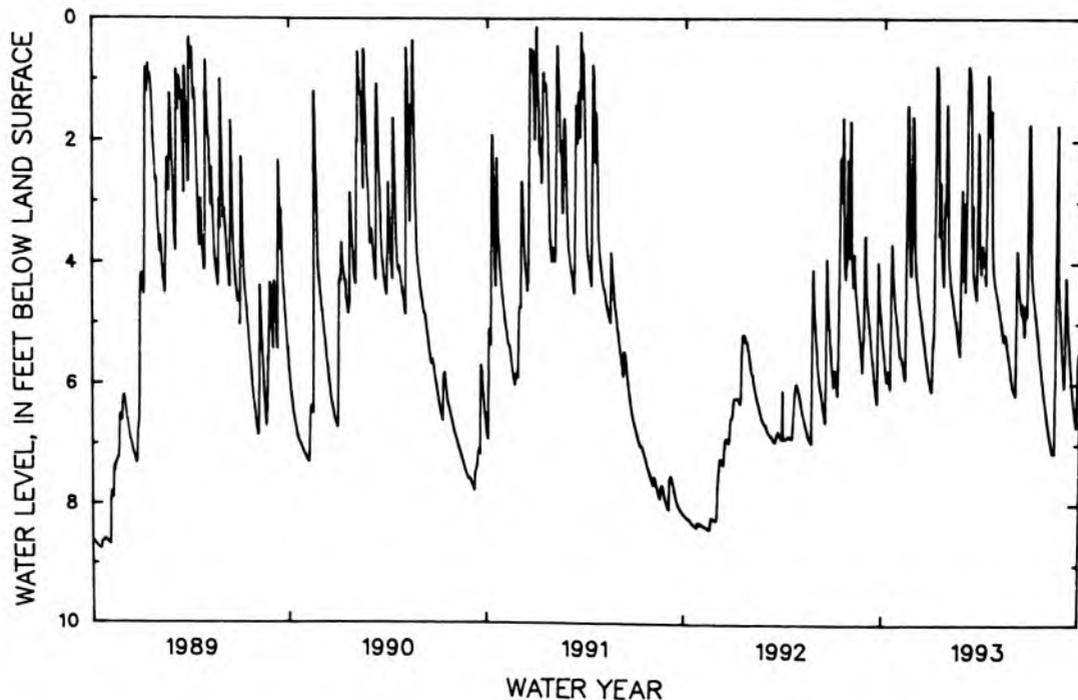
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.12 ft below land-surface datum, Dec. 30, 1991; lowest, 9.25 ft below land-surface datum, Feb. 9-11, 1977.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.79	5.63	4.63	.76	4.55	.77	---	4.90	3.79	4.55	6.85	4.63
10	5.80	5.89	4.91	2.57	4.87	1.55	.90	5.22	4.59	4.94	7.10	5.42
15	4.06	1.89	5.30	3.57	5.21	4.15	1.51	5.20	4.75	5.38	7.15	6.06
20	4.44	4.19	5.63	4.38	5.53	4.47	3.80	5.53	4.81	5.77	4.22	6.47
25	4.90	2.17	5.92	1.61	3.00	2.22	4.38	5.86	1.76	6.16	5.11	6.32
EQM	5.46	4.18	5.57	4.08	---	3.71	4.62	6.08	3.73	6.56	5.98	5.56

WTR YR 1993 HIGH .76 JAN 5

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.88	5.68	4.71	.80	4.60	.85	---	4.97	4.01	4.62	6.89	4.83
10	5.86	5.94	5.01	3.56	4.94	2.29	1.09	5.28	4.70	5.01	7.15	5.57
15	6.20	2.46	5.37	3.83	5.26	4.22	2.12	5.27	4.93	5.47	7.20	6.15
20	4.56	4.27	5.71	4.41	5.58	4.56	4.03	5.59	5.33	5.85	4.46	6.54
25	4.99	2.82	6.00	2.07	4.07	2.79	4.45	5.91	4.65	6.24	5.25	6.77
EQM	5.55	4.28	6.13	4.20	---	4.29	4.68	6.13	4.07	6.62	6.07	5.61

WTR YR 1993 LOW 7.23 AUG 12



GROUND-WATER DATA

299

DELAWARE COUNTY

400541085213701. Local number, DW 4.

LOCATION.--Lat 40°05'41", long 85°21'37", in SE¹/₄NW¹/₄SW¹/₄ sec.9, T.19 N., R.10 E., Delaware County, Hydrologic Unit 05120201, on property owned by Monroe Township Conservation Club, and 8.0 mi south of Muncie.
 Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 91 ft, cased to 89 ft, screened to 91 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 1,005 ft above sea level, from topographic map. Measuring point:
 Top of floor of shelter, 2.88 ft above land-surface datum.

PERIOD OF RECORD.--October 1966 to October 1971, October 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 42.21 ft below land-surface datum, Dec. 30, 1990; lowest,
 49.50 ft below land-surface datum, Oct. 13, 14, 1966.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.46	47.72	47.67	47.43	47.75	47.02	47.39	47.62	47.72	45.83	47.87	48.08
10	48.48	47.98	47.88	47.53	47.90	46.25	---	47.76	47.40	46.82	47.99	48.22
15	48.48	46.42	48.02	47.49	47.96	46.92	46.40	47.75	45.08	46.95	48.04	48.27
20	48.44	47.23	48.07	47.76	48.02	47.23	46.85	47.89	46.68	47.18	48.05	48.34
25	48.48	46.76	48.11	47.24	47.79	47.08	47.21	47.90	46.69	47.49	48.02	48.26
ROM	48.51	47.32	48.09	47.51	47.87	47.32	47.45	47.91	46.60	47.73	48.22	48.13

WTR YR 1993 HIGH 44.94 JUL 2

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.47	47.75	47.73	47.50	47.77	47.04	47.42	47.66	47.73	46.10	47.88	48.12
10	48.49	48.00	47.91	47.60	47.92	46.38	---	47.79	47.44	46.88	47.99	48.25
15	48.52	46.64	48.03	47.52	47.97	47.02	46.59	47.81	45.63	47.02	48.06	48.30
20	48.45	47.33	48.08	47.77	48.03	47.29	46.95	47.91	46.82	47.27	48.10	48.34
25	48.48	46.90	48.14	47.26	47.80	47.13	47.27	47.91	47.16	47.53	48.17	48.36
ROM	48.51	47.40	48.16	47.56	47.89	47.39	47.50	47.92	46.65	47.76	48.22	48.14

WTR YR 1993 LOW 48.52 OCT 14

GROUND-WATER DATA

ELKHART COUNTY

413121085481301. Local number, EH 4.

LOCATION.--Lat 41°31'21", long 85°48'13", in SW¹/₄, SE¹/₄, SW¹/₄, sec.35, T.36 N., R.6 E., Elkhart County, Hydrologic Unit 04050001, at the southwest corner of Goshen Municipal Airport.

Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 62 ft, cased to 58 ft, screened to 60 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 818 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 2.60 ft above land-surface datum.

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

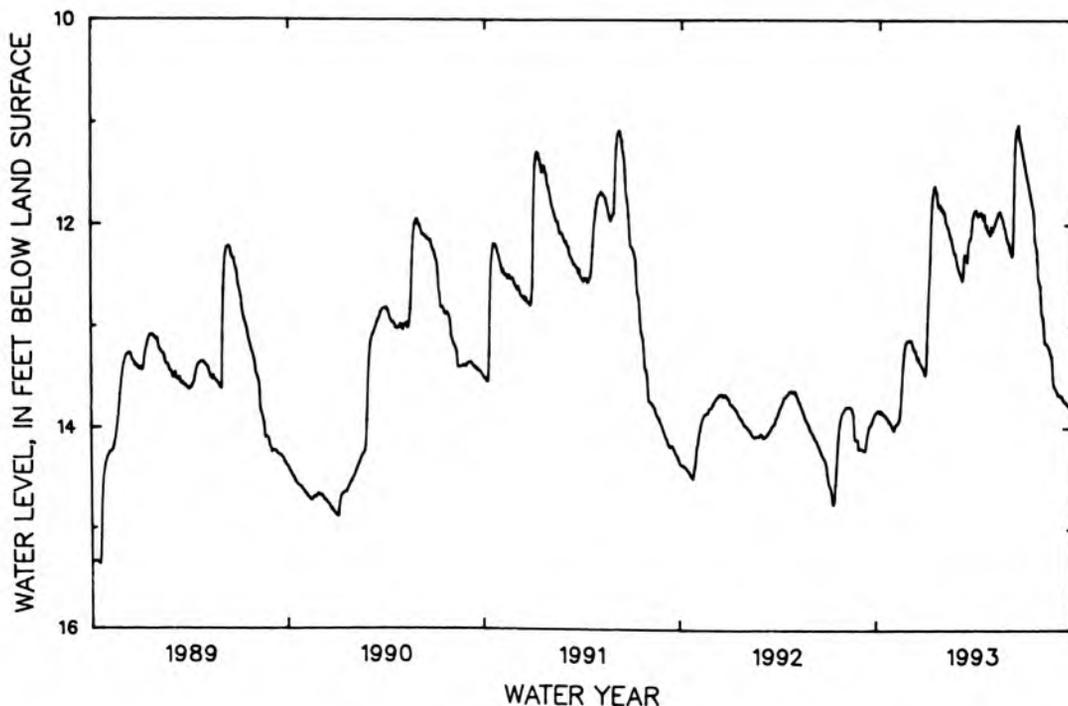
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.60 ft below land-surface datum, Apr. 14, 1985; lowest, 16.18 ft below land-surface datum, Dec. 1-5, 1971.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.83	13.96	13.19	12.36	12.01	12.52	11.90	12.00	12.28	11.59	12.97	13.67
10	13.85	13.92	13.23	11.68	12.09	12.28	11.88	11.91	11.29	11.73	13.16	13.69
15	13.87	13.62	13.30	11.67	12.19	12.37	11.90	11.87	11.05	11.87	13.21	13.74
20	13.90	13.21	13.37	11.83	12.29	12.14	12.00	11.96	11.19	12.20	13.28	13.77
25	13.95	13.13	13.41	11.86	12.41	11.93	12.09	12.07	11.33	12.54	13.58	13.80
EOM	14.02	13.13	13.25	11.87	12.46	11.85	12.07	12.18	11.47	12.81	13.63	13.80

WTR YR 1993 HIGH 11.01 JUN 16

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.85	13.97	13.22	12.50	12.02	12.55	11.92	12.01	12.31	11.61	13.07	13.68
10	13.85	13.94	13.26	11.72	12.12	12.33	11.91	11.92	11.60	11.76	13.17	13.71
15	13.88	13.74	13.33	11.68	12.22	12.39	11.93	11.90	11.09	11.93	13.23	13.75
20	13.91	13.26	13.40	11.85	12.30	12.15	12.07	11.99	11.21	12.23	13.30	13.77
25	13.96	13.15	13.45	11.88	12.42	11.97	12.11	12.11	11.35	12.55	13.59	13.81
EOM	14.04	13.13	13.44	11.91	12.47	11.87	12.08	12.23	11.50	12.89	13.65	13.82

WTR YR 1993 LOW 14.04 OCT 31



GROUND-WATER DATA

301

ELKHART COUNTY

414419085544601. Local number, EH 5.

LOCATION.--Lat 41°44'19", long 85°54'46", in NW¹/₄NE¹/₄NE¹/₄ sec.23, T.38 N., R.5 E., Elkhart County, Hydrologic Unit 04050001, on the inlet to Heaton Lake, and 3.5 mi east of Elkhart.
Owner: State of Indiana.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 1.5 in., depth 13 ft, cased to 11 ft, screened to 13 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 770 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 2.10 ft above land-surface datum.

PERIOD OF RECORD.--May 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.37 ft below land-surface datum, June 16, 1981; lowest, 5.65 ft below land-surface datum, Sept. 17-19, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.41	2.94	2.99	2.08	2.92	3.04	2.65	2.92	3.31	3.14	3.91	3.75
10	3.41	3.01	3.09	2.48	2.91	2.85	2.75	3.05	1.81	3.31	4.09	3.59
15	3.25	2.71	3.01	2.59	2.98	2.95	2.75	3.21	2.34	3.31	4.24	3.17
20	3.21	2.85	3.01	2.75	3.05	2.90	2.71	3.25	2.75	3.41	4.29	3.25
25	3.34	2.85	3.15	2.58	3.11	2.45	2.85	3.34	2.95	3.54	4.40	3.25
ROM	3.45	2.95	2.49	2.80	3.15	2.61	2.85	3.39	3.06	3.71	4.17	3.12

WTR YR 1993 HIGH 1.81 JUN 9

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.42	2.96	3.06	2.10	2.92	3.04	2.71	2.92	3.35	3.15	3.96	3.75
10	3.46	3.02	3.13	2.52	2.91	2.91	2.79	3.11	1.86	3.31	4.09	3.64
15	3.41	2.74	3.10	2.61	3.01	2.96	2.82	3.26	2.45	3.31	4.26	3.28
20	3.28	2.88	3.05	2.78	3.06	2.90	2.76	3.30	2.76	3.45	4.32	3.26
25	3.35	2.88	3.18	2.62	3.12	2.45	2.86	3.36	2.96	3.56	4.42	3.33
ROM	3.46	2.96	2.61	2.81	3.16	2.65	2.86	3.40	3.12	3.78	4.21	3.13

WTR YR 1993 LOW 4.42 AUG 25

ELKHART COUNTY

414351085540401. Local number, EH 6.

LOCATION.--Lat 41°43'51", long 85°54'04", in NW¹/₄NE¹/₄SW¹/₄ sec.24, T.38 N., R.5 E., Elkhart County, Hydrologic Unit 04050001, on the southeast shore of Heaton Lake, and 4.0 mi east of Elkhart.
Owner: State of Indiana.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 1.5 in., depth 22 ft, cased to 20 ft, screened to 22 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 770 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 2.50 ft above land-surface datum.

PERIOD OF RECORD.--May 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.10 ft below land-surface datum, June 16-19, 1981; lowest, 10.68 ft below land-surface datum, Oct. 16, 17, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.16	8.04	7.48	6.51	6.85	7.39	6.86	8.66	9.22	9.13	9.81	9.04
10	8.21	7.91	7.64	6.35	6.87	7.42	6.91	8.96	7.91	9.55	9.64	8.78
15	8.28	7.56	7.69	6.43	6.99	7.40	7.19	9.12	8.13	9.62	9.58	8.52
20	8.28	7.44	7.75	6.67	7.10	7.36	7.55	9.20	8.48	9.87	9.52	8.18
25	8.35	7.40	7.78	6.60	7.23	6.90	8.02	9.29	8.93	9.91	9.50	8.10
ROM	8.41	7.43	7.38	6.67	7.29	6.73	8.29	9.32	9.04	9.93	9.36	8.04

WTR YR 1993 HIGH 6.35 JAN 7

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.19	8.10	7.52	6.77	6.86	7.40	6.87	8.73	9.25	9.21	9.83	9.09
10	8.24	7.94	7.64	6.35	6.87	7.44	6.99	9.00	8.11	9.57	9.68	8.80
15	8.34	7.62	7.70	6.44	7.04	7.40	7.20	9.14	8.24	9.63	9.58	8.63
20	8.32	7.45	7.76	6.69	7.11	7.36	7.65	9.27	8.57	9.92	9.53	8.23
25	8.36	7.40	7.79	6.61	7.26	7.00	8.10	9.30	8.93	9.93	9.51	8.15
ROM	8.42	7.43	7.64	6.68	7.34	6.77	8.37	9.33	9.05	9.95	9.37	8.05

WTR YR 1993 LOW 9.97 JUL 23

GROUND-WATER DATA

ELKHART COUNTY

414514085505001. Local number, EH 7.

LOCATION.--Lat 41°45'14", long 85°50'50", in SW¹/₄ SE¹/₄ SW¹/₄ sec.9, T.38 N., R.6 E., Elkhart County, Hydrologic Unit 04050001, on north side of County Road 2, 200 ft east of County Road 21, and 2.7 mi northwest of Bristol.

Owner: U.S. Geological Survey.

AQUIFER.--Fine to medium sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 61 ft, cased to 56 ft, screened to 61 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 781 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 3.70 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.50 ft below land-surface datum, Feb. 24, 1985; lowest, 12.73 ft below land-surface datum, Aug. 5, 6, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.34	10.27	9.51	8.48	8.39	9.07	8.04	8.47	9.01	8.26	10.34	10.21
10	10.31	10.13	9.49	7.98	8.52	9.02	8.06	8.56	7.67	8.68	10.39	9.99
15	10.32	9.89	9.56	8.00	8.67	9.10	8.12	8.59	7.54	8.93	10.59	9.88
20	10.30	9.61	9.63	8.14	8.78	8.90	8.27	8.70	7.68	9.38	10.69	9.63
25	10.31	9.52	9.59	8.25	8.92	8.19	8.36	8.79	7.89	9.75	10.64	9.55
ROM	10.35	9.48	9.47	8.21	9.00	8.00	8.41	8.86	8.08	10.08	10.55	9.57

WTR YR 1993 HIGH 7.52 JUN 14

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.35	10.29	9.54	8.83	8.43	9.11	8.07	8.51	9.05	8.29	10.35	10.30
10	10.31	10.15	9.53	8.00	8.56	9.09	8.10	8.57	7.91	8.79	10.43	10.01
15	10.33	9.98	9.62	8.02	8.68	9.15	8.16	8.63	7.58	9.03	10.60	9.90
20	10.31	9.65	9.68	8.20	8.79	8.91	8.35	8.71	7.72	9.48	10.70	9.67
25	10.32	9.54	9.66	8.27	8.94	8.30	8.40	8.82	7.93	9.76	10.66	9.57
ROM	10.36	9.49	9.55	8.30	9.01	8.03	8.44	8.94	8.12	10.16	10.56	9.60

WTR YR 1993 LOW 10.70 AUG 19

ELKHART COUNTY

414419085595801. Local number, EH 9.

LOCATION.--Lat 41°44'19", long 85°59'58", in NE¹/₄ NW¹/₄ NW¹/₄ sec.19, T.38 N., R.5 E., Elkhart County, Hydrologic Unit 04050001, on the west side of Iris Avenue, about 6 mi northwest of Elkhart.

Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in, depth 33.8 ft, cased to 28.8 ft with 5 ft stainless steel screen.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 785.27 ft above sea level. Measuring point: Top of casing, 2.80 ft above land-surface datum.

PERIOD OF RECORD.--July 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.09 ft below land-surface datum, Jan. 16, 1991; lowest, 20.89 ft below land-surface datum, Aug. 25, 1992.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.93	19.90	19.44	19.13	18.58	19.09	18.77	19.60	19.62	18.51	19.96	19.63
10	19.86	19.82	19.45	18.82	18.67	19.14	18.77	19.76	18.89	18.99	20.04	19.66
15	19.73	19.78	19.20	18.47	18.72	19.05	18.69	19.60	18.51	19.09	20.09	19.46
20	19.68	19.80	19.18	18.51	19.00	19.13	18.84	19.73	18.44	19.31	19.89	19.50
25	19.84	19.57	19.14	18.45	19.01	19.02	19.15	19.60	18.45	19.58	19.99	19.79
ROM	19.84	19.32	19.31	18.43	19.07	18.90	19.48	19.49	18.37	19.94	19.78	19.74

WTR YR 1993 HIGH 18.26 JUN 22

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.06	19.97	19.56	19.17	18.72	19.23	18.86	19.70	19.69	18.55	20.07	19.69
10	19.92	20.00	19.54	18.88	18.84	19.26	18.87	19.85	19.01	19.03	20.11	19.73
15	19.78	19.94	19.27	18.51	18.82	19.13	18.75	19.75	18.56	19.14	20.19	19.56
20	19.74	19.86	19.32	18.60	19.06	19.25	19.03	19.83	18.54	19.37	20.09	19.64
25	19.93	19.65	19.19	18.54	19.07	19.10	19.28	19.71	18.52	19.60	20.07	19.96
ROM	19.94	19.45	19.39	18.53	19.14	18.93	19.58	19.56	18.40	20.00	19.83	19.83

WTR YR 1993 LOW 20.20 AUG 18

GROUND-WATER DATA

303

FOUNTAIN COUNTY

401200087121701. Local number, FO 3.

LOCATION.--Lat 40°12'00", long 87°12'17", in NW¹/₄, NW¹/₄, NW¹/₄, sec.10, T.20 N., R.7 W., Fountain County, Hydrologic Unit 05120108, on the southwest corner of the Union Church property on County Road 520 North, about 6.5 mi southeast of Attica.

Owner: U.S. Geological Survey.

AQUIFER.--Shale and sandstone of the Mississippian Period.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 102 ft, cased to 22 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 670.99 ft above sea level. Measuring point: Top of casing, 3.60 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.02 ft below land-surface datum, Mar. 11, 1990; lowest, 13.53 ft below land-surface datum, Dec. 21, 22, 25-27, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	10.04	7.97	5.29	6.55	5.00	5.53	4.93	7.49	6.65	7.49	7.59
10	10.86	10.10	8.06	5.94	6.83	4.62	5.75	5.72	7.80	6.57	7.86	7.98
15	10.97	8.03	7.97	6.21	6.79	5.58	4.59	6.30	8.02	6.08	7.17	7.00
20	10.96	8.18	7.90	6.43	7.08	5.83	4.70	6.83	8.04	6.05	6.86	7.30
25	11.08	7.45	7.93	5.21	7.09	5.11	3.73	7.22	8.22	6.21	7.36	7.12
DOM	11.20	7.64	7.38	5.86	7.33	5.07	4.49	7.50	7.16	7.09	7.77	6.84

WTR YR 1993 HIGH 3.73 APR 25

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	10.07	8.03	5.35	6.59	5.07	5.62	5.10	7.63	6.82	7.54	7.71
10	10.90	10.16	8.22	6.13	6.86	4.88	5.84	5.87	7.87	7.02	7.92	8.09
15	10.99	8.12	8.37	6.25	6.86	5.67	5.17	6.46	8.08	6.17	7.26	7.07
20	10.99	8.24	7.95	6.76	7.13	5.88	4.92	6.93	8.29	6.22	6.97	7.35
25	11.09	7.54	8.12	5.37	7.19	5.17	5.40	7.31	8.29	6.34	7.47	7.63
DOM	11.21	7.66	7.57	6.03	7.37	5.64	4.66	7.63	7.74	7.17	7.88	6.90

WTR YR 1993 LOW 11.21 OCT 31

FRANKLIN COUNTY

392416085004301. Local number, FR 5.

LOCATION.--Lat 39°24'16", long 85°00'43", in SE¹/₄, NE¹/₄, NW¹/₄, sec.32, T.9 N., R.2 W., Franklin County, Hydrologic Unit 05080003, adjacent to property of Franklin County Conservation Club, 1.0 mi south of Brookville.

Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 61 ft, cased to 57 ft, screened to 59 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 621.79 ft above sea level. Measuring point: Top of floor of shelter, 2.70 ft above land-surface datum.

PERIOD OF RECORD.--March 1968 to October 1971, September 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.95 ft below land-surface datum, May 24, 1968; lowest, 27.32 ft below land-surface datum, Feb. 1, 1977.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	26.37	25.54	24.72	24.04	24.83	22.79	24.42	24.22	25.07	23.84	25.90	26.02
10	26.39	25.56	25.22	23.88	25.09	22.43	23.63	24.64	24.84	24.19	26.06	26.17
15	26.41	24.26	25.48	24.12	25.16	23.26	23.31	23.55	23.54	24.54	26.06	26.21
20	26.12	24.40	25.65	24.57	25.28	23.93	22.89	24.22	23.77	24.90	26.17	26.31
25	25.95	23.74	25.72	23.92	24.70	23.86	23.41	24.69	23.86	25.27	26.22	26.38
DOM	25.80	23.99	25.72	24.38	24.66	24.46	23.57	25.03	23.59	25.66	26.33	26.23

WTR YR 1993 HIGH 22.43 MAR 10

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	26.39	25.58	24.86	25.19	24.89	23.10	24.50	24.32	25.18	23.96	25.93	26.03
10	26.41	25.64	25.28	23.90	25.13	22.50	24.68	24.70	25.07	24.37	26.09	26.20
15	26.42	24.29	25.52	24.16	25.18	23.46	23.62	23.60	24.25	24.63	26.11	26.24
20	26.15	24.42	25.67	24.69	25.29	24.03	23.13	24.34	23.94	24.95	26.19	26.32
25	26.00	23.79	25.75	24.04	24.77	23.96	23.83	24.76	24.04	25.35	26.26	26.41
DOM	25.82	24.03	25.75	24.51	24.67	24.52	23.73	25.07	23.73	25.71	26.35	26.23

WTR YR 1993 LOW 26.42 OCT 8

GROUND-WATER DATA

FULTON COUNTY

405829086175801. Local number, FU 7.

LOCATION.--Lat 40°58'29", long 86°17'58", in NW¹/₄NW¹/₄SW¹/₄ sec.10, T.29 N., R.2 E., Fulton County, Hydrologic Unit 05120106, 2.5 mi northwest of Fulton.
 Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 102 ft, cased to 96 ft, screened to 102 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 776.45 ft above sea level. Measuring point: Top of floor of shelter, 2.50 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.35 ft below land-surface datum, Apr. 23-27, 1973; lowest, 13.21 ft below land-surface datum, Oct. 13, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.23	9.52	8.65	7.28	7.88	8.82	7.53	7.78	8.85	8.50	9.99	10.60
10	10.28	9.40	8.75	7.13	8.14	8.19	7.64	8.08	8.53	8.69	10.21	10.34
15	10.39	8.51	8.90	7.35	8.40	8.10	7.85	8.31	8.52	8.84	10.43	10.32
20	10.20	8.49	8.79	7.71	8.61	8.21	7.91	8.63	8.74	8.95	10.54	10.06
25	10.24	8.30	8.86	7.03	8.85	7.84	7.80	8.89	8.91	9.16	10.61	9.99
BOM	10.36	8.42	8.65	7.35	8.94	7.72	7.64	8.96	8.81	9.51	10.73	9.89

WTR YR 1993 HIGH 6.99 JAN 24

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.28	9.59	8.75	7.54	7.90	8.86	7.54	7.86	8.90	8.52	10.03	10.60
10	10.31	9.48	8.82	7.20	8.21	8.33	7.72	8.15	8.57	8.73	10.21	10.41
15	10.43	8.54	9.04	7.38	8.46	8.12	7.91	8.40	8.61	8.86	10.52	10.35
20	10.26	8.51	8.85	7.74	8.62	8.25	7.93	8.71	8.76	9.02	10.57	10.09
25	10.25	8.37	8.94	7.07	8.86	7.89	7.95	8.97	8.95	9.20	10.65	10.14
BOM	10.39	8.43	8.85	7.41	8.97	7.85	7.67	8.98	8.86	9.56	10.75	9.94

WTR YR 1993 LOW 10.75 AUG 29

GRANT COUNTY

402322085481901. Local number, GT 8.

LOCATION.--Lat 40°23'22", long 85°48'19", in NW¹/₄SW¹/₄NW¹/₄ sec.1, T.22 N., R.6 E., Grant County, Hydrologic Unit 05120107, located on County Road 700 West right-of-way, and 1.0 mi northwest of Rigdon.
 Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 35 ft, cased to 20 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 880 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 3.10 ft above land-surface datum.

PERIOD OF RECORD.--October 1966 to October 1971, July 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.16 ft below land-surface datum, Mar. 21, 1984; lowest, 10.66 ft below land-surface datum, Oct. 29, 1966.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.02	2.25	---	---	3.46	1.90	2.48	2.55	3.43	2.36	4.56	4.84
10	3.89	2.78	---	2.63	3.71	1.38	2.19	3.02	3.72	3.15	4.75	5.03
15	4.09	---	---	2.82	3.74	2.65	1.67	3.38	3.28	2.43	4.91	5.17
20	3.48	---	---	3.29	3.68	2.68	2.17	3.78	3.37	3.29	4.30	5.11
25	3.80	---	---	2.15	3.52	1.85	2.08	3.20	3.53	3.68	4.60	4.86
BOM	4.19	---	---	3.07	3.70	2.21	2.69	3.38	3.82	4.21	5.05	4.67

WTR YR 1993 HIGH 1.18 NOV 12

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.23	2.45	---	---	3.55	1.99	2.62	2.72	3.80	2.79	4.79	4.98
10	4.08	2.99	---	2.84	3.74	1.54	2.48	3.10	4.08	3.72	4.89	5.49
15	4.19	---	---	2.85	3.86	2.78	1.91	3.52	3.42	2.65	5.22	5.29
20	3.56	---	---	3.47	3.75	2.71	2.26	3.99	3.88	3.57	4.96	5.19
25	3.99	---	---	2.38	3.68	2.05	2.82	3.44	3.75	3.75	4.97	5.55
BOM	4.34	---	---	3.21	3.75	2.78	2.84	3.62	4.22	4.55	5.39	4.81

WTR YR 1993 LOW 5.59 SEP 13

GROUND-WATER DATA

305

GRANT COUNTY

403836085374401. Local number, GT 10.

LOCATION.--Lat 40°38'36", long 85°37'44", in NE¹/₄SE¹/₄SW¹/₄ sec.4, T.25 N., R.8 E., Grant County, Hydrologic Unit 05120103, 0.20 mi north of intersection of State Highway 9 and County Road 600 North on west side of road.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 198 ft, cased to 193 ft, screened to 198 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 912.16 ft above sea level. Measuring point: Top of casing, 3.16 ft above land-surface datum.

PERIOD OF RECORD.--August 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 107.39 ft below land-surface datum, Apr. 6, 1988; lowest, 120.87 ft below land-surface datum, June 29, 1989.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	116.56	119.40	116.64	117.96	118.88	117.56	117.75	118.42	116.32	116.58	119.30	117.87
10	116.30	117.60	118.72	116.63	116.86	116.73	117.34	117.58	118.72	119.33	119.08	---
15	117.54	116.90	116.77	116.47	116.72	116.88	116.63	118.82	119.48	116.98	117.48	---
20	116.86	116.57	116.84	118.46	118.84	119.08	118.25	116.77	119.14	116.22	117.13	---
25	116.75	118.13	116.79	117.73	116.84	119.83	119.48	116.81	118.33	118.80	119.43	---
DOM	117.65	116.67	118.33	115.86	116.61	117.18	117.48	116.15	118.69	117.01	---	---

WTR YR 1993 HIGH 115.86 JAN 31

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	116.63	119.65	116.87	118.79	118.94	118.69	118.87	119.63	116.56	116.91	119.51	118.05
10	116.35	118.82	118.96	116.68	117.04	117.18	117.67	118.87	119.26	119.51	119.67	---
15	118.57	116.97	117.48	116.53	116.85	117.11	117.22	118.96	119.58	117.22	117.83	---
20	117.24	117.02	117.18	118.59	118.95	119.44	119.08	116.85	119.29	116.60	118.45	---
25	116.86	118.53	117.17	119.30	117.29	119.96	119.83	116.98	119.69	119.15	119.79	---
DOM	118.95	118.05	118.98	116.26	116.77	118.61	117.62	116.34	119.09	117.14	---	---

WTR YR 1993 LOW 120.18 APR 27

HAMILTON COUNTY

400000086023001. Local number, HA 5.

LOCATION.--Lat 40°00'00", long 86°02'30", in NE¹/₄NE¹/₄NW¹/₄ sec.23, T.18 N., R.4 E., Hamilton County, Hydrologic Unit 05120201, on south side of 146th Street, 1.0 mi west of White River, 1.2 mi west of Allisonville Road, and 3.5 mi southwest of Noblesville.
Owner: Earlham College.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 86 ft, cased to 82 ft, screened to 86 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 757.69 ft (revised) above sea level. Measuring point: Top of floor of shelter, 2.76 ft above land-surface datum.

PERIOD OF RECORD.--July 1965 to September 1971, July 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.39 ft below land-surface datum, Dec. 31, 1991; lowest, 11.99 ft below land-surface datum, Oct. 30-Nov. 4, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.57	9.59	9.16	9.00	9.42	9.19	9.41	9.13	9.64	9.59	10.00	9.94
10	10.45	9.65	9.34	8.95	9.53	8.86	9.22	9.30	9.73	9.75	10.08	10.07
15	10.35	8.60	9.45	9.09	9.62	9.13	8.69	9.42	9.82	9.53	9.99	10.06
20	10.15	8.98	9.56	9.27	9.72	9.25	8.68	9.56	9.89	9.57	10.01	10.14
25	10.21	8.62	9.67	9.03	9.70	9.17	9.00	9.54	9.97	9.68	10.04	10.07
DOM	10.30	8.92	9.66	9.23	9.75	9.27	9.22	9.70	9.96	9.87	10.17	9.93

WTR YR 1993 HIGH 8.59 NOV 14

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.59	9.60	9.22	9.27	9.43	9.31	9.43	9.23	9.66	9.62	10.01	9.96
10	10.47	9.71	9.36	9.01	9.55	8.91	9.28	9.32	9.76	9.78	10.10	10.11
15	10.49	8.68	9.46	9.13	9.64	9.16	8.90	9.46	9.84	9.55	10.03	10.17
20	10.16	9.02	9.59	9.33	9.73	9.27	8.76	9.60	9.93	9.62	10.07	10.16
25	10.22	8.66	9.71	9.06	9.71	9.19	9.04	9.58	9.98	9.76	10.13	10.22
DOM	10.31	8.96	9.68	9.26	9.76	9.34	9.25	9.72	9.99	9.89	10.18	9.94

WTR YR 1993 LOW 10.60 OCT 6

GROUND-WATER DATA

HARRISON COUNTY

382323086044501. Local number, HR 8.

LOCATION.--Lat 38°23'23", long 86°04'45", in NW¹/₄/NW¹/₄/NE¹/₄ sec.33, T.1 S., R.4 E., Harrison County, Hydrologic Unit 05140104, on Harrison County right-of-way, 2.0 mi southeast of Palmyra.
 Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Mississippian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 93 ft, cased to 54 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 827 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 3.10 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.56 ft below land-surface datum, June 7, 1990; lowest, 20.29 ft below land-surface datum, Dec. 17, 1992.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.38	20.10	20.24	17.80	7.94	1.94	3.00	2.52	7.51	10.21	14.10	15.53
10	19.56	20.22	20.24	16.35	8.67	2.63	4.05	4.21	7.34	10.99	14.58	15.52
15	19.73	20.23	20.24	14.77	8.05	4.31	1.90	5.30	6.18	11.63	15.03	15.80
20	19.84	20.23	20.24	14.39	6.59	4.34	3.10	5.66	6.89	12.28	15.14	16.13
25	19.94	20.17	20.17	8.57	3.91	2.92	3.48	6.61	8.25	12.91	15.42	16.46
ROM	20.04	20.18	20.02	7.15	4.82	2.34	3.74	7.83	9.29	13.59	15.87	16.84

WTR YR 1993 HIGH 1.86 APR 16

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.42	20.13	20.24	19.19	8.00	2.30	3.32	2.87	8.12	10.38	14.18	15.61
10	19.59	20.23	20.24	16.56	8.83	3.15	4.16	4.48	7.43	11.12	14.66	15.58
15	19.74	20.24	20.24	14.98	8.28	4.43	2.68	5.59	6.66	11.76	15.12	15.88
20	19.87	20.24	20.27	14.49	6.77	4.44	3.68	5.79	7.15	12.41	15.19	16.20
25	19.95	20.17	20.21	9.45	4.02	3.06	4.56	6.90	8.47	13.03	15.49	16.52
ROM	20.07	20.19	20.06	7.31	5.00	3.77	4.01	8.10	9.47	13.69	15.95	16.90

WTR YR 1993 LOW 20.29 DEC 17

HENDRICKS COUNTY

394025086400801. Local number, HD 4.

LOCATION.--Lat 39°40'25", long 86°40'08", in NW¹/₄/NW¹/₄/NW¹/₄ sec.8, T.14 N., R.2 W., Hendricks County, Hydrologic Unit 05120203, at the intersection of State Highway 75 and County Road 600 South on county right-of-way, and 1.0 mi south of Coatesville.
 Owner: U.S. Geological Survey.

AQUIFER.--Sandstone of Mississippian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 85 ft, cased to 70 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 860 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 1.92 ft above land-surface datum.

REMARKS.--Water level affected by pumpage.

PERIOD OF RECORD.--October 1966 to September 1971, November 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.65 ft below land-surface datum, Jan. 30, 1976; lowest, 29.02 ft below land-surface datum, Nov. 30, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.47	22.39	20.93	20.62	21.20	20.66	20.54	21.06	21.77	21.62	22.31	21.54
10	23.54	21.91	21.09	20.71	21.46	20.38	20.60	20.94	21.38	21.83	22.54	21.61
15	23.73	20.93	21.33	20.65	21.43	20.53	20.33	21.10	21.10	22.08	22.48	21.92
20	23.57	20.79	21.39	20.92	21.39	20.73	20.20	21.24	21.39	21.85	21.90	21.94
25	23.44	20.51	21.52	20.66	21.03	20.60	20.50	21.67	21.40	21.90	21.75	21.76
ROM	23.48	20.64	21.49	20.72	21.06	20.64	21.09	21.69	21.75	22.35	21.77	21.13

WTR YR 1993 HIGH 20.20 APR 20

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.58	22.55	21.14	20.90	21.27	20.76	20.69	21.30	21.91	21.87	22.35	21.62
10	23.61	22.01	21.17	20.97	21.58	20.53	20.70	21.04	21.46	21.88	22.71	21.78
15	23.84	21.03	21.47	20.71	21.53	20.61	20.43	21.23	21.23	22.18	22.56	22.07
20	23.73	20.96	21.51	20.99	21.53	20.77	20.33	21.39	21.76	21.97	22.03	22.08
25	23.51	20.66	21.61	20.73	21.19	20.69	20.77	21.95	21.59	22.00	21.90	22.01
ROM	23.53	20.76	21.64	20.81	21.10	20.83	21.23	21.77	21.89	22.47	21.86	21.23

WTR YR 1993 LOW 23.91 OCT 17

GROUND-WATER DATA

307

HUNTINGTON COUNTY

404858085284301. Local number, HU 2.

LOCATION.--Lat 40°48'58", long 85°28'43", in SW¹/₄SW¹/₄SE¹/₄ sec. 2, T.2N., R.9E., Huntington County, Hydrologic Unit 05120101, on the property of Luther Fusselman, 3.0 mi south of Huntington and 0.5 mi west of State Highway 5.

AQUIFER.--Sand and gravel of the Pleistocene Epoch.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 148 ft, cased to 143 ft, screened to 148 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 819.70 ft above sea level. Measuring point: Top of casing, 3.30 ft above land-surface datum.

PERIOD OF RECORD.--August 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 65.46 ft below land-surface datum, Dec. 24, 1988; lowest, 72.13 ft below land-surface datum, Jan. 1, 1993.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	71.21	71.06	71.37	71.24	---	---	---	---	---	---	---	71.26
10	70.80	71.10	70.89	---	---	---	---	---	---	71.29	---	70.81
15	70.97	71.45	71.01	---	---	---	---	---	---	71.18	---	70.83
20	71.11	70.98	71.34	---	---	---	---	---	---	70.97	---	70.70
25	71.06	71.03	71.33	---	---	---	---	---	---	70.82	---	70.26
EOM	71.24	71.15	71.38	---	---	---	---	---	---	70.89	---	70.69

WTR YR 1993 HIGH 70.26 SEP 25

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	71.38	71.17	71.69	71.71	---	---	---	---	---	---	---	71.27
10	70.91	71.47	71.14	---	---	---	---	---	---	71.44	---	71.14
15	71.11	71.63	71.57	---	---	---	---	---	---	71.29	---	71.15
20	71.42	71.45	71.76	---	---	---	---	---	---	71.07	---	70.90
25	71.21	71.24	71.69	---	---	---	---	---	---	70.93	---	70.78
EOM	71.34	71.29	71.86	---	---	---	---	---	---	71.03	---	71.02

WTR YR 1993 LOW 72.13 JAN 1

JASPER COUNTY

410249087011201. Local number, JP 4.

LOCATION.--Lat 41°02'49", long 87°01'12", in SW¹/₄NE¹/₄SW¹/₄ sec.17, T.30 N., R.5 W., Jasper County, Hydrologic Unit 07120002, on property of William Gehring, Inc., 0.9 mi east of Newland.
Owner: William Gehring, Inc.

AQUIFER.--Limestone of Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 16 in., depth 300 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 676.93 ft above sea level. Measuring point: Top of floor of shelter, 0.00 ft above land-surface datum.

REMARKS.--Water level may be affected by irrigation pumpage.

PERIOD OF RECORD.--July 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.95 ft below land-surface datum, Apr. 9, 1962; lowest, 40.17 ft below land-surface datum, July 25, 1980.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.22	3.45	2.81	2.30	1.92	2.24	1.90	2.01	2.53	2.07	3.92	3.83
10	3.89	3.27	2.38	2.08	2.03	2.11	1.84	2.15	2.46	2.24	7.71	3.56
15	3.82	3.15	2.39	1.96	2.20	2.24	1.66	2.12	2.37	2.28	5.88	3.36
20	3.71	2.71	2.65	1.96	2.25	2.27	1.73	2.38	2.28	2.34	4.81	2.91
25	3.67	2.59	2.46	2.06	2.08	2.20	1.89	2.52	2.43	2.41	4.40	2.60
EOM	3.77	2.62	2.48	1.71	2.15	1.81	2.00	2.40	2.32	3.37	4.03	2.67

WTR YR 1993 HIGH 1.66 APR 15

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.33	3.59	2.94	2.45	2.19	2.45	2.10	2.22	2.79	2.22	4.13	3.89
10	4.04	3.50	2.71	2.25	2.11	2.35	1.99	2.22	2.56	2.34	7.99	3.71
15	3.99	3.23	2.69	2.01	2.25	2.31	1.86	2.32	2.51	2.43	6.30	3.52
20	3.88	2.96	2.87	2.28	2.30	2.40	2.09	2.52	2.44	2.48	4.95	3.07
25	3.88	2.87	2.79	2.17	2.09	2.33	2.11	2.73	2.51	2.49	4.53	2.87
EOM	3.84	2.71	2.76	1.85	2.15	1.99	2.09	2.67	2.43	3.56	4.17	2.95

WTR YR 1993 LOW 7.99 AUG 10

GROUND-WATER DATA

JASPER COUNTY

410809087580801. Local number, JP 7.

LOCATION.--Lat 41°08'09", long 86°58'08", in SE¹/₄SE¹/₄NE¹/₄, sec.15, T.31 N., R.5 W., Jasper County, Hydrologic Unit 07120002, in northwest corner of intersection of County Roads 850 North and 400 East, 4.0 mi south of Tefft.
 Owner: U.S. Geological Survey.

AQUIFER.--Dolomite of Middle Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 130 ft, cased to 94 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 699.38 ft above sea level. Measuring point: Top of floor of shelter, 2.75 ft above land-surface datum.

REMARKS.--Water level affected by pumpage.

PERIOD OF RECORD.--May 1967 to current year. (Semi-annual tape-down readings only September 1971 to May 1978.)

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.04 ft below land-surface datum, Apr. 5, 1985; lowest, 18.15 ft below land-surface datum, Aug. 30, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.63	8.18	8.00	7.53	7.38	7.23	7.15	7.12	7.27	7.12	9.33	8.44
10	8.30	8.16	7.47	7.59	7.43	7.12	7.00	7.26	7.25	7.31	11.05	8.08
15	8.31	8.17	7.45	7.47	7.50	7.37	6.74	7.06	7.31	7.37	10.18	7.98
20	8.33	7.81	7.80	7.47	7.27	7.38	6.82	7.30	7.26	7.36	9.60	7.69
25	8.31	7.66	7.64	7.57	7.50	7.30	7.00	7.40	7.36	7.35	9.31	7.40
BOM	8.46	7.76	7.59	7.15	7.55	6.83	7.12	7.15	7.22	7.61	8.81	7.61

WTR YR 1993 HIGH 6.74 APR 15

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.76	8.37	8.15	7.78	7.73	7.49	7.37	7.37	7.57	7.28	9.58	8.51
10	8.45	8.41	7.84	7.75	7.51	7.40	7.19	7.33	7.39	7.45	11.19	8.28
15	8.49	8.24	7.85	7.54	7.58	7.54	7.00	7.28	7.48	7.55	10.45	8.19
20	8.54	8.09	8.08	7.86	7.48	7.52	7.26	7.46	7.45	7.55	9.73	7.88
25	8.55	7.99	8.04	7.66	7.77	7.46	7.27	7.66	7.43	7.46	9.44	7.75
BOM	8.53	7.88	7.94	7.32	7.68	7.06	7.27	7.44	7.37	7.77	8.98	7.93

WTR YR 1993 LOW 11.19 AUG 10

JASPER COUNTY

410535087035801. Local number, JP 8.

LOCATION.--Lat 41°05'35", long 87°03'58", in NE¹/₄NE¹/₄SE¹/₄, sec.35, T.31 N., R.6 W., Jasper County, Hydrologic Unit 07120002, 1.7 mi north of Gifford.
 Owner: William Gehring, Inc.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 12 in., depth 310 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 686 ft above sea level, from topographic map. Measuring point: Lower lip of 2 in. tapedown pipe, 2.10 ft above land-surface datum.

REMARKS.--Water level may be affected by irrigation pumpage.

PERIOD OF RECORD.--May 1978 to current year. Record prior to October 1, 1978 available in District files.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.52 ft below land-surface datum, Jan. 1, 1991; lowest, 25.11 ft below land-surface datum, July 26, 1980.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.39	11.00	10.26	9.74	9.76	9.99	9.23	9.53	10.00	9.19	10.55	10.77
10	11.24	10.92	10.15	9.59	9.85	9.79	9.32	9.71	9.56	9.46	11.07	10.59
15	11.25	10.60	10.21	9.56	9.94	9.76	9.33	9.78	9.56	9.59	11.25	9.98
20	11.27	10.40	10.23	9.69	9.99	9.77	9.29	10.00	9.64	9.73	11.21	9.71
25	11.29	10.18	10.22	9.51	10.12	9.55	9.38	10.12	9.83	9.92	11.24	9.68
BOM	11.36	10.18	10.18	9.52	10.21	9.30	9.48	10.01	9.47	10.32	11.19	9.72

WTR YR 1993 HIGH 9.17 JUL 3

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.43	11.04	10.33	9.82	9.84	10.05	9.27	9.61	10.08	9.24	10.59	10.80
10	11.28	11.02	10.25	9.64	9.89	9.89	9.40	9.76	9.59	9.53	11.10	10.65
15	11.31	10.62	10.38	9.60	9.97	9.81	9.45	9.86	9.63	9.63	11.32	10.17
20	11.34	10.50	10.31	9.79	10.04	9.83	9.40	10.05	9.69	9.81	11.26	9.77
25	11.36	10.29	10.36	9.55	10.19	9.59	9.46	10.20	9.88	10.00	11.35	9.82
BOM	11.37	10.21	10.22	9.58	10.24	9.49	9.53	10.06	9.58	10.39	11.25	9.82

WTR YR 1993 LOW 11.47 OCT 1

GROUND-WATER DATA

309

JASPER COUNTY

410713087063201. Local number, JP 9.

LOCATION.--Lat 41°07'13", long 87°06'32", in NE¹/₄, SW¹/₄, SE¹/₄, sec.21, T.31 N., R.6 W., Jasper County, Hydrologic Unit 07120002, 4.4 mi northwest of Gifford.
 Owner: William Gehring, Inc.

AQUIFER.--Silurian limestone.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 18 in., depth 260 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 685 ft above sea level, from topographic map. Measuring point:
 Lower lip of 2 in. tapedown pipe, 2.10 ft above land-surface datum.

REMARKS.--Water level may be affected by irrigation pumpage.

PERIOD OF RECORD.--July 1978 to current year. Record prior to October 1, 1978 available in District files.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.03 ft below land-surface datum, Mar. 27, 1991; lowest,
 32.05 ft below land-surface datum, Aug. 5, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.58	6.29	5.51	5.04	4.91	4.96	4.45	4.26	4.88	4.13	7.65	6.42
10	6.46	6.20	5.38	4.97	4.92	4.87	4.32	4.48	4.68	4.29	13.36	5.95
15	6.49	5.91	5.39	4.80	4.94	4.91	4.20	4.52	---	4.55	9.91	5.60
20	6.57	5.70	5.45	4.90	5.01	4.90	4.17	4.79	---	6.30	8.39	5.20
25	6.54	5.47	5.48	4.66	5.20	4.67	4.19	4.89	4.60	8.08	7.68	5.01
BOM	6.57	5.46	5.36	4.67	5.28	4.33	4.29	4.89	4.34	7.69	7.10	5.07

WTR YR 1993 HIGH 4.13 JUL 4

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.66	6.31	5.62	5.08	4.97	4.99	4.50	4.35	4.96	4.16	11.12	6.48
10	6.47	6.29	5.50	4.98	4.92	4.98	4.36	4.50	4.71	4.35	15.42	6.00
15	6.52	5.94	5.61	4.81	5.00	4.93	4.41	4.60	---	5.28	10.29	5.62
20	6.67	5.84	5.54	5.01	5.06	4.93	4.26	4.83	---	6.72	8.55	5.30
25	6.56	5.55	5.59	4.77	5.22	4.68	4.28	5.03	4.69	9.34	7.74	5.22
BOM	6.60	5.50	5.42	4.79	5.28	4.56	4.30	4.92	4.42	8.34	7.16	5.12

WTR YR 1993 LOW 17.53 AUG 9

JASPER COUNTY

410322087163101. Local number, JP 11.

LOCATION.--Lat 41°03'22", long 87°16'31", in NW¹/₄, NW¹/₄, NW¹/₄, sec.18, T.30 N., R.7 W., Jasper County, Hydrologic Unit 07120002, on Prudential Life Insurance Company of America property, 3.2 mi north of State Highway 14, and 1.5 mi southwest of Fair Oaks.
 Owner: Prudential Insurance Company of America.

AQUIFER.--Limestone of Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 16 in., depth 630 ft, cased to 63 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 680 ft above sea level, from topographic map Measuring point:
 Top of floor of shelter, 3.50 ft above land-surface datum.

REMARKS.--Water level may be affected by irrigation pumpage.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.04 ft above land-surface datum, Apr. 3, 1982; lowest,
 52.19 ft below land-surface datum, July 9, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.53	5.50	3.98	2.92	2.43	2.28	1.49	1.33	2.56	1.37	25.24	9.77
10	7.64	5.18	3.66	2.73	3.15	2.02	1.43	1.51	2.18	1.57	32.50	8.12
15	7.40	4.80	3.53	2.55	2.84	2.05	1.38	1.72	2.00	1.66	39.81	6.86
20	6.84	4.35	3.55	2.56	2.56	2.05	1.30	2.37	1.82	1.75	23.86	5.80
25	6.42	4.02	3.46	2.38	2.65	1.82	1.30	4.88	1.98	2.07	17.63	5.15
BOM	6.14	3.93	3.25	2.24	2.65	1.46	1.39	3.03	1.60	11.53	13.15	4.80

WTR YR 1993 HIGH 1.28 APR 24

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.67	5.59	4.04	2.97	2.55	2.33	1.58	1.43	2.65	1.40	30.08	10.23
10	7.77	5.34	3.78	2.76	3.26	2.17	1.52	1.52	2.18	1.63	37.81	8.22
15	7.66	4.82	3.76	2.58	2.90	2.11	1.55	1.85	2.04	1.71	41.60	6.98
20	7.01	4.54	3.64	2.73	2.68	2.08	1.45	3.49	1.90	1.82	29.10	5.97
25	6.55	4.18	3.58	2.42	2.76	1.85	1.41	5.57	2.02	2.26	17.82	5.44
BOM	6.19	3.99	3.36	2.32	2.72	1.66	1.41	3.10	1.72	13.07	14.08	4.98

WTR YR 1993 LOW 43.69 AUG 14

GROUND-WATER DATA

JASPER COUNTY

410145087130401. Local number, JP 12.

LOCATION.--Lat 41°01'45", long 87°13'04", in NW¹/₄SW¹/₄ sec.22, T.30 N., R.7 W., Jasper County, Hydrologic Unit 07120002, in Old Union Township school yard, 200 ft east of County Road 900 West, 750 ft north of State Highway 14, and in Parr.
 Owner: Prudential Insurance Company of America.

AQUIFER.--Limestone/dolomite of Silurian/Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 5 in., depth 150 ft, cased to 103 ft, open end.

INSTRUMENTATION.--Water-level recorder, data-collection platform, and incremental encoder.

DATUM.--Elevation of land-surface datum is 695 ft above sea level, from topographic map. Measuring point: Top of well casing, 2.6 ft above land-surface datum.

REMARKS.--Water level may be affected by irrigation pumpage.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.08 ft below land-surface datum, May 22, 1983; lowest, 53.41 ft below land-surface datum, Aug. 18, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	24.05	20.45	18.50	17.30	16.47	16.38	15.74	15.34	16.49	15.77	21.49	20.59
10	22.99	20.06	18.00	17.18	18.76	16.27	15.62	15.52	16.33	15.76	---	24.80
15	22.30	19.77	17.80	17.00	17.34	16.30	15.30	15.43	16.30	15.76	---	23.21
20	21.80	19.21	17.89	16.79	16.78	16.22	15.32	15.70	16.17	15.75	34.87	21.93
25	21.38	18.77	17.73	16.77	16.73	16.07	15.39	16.45	16.25	15.84	32.28	20.87
DOM	20.97	18.61	17.49	16.44	16.72	15.60	15.43	16.45	15.91	16.88	30.76	20.40

WTR YR 1993 HIGH 15.30 APR 15

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	24.27	20.67	18.68	17.52	16.71	16.57	15.90	15.59	16.74	15.98	23.17	28.59
10	23.18	20.29	18.23	17.32	19.78	16.47	15.91	15.76	16.50	15.92	---	24.94
15	22.51	19.89	18.07	17.04	17.55	16.42	15.51	15.75	16.62	16.10	---	23.36
20	22.00	19.44	17.99	16.99	16.97	16.33	15.72	16.23	16.44	16.09	36.67	22.30
25	21.55	19.05	17.97	16.85	16.93	16.19	15.67	16.90	16.49	16.28	35.26	21.27
DOM	21.05	18.71	17.72	16.54	16.84	15.85	15.72	16.74	16.10	17.44	35.75	20.70

WTR YR 1993 LOW 36.67 AUG 20

JASPER COUNTY

405902087141501. Local number, JP 13.

LOCATION.--Lat 40°59'02", long 87°14'15", in NW¹/₄NW¹/₄ sec.9, T.29 N., R.7 W., Jasper County, Hydrologic Unit 07120002, at southwest corner of North Newton school, and 4.6 mi northwest of Rensselaer.
 Owner: Prudential Insurance Company of America.

AQUIFER.--Dolomite of Silurian/Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 5 in., depth 150 ft, cased to 106 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 700 ft above sea level, from topographic map. Measuring point: Top of well casing, 3.4 ft above land-surface datum.

REMARKS.--Water level may be affected by irrigation pumpage.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 20.98 ft below land-surface datum, Apr. 3, 1982; lowest, 55.85 ft below land-surface datum, Aug. 19, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	32.80	29.19	27.16	25.75	24.80	24.55	24.00	23.52	24.29	23.82	27.85	35.34
10	31.87	28.80	26.53	25.67	24.80	24.43	23.84	23.58	24.22	23.88	32.05	33.94
15	31.18	28.51	26.26	25.39	25.10	24.53	23.53	23.49	24.26	23.87	37.46	32.56
20	30.66	27.88	26.39	25.22	24.83	24.45	23.55	23.66	24.21	23.87	38.51	31.26
25	30.17	27.47	26.14	25.20	24.87	24.30	23.59	24.12	24.33	23.88	37.87	30.23
DOM	29.72	27.23	25.90	24.76	24.84	23.84	23.59	24.20	23.98	24.52	37.24	29.63

WTR YR 1993 HIGH 23.47 MAY 4

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	32.92	29.30	27.24	25.92	25.04	24.72	24.17	23.68	24.52	23.94	28.45	35.66
10	32.06	29.02	26.76	25.78	24.98	24.62	23.97	23.64	24.34	24.01	33.05	34.03
15	31.41	28.58	26.57	25.46	25.18	24.67	23.74	23.64	24.38	23.99	37.90	32.66
20	30.90	28.12	26.56	25.53	25.00	24.55	23.85	23.78	24.36	23.99	38.67	31.51
25	30.39	27.74	26.38	25.28	25.09	24.42	23.79	24.37	24.39	23.94	37.95	30.61
DOM	29.83	27.37	26.14	24.90	24.95	24.05	23.69	24.44	24.12	24.75	37.50	29.92

WTR YR 1993 LOW 38.69 AUG 21

GROUND-WATER DATA

311

410839087130301. Local number, JP 14.

JASPER COUNTY

LOCATION.--Lat 41°08'39", long 87°13'03", in NW¹/₄, NW¹/₄, NW¹/₄, sec.15, T.31 N., R.7 W., Jasper County, Hydrologic Unit 07120001, at the southeast corner of the intersection of State Highway 10 and County Road 900 West, about 3.5 mi southwest of Demotte.
Owner: U.S. Geological Survey

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 97.4 ft, cased to 56 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 690 ft above sea level, from topographic map. Measuring point: Top of casing, 3.40 ft above land-surface datum.

PERIOD OF RECORD.--July 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.31 ft below land-surface datum, July 2, 1993; lowest, 8.80 ft below land-surface datum, July 13, 1989.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.81	5.26	5.37	3.63	5.08	4.69	4.29	4.62	4.96	3.96	5.86	3.85
10	5.91	5.11	5.28	4.49	5.19	4.34	4.68	5.02	3.89	4.50	6.03	4.33
15	5.96	4.83	5.02	4.51	5.19	4.77	4.06	5.18	4.03	4.92	6.10	3.32
20	5.95	5.02	5.12	4.88	5.24	4.79	3.81	5.36	4.09	5.14	5.51	4.10
25	6.07	4.68	5.18	4.49	5.34	4.36	3.92	5.37	4.80	5.27	5.65	4.00
DOM	6.22	5.06	4.33	4.80	5.41	3.73	4.45	4.63	3.54	5.53	4.80	4.35

WTR YR 1993 HIGH 3.31 JUL 2

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.85	5.38	5.42	3.84	5.14	4.77	4.41	4.76	5.07	4.22	5.88	4.10
10	5.96	5.41	5.49	4.60	5.23	4.41	4.75	5.07	4.17	4.80	6.19	4.56
15	6.10	4.93	5.45	4.61	5.28	4.87	4.74	5.29	4.35	4.96	6.19	3.42
20	6.06	5.07	5.21	4.98	5.32	4.90	4.09	5.38	4.34	5.20	5.61	4.19
25	6.13	4.78	5.46	4.61	5.45	4.46	4.39	5.41	4.92	5.34	5.79	4.47
DOM	6.25	5.11	4.61	4.98	5.47	4.79	4.57	4.79	4.04	5.57	4.99	4.46

WTR YR 1993 LOW 6.25 OCT 31

JEFFERSON COUNTY

384949085251901. Local number, JF 5.

LOCATION.--Lat 38°49'49", long 85°25'19", in SE¹/₄, NW¹/₄, SW¹/₄, sec.33, T.5 N., R.10 E., Jefferson County, Hydrologic Unit 05120207, on Jefferson Proving Ground, 500 ft north of Airfield Road, 1,000 ft southwest of the water tower, and 2.2 mi west of main gate.
Owner: U.S. Army

AQUIFER.--Limestone, dolomite, and shale of Silurian and Ordovician age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 5 in., depth 200 ft, cased to 33 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 855 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 3.00 ft above land-surface datum.

REMARKS.--This well was drilled on a mapped fracture trace.

PERIOD OF RECORD.--March 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.97 ft below land-surface datum, Jan. 21, 1991; lowest, 9.22 ft below land-surface datum, Sept. 7, 16, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.68	5.90	4.75	3.99	3.84	3.99	4.32	4.67	5.43	5.83	6.57	5.85
10	5.67	5.93	4.28	3.95	4.02	3.96	4.22	4.88	5.54	5.87	6.79	5.56
15	5.84	5.84	4.23	3.85	4.06	4.36	4.19	4.85	5.55	5.91	6.69	5.28
20	5.83	5.37	4.29	3.84	3.90	4.34	4.32	4.95	5.66	5.94	6.33	5.67
25	5.78	4.99	4.18	3.90	3.99	4.30	4.46	5.06	5.80	6.07	6.18	5.50
DOM	5.88	4.78	4.12	3.61	4.18	4.13	4.53	5.15	5.92	6.35	6.00	5.58

WTR YR 1993 HIGH 3.58 JAN 24

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.83	6.02	4.85	4.20	4.06	4.26	4.39	4.96	5.76	5.97	6.66	5.94
10	5.79	6.09	4.44	4.04	4.07	4.13	4.48	4.98	5.60	5.93	6.86	5.69
15	5.96	5.89	4.40	3.96	4.25	4.38	4.37	4.96	5.67	6.04	6.88	5.83
20	5.98	5.57	4.50	4.05	4.04	4.39	4.48	5.07	5.82	6.10	6.46	5.77
25	5.91	5.23	4.37	4.00	4.28	4.36	4.64	5.25	5.88	6.17	6.28	5.74
DOM	5.95	4.91	4.29	3.80	4.23	4.29	4.64	5.40	6.01	6.51	6.12	5.80

WTR YR 1993 LOW 6.90 AUG 12

GROUND-WATER DATA

JENNINGS COUNTY

385601085365701. Local number, JN 3.

LOCATION.--Lat 38°56'01", long 85°36'57", in SE¹/₄/SW¹/₄/NE¹/₄, sec.27, T.6 N., R.8 E., Jennings County, Hydrologic Unit 05120207, 200 ft west of State Highway 3, 1.6 mi south of Crosley Fish and Game Office and 3.0 mi south of Vernon.

Owner: U.S. Geological Survey.

AQUIFER.--Limestones and dolomites of Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 180 ft, cased to 45 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 718 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--October 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 36.64 ft below land-surface datum, Jan. 21, 1979; lowest, 40.87 ft below land-surface datum, July 6, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											SEP
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	
5	39.60	39.51	39.07	38.65	38.84	38.37	38.58	38.67	39.02	38.83	39.96	---
10	39.53	39.57	38.78	38.75	38.88	38.43	38.49	38.90	39.11	39.12	40.01	---
15	39.63	39.24	38.81	38.69	38.84	38.87	38.27	38.61	39.18	39.49	39.91	---
20	39.61	39.07	38.95	38.80	38.68	38.82	38.39	38.66	39.20	39.53	39.45	---
25	39.46	38.81	39.03	38.69	38.69	38.62	38.63	38.87	39.42	39.67	39.59	---
DOM	39.50	38.91	38.86	38.54	38.90	38.40	38.62	38.95	39.33	39.85	39.57	---

WTR YR 1993 HIGH 38.27 APR 15

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											SEP
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	
5	39.74	39.59	39.24	38.80	39.00	38.55	38.68	38.80	39.21	38.90	40.03	---
10	39.61	39.66	38.93	38.83	38.94	38.58	38.61	38.92	39.19	39.20	40.05	---
15	39.68	39.31	39.03	38.74	39.03	38.93	38.47	38.67	39.23	39.54	39.97	---
20	39.73	39.22	39.17	39.01	38.83	38.86	38.58	38.71	39.25	39.61	39.49	---
25	39.51	38.94	39.17	38.74	38.94	38.68	38.74	39.04	39.45	39.69	39.66	---
DOM	39.55	39.01	39.03	38.74	38.95	38.57	38.65	39.12	39.39	39.91	39.63	---

WTR YR 1993 LOW 40.10 AUG 9

KNOX COUNTY

383247087361001. Local number, KN 7.

LOCATION.--Lat 38°32'47", long 87°36'10", in SE¹/₄/SE¹/₄/NW¹/₄, sec.2, T.1 N., R.11 W., Knox County, Hydrologic Unit 05120113, in the right-of-way of Sixth Street Road, 9.8 mi south of Vincennes.

Owner: Michael J. Kelley.

AQUIFER.--Sand and gravel Quaternary age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 43 ft, cased to 16 ft, slotted to 19 ft, open end.

INSTRUMENTATION.--Water-level recorder. Prior to April 1968, hand-taped monthly.

DATUM.--Elevation of land-surface datum is 405 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 2.42 ft above land-surface datum.

PERIOD OF RECORD.--November 1956 to December 1972, January 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.57 ft below land-surface datum, May 3, 1983; lowest, 11.35 ft below land-surface datum, Feb. 1-13, 1977.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											SEP
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	
5	10.22	10.10	9.32	7.21	8.91	7.20	8.81	6.28	9.05	9.27	9.67	10.19
10	10.26	10.01	9.15	8.13	8.88	7.89	7.72	7.29	9.16	9.43	9.87	10.14
15	10.24	8.91	9.33	8.32	9.04	8.37	4.90	7.76	8.78	9.56	9.98	10.22
20	10.11	9.10	9.31	8.65	9.24	8.55	6.18	8.01	9.01	9.13	10.02	9.89
25	10.15	9.09	9.13	8.25	8.32	8.62	7.21	8.48	9.34	9.33	10.00	9.27
DOM	10.17	9.15	8.88	8.56	8.75	8.77	7.77	8.79	9.37	9.33	10.16	9.45

WTR YR 1993 HIGH 4.87 APR 16

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											SEP
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	
5	10.24	10.12	9.36	7.54	8.94	7.30	8.86	6.42	9.12	9.32	9.70	10.20
10	10.26	10.03	9.24	8.17	8.97	8.06	8.07	7.41	9.19	9.47	9.90	10.17
15	10.28	8.98	9.39	8.36	9.12	8.42	5.75	7.88	8.82	9.59	9.99	10.23
20	10.12	9.14	9.36	8.69	9.28	8.60	6.50	8.11	9.09	9.14	10.03	9.98
25	10.16	9.14	9.27	8.27	8.40	8.64	7.44	8.57	9.38	9.35	10.04	9.52
DOM	10.17	9.17	9.03	8.62	8.82	8.83	7.84	8.88	9.43	9.39	10.18	9.47

WTR YR 1993 LOW 10.28 OCT 13

GROUND-WATER DATA

313

KNOX COUNTY

384951087202501. Local number, KN 8.

LOCATION.--Lat 38°49'51", long 87°20'25", in M.D. 240, T.5 N., R.8 W., Knox County, Hydrologic Unit 05120111, on the northwest side of road at the southwest boundary of Chambers Cemetery about 2.5 mi southwest of Freelandville.

Owner: U.S. Geological Survey

AQUIFER.--Interbedded sandstone, shale, and coal of Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 137 ft, cased to 41 ft, open hole.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 460 ft above sea level, from topographic map. Measuring point: Top of casing, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--August 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.00 ft below land-surface datum, Feb. 22, 1990; lowest, 15.32 ft below land-surface datum, Oct. 19, 1991.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.99	14.10	13.52	13.08	12.92	12.48	12.53	12.30	12.39	12.75	13.30	13.86
10	14.01	14.14	13.31	13.06	12.90	12.49	12.42	12.35	12.52	12.87	13.42	13.93
15	14.09	13.75	13.27	13.02	12.84	12.67	12.18	12.26	12.57	12.96	13.48	13.99
20	14.10	13.59	13.35	13.00	12.73	12.64	12.25	12.27	12.66	12.91	13.54	14.06
25	14.10	13.44	13.38	12.92	12.68	12.59	12.34	12.37	12.73	12.97	13.68	13.59
ROM	14.14	13.46	13.26	12.83	12.79	12.43	12.43	12.39	12.68	13.16	13.83	13.57

WTR YR 1993 HIGH 12.18 APR 15

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.06	14.14	13.59	13.16	13.00	12.55	12.59	12.36	12.52	12.78	13.32	13.89
10	14.04	14.20	13.41	13.09	12.93	12.56	12.44	12.37	12.56	12.90	13.43	14.03
15	14.12	13.78	13.41	13.05	12.91	12.69	12.30	12.30	12.61	12.99	13.53	14.06
20	14.15	13.68	13.45	13.13	12.83	12.67	12.34	12.31	12.70	12.95	13.58	14.08
25	14.13	13.53	13.46	12.96	12.83	12.62	12.39	12.46	12.75	12.99	13.74	13.80
ROM	14.17	13.50	13.33	12.94	12.80	12.55	12.44	12.47	12.70	13.20	13.87	13.63

WTR YR 1993 LOW 14.22 OCT 22

KOSCIUSKO COUNTY

412556085513401. Local number, KO 9.

LOCATION.--Lat 41°25'56", long 85°51'34", in SW¹/₄E¹/₄NW¹/₄ sec.5, T.34 N., R.6 E., Kosciusko County, Hydrologic Unit 04050001, on the north edge of property owned by the Dome Pipeline Corporation, on County Road 50 West, 1.5 mi northwest of Milford.

Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 4 in., depth 102 ft, cased to 99 ft, screened to 102 ft.

INSTRUMENTATION.--Water-stage recorder.

DATUM.--Elevation of land-surface datum is 830.90 ft above sea level. Measuring point: Top of floor of shelter, 3.2 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.24 ft below land-surface datum, Apr. 8, 9, 1985; lowest, 14.33 ft below land-surface datum, Aug. 10, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.67	12.69	11.54	10.16	9.60	10.41	9.67	10.00	10.45	9.47	11.41	12.24
10	12.62	12.59	11.49	9.36	9.74	10.20	9.61	9.80	9.33	9.64	11.53	12.18
15	12.59	12.33	11.50	9.34	9.90	10.24	9.67	9.79	9.05	9.84	11.58	12.19
20	12.61	11.89	11.53	9.50	10.04	10.17	9.82	10.00	9.19	10.16	11.62	12.18
25	12.67	11.71	11.54	9.38	10.12	9.99	9.93	10.14	9.25	10.55	11.74	12.20
ROM	12.74	11.60	11.44	9.35	10.31	9.74	9.97	10.29	9.39	11.10	12.24	12.23

WTR YR 1993 HIGH 9.05 JUN 14

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.69	12.71	11.54	10.70	9.61	10.44	9.70	10.01	10.49	9.48	11.43	12.24
10	12.63	12.62	11.51	9.39	9.78	10.26	9.64	9.82	9.58	9.69	11.54	12.19
15	12.60	12.43	11.54	9.35	9.93	10.26	9.70	9.85	9.07	9.88	11.59	12.20
20	12.62	11.95	11.56	9.54	10.06	10.18	9.90	10.03	9.21	10.24	11.63	12.19
25	12.68	11.76	11.58	9.39	10.13	10.06	9.97	10.18	9.29	10.59	11.84	12.22
ROM	12.76	11.62	11.52	9.41	10.33	9.78	9.99	10.35	9.41	11.16	12.27	12.25

WTR YR 1993 LOW 12.76 OCT 31

GROUND-WATER DATA

LAGRANGE COUNTY

414318085200601. Local number, LG 2.

LOCATION.--Lat 41°43'18", long 85°20'06", in SW¹/₄SE¹/₄NE¹/₄, sec.26, T.38 N., R.10 E., Lagrange County, Hydrologic Unit 04050001, on northeast corner of intersection of State Highway 120 and County Road 475 East, and 1.2 mi west of Brighton.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 5 in., depth 86 ft, cased to 80 ft, screened to 86 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 911.02 ft above sea level. Measuring point: Top of floor of shelter, 3.0 ft above land-surface datum.

PERIOD OF RECORD.--May 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.00 ft below land-surface datum, July 1, 2, 1993; lowest, 16.93 ft below land-surface datum, Aug. 14, 15, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.60	14.54	13.60	12.99	12.10	12.35	11.63	11.90	11.78	10.04	11.50	12.39
10	14.60	14.36	13.50	12.56	12.13	12.13	11.65	11.73	10.53	10.20	11.67	12.39
15	14.62	14.21	13.44	12.38	12.19	12.24	11.66	11.61	10.31	10.33	11.87	12.45
20	14.63	14.02	13.43	12.29	12.22	12.07	11.75	11.64	10.15	10.57	12.01	12.50
25	14.63	13.85	13.40	12.15	12.31	11.50	11.85	11.68	10.05	10.91	12.33	12.53
DOM	14.66	13.71	13.34	12.07	12.35	11.49	11.89	11.71	10.01	11.22	12.36	12.60

WTR YR 1993 HIGH 10.00 JUL 1

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.61	14.57	13.62	13.06	12.13	12.39	11.64	11.93	11.83	10.05	11.57	12.40
10	14.61	14.39	13.52	12.62	12.15	12.19	11.69	11.77	10.68	10.22	11.70	12.43
15	14.63	14.24	13.47	12.41	12.21	12.28	11.71	11.62	10.33	10.39	11.91	12.48
20	14.65	14.06	13.45	12.33	12.24	12.10	11.82	11.66	10.20	10.62	12.13	12.51
25	14.65	13.89	13.43	12.17	12.34	11.51	11.88	11.72	10.07	10.95	12.39	12.56
DOM	14.67	13.74	13.36	12.09	12.37	11.51	11.92	11.78	10.03	11.29	12.39	12.63

WTR YR 1993 LOW 14.67 OCT 21

LAGRANGE COUNTY

414158085253401. Local number, LG 3.

LOCATION.--Lat 41°41'58", long 85°25'34", in SE¹/₄SE¹/₄SE¹/₄, sec.36, T.38 N., R.9 E., Lagrange County, Hydrologic Unit 04050001, at northwest corner of intersection of State Highway 9 and County Road 400 North, at edge of woods, and 1.4 mi south of Howe.
Owner: U.S. Geological Survey.

AQUIFER.--Fine to medium sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 40 ft, cased to 35 ft, screened to 40 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 870 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 3.7 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.48 ft below land-surface datum, Mar. 21, 1982; lowest, 8.82 ft below land-surface datum, Sept. 2, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.07	6.66	5.99	4.38	5.71	6.43	5.15	5.45	6.29	5.16	6.61	7.27
10	7.06	6.58	6.12	4.62	5.87	6.32	5.34	5.35	3.64	5.47	6.75	7.31
15	7.10	6.00	6.22	4.99	6.04	6.35	5.54	5.58	3.89	5.70	6.86	7.35
20	7.07	5.98	6.18	5.31	6.17	6.20	5.61	5.82	4.19	5.90	7.01	7.40
25	7.09	5.77	6.21	5.28	6.33	5.44	5.63	6.01	4.50	6.14	7.18	7.46
DOM	7.15	5.79	5.53	5.46	6.40	5.25	5.66	6.20	4.87	6.39	7.30	7.44

WTR YR 1993 HIGH 3.64 JUN 10

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.09	6.72	6.04	4.69	5.74	6.46	5.17	5.57	6.34	5.22	6.65	7.30
10	7.07	6.58	6.16	4.72	5.91	6.37	5.41	5.41	3.72	5.52	6.76	7.33
15	7.14	6.09	6.28	5.04	6.07	6.37	5.56	5.65	4.01	5.74	6.88	7.37
20	7.08	5.99	6.21	5.35	6.20	6.20	5.65	5.86	4.34	5.96	7.07	7.41
25	7.09	5.81	6.27	5.33	6.35	5.57	5.71	6.07	4.58	6.17	7.21	7.47
DOM	7.17	5.81	5.90	5.52	6.42	5.35	5.71	6.25	4.93	6.44	7.33	7.46

WTR YR 1993 LOW 7.48 SEP 26

GROUND-WATER DATA

315

LAKE COUNTY

411038087284701. Local number, LK 12.

LOCATION.--Lat 41°10'38", long 87°28'47", in SW¹/₄, NE¹/₄, SW¹/₄, sec.32, T.32 N., R.9 W., Lake County, Hydrologic Unit 07120001, on the northern edge of Kankakee River State Park, 2.0 mi southwest of Schneider.
Owner: U.S. Geological Survey.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 82 ft, cased to 52 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 630.59 ft above sea level. Measuring point: Top of floor of shelter, 2.55 ft above land-surface datum.

REMARKS.--Water level may be affected by pumping.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.15 ft below land-surface datum, Jan. 12, 1973; lowest, 17.92 ft below land-surface datum, Aug. 27, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.85	6.01	4.72	---	3.08	2.95	2.10	2.25	2.89	1.96	3.13	2.95
10	7.55	5.68	4.54	---	3.17	2.74	2.19	2.42	2.33	2.24	3.29	2.94
15	7.22	5.24	---	2.82	3.19	2.76	2.23	2.57	2.22	2.39	3.39	2.94
20	6.96	4.97	---	2.93	3.16	2.75	2.19	2.89	2.02	2.56	3.53	2.72
25	6.73	4.75	---	2.83	3.19	2.48	2.15	2.97	2.26	2.64	3.66	2.82
DOM	6.54	4.70	---	2.85	3.21	2.26	2.23	2.90	2.14	2.85	3.53	2.66

WTR YR 1993 HIGH 1.95 JUL 4

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.17	6.22	4.91	---	3.26	3.14	2.19	2.34	3.04	2.10	3.23	3.10
10	7.71	5.81	4.63	---	3.21	2.84	2.40	2.60	2.45	2.31	3.50	3.04
15	7.38	5.43	---	2.89	3.38	2.92	2.33	2.79	2.39	2.59	3.58	3.14
20	7.17	5.06	---	3.09	3.27	2.87	2.55	3.02	2.11	2.69	3.73	2.79
25	6.85	5.01	---	2.95	3.37	2.65	2.28	3.21	2.44	2.82	3.75	3.06
DOM	6.65	4.82	---	2.95	3.28	2.54	2.40	2.98	2.24	3.07	3.63	2.77

WTR YR 1993 LOW 8.70 OCT 4

LAKE COUNTY

413559087270301. Local number, LK 13.

LOCATION.--Lat 41°35'59", long 87°27'03", in SW¹/₄, NW¹/₄, SW¹/₄, sec.34, T.36 N., R.9 W., Lake County, Hydrologic Unit 04040001, at the Gibson Woods Nature Preserve on the north side of Hammond.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6.0 in., depth 23 ft, cased to 18 ft, screened to 23 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 591.91 ft above sea level. Measuring point: Top of casing, 3.50 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.00 ft below land-surface datum, June 30, July 2, 1993; lowest, 5.15 ft below land-surface datum, Sept. 10, 1986.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.06	3.17	2.63	.49	1.13	.78	.41	.38	.90	.26	2.72	1.35
10	4.09	2.98	2.59	.91	1.24	.79	.48	.70	.52	.43	2.63	1.70
15	4.03	2.57	1.79	.81	1.33	.93	.21	1.02	.76	1.06	2.89	.82
20	4.03	2.55	2.05	1.05	1.52	.86	.07	1.37	.06	1.30	2.72	1.57
25	4.02	2.28	2.36	.70	1.70	.61	.29	1.62	.26	.54	3.32	.73
DOM	4.02	2.50	.74	.96	1.79	.25	.31	1.34	.00	2.25	.37	1.23

WTR YR 1993 HIGH .00 JUN 30

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.13	3.18	2.69	.75	1.20	1.06	.44	.45	1.40	.39	2.99	1.51
10	4.18	3.09	2.66	.93	1.27	.96	.51	.80	.64	.77	2.99	2.00
15	4.20	2.61	2.46	.84	1.35	1.08	.44	1.18	.90	1.22	3.09	1.24
20	4.09	2.61	2.21	1.18	1.56	1.01	.20	1.44	.14	1.55	3.09	1.71
25	4.05	2.48	2.49	.75	1.72	.63	.34	1.78	.35	1.87	3.54	2.13
DOM	4.03	2.51	1.15	1.01	1.81	.72	.37	1.65	.16	2.62	1.06	1.33

WTR YR 1993 LOW 4.29 OCT 14

GROUND-WATER DATA

LAKE COUNTY

411146087204101. Local number, LK 14.

LOCATION.--Lat 41°11'46", long 87°20'41", in SE¹/₄SE¹/₄NW¹/₄ sec.28, T.32 N., R.8 W., Lake County, Hydrologic Unit 07120001, in Shelby on northwest corner of the intersection of Tyler Road and State Highway 55.
Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 96.2 ft, cased to 50 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 641 ft above sea level, from topographic map. Measuring point: Top of casing, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--July 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.07 ft below land-surface datum, July 4, 1993; lowest, 22.86 ft below land-surface datum, July 28, 1991.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.80	9.81	8.70	7.97	7.41	7.92	6.56	6.72	7.74	6.08	12.51	8.96
10	9.71	9.65	8.53	7.38	7.59	7.52	6.55	7.03	7.25	6.35	12.54	8.28
15	9.79	9.36	8.61	7.12	7.71	7.43	6.60	7.26	6.89	6.63	14.35	8.03
20	9.79	8.97	8.68	7.16	7.81	7.38	6.57	7.58	6.63	6.97	10.97	7.67
25	9.85	8.72	8.59	7.13	7.94	7.15	6.53	7.80	6.73	7.40	10.76	7.60
DOM	9.97	8.63	8.54	7.12	7.95	6.81	6.52	7.76	6.32	10.00	10.69	7.56

WTR YR 1993 HIGH 6.07 JUL 4

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.85	9.87	8.76	8.09	7.49	7.94	6.66	6.84	7.83	6.13	13.60	9.15
10	9.80	9.78	8.67	7.49	7.63	7.65	6.63	7.10	7.32	6.40	14.90	8.34
15	9.86	9.44	8.76	7.19	7.73	7.50	6.73	7.39	6.93	6.70	15.95	8.10
20	9.87	9.11	8.77	7.32	7.82	7.45	6.68	7.66	6.71	7.08	12.44	7.73
25	9.93	8.88	8.75	7.21	7.94	7.22	6.61	7.90	6.76	7.46	13.89	7.75
DOM	10.00	8.68	8.60	7.24	7.95	7.00	6.60	7.85	6.44	11.20	11.16	7.70

WTR YR 1993 LOW 16.03 AUG 27

LA PORTE COUNTY

413700086445401. Local number, LP 8.

LOCATION.--Lat 41°37'00", long 86°44'54", in NE¹/₄SE¹/₄NW¹/₄ sec.34, T.37 N., R.3 W., La Porte County, Hydrologic Unit 07120001, at the west end of Soldiers Memorial Park in La Porte.
Owner: State of Indiana.

AQUIFER.--Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 3.0 in., depth 22 ft, cased to 20 ft, screened to 22 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 802.79 ft above sea level. Measuring point: Top of floor of shelter, 3.70 ft above land-surface datum.

PERIOD OF RECORD.--May 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.51 ft below land-surface datum, July 1, 1993; lowest, 7.04 ft below land-surface datum, Mar. 8-11, 1978.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.92	3.63	3.62	2.90	2.99	2.89	2.53	2.14	2.29	1.63	2.09	2.05
10	3.86	3.44	3.58	3.06	3.02	2.88	2.53	2.20	1.81	1.62	2.10	2.09
15	3.47	3.57	3.21	3.00	3.04	2.91	2.17	2.28	1.80	1.78	2.16	1.86
20	3.86	3.62	3.57	2.99	3.01	2.89	2.00	2.38	1.59	1.78	2.24	2.05
25	3.93	3.44	3.56	2.93	3.00	2.67	2.19	2.42	1.69	1.79	2.05	1.91
DOM	3.98	3.53	2.98	2.92	3.03	2.23	2.15	2.31	1.57	2.01	2.10	1.91

WTR YR 1993 HIGH 1.51 JUL 2

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.92	3.74	3.64	2.96	3.03	2.94	2.53	2.18	2.43	1.63	2.09	2.09
10	3.86	3.72	3.64	3.06	3.03	2.95	2.54	2.21	1.81	1.73	2.13	2.16
15	3.99	3.59	3.58	3.00	3.05	2.95	2.44	2.33	1.84	1.80	2.19	2.01
20	3.90	3.63	3.59	3.06	3.03	2.89	2.25	2.40	1.63	1.81	2.27	2.06
25	3.94	3.51	3.64	2.93	3.03	2.67	2.24	2.45	1.70	1.90	2.35	2.11
DOM	3.99	3.53	3.32	2.97	3.03	2.67	2.19	2.44	1.72	2.02	2.15	1.97

WTR YR 1993 LOW 3.99 OCT 14

GROUND-WATER DATA

317

LA PORTE COUNTY

412350086512801. Local number, LP 9.

LOCATION.--Lat 41°23'50", long 86°51'28", in SE¹/₄/SW¹/₄/NE¹/₄ sec.15, T.34 N., R.4 W., La Porte County, Hydrologic Unit 07120001, at the intersection of County Roads 1450 South and 825 West, 3.0 mi southeast of Wanatah.
 Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 32 ft, cased to 27 ft, screened to 32 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 706.81 ft above sea level. Measuring point: Top of floor of shelter, 1.60 ft above land-surface datum.

PERIOD OF RECORD.--June 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.56 ft below land-surface datum, Apr. 5, 1985; lowest, 8.28 ft below land-surface datum, Oct. 16, 17, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.31	6.08	5.09	1.75	3.93	4.67	2.76	3.42	4.58	2.87	5.43	5.49
10	6.28	5.96	5.10	2.73	4.18	4.08	3.19	3.73	2.88	3.50	5.57	5.24
15	6.35	5.32	5.07	2.97	4.41	4.09	2.84	3.93	---	3.93	5.78	4.33
20	6.38	5.16	5.19	3.40	---	3.66	2.00	4.33	3.33	4.27	5.94	4.37
25	---	4.80	5.18	3.17	4.79	2.78	2.52	4.62	3.83	4.68	6.12	---
EOM	---	4.83	3.60	3.50	4.91	---	3.02	4.32	2.22	5.08	6.03	---

WTR YR 1993 HIGH 1.75 JAN 4

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.32	6.12	5.16	1.94	4.01	4.75	2.87	3.56	4.71	3.01	5.48	5.51
10	6.29	5.99	5.27	2.90	4.26	4.19	3.29	3.78	3.20	3.60	5.65	5.32
15	6.37	5.37	5.39	3.07	4.49	4.20	3.44	4.08	---	3.99	5.80	4.48
20	6.41	5.23	5.26	3.50	---	3.78	2.88	4.40	3.46	4.41	5.98	4.43
25	---	4.90	5.33	3.34	4.87	2.92	2.94	4.68	3.89	4.75	6.17	---
EOM	---	4.86	3.73	3.77	4.96	---	3.15	4.53	2.89	5.13	6.09	---

WTR YR 1993 LOW 6.59 NOV 1

LA PORTE COUNTY

413139086341401. Local number, LP 10.

LOCATION.--Lat 41°31'40", long 86°34'10", in SE¹/₄/SW¹/₄/NE¹/₄ sec.31, T.36 N., R.1 W., La Porte County, Hydrologic Unit 07120001, 200 ft north of the manager's residence at the Mixsawbah Fish Hatchery and 2.6 mi southeast of Stillwell.
 Owner: State of Indiana.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 104 ft, cased to 102 ft, screened to 104 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 695 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 3.60 ft above land-surface datum.

PERIOD OF RECORD.--August 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.65 ft below land-surface datum, Dec. 29, 1990; lowest, 9.61 ft below land-surface datum, Sept. 17, 18, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.10	7.70	7.11	3.17	6.14	6.57	5.14	6.16	7.71	6.72	7.99	8.37
10	8.13	7.54	7.04	4.49	6.41	5.59	5.71	6.68	4.45	7.14	8.11	8.35
15	8.17	6.87	6.88	5.01	6.62	5.95	5.94	6.97	5.82	7.35	8.22	8.17
20	8.17	6.77	6.85	5.60	6.66	5.82	5.11	7.30	6.42	7.38	8.33	8.07
25	8.22	6.68	6.90	5.16	6.84	4.68	5.30	7.49	6.90	7.58	8.44	8.06
EOM	8.28	6.87	4.68	5.58	6.91	4.93	5.65	7.55	7.14	7.85	8.55	7.65

WTR YR 1993 HIGH 3.15 JAN 4

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.11	7.74	7.18	3.42	6.22	6.64	5.28	6.28	7.76	6.79	8.01	8.40
10	8.14	7.59	7.19	4.73	6.50	5.86	5.87	6.76	4.81	7.17	8.13	8.40
15	8.20	6.89	7.10	5.11	6.70	6.14	6.11	7.13	6.10	7.37	8.23	8.34
20	8.20	6.87	6.96	5.75	6.72	5.93	5.90	7.35	6.46	7.44	8.36	8.08
25	8.23	6.77	7.11	5.27	6.95	4.82	5.74	7.54	6.96	7.61	8.47	8.12
EOM	8.29	6.90	5.35	5.86	6.98	5.51	5.73	7.65	7.18	7.86	8.57	7.72

WTR YR 1993 LOW 8.59 SEP 1

GROUND-WATER DATA

LA PORTE COUNTY

412839086533101. Local number, LP 11.

LOCATION.--Lat 41°28'39", long 86°53'31", in SW¹/₄SW¹/₄SW¹/₄ sec.16, T.35 N., R.4 W., La Porte County, Hydrologic Unit 07120001, in the northeast corner of intersection of U.S. Highway 421 and County Road 900 South.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 100 ft, cased to 95 ft, screened to 100 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 760 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 4.1 ft above land-surface datum.

REMARKS.--Water level may be affected by pumpage.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.82 ft below land-surface datum, Dec. 30, 1990; lowest, 10.18 ft below land-surface datum, Oct. 17, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.67	8.11	6.41	4.45	4.92	5.47	3.71	3.76	4.77	1.68	4.43	4.37
10	8.56	7.74	6.37	4.45	5.08	5.06	3.88	3.94	3.01	2.84	4.62	4.34
15	8.56	6.68	6.48	4.56	5.25	5.11	3.81	4.07	3.28	3.25	4.81	4.11
20	8.53	6.48	6.53	4.71	5.35	4.87	3.42	4.28	2.66	3.49	5.01	4.22
25	8.53	6.30	6.45	4.59	5.53	4.14	3.53	4.48	3.11	3.81	5.23	4.40
DOM	8.61	6.26	5.72	4.63	5.64	3.85	3.64	4.57	1.68	4.15	5.33	4.13

WTR YR 1993 HIGH .98 JUL 2

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.69	8.24	6.46	4.67	4.95	5.53	3.75	3.84	4.83	2.01	4.46	4.43
10	8.58	7.80	6.53	4.49	5.12	5.16	3.95	3.97	3.19	2.92	4.68	4.46
15	8.61	6.79	6.63	4.59	5.29	5.19	4.06	4.15	3.45	3.32	4.85	4.29
20	8.59	6.54	6.61	4.79	5.40	4.89	3.62	4.32	2.72	3.58	5.07	4.25
25	8.57	6.41	6.62	4.61	5.58	4.18	3.56	4.53	3.23	3.86	5.27	4.47
DOM	8.63	6.27	6.10	4.78	5.66	4.15	3.68	4.71	2.21	4.20	5.41	4.19

WTR YR 1993 LOW 8.88 OCT 1

LA PORTE COUNTY

413434086434701. Local number, LP 12.

LOCATION.--Lat 41°34'34", long 86°43'47", in NE¹/₄NE¹/₄NW¹/₄ sec.14, T.36 N., R.3 W., La Porte County, Hydrologic Unit 07120001, on County Road 150 West, at La Porte Municipal Airport, 1.6 mi south of La Porte.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 77 ft, cased to 71 ft, screened to 77 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 805 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 3.70 ft above land-surface datum.

REMARKS.--Water level may be affected by pumpage.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.96 ft below land-surface datum, Jan. 16, 1991; lowest, 22.82 ft below land-surface datum, Jan. 27, 28, 31, 1990..

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.71	19.92	19.20	18.93	17.48	17.74	17.11	16.15	16.30	15.64	16.35	17.13
10	19.70	19.93	19.12	18.28	17.48	17.72	16.88	16.10	16.07	15.75	16.43	17.17
15	19.76	19.86	19.06	17.88	17.52	17.79	16.69	16.04	15.79	15.86	16.59	17.22
20	19.78	19.57	19.08	17.69	17.52	17.78	16.63	16.08	15.66	15.97	16.73	17.25
25	19.84	19.38	19.06	17.61	17.66	17.56	16.49	16.21	15.63	16.03	16.86	17.23
DOM	19.89	19.27	19.09	17.47	17.71	17.24	16.26	16.17	15.61	16.21	17.06	17.27

WTR YR 1993 HIGH 15.61 JUN 28

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.72	19.92	19.22	18.98	17.53	17.77	17.16	16.17	16.36	15.67	16.36	17.15
10	19.70	19.95	19.12	18.39	17.50	17.80	16.91	16.10	16.13	15.80	16.46	17.21
15	19.78	19.88	19.11	17.93	17.55	17.85	16.74	16.08	15.81	15.87	16.61	17.24
20	19.82	19.64	19.12	17.75	17.56	17.78	16.71	16.10	15.68	16.00	16.76	17.26
25	19.84	19.43	19.12	17.63	17.70	17.63	16.52	16.26	15.64	16.07	16.91	17.30
DOM	19.90	19.29	19.11	17.51	17.73	17.30	16.29	16.29	15.67	16.24	17.09	17.35

WTR YR 1993 LOW 19.95 NOV 9

GROUND-WATER DATA

319

MARION COUNTY

393855086120701. Local number, MA 34.

LOCATION.--Lat 39°38'55", long 86°12'07", in NE¹/₄NW¹/₄NE¹/₄ sec.21, T.14 N., R.3 E., Marion County, Hydrologic Unit 05120201, about 0.5 mi northwest of Glenns Valley.
Owner: U.S. Geological Survey.

AQUIFER.--Coarse sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 66 ft, cased to 61 ft, screened to 66 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 670.73 ft above sea level. Measuring point: Top of casing, 3.70 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.72 ft below land-surface datum, Dec. 30, 1990; lowest, 8.84 ft below land-surface datum, Nov. 23-25, 1987.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.29	5.63	4.92	4.31	5.05	4.33	4.78	4.67	5.06	5.26	5.81	5.43
10	6.20	5.71	5.00	4.87	5.16	4.66	4.10	4.90	5.33	5.42	5.95	5.68
15	5.84	4.71	5.12	4.82	5.21	4.83	3.81	5.02	4.80	5.12	5.81	5.23
20	6.11	4.91	5.22	4.88	5.29	4.91	4.33	5.15	5.27	5.29	5.40	5.68
25	6.24	4.52	5.33	4.69	5.16	4.74	4.51	5.29	4.29	5.49	5.79	5.29
DOM	6.35	4.74	5.08	4.88	5.25	4.44	4.68	5.39	5.16	5.65	5.90	5.59

WTR YR 1993 HIGH 3.57 NOV 12

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.32	5.69	4.96	4.63	5.06	4.52	4.81	4.74	5.28	5.32	5.85	5.52
10	6.25	5.77	5.02	4.91	5.18	4.74	4.43	4.94	5.41	5.48	5.97	5.73
15	6.39	4.81	5.17	4.86	5.25	4.87	4.31	5.07	5.06	5.26	5.88	5.67
20	6.15	4.95	5.26	5.03	5.32	4.94	4.39	5.18	5.30	5.35	5.58	5.71
25	6.26	4.57	5.39	4.75	5.20	4.80	4.55	5.32	5.41	5.54	5.84	5.78
DOM	6.37	4.77	5.25	4.93	5.27	4.94	4.72	5.44	5.24	5.70	5.93	5.61

WTR YR 1993 LOW 6.39 OCT 15

MARION COUNTY

394632086092701. Local number, MA 35.

LOCATION.--Lat 39°46'32", long 86°09'27", in NW¹/₄SW¹/₄NW¹/₄ sec.1, T.15 N., R.3 E., Marion County, Hydrologic Unit 05120201, in the northeast corner of the intersection of Meridian and North Streets in Indianapolis.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 83 ft, cased to 77.5 ft, screened to 83 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 716.40 ft above sea level. Measuring point: Top of casing, 2.50 ft above land-surface datum.

PERIOD OF RECORD.--September 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 30.30 ft below land-surface datum, Mar. 27, 1991; lowest, 36.95 ft below land-surface datum, Sept. 25, 1987.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	33.26	32.61	31.81	31.48	31.52	31.58	31.13	31.16	31.25	32.25	32.84	32.84
10	33.18	32.43	31.66	31.47	31.50	31.45	31.12	31.25	31.76	32.57	32.79	32.53
15	33.20	32.54	31.52	31.83	31.61	31.45	31.05	31.41	31.74	32.78	32.76	32.37
20	32.94	32.20	31.43	31.82	31.71	31.37	31.04	31.28	32.00	32.80	32.99	32.12
25	32.83	32.01	31.75	31.65	31.81	31.28	30.97	31.31	32.24	32.67	33.09	32.07
DOM	32.72	31.88	31.49	31.54	31.74	31.21	31.04	31.28	32.19	32.85	33.02	31.85

WTR YR 1993 HIGH 30.97 APR 25

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	33.51	32.71	31.85	31.52	31.55	31.60	31.15	31.43	31.29	32.43	33.08	32.97
10	33.25	32.47	31.71	31.53	31.54	31.48	31.14	31.63	31.88	32.82	33.06	32.77
15	33.54	32.80	31.59	31.89	31.66	31.52	31.19	31.60	32.13	32.95	32.98	32.58
20	32.99	32.27	31.46	32.04	31.86	31.41	31.17	31.43	32.18	32.97	33.13	32.40
25	32.90	32.05	31.90	31.70	31.89	31.31	31.00	31.44	32.51	32.87	33.14	32.15
DOM	32.78	31.94	31.60	31.58	31.81	31.24	31.29	31.31	32.49	32.99	33.33	32.01

WTR YR 1993 LOW 33.56 OCT 8

GROUND-WATER DATA

MARION COUNTY

394626086100201. Local number, MA 36.

LOCATION.--Lat 39°46'26", long 86°10'02", in SW¹/₄, SW¹/₄, NE¹/₄, sec. 2, T.15 N., R.3 E., Marion County, Hydrologic Unit 05120201, in the southwest corner of the intersection of West and Michigan Streets in Indianapolis.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 70.6 ft, cased to 65.1 ft, screened to 70.6 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 710.06 ft above sea level. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--September 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 26.86 ft below land-surface datum, May 14, 1991; lowest, 33.12 ft below land-surface datum, Sept. 24, 25, 1987.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.85	29.45	28.33	28.17	28.09	28.26	27.82	27.61	28.07	28.70	29.19	29.30
10	29.84	29.33	28.22	28.13	28.07	28.13	27.76	27.67	28.15	28.81	29.24	29.20
15	29.82	29.06	28.17	28.09	28.10	28.06	27.67	27.82	28.23	28.92	29.26	29.12
20	29.77	28.85	28.15	28.16	28.21	28.01	27.63	27.93	28.33	29.01	29.28	29.04
25	29.67	28.64	28.12	28.17	28.29	27.95	27.56	27.97	28.48	29.06	29.32	28.96
ROM	29.60	28.46	28.14	28.09	28.32	27.86	27.58	28.04	28.63	29.12	29.32	28.88

WTR YR 1993 HIGH 27.56 APR 25

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.86	29.47	28.35	28.19	28.11	28.27	27.85	27.61	28.09	28.72	29.20	29.32
10	29.84	29.36	28.23	28.13	28.07	28.16	27.77	27.70	28.15	28.82	29.24	29.20
15	29.82	29.10	28.20	28.09	28.11	28.06	27.71	27.85	28.23	28.94	29.26	29.12
20	29.79	28.90	28.15	28.18	28.22	28.02	27.64	27.94	28.38	29.01	29.28	29.06
25	29.69	28.68	28.14	28.17	28.29	27.96	27.58	27.98	28.51	29.07	29.32	28.98
ROM	29.61	28.50	28.17	28.10	28.33	27.88	27.59	28.06	28.66	29.13	29.32	28.91

WTR YR 1993 LOW 29.86 OCT 5

MARION COUNTY

394732086115501. Local number, MA 37.

LOCATION.--Lat 39°47'32", long 86°11'55", in SE¹/₄, NE¹/₄, NE¹/₄, sec. 33, T.16N., R.3W., Marion County, Hydrologic Unit 05120201, on the South Grove Municipal Golf Course property, west of the 11th fairway and east of White River Parkway in Indianapolis.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene Epoch.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 74 ft, cased to 69 ft, screened to 74 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 690 ft above sea level, from topographic map. Measuring point: Top of casing, 3.35 ft above land-surface datum.

PERIOD OF RECORD.--July 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.22 ft below land-surface datum, Mar. 20, 1991; lowest, 13.73 ft below land-surface datum, June 20, 1992.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.05	5.92	4.92	4.19	4.87	4.45	4.56	4.69	5.11	6.23	5.92	5.48
10	5.96	5.42	5.93	5.76	4.95	4.43	4.46	5.23	5.55	5.76	6.14	5.75
15	6.24	4.36	4.99	5.97	4.90	5.72	5.46	4.89	6.08	5.28	6.05	5.60
20	5.64	4.60	4.91	5.08	6.33	4.73	4.97	4.90	5.85	5.61	6.19	5.61
25	5.87	4.69	5.83	4.78	5.08	4.51	4.76	5.08	5.83	5.39	6.47	5.78
ROM	5.93	4.39	6.04	4.72	6.34	4.93	4.86	5.19	5.64	5.73	6.57	5.23

WTR YR 1993 HIGH 3.90 NOV 23

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.28	6.21	4.96	4.83	5.03	5.39	4.76	4.96	5.25	6.61	7.15	5.65
10	6.10	5.53	6.04	5.88	5.25	4.62	4.75	5.40	6.67	5.94	6.21	5.86
15	6.45	4.71	5.06	6.07	4.95	6.14	5.77	5.04	6.07	5.51	6.20	5.92
20	5.78	4.96	4.96	6.04	6.38	4.87	6.15	5.14	5.95	5.75	6.41	5.84
25	6.03	5.16	5.96	5.85	5.20	4.64	4.97	5.27	6.13	5.89	6.58	5.84
ROM	6.00	4.49	6.28	4.85	6.44	5.07	5.09	5.44	5.80	5.97	6.75	5.44

WTR YR 1993 LOW 7.15 JUL 7

GROUND-WATER DATA

321

MARTIN COUNTY

383659086545901. Local number, MT 5.

LOCATION.--Lat 38°36'59", long 86°54'59", in SE¹/₄NE¹/₄SW¹/₄ sec.12, T.2 N., R.5 W., Martin County, Hydrologic Unit 05120208, on private property 0.25 mi southwest of Whitfield.
 Owner: Marjorie A. Arvin.

AQUIFER.--Sandstone of Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 143 ft, cased to 53 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 565 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 2.80 ft above land-surface datum.

PERIOD OF RECORD.--May 1958 to current year.

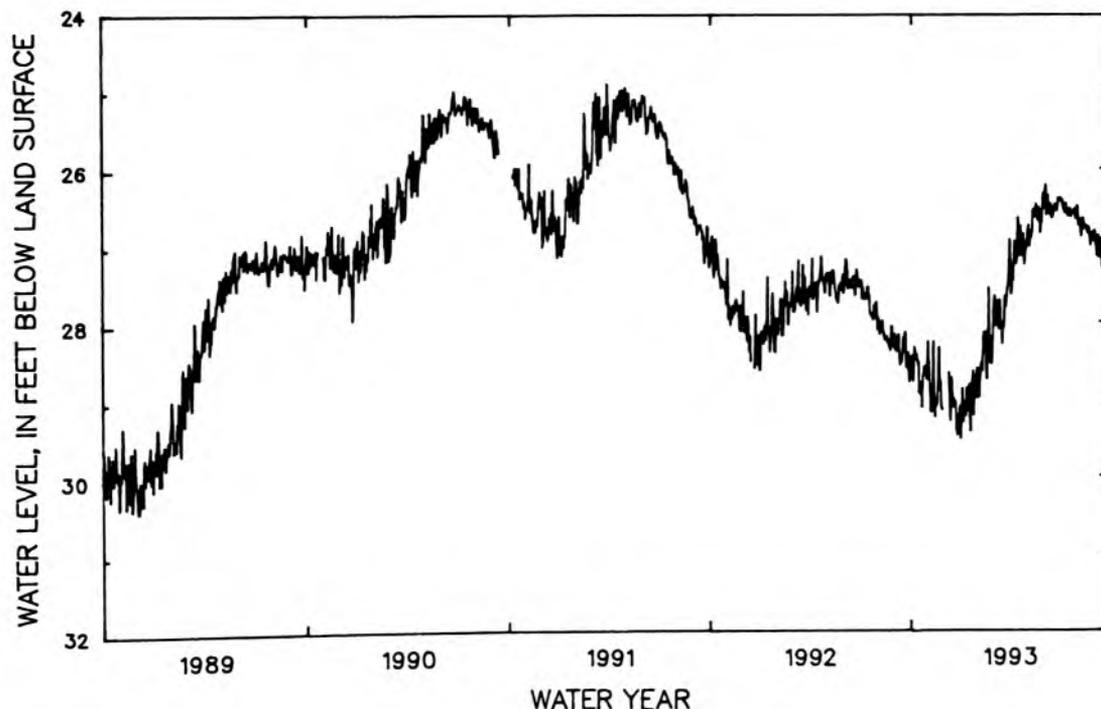
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 23.91 ft below land-surface datum, Apr. 14, 1980; lowest, 34.10 ft below land-surface datum, Jan. 1, 5, 22, 23, 1960, and Dec. 18, 19, 1964.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	28.58	28.77	---	29.00	28.77	27.71	27.40	26.90	26.29	26.40	26.74	26.97
10	28.40	29.08	28.66	29.18	28.52	27.72	27.08	26.89	26.50	26.58	26.78	26.91
15	28.55	29.22	28.71	29.13	28.30	28.07	26.62	26.56	26.56	26.62	26.76	27.08
20	28.77	28.80	29.00	28.99	28.03	28.05	26.74	26.57	26.53	26.62	26.77	27.16
25	28.69	28.75	29.21	29.22	28.19	27.77	26.84	26.65	26.55	26.56	26.92	26.89
COM	28.75	---	29.09	28.59	28.45	26.91	27.03	26.31	26.38	26.65	26.87	27.39

WTR YR 1993 HIGH 26.20 JUN 4

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	28.80	28.97	---	29.37	29.05	28.08	27.57	27.08	26.69	26.49	26.89	27.03
10	28.51	29.19	28.89	29.40	28.66	28.05	27.25	26.98	26.60	26.66	26.89	27.21
15	28.62	29.35	29.14	29.25	28.70	28.24	26.86	26.62	26.66	26.69	26.86	27.36
20	28.94	29.06	29.44	29.42	28.40	28.12	27.13	26.63	26.61	26.70	26.84	27.23
25	28.79	28.97	29.48	29.29	28.65	27.87	27.13	26.85	26.59	26.61	27.03	27.28
COM	28.85	---	29.52	28.99	28.59	27.19	27.08	26.57	26.46	26.77	26.95	27.68

WTR YR 1993 LOW 29.76 DEC 24



GROUND-WATER DATA

MONTGOMERY COUNTY

400247086482101. Local number, MY 7.

LOCATION.--Lat 40°02'47", long 86°48'21", in NE¹/₄, NW¹/₄, SW¹/₄, sec.31, T.19 N., R.3 W., Montgomery County, Hydrologic Unit 05120110, on the county right-of-way at the intersection of State Highway 32 and County Road 525 East, and 4.5 mi east of Crawfordville.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 111 ft, cased to 107 ft, screened to 109 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 801 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 2.38 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 26.10 ft below land-surface datum, Apr. 13, 1974; lowest, 34.13 ft below land-surface datum, Nov. 9, 1991.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.99	31.15	29.62	30.28	29.66	30.43	29.73	29.27	29.94	30.65	30.04	30.04
10	30.92	31.03	29.75	30.02	29.65	30.14	29.60	29.42	30.09	30.71	29.82	29.95
15	31.15	30.42	30.00	29.86	29.89	30.11	29.57	29.57	30.34	30.52	29.83	29.88
20	31.29	29.80	30.22	29.96	30.21	30.05	29.49	29.71	30.55	30.23	29.88	29.69
25	31.37	29.41	30.49	29.77	30.56	29.85	29.40	29.76	30.71	30.01	29.98	29.48
ROM	31.49	29.50	30.43	29.61	30.72	29.51	29.36	29.82	30.92	30.16	30.19	29.59

WTR YR 1993 HIGH 29.25 MAY 4

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	31.09	31.19	29.74	30.31	29.77	30.50	29.78	29.34	30.03	30.67	30.12	30.06
10	30.96	31.16	29.83	30.10	29.67	30.26	29.65	29.50	30.21	30.74	29.85	30.05
15	31.19	30.46	30.12	29.87	29.96	30.13	29.67	29.61	30.42	30.55	29.87	29.95
20	31.34	29.96	30.36	30.11	30.28	30.07	29.56	29.74	30.61	30.28	29.94	29.74
25	31.42	29.52	30.61	29.80	30.61	29.89	29.49	29.86	30.75	30.05	30.05	29.65
ROM	31.54	29.53	30.49	29.69	30.75	29.67	29.37	29.90	31.04	30.20	30.23	29.65

WTR YR 1993 LOW 31.54 OCT 22

MORGAN COUNTY

393423086161001. Local number, MG 4.

LOCATION.--Lat 39°34'23", long 86°16'10", in NW¹/₄, NW¹/₄, NW¹/₄, sec.13, T.13 N., R.2 E., Morgan County, Hydrologic Unit 05120201, on east side of County Road 850 East, 0.4 mi north of County Road 950 North, and 1.1 mi north of Waverly.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 60 ft, cased to 56 ft, screened to 60 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 645 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 2.90 ft above land-surface datum.

PERIOD OF RECORD.--May 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.93 ft below land-surface datum, Jan. 1, 1991; lowest, 16.09 ft below land-surface datum, Nov. 2-4, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.30	12.06	9.26	10.05	9.62	9.80	9.03	9.20	10.47	10.32	11.22	10.93
10	12.43	11.87	9.60	9.38	9.85	9.16	8.98	9.44	10.48	10.46	11.46	11.12
15	12.60	9.51	9.88	9.35	10.05	9.19	8.66	9.67	10.22	10.52	11.47	11.33
20	12.58	9.45	10.14	9.53	10.27	9.36	8.50	9.95	10.18	10.59	10.53	11.45
25	12.67	8.81	10.43	9.31	10.35	9.27	8.77	10.18	10.39	10.73	10.65	11.63
ROM	12.82	8.92	10.67	9.33	10.41	9.25	9.01	10.41	10.51	10.99	10.93	11.65

WTR YR 1993 HIGH 8.50 APR 19

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.34	12.12	9.34	10.46	9.65	10.08	9.04	9.24	10.51	10.38	11.26	10.96
10	12.46	11.90	9.67	9.40	9.89	9.23	9.08	9.49	10.51	10.51	11.51	11.17
15	12.63	9.89	9.93	9.37	10.08	9.22	8.79	9.73	10.28	10.53	11.50	11.33
20	12.59	9.46	10.20	9.56	10.31	9.40	8.58	10.00	10.22	10.63	10.58	11.49
25	12.68	8.89	10.45	9.36	10.35	9.31	8.83	10.23	10.43	10.79	10.71	11.65
ROM	12.85	8.96	10.69	9.37	10.44	9.31	9.07	10.46	10.53	11.02	10.98	11.67

WTR YR 1993 LOW 12.85 OCT 31

GROUND-WATER DATA

323

NEWTON COUNTY

405105087173301. Local number, NE 6.

LOCATION.--Lat 40°51'05", long 87°17'33", in SE¹/₄ SW¹/₄ SE¹/₄ sec.23, T.28 N., R.8 W., Newton County, Hydrologic Unit 07120002, on the right-of-way of County Road 1000 South, 1.0 mi south of Foresman.
 Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 80 ft, cased to 76 ft, screened to 78 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 654.10 ft above sea level. Measuring point: Top of floor of shelter, 2.15 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.94 ft below land-surface datum, Mar. 20, 21, 1982; lowest, 18.82 ft below land-surface datum, Oct. 29, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.42	12.89	11.21	9.66	10.72	11.11	9.34	10.26	11.13	9.03	12.13	12.19
10	14.34	12.41	11.25	9.23	11.08	10.09	9.82	10.61	10.36	9.93	12.54	11.13
15	14.36	11.33	11.56	9.83	11.32	10.22	9.96	10.96	10.17	10.07	13.74	10.23
20	14.20	11.08	11.37	10.36	11.37	10.45	9.72	11.48	10.29	10.44	13.41	9.79
25	14.12	10.65	11.40	9.78	11.58	9.93	10.03	11.83	10.72	10.93	13.25	10.27
ROM	14.16	10.80	11.17	10.03	11.70	9.83	9.97	11.54	9.67	11.58	13.18	10.36

WTR YR 1993 HIGH 8.94 JUL 4

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.46	13.04	11.32	10.05	10.80	11.20	9.44	10.41	11.23	9.18	12.17	12.32
10	14.39	12.52	11.47	9.28	11.17	10.29	9.96	10.74	10.41	10.04	12.62	11.22
15	14.42	11.44	11.72	9.92	11.37	10.28	10.27	11.13	10.24	10.11	13.88	10.84
20	14.30	11.18	11.49	10.43	11.44	10.59	9.95	11.63	10.36	10.56	13.49	9.86
25	14.19	10.81	11.62	9.82	11.66	9.99	10.08	11.89	10.85	10.99	13.28	10.39
ROM	14.22	10.85	11.34	10.20	11.73	10.09	10.08	11.71	9.97	11.64	13.25	10.45

WTR YR 1993 LOW 14.46 OCT 5

NEWTON COUNTY

405959087282901. Local number, NE 7.

LOCATION.--Lat 40°59'59", long 87°28'29", in SE¹/₄ SW¹/₄ SE¹/₄ sec.32, T.30 N., R.9 W., Newton County, Hydrologic Unit 07120002, in the Willow Slough Game Preserve, 2.0 mi southwest of Enos.
 Owner: State of Indiana.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 150 ft, cased to 136 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 680.83 ft above sea level. Measuring point: Top of floor of shelter, 2.03 ft above land-surface datum.

PERIOD OF RECORD.--February 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 34.65 ft below land-surface datum, Apr 14, 1980; lowest, 97.33 ft below land-surface datum, Aug. 29, 30, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	62.78	58.18	54.14	52.92	---	46.97	45.41	45.24	43.60	46.20	---
10	67.93	61.91	57.26	53.68	52.86	---	46.65	45.26	44.95	43.43	---	---
15	66.81	61.06	56.49	53.25	52.82	48.34	46.16	44.96	44.81	43.29	---	---
20	65.81	60.11	56.18	53.18	52.74	48.07	45.95	44.97	44.46	43.13	---	---
25	64.83	59.31	55.53	53.11	---	47.71	45.78	45.15	44.30	43.15	---	---
ROM	63.77	58.68	54.80	53.00	---	47.05	45.65	45.30	43.84	43.88	---	---

WTR YR 1993 HIGH 43.12 JUL 19

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	69.14	62.92	58.19	54.16	52.93	---	47.07	45.43	45.29	43.64	46.92	---
10	67.95	62.09	57.45	53.77	52.87	---	46.66	45.30	44.97	43.53	---	---
15	66.97	61.25	56.84	53.27	52.84	48.41	46.35	44.98	44.84	43.31	---	---
20	66.12	60.40	56.19	53.19	52.77	48.13	45.99	44.97	44.52	43.14	---	---
25	65.12	59.60	55.67	53.13	---	47.75	45.82	45.31	44.32	43.23	---	---
ROM	63.95	58.85	54.82	53.01	---	47.29	45.70	45.34	43.99	44.18	---	---

WTR YR 1993 LOW 70.03 OCT 1

GROUND-WATER DATA

NEWTON COUNTY

410428087231501. Local number, NE 8.

LOCATION.--Lat 41°04'28", long 87°25'44", in NW¹/₄/SW¹/₄/SW¹/₄ sec.2, T.30 N., R.9 W., Newton County, Hydrologic Unit 07120001, in the Beaver Lake Prairie Chicken Refuge, 3.0 mi north of Enos.
 Owner: State of Indiana.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 150 ft, cased to 97 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 663.34 ft above sea level. Measuring point: Top of floor of shelter, 2.83 ft above land-surface datum.

REMARKS.--Water level may be affected by irrigation pumpage.

PERIOD OF RECORD.--February 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.04 ft below land-surface datum, May 31, 1976; lowest, 98.40 ft below land-surface datum, July 29, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	33.31	26.38	22.58	19.12	16.77	14.85	13.31	12.20	13.95	11.19	40.73	28.49
10	31.76	25.58	21.68	18.78	16.45	14.55	13.05	12.11	13.17	11.14	43.78	26.39
15	30.42	24.91	21.04	18.29	16.12	14.45	12.60	17.39	12.70	11.03	45.99	24.78
20	29.38	24.37	20.84	17.89	15.65	14.22	12.48	17.74	12.16	13.61	41.63	23.30
25	28.33	23.59	20.27	17.62	15.46	13.89	12.46	16.61	11.92	13.06	39.18	22.07
EOM	27.28	22.96	19.63	16.98	15.31	13.30	12.37	14.79	11.52	27.60	31.83	21.24

WTR YR 1993 HIGH 10.86 JUL 19

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	33.61	26.53	22.64	19.20	16.98	14.93	13.45	12.34	14.04	11.28	43.04	28.98
10	32.04	25.83	21.86	18.89	16.50	14.71	13.10	12.14	13.20	11.23	47.26	26.63
15	30.75	25.01	21.39	18.39	16.20	14.56	12.79	20.86	12.75	11.09	49.44	24.96
20	29.64	24.56	20.90	18.19	15.83	14.31	12.70	18.47	12.26	17.20	46.14	23.58
25	28.61	23.87	20.44	17.69	15.66	13.96	12.57	16.90	11.97	13.56	40.58	22.47
EOM	27.48	23.12	19.77	17.14	15.41	13.52	12.53	14.89	11.61	33.96	32.74	21.56

WTR YR 1993 LOW 52.66 AUG 12

NEWTON COUNTY

405959087282902. Local number, NE 9.

LOCATION.--Lat 40°59'59", long 87°28'29", in SE¹/₄/SW¹/₄/SE¹/₄ sec.32, T.30 N., R.9 W., Newton County, Hydrologic Unit 07120002, in the Willow Slough Game Preserve, 2.0 mi southwest of Enos.
 Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 2 in., depth 45 ft, cased to 42 ft, screened to 45 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 681 ft above sea level, from topographic map. Measuring point: Top of "Y" in well casing, 3.10 ft above land-surface datum.

PERIOD OF RECORD.--May 1978 to current year. Fragmentary record prior to March 1981.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.07 ft below land-surface datum, May 3, 1978; lowest, 15.44 ft below land-surface datum, Oct. 19-21, 26-31, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.61	13.87	12.38	11.42	10.33	10.30	8.82	8.52	9.27	8.33	10.23	8.93
10	13.74	13.66	12.34	10.92	10.34	---	8.75	8.80	---	8.60	10.50	8.71
15	13.81	13.22	12.29	10.68	10.38	9.90	8.60	9.11	---	8.83	10.63	8.36
20	13.86	12.87	12.22	10.68	10.48	9.82	8.47	9.40	---	9.18	10.11	8.43
25	13.92	12.62	12.19	10.32	10.54	9.42	8.47	9.50	9.01	9.42	10.09	8.60
EOM	13.98	12.45	12.10	10.27	10.60	8.99	8.49	9.32	8.09	9.95	9.83	8.54

WTR YR 1993 HIGH 8.09 JUN 30

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.65	13.91	12.38	11.68	10.34	10.36	8.84	8.53	9.28	8.42	10.30	8.94
10	13.75	13.70	12.34	10.95	10.36	---	8.79	8.88	---	8.72	10.54	8.80
15	13.82	13.30	12.33	10.69	10.38	9.90	8.84	9.20	---	8.86	10.68	8.38
20	13.87	12.90	12.22	10.68	10.49	9.85	8.52	9.47	---	9.20	10.28	8.44
25	13.93	12.69	12.19	10.32	10.54	9.44	8.56	9.53	9.01	9.53	10.12	8.73
EOM	13.98	12.49	12.13	10.28	10.64	9.37	8.54	9.35	8.74	10.03	9.95	8.59

WTR YR 1993 LOW 13.98 OCT 30

GROUND-WATER DATA

325

NEWTON COUNTY

410428087231502. Local number, NE 10.

LOCATION.--Lat 41°04'28", long 87°25'44", in NW¹/₄SW¹/₄SW¹/₄ sec.2, T.30 N., R.9 W., Newton County, Hydrologic Unit 07120001, in the Beaver Lake Prairie Chicken Refuge, 3.0 mi north of Enos.
 Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 2 in., depth 45 ft, cased to 41 ft, screened to 44 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 663 ft above sea level, from topographic map. Measuring point: Top of "Y" in well casing, 2.65 ft above land-surface datum.

PERIOD OF RECORD.--May 1978 to current year. Fragmentary record prior to March 1981.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.03 ft below land-surface datum, Mar. 16, 1982; lowest, 6.48 ft below land-surface datum, Sept. 30, Oct. 1, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	4.58	3.92	2.26	3.26	3.30	2.04	2.85	3.80	---	---	---
10	4.82	4.45	4.10	2.41	3.39	2.97	2.41	3.12	1.26	---	---	---
15	5.02	3.75	4.17	2.40	3.46	2.95	2.09	3.49	---	---	---	---
20	5.03	3.75	3.93	2.96	3.68	3.05	1.90	3.60	---	---	---	---
25	5.11	3.51	4.04	2.21	3.84	2.46	2.38	3.70	---	---	---	---
DOM	5.19	3.62	3.44	2.90	3.98	1.83	2.81	3.80	---	---	---	---

WTR YR 1993 HIGH 1.26 JUN 9

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	4.66	3.97	2.28	3.29	3.39	2.15	2.85	3.80	---	---	---
10	4.88	4.48	4.14	2.47	3.43	3.03	2.56	3.23	1.41	---	---	---
15	5.03	3.76	4.24	2.50	3.50	3.04	2.67	3.55	---	---	---	---
20	5.05	3.81	3.93	3.02	3.71	3.08	1.99	3.64	---	---	---	---
25	5.14	3.53	4.12	2.37	3.87	2.47	2.59	3.70	---	---	---	---
DOM	5.19	3.64	3.71	2.96	4.00	2.92	2.82	3.80	---	---	---	---

WTR YR 1993 LOW 5.19 OCT 28

NEWTON COUNTY

410235087305901. Local number, NE 11.

LOCATION.--Lat 41°02'35", long 87°30'59", in SW¹/₄SW¹/₄SE¹/₄ sec.13, T.30 N., R.10 W., Newton County, Hydrologic Unit 07120001, on right-of-way of County Road 300 North, 0.5 mi west of County Road 600 West, and 4.0 mi northwest of Enos.
 Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 5 in., depth of 150 ft, cased to 90 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 670 ft above sea level, from topographic map. Measuring point: Top of casing, 3.30 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 22.78 ft below land-surface datum, May 6, 1982; lowest recorded, 98.83 ft below land-surface datum, Aug. 5, 6, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	63.14	54.77	48.72	43.81	40.00	37.13	34.85	32.94	34.55	31.33	41.84	49.38
10	62.33	53.56	47.30	43.26	39.49	36.58	34.39	32.73	33.77	31.24	49.38	48.36
15	60.60	52.53	46.30	42.45	38.95	36.43	33.64	32.26	33.24	31.05	49.73	47.54
20	59.18	50.95	46.21	41.77	38.19	36.20	33.49	39.78	32.57	30.90	51.53	46.36
25	57.59	50.01	45.25	41.46	38.04	35.77	33.44	37.32	32.24	30.82	51.05	45.10
DOM	56.05	49.21	44.44	40.30	37.79	34.75	33.27	35.40	31.69	40.85	50.24	44.50

WTR YR 1993 HIGH 30.81 JUL 23

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	63.40	54.98	48.87	43.95	40.36	37.27	35.08	33.12	34.71	31.48	43.28	49.47
10	62.67	53.91	47.54	43.39	39.57	36.89	34.48	32.81	33.83	31.42	50.14	48.45
15	61.03	52.70	46.92	42.64	39.18	36.73	33.93	33.79	33.32	31.19	52.75	47.63
20	59.63	51.49	46.34	42.33	38.52	36.28	33.97	40.70	32.70	31.00	51.61	46.60
25	58.07	50.43	45.59	41.60	38.41	35.88	33.71	37.54	32.28	30.90	51.05	45.67
DOM	56.37	49.45	44.77	40.55	38.02	35.05	33.33	35.60	31.85	45.24	50.25	44.98

WTR YR 1993 LOW 69.84 OCT 8

GROUND-WATER DATA

NEWTON COUNTY

410917087285801. Local number, NE 14.

LOCATION.--Lat 41°09'17", long 87°28'58", in NE¹/₄SW¹/₄NW¹/₄ sec.8, T.31 N., R.9 W., Newton County, Hydrologic Unit 07120001, 100 ft south of wildlife area parking lot in La Salle State Fish and Wildlife Area.
Owner: U.S. Geological Survey.

AQUIFER.--Dolomitic limestone of Silurian/Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 150 ft, cased to 82 ft, open end.

INSTRUMENTATION.--Water-level recorder, data-collection platform, and incremental encoder.

DATUM.--Elevation of land-surface datum is 636.62 ft (revised) above sea level. Measuring point: Top of casing, 3.30 ft above land-surface datum.

REMARKS.--Water level may be affected by pumpage.

PERIOD OF RECORD.--August 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.18 ft below land-surface datum, Mar. 27, 1991; lowest, 31.19 ft below land-surface datum, Aug. 26, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.95	14.17	12.19	10.54	9.36	8.70	7.98	7.54	7.89	---	8.03	8.62
10	16.34	13.76	11.77	10.25	9.24	8.62	7.82	7.58	7.78	7.28	8.31	8.44
15	15.85	13.42	11.52	9.91	9.16	8.58	7.65	7.58	7.61	7.33	8.96	8.34
20	15.44	12.93	11.50	9.73	8.99	8.51	7.60	7.94	7.38	7.35	8.86	8.18
25	15.06	12.58	11.26	9.56	8.99	8.30	7.62	8.06	---	7.41	8.88	7.95
BOM	14.67	12.34	10.97	9.33	8.96	7.91	7.59	7.88	---	7.60	8.86	8.07

WTR YR 1993 HIGH 7.25 JUL 6

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.00	14.24	12.21	10.56	9.40	8.75	8.05	7.62	8.01	---	8.07	8.65
10	16.42	13.91	11.93	10.31	9.25	8.71	7.90	7.64	7.80	7.30	8.38	8.49
15	16.00	13.47	11.73	9.95	9.19	8.65	7.79	7.66	7.68	7.40	9.58	8.41
20	15.60	13.09	11.52	9.87	9.10	8.58	7.91	7.97	7.42	7.41	8.91	8.25
25	15.15	12.71	11.35	9.58	9.06	8.39	7.76	8.14	---	7.45	8.93	8.16
BOM	14.74	12.43	11.02	9.41	9.02	8.12	7.62	7.99	---	7.65	8.92	8.29

WTR YR 1993 LOW 17.43 OCT 1

NOBLE COUNTY

411922085221801. Local number, NO 8.

LOCATION.--Lat 41°19'22", long 85°22'18", in SE¹/₄SW¹/₄SE¹/₄ sec.9, T.33 N., R.10 E., Noble County, Hydrologic Unit 04050001, near the east edge of Chain O'Lakes State Park, and 5.0 mi south of Albion.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian (revised) well, diameter 6 in., depth 149 ft, cased to 146 ft, screened to 148 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 928 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 2.65 ft above land-surface datum.

PERIOD OF RECORD.--December 1966 to September 1971, August 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 27.88 ft below land-surface datum, Feb. 14, 1991; lowest, 32.49 ft below land-surface datum, Jan. 18, 1967.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.39	30.34	30.26	29.72	29.43	29.10	29.13	28.82	28.68	28.85	29.15	29.29
10	30.18	30.41	29.87	29.94	29.37	29.14	28.84	28.89	28.79	28.97	29.14	29.14
15	30.30	30.48	29.87	29.74	29.43	29.35	28.64	28.62	28.84	29.03	29.13	29.28
20	30.30	30.20	30.07	29.71	29.20	29.32	28.73	28.79	28.82	28.96	29.14	29.37
25	30.26	30.17	30.03	29.69	29.45	29.26	28.81	28.79	28.87	28.95	29.28	29.12
BOM	30.45	30.15	29.90	29.23	29.42	28.72	28.93	28.59	28.88	29.10	29.19	29.48

WTR YR 1993 HIGH 28.59 MAY 12

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.48	30.44	30.48	30.05	29.66	29.30	29.27	29.00	28.97	28.92	29.23	29.37
10	30.22	30.53	30.07	30.01	29.43	29.40	28.98	28.95	28.93	29.07	29.20	29.40
15	30.37	30.57	30.24	29.81	29.52	29.53	28.87	28.78	28.99	29.09	29.21	29.55
20	30.50	30.46	30.35	30.03	29.31	29.38	29.03	28.82	28.89	29.04	29.23	29.45
25	30.35	30.32	30.25	29.81	29.65	29.30	29.08	29.01	28.92	29.01	29.36	29.45
BOM	30.50	30.25	30.20	29.44	29.54	28.98	29.02	28.83	28.93	29.17	29.31	29.69

WTR YR 1993 LOW 30.66 OCT 22

GROUND-WATER DATA

327

NOBLE COUNTY

413106085232701. Local number, NO 9.

LOCATION.--Lat 41°31'06", long 85°23'27", in NW¹/₄/NE¹/₄/SE¹/₄ sec.5, T.35 N., R.10 E., Noble County, Hydrologic Unit 04050001, at the intersection of County Roads 175 East and 1150 North, and 2.0 mi west of Wolcottville.
Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 44 ft, cased to 39 ft, screened to 42 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 930 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 2.60 ft above land-surface datum.

PERIOD OF RECORD.--June 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.37 ft below land-surface datum, Jan. 5, 1993; lowest, 17.55 ft below land-surface datum, Dec. 27, 28, 1978.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.14	11.74	10.94	8.37	11.22	12.35	10.15	10.60	12.63	11.81	13.86	14.81
10	13.30	12.04	11.22	9.52	11.57	11.62	10.48	10.80	9.87	12.25	14.07	14.87
15	13.55	10.47	11.41	10.04	11.92	11.67	10.66	11.34	10.47	12.54	14.27	15.14
20	13.47	10.83	11.10	10.68	12.10	11.18	10.79	11.86	11.02	12.81	14.47	15.16
25	13.53	10.04	11.35	9.86	12.48	9.46	10.85	12.17	10.89	13.13	14.70	15.21
DOM	13.83	10.48	9.26	10.50	12.57	9.96	10.85	12.39	11.50	13.53	14.90	15.40

WTR YR 1993 HIGH 8.37 JAN 5

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.27	11.76	11.16	8.43	11.26	12.39	10.21	10.83	12.65	11.87	13.89	14.90
10	13.35	12.05	11.32	9.74	11.65	11.98	10.50	10.93	9.92	12.34	14.08	15.04
15	13.60	10.56	11.61	10.06	11.99	11.75	10.69	11.51	10.52	12.60	14.30	15.22
20	13.59	10.86	11.25	10.71	12.12	11.23	10.90	11.94	11.06	12.91	14.52	15.18
25	13.57	10.10	11.50	9.99	12.56	9.62	10.93	12.35	11.02	13.17	14.79	15.33
DOM	13.87	10.54	11.02	10.60	12.58	9.98	10.85	12.49	11.57	13.58	14.96	15.48

WTR YR 1993 LOW 15.48 SEP 30

NOBLE COUNTY

412405085154501. Local number, NO 11.

LOCATION.--Lat 41°24'05", long 85°15'45", in NW¹/₄/NE¹/₄/SW¹/₄ sec.16, T.34 N., R.11 E., Noble County, Hydrologic Unit 04100003, on the property of Ron Karst on the south side of County Road 350 North, 0.6 mi west of State Highway 3 and about 22 mi north of Fort Wayne.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 216 ft, cased to 211 ft, screened to 216 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 1,036.94 ft above sea level. Measuring point: Top of casing, 3.45 ft above land-surface datum.

PERIOD OF RECORD.--November 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 113.24 ft below land-surface datum, Nov. 6, 1988; lowest, 115.00 ft below land-surface datum, Feb. 17, 1989.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	114.35	114.07	114.19	114.03	114.40	113.79	114.22	113.98	113.81	114.00	---	---
10	114.05	114.40	113.91	114.49	114.29	113.90	113.85	114.21	113.91	114.07	---	113.89
15	114.11	114.35	114.01	114.33	114.19	114.26	113.55	113.81	114.05	114.16	114.11	113.96
20	114.30	114.27	114.15	114.59	114.09	114.42	113.66	113.92	114.04	114.07	114.05	114.14
25	114.23	114.12	114.22	114.28	114.35	114.36	113.75	113.95	114.11	---	114.13	113.87
DOM	114.28	114.12	114.13	114.00	114.39	113.64	114.10	113.79	114.05	---	114.04	114.31

WTR YR 1993 HIGH 113.54 APR 16

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	114.52	114.16	114.49	114.41	114.63	113.99	114.35	114.18	114.05	114.06	---	---
10	114.09	114.53	114.23	114.57	114.32	114.16	113.96	114.26	114.07	114.13	---	114.06
15	114.14	114.55	114.43	114.37	114.32	114.38	113.88	113.87	114.22	114.23	114.19	114.28
20	114.51	114.55	114.45	114.83	114.22	114.51	113.86	113.96	114.13	114.16	114.11	114.26
25	114.32	114.23	114.51	114.56	114.48	114.41	114.02	114.17	114.15	---	114.26	114.24
DOM	114.36	114.27	114.42	114.30	114.48	114.01	114.17	113.95	114.09	---	114.14	114.39

WTR YR 1993 LOW 114.83 JAN 19

GROUND-WATER DATA

NOBLE COUNTY

412405085154504. Local number, NO 14.

LOCATION.--Lat 41°24'05", long 85°15'45", in NW¹/₄/NE¹/₄/SW¹/₄, sec.16, T.34 N., R.11 E., Noble County, Hydrologic Unit 04100003, on the property of Ron Karst on the south side of County Road 350 North, 0.6 mi west of State Highway 3 and about 22 mi north of Fort Wayne.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 145 ft, cased to 140 ft, screened to 145 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 1,037.24 ft above sea level. Measuring point: Top of casing, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--November 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 112.21 ft below land-surface datum, Dec. 15, 1987; lowest, 114.29 ft below land-surface datum, Feb. 17, 1989.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	113.45	113.08	113.29	112.99	113.33	112.82	113.23	113.07	112.79	112.96	113.23	---
10	113.01	113.37	112.78	113.54	113.30	112.79	112.85	113.25	113.01	113.17	113.26	112.87
15	113.03	113.44	112.79	113.33	113.26	113.25	112.46	112.76	113.12	113.26	113.11	113.07
20	113.19	113.12	113.14	113.42	112.94	113.41	112.59	113.00	113.07	113.15	113.06	113.07
25	113.14	113.03	113.07	113.50	113.33	113.41	112.85	113.03	113.11	113.08	113.23	112.69
BOM	113.33	113.11	113.09	112.85	113.34	112.54	113.15	112.68	113.07	113.15	113.05	113.18

WTR YR 1993 HIGH 112.33 FEB 21

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	113.59	113.27	113.64	113.51	113.66	113.10	113.40	113.37	113.24	113.12	113.37	---
10	113.12	113.55	113.04	113.66	113.41	113.22	113.05	113.35	113.23	113.30	113.33	113.27
15	113.24	113.65	113.38	113.43	113.49	113.56	112.85	113.01	113.36	113.36	113.27	113.46
20	113.52	113.55	113.57	113.90	113.18	113.48	113.11	113.04	113.17	113.26	113.21	113.29
25	113.34	113.29	113.48	113.70	113.64	113.49	113.28	113.36	113.20	113.21	113.37	113.23
BOM	113.43	113.25	113.59	113.14	113.58	112.97	113.31	113.10	113.18	113.28	113.23	113.54

WTR YR 1993 LOW 113.98 JAN 19

PARKE COUNTY

393619087043001. Local number, PA 6.

LOCATION.--Lat 39°36'19", long 87°04'30", in SE¹/₄/SW¹/₄/SE¹/₄, sec.33, T.14 N., R.6 W., Parke County, Hydrologic Unit 05120111, on county right-of-way on north side of road at the Parke-Clay county line, 1.7 mi east of Carbon, 2.6 mi east of State Highway 59, and 6.2 mi north of Brazil.
Owner: U.S. Geological Survey.

AQUIFER.--Sandstone of Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 155 ft, cased to 46 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 703 ft above sea level, from topographic map. Measuring point: Top of casing, 2.40 ft above land-surface datum.

PERIOD OF RECORD.--July 1967 to August 1971, October 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.53 ft below land-surface datum, Apr. 19, 1970; lowest, 16.87 ft below land-surface datum, Oct. 30, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.98	13.58	13.20	12.71	12.29	11.97	11.86	11.77	12.16	12.78	13.53	13.95
10	13.92	13.56	12.86	12.69	12.26	11.90	---	11.95	12.36	12.86	13.65	13.96
15	13.92	13.50	12.78	12.63	12.15	12.01	11.56	11.92	12.42	12.89	13.68	13.96
20	13.85	13.25	12.87	12.58	12.05	11.98	11.64	12.02	12.48	13.00	13.71	14.00
25	13.81	13.18	12.80	12.52	12.05	11.91	11.70	12.12	12.63	13.10	13.73	13.89
BOM	13.80	13.22	12.74	12.27	12.11	11.71	11.81	12.07	12.68	13.34	13.87	13.78

WTR YR 1993 HIGH 11.56 APR 15

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.05	13.67	13.24	12.83	12.44	12.10	11.93	11.88	12.36	12.89	13.57	13.97
10	13.99	13.69	12.99	12.75	12.31	12.01	---	11.98	12.41	12.90	13.67	13.99
15	14.01	13.54	12.93	12.67	12.26	12.06	11.69	11.99	12.48	12.94	13.69	14.03
20	13.95	13.40	12.97	12.78	12.14	12.03	11.79	12.10	12.55	13.07	13.71	14.08
25	13.89	13.31	12.93	12.58	12.23	11.97	11.82	12.23	12.68	13.17	13.77	14.03
BOM	13.84	13.27	12.91	12.39	12.15	11.84	11.85	12.18	12.74	13.41	13.95	13.85

WTR YR 1993 LOW 14.13 SEP 17

GROUND-WATER DATA

329

POSEY COUNTY

380758087551001. Local number, PY 3.

LOCATION.--Lat 38°07'58", long 87°55'10", in NW¹/₄, NW¹/₄, SW¹/₄, sec.31, T.4 S., R.13 W., Posey County, Hydrologic Unit 05120113, on property of the New Harmony Park Board, at the east edge of New Harmony.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 58 ft, cased to 54ft, screened to 56 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 380 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 3.00 ft above land-surface datum.

REMARKS.--Water level affected by Wabash River floods.

PERIOD OF RECORD.--April 1967 to September 1971, September 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.95 ft below land-surface datum, May 14, 1983; lowest, 21.40 ft below land-surface datum, Nov. 4, 8-15, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.23	19.00	15.04	15.06	11.73	11.48	10.31	7.52	12.22	13.68	14.42	16.11
10	18.42	18.62	15.31	14.03	12.35	10.84	9.36	8.41	12.59	13.47	14.84	15.95
15	18.58	17.91	15.68	12.31	12.85	10.34	8.80	9.28	12.55	13.51	15.25	16.22
20	18.73	16.47	15.99	12.25	13.21	10.38	8.53	9.70	12.81	13.49	15.53	16.26
25	18.78	14.86	16.06	11.92	12.53	10.57	8.55	10.64	13.15	13.46	15.50	16.04
DOM	18.88	14.81	16.23	11.46	12.76	10.25	9.23	11.49	13.38	14.02	15.80	15.95

WTR YR 1993 HIGH 7.41 MAY 4

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.30	19.00	15.09	15.42	11.79	11.73	10.37	7.71	12.37	13.71	14.48	16.13
10	18.45	18.71	15.46	14.27	12.79	10.98	9.49	8.62	12.67	13.55	14.92	16.01
15	18.61	18.03	15.78	12.61	13.01	10.50	9.28	9.56	12.63	13.56	15.32	16.26
20	18.75	16.92	16.05	12.35	13.33	10.79	8.77	9.90	12.85	13.53	15.55	16.29
25	18.79	14.99	16.17	12.06	12.68	10.62	8.80	10.85	13.20	13.57	15.52	16.11
DOM	18.91	14.83	16.31	11.54	12.82	10.38	9.30	11.72	13.50	14.08	15.88	16.04

WTR YR 1993 LOW 19.00 NOV 4

POSEY COUNTY

380546087474301. Local number, PY 5.

LOCATION.--Lat 38°05'46", long 87°47'43", in NE¹/₄, NW¹/₄, NE¹/₄, sec. 18, T.5S., R.12W., Posey County, Hydrologic Unit 05120113, about 0.5 mi southwest of Wadesville along the west edge of Laurel Hill Cemetery.
Owner: U.S. Geological Survey

AQUIFER.--Sandstone of Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 221 ft, cased to 160 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 460.60 ft above sea level. Measuring point: Top of casing, 3.60 ft above land-surface datum.

PERIOD OF RECORD.--September 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 132.83 ft below land-surface datum, Mar. 27, 1991; lowest, 143.94 ft below land-surface datum, Aug. 30, 1993.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	140.80	140.40	140.11	140.11	139.66	138.93	138.52	138.41	139.62	140.62	142.75	143.27
10	140.51	140.37	139.69	139.99	139.55	138.88	138.33	138.74	139.62	140.94	142.89	143.33
15	140.86	140.29	139.66	139.97	139.23	139.09	138.08	139.09	139.79	141.60	142.73	143.34
20	140.56	139.97	139.88	139.88	139.21	138.92	138.31	139.09	140.16	141.97	142.79	143.34
25	140.47	139.88	139.90	140.24	139.13	138.74	138.45	139.12	140.45	142.02	143.09	143.32
DOM	140.48	140.00	139.97	139.77	139.38	138.38	138.54	139.16	140.31	142.71	143.66	143.30

WTR YR 1993 HIGH 138.08 APR 15

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	140.89	140.54	140.38	140.26	139.93	139.13	138.67	138.58	139.77	140.76	143.24	143.36
10	140.75	140.57	139.97	140.19	139.61	139.12	138.44	139.07	139.67	141.10	143.26	143.51
15	141.01	140.33	139.88	140.13	139.41	139.16	138.34	139.45	139.91	141.74	142.87	143.34
20	140.75	140.12	140.12	140.10	139.41	139.07	138.60	139.24	140.31	142.07	142.93	143.35
25	140.60	140.08	140.13	140.35	139.45	138.89	138.62	139.27	140.53	142.13	143.21	143.32
DOM	141.08	140.11	140.21	139.99	139.49	138.54	138.64	139.46	140.42	143.27	143.82	143.30

WTR YR 1993 LOW 143.94 AUG 30

GROUND-WATER DATA

PULASKI COUNTY

405916086530701. Local number, PU 6.

LOCATION.--Lat 40°59'16", long 86°53'07", in NW¹/₄, SE¹/₄, SW¹/₄, sec.4, T.29 N., R.4 W., Pulaski County, Hydrologic Unit 05120106, on private property at the north edge of Francesville.

Owner: Earl Overmeyer.

AQUIFER.--Limestone of Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 8 in., depth 663 ft, cased to 11 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 678.60 ft above sea level. Measuring point: Top of floor of shelter, 3.00 ft above land-surface datum.

REMARKS.--Water level affected by pumpage and earthquakes.

PERIOD OF RECORD.--July 1956 to February 1971, January 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.03 ft below land-surface datum, June 15, 1958; lowest, 25.98 ft below land-surface datum, Oct. 25, 1991.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.68	18.39	15.71	13.89	14.49	15.48	13.33	14.27	16.22	13.78	16.82	16.57
10	19.51	17.73	15.47	13.50	14.89	14.02	13.77	14.89	15.67	14.37	17.27	15.07
15	19.97	16.35	16.02	13.85	15.48	14.10	13.94	15.47	15.16	14.50	17.70	14.63
20	19.96	15.70	15.90	14.31	15.53	14.23	13.66	15.67	14.88	14.70	17.93	13.47
25	20.15	15.29	15.91	13.60	16.10	13.66	13.94	16.08	15.15	15.12	18.25	13.78
BOM	20.46	15.22	15.85	13.53	16.24	13.39	13.91	16.08	14.82	16.07	17.87	14.09

WTR YR 1993 HIGH 13.13 JAN 8

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.02	18.83	16.14	14.14	14.80	15.70	13.54	14.73	16.60	14.00	17.03	16.87
10	19.96	18.20	16.01	13.78	15.14	14.48	14.07	15.11	15.83	14.49	17.53	15.35
15	20.22	16.62	16.46	13.97	15.69	14.23	14.32	16.03	15.31	14.75	17.86	15.18
20	20.25	16.07	16.31	14.73	15.72	14.49	14.45	16.00	15.04	14.88	18.06	13.64
25	20.55	15.68	16.32	13.77	16.44	13.78	14.30	16.43	15.63	15.30	20.35	14.09
BOM	20.84	15.40	16.03	13.88	16.40	13.75	14.13	16.53	15.08	16.38	18.18	14.45

WTR YR 1993 LOW 20.84 OCT 31

PULASKI COUNTY

410739086365201. Local number, PU 7.

LOCATION.--Lat 41°07'39", long 86°36'52", in NE¹/₄, NE¹/₄, NW¹/₄, sec.23, T.31 N., R.2 W., Pulaski County, Hydrologic Unit 05120106, in the Winamac State Fish and Game Area, 0.8 mi southwest of Beardstown.

Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 105 ft, cased to 98 ft, screened to 100 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 715.26 ft above sea level. Measuring point: Top of floor of shelter, 2.50 ft above land-surface datum.

PERIOD OF RECORD.--August 1967 to September 1971, September 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.69 ft below land-surface datum, June 15, 1981; lowest, 11.86 ft below land-surface datum, Nov. 6-9, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.55	10.08	---	---	7.36	7.70	6.56	6.54	7.62	7.85	9.03	9.04
10	10.56	9.60	---	---	7.52	7.25	6.71	6.82	7.32	8.23	9.28	8.82
15	10.65	9.06	---	---	7.63	7.37	6.61	7.12	7.47	8.13	9.31	8.19
20	10.70	8.65	---	---	7.73	7.30	6.58	7.46	7.63	8.17	9.43	7.99
25	10.79	---	---	6.83	7.84	6.96	6.49	7.62	7.94	8.40	9.58	8.09
BOM	10.87	---	---	7.03	7.94	6.86	6.46	7.57	7.99	8.75	9.54	8.08

WTR YR 1993 HIGH 6.45 APR 26

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.57	10.17	---	---	7.41	7.74	6.61	6.57	7.67	7.92	9.13	9.06
10	10.60	9.88	---	---	7.56	7.35	6.78	6.89	7.38	8.26	9.44	8.89
15	10.68	9.08	---	---	7.67	7.41	6.82	7.24	7.51	8.17	9.35	8.54
20	10.75	8.99	---	---	7.76	7.33	6.62	7.50	7.66	8.22	9.47	8.02
25	10.81	---	---	6.87	7.90	6.98	6.70	7.69	8.03	8.43	9.61	8.18
BOM	10.88	---	---	7.13	7.97	7.10	6.49	7.62	8.02	8.77	9.58	8.13

WTR YR 1993 LOW 10.88 OCT 31

GROUND-WATER DATA

331

PULASKI COUNTY

405605086551701. Local number, PU 8.

LOCATION.--Lat 40°56'05", long 86°55'17", in SE¹/₄, SE¹/₄, NW¹/₄, sec.30, T.29 N., R.4 W., Pulaski County, Hydrologic Unit 05120106, at the Arrowhead Country Resource Conservation and Development Office property, 11 mi east of Rensselaer on State Highway 114.
Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Middle Silurian Period, Wabash Formation.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 102 ft, cased to 12 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 683.76 ft above sea level. Measuring point: Top of casing, 3.50 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.68 ft below land-surface datum, Dec. 29, 1991; lowest, 11.74 ft below land-surface datum, Aug. 25, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993												SEP
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG		
5	4.44	2.67	3.02	.86	2.73	1.32	2.40	2.01	2.25	2.05	4.03	---	
10	4.50	2.58	2.94	2.30	2.83	1.37	1.36	2.75	1.73	2.20	4.26	---	
15	4.56	2.14	1.98	1.96	2.61	2.30	2.20	3.03	1.85	1.89	4.40	---	
20	4.12	2.64	2.51	2.46	2.77	1.99	2.19	3.28	1.78	2.43	3.78	---	
25	4.26	1.88	2.77	1.65	2.83	1.05	---	3.30	2.74	2.96	4.38	---	
DOM	4.45	2.55	1.34	2.35	2.99	2.14	---	2.43	1.28	3.56	3.39	---	

WTR YR 1993 HIGH .73 JAN 4

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993												SEP
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG		
5	4.49	2.89	3.09	1.12	2.80	1.46	2.62	2.21	2.48	2.38	4.06	---	
10	4.59	3.10	3.19	2.48	2.89	1.50	1.81	2.83	2.14	3.03	4.32	---	
15	4.77	2.34	3.04	2.05	2.73	2.43	2.30	3.18	2.31	2.22	4.48	---	
20	4.27	2.71	2.67	2.67	2.90	2.38	2.35	3.32	1.97	2.69	3.99	---	
25	4.35	2.09	3.10	1.94	2.93	2.36	---	3.39	2.88	3.07	4.44	---	
DOM	4.51	2.63	1.81	2.57	3.07	2.31	---	2.67	1.83	3.61	3.96	---	

WTR YR 1993 LOW 4.77 OCT 15

RANDOLPH COUNTY

401532085085301. Local number, RA 3.

LOCATION.--Lat 40°15'32", long 85°08'53", in NE¹/₄, NE¹/₄, SE¹/₄, sec.23, T.21 N., R.12 E., Randolph County, Hydrologic Unit 05120103, at the east edge of Purdue University Agriculture Experiment Station, about 5.5 mi north of Farmland.
Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 54 ft, cased to 33 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 970 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 3.85 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.68 ft below land-surface datum, Dec. 30, 1990; lowest, 15.18 ft below land-surface datum, Oct. 12, 13, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993												SEP
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG		
5	11.14	9.71	10.10	9.11	10.12	9.02	9.76	10.19	9.43	9.20	11.69	12.65	
10	10.74	10.12	10.10	9.61	10.45	8.96	9.25	10.51	9.65	10.15	11.84	12.69	
15	10.24	9.34	10.14	9.55	10.23	9.72	8.87	10.47	9.71	10.33	12.04	12.95	
20	10.00	9.67	10.24	10.00	10.16	9.71	9.16	10.81	10.18	10.57	12.13	13.03	
25	10.32	9.18	10.17	9.41	9.92	9.35	9.61	10.54	10.09	10.95	12.48	12.80	
DOM	10.75	9.62	10.26	9.48	10.13	9.38	9.92	9.50	9.37	11.41	12.67	12.74	

WTR YR 1993 HIGH 8.28 JUL 2

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993												SEP
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG		
5	11.27	9.84	10.32	9.35	10.23	9.33	9.82	10.38	9.71	9.40	11.74	12.73	
10	10.86	10.17	10.28	9.78	10.56	9.16	9.35	10.57	9.80	10.25	11.94	12.90	
15	10.81	9.53	10.40	9.59	10.42	9.82	9.11	10.64	9.82	10.38	12.13	13.08	
20	10.11	9.78	10.39	10.16	10.29	9.78	9.42	10.90	10.30	10.70	12.27	13.07	
25	10.40	9.29	10.44	9.53	10.14	9.43	9.83	10.59	10.36	11.03	12.58	13.09	
DOM	10.83	9.66	10.30	9.62	10.17	9.61	10.04	9.68	9.54	11.47	12.79	12.91	

WTR YR 1993 LOW 13.18 SEP 24

GROUND-WATER DATA

ST. JOSEPH COUNTY

413120086055601. Local number, SJ 31.

LOCATION.--Lat 41°31'20", long 86°05'56", in SW¹/₄/SW¹/₄/SW¹/₄ sec.31, T.36 N., R.4 E., St. Joseph County, Hydrologic Unit 07120001, 4 mi west of Wakarusa.
 Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 109 ft, cased to 104 ft, screened to 109 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 830.50 ft above sea level. Measuring point: Top of casing, 3.40 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.71 ft below land-surface datum, Jan. 23, 1991; lowest, 12.64 ft below land-surface datum, Oct. 6,7, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.48	10.19	9.18	8.35	8.99	9.60	9.21	9.16	9.60	8.97	10.56	11.05
10	10.40	10.18	8.99	8.32	9.13	9.54	9.13	9.28	9.14	9.13	10.79	10.90
15	10.42	9.94	8.90	8.23	9.27	9.57	9.08	9.33	8.98	9.26	10.99	10.84
20	10.43	9.81	8.82	8.50	9.41	9.53	9.06	9.46	8.89	9.44	10.99	10.76
25	10.44	9.47	8.76	8.53	9.57	9.37	9.10	9.59	8.93	9.74	11.17	10.63
DOM	10.51	9.26	8.58	8.67	9.68	9.11	9.18	9.70	8.95	10.04	11.16	10.56

WTR YR 1993 HIGH 8.17 JAN 13

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.53	10.23	9.24	8.41	9.03	9.65	9.24	9.22	9.66	9.00	10.64	11.07
10	10.44	10.26	9.09	8.36	9.19	9.63	9.19	9.31	9.15	9.16	10.83	10.96
15	10.48	9.97	9.05	8.25	9.33	9.61	9.17	9.43	9.00	9.31	11.05	10.91
20	10.50	9.91	8.89	8.53	9.44	9.57	9.15	9.51	8.93	9.58	11.03	10.83
25	10.47	9.57	8.85	8.60	9.59	9.39	9.17	9.68	8.95	9.76	11.22	10.75
DOM	10.55	9.33	8.65	8.72	9.71	9.24	9.23	9.77	8.99	10.19	11.23	10.63

WTR YR 1993 LOW 11.29 AUG 23

SHELBY COUNTY

393943085490901. Local number, SH 2.

LOCATION.--Lat 39°39'43", long 85°49'09", in SW¹/₄/SW¹/₄/NW¹/₄ sec.13, T.14 N., R.6 E., Shelby County, Hydrologic Unit 05120204, on the county right-of-way at the intersection of County Roads 950 North and 200 West, 3.0 mi south of Carrollton.
 Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 150 ft, cased to 128 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 816.10 ft above sea level. Measuring point: Top of floor of shelter, 3.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.90 ft below land-surface datum, May 27, 1968; lowest, 22.65 ft below land-surface datum, Feb. 7, 1977.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.78	---	19.17	---	18.72	---	17.78	18.66	19.58	18.51	19.95	19.10
10	20.88	---	19.35	---	18.95	17.48	17.50	19.01	18.99	18.96	20.18	19.32
15	20.91	18.93	19.64	---	19.24	18.05	17.19	19.12	18.32	19.28	20.20	19.28
20	20.81	19.00	19.73	18.77	---	18.42	17.45	19.37	18.52	19.33	20.10	19.04
25	20.79	18.53	19.80	18.02	---	18.36	18.01	19.55	18.63	19.51	20.16	19.33
DOM	20.94	18.73	19.59	18.31	---	18.07	18.42	19.70	18.71	19.57	20.29	18.64

WTR YR 1993 HIGH 17.17 APR 16

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.86	---	19.32	---	18.75	---	17.78	18.79	19.58	18.63	19.97	19.17
10	20.89	---	19.42	---	18.99	17.50	17.78	19.05	19.03	19.06	20.18	19.50
15	20.99	18.93	19.64	---	19.24	18.13	17.42	19.26	18.54	19.32	20.24	19.38
20	20.82	19.04	19.81	18.77	---	18.43	17.66	19.44	18.62	19.37	20.17	19.12
25	20.79	18.58	19.92	18.04	---	18.36	18.20	19.67	18.65	19.56	20.19	19.48
DOM	20.96	18.76	19.67	18.31	---	18.35	18.48	19.75	18.76	19.66	20.32	18.68

WTR YR 1993 LOW 20.99 OCT 15

GROUND-WATER DATA

333

STARKE COUNTY

411342086365601. Local number, SR 2.

LOCATION.--Lat 41°13'42", long 86°36'56", in NW¹/₄NE¹/₄NW¹/₄ sec.14, T.32 N., R.2 W., Starke County, Hydrologic Unit 07120001, on private property in the southeast angle of intersection of U.S. Highway 35 and County Road 500 South, and 5.0 mi south of Knox.
Owner: Samuel A. Craigmile.

AQUIFER.--Gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 85 ft, cased to 77 ft, screened to 85 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 712.97 ft above sea level. Measuring point: Top of floor of shelter, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--October 1935 to December 1952 (random instantaneous measurements only), August 1963 to October 1966, June 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.83 ft below land-surface datum, June 17, 1949; lowest, 6.99 ft below land-surface datum, Aug. 2, 1939, Sept. 17, 18, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.58	4.86	4.82	3.12	4.42	4.41	3.74	4.01	4.78	4.69	5.53	5.44
10	5.65	4.96	4.86	3.76	4.53	4.09	4.00	4.37	4.19	4.98	5.61	5.45
15	5.70	4.41	4.71	3.87	4.60	4.34	3.98	4.60	4.22	5.08	5.74	4.46
20	5.73	4.67	4.73	4.19	4.71	4.25	3.92	4.79	4.48	4.87	5.81	4.73
25	5.80	4.35	4.88	3.72	4.79	3.77	3.65	4.88	4.75	5.13	5.92	4.77
ROM	5.89	4.60	4.11	4.15	4.87	3.40	3.88	4.73	4.76	5.37	5.81	4.72

WTR YR 1993 HIGH 3.12 JAN 5

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.60	4.91	4.86	3.23	4.44	4.47	3.84	4.08	4.81	4.77	5.55	5.50
10	5.68	5.03	4.95	3.85	4.55	4.13	4.04	4.42	4.28	4.99	5.65	5.51
15	5.76	4.49	4.95	3.94	4.61	4.35	4.04	4.68	4.27	5.11	5.76	4.68
20	5.76	4.68	4.79	4.23	4.73	4.32	4.02	4.82	4.53	4.96	5.86	4.77
25	5.81	4.38	4.98	3.86	4.82	3.84	4.21	4.92	4.79	5.17	5.95	4.91
ROM	5.89	4.64	4.28	4.23	4.89	4.07	3.96	4.76	4.79	5.40	5.90	4.74

WTR YR 1993 LOW 5.97 AUG 28

STEBEN COUNTY

414204085054002. Local number, SB 6.

LOCATION.--Lat 41°42'04", long 85°05'40", in SE¹/₄SE¹/₄SW¹/₄ sec.36, T.38 N., R.12 W., Steuben County, Hydrologic Unit 04050001, 0.5 east of Panama on the north side of the Lake Gage Congregational Church.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 76 ft, cased to 71 ft, screened to 76 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 987.89 ft above sea level. Measuring point: Top of casing, 3.60 ft above land-surface datum.

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

REVISED RECORDS.--WDR IN-91-1: 1989.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.68 ft below land-surface datum, July 1, 1993; lowest, 19.12 ft below land-surface datum, Oct. 17, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.86	17.93	17.47	16.93	15.95	15.79	15.17	14.93	15.03	14.72	15.06	15.55
10	17.86	17.91	17.33	16.61	15.93	15.71	15.11	14.93	14.89	14.77	15.12	15.57
15	17.88	17.84	17.32	16.41	15.89	15.75	15.00	14.90	14.77	14.80	15.20	15.64
20	17.86	17.69	17.35	16.27	15.86	15.69	14.99	14.95	14.70	14.81	15.26	15.71
25	17.92	17.56	17.27	16.18	15.85	15.49	14.98	15.00	14.70	14.89	15.38	15.72
ROM	17.99	17.50	17.22	15.98	15.85	15.22	14.96	14.96	14.70	14.98	15.43	15.83

WTR YR 1993 HIGH 14.68 JUL 1

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.89	17.97	17.51	17.01	16.01	15.86	15.22	14.99	15.14	14.76	15.09	15.59
10	17.89	17.96	17.43	16.68	15.94	15.80	15.15	14.94	14.93	14.80	15.14	15.63
15	17.92	17.85	17.39	16.45	15.94	15.81	15.05	14.98	14.81	14.84	15.24	15.71
20	17.91	17.74	17.41	16.35	15.88	15.73	15.10	14.98	14.74	14.88	15.32	15.73
25	17.95	17.65	17.38	16.24	15.92	15.55	15.05	15.05	14.71	14.90	15.42	15.80
ROM	18.01	17.52	17.27	16.04	15.89	15.28	15.01	15.08	14.72	15.02	15.49	15.89

WTR YR 1993 LOW 18.01 OCT 31

GROUND-WATER DATA

TIPPECANOE COUNTY

402734087033401. Local number, TC 17.

LOCATION.--Lat 40°27'34", long 87°03'34", NW¹/₄, NE¹/₄, NE¹/₄, sec.11, T.23 N., R.6 W., Tippecanoe County, Hydrologic Unit 05120108, on the property of Purdue University and at the southeast corner of the intersection of County Roads 300 North and 825 West, about 3.0 mi southeast of Otterbein.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age (Teays Valley aquifer).

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 212.5 ft, cased to 207.5 ft, screened to 212.5 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 681 ft above sea level, from topographic map. Measuring point: Top of casing, 3.60 ft above land-surface datum.

PERIOD OF RECORD.--August 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 110.98 ft below land-surface datum, October 2, 1989; lowest, 121.28 ft below land-surface datum, August 18, 1989.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	116.64	116.86	116.60	116.65	116.33	116.52	116.70	116.21	116.19	115.89	---	---
10	117.03	116.72	117.08	116.57	116.62	---	116.29	116.63	116.11	116.01	---	---
15	116.95	116.74	116.83	116.70	116.44	---	115.96	116.83	115.90	116.05	---	---
20	116.56	116.98	116.62	116.28	116.56	117.06	116.05	116.65	115.90	115.91	---	---
25	116.84	117.15	116.60	116.42	116.13	116.89	116.15	116.29	115.89	115.74	---	---
BOM	116.87	116.95	116.57	116.62	116.14	116.03	116.45	116.40	115.96	115.77	---	---

WTR YR 1993 HIGH 115.58 AUG 1

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	116.81	116.99	116.86	117.10	116.57	116.78	116.86	116.48	116.43	116.00	---	---
10	117.07	116.85	117.35	116.70	116.66	---	116.43	116.69	116.25	116.07	---	---
15	117.02	116.86	117.36	116.76	116.59	---	116.23	116.94	116.04	116.10	---	---
20	116.81	117.33	116.97	116.70	116.82	117.12	116.44	116.70	115.96	116.00	---	---
25	116.91	117.30	116.84	116.62	116.42	116.96	116.53	116.56	115.90	115.80	---	---
BOM	116.91	117.07	116.99	116.94	116.27	116.48	116.53	116.56	116.13	115.90	---	---

WTR YR 1993 LOW 117.69 NOV 22

TIPPECANOE COUNTY

402734087033402. Local number, TC 18.

LOCATION.--Lat 40°27'34", long 87°03'34", NW¹/₄, NE¹/₄, NE¹/₄, sec.11, T.23 N., R.6 W., Tippecanoe County, Hydrologic Unit 05120108, on the property of Purdue University and at the southeast corner of the intersection of County Roads 300 North and 825 West, about 3.0 mi southeast of Otterbein.
Owner: U.S. Geological Survey

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 64 ft, cased to 59 ft, screened to 64 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 681 ft above sea level, from topographic map. Measuring point: Top of casing, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--August 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.67 ft below land-surface datum, Mar. 27, 1991; lowest, 21.74 ft below land-surface datum, Nov. 16, 1991.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.87	20.23	18.86	17.12	18.21	18.32	16.84	---	---	18.19	19.60	20.11
10	20.90	20.26	18.85	17.46	18.58	17.54	---	---	---	18.54	19.81	20.23
15	20.94	19.66	18.98	17.75	18.93	17.67	---	---	---	18.44	19.95	19.97
20	20.89	19.54	18.92	18.05	19.16	18.15	---	---	---	18.75	20.00	19.90
25	20.96	18.67	18.95	16.86	19.40	17.37	---	---	---	19.00	20.14	19.97
BOM	21.03	18.69	18.79	17.47	19.53	17.49	---	---	18.88	19.33	20.28	19.91

WTR YR 1993 HIGH 16.76 JAN 24

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.90	20.26	18.92	17.28	18.26	18.57	16.89	---	---	18.23	19.63	20.13
10	20.92	20.31	18.95	17.57	18.65	17.61	---	---	---	18.63	19.84	20.31
15	20.97	19.66	19.11	17.78	18.97	17.86	---	---	---	18.50	20.01	20.18
20	20.93	19.58	18.99	18.16	19.19	18.17	---	---	---	18.83	20.03	19.91
25	20.98	18.75	19.04	16.94	19.45	17.43	---	---	---	19.02	20.19	20.07
BOM	21.04	18.70	18.90	17.58	19.57	17.58	---	---	19.10	19.37	20.35	19.95

WTR YR 1993 LOW 21.04 OCT 31

GROUND-WATER DATA

335

VANDERBURGH COUNTY

38060807395901. Local number, VA 6.

LOCATION.--Lat 38°06'08", long 87°39'59", in SE¹/₄, SW¹/₄, NW¹/₄, sec.8, T.5 S., R.11 W., Vanderburgh County, Hydrologic Unit 05120113, on county right-of-way at the intersection of Buente and New Harmony Roads, 1.0 mi southwest of Armstrong.

Owner: U.S. Geological Survey.

AQUIFER.--Sandstone of Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 125 ft, cased to 80 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 446.57 ft above sea level. Measuring point: Top of floor of shelter, 3.40 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.88 ft below land-surface datum, Apr. 3, 4, 1968; lowest, 35.50 ft below land-surface datum, Nov. 27, 1991.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	35.09	35.03	35.09	34.85	34.16	33.34	33.19	32.84	33.50	33.77	34.17	34.69
10	35.04	35.13	34.74	34.74	34.02	33.35	32.89	32.98	33.57	34.03	34.30	34.64
15	35.24	35.10	34.71	34.59	33.80	33.56	32.68	32.86	33.65	34.12	34.27	34.76
20	35.13	34.87	34.94	34.46	33.66	33.48	32.83	32.89	33.66	34.01	34.27	34.61
25	35.12	34.77	34.97	34.47	33.57	33.30	32.95	33.12	33.69	33.96	34.57	34.33
DOM	35.10	34.98	34.94	34.14	33.78	33.02	32.95	33.22	33.70	34.17	34.86	34.61

WTR YR 1993 HIGH 32.68 APR 15

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	35.22	35.16	35.23	35.01	34.36	33.59	33.33	32.99	33.66	33.90	34.29	34.75
10	35.26	35.30	34.95	34.88	34.16	33.55	33.00	33.03	33.62	34.14	34.38	34.81
15	35.37	35.19	34.95	34.71	34.07	33.62	32.86	32.97	33.76	34.29	34.37	34.89
20	35.26	35.06	35.16	34.75	33.88	33.60	33.06	32.97	33.78	34.13	34.42	34.70
25	35.21	34.97	35.21	34.57	33.93	33.43	33.07	33.26	33.78	34.02	34.73	34.51
DOM	35.14	35.10	35.14	34.36	33.85	33.19	33.03	33.45	33.79	34.27	34.98	34.76

WTR YR 1993 LOW 35.40 OCT 12

VANDERBURGH COUNTY

380626087344401. Local number, VA 7.

LOCATION.--Lat 38°06'26", long 87°34'44", in NE¹/₄, NW¹/₄, NW¹/₄, sec.7, T.5 S., R.10 W., Vanderburgh County, Hydrologic Unit 05120113, on north side of Salem United Church of Christ 0.5 mi north of Darmstadt.

Owner: U.S. Geological Survey.

AQUIFER.--Inglefield Sandstone Member, Patoka Formation of Pennsylvanian Period.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 70 ft, cased to 39.3 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 475.35 ft above sea level. Measuring point: Top of floor of shelter, 4.04 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 19.93 ft below land-surface datum, Mar. 27, 1991; lowest, 25.06 ft below land-surface datum, Oct. 29, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.86	24.12	23.96	23.17	22.00	21.68	21.38	20.87	20.98	21.91	22.59	23.07
10	23.75	24.18	23.28	23.14	22.00	21.59	21.07	20.72	21.31	22.07	22.60	22.97
15	23.91	24.21	23.24	22.93	22.24	22.00	20.47	20.48	21.42	22.22	22.65	23.21
20	24.01	23.60	23.57	22.59	21.01	21.89	20.55	20.62	21.51	22.25	22.74	23.12
25	23.90	23.60	23.71	22.71	22.17	21.58	20.75	20.79	21.68	22.22	22.92	22.81
DOM	24.00	23.66	23.45	22.23	22.42	20.95	20.95	20.67	21.66	22.42	22.96	23.11

WTR YR 1993 HIGH 20.37 MAY 13

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	24.05	24.29	24.18	23.51	22.67	22.00	21.53	21.01	21.38	21.98	22.72	23.12
10	23.86	24.29	23.57	23.33	22.64	21.97	21.27	20.88	21.46	22.15	22.71	23.24
15	24.01	24.31	23.68	23.09	22.88	22.19	20.76	20.59	21.54	22.30	22.73	23.42
20	24.18	23.90	23.99	23.09	22.42	21.97	20.98	20.75	21.58	22.33	22.83	23.22
25	23.96	23.81	23.98	22.97	22.68	21.71	21.07	20.99	21.73	22.30	23.07	23.13
DOM	24.11	23.84	23.83	22.50	22.57	21.14	21.06	20.99	21.75	22.58	23.06	23.41

WTR YR 1993 LOW 24.45 OCT 17

GROUND-WATER DATA

VIGO COUNTY

392820087242601. Local number, VI 7.

LOCATION.--Lat 39°28'20", long 87°24'26", in SE¹/₄, SE¹/₄, NE¹/₄, sec.21, T.12 N., R.9 W., Vigo County, Hydrologic Unit 05120111, on the campus of Indiana State University, in Terre Haute.
 Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 70 ft, cased to 67 ft, screened to 70 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 502 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 3.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 38.53 ft below land-surface datum, May 4, 1993; lowest, 51.90 ft below land-surface datum, Sept. 29 to Oct. 1, 1972.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	44.08	44.53	40.80	41.28	38.78	40.52	39.13	38.53	40.11	40.55	39.89	41.12
10	44.15	43.95	40.85	40.69	39.02	40.27	39.04	38.59	40.22	40.02	40.25	40.92
15	44.31	43.09	41.07	39.88	39.45	39.76	39.17	38.84	40.25	39.72	40.67	40.86
20	44.47	42.00	41.24	39.49	39.80	39.39	39.03	39.19	40.30	39.51	40.76	40.72
25	44.50	41.29	41.20	39.29	40.16	39.35	38.81	39.57	40.47	39.47	40.80	40.62
DOM	44.56	40.89	41.36	38.84	40.32	39.11	38.73	39.90	40.63	39.64	41.00	40.66

WTR YR 1993 HIGH 38.53 MAY 4

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	44.09	44.59	40.82	41.34	38.79	40.56	39.15	38.54	40.16	40.62	39.95	41.15
10	44.18	44.09	40.92	40.85	39.10	40.34	39.07	38.62	40.24	40.13	40.34	40.93
15	44.35	43.28	41.11	40.02	39.50	39.88	39.21	38.92	40.26	39.77	40.71	40.88
20	44.50	42.22	41.26	39.57	39.85	39.43	39.05	39.27	40.32	39.54	40.78	40.77
25	44.51	41.39	41.27	39.34	40.19	39.37	38.85	39.65	40.50	39.49	40.83	40.64
DOM	44.58	40.96	41.43	38.92	40.37	39.16	38.77	39.95	40.67	39.66	41.06	40.72

WTR YR 1993 LOW 44.61 NOV 3

WABASH COUNTY

404424085422801. Local number, WB 3.

LOCATION.--Lat 40°44'24", long 85°42'28", in SE¹/₄, SE¹/₄, SW¹/₄, sec.35, T.27 N., R.7 E., Wabash County, Hydrologic Unit 05120101, on State Highway 124, 3.5 mi west of the county line and in the southwest corner of United Telephone Company property.
 Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 105 ft, cased to 100 ft, screened to 105 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 850.45 ft above sea level. Measuring point: Top of casing, 3.50 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 43.85 ft below land-surface datum, Mar. 27, 1991 and Apr. 1, 1993; lowest, 48.20 ft below land-surface datum, Oct. 30, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	45.55	45.15	44.95	44.70	44.72	44.67	44.21	44.03	44.61	44.73	44.86	45.32
10	45.43	45.33	44.81	44.63	44.74	44.50	44.00	44.21	44.75	44.74	45.04	45.32
15	45.51	45.10	44.93	44.65	44.80	44.60	43.90	44.05	44.70	44.85	45.04	45.32
20	45.53	45.04	44.99	44.80	44.85	44.64	43.96	44.34	44.76	44.86	45.12	45.40
25	45.46	44.79	45.00	44.65	45.02	44.43	43.99	44.48	44.86	44.86	45.21	45.40
DOM	45.50	44.86	44.97	44.42	45.11	43.89	44.15	44.54	44.88	44.86	45.32	45.40

WTR YR 1993 HIGH 43.85 APR 1

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	45.67	45.20	45.17	44.84	44.85	44.81	44.32	44.16	44.82	44.77	44.86	45.32
10	45.44	45.44	45.03	44.77	44.77	44.71	44.12	44.26	44.79	44.85	45.04	45.32
15	45.52	45.18	45.22	44.69	44.87	44.66	44.09	44.17	44.80	44.86	45.05	45.39
20	45.68	45.21	45.20	44.99	44.99	44.70	44.15	44.42	44.82	44.86	45.12	45.40
25	45.51	44.90	45.17	44.73	45.13	44.49	44.25	44.65	44.90	44.86	45.35	45.40
DOM	45.55	44.94	45.14	44.52	45.18	44.16	44.20	44.69	44.91	44.86	45.35	45.40

WTR YR 1993 LOW 45.75 OCT 22

GROUND-WATER DATA

337

WABASH COUNTY

403948085414601. Local number, WB 4.

LOCATION.--Lat 40°39'48", long 85°41'46", in NE¹/₄, SE¹/₄, NE¹/₄ sec. 35, T.26N., R.7E., Wabash County, Hydrologic Unit 05120103, on America Road, 1.3 mi southeast of La Fontaine.
 Owner: U.S. Geological Survey

AQUIFER.--Sand and gravel of the Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 118 ft, cased to 113 ft, screened to 118 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 837.40 ft (revised) above sea level. Measuring point: Top of casing, 3.30 ft above land-surface datum.

PERIOD OF RECORD.--August 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 38.19 ft below land-surface datum, Nov. 5, 1988; lowest, 44.58 ft below land-surface datum, Dec. 23, 1989.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	43.22	43.23	43.06	42.62	42.79	42.58	42.81	42.46	42.48	42.49	42.94	43.23
10	43.07	43.39	42.73	42.84	42.77	42.61	42.46	42.57	42.65	42.56	42.97	43.14
15	43.19	43.33	42.78	42.79	42.89	42.96	42.21	42.21	42.70	42.64	43.02	43.26
20	43.34	43.01	42.94	42.89	42.73	43.05	42.36	42.39	42.65	42.64	43.03	43.32
25	43.31	42.86	42.97	42.81	43.02	42.92	42.40	42.48	42.62	42.62	43.15	43.12
DOM	43.43	42.89	42.76	42.51	43.10	42.23	42.54	42.41	42.56	42.78	43.09	43.53

WTR YR 1993 HIGH 42.21 APR 15

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	43.37	43.33	43.30	42.92	43.01	42.80	42.93	42.66	42.78	42.54	43.01	43.29
10	43.13	43.51	42.96	42.93	42.81	42.85	42.59	42.62	42.76	42.63	43.07	43.38
15	43.24	43.45	43.17	42.84	43.00	43.10	42.48	42.33	42.82	42.69	43.11	43.53
20	43.53	43.30	43.21	43.19	42.91	43.11	42.62	42.45	42.71	42.73	43.13	43.44
25	43.39	43.01	43.18	42.98	43.22	42.98	42.65	42.73	42.71	42.64	43.26	43.48
DOM	43.48	43.02	43.06	42.78	43.21	42.55	42.62	42.63	42.63	42.84	43.24	43.73

WTR YR 1993 LOW 43.73 SEP 30

WARRICK COUNTY

380624087164801. Local number, WK 4.

LOCATION.--Lat 38°06'24", long 87°16'48", in S¹/₂, SW¹/₄, SW¹/₄ sec. 2, T.5 S., R.8 W., Warrick County, Hydrologic Unit 05140201, on State Highway 61, 4.2 mi north of Boonville.
 Owner: U.S. Geological Survey

AQUIFER.--Sandstone from lower Dugger Formation of Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 105 ft, cased to 30 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 446.18 ft above sea level. Measuring point: Top of floor of shelter, 4.09 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.01 ft below land-surface datum, Mar. 22, 1991; lowest, 18.20 ft below land-surface datum, Oct. 30, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.53	11.96	10.59	9.75	9.30	8.65	8.63	8.69	9.99	10.22	10.70	11.29
10	11.63	12.07	10.45	9.53	9.42	8.63	8.57	8.78	9.90	10.55	10.99	11.17
15	11.77	11.37	10.26	9.39	9.16	8.93	8.39	9.02	9.58	10.85	11.08	11.26
20	11.87	10.99	10.25	9.46	9.05	8.89	8.43	9.29	9.66	10.56	11.20	11.20
25	11.92	10.60	10.25	9.08	8.89	8.63	8.73	9.57	9.81	10.32	11.41	10.70
DOM	11.97	10.54	10.08	9.11	9.03	8.58	8.83	9.85	9.97	10.41	11.64	10.45

WTR YR 1993 HIGH 8.39 APR 15

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.59	12.00	10.62	9.78	9.32	8.68	8.64	8.73	10.06	10.28	10.74	11.35
10	11.65	12.10	10.52	9.57	9.44	8.71	8.58	8.84	9.99	10.62	11.04	11.20
15	11.79	11.46	10.34	9.41	9.30	8.98	8.52	9.10	9.58	10.88	11.09	11.29
20	11.89	11.07	10.31	9.53	9.12	8.92	8.51	9.35	9.67	10.59	11.24	11.22
25	11.94	10.67	10.29	9.11	9.03	8.66	8.77	9.65	9.85	10.35	11.46	10.88
DOM	11.99	10.58	10.11	9.16	9.05	8.69	8.86	9.92	10.01	10.46	11.68	10.51

WTR YR 1993 LOW 12.10 NOV 9

GROUND-WATER DATA

WASHINGTON COUNTY

383012086124501. Local number, WA 2.

LOCATION.--Lat 38°30'12", long 86°12'45", IN NE¹/₄SW¹/₄SW¹/₄ sec.20, T.1 N., R.3 E., Washington County, Hydrologic Unit 05140104, on West Washington School Road, 5.1 mi north of Fredericksburg.
Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Mississippian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depty 142.5 ft, cased to 101 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 780 ft above sea level, from topographic map. Measuring point: Top of casing, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--August 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 65.57 ft below land-surface datum, June 8, 1990; lowest, 74.58 ft below land-surface datum, Jan. 3, 1993.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	73.50	73.75	73.62	73.79	72.30	70.81	71.16	70.37	71.25	72.12	72.96	73.17
10	73.48	73.96	73.72	73.75	72.39	71.59	70.95	70.68	71.33	72.21	73.01	73.17
15	73.56	73.75	73.89	73.68	72.22	72.19	70.19	70.78	71.60	72.36	73.02	72.83
20	73.69	73.75	74.05	73.40	72.21	72.05	70.29	70.94	71.73	72.53	72.80	72.96
25	73.69	73.34	74.16	72.38	71.85	71.42	70.50	71.17	71.83	72.64	73.07	73.11
DOM	73.82	73.48	74.26	---	72.06	71.37	70.46	71.45	71.90	72.80	73.22	73.25

WTR YR 1993 HIGH 70.14 APR 16

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	73.67	73.91	73.79	74.02	72.47	71.23	71.29	70.56	71.35	72.16	72.99	73.20
10	73.64	74.20	74.07	73.95	72.53	71.96	71.02	70.76	71.45	72.27	73.02	73.23
15	73.90	73.94	74.08	73.84	72.37	72.30	70.43	70.98	71.75	72.63	73.04	73.22
20	73.75	74.08	74.21	73.70	72.39	72.26	70.45	71.09	71.81	72.62	72.87	72.99
25	74.12	73.62	74.46	72.56	71.95	71.56	70.57	71.34	71.89	72.69	73.17	73.14
DOM	73.98	73.74	74.57	---	72.23	71.56	70.52	71.59	71.97	72.85	73.26	73.28

WTR YR 1993 LOW 74.58 JAN 3

WAYNE COUNTY

394426085080601. Local number, WR 6.

LOCATION.--Lat 39°44'26", long 85°08'06", in SE¹/₄NW¹/₄NE¹/₄ sec.24, T.15 N., R.12 E., Wayne County, Hydrologic Unit 05080003, on county right-of-way, 750 ft east of State Highway 1, and 4.0 mi south of East Germantown.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 49 ft, cased to 47 ft, screened to 49 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 888 ft above sea level, from topographic map. Measuring point: Top of collar in shelter, 3.60 ft above land-surface datum.

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

REVISED RECORDS.--WDR IN-81-1: 1980.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.03 ft below land-surface datum, Jan. 1, 1991; lowest, 21.68 ft below land-surface datum, Feb. 1, 1977.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.51	17.11	15.12	15.44	14.10	13.80	12.85	12.56	12.55	12.10	13.33	14.83
10	16.73	17.05	15.11	14.85	14.24	12.87	12.59	12.80	12.52	12.00	13.66	14.85
15	16.94	16.46	15.25	14.50	14.41	12.73	12.18	11.35	12.48	12.21	13.95	15.02
20	16.97	15.90	15.38	14.38	14.56	12.88	12.03	11.57	12.65	12.43	14.24	15.21
25	16.99	15.50	15.53	14.19	14.56	12.95	12.16	11.99	12.73	12.70	14.54	15.41
DOM	17.07	15.21	15.69	14.02	14.61	12.95	12.35	12.36	12.69	13.03	14.87	15.55

WTR YR 1993 HIGH 11.34 MAY 16

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.55	17.12	15.13	15.69	14.11	14.19	12.87	12.62	12.61	12.22	13.39	14.84
10	16.77	17.06	15.14	14.92	14.27	12.99	12.80	12.85	12.57	12.03	13.72	14.89
15	16.96	16.61	15.26	14.57	14.43	12.75	12.28	11.45	12.50	12.25	14.01	15.05
20	16.98	15.98	15.42	14.40	14.59	12.92	12.07	11.66	12.68	12.49	14.30	15.25
25	17.00	15.59	15.56	14.25	14.60	12.97	12.21	12.06	12.81	12.75	14.59	15.44
DOM	17.09	15.25	15.73	14.04	14.62	12.97	12.39	12.42	12.72	13.09	14.92	15.56

WTR YR 1993 LOW 17.12 NOV 3

GROUND-WATER DATA

339

WELLS COUNTY

404331085064701. Local number, WL 4.

LOCATION.--Lat 40°43'31", long 85°06'47", in SE¹/₄NW¹/₄NE¹/₄, sec.12, T.26 N., R.12 E., Wells County, Hydrologic Unit 05120101, 1000 ft south of north entrance to Ouabache State Recreation Area, and 3.5 mi southeast of Bluffton.
Owner: U.S. Geological Survey.

AQUIFER.--Silty dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 79 ft, cased to 46 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 826.04 ft above sea level. Measuring point: Top of floor of shelter, 2.35 ft above land-surface datum.

PERIOD OF RECORD.--January 1967 to current year. (Semi-annual tape-down readings only September 1971 to December 1981.)

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.70 ft below land-surface datum, Apr. 4, 1973; lowest, 25.21 ft below land-surface datum, Sept. 24, 1988.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.76	21.63	21.62	20.83	21.09	20.80	20.06	20.46	21.22	19.40	---	---
10	22.61	22.04	21.36	20.99	21.24	19.98	19.94	20.54	21.39	---	---	---
15	22.80	20.83	21.38	20.99	21.15	20.56	19.54	20.66	21.50	---	22.23	---
20	22.33	21.32	21.54	21.19	21.15	20.55	19.56	20.99	21.69	---	22.45	22.97
25	22.45	20.78	21.54	20.88	21.16	20.17	19.94	21.22	21.78	---	22.72	22.71
BOM	22.63	21.25	21.53	20.67	21.26	19.94	19.84	21.09	21.43	---	22.94	22.89

WTR YR 1993 HIGH 19.40 JUL 5

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.86	21.82	21.84	20.99	21.31	20.96	20.15	20.95	21.47	19.52	---	---
10	22.73	22.15	21.60	21.19	21.30	20.29	20.04	20.83	21.47	---	---	---
15	23.25	20.92	21.68	21.06	21.33	20.72	19.80	20.91	21.60	---	22.35	---
20	22.52	21.47	21.83	21.48	21.27	20.67	19.93	21.06	21.89	---	22.62	23.03
25	22.55	21.02	21.91	20.92	21.42	20.25	20.04	21.37	21.87	---	22.82	23.00
BOM	22.67	21.29	21.77	20.84	21.39	20.21	20.02	21.35	21.58	---	23.04	23.10

WTR YR 1993 LOW 23.25 OCT 15

WHITE COUNTY

404914086403001. Local number, WT 4.

LOCATION.--Lat 40°49'14", long 86°40'30", in NW¹/₄SW¹/₄NW¹/₄, sec.5, T.27 N., R.2 E., White County, Hydrologic Unit 05120106, in the southwest corner of the Pious Chapel property, 4.25 mi north of Idaville.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 134 ft, cased to 129 ft, screened to 134 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 683.06 ft above sea level. Measuring point: Top of casing, 3.20 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.65 ft below land-surface datum, Jan. 7, 1993; lowest, 13.66 ft below land-surface datum, Aug. 3, 1991.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.51	3.29	3.16	1.87	2.90	2.96	2.07	2.73	3.50	2.97	5.46	4.22
10	4.55	3.39	3.23	1.94	3.12	2.34	2.42	2.99	2.80	3.36	8.29	3.62
15	4.66	2.61	3.41	2.25	3.30	2.63	2.55	3.15	2.89	3.37	4.87	3.59
20	4.46	2.84	3.34	2.67	3.35	2.67	2.55	3.61	3.06	3.43	5.08	3.41
25	4.54	2.42	3.45	1.91	3.48	2.23	2.56	4.21	3.20	3.66	4.79	3.54
BOM	4.69	2.73	3.17	2.40	3.58	2.39	2.45	3.59	3.29	5.04	4.79	3.23

WTR YR 1993 HIGH 1.65 JAN 7

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.57	3.37	3.25	2.21	2.96	3.12	2.15	2.83	3.55	3.01	5.95	4.27
10	4.60	3.46	3.36	2.08	3.17	2.44	2.50	3.04	2.86	3.40	9.40	3.74
15	4.72	2.63	3.56	2.29	3.31	2.68	2.66	3.92	2.94	3.43	5.06	3.80
20	4.53	2.87	3.44	2.74	3.39	2.73	2.63	4.97	3.12	3.50	5.49	3.45
25	4.58	2.52	3.60	1.98	3.56	2.26	2.71	4.89	3.26	3.71	4.86	3.68
BOM	4.71	2.78	3.42	2.50	3.60	2.57	2.53	3.66	3.35	5.34	4.82	3.31

WTR YR 1993 LOW 9.40 AUG 10

GROUND-WATER DATA

WHITLEY COUNTY

410337085264201. Local number, WY 3.

LOCATION.--Lat 41°03'37", long 95°26'42", in NW¹/₄, SE¹/₄, NW¹/₄, sec.18, T.30 N., R.10 E., Whitley County, Hydrologic Unit 05120104, on the county right-of-way of Evergreen Road, and 0.75 mi north of Laud.
 Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 191 ft, cased to 187 ft, screened to 191 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 870 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 2.68 ft above land-surface datum.

PERIOD OF RECORD.--December 1966 to September 1971, August 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 49.30 ft below land-surface datum, Mar. 27, 1976; lowest, 52.96 ft below land-surface datum, Dec. 7, 1989.

DAY	HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	51.83	51.58	51.38	50.99	50.66	50.67	---	50.44	50.43	50.61	50.88	51.19
10	51.61	51.69	51.06	50.97	50.68	---	---	50.54	50.57	50.76	50.95	51.10
15	51.63	51.67	51.08	50.83	50.71	---	---	50.29	50.62	50.78	50.94	51.16
20	51.67	51.50	51.25	50.86	50.64	---	---	50.44	50.65	50.74	51.03	51.13
25	51.68	51.28	51.15	50.83	50.80	---	---	50.49	50.76	50.73	51.19	50.94
DOM	51.78	51.25	51.11	50.49	50.89	---	50.54	50.36	50.68	50.83	51.19	51.16

WTR YR 1993 HIGH 50.29 MAY 15

DAY	LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	51.91	51.72	51.56	51.17	50.87	50.87	---	50.60	50.67	50.70	50.96	51.24
10	51.72	51.86	51.29	51.13	50.73	---	---	50.59	50.65	50.85	51.02	51.27
15	51.72	51.74	51.33	50.86	50.77	---	---	50.45	50.78	50.88	51.08	51.34
20	51.83	51.68	51.45	51.07	50.74	---	---	50.53	50.79	50.87	51.14	51.26
25	51.81	51.47	51.40	50.86	50.95	---	---	50.65	50.80	50.80	51.29	51.18
DOM	51.83	51.33	51.32	50.60	50.97	---	50.63	50.57	50.74	50.94	51.29	51.33

WTR YR 1993 LOW 51.99 OCT 22

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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
<i>Length</i>		
inch (in.)	2.54×10^1	millimeter
foot (ft)	2.54×10^{-2}	meter
mile (mi)	3.048×10^{-1}	meter
	1.609×10^0	kilometer
<i>Area</i>		
acre	4.047×10^3	square meter
	4.047×10^{-1}	square hectometer
square mile (mi ²)	4.047×10^{-3}	square kilometer
	2.590×10^0	square kilometer
<i>Volume</i>		
gallon (gal)	3.785×10^0	liter
	3.785×10^0	cubic decimeter
million gallons (Mgal)	3.785×10^{-3}	cubic meter
	3.785×10^3	cubic meter
cubic foot (ft ³)	3.785×10^{-3}	cubic hectometer
	2.832×10^1	cubic decimeter
cubic-foot-per-second day [(ft ³ /s) d]	2.832×10^{-2}	cubic meter
	2.447×10^3	cubic meter
acre-foot (acre-ft)	2.447×10^{-3}	cubic hectometer
	1.233×10^3	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
<i>Flow</i>		
cubic foot per second (ft ³ /s)	2.832×10^1	liter per second
	2.832×10^1	cubic decimeter per second
gallon per minute (gal/min)	2.832×10^{-2}	cubic meter per second
	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
million gallons per day (Mgal/d)	6.309×10^{-5}	cubic meter per second
	4.381×10^1	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
<i>Mass</i>		
ton (short)	9.072×10^{-1}	megagram or metric ton

Sea level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment for the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

