CALENDAR FOR WATER YEAR 1999

1998

OCTOBER

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

NOVEMBER

S	M	T	W	T	F	S
1	2	4	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

DECEMBER

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	15	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

1999

JANUARY

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

FEBRUARY

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28						

MARCH

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
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28	29	30	31			

APRIL

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
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18	19	20	21	22	23	24
25	26	27	28	29	30	

MAY

S	M	T	W	T	F	S
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16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

JUNE

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

JULY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

AUGUST

S	M	T	W	T	F	S
1	2	3	4	5	6	7
9	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

SEPTEMBER

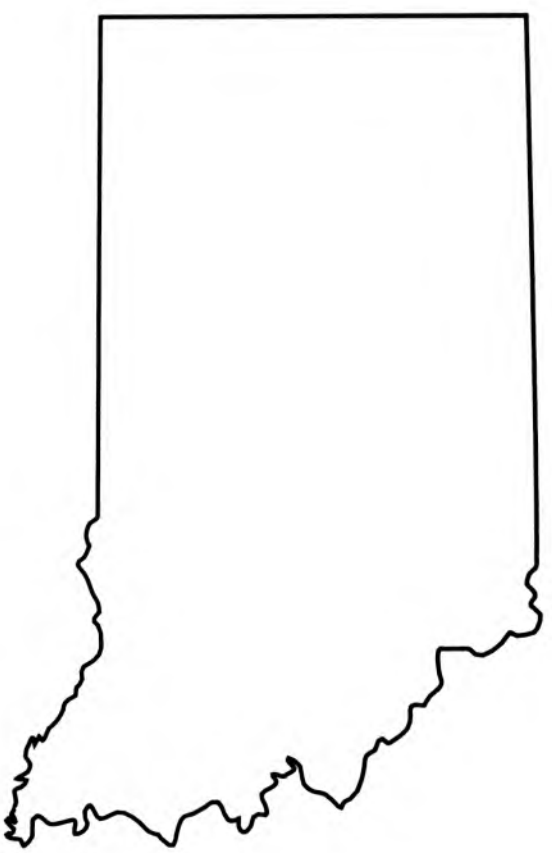
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

U.S. Department of the Interior
U.S. Geological Survey

Water Resources Data Indiana Water Year 1999

By James A. Stewart, Charles R. Keeton, Lowell E. Hammil, Hieu T. Nguyen, and Deborah K. Majors

Water-Data Report IN-99-1



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

U. S. DEPARTMENT OF THE INTERIOR

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2000

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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This report was prepared in cooperation with the State of Indiana and with other agencies under the general supervision of L.A. Swain, District Chief, Indiana, and W.J. Carswell, Jr., Regional Hydrologist, Northeastern Region.

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13. ABSTRACT *(Maximum 200 words)*
Water resources data for the 1999 water year for Indiana consists of records of discharge, stage, and water quality of streams and wells; reservoir stage and contents; and water levels in lakes and wells. This report contains records of discharge for 165 stream-gaging stations, stage for 7 stream stations, stage and contents for 1 reservoir, water quality for 4 streams, sediment analysis for 1 stream, water levels for 80 lakes and 94 observation wells. Also included are records of miscellaneous discharge measurements, not part of the systematic data-collection program. Data contained in this report represent that part of the National Water Data System operated by the U.S. Geological Survey in Indiana in cooperation with State and Federal agencies.

14. SUBJECT TERMS
*Indiana, *Hydrologic data, *Surface water, *Ground water, *Water quality, Flow rates, Gaging stations, Lakes, Reservoirs, Chemical analysis, Water temperatures, Water levels, Water analyses, Sampling sites, Sediment analysis.

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

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LAKE GAGING STATIONS, IN ALPHABETICAL ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

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Ball Lake near Hamilton (e)	04177680	243
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Diamond Lake near Silver Lake (e)	03331320	251
Diamond Lake near Wawaka (e)	04100350	252
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Fish Lake near Scott (e)	04099760	253
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High Lake near Wolflake (e)	04100258	256
Hill Lake near Silver Lake (e)	03331300	257
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King Lake near Delong (e)	03331438	259
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Noble 8 (e, h)	NO 8	411922085221801	356
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Noble 11 (e, h)	NO 11	412405085154501	358
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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
OHIO RIVER BASIN			
Little Williams Creek at Connersville	03274950	9.16	1968-91
East Fork Whitewater River at Richmond	03275500	121	1949-78
South Hogan Creek near Dillsboro	03276700	38.1	1961-93
Laughery Creek near Farmers Retreat (a)	03277000	248	1941-73
Indian Creek near Corydon	03302500	129	1943-93
Whiskey Run at Marengo (d)	03302849	7.02	1986-93
Friday Branch tributary near Saint Meinrad (b)	03303276	.096	1981
Little Pigeon Creek near Tennyson	03304000	150	1944-47
Pigeon Creek at Evansville	03322100	323	1960-85
WABASH RIVER BASIN			
Wabash River near New Corydon	03322500	262	1951-88
Wabash River at Bluffton	03323000	532	1930-71, 1987-92 (d)
Salamonie River at Portland	03324200	85.6	1959-93
Little Mississinewa River at Union City	03325311	9.67	1982-97
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 (e)	03332345	1,285	1986-92
Big Monon Creek near Francesville (a)	03332400	152	1959-73
Tippecanoe River near Monticello (c)	03332500	1,732	1932-81
Rattlesnake Creek near Patton	03329400	6.83	1968-93
Wildcat Creek at Greentown	03333500	168	1945-61
Marshall Ditch near Montmorenci	03335677	1.58	1990-94
Indian Creek near Montmorenci	03335678	27.8	1990-94
Little Pine Creek at Green Hill	03335679	42.3	1990-94
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
Brouilletts 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
White River at Anderson	03348000	406	1925-26, 1932-93
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

Station name	Station number	Drainage area (mi^2)	Period of record
WABASH RIVER BASIN--Continued			
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, 1986-92
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	1986-91
Pleasant Run at Brookville Road at Indpls.	03353160	10.1	1960-81
Bean Creek at Indianapolis	03353180	4.4	1970-93
White River at Waverly	03353660	2,026	1986-88
Beanblossom Creek at Beanblossom	03354500	14.6	1952-93
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	1975-82
Deer Creek near Putnamville	03359500	59.0	1955-65, 1968-72
Jordan Creek near Jordan (b)	03359980	25.9	1981
Kessinger Ditch near Monroe City	03360895	56.2	1992-98
Driftwood River near Edinburgh	03363000	1,060	1940-91
Haw Creek near Clifford	03364200	47.5	1967-91
Sand Creek near Brewersville	03365000	155	1948-86
Von Fange Ditch at Seymour	03365575	4.17	1994-1997
Graham Creek near Vernon	03366000	77.2	1955-73
Muscatatuck 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
Muscatatuck River near Tampico	03370500	960	1939
Muscatatuck 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
Lost River near West Baden Springs	03373700	287	1964-93
White River at Hazelton (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	04095050	3.40	1979-82
Burns Ditch at Gary (g)	04093500	160	1943-91
Salt Creek near McCool	04094500	74.6	1945-91
Derby Ditch at Beverly Shores	04095100	4.64	1980
Trail Creek at Michigan City	04095300	54.1	1969-94
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

Station name	Station number	Drainage area (mi^2)	Period of record
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 Illinoi, IL	05520000	220	1945-77
Oliver Ditch near Aix	05521500	79.6	1948-51
Iroquois River near North Marion	05522000	144	1948-93
Bice Ditch at South Marion	05523000	21.8	1948-93
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.

The following stations were discontinued as surface-water-quality stations. Records of temperature (T), specific conductance, pH, dissolved oxygen (C) or sediment (S) 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
OHIO RIVER BASIN				
Whitewater River near Alpine	03275000	529	C,T,S	1987-94, 1968-79
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
South Hogan Creek near Dillsboro	03276700	38.1	C,T,S	1961-93
Trib to Friday Branch at St. Meinard	03303276	.096	C,T,S	1980-81
WABASH RIVER BASIN				
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 C,T,S	1970-76, 1970-75, 1980-81
Big Raccoon Creek near Fincastle	03340800	132	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
White River near Centerton	03354000	2,444	C,S T S	1986-95 1953-56 1966-67 1970-72 1977-80 1982-85 1965-77
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

DISCONTINUED SURFACE-WATER-QUALITY STATIONS--Continued

Station name	Station number	Drainage area (mi^2)	Type of Record	Period of record
STREAM TRIBUTARY TO LAKE MICHIGAN				
Trail Creek near Michigan City	04095300	54.1	C,T S	1977-81 1990-94
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, 1999

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 1999 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 166 gaging stations, stage at 8 gaging stations, stage and contents at 1 reservoir, water quality at 3 stream sites, sediment data at 1 site, water levels at 80 lakes, and 94 observation wells. Also included are streamflow discharge at miscellaneous sites, quality water data for the Lake Erie National Water-Quality Assessment, and water quality data from a study done in Montgomery County. Locations of the streamflow and water-quality sites are shown on figures 6, 7, and 8. The number of lakes and ground-water observation wells by county having 1999 water-level records are shown on figures 9 and 10. In addition, miscellaneous discharge measurements, and water quality data are contained in this report. 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, Branch of Information Services, Box 25286, Denver, CO 80225-0286.

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-99-1." 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.

The U.S. Geological Survey has compiled and disseminated estimates of water use for the Nation at 5-year intervals since 1950. A large amount of the Indiana withdrawal data presented in the publication, "Estimated Use of Water in the United States in 1995" U.S. Geological Survey Circular 1200, were provided by the Indiana Department of Natural Resources, Division of Water. The data indicated that in 1995 over 9.1 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. Nearly 5.7 billion gallons per day of surface water was used for thermoelectric power production, making it the largest category of use in Indiana. A small percentage of those withdrawals were consumed in the power-production process and the rest of the water was returned to the source, making it available for future use.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (317) 290-3333.

COOPERATION

The U.S. Geological Survey and 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, Larry D. Macklin, Director, through the Bureau of Resource and Regulation, Lori Kaplan, Deputy Director

State of Indiana, Department of Environmental Management, John M. Hamilton, Commissioner, Matthew Rueff, Assistant Commissioner, Office of Water Management

State of Indiana, Department of Transportation, Curt Wiley, Commissioner

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 Columbus, Elkhart, Fort Wayne, and Indianapolis; Hoosier Energy; Indianapolis Water Co.; IPALCO; CINERGY; Jefferson Smurfit Corp.; Prudential Insurance Co.; Northern Indiana Public Service Co.

SUMMARY OF HYDROLOGIC CONDITIONS

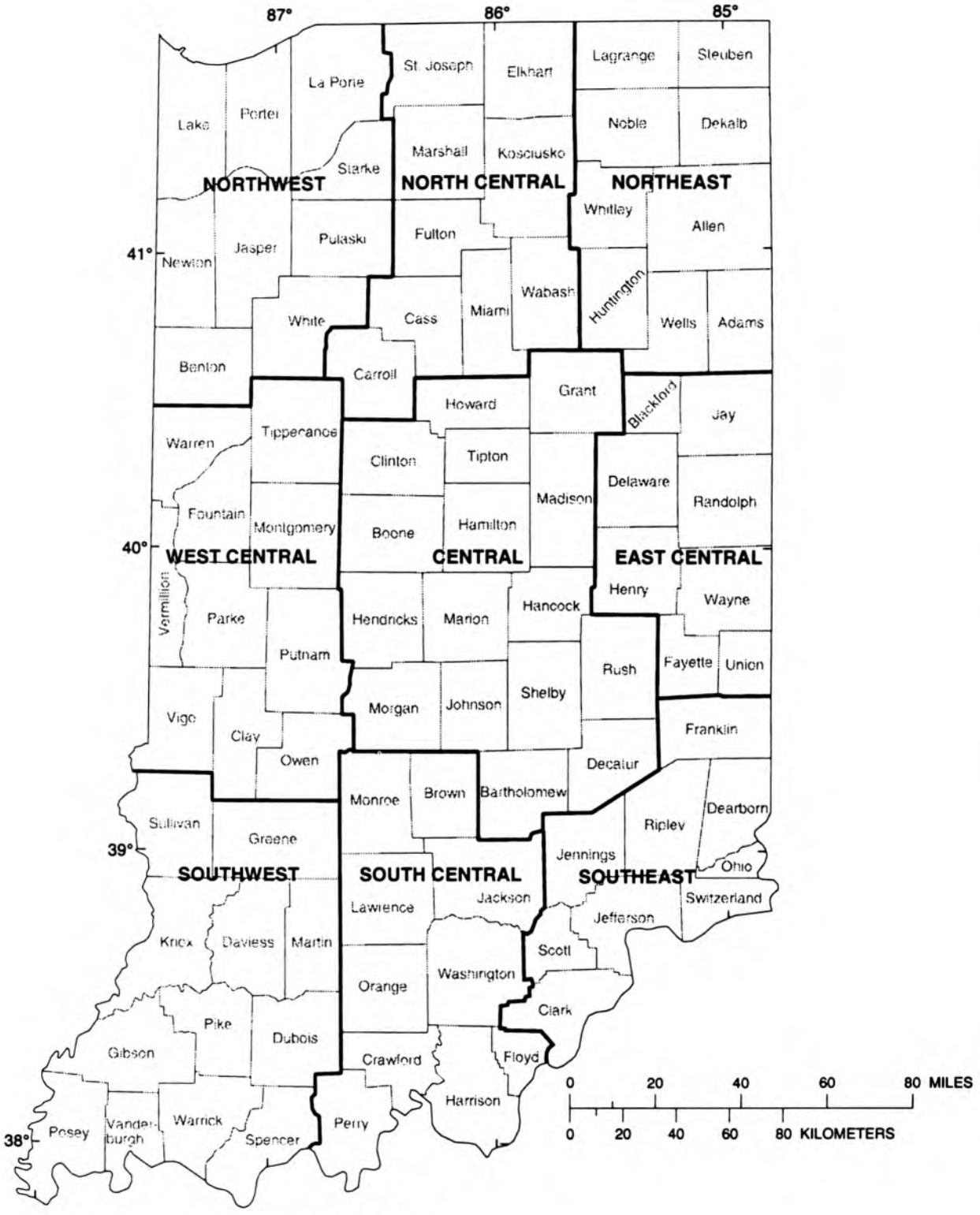
Precipitation

There is a general regional pattern for precipitation in Indiana in which southern Indiana has the highest annual precipitation amounts, followed by central then northern Indiana. Normal precipitation (for this discussion normal precipitation is the mean annual precipitation for the period 1961-90) ranges from about 36 inches in the northeast climate division (Indiana climate divisions are shown in figure 1) to nearly 46.5 inches in the south-central climate division (Pam Beneker, Assistant Indiana State Climatologist, written commun., 1996).

The general regional pattern was observed during the 1999 water year in the southwest and south-central climate divisions (figure 2). The southeast climate division had the lowest precipitation total of all climate divisions Precipitation totals for the 1999 water year were less than normal for all Indiana climate divisions.

In addition to the regional precipitation pattern, there is a general seasonal pattern. Spring and early summer are normally the wettest periods of year, as storm systems tap moisture from the Gulf of Mexico north and travel across Indiana. Early fall is generally the driest period. Seasonal patterns may vary geographically, particularly in the summer when isolated thunderstorms are common, and during the winter when lake effect snows can affect northern Indiana.

January was the was the wettest month of the 1999 water year across all climate divisions; precipitation ranged from 198 to 268 percent of normal (table 1). (National Oceanic and Atmospheric Agency, National Climatic Data Center World Wide Web page: http://www.ncdc.noaa.gove/onlineprod/drought/xmgrg1.html). February also had above normal precipitation in all climate divisions. April was wetter than normal in all climate divisions except for the southeast. October was wetter than normal in all but the northwest, south-central, and southwest climate divisions. November, December, March, July, and September were drier than normal across all of Indiana. September was the driest month, with precipitation ranging from 23 to 27 percent of normal in the south climate divisions. The predominance of dry months caused the annual precipitation totals to be below normal across Indiana.



Base from U.S. Geological Survey digital data, 1:2,000,000, 1996
Albers Equal Area projection
Standard parallels 29°30' and 45° 30' central meridian -96°

EXPLANATION

Climate division boundaries

Figure 1.--Climate divisions in Indiana.

(Data from National Oceanic and Atmospheric Administration, 1994.)

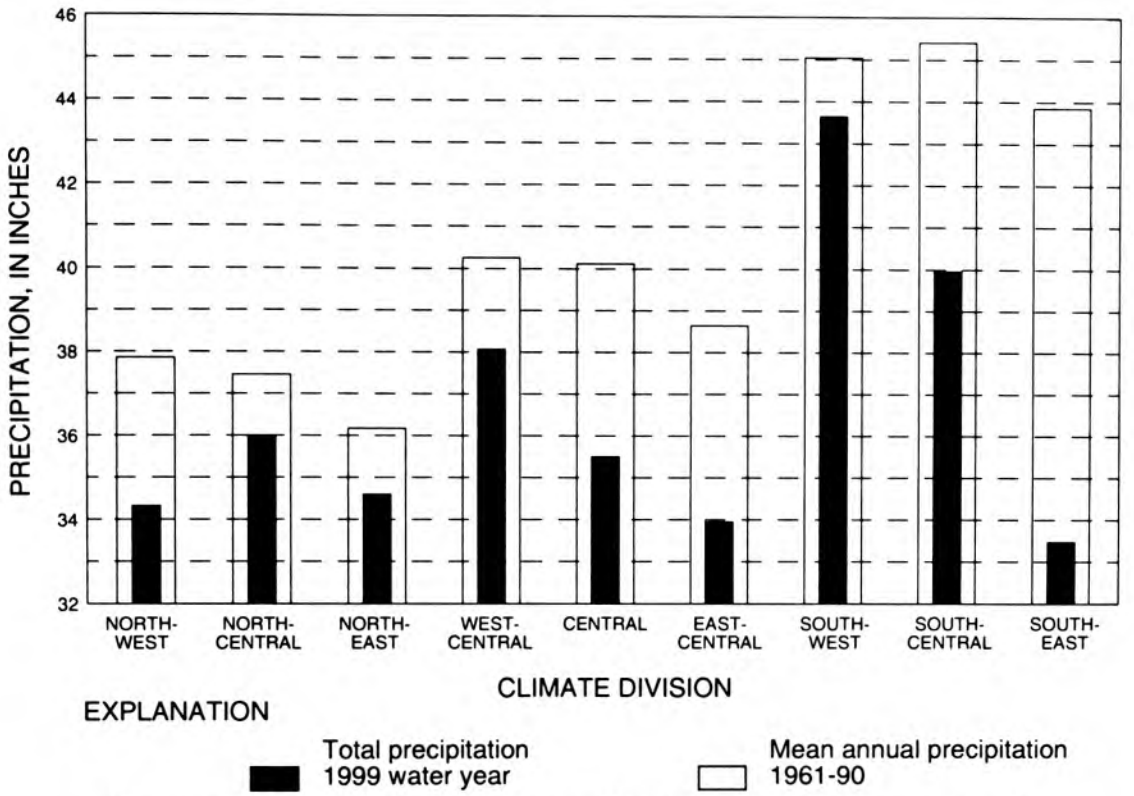


Figure 2.--Indiana precipitation during 1999 water year and mean annual precipitation for period 1961-90.

Table 1.--Monthly precipitation during water year 1999 as a percentage of mean monthly precipitation for the period 1961-90.

Climate Division	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Northwest	95	51	62	236	129	71	159	62	97	86	82	41
North-central	115	64	51	198	153	65	179	76	80	68	102	67
Northeast	140	57	42	198	121	56	175	115	77	43	117	61
West-central	156	83	44	244	197	45	125	79	115	72	37	57
Central	142	67	55	232	177	45	110	74	100	60	57	41
East-central	144	55	50	268	183	36	111	64	66	95	54	45
Southwest	128	64	93	231	136	81	125	72	147	80	36	22
South-central	92	64	89	223	159	70	103	79	111	41	55	27
Southeast	85	56	95	179	142	55	80	48	125	39	43	23

Surface Water

Streamflow in Indiana follows a general seasonal pattern: in October streamflow is at a minimum, then rises steadily through the fall and winter to peak in March. Streamflow then steadily declines through the summer and early fall. Patterns of streamflow in Indiana during the 1999 water year are discussed in the context of three surface-water index stations. These stations are the 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 climate division. The drainage area above this station is 682 square miles. For the 1999 water year, the general seasonal patter of streamflow was observed for this station, but the peak mean monthly discharge occurred in January (figure 3) due to the more than twice normal amounts of January precipitation across central Indiana. Mean monthly discharges were also higher than normal (for this discussion normal is the median discharge for the period 1961-90) for October, November, February, and April. Streamflows were lower than normal for the remaining months of the water year, producing a lower than normal mean yearly discharge for the 1999 water year.

The East Fork White River at Shoals index station is located in Martin County within the southwest climate division. The East Fork White River drains 4,927 square miles above the station. The peak mean monthly discharge occurred in February; the highest departure from normal occurred in January (figure 3). For the remainder of the year, mean discharges were below normal reflecting the drier-than-normal year in southern Indiana.

The index station Wabash River at Mount Carmel is located in Illinois, adjacent to Gibson County of Indiana. It is in the same climate 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. As a result, it is affected by precipitation patterns over portions of northern, central, and southern Indiana. For the 1999 water year, only January, February, and June streamflows were significantly above normal. Below normal streamflows for the remaining months and for the year reflect the below normal precipitation totals across Indiana for the 1999 water year.

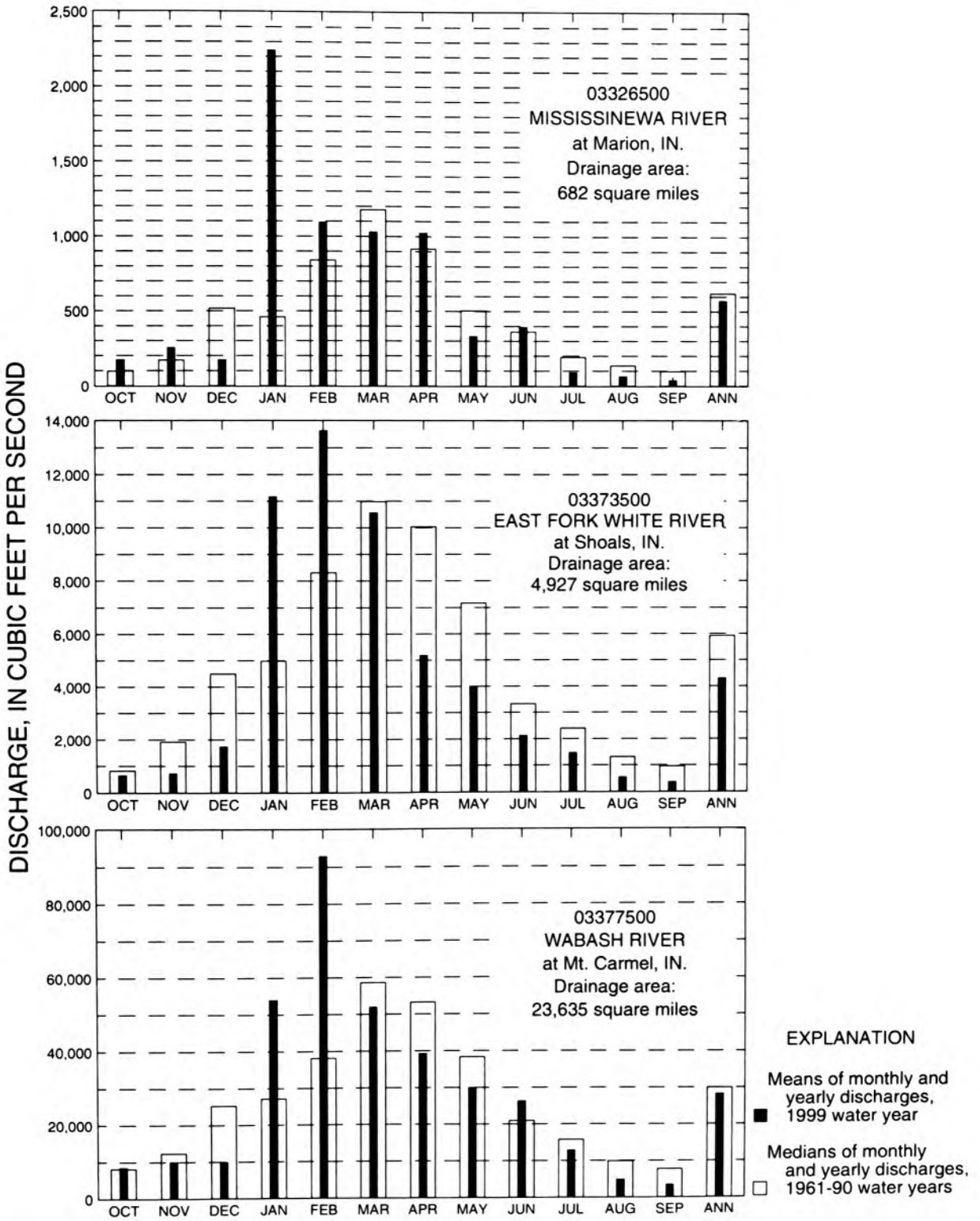


Figure 3. --Mean discharge at Indiana index stations during 1999 water year and median discharges for period 1961-90.

Ground Water

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 Decatur 2, Martin 5, and Elkhart 4. 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 observation well Decatur 2 is located in a Devonian brown limestone aquifer, in the central climate division. For Decatur 2, ground-water levels (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 lower than a land-surface datum) were lower than normal for the entire 1999 water year (normal refers to ground-water level data for the period 1985-94) (figure 4). In the 1999 water year, the ground water level trend for Decatur 2 followed the normal seasonal pattern described above.

Martin 5 is located in a Pennsylvanian rock aquifer in the southwest climate division of Indiana. The 1999 water year ground-water levels were higher than normal the entire year (figure 4), despite the generally dry year in southwest Indiana. The general seasonal pattern of ground water discussed above was reflected in the 1999 water year for this well.

The index observation well Elkhart 4 is located in the north-central climactic division, in a sand and gravel aquifer. Ground water levels were lower than normal for the entire 1999 water year (figure 4). The general seasonal cycle of ground water was generally followed during the 1999 water year.

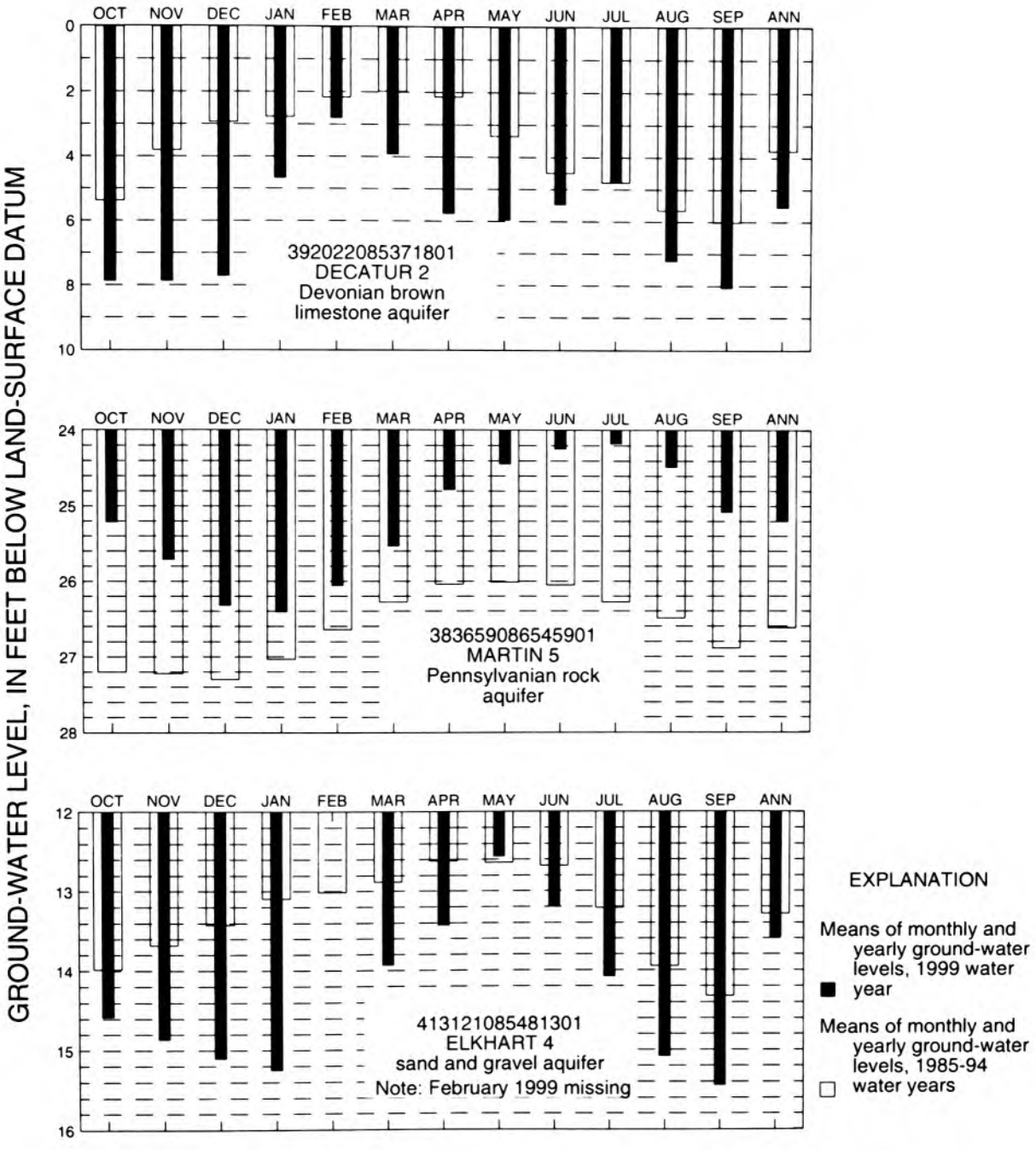


Figure 4. --Monthly and yearly mean of daily minimum ground-water levels at three Indiana ground-water observation wells during the 1999 water year and mean of monthly and yearly minimum ground-water levels for the period 1985-94.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark Network is a network of 50 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by human activities.

National Stream-Quality Accounting Network (NASQAN) monitors the water quality of large rivers within four of the Nation's largest river basins--the Mississippi, Columbia, Colorado, and Rio Grande. The network consists of 39 stations. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment Program (NAWQA); (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) provides continuous measurement and assessment of the chemical climate of precipitation throughout the United States. As the lead federal agency, the USGS works together with over 100 organizations to accomplish the following objectives; (1) Provide a long-term, spatial and temporal record of atmospheric deposition generated from a network of 191 precipitation chemistry monitoring sites. (2) Provide the mechanism to evaluate the effectiveness of the significant reduction in SO2 emissions that began in 1995 as implementation of the Clean Air Act Amendments (CAAA) occurred. (3) Provide the scientific basis and nationwide evaluation mechanism for implementation of the Phase II CAAA emission reductions for SO2 and NOx scheduled to begin in 2000.

Data from the network, as well as information about individual sites, are available through the world wide web at:

http://nadp.nrel.colostate.edu/NADP

The National Water-Quality Assessment (NAWQA) Program of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 53 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

Communication and coordination between USGS personnel and other local, State, and federal interests are critical components of the NAWQA Program. Each study unit has a local liaison committee consisting of representatives from key federal, State, and local water resources agencies, Indian nations, and universities in the study unit. Liaison committees typically meet semiannually to discuss their information needs, monitoring plans and progress, desired information products, and opportunities to collaborate efforts among the agencies.

Additional information about the NAWQA Program is available through the world wide web at:

http://wwwrvares.er.usgs.gov/nawqa/nawqa_home.html

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report, are for the 1999 water year that began October 1, 1998 and ended September 30, 1999. 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, lake, 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 an immediate tributary is indicated by an indention in the "List of Stations" in the front of this report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

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

Records in this report are in Part 03 (Ohio River basin), Part 04 (St. Lawrence River basin), and Part 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 rareinstance 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.

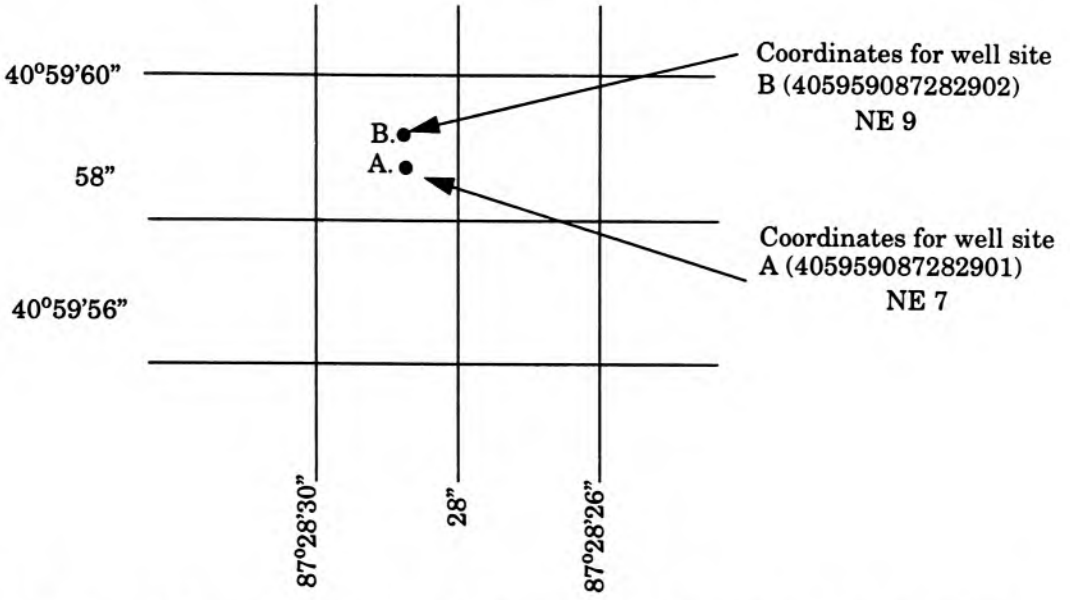


Figure 5.--System for numbering wells, and miscellaneous sites (latitude and longitude).

In addition, each well in Indiana carries dual-identification numbers for example, NE 7. 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 electronic recorders, 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, Water-Supply Paper 2175, and the U.S. Geological Survey Techniques of Water-Resources Investigations (TWRI), Book 3,

Chap. A1 through A19 and Book 8, Chapters A2 and B2. The methods are consistent with the American Society for Testing and Materials (ASTM) standards and generally follow the standards of the International Organization for Standards (ISO).

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."

At some gaging stations, acoustic velocity meter (AVM) systems are used to compute discharge. The AVM system measures the stream's velocity at one or more paths in the cross section. Coefficients are developed to relate this path velocity to the mean velocity in the cross section. Because the AVM sensors are fixed in position, the adjustment coefficients generally vary with stage. Cross-sectional area curves are developed to relate stage, recorded as noted above, to cross section area. Discharge is computed by multiplying path velocity by the appropriate stage related coefficient and area.

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 that monthly mean flow data for a designated period, by water year; and a summary statistics table 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 not need to be 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 "AC-FT"). 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 minium monthly flows are provided immediately below those figures. The designated period 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 handing. 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 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 ft^3/s; to the nearest tenth between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures for more than 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evapora-

tion 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 and miscellaneous sampling sites. These stations are part of a cooperative agreement with Montgomery County Commissioners or the National Water-Quality Assessment Program (NAWQA). Locations of stations for which records on the quality of surface water appear in this report are shown on figures 6, 7, and 8.

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. Water-quality records collected at the miscellaneous sampling sites are published in tables following the surface-water 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 inquality pending analysis, and in shipping the samples to the laboratory. Procedures for on-site measurements and for collecting, treating, and shipping samples are detailed in the TWRI Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. These references are listed in PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS section of this report. These methods are consistent with ASTM standards and generally follow ISO standards.

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 Water-Quality Assessment Program and the Montgomery County agreement 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 to analyzing sediment samples and to compute sediment records are described in the TWRI Book 5, Chap. C1. Methods used by the U.S. Geological Survey laboratories are given in the TWRI Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, A4, and A5. These methods are consistent with ASTM standards and generally follow ISO standards.

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 (non-ideal 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.
V	Analyte was detected in both the environmental sample and the associated blanks.

Dissolved Trace-Element Concentrations

NOTE.--Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter (µg/L) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's to 100's of nanograms per liter (ng/L). Data above the µg/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 began using new trace-element protocols at some stations in water year 1994.

Change in National Trends Network procedures

NOTE.--Sample handling procedures at all National Trends Network stations were changed substantially on January 11, 1994, in order to reduce contamination from the sample shipping container. The data for samples before and after that date are different and not directly comparable. A tabular summary of the differences based on a special intercomparison study, is available from the NADP/NTN Coordination Office, Colorado State University, Fort Collins, CO 80523 (Telephone: 303-491-5643).

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 9.

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 an electronic 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 it's 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 data of decree, and court specifying the decreed level.

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

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

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

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

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

Records of Ground-Water Levels

Only water-level data from a representative network of observation wells are given in this report. These data are intended to provide a sampling and historical record of water-level changes in the State's most important aquifers. Locations of the observation wells in this network in Indiana are shown on figure 10.

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 from a electronic water-stage data logger. 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.

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 USGS WATER DATA

The USGS provides near real-time stage and discharge data for many of the gaging stations equipped with the necessary telemetry. Historic daily-mean and peak-flow discharge data are also available for most current or discontinued gaging stations. These data are made available to the public through the world wide web (WWW), and may be accessed:

http://water.usgs.gov

Some water-quality and ground-water data also are available through the WWW. In addition, data can be provided in various machine-readable formats on magnetic tape or 3-1/2 inch floppy disk. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division District Offices (See address on the back of the title page).

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 equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Alkalinity is the capacity of solutes in an aqueous system to neutralize acid.

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 threadlike in shape, often clumped into colonies. Some bacteria cause disease, while others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Escherichia coli (E. coli) are bacteria present in the intestine or feces of warm-blooded animals. The presence of *E. coli* in water indicates the possible presence of pathogens. *E. coli* are one of the preferred indicator organisms for determining the suitability of surface waters for recreational use. In the laboratory, *E. coli* are defined as all organisms that produce colored colonies specific to the medium used after being incubated at specificed temperatures and times, depending on the medium and method for determination used. *E. coli* concentrations are expressed as the number of colonies per 100 mL of sample.

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 (FT3/S, 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 approximately 7.48 gallons per second or 448.8 gallons per minute.

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

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

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

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

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

Annual 7-day minimum is the lowest mean discharge for 7 consecutive days for a calender 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 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 specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise 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.

Glass fiber filter (GF, GF/F) a 0.7 µm pore-diameter filter used to filter water samples before analyzing the sample for organic constitutes.

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 groundwater 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.

Membrane filter is a thin microporous material of specific pore size used to filter bacteria, algae, and other small particles from water.

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

Micrometer (UM/µm) is a unit expressing the pore diameter of a filter. One thousand micrometers is equivalent to one millimeter.

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.

National Stream-Quality Accounting Network (NASQAN) monitors the water quality of large rivers within four of the Nation's largest river basins--the Mississippi, Columbia, Colorado, and Rio Grande. The network consists of 39 stations. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment Program (NAWQA); (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals.

The National Water-Quality Assessment (NAWQA) Program of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

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

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

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

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

Classification	Size (mm)	Method of analysis
Clay.....	0.00024 - 0.004	Sedimentation
Silt.....	.004 - .062	Sedimentation
Sand.....	.062 - 2.0	Sedimentation/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.

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

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.

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). The entire sample is used for the analysis.

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

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

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

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

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

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

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 from 55 to 75 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.

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

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

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

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

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

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

The reports listed below are for sale by the U.S.G.S., Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be made in the form of a check or money order payable to the "U.S. Geological Survey." Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and mention the "U.S. Geological Survey Techniques of Water-Resources Investigations."

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

Book 2. Collection of Environmental Data

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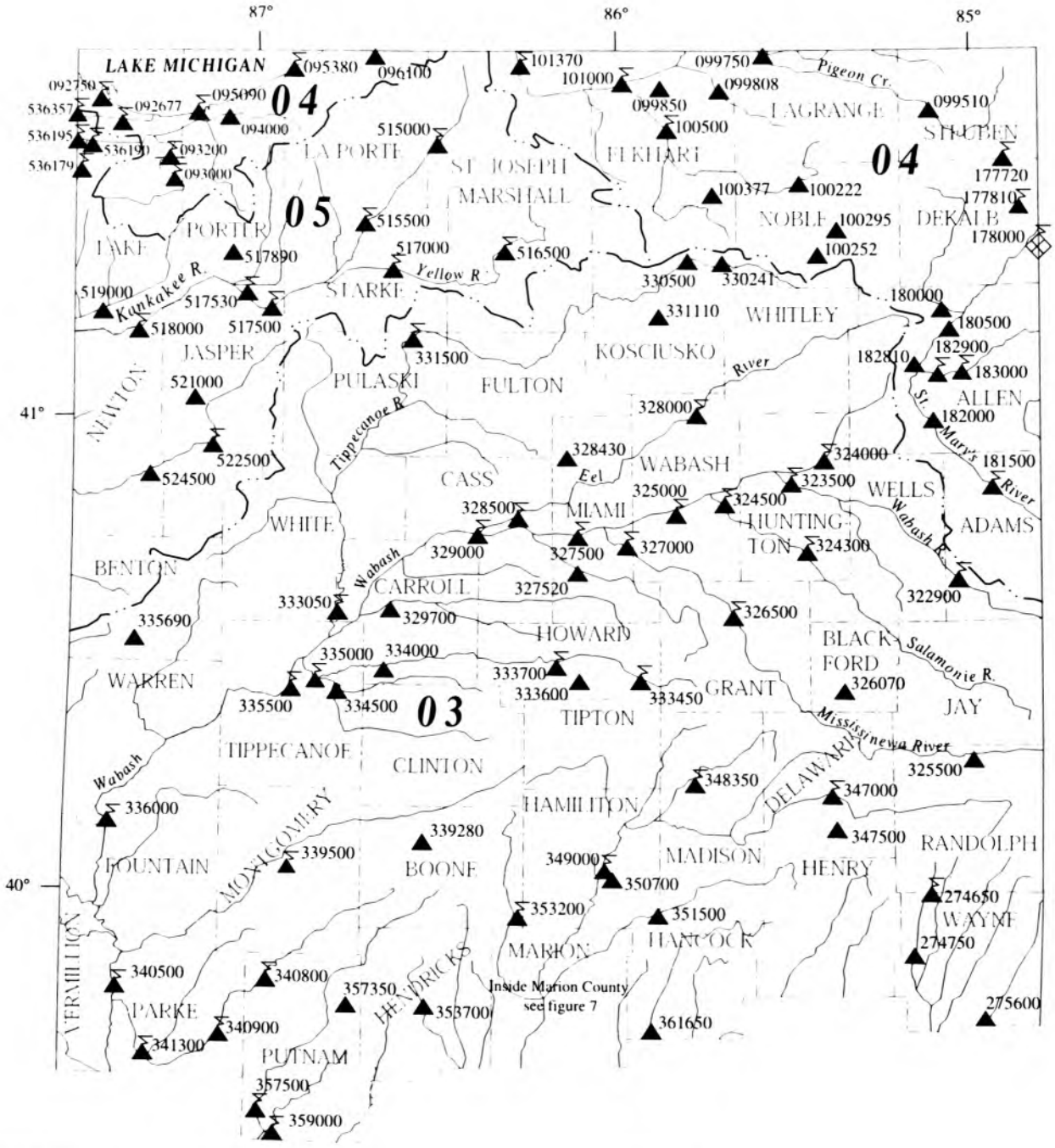
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STARKE
KOSCIUSKO
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HOWARD
BLACKFORD
WARREN
GRANT
JAY
TIPTON
TIPPECANOE
CLINTON
HAMILTON
DELAWARE
RANDOLPH
FOUNTAIN
MONTGOMERY
BOONE
MADISON
HENRY
WAYNE
VERMILLION
PARKE
PUTNAM
HENDRICKS
MARION
HANCOCK
Kankakee R.
Yellow R
Tippecanoe R
Wabash
Eel
River
St. Mary's River
Wabash R.
Pigeon Cr.
Salamonie R.
Mississinewa River
Inside Marion County
see figure 7
095380
096100
101370
101000
099750
099808
099850
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536357
092677
095090
094000
536195
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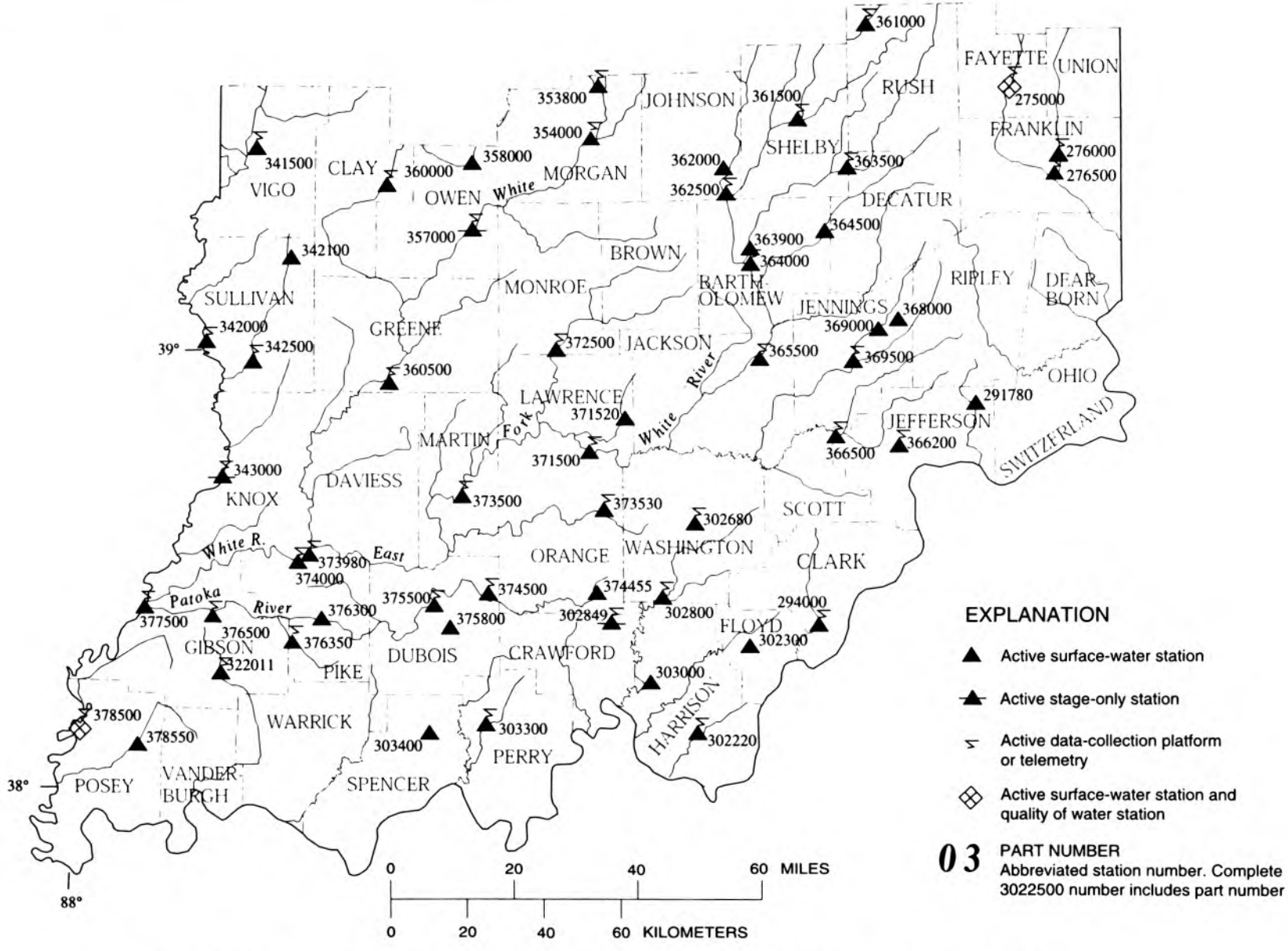

Figure 6.--Locations of streamflow and water-quality gaging stations in Indiana.

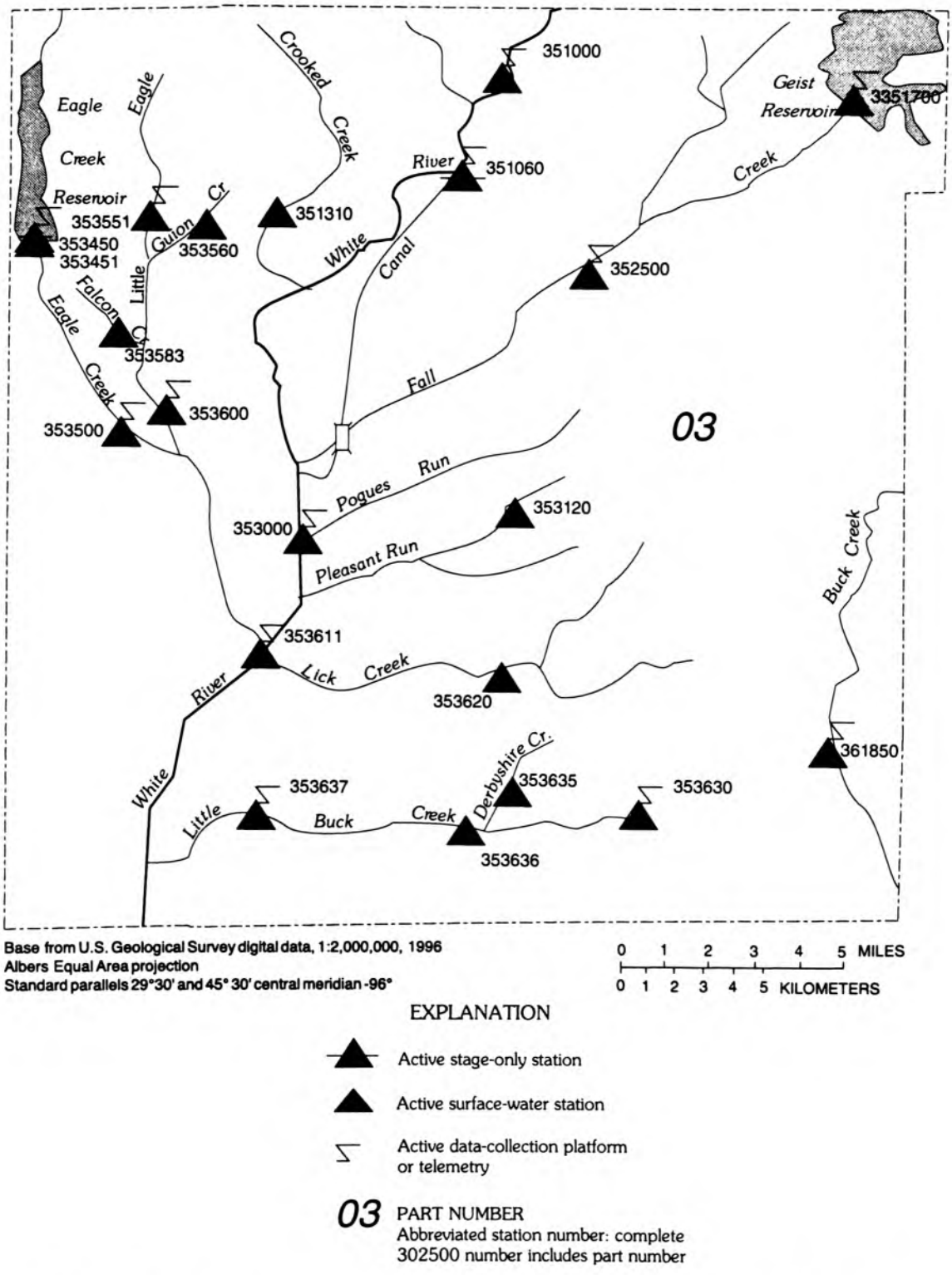

Figure 7.--Locations of streamflow gaging stations in Marion County.

03274650 WHITEWATER RIVER NEAR ECONOMY, IN

LOCATION.--Lat 40°00'05", long 85°06'56", in NW¼NE¼ sec.19, T.18 N., R.13 E., Wayne County, Hydrologic Unit 05080003, on right bank 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 mi^2.

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 fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.32	e2.0	e3.4	2.9	8.8	23	5.0	7.6	3.4	5.0	.64	.18
2	e1.5	e1.1	e3.0	e3.2	12	16	4.8	6.8	13	13	.59	.18
3	e4.2	e3.0	e2.9	e4.1	11	14	4.7	6.2	10	6.1	.55	.17
4	e4.5	e4.4	e2.8	e3.6	8.9	11	4.7	5.8	6.2	3.9	.54	.16
5	e.50	e3.0	e2.8	e3.0	7.2	9.3	4.1	5.5	4.8	3.0	.47	.18
6	e.37	e2.0	e2.7	e2 7	7.1	39	4.2	5.8	4.0	2.6	.45	.14
7	e1.0	e1.5	e3.3	e2.5	72	21	3.7	5.1	3.5	2.4	.46	e.14
8	e3.7	e1.1	e4.3	e2.4	42	14	3.7	4.8	3.2	2.1	.50	e.14
9	e1.5	e1.3	e3.7	e2.3	24	12	5.1	4.5	3.1	1.9	.54	e.14
10	e1.1	e1.6	e3.6	e2.2	19	9.0	5.1	4.1	2.9	1.7	.49	e.13
11	e1.0	e5.5	e3.1	e2.1	16	7.9	4.7	3.9	2.8	1.6	.41	e.13
12	e.90	e4.5	e3.1	e2.3	35	7.4	3.8	4.0	2.7	1.5	.39	e.13
13	e.80	e3.2	e3.0	e2.9	18	7.2	3.6	5.1	2.8	1.5	.56	e.18
14	e.76	e2.7	e2.8	e2.7	12	7.0	3.5	4.7	3.2	1.4	.45	e.15
15	e.70	e2.2	e2.7	e2.5	11	6.6	4.9	4.1	2.7	1.3	.43	e.13
16	e.66	e2.0	e2.6	e2.3	9.9	11	13	3.8	2.5	1.2	.42	e.12
17	e.62	e1.8	e2.5	e5.6	10	21	29	4.2	2.4	1.2	.34	e.12
18	e.80	e1.7	e3.7	e70	8.8	14	23	30	2.3	1.2	.30	e.12
19	e4.6	e2.0	e2.9	35	7.8	10	15	16	2.3	1.1	.39	e.12
20	e3.1	e3.2	e2.4	29	6.9	8.8	11	11	2.3	1.1	.34	e.12
21	e2.0	e2.6	e4.5	65	6.2	8.2	40	7.1	2.2	1.1	.31	e.11
22	e1.8	e2.3	e10	147	5.7	7.2	23	6.2	2.0	1.0	.31	e.11
23	e1.5	e2.2	e6.4	87	5.6	6.7	16	5.6	2.0	1.1	.30	e.11
24	e1.2	e2.1	e5.0	38	5.6	6.4	11	10	2.3	.93	.35	e.11
25	e1.0	e2.5	e4.2	27	5.5	5.8	8.8	6.6	2.2	.82	.32	e.10
26	e.82	e5.6	3.7	22	5.1	5.6	7.8	4.9	2.1	1.1	.31	e.10
27	e1.0	e4.9	3.5	19	12	5.6	7.1	4.1	2.3	.98	.30	e.10
28	e5.0	e4.7	3.2	17	44	5.5	21	3.7	3.7	.97	.28	e.10
29	e3.9	e3.6	3.1	13	---	5.1	13	3.3	14	.83	.25	e.50
30	e9.2	e3.5	2.9	11	---	4.9	9.1	3.1	7.0	.74	.22	.16
31	e3.9	---	2.6	8.9	---	4.9	---	3.5	---	.68	.20	---
TOTAL	63.95	83.8	110.4	638.2	437.1	335.1	313.4	201.1	119.9	65.05	12.41	4.38
MEAN	2.06	2.79	3.56	20.6	15.6	10.8	10.4	6.49	4.00	2.10	.40	.15
MAX	9.2	5.6	10	147	72	39	40	30	14	13	.64	.50
MIN	.32	1.1	2.4	2.1	5.1	4.9	3.5	3.1	2.0	.68	.20	.10
CFSM	.20	.27	.34	1.98	1.50	1.04	1.00	.62	.38	.20	.04	.01
IN.	.23	.30	.39	2.28	1.56	1.20	1.12	.72	.43	.23	.04	.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1999, BY WATER YEAR (WY)

MEAN	3.57	11.1	12.6	13.9	18.3	20.3	18.6	13.7	9.42	6.74	4.46	3.05
MAX	39.9	67.0	39.7	37.7	56.0	41.6	46.0	58.4	24.8	27.5	61.5	32.2
(WY)	1987	1994	1978	1996	1985	1978	1996	1996	1998	1979	1979	1989
MIN	.46	.45	.51	.33	3.31	2.58	2.96	1.47	1.03	.57	.40	.15
(WY)	1992	1972	1977	1977	1978	1981	1971	1988	1977	1977	1999	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1971 - 1999	
ANNUAL TOTAL	3474.74		2384.79			
ANNUAL MEAN	9.52		6.53		11.3	
HIGHEST ANNUAL MEAN					18.8	1979
LOWEST ANNUAL MEAN					3.26	1977
HIGHEST DAILY MEAN	223	Apr 9	147	Jan 22	647	Nov 14 1993
LOWEST DAILY MEAN	.27	Sep 28	.10	Sep 25	.10	Sep 25 1999
ANNUAL SEVEN-DAY MINIMUM	.28	Sep 24	.10	Sep 22	.10	Sep 22 1999
INSTANTANEOUS PEAK FLOW			242	Jan 22	1120	Nov 14 1993
INSTANTANEOUS PEAK STAGE			6.76	Jan 22	8.91	Nov 14 1993
ANNUAL RUNOFF (CFSM)	.92		.63		1.08	
ANNUAL RUNOFF (INCHES)	12.43		8.53		14.73	
10 PERCENT EXCEEDS	21		14		25	
50 PERCENT EXCEEDS	3.9		3.2		3.9	
90 PERCENT EXCEEDS	.66		.31		.73	

e Estimated

03274750 WHITEWATER RIVER NEAR HAGERSTOWN, IN

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

DRAINAGE AREA.--58.7 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 950.00 ft above 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	17	18	e16	63	123	43	55	32	29	e12	e7.8
2	13	17	17	e16	67	94	41	52	54	61	e12	e7.6
3	18	18	17	e17	67	85	41	49	48	36	e11	e7.5
4	18	17	17	e16	60	71	41	46	38	28	e11	e7.3
5	16	17	17	e14	53	65	39	45	33	25	e11	e8.0
6	15	17	17	e14	52	177	39	49	30	24	e10	e7.4
7	18	16	19	e14	509	105	37	43	28	e23	e9.6	e7.3
8	17	16	19	e14	236	89	36	41	27	e22	e10	e7.2
9	16	16	18	e14	136	82	41	39	26	e21	e10	e7.2
10	16	21	18	e13	107	71	42	38	26	e20	e11	e7.0
11	15	21	17	e13	94	49	39	36	25	e19	e13	e7.0
12	15	20	17	e14	191	51	37	35	24	e18	e8.8	e7.0
13	15	19	17	e15	114	59	35	38	30	e17	e14	e8.2
14	15	18	16	e14	78	57	35	37	28	e17	e12	e7.4
15	16	18	16	e14	81	55	42	35	25	e16	e11	e6.9
16	16	17	16	e14	76	68	65	34	24	e16	e10	e6.6
17	15	17	16	e28	74	113	162	36	23	e15	e9.0	e6.6
18	18	17	17	236	68	86	125	130	23	e15	e8.0	e6.4
19	18	17	16	139	63	69	94	69	22	e14	e11	e6.4
20	16	17	15	97	58	63	76	53	22	e14	e10	e6.2
21	16	16	19	237	55	60	284	44	22	e13	e9.0	e6.0
22	16	16	28	976	51	56	139	42	21	e13	e8.2	e6.0
23	17	16	25	471	50	53	101	40	21	e12	e8.6	e5.8
24	16	16	22	203	49	51	79	45	22	e15	e10	e5.8
25	16	18	20	142	48	49	68	40	20	e11	e9.4	e5.6
26	16	21	20	117	46	47	62	36	20	e16	e9.0	e5.6
27	17	19	19	102	80	46	61	33	24	e14	e8.8	e5.4
28	19	19	18	86	225	45	98	31	26	e13	e8.7	e5.4
29	18	18	18	75	---	44	73	29	40	e13	e8.6	e11
30	26	18	17	67	---	42	61	29	32	e12	e8.3	e8.2
31	18	---	17	62	---	42	---	32	---	e12	e8.0	---
TOTAL	514	530	563	3270	2851	2167	2136	1361	836	594	311.0	207.8
MEAN	16.6	17.7	18.2	105	102	69.9	71.2	43.9	27.9	19.2	10.0	6.93
MAX	26	21	28	976	509	177	284	130	54	61	14	11
MIN	13	16	15	13	46	42	35	29	20	11	8.0	5.4
CFSM	.28	.30	.31	1.80	1.73	1.19	1.21	.75	.47	.33	.17	.12
IN.	.33	.34	.36	2.07	1.81	1.37	1.35	.86	.53	.38	.20	.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1999, BY WATER YEAR (WY)

MEAN	28.6	55.6	72.1	79.7	100	114	115	93.1	69.3	49.7	35.7	23.8
MAX	188	235	205	208	233	224	286	420	212	219	312	121
(WY)	1987	1994	1978	1996	1975	1973	1996	1996	1996	1979	1979	1989
MIN	11.6	12.1	12.0	8.48	23.0	25.6	28.0	23.0	14.6	8.18	8.56	6.93
(WY)	1977	1977	1977	1977	1995	1981	1971	1988	1977	1977	1988	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1971 - 1999	
ANNUAL TOTAL	25449		15340.8			
ANNUAL MEAN	69.7		42.0		69.5	
HIGHEST ANNUAL MEAN					121	1996
LOWEST ANNUAL MEAN					25.4	1977
HIGHEST DAILY MEAN	1260	Jun 15	976	Jan 22	1880	Feb 23 1975
LOWEST DAILY MEAN	13	Sep 27	5.4	Sep 27	4.7	Sep 4 1997
ANNUAL SEVEN-DAY MINIMUM	13	Sep 26	5.7	Sep 22	5.7	Sep 22 1999
INSTANTANEOUS PEAK FLOW			1400	Jan 22	2310	Jul 23 1992
INSTANTANEOUS PEAK STAGE			8.74	Jan 22	11.52	Nov 14 1993
ANNUAL RUNOFF (CFSM)	1.19		.72		1.18	
ANNUAL RUNOFF (INCHES)	16.13		9.72		16.09	
10 PERCENT EXCEEDS	124		81		129	
50 PERCENT EXCEEDS	37		20		37	
90 PERCENT EXCEEDS	16		8.8		14	

e Estimated

03275000 WHITEWATER RIVER NEAR ALPINE, IN

(Former National stream-quality accounting network station)

LOCATION.--Lat 39°34'46", long 85°09'29", in SW¼NE¼ sec.14, T.13 N., R.12 E., Fayette County, Hydrologic Unit 05080003, on right bank at Nulltown, 400 ft upstream from Wilson Creek, 0.4 mi upstream from bridge on County Road 480 South, 2.0 mi northeast of Alpine, 5.1 mi upstream from Bear Creek, and at mile 54.8.

DRAINAGE AREA.--522 mi^2.

WATER DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 750.19 ft above sea level. Prior to Nov. 9, 1928, nonrecording gage at site .5 mi downstream and same datum. Oct. 1, 1982 to June 30, 1993, at same site and datum. July 1, 1993 to Oct. 22, 1998 gage at site .5 mi downstream and at same datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112	123	118	115	754	1910	344	463	231	215	103	66
2	111	124	115	e112	810	1230	338	433	281	220	97	64
3	118	128	116	e130	810	964	339	408	314	248	95	62
4	125	122	115	e125	738	797	340	388	276	200	92	61
5	125	119	115	e110	646	670	321	375	245	176	90	58
6	124	116	114	e108	608	1690	322	487	227	162	87	57
7	125	115	124	e106	2950	1660	305	431	213	155	85	57
8	129	114	122	e104	5730	998	293	381	204	145	86	58
9	128	115	120	e101	2140	869	424	358	196	148	87	57
10	123	128	124	e99	1360	754	390	336	250	161	83	54
11	121	132	122	e98	1040	631	370	318	226	140	82	53
12	120	128	118	e102	1830	576	344	309	199	136	80	52
13	117	127	116	e110	1630	556	313	351	254	132	91	52
14	114	125	115	e104	1070	538	301	327	286	128	90	52
15	113	122	113	e102	891	512	321	304	250	125	84	52
16	113	120	113	e100	796	554	374	286	217	122	82	52
17	114	119	114	e170	775	869	913	275	195	124	79	51
18	121	117	112	e1110	725	879	1230	328	183	136	76	51
19	128	115	111	2040	653	686	912	344	175	128	77	51
20	124	118	113	1140	587	586	709	297	169	135	76	53
21	121	119	131	1540	528	544	1890	276	169	129	74	54
22	116	117	167	13900	484	500	2260	274	163	121	71	54
23	110	116	166	10400	459	462	1220	271	157	116	70	53
24	110	114	158	4150	449	440	865	267	170	113	83	52
25	111	119	141	2210	442	413	689	226	165	109	91	51
26	111	123	135	1570	419	395	613	253	157	114	85	50
27	109	121	132	1270	671	379	574	238	180	120	80	50
28	116	119	130	1060	2810	369	645	227	179	117	77	50
29	114	119	129	884	---	358	608	219	182	119	74	55
30	118	118	125	773	---	344	513	211	182	110	69	59
31	128	---	122	708	---	336	---	216	---	104	67	---
TOTAL	3669	3612	3866	44651	32805	22469	19080	9877	6295	4408	2563	1641
MEAN	118	120	125	1440	1172	725	636	319	210	142	82.7	54.7
MAX	129	132	167	13900	5730	1910	2260	487	314	248	103	66
MIN	109	114	111	98	419	336	293	211	157	104	67	50
CFSM	.22	.23	.24	2.72	2.21	1.37	1.20	.60	.40	.27	.16	.10
IN.	.26	.25	.27	3.14	2.31	1.58	1.34	.69	.44	.31	.18	.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1999, BY WATER YEAR (WY)

MEAN	188	352	549	835	873	1009	995	768	548	362	241	174
MAX	1685	1978	2531	4409	2639	2522	2360	3763	2609	1777	2342	920
(WY)	1987	1994	1991	1937	1950	1963	1964	1996	1998	1979	1979	1989
MIN	47.1	49.8	50.6	58.9	56.9	120	122	70.0	68.9	61.1	61.3	50.3
(WY)	1935	1935	1935	1935	1935	1935	1941	1941	1934	1934	1988	1934

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1929 - 1999	
ANNUAL TOTAL	251538		154936			
ANNUAL MEAN	689		424		573	
HIGHEST ANNUAL MEAN					1009	1996
LOWEST ANNUAL MEAN					117	1941
HIGHEST DAILY MEAN	11600	Jun 12	13900	Jan 22	26300	Mar 5 1963
LOWEST DAILY MEAN	109	Oct 27	50	Sep 26	30	Aug 6 1934
ANNUAL SEVEN-DAY MINIMUM	112	Oct 23	51	Sep 22	33	Aug 2 1934
INSTANTANEOUS PEAK FLOW			16700	Jan 22	37100	Jan 14 1937
INSTANTANEOUS PEAK STAGE			18.36	Jan 22	19.70	Dec 31 1990
ANNUAL RUNOFF (CFSM)	1.30		.80		1.08	
ANNUAL RUNOFF (INCHES)	17.69		10.90		14.71	
10 PERCENT EXCEEDS	1290		869		1150	
50 PERCENT EXCEEDS	302		135		276	
90 PERCENT EXCEEDS	116		75		88	

e Estimated

03275000 WHITEWATER RIVER NEAR ALPINE, INDIANA--Continued

National Water-Quality Assessment Program, Great Miami and Little Miami River Basins Study Unit

WATER-QUALITY RECORDS

The data described in the following table were collected and analyzed as part of the NAWQA (National Water-Quality Assessment Program) project in the Great Miami and Little Miami River Basins. The objectives of the NAWQA program are to broadly characterize the water quality of the Nation's streams and aquifers in relation to human and natural factors. The period of high-intensity data collection for the Great Miami and Little Miami River Basins project is in water years 1999-2001.

There are seven additional stream sites which data are being reported in the 1999 Ohio annual data report as part of this NAWQA study: Stillwater River at Martindale Rd. near Union, OH (395355084173600), Great Miami River near Vandalia, OH (395457084095100), Mad River at St. Paris Pike near Springfield, OH (03267900), Holes Creek at Huffman Park near Kettering, OH (393944084120700), Great Miami River at Hamilton, OH (03274000), Little Miami River at Milford, OH (03245500), and East Fork Little Miami River near Williamsburg,OH (03246400).
These data also can be obtained electronically at http://oh.water.usgs.gov/miam.html.

---, no data; <, concentration or value reported is less than that indicated; E, estimated value; K, value is estimated from a non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE AIR (DEG C) (00020)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
OCT 21...	1020	668	8.0	10.0	12.0	747	9.6	92	--	320	77	30
NOV 19...	1415	671	8.4	17.0	10.5	746	13.6	124	K90	320	79	30
DEC 15...	1310	747	8.4	17.0	3.0	757	16.5	124	230	330	83	31
JAN 19...	1350	342	8.0	5.0	0.5	750	12.8	90	510	140	36	13
FEB 09...	1310	471	8.0	12.0	7.0	749	11.2	94	330	230	58	20
23...	1220	635	8.1	0.5	3.5	755	11.9	91	38	330	83	30
MAR 11...	1230	601	8.2	-2.0	3.5	757	12.3	94	K7	290	74	27
APR 15...	1130	664	8.1	11.0	10.0	735	10.9	101	58	310	75	29
21...	1400	493	8.1	22.0	14.0	741	9.6	96	>8000	250	61	23
MAY 11...	1240	628	8.2	29.0	18.0	745	12.9	140	22	290	70	28
JUN 07...	1250	650	8.2	32.0	24.5	745	10.4	128	78	310	76	28
JUL 12...	1310	651	8.2	27.0	22.5	750	11.6	136	K73	300	73	29
AUG 10...	1200	677	7.8	26.0	22.0	749	9.7	114	56	280	65	27
SEP 14...	1230	719	7.9	20.0	19.0	743	10.7	119	71	300	71	30

03275000 WHITEWATER RIVER NEAR ALPINE, INDIANA--Continued

National Water-Quality Assessment Program, Great Miami and Little Miami River Basins Study Unit

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	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)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
OCT												
21...	19	2.5	332	<1	275	36	33	0.2	4.5	403	0.03	2.8
NOV												
19...	17	2.4	323	<1	265	39	31	0.2	3.1	393	0.02	2.3
DEC												
15...	18	2.2	339	<1	278	37	32	0.3	5.4	406	0.03	2.5
JAN												
19...	8.3	3.5	129	<1	106	19	22	0.2	4.5	206	0.02	4.0
FEB												
09...	6.4	2.6	212	<1	174	27	17	0.2	7.0	284	<0.01	5.0
23...	11	1.9	327	<1	268	36	23	0.2	7.6	388	0.04	4.3
MAR												
11...	9.7	1.7	295	<1	242	33	23	0.2	6.2	372	0.02	4.0
APR												
15...	13	2.0	289	<1	237	36	26	0.2	2.0	381	0.02	2.9
21...	7.0	2.2	220	<1	180	27	18	0.2	3.7	301	0.02	3.6
MAY												
11...	11	1.9	305	<1	250	35	24	0.2	2.2	362	0.03	3.0
JUN												
07...	13	2.0	305	<1	250	36	27	0.2	7.1	389	0.04	3.3
JUL												
12...	13	2.2	286	<1	234	33	27	0.2	4.2	351	0.02	2.3
AUG												
10...	20	2.5	288	<1	236	40	38	0.2	4.7	377	0.02	2.3
SEP												
14...	27	3.0	278	<1	228	42	47	0.3	4.3	403	0.02	2.5

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	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)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
OCT											
21...	<0.02	0.26	0.16	0.05	0.04	0.04	E7.6	8.5	1.6	0.3	6
NOV											
19...	0.03	0.18	0.17	0.03	0.02	0.01	E9.7	7.6	1.4	0.5	10
DEC											
15...	0.05	0.33	0.11	0.02	0.03	0.03	E8.9	7.4	1.3	0.5	8
JAN											
19...	0.19	1.0	0.55	0.31	0.16	0.27	20	3.9	4.5	1.9	110
FEB											
09...	0.03	0.80	0.29	0.20	0.08	0.07	13	4.8	3.6	1.4	111
23...	<0.02	0.15	0.16	0.04	0.04	0.03	<10	11	1.2	0.3	13
MAR											
11...	0.02	0.20	0.17	0.04	0.03	0.04	<10	9.6	2.0	0.3	33
APR											
15...	<0.02	0.33	0.13	0.04	0.01	0.02	E8.1	11	1.9	0.8	59
21...	0.11	2.1	0.43	0.51	0.05	0.04	15	11	3.9	8.7	340
MAY											
11...	0.04	0.27	0.21	0.02	0.01	0.01	E9.2	7.7	1.9	0.4	37
JUN											
07...	<0.02	0.28	0.33	0.05	0.03	0.04	E5.4	7.8	2.6	0.7	26
JUL											
12...	<0.02	0.28	0.19	0.05	0.03	0.03	<10	8.7	2.4	0.7	15
AUG											
10...	<0.02	0.24	0.17	0.07	0.06	0.04	<10	9.9	2.0	--	--
SEP											
14...	<0.02	0.22	0.19	0.08	0.06	0.04	E7.9	10	2.0	0.6	--

03275600 EAST FORK WHITEWATER RIVER AT ABINGTON, IN

LOCATION.--Lat 39°43'59", long 84°57'35", in NE$^1/_4$SW$^1/_4$ 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 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e22	32	39	36	299	751	144	200	79	119	36	18
2	e21	29	38	45	305	472	141	189	122	205	25	17
3	e27	36	37	e52	295	397	163	180	94	137	23	16
4	e38	38	37	e50	278	333	180	169	78	88	22	15
5	e29	30	36	e47	248	290	151	163	71	67	21	14
6	e24	27	37	e43	245	906	153	293	66	58	21	13
7	e28	25	62	e39	1460	561	139	213	61	53	20	14
8	e41	24	48	e37	1460	381	133	179	59	45	21	14
9	e33	24	43	e36	592	352	304	161	82	85	20	13
10	e31	55	42	e35	411	309	277	145	100	138	19	12
11	e30	76	40	e34	344	271	275	134	79	61	20	12
12	e30	53	38	e37	564	250	214	137	71	46	19	12
13	e29	46	38	e45	436	245	182	167	62	42	36	11
14	25	45	36	e39	334	238	167	141	100	38	26	12
15	22	43	36	e37	302	224	187	128	79	35	23	11
16	21	42	37	e35	285	248	288	118	66	33	21	11
17	21	40	37	e80	294	372	645	112	58	33	20	10
18	30	39	36	813	268	342	539	142	52	43	18	11
19	39	39	35	555	247	275	411	121	48	47	25	11
20	27	45	36	326	224	246	335	104	46	66	22	11
21	22	40	67	911	208	234	1310	97	45	42	18	12
22	20	37	156	10100	190	212	765	112	43	36	17	11
23	22	37	77	3260	186	197	451	107	42	48	16	11
24	21	37	62	1270	186	189	348	108	47	32	49	11
25	21	39	50	703	190	177	294	100	45	29	54	11
26	22	69	50	506	179	168	268	91	42	33	37	10
27	21	47	48	430	373	161	262	84	69	58	28	10
28	35	42	47	374	1790	154	313	78	71	35	25	11
29	26	41	47	330	---	147	249	73	137	32	22	16
30	76	40	43	299	---	139	215	69	70	28	20	25
31	45	---	42	279	---	136	---	73	---	27	19	---
TOTAL	899	1217	1477	20883	12193	9377	9503	4188	2084	1839	763	386
MEAN	29.0	40.6	47.6	674	435	302	317	135	69.5	59.3	24.6	12.9
MAX	76	76	156	10100	1790	906	1310	293	137	205	54	25
MIN	20	24	35	34	179	136	133	69	42	27	16	10
CFSM	.14	.20	.24	3.37	2.18	1.51	1.58	.68	.35	.30	.12	.06
IN.	.17	.23	.27	3.88	2.27	1.74	1.77	.78	.39	.34	.14	.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1999, BY WATER YEAR (WY)

MEAN	74.9	170	278	284	322	374	383	338	202	159	107	54.4
MAX	615	732	929	708	901	884	1019	1049	789	773	773	242
(WY)	1987	1994	1991	1969	1975	1978	1996	1968	1998	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	12.9
(WY)	1989	1977	1977	1977	1992	1992	1976	1976	1988	1988	1988	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1966 - 1999	
ANNUAL TOTAL	78715		64809			
ANNUAL MEAN	216		178		228	
HIGHEST ANNUAL MEAN					388	1979
LOWEST ANNUAL MEAN					92.3	1977
HIGHEST DAILY MEAN	4850	Jun 15	10100	Jan 22	10100	Jan 22 1999
LOWEST DAILY MEAN	20	Oct 22	10	Sep 17	10	Sep 17 1999
ANNUAL SEVEN-DAY MINIMUM	21	Oct 21	11	Sep 22	11	Sep 22 1999
INSTANTANEOUS PEAK FLOW			16700	Jan 22	20000	Jul 20 1969
INSTANTANEOUS PEAK STAGE			15.67	Jan 22	16.18	Jul 20 1969
ANNUAL RUNOFF (CFSM)	1.08		.89		1.14	
ANNUAL RUNOFF (INCHES)	14.64		12.05		15.51	
10 PERCENT EXCEEDS	372		334		454	
50 PERCENT EXCEEDS	102		50		113	
90 PERCENT EXCEEDS	28		20		33	

e Estimated

03276000 EAST FORK WHITEWATER RIVER AT BROOKVILLE, IN

LOCATION.--Lat 39°26'02", long 85°00'12", in NE$^1/_4$NE$^1/_4$ 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 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 621.76 ft 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.--45 years, 415 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,100 ft^3/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, 2,060 ft^3/s Feb. 11-13; minimum daily discharge, 26 ft^3/s Dec. 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	383	96	96	1020	1440	48	27	27	41	57	57
2	27	669	96	96	1020	2010	48	27	27	147	57	57
3	27	873	96	96	1020	2010	48	27	27	201	57	57
4	27	872	96	96	1020	1670	48	27	27	201	57	57
5	27	871	96	96	1020	824	48	27	27	201	57	57
6	27	871	96	96	1020	481	48	27	27	201	57	57
7	27	870	96	96	1020	482	48	27	27	201	57	57
8	27	868	96	96	1030	483	48	27	27	201	57	57
9	27	867	96	96	1030	482	48	27	27	201	57	57
10	27	866	96	96	1640	1380	49	27	27	201	57	57
11	27	865	96	96	2060	2010	49	27	27	201	57	57
12	27	863	96	96	2060	1370	49	27	27	201	57	57
13	27	862	96	96	2060	991	49	27	27	201	57	57
14	27	861	70	96	2050	714	49	27	27	201	57	57
15	267	859	48	96	2050	200	138	27	27	201	57	57
16	386	858	48	96	2040	48	243	27	27	201	57	57
17	549	639	48	96	2040	48	243	27	27	201	57	57
18	386	483	48	96	2040	48	474	27	27	201	57	57
19	385	482	48	290	2030	48	745	27	27	201	57	57
20	385	482	48	783	2030	48	745	27	27	201	57	57
21	385	482	26	1590	2020	48	480	27	27	201	57	57
22	385	481	61	1140	2020	48	244	27	27	201	57	57
23	385	353	96	98	2010	48	145	27	27	201	57	57
24	385	96	96	98	1760	48	94	27	27	201	57	57
25	384	96	96	681	1020	48	96	27	27	201	57	57
26	384	96	96	1030	481	48	96	27	27	201	57	57
27	384	96	96	1030	481	48	96	27	27	147	57	57
28	384	96	96	1030	482	48	96	27	27	57	57	57
29	384	96	96	1030	---	48	96	27	27	57	57	57
30	384	96	96	1030	---	48	57	27	27	57	57	57
31	384	---	96	1030	---	48	---	27	---	57	57	---
TOTAL	6964	17252	2557	12588	41574	17315	4765	837	810	5387	1767	1710
MEAN	225	575	82.5	406	1485	559	159	27.0	27.0	174	57.0	57.0
MAX	549	873	96	1590	2060	2010	745	27	27	201	57	57
MIN	27	96	26	96	481	48	48	27	27	41	57	57

CAL YR 1998 TOTAL 179096 MEAN 491 MAX 5000 MIN 26
WTR YR 1999 TOTAL 113526 MEAN 311 MAX 2060 MIN 26

03276500 WHITEWATER RIVER AT BROOKVILLE, IN

(Former National stream-quality accounting network station)

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

DRAINAGE AREA.--1,224 mi^2.

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

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

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

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated by Brookville Lake since January 1974.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	138	458	237	325	3310	4160	643	773	348	674	139	106
2	137	846	232	310	2560	3700	645	723	484	902	135	104
3	159	1130	232	e303	2160	3300	667	682	502	531	130	101
4	164	1120	236	e288	1970	2750	941	653	432	445	127	100
5	165	1110	237	e267	1800	1840	745	629	373	383	122	97
6	163	1110	240	e253	1720	3310	751	816	341	348	118	95
7	176	1100	255	e245	7500	3010	720	823	317	e369	115	93
8	174	1100	253	e238	7940	2020	658	689	299	e342	115	93
9	172	1090	256	e233	4100	1780	745	632	285	e358	114	91
10	164	1130	253	e237	3500	2330	821	593	279	935	113	89
11	160	1160	254	e228	3470	2770	724	557	332	441	111	87
12	154	1140	251	e221	4180	2170	687	538	289	337	109	86
13	151	1120	243	e251	4290	1870	629	669	276	305	108	84
14	145	1110	217	e229	3570	1610	602	987	445	285	115	82
15	297	1110	182	e222	3290	1150	703	632	352	269	113	82
16	415	1090	182	e222	3100	1270	1010	545	313	258	107	81
17	678	969	182	e500	3090	2050	1200	509	277	251	105	80
18	428	759	158	3320	2980	1680	1940	501	257	249	101	79
19	447	658	130	3070	2840	1330	1980	589	246	252	104	79
20	439	665	128	2500	2720	1150	1770	516	237	279	101	80
21	442	659	284	3950	2610	1070	3170	467	230	296	97	81
22	433	661	1290	11500	2510	982	3530	441	224	262	96	80
23	428	536	499	16500	2480	906	1960	443	219	245	93	79
24	425	229	426	6470	2250	855	1420	482	238	234	107	78
25	423	229	369	3750	1640	806	1200	454	266	226	198	78
26	e424	241	342	3120	1170	764	1080	415	239	222	123	76
27	e429	251	327	2600	1790	736	999	385	474	216	128	75
28	434	245	315	2290	5100	709	1020	362	455	163	125	75
29	429	243	311	2040	---	685	1020	344	640	166	118	80
30	433	240	303	1870	---	660	873	328	352	161	111	80
31	441	---	293	1780	---	638	---	319	---	145	107	---
TOTAL	9667	23509	9117	69332	89640	54061	34853	17496	10021	10549	3605	2571
MEAN	312	784	294	2237	3201	1744	1162	564	334	340	116	85.7
MAX	678	1160	1290	16500	7940	4160	3530	987	640	935	198	106
MIN	137	229	128	221	1170	638	602	319	219	145	93	75
CFSM	.25	.64	.24	1.83	2.62	1.42	.95	.46	.27	.28	.10	.07
IN.	.29	.71	.28	2.11	2.72	1.64	1.06	.53	.30	.32	.11	.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1999, BY WATER YEAR (WY)

MEAN	468	909	1288	1972	2015	2279	2173	1745	1249	755	502	402
MAX	2796	4160	5468	9401	6290	5909	4664	8618	5273	3390	4271	4239
(WY)	1927	1994	1991	1937	1950	1963	1964	1996	1998	1958	1979	1926
MIN	95.5	98.1	95.1	102	122	294	275	186	161	138	102	85.7
(WY)	1935	1935	1935	1977	1935	1941	1941	1941	1934	1934	1930	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1916 - 1999	
ANNUAL TOTAL	546956		334421			
ANNUAL MEAN	1499		916		1309	
HIGHEST ANNUAL MEAN					2398	1996
LOWEST ANNUAL MEAN					271	1941
HIGHEST DAILY MEAN	19500	Apr 16	16500	Jan 23	55000	Jan 21 1959
LOWEST DAILY MEAN	128	Dec 20	75	Sep 27	60	Jul 27 1934
ANNUAL SEVEN-DAY MINIMUM	143	Sep 26	77	Sep 22	66	Sep 25 1941
INSTANTANEOUS PEAK FLOW			20100	Jan 23	81800	Jan 21 1959
INSTANTANEOUS PEAK STAGE			13.50	Jan 23	27.78	Jan 21 1959
ANNUAL RUNOFF (CFSM)	1.22		.75		1.07	
ANNUAL RUNOFF (INCHES)	16.62		10.16		14.53	
10 PERCENT EXCEEDS	3550		2530		2860	
50 PERCENT EXCEEDS	771		423		630	
90 PERCENT EXCEEDS	173		106		165	

e Estimated

03291780 INDIAN-KENTUCK CREEK NEAR CANAAN, IN

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

DRAINAGE AREA.--27.5 mi^2.

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

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

REMARKS.--Records good except for estimated daily discharges and those below 1 ft^3/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	.13	.95	e4.0	436	85	13	7.9	.31	5.5	.00	.00
2	.04	.13	.81	e25	133	48	11	7.2	.49	7.0	.00	.00
3	.05	.21	.74	e64	72	43	35	6.5	.68	3.5	.00	.00
4	.06	.22	.62	e35	46	32	58	5.9	.50	2.0	.00	.00
5	.05	.22	.57	e22	31	26	27	5.8	.34	1.3	.00	.00
6	.06	.28	.56	e15	30	386	26	39	.25	.87	.00	.00
7	.20	.29	8.7	e11	656	83	21	16	.20	.57	.00	.00
8	.31	.31	6.5	e15	122	48	19	9.7	.17	.40	.00	.00
9	.27	.31	3.2	e270	60	83	113	7.3	.15	.28	.00	.00
10	.24	.97	2.0	e120	39	157	34	5.7	.13	.24	.00	.00
11	.20	3.1	1.5	e42	32	117	24	4.5	.10	.24	.00	.00
12	.17	2.2	1.2	e150	167	110	17	3.6	.08	.25	.00	.00
13	.14	1.5	1.2	534	66	85	15	3.2	2.7	.17	.00	.00
14	.12	1.1	1.1	87	43	57	13	3.0	1.3	.12	.00	.00
15	.11	.85	.94	26	36	47	15	2.5	.76	.08	.00	.00
16	.09	.68	.83	18	30	166	18	2.0	.46	.05	.00	.00
17	.11	.58	.80	104	50	136	14	1.7	.27	.04	.00	.00
18	.14	.51	.74	225	34	66	14	2.2	.18	.04	.00	.00
19	.21	.47	.76	65	27	41	12	2.5	.14	.03	.00	.00
20	.16	.66	.80	47	22	32	12	1.5	.11	.02	.00	.00
21	.13	.64	349	100	19	28	103	1.1	.08	.02	.00	.00
22	.13	.87	335	535	17	22	39	.98	.06	.02	.00	.00
23	.14	.91	e80	706	16	19	24	1.0	.05	.02	.00	.00
24	.13	.80	e31	125	16	18	18	1.4	5.2	.02	.00	.00
25	.12	.91	e25	62	16	15	15	2.0	10	.02	.00	.00
26	.11	6.2	e21	41	15	13	15	1.2	1.9	.01	.00	.00
27	.11	3.5	e19	33	133	12	14	.78	14	.01	.00	.00
28	.14	2.0	e16	26	258	11	13	.59	91	.01	.00	.00
29	.14	1.3	e14	21	---	10	11	.44	32	.01	.00	.00
30	.13	1.1	e12	18	---	9.0	8.9	.36	9.9	.01	.00	.00
31	.13	---	e7.0	95	---	8.9	---	.37	---	.01	.00	---
TOTAL	4.20	32.95	943.52	3641.0	2622	2013.9	771.9	147.92	173.51	22.86	0.00	0.00
MEAN	.14	1.10	30.4	117	93.6	65.0	25.7	4.77	5.78	.74	.000	.000
MAX	.31	6.2	349	706	656	386	113	39	91	7.0	.00	.00
MIN	.04	.13	.56	4.0	15	8.9	8.9	.36	.05	.01	.00	.00
CFSM	.00	.04	1.11	4.27	3.41	2.36	.94	.17	.21	.03	.00	.00
IN.	.01	.04	1.28	4.93	3.55	2.72	1.04	.20	.23	.03	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1999, BY WATER YEAR (WY)

MEAN	9.80	32.6	50.5	51.8	56.7	69.0	63.1	48.9	30.2	13.6	11.9	6.94
MAX	83.6	137	173	169	136	134	216	198	152	50.9	78.9	57.9
(WY)	1984	1980	1991	1982	1990	1975	1996	1996	1996	1995	1995	1979
MIN	.000	.22	3.95	.60	5.24	11.7	6.55	3.82	.44	.12	.000	.000
(WY)	1988	1988	1977	1977	1992	1983	1976	1992	1988	1975	1999	1987

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1970 - 1999	
ANNUAL TOTAL	14553.64		10373.76			
ANNUAL MEAN	39.9		28.4		37.0	
HIGHEST ANNUAL MEAN					77.2	1996
LOWEST ANNUAL MEAN					17.0	1988
HIGHEST DAILY MEAN	1260	Apr 16	706	Jan 23	2370	Apr 29 1996
LOWEST DAILY MEAN	.00	Sep 9	.00	Aug 1	.00	Oct 1 1969
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 9	.00	Aug 1	.00	Jun 27 1970
INSTANTANEOUS PEAK FLOW			2550	Feb 7	7800	May 16 1990
INSTANTANEOUS PEAK STAGE			7.88	Feb 7	11.34	May 16 1990
ANNUAL RUNOFF (CFSM)	1.45		1.03		1.34	
ANNUAL RUNOFF (INCHES)	19.69		14.03		18.27	
10 PERCENT EXCEEDS	78		68		78	
50 PERCENT EXCEEDS	6.5		1.1		8.9	
90 PERCENT EXCEEDS	.11		.00		.10	

e Estimated

03294000 SILVER CREEK NEAR SELLERSBURG, IN

LOCATION.--Lat 38°22'15", long 85°43'35", in lot 68, Clark Military Grant, Clark County, Hydrologic Unit 05140101, on downstream side of Straws Mill bridge on Watson Road, 0.3 mi downstream from Pleasant Run, 2.4 mi southeast of Sellersburg, and 12.2 mi upstream from mouth.

DRAINAGE AREA.--189 mi^2.

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

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

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

REMARKS.--Records fair except for estimated daily discharges, and those below 10 ft^3/s, which are poor. Some regulation by Deam Lake.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.78	1.2	1.9	e36	1970	271	100	195	32	72	.75	.30
2	.62	1.2	1.1	35	1020	198	108	151	118	82	.74	.28
3	.70	1.5	1.1	311	567	202	102	124	138	57	.59	.26
4	.99	1.6	1.3	e200	373	213	199	102	53	34	.44	.25
5	1.3	2.4	.95	e130	272	172	154	91	36	21	.36	.25
6	1.5	4.9	.87	90	239	1280	215	371	30	17	.36	.24
7	4.7	4.3	4.3	78	903	737	246	330	24	14	.57	.25
8	15	3.0	45	111	761	394	176	180	19	8.9	.77	.23
9	9.0	3.1	29	1200	403	1510	296	128	34	7.2	1.0	.21
10	4.7	4.5	11	e410	288	1720	270	100	65	6.2	.91	.16
11	2.8	11	5.5	242	237	616	193	82	34	6.2	.83	.13
12	2.1	10	3.8	195	453	407	151	69	29	5.7	.77	.11
13	1.9	5.9	14	944	437	315	125	72	26	4.1	.68	.10
14	1.7	3.8	8.7	1340	290	283	112	73	24	2.1	.61	.09
15	e1.3	2.8	4.9	468	245	302	111	59	33	1.0	.53	.10
16	e1.2	2.5	3.6	285	213	551	150	51	24	.65	.42	.09
17	e1.1	2.3	2.8	329	222	992	122	43	18	1.1	.38	.07
18	e1.3	3.0	3.1	686	207	549	104	43	15	1.9	.38	.06
19	1.5	6.0	2.7	398	188	351	94	43	13	1.7	.44	.05
20	1.6	15	2.2	257	160	275	89	34	13	1.7	.51	.04
21	1.7	14	32	845	133	237	87	29	8.2	2.8	.46	.04
22	2.9	11	e1180	2560	116	203	88	30	7.2	1.6	.44	.04
23	2.7	9.0	e260	6420	110	193	77	28	8.8	1.4	.41	.04
24	1.7	6.2	124	4940	113	190	67	29	32	1.8	.38	.02
25	1.3	5.3	e88	861	109	162	60	28	53	1.8	.39	.01
26	1.2	20	65	453	103	139	64	23	30	1.4	.42	.00
27	1.3	20	55	347	99	119	96	21	38	1.1	.40	.00
28	1.1	11	52	280	368	106	117	20	102	.87	.38	.00
29	1.2	22	58	230	---	98	775	18	335	1.1	.36	.01
30	1.3	3.7	44	190	---	89	301	17	110	.89	.32	.09
31	1.3	---	37	222	---	84	---	25	---	.81	.30	---
TOTAL	73.49	212.2	2142.82	25093	10599	12958	4849	2609	1502.2	361.02	16.30	3.52
MEAN	2.37	7.07	69.1	809	379	418	162	84.2	50.1	11.6	.53	.12
MAX	15	22	1180	6420	1970	1720	775	371	335	82	1.0	.30
MIN	.62	1.2	.87	35	99	84	60	17	7.2	.65	.30	.00
CFSM	.01	.04	.37	4.28	2.00	2.21	.86	.45	.26	.06	.00	.00
IN.	.01	.04	.42	4.94	2.09	2.55	.95	.51	.30	.07	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1999, BY WATER YEAR (WY)

MEAN	30.3	117	247	311	405	528	402	323	163	72.8	48.3	34.5
MAX	143	805	862	1150	1323	2252	1117	1369	1337	316	514	390
(WY)	1978	1980	1979	1959	1956	1964	1970	1983	1960	1973	1978	1979
MIN	.21	.61	.60	5.43	32.0	112	72.3	25.4	3.07	2.75	.53	.12
(WY)	1965	1964	1964	1977	1992	1981	1976	1988	1988	1959	1999	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1955 - 1999	
ANNUAL TOTAL	70650.39		60419.55			
ANNUAL MEAN	194		166		223	
HIGHEST ANNUAL MEAN					423	1997
LOWEST ANNUAL MEAN					92.8	1981
HIGHEST DAILY MEAN	3530	Apr 16	6420	Jan 23	15100	Mar 10 1964
LOWEST DAILY MEAN	.42	Sep 16	.00	Sep 26	.00	Oct 1 1954
ANNUAL SEVEN-DAY MINIMUM	.46	Sep 13	.01	Sep 23	.00	Oct 1 1954
INSTANTANEOUS PEAK FLOW			7190	Jan 23	19600	Jan 22 1959
INSTANTANEOUS PEAK STAGE			22.58	Jan 23	30.89	Jan 22 1959
ANNUAL RUNOFF (CFSM)	1.02		.88		1.18	
ANNUAL RUNOFF (INCHES)	13.91		11.89		16.01	
10 PERCENT EXCEEDS	399		358		476	
50 PERCENT EXCEEDS	64		24		52	
90 PERCENT EXCEEDS	1.0		.38		3.0	

e Estimated

03302220 BUCK CREEK NEAR NEW MIDDLETOWN, IN

LOCATION.--Lat 38°07'13", long 86°05'16", in SE¼NE¼ sec.32, T.4 S., R.4 E., Harrison County, Hydrologic Unit 05140104, 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 mi^2, of which 28.1 mi^2 does not contribute directly to surface runoff.

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

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

GAGE.--Water-stage recorder. Datum of gage is 501.63 ft above sea level (levels by State of Indiana, Department of Natural Resources).

REMARKS.--Records fair except for estimated daily discharges, and those below 10 ft^3/s, which are poor. Flow can be affected by regulation of Spring Hills Lake during periods of low flow.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	4.1	6.0	13	367	121	62	91	17	71	e1.06	e1.28
2	2.0	4.2	4.7	35	239	100	55	73	52	40	e1.04	e1.24
3	5.6	4.6	4.5	140	167	94	54	61	42	34	e1.02	e1.20
4	6.8	4.6	4.5	e60	132	80	54	52	29	21	e1.0	e1.18
5	5.3	4.5	4.7	e44	105	75	49	49	24	13	e1.0	e1.16
6	4.5	4.2	4.5	e35	94	184	85	289	20	8.1	e1.0	e1.12
7	22	4.0	12	e29	155	143	83	157	17	5.2	1.9	e1.1
8	20	3.8	22	245	139	121	76	107	16	3.5	3.7	10
9	5.4	3.9	17	543	115	316	73	79	16	2.7	2.1	12
10	3.6	7.4	11	209	94	256	60	62	15	2.3	1.1	12
11	3.3	14	8.2	131	85	168	54	49	21	1.8	1.1	14
12	3.4	8.8	7.2	112	113	130	46	48	14	1.5	1.1	14
13	3.5	6.6	10	274	113	108	41	165	12	e1.45	e1.09	14
14	3.1	5.5	13	293	98	191	39	71	15	e1.43	e1.08	13
15	3.2	5.2	11	181	91	227	45	50	13	e1.4	e1.06	12
16	3.0	4.5	9.0	130	85	222	39	35	11	e1.7	e1.05	9.9
17	2.9	4.2	8.3	100	79	172	32	27	11	e2.2	e1.04	1.8
18	3.3	3.9	6.9	144	72	145	28	24	11	e1.8	e1.03	1.5
19	5.2	4.0	5.6	114	66	112	26	18	11	e1.5	e1.02	1.1
20	4.9	18	5.4	93	58	95	25	15	11	e2.3	e1.02	.96
21	4.4	14	31	333	52	84	23	12	11	e2.5	e1.01	1.2
22	4.0	8.1	205	1470	46	72	22	11	12	e2.1	e1.01	13
23	3.5	5.8	83	2270	46	156	19	11	14	e1.5	e1.0	11
24	3.3	4.5	55	522	45	169	17	11	21	e1.4	e1.6	24
25	3.7	4.9	41	311	42	123	15	8.2	22	e1.2	2.6	18
26	3.8	11	33	212	37	101	24	7.8	21	e1.19	3.0	2.2
27	3.7	11	29	166	46	88	29	8.9	40	e1.16	e2.5	1.7
28	3.6	8.7	25	135	174	83	50	9.6	616	e1.14	e2.1	1.1
29	3.8	7.2	22	116	---	87	241	11	390	e1.12	e1.8	1.2
30	3.9	6.7	20	95	---	68	122	12	130	e1.10	e1.5	1.5
31	4.1	---	18	111	---	62	---	15	---	e1.08	e1.3	---
TOTAL	155.4	201.9	737.5	8666	2955	4153	1588	1639.5	1655	233.37	44.93	199.44
MEAN	5.01	6.73	23.8	280	106	134	52.9	52.9	55.2	7.53	1.45	6.65
MAX	22	18	205	2270	367	316	241	289	616	71	3.7	24
MIN	2.0	3.8	4.5	13	37	62	15	7.8	11	1.1	1.0	.96
CFSM	.14	.18	.64	7.53	2.84	3.61	1.43	1.43	1.49	.20	.04	.18
IN.	.16	.20	.74	8.69	2.96	4.16	1.59	1.64	1.66	.23	.05	.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1999, BY WATER YEAR (WY)

MEAN	17.2	53.7	97.7	110	129	161	141	107	62.3	29.7	16.7	17.1
MAX	71.8	228	262	280	368	708	412	558	311	219	67.2	217
(WY)	1971	1980	1991	1999	1989	1997	1970	1983	1997	1979	1992	1979
MIN	.76	3.16	6.01	2.64	24.8	40.4	22.4	16.3	1.56	4.59	1.45	.72
(WY)	1988	1988	1977	1977	1992	1983	1986	1976	1988	1975	1999	1987

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1970 - 1999	
ANNUAL TOTAL	26143.7		22229.04			
ANNUAL MEAN	71.6		60.9		78.2	
HIGHEST ANNUAL MEAN					150	1997
LOWEST ANNUAL MEAN					32.8	1981
HIGHEST DAILY MEAN	1100	Jun 13	2270	Jan 23	5610	Mar 2 1997
LOWEST DAILY MEAN	1.2	Sep 15	.96	Sep 20	.52	Jul 10 1988
ANNUAL SEVEN-DAY MINIMUM	1.2	Sep 13	1.0	Aug 17	.57	Jul 4 1988
INSTANTANEOUS PEAK FLOW			4470	Jan 23	20500	Mar 2 1997
INSTANTANEOUS PEAK STAGE			9.30	Jan 23	17.26	Mar 2 1997
ANNUAL RUNOFF (CFSM)	1.93		1.64		2.11	
ANNUAL RUNOFF (INCHES)	26.21		22.29		28.65	
10 PERCENT EXCEEDS	198		144		175	
50 PERCENT EXCEEDS	24		14		27	
90 PERCENT EXCEEDS	3.5		1.2		3.4	

e Estimated

03302300 LITTLE INDIAN CREEK NEAR GALENA, IN

LOCATION.--Lat 38°19'19", long 85°55'53", in NE$^1/_4$SW$^1/_4$ sec.23, T.2 S., R.5 E., Floyd County, Hydrologic Unit 05140104, on right bank approximately 500 ft upstream of county road bridge, on abandoned county road embankment, 2.0 mi south of Galena, 3.6 mi upstream from mouth, and 7.0 mi northwest of New Albany.

DRAINAGE AREA.--16.1 mi^2.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	e.19	.78	e7.2	160	35	17	19	.60	17	.05	.00
2	.04	e.21	.67	e20	80	32	14	15	28	15	.07	.00
3	.26	e.25	.66	e60	57	35	14	12	7.4	9.7	.04	.00
4	.33	.82	.64	e23	45	32	14	9.2	3.2	6.3	.03	.00
5	.17	.88	.62	e19	38	30	13	9.5	2.4	4.4	.02	.00
6	.14	.86	.58	e17	35	103	20	55	1.6	2.9	.01	.00
7	12	.71	4.3	e15	82	57	16	26	1.2	2.1	.01	.00
8	1.9	.55	4.6	e94	58	45	15	18	.93	1.5	.04	.00
9	.16	.45	3.0	e90	46	166	18	13	.36	1.2	.13	.00
10	.09	4.0	2.0	e30	38	60	16	10	.28	1.0	.12	.00
11	.06	4.5	1.5	e23	34	37	13	7.8	.23	.87	.09	.00
12	.04	2.0	1.2	e19	58	28	12	5.9	.81	.65	.06	.00
13	.04	1.2	3.3	e94	48	23	10	8.5	1.9	.50	.08	.00
14	.04	.79	3.1	e50	41	26	9.4	6.0	.48	.41	.05	.00
15	.04	.63	2.2	35	37	32	11	4.6	.27	.35	.03	.00
16	.04	.57	1.9	28	35	66	12	3.5	.14	.29	.02	.00
17	.06	.57	1.8	28	40	63	10	2.8	.13	.23	.00	.00
18	.19	.53	1.4	42	35	40	8.9	3.0	.11	.17	.00	.00
19	.50	.51	1.2	29	32	30	8.3	2.5	.09	.13	.00	.00
20	.47	3.2	1.2	25	29	25	8.0	1.8	.09	.57	.00	.00
21	.37	2.8	42	33	26	21	7.5	1.4	.11	.75	.00	.00
22	e.35	1.7	70	797	24	18	7.8	1.2	.11	.31	.00	.00
23	e.19	1.3	23	760	24	29	6.3	1.1	.08	.16	.00	.00
24	e.16	1.1	17	89	25	29	6.8	1.7	7.5	.13	.00	.00
25	e.15	7.1	e13	58	24	23	4.8	1.1	2.1	.10	.00	.00
26	e.14	9.1	e12	46	23	19	12	.82	.72	.09	.00	.00
27	e.13	2.4	11	40	26	17	11	.57	10	.09	.00	.00
28	e.15	1.2	10	35	43	15	35	.37	103	.09	.00	.00
29	e.19	.85	9.6	31	---	14	59	.34	168	.11	.00	.01
30	e.21	.71	e8.0	28	---	12	26	.26	19	.09	.00	.01
31	e.20	---	e7.6	80	---	12	---	.91	---	.05	.00	---
TOTAL	18.89	51.68	259.85	2745.2	1243	1174	435.8	242.87	360.84	67.24	0.85	0.02
MEAN	.61	1.72	8.38	88.6	44.4	37.9	14.5	7.83	12.0	2.17	.027	.001
MAX	12	9.1	70	797	160	166	59	55	168	17	.13	.01
MIN	.04	.19	.58	7.2	23	12	4.8	.26	.08	.05	.00	.00
CFSM	.04	.11	.52	5.50	2.76	2.35	.90	.49	.75	.13	.00	.00
IN.	.04	.12	.60	6.34	2.87	2.71	1.01	.56	.83	.16	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1999, BY WATER YEAR (WY)

MEAN	4.20	14.2	29.4	33.6	39.1	48.3	42.9	28.3	16.2	8.04	5.40	4.01
MAX	42.2	70.6	103	88.6	111	185	120	116	93.6	50.7	30.5	62.1
(WY)	1978	1980	1991	1999	1990	1997	1970	1983	1997	1979	1978	1979
MIN	.000	.25	1.80	.46	2.91	10.9	7.78	1.48	.002	.088	.027	.000
(WY)	1988	1992	1981	1977	1992	1976	1976	1988	1988	1991	1999	1987

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1969 - 1999	
ANNUAL TOTAL	7558.24		6600.24			
ANNUAL MEAN	20.7		18.1		22.7	
HIGHEST ANNUAL MEAN					45.0	1979
LOWEST ANNUAL MEAN					8.23	1992
HIGHEST DAILY MEAN	376	Apr 16	797	Jan 22	2530	Mar 1 1997
LOWEST DAILY MEAN	.04	Oct 2	.00	Aug 17	.00	Oct 4 1968
ANNUAL SEVEN-DAY MINIMUM	.05	Oct 11	.00	Aug 17	.00	Sep 24 1969
INSTANTANEOUS PEAK FLOW			2870	Jan 22	6110	Mar 1 1997
INSTANTANEOUS PEAK STAGE			7.05	Jan 22	9.79	Mar 1 1997
ANNUAL RUNOFF (CFSM)	1.29		1.12		1.41	
ANNUAL RUNOFF (INCHES)	17.46		15.25		19.17	
10 PERCENT EXCEEDS	42		40		45	
50 PERCENT EXCEEDS	10		2.0		6.3	
90 PERCENT EXCEEDS	.16		.00		.23	

e Estimated

03302680 WEST FORK BLUE RIVER AT SALEM, IN

LOCATION.--Lat 38°36'19", long 86°05'40", in SW$^1/_4$SE$^1/_4$ sec.17, T.2 N., R.4 E., Washington County, Hydrologic Unit 05140104, on left bank at downstream side of bridge on East Market Street, 0.35 mi east of County Court House in Salem, 6.0 mi upstream from Hoggatt Branch, and 6.9 mi upstream from mouth.

DRAINAGE AREA.--19.0 mi^2.

PERIOD OF RECORD.--July 1970 to current year. Prior to December 10, 1970, nonrecording gage at site 0.55 mi downstream at datum 5.04 ft lower.

REVISED RECORDS.--WDR IN-96-1: 1983(P), 1988(P), 1990(P), 1995(P).

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

REMARKS.--Records fair except for discharges below 1.00 ft^3/s, and estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.21	.88	3.4	135	32	9.6	23	2.3	41	.15	.02
2	.02	.69	.81	14	89	27	8.0	18	55	42	.12	.01
3	.21	1.1	.73	e50	61	24	25	15	22	16	.09	.00
4	.15	.51	.72	e29	44	19	36	13	13	9.3	.08	.00
5	.16	.52	.64	e19	33	17	24	12	10	6.5	.09	.00
6	.17	.48	.67	e13	30	85	30	50	7.5	5.6	.09	.00
7	2.6	.40	4.2	e9.0	149	53	24	27	5.9	4.4	.07	.00
8	1.5	.41	3.4	e13	82	41	22	20	4.6	3.1	.98	.11
9	.50	.38	2.0	e42	53	245	41	15	3.7	2.4	.26	.27
10	.22	3.9	1.3	e25	39	108	28	12	3.2	2.3	.19	.05
11	.15	5.2	1.1	e15	34	67	24	9.9	3.7	1.9	.21	.02
12	.12	2.1	.84	e19	49	47	18	8.5	3.8	1.3	.19	.01
13	.08	1.4	.78	e140	39	38	16	11	3.8	1.0	.15	.01
14	.05	.95	.46	94	33	34	15	7.9	5.3	.90	.12	.00
15	.05	.79	.44	53	29	28	18	6.7	2.8	.64	.11	.00
16	.08	.70	.44	42	26	55	18	5.8	2.2	.50	.10	.00
17	.01	.60	.43	47	24	84	14	5.4	1.7	.37	.08	.00
18	.35	.51	.42	76	21	58	12	8.0	1.5	.36	.05	.00
19	.21	.33	.44	48	19	41	11	6.2	1.2	.27	.36	.00
20	.15	1.3	.44	37	17	33	10	5.1	1.1	2.4	.10	.00
21	.10	1.1	64	101	15	29	10	4.5	1.1	2.3	.07	.01
22	.15	1.1	78	366	13	23	9.4	5.3	.88	2.6	.04	.01
23	.17	.83	25	545	12	21	8.5	5.0	.72	1.5	.02	.00
24	.10	.75	15	113	12	18	7.4	5.8	2.0	.87	.18	.00
25	.10	1.4	e10	70	10	15	6.9	4.4	2.3	.55	.12	.00
26	.10	2.3	e8.0	48	9.5	13	8.2	3.6	1.6	.39	.10	.00
27	.10	2.3	7.1	38	17	11	13	3.2	4.4	.28	.15	.00
28	.11	1.5	6.4	31	45	11	71	2.6	5.2	.23	.11	.02
29	.12	1.6	5.3	23	---	9.5	62	2.3	7.0	.20	.09	.06
30	.08	.85	4.4	20	---	8.6	32	2.0	3.2	.19	.04	.11
31	.16	---	4.0	40	---	8.5	---	2.4	---	.16	.02	---
TOTAL	8.11	36.21	248.34	2183.4	1139.5	1303.6	632.0	320.6	182.70	151.51	4.53	0.71
MEAN	.26	1.21	8.01	70.4	40.7	42.1	21.1	10.3	6.09	4.89	.15	.024
MAX	2.6	5.2	78	545	149	245	71	50	55	42	.98	.27
MIN	.01	.21	.42	3.4	9.5	8.5	6.9	2.0	.72	.16	.02	.00
CFSM	.01	.06	.42	3.71	2.14	2.21	1.11	.54	.32	.26	.01	.00
IN.	.02	.07	.49	4.27	2.23	2.55	1.24	.63	.36	.30	.01	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1999, BY WATER YEAR (WY)

MEAN	6.79	22.3	31.7	34.0	39.0	45.3	45.6	31.4	15.0	13.0	7.35	6.31
MAX	45.7	89.9	98.2	103	106	104	164	140	80.3	65.7	30.5	40.0
(WY)	1984	1986	1991	1982	1989	1989	1996	1983	1997	1988	1985	1982
MIN	.14	.74	2.33	.97	5.41	9.65	4.21	1.91	.088	.29	.13	.024
(WY)	1988	1972	1977	1977	1992	1976	1976	1988	1988	1991	1987	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1970 - 1999	
ANNUAL TOTAL	6504.09		6211.21			
ANNUAL MEAN	17.8		17.0		24.8	
HIGHEST ANNUAL MEAN					43.1	1989
LOWEST ANNUAL MEAN					10.7	1981
HIGHEST DAILY MEAN	378	Apr 16	545	Jan 23	2130	Apr 29 1996
LOWEST DAILY MEAN	.01	Oct 17	.00	Sep 3	.00	Sep 3 1999
ANNUAL SEVEN-DAY MINIMUM	.03	Sep 26	.00	Sep 14	.00	Sep 14 1999
INSTANTANEOUS PEAK FLOW			1300	Jan 23	6930	May 17 1990
INSTANTANEOUS PEAK STAGE			7.57	Jan 23	15.58	May 17 1990
ANNUAL RUNOFF (CFSM)	.94		.90		1.30	
ANNUAL RUNOFF (INCHES)	12.73		12.16		17.73	
10 PERCENT EXCEEDS	39		44		53	
50 PERCENT EXCEEDS	6.1		3.4		7.3	
90 PERCENT EXCEEDS	.13		.06		.40	

e Estimated

03302800 BLUE RIVER AT FREDERICKSBURG, IN

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

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

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

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

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

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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	e6.6	15	70	2060	467	154	369	51	118	11	5.3
2	7.5	e6.6	17	83	1520	363	150	284	589	858	14	5.2
3	8.5	e6.8	18	e220	932	333	148	228	442	362	11	e5.1
4	8.7	e7.4	15	e160	675	297	463	191	210	215	10	e5.0
5	8.6	e7.1	13	e120	495	252	354	172	149	146	12	e4.9
6	8.3	e6.9	11	e110	436	1240	502	1090	118	111	11	e4.8
7	12	e6.8	20	e100	1450	954	529	744	97	98	11	e4.7
8	43	e6.7	62	e110	1320	608	401	432	82	77	15	e4.5
9	28	e6.6	51	e700	776	2370	507	303	73	61	17	e4.4
10	19	e7.0	36	e420	561	2310	466	232	64	54	18	e4.4
11	13	e54	27	e290	461	1020	359	190	97	48	12	e4.4
12	9.2	39	22	e250	657	704	280	161	96	44	10	e4.3
13	8.1	26	21	1900	667	545	233	204	65	38	9.7	e4.3
14	7.6	16	20	1960	505	469	211	185	98	34	10	e4.3
15	e7.5	12	18	838	440	407	214	142	118	31	9.2	e4.2
16	e7.4	11	18	563	387	495	239	122	73	28	8.3	e4.2
17	e7.3	10	18	550	373	1180	198	110	60	26	8.0	e4.1
18	e7.2	9.9	16	972	340	813	174	108	51	25	7.8	e4.1
19	e8.0	12	15	714	303	554	158	112	45	23	7.4	e4.0
20	e7.6	13	16	506	266	444	151	92	42	22	6.4	e4.1
21	e7.3	13	114	1410	233	386	148	83	39	178	6.2	e4.3
22	e7.4	17	1980	3700	206	322	144	77	36	59	7.4	e4.1
23	e7.2	15	529	10300	195	281	131	75	35	42	7.5	e3.9
24	e7.1	14	283	2980	196	268	116	74	40	30	7.1	3.8
25	e7.0	14	184	1240	184	232	103	71	97	23	7.0	3.6
26	e6.9	21	137	814	169	203	107	63	61	20	6.9	3.5
27	e6.8	37	113	638	167	186	137	58	81	17	8.8	3.4
28	e6.8	35	96	519	494	170	267	54	140	14	7.9	3.8
29	e6.9	23	90	417	---	156	1280	50	277	15	7.1	3.5
30	e6.8	18	85	351	---	143	566	50	187	14	6.0	3.2
31	e6.7	---	75	347	---	136	---	52	---	12	5.4	---
TOTAL	310.5	478.4	4135	33352	16468	18308	8890	6178	3613	2843	296.1	127.4
MEAN	10.0	15.9	133	1076	588	591	296	199	120	91.7	9.55	4.25
MAX	43	54	1980	10300	2060	2370	1280	1090	589	858	18	5.3
MIN	6.7	6.6	11	70	167	136	103	50	35	12	5.4	3.2
CFSM	.04	.06	.47	3.80	2.08	2.09	1.05	.70	.43	.32	.03	.02
IN.	.04	.06	.54	4.38	2.16	2.41	1.17	.81	.47	.37	.04	.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1999, BY WATER YEAR (WY)

MEAN	60.3	240	404	478	532	630	607	442	256	146	92.0	66.1
MAX	305	1135	1166	1341	1236	1372	1957	1808	1188	588	463	299
(WY)	1984	1980	1991	1982	1990	1997	1996	1983	1997	1973	1977	1996
MIN	3.45	12.5	29.4	11.6	56.1	142	86.8	35.2	8.36	13.1	9.55	4.25
(WY)	1998	1988	1977	1977	1992	1969	1976	1988	1988	1991	1999	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1969 - 1999	
ANNUAL TOTAL	94931.9		94999.4			
ANNUAL MEAN	260		260		328	
HIGHEST ANNUAL MEAN					550	1996
LOWEST ANNUAL MEAN					129	1992
HIGHEST DAILY MEAN	4790	Apr 16	10300	Jan 23	22000	Apr 29 1996
LOWEST DAILY MEAN	6.6	Nov 1	3.2	Sep 30	2.1	Oct 8 1997
ANNUAL SEVEN-DAY MINIMUM	6.7	Oct 27	3.5	Sep 24	2.4	Oct 7 1997
INSTANTANEOUS PEAK FLOW			11700	Jan 23	39000	Apr 29 1996
INSTANTANEOUS PEAK STAGE			21.12	Jan 23	27.15	Apr 29 1996
ANNUAL RUNOFF (CFSM)	.92		.92		1.16	
ANNUAL RUNOFF (INCHES)	12.48		12.49		15.76	
10 PERCENT EXCEEDS	593		597		749	
50 PERCENT EXCEEDS	91		70		116	
90 PERCENT EXCEEDS	8.2		6.6		14	

e Estimated

03302849 WHISKEY RUN AT MARENGO, IN

LOCATION.--Lat 38°22'32", long 86°20'41", in SW¼NW¼ 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 mi^2.

PERIOD OF RECORD.--October 1986 to September 1993 (discharge), October 1993 to current year (gage height only).

GAGE.--Water-stage recorder. Datum of gage is 561.45 ft above sea level.

REMARKS.--Stage affected at times by inflow from small cave 50 ft below gage. Stages below approximately 1.00 ft indicate a "no flow condition". Periods from Oct. 1-6, Aug. 1-7, Aug. 9-31, and Sept. 1-30 are known to be below 0.90 ft.

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.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 12.39 ft June 7, 1990; minimum gage height, undetermined below 0.90 ft, stream goes dry most years.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 5.80 ft, Jan. 22; minimum gage height, undetermined below 0.90 ft.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	1.16	1.33	1.31	2.39	1.70	1.63	1.72	1.24	2.00	---	---
2	---	1.17	1.32	2.07	2.09	1.68	1.59	1.62	1.79	1.61	---	---
3	---	1.20	1.31	1.70	1.93	1.66	1.77	1.56	1.55	1.46	---	---
4	---	1.20	1.31	1.52	1.77	1.63	1.70	1.50	1.43	1.38	---	---
5	---	1.19	1.31	1.51	1.71	1.73	1.69	1.76	1.40	1.34	---	---
6	---	1.18	1.34	1.49	1.66	2.13	1.90	2.26	1.37	1.30	---	---
7	1.36	1.16	1.59	1.44	2.09	1.92	1.78	1.90	1.25	1.28	---	---
8	1.24	1.17	1.46	2.60	1.90	2.06	1.72	1.72	1.29	1.26	1.10	---
9	1.21	1.19	1.39	1.93	1.79	2.50	2.01	1.61	1.28	1.25	.97	---
10	1.19	1.40	1.35	1.74	1.72	2.06	1.83	1.54	1.28	1.25	---	---
11	1.18	1.26	1.28	1.66	1.80	1.89	1.71	1.48	1.26	1.23	---	---
12	1.16	1.23	1.29	2.10	2.00	1.79	1.63	1.45	1.24	1.22	---	---
13	1.16	1.21	1.28	2.42	1.83	1.71	1.59	1.43	1.24	1.21	---	---
14	1.16	1.21	1.26	2.01	1.77	1.71	1.58	1.40	1.24	1.23	---	---
15	1.17	1.22	1.25	1.82	1.72	1.86	1.69	1.37	1.23	1.27	---	---
16	1.17	1.22	1.26	1.78	1.74	2.35	1.63	1.34	1.22	1.19	---	---
17	1.14	1.21	1.25	1.93	1.74	2.05	1.59	1.38	1.20	1.21	---	---
18	1.23	1.21	1.25	1.90	1.68	1.85	1.57	1.35	1.20	1.14	---	---
19	1.23	1.21	1.25	1.77	1.63	1.75	1.56	1.31	1.20	1.13	---	---
20	1.22	1.29	1.25	1.69	1.58	1.70	1.53	1.30	1.19	1.10	---	---
21	1.21	1.24	3.60	2.23	1.54	1.64	1.51	1.29	1.18	1.12	---	---
22	1.20	1.23	1.96	4.44	1.51	1.58	1.48	1.29	1.17	1.10	---	---
23	1.20	1.30	1.71	2.43	1.53	1.78	1.44	1.35	1.17	1.02	---	---
24	1.19	1.30	1.56	2.04	1.51	1.69	1.41	1.30	1.22	.93	---	---
25	1.19	1.39	1.49	1.85	1.50	1.63	1.40	1.29	1.22	---	---	---
26	1.20	1.37	1.44	1.75	1.48	1.59	1.50	1.27	1.24	---	---	---
27	1.20	1.33	1.41	1.68	1.66	1.56	1.93	1.26	1.31	---	---	---
28	1.20	1.30	1.38	1.60	1.75	1.53	2.42	1.25	1.81	---	---	---
29	1.20	1.29	1.37	1.55	---	1.50	1.97	1.24	1.52	---	---	---
30	1.20	1.38	1.34	1.52	---	1.47	1.79	1.24	1.40	---	---	---
31	1.18	---	1.32	3.08	---	1.56	---	1.27	---	---	---	---
MEAN	---	1.25	1.45	1.95	1.75	1.78	1.68	1.45	1.31	---	---	---
MAX	---	1.40	3.60	4.44	2.39	2.50	2.42	2.26	1.81	---	---	---
MIN	---	1.16	1.25	1.31	1.48	1.47	1.40	1.24	1.17	---	---	---

03303000 BLUE RIVER NEAR WHITE CLOUD, IN

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

DRAINAGE AREA.--476 mi^2, of which 192 mi^2 does not contribute directly to surface runoff. Also, part of flow from Indian Creek, downstream from Corydon, IN, enters Blue River via solution channel in Karst area through Harrison Spring.

PERIOD OF RECORD.--April 1931 to current year. Monthly figures only for some periods, published in WSP 1305.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	27	71	194	2780	932	454	929	198	574	63	30
2	29	26	60	225	3350	762	468	725	483	976	58	28
3	33	27	54	e470	2040	683	456	611	1260	1150	53	26
4	37	27	49	e360	1490	637	582	533	640	706	52	26
5	37	26	50	e310	1140	578	825	490	459	518	54	25
6	41	27	49	e290	959	1360	889	2040	371	415	49	25
7	79	27	59	e280	1310	2250	1130	2160	318	355	46	23
8	155	27	92	e300	2760	1340	925	1190	266	315	51	25
9	131	28	115	e1500	1630	2520	1070	855	232	283	60	29
10	121	46	143	e1300	1230	4950	1120	680	209	248	72	25
11	77	78	115	e800	1010	2330	885	576	192	209	66	23
12	55	100	95	e700	1090	1560	737	508	212	185	57	24
13	47	131	91	1690	1370	1220	625	1120	256	169	55	24
14	39	84	93	3970	1120	1060	569	786	206	155	48	23
15	34	62	87	1960	971	1000	552	591	207	142	41	23
16	30	50	84	1260	883	1130	572	494	240	134	38	24
17	28	42	79	1020	823	1830	557	438	182	124	40	24
18	27	35	72	1250	779	1720	490	404	151	116	39	25
19	32	32	68	1520	707	1260	454	373	133	108	37	25
20	31	43	64	1080	642	1010	431	352	122	103	37	24
21	30	49	150	1240	581	893	415	313	116	96	34	23
22	28	45	2770	5130	532	788	403	283	110	187	33	24
23	27	46	1610	14500	498	793	386	263	105	159	32	25
24	27	45	776	9500	486	803	355	263	115	118	31	25
25	28	46	538	2980	471	700	324	244	121	104	31	24
26	28	106	417	1900	451	620	320	229	209	90	33	25
27	29	107	348	1410	436	565	369	207	367	82	32	22
28	27	108	304	1160	567	528	657	188	877	75	31	22
29	25	89	273	969	---	493	2100	173	985	71	30	24
30	26	82	246	828	---	460	1500	165	771	67	29	28
31	27	---	226	841	---	441	---	199	---	65	31	---
TOTAL	1396	1668	9248	60937	32106	37216	20620	18382	10113	8099	1363	743
MEAN	45.0	55.6	298	1966	1147	1201	687	593	337	261	44.0	24.8
MAX	155	131	2770	14500	3350	4950	2100	2160	1260	1150	72	30
MIN	25	26	49	194	436	441	320	165	105	65	29	22
CFSM	.09	.12	.63	4.13	2.41	2.52	1.44	1.25	.71	.55	.09	.05
IN.	.11	.13	.72	4.76	2.51	2.91	1.61	1.44	.79	.63	.11	.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1999, BY WATER YEAR (WY)

MEAN	127	368	660	1067	1126	1398	1174	874	509	289	179	136
MAX	515	2057	2417	6290	3404	4299	3243	4020	2785	1655	801	551
(WY)	1956	1980	1958	1937	1950	1945	1996	1983	1997	1979	1977	1996
MIN	14.3	20.0	17.6	40.3	78.0	70.8	263	91.2	41.0	44.8	29.8	18.8
(WY)	1965	1964	1964	1977	1934	1941	1934	1934	1936	1954	1964	1953

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1932 - 1999	
ANNUAL TOTAL	212073		201891			
ANNUAL MEAN	581		553		657	
HIGHEST ANNUAL MEAN					1199	1950
LOWEST ANNUAL MEAN					140	1941
HIGHEST DAILY MEAN	7020	May 1	14500	Jan 23	27300	Apr 30 1996
LOWEST DAILY MEAN	25	Oct 29	22	Sep 27	9.6	Oct 17 1964
ANNUAL SEVEN-DAY MINIMUM	26	Oct 28	24	Sep 11	11	Oct 12 1964
INSTANTANEOUS PEAK FLOW			15500	Jan 23	29400	Apr 30 1996
INSTANTANEOUS PEAK STAGE			15.95	Jan 23	23.30	Apr 30 1996
ANNUAL RUNOFF (CFSM)	1.22		1.16		1.38	
ANNUAL RUNOFF (INCHES)	16.57		15.78		18.74	
10 PERCENT EXCEEDS	1280		1260		1480	
50 PERCENT EXCEEDS	306		209		257	
90 PERCENT EXCEEDS	38		27		37	

e Estimated

03303300 MIDDLE FORK ANDERSON RIVER AT BRISTOW, IN

LOCATION.--Lat 38°08'19", long 86°43'16", in NW$^{1}/_{4}$SE$^{1}/_{4}$ sec.27, T.4 S., R.3 W., Perry County, Hydrologic Unit 05140201, on left bank at downstream side of bridge on State Highway 145 at Bristow, 2.0 mi downstream from Coon Branch, 6.0 mi upstream from Sulphur Fork Creek, and at mile 14.1.

DRAINAGE AREA.--39.8 mi^{2}.

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

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

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

REMARKS.--Records good except for daily discharges below 1 ft^{3}/s and estimated daily discharges, which are poor. Flow regulated by Forest Service and Middle Fork Anderson River Conservancy District control structures beginning June 1967.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.80	5.7	7.8	327	57	56	302	5.7	286	.54	.04
2	.00	.97	5.5	38	297	47	53	206	16	231	.42	.02
3	.04	1.0	5.3	116	236	45	82	103	27	139	.40	.02
4	.06	.89	4.9	e69	153	38	110	63	23	77	.25	.02
5	.03	.75	4.8	e49	104	34	85	55	19	46	.30	.02
6	.00	.57	4.8	40	76	238	169	328	15	30	.46	.02
7	14	.50	10	32	92	204	147	286	13	20	.59	.03
8	6.6	.50	10	88	93	149	114	223	10	14	.89	.04
9	1.3	.56	8.6	231	76	309	95	149	8.4	9.7	.67	.04
10	.39	3.6	7.8	125	61	312	88	98	6.8	7.6	.45	.02
11	.14	6.0	8.1	95	53	254	73	64	5.5	5.9	.40	.02
12	.19	4.4	7.1	92	113	158	57	46	4.3	4.4	.40	.02
13	.20	3.1	6.6	168	98	110	46	38	3.5	3.3	.40	.02
14	.13	2.3	6.2	195	75	140	39	30	3.1	2.6	.41	.02
15	.12	2.1	4.8	137	63	169	40	23	2.8	2.3	.40	.02
16	.08	2.3	3.0	109	56	166	42	19	2.3	2.0	.40	.01
17	.16	2.7	3.0	93	67	158	38	17	1.9	1.8	.37	e.00
18	.49	3.1	2.5	98	61	137	34	26	1.8	1.6	.40	e.00
19	.85	2.7	2.3	82	53	105	31	20	1.7	1.4	.40	e.00
20	.64	4.3	2.1	66	45	80	28	15	1.7	25	.35	e.00
21	e2.8	4.8	105	61	39	65	25	13	1.6	67	.27	e.00
22	e2.0	4.6	270	391	33	52	22	11	1.5	14	.28	e.00
23	e1.7	4.4	126	625	31	210	20	11	1.3	5.4	.26	e.00
24	e1.4	4.1	89	402	35	271	17	11	1.3	3.8	.25	e.00
25	e1.2	6.3	62	384	34	186	15	10	1.3	2.9	1.5	e.00
26	e.95	14	43	363	31	130	29	9.2	49	2.3	8.7	e.00
27	e.80	8.1	31	315	36	92	90	8.0	168	2.0	.56	e.00
28	e2.5	6.9	22	188	77	69	607	6.9	260	1.8	.15	e.00
29	e1.5	5.9	16	81	---	55	428	6.0	324	1.6	.18	.01
30	1.0	5.8	11	56	---	45	353	5.5	303	1.2	.09	.01
31	.82	---	8.9	115	---	41	---	5.8	---	1.0	.07	---
TOTAL	42.09	108.04	897.0	4911.8	2515	4126	3033	2208.4	1283.5	1013.6	21.21	0.40
MEAN	1.36	3.60	28.9	158	89.8	133	101	71.2	42.8	32.7	.68	.013
MAX	14	14	270	625	327	312	607	328	324	286	8.7	.04
MIN	.00	.50	2.1	7.8	31	34	15	5.5	1.3	1.0	.07	.00
CFSM	.03	.09	.73	3.98	2.26	3.34	2.54	1.79	1.07	.82	.02	.00
IN.	.04	.10	.84	4.59	2.35	3.86	2.83	2.06	1.20	.95	.02	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1999, BY WATER YEAR (WY)

MEAN	8.84	37.9	72.7	80.8	95.3	126	114	76.9	33.2	17.9	11.9	10.4
MAX	63.7	194	210	223	245	393	312	405	190	141	162	78.8
(WY)	1978	1980	1991	1982	1989	1964	1972	1983	1979	1979	1979	1982
MIN	.000	.000	.000	2.78	5.66	33.4	19.6	6.36	.82	.38	.013	.000
(WY)	1965	1964	1964	1964	1992	1990	1963	1988	1988	1968	1965	1964

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1962 - 1999	
ANNUAL TOTAL	17392.54		20160.04			
ANNUAL MEAN	47.7		55.2		56.9	
HIGHEST ANNUAL MEAN					122	1979
LOWEST ANNUAL MEAN					15.2	1992
HIGHEST DAILY MEAN	691	Apr 16	625	Jan 23	4870	Mar 9 1964
LOWEST DAILY MEAN	.00	Sep 20	.00	Oct 1	.00	Oct 2 1961
ANNUAL SEVEN-DAY MINIMUM	.01	Sep 18	.00	Sep 17	.00	Oct 9 1961
INSTANTANEOUS PEAK FLOW			1180	Apr 28	6360	Mar 9 1964
INSTANTANEOUS PEAK STAGE			14.89	Apr 28	19.33	Mar 4 1964
ANNUAL RUNOFF (CFSM)	1.20		1.39		1.43	
ANNUAL RUNOFF (INCHES)	16.26		18.84		19.43	
10 PERCENT EXCEEDS	137		168		146	
50 PERCENT EXCEEDS	8.9		9.2		15	
90 PERCENT EXCEEDS	.59		.07		.18	

e Estimated

03303400 CROOKED CREEK NEAR SANTA CLAUS, IN

LOCATION.--Lat 38°07'05", long 86°53'24", in SE¼SE¼ sec.31, T.4 S., R.4 W., Spencer County, Hydrologic Unit 05140201, on right bank at upstream side of bridge on county road, 1.3 mi east of Santa Claus Post Office, and 1.8 mi upstream from unnamed right-bank tributary.

DRAINAGE AREA.--7.86 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 403.00 ft above sea level. Prior to Sept. 30, 1995 datum of gage was 404.34 ft above sea level.

REMARKS.--Records good except for daily discharges below 1 ft^3/s, and estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.53	1.1	e1.3	101	8.6	20	6.4	1.2	2.1	.00	.00
2	.00	.47	.80	e33	32	5.8	8.0	4.1	5.9	1.8	.00	.00
3	.00	.77	.65	e17	15	4.7	24	3.0	1.7	1.7	e.00	.00
4	.00	.97	.60	e5.2	8.2	3.3	16	2.5	1.2	1.1	e.00	.00
5	.00	.91	.73	e2.5	5.6	4.0	8.2	4.6	1.4	.79	e.00	.00
6	.00	.77	.68	e2.1	5.4	90	38	60	1.1	.84	e.00	.00
7	23	.76	5.9	e1.8	16	19	12	10	.94	.47	e.00	.00
8	2.0	.64	1.7	e35	7.4	12	7.7	6.2	.86	.37	e.00	.00
9	.90	.74	1.2	e25	5.0	143	6.2	4.0	1.4	.30	e.00	.00
10	.38	7.9	1.0	e7.0	3.7	32	4.4	2.7	.65	.68	e.00	.00
11	.12	1.6	.90	e3.6	4.6	15	3.2	2.2	.42	.89	.00	.00
12	.50	.82	.89	e6.0	20	9.4	2.4	2.2	.35	.44	.00	.00
13	.13	.57	1.1	e40	8.4	7.1	2.2	2.1	.30	.21	.00	.00
14	.04	.45	1.1	e20	5.2	59	2.2	1.8	.37	.11	.00	.00
15	.03	.42	.86	9.3	4.2	36	3.3	1.6	.18	.09	.00	.00
16	.03	.41	.85	7.9	4.2	21	2.7	1.4	.08	.05	.00	.00
17	.02	.40	.83	11	5.7	12	2.2	1.2	.05	.00	.00	.00
18	.32	.33	.73	25	4.1	7.3	2.1	1.3	.00	.00	.00	.00
19	.58	.36	.76	8.0	3.3	5.2	2.0	1.1	.00	.00	.00	.00
20	.27	1.5	.73	6.1	2.8	4.4	1.9	.90	.00	.27	.00	.00
21	.38	.93	135	26	2.5	3.6	1.9	.85	.00	1.8	.00	.00
22	.28	.65	69	529	2.2	2.9	1.6	.84	.00	.43	.00	.00
23	.20	.52	12	225	2.7	93	1.5	1.6	.00	.16	.00	.00
24	.16	.48	e5.0	36	3.9	31	1.4	1.4	.14	.09	.00	.00
25	.15	.70	e3.0	18	3.7	12	1.6	.91	.15	.03	.00	.00
26	.19	1.4	e2.5	11	2.9	7.6	18	.77	.06	.01	.00	.00
27	.23	.84	e2.2	6.5	14	5.3	60	.63	1.1	.00	.00	.00
28	.23	.63	e2.0	4.2	23	4.0	88	.64	38	.00	.00	.00
29	.24	.54	e1.8	3.1	---	4.6	42	.74	9.4	.00	.00	.00
30	.24	.54	e1.6	2.7	---	3.4	12	.84	2.1	.00	.00	.00
31	.50	---	e1.4	163	---	6.2	---	1.4	---	.00	.00	---
TOTAL	31.12	28.55	258.61	1291.3	316.7	672.4	396.7	129.92	69.05	14.73	0.00	0.00
MEAN	1.00	.95	8.34	41.7	11.3	21.7	13.2	4.19	2.30	.48	.000	.000
MAX	23	7.9	135	529	101	143	88	60	38	2.1	.00	.00
MIN	.00	.33	.60	1.3	2.2	2.9	1.4	.63	.00	.00	.00	.00
CFSM	.13	.12	1.06	5.30	1.44	2.76	1.68	.53	.29	.06	.00	.00
IN.	.15	.14	1.22	6.11	1.50	3.18	1.88	.61	.33	.07	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1999, BY WATER YEAR (WY)

MEAN	2.37	9.57	14.8	15.0	19.9	22.2	21.3	12.0	6.90	5.02	2.54	2.45
MAX	10.3	33.5	49.1	43.7	51.7	63.1	65.7	62.0	37.5	47.5	19.4	16.7
(WY)	1994	1994	1991	1982	1989	1997	1996	1995	1997	1979	1977	1996
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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1970 - 1999	
ANNUAL TOTAL	4226.23		3209.08			
ANNUAL MEAN	11.6		8.79		11.1	
HIGHEST ANNUAL MEAN					17.5	1997
LOWEST ANNUAL MEAN					3.97	1992
HIGHEST DAILY MEAN	524	Apr 16	529	Jan 22	1200	Apr 29 1996
LOWEST DAILY MEAN	.00	Sep 9	.00	Oct 1	.00	Oct 1 1969
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 9	.00	Jul 27	.00	Jun 28 1970
INSTANTANEOUS PEAK FLOW			1680	Jan 22	4100	Apr 28 1970
INSTANTANEOUS PEAK STAGE			10.69	Jan 22	10.13	Apr 3 1989
ANNUAL RUNOFF (CFSM)	1.47		1.12		1.42	
ANNUAL RUNOFF (INCHES)	20.00		15.19		19.23	
10 PERCENT EXCEEDS	24		18		22	
50 PERCENT EXCEEDS	2.1		.97		1.7	
90 PERCENT EXCEEDS	.18		.00		.00	

e Estimated

03322011 PIGEON CREEK NEAR FORT BRANCH, IN

LOCATION.--Lat 38°15'08", long 87°31'11", in NW$^1/_4$SW$^1/_4$ 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 mi^2.

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 for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	3.5	3.1	e6.0	188	29	21	42	10	1280	6.5	3.1
2	2.8	3.8	2.8	e90	72	21	16	31	e105	1950	6.2	2.8
3	2.4	5.8	3.0	e50	41	17	153	25	e15	181	5.8	2.8
4	2.2	4.9	2.6	e15	28	12	181	21	89	51	5.9	2.6
5	2.0	4.3	2.6	e12	21	16	51	36	200	35	5.7	2.6
6	7.1	4.1	2.6	e11	20	304	310	121	57	28	5.6	2.4
7	858	3.9	50	e13	228	46	50	34	30	23	5.5	2.4
8	36	3.9	11	e12	55	43	33	24	21	21	8.7	2.3
9	8.9	4.0	7.6	e11	35	737	216	19	11	19	7.3	2.3
10	6.1	14	6.5	e10	26	82	42	17	8.8	22	6.2	2.2
11	5.0	6.2	5.9	e9.0	26	42	26	15	7.9	18	5.4	2.2
12	4.4	4.1	5.8	e35	88	31	18	14	7.2	17	5.1	2.1
13	4.1	3.5	6.1	193	29	25	16	14	9.0	16	5.0	2.6
14	4.0	3.2	5.5	51	22	27	15	13	7.9	15	4.7	2.5
15	3.8	3.0	5.2	22	20	36	17	12	6.0	14	4.6	2.0
16	3.7	2.9	5.3	23	18	231	14	12	5.5	13	4.5	1.7
17	3.7	2.6	5.1	123	18	167	12	11	5.2	68	4.4	1.7
18	9.2	2.6	4.8	294	15	53	11	14	5.5	22	4.2	1.7
19	7.5	2.5	5.0	46	13	31	10	11	5.3	14	4.3	1.5
20	5.0	3.8	5.0	39	11	26	10	10	5.3	12	3.9	1.5
21	4.4	3.1	313	166	9.6	22	9.7	9.7	5.0	11	3.8	1.4
22	4.1	2.7	179	1270	8.5	18	8.7	9.3	4.8	10	3.7	1.3
23	3.9	2.5	26	440	10	321	7.8	9.1	5.6	9.8	3.7	1.3
24	3.7	2.2	e13	59	14	76	6.7	11	26	9.7	3.9	1.3
25	3.7	3.4	e10	35	14	38	6.5	9.3	27	9.0	3.8	1.2
26	3.6	4.1	e9.0	26	11	28	70	8.5	448	8.3	3.7	1.2
27	3.4	2.9	e8.4	24	53	22	103	7.9	668	8.2	3.6	1.3
28	3.3	2.5	e8.0	20	84	20	672	7.6	246	7.9	3.6	1.2
29	3.2	2.4	e8.3	16	---	17	210	7.4	127	7.6	3.5	3.7
30	3.2	2.5	e7.0	15	---	15	68	7.3	33	7.1	3.2	3.8
31	3.4	---	e6.5	329	---	15	---	9.2	---	6.8	3.2	---
TOTAL	1034.8	114.9	733.7	3465.0	1178.1	2568	2384.4	592.3	2202.0	3914.4	149.2	62.7
MEAN	33.4	3.83	23.7	112	42.1	82.8	79.5	19.1	73.4	126	4.81	2.09
MAX	858	14	313	1270	228	737	672	121	668	1950	8.7	3.8
MIN	2.0	2.2	2.6	6.0	8.5	12	6.5	7.3	4.8	6.8	3.2	1.2
CFSM	.94	.11	.67	3.16	1.19	2.34	2.25	.54	2.07	3.57	.14	.06
IN.	1.09	.12	.77	3.64	1.24	2.70	2.51	.62	2.31	4.11	.16	.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1999, BY WATER YEAR (WY)

MEAN	9.40	28.9	36.0	53.1	59.3	62.3	63.0	60.9	38.5	36.5	18.3	7.10
MAX	38.8	161	176	112	170	164	191	203	140	126	75.5	20.5
(WY)	1991	1994	1991	1999	1989	1989	1996	1990	1996	1999	1989	1989
MIN	.55	1.86	5.88	6.97	4.66	12.4	14.6	2.21	1.38	1.92	1.29	1.06
(WY)	1992	1996	1996	1987	1992	1994	1991	1988	1988	1994	1991	1987

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1987 - 1999	
ANNUAL TOTAL	16058.51		18399.5			
ANNUAL MEAN	44.0		50.4		39.3	
HIGHEST ANNUAL MEAN					62.3	1989
LOWEST ANNUAL MEAN					12.7	1992
HIGHEST DAILY MEAN	1540	May 7	1950	Jul 2	2120	Apr 29 1996
LOWEST DAILY MEAN	.77	Sep 29	1.2	Sep 25	.28	Oct 4 1991
ANNUAL SEVEN-DAY MINIMUM	1.6	Sep 10	1.3	Sep 22	.39	Oct 2 1991
INSTANTANEOUS PEAK FLOW			3750	Jul 1	3750	Jul 1 1999
INSTANTANEOUS PEAK STAGE			17.24	Jul 1	17.24	Jul 1 1999
ANNUAL RUNOFF (CFSM)	1.24		1.42		1.11	
ANNUAL RUNOFF (INCHES)	16.88		19.34		15.10	
10 PERCENT EXCEEDS	58		88		55	
50 PERCENT EXCEEDS	9.2		9.7		7.0	
90 PERCENT EXCEEDS	2.6		2.6		1.3	

e Estimated

03322900 WABASH RIVER AT LINN GROVE, IN

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

DRAINAGE AREA.--453 mi^2.

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

REVISED RECORDS.--WSP 2109: Drainage area.

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

REMARKS.--Records fair except for estimated daily discharges, which are poor. Occasional regulation by Grand Lake, diversion from or into St. Marys River Basin, and into Miami and Erie Canal.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	47	28	32	351	3430	172	317	234	59	47	17
2	31	34	28	e31	368	3230	170	254	396	67	47	16
3	33	29	29	e30	395	2380	163	227	422	73	42	14
4	42	30	28	e30	361	1710	168	211	189	62	40	12
5	62	32	28	e29	291	1110	163	195	133	51	33	12
6	50	28	27	e28	262	1210	163	195	105	47	28	11
7	75	25	27	e27	484	1500	139	187	83	46	29	10
8	165	23	28	e26	1440	1410	129	156	70	44	29	8.7
9	83	22	30	e26	1590	1040	279	137	61	43	29	8.4
10	47	30	29	e25	1150	790	404	128	65	44	28	8.5
11	37	177	28	e24	642	583	276	124	83	42	29	7.4
12	32	166	26	e24	620	456	220	124	73	43	30	7.6
13	28	80	24	e26	877	401	156	118	151	44	37	8.4
14	25	48	24	e30	588	368	142	121	214	41	33	7.0
15	25	37	23	e27	463	347	178	111	378	39	30	11
16	25	32	23	e25	404	373	1030	103	157	39	25	12
17	25	30	24	e31	377	1330	1710	90	93	40	21	10
18	26	27	24	e180	347	1760	1720	91	66	46	21	9.1
19	26	26	24	e414	325	1440	1150	98	51	55	22	8.3
20	28	25	25	e802	303	757	612	92	49	45	25	9.9
21	27	25	28	e1350	251	524	482	83	45	46	28	9.4
22	26	24	148	2820	215	381	633	82	37	45	21	9.3
23	25	24	120	5420	216	309	899	200	35	45	20	8.8
24	25	25	e90	6950	202	285	1070	672	32	44	19	8.9
25	26	25	e66	5390	198	253	592	449	30	42	20	11
26	25	33	e50	3950	193	233	383	210	37	41	20	9.5
27	25	51	44	2470	601	231	299	135	65	41	20	9.5
28	27	41	40	1470	2390	214	444	107	83	53	22	9.1
29	28	31	e37	933	---	196	714	91	75	57	20	15
30	35	28	e35	620	---	177	443	81	70	57	20	24
31	46	---	34	440	---	170	---	171	---	43	17	---
TOTAL	1211	1255	1219	33680	15904	28598	15103	5360	3582	1484	852	322.8
MEAN	39.1	41.8	39.3	1086	568	923	503	173	119	47.9	27.5	10.8
MAX	165	177	148	6950	2390	3430	1720	672	422	73	47	24
MIN	25	22	23	24	193	170	129	81	30	39	17	7.0
CFSM	.09	.09	.09	2.40	1.25	2.04	1.11	.38	.26	.11	.06	.02
IN.	.10	.10	.10	2.77	1.31	2.35	1.24	.44	.29	.12	.07	.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1999, BY WATER YEAR (WY)

MEAN	88.1	290	495	526	677	808	655	367	375	300	178	96.8
MAX	553	1853	1514	1563	1717	2397	2085	1584	1914	1877	1513	753
(WY)	1991	1973	1991	1974	1976	1978	1972	1996	1981	1993	1995	1972
MIN	6.84	7.52	9.25	6.19	86.0	80.5	68.2	25.9	8.92	11.7	8.20	7.64
(WY)	1965	1966	1977	1977	1978	1981	1971	1988	1988	1965	1966	1967

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1965 - 1999	
ANNUAL TOTAL	203198		108570.8			
ANNUAL MEAN	557		297		403	
HIGHEST ANNUAL MEAN					710	1973
LOWEST ANNUAL MEAN					76.8	1966
HIGHEST DAILY MEAN	7960	Jul 24	6950	Jan 24	8460	Jul 4 1993
LOWEST DAILY MEAN	22	Nov 9	7.0	Sep 14	4.3	Jul 9 1988
ANNUAL SEVEN-DAY MINIMUM	24	Dec 13	8.0	Sep 8	5.1	Jul 7 1988
INSTANTANEOUS PEAK FLOW			7390	Jan 24	9560	Mar 17 1978
INSTANTANEOUS PEAK STAGE			13.29	Jan 24	13.87	Mar 17 1978
ANNUAL RUNOFF (CFSM)	1.23		.66		.89	
ANNUAL RUNOFF (INCHES)	16.69		8.92		12.09	
10 PERCENT EXCEEDS	1750		689		1180	
50 PERCENT EXCEEDS	154		47		117	
90 PERCENT EXCEEDS	28		20		12	

e Estimated

03323500 WABASH RIVER AT HUNTINGTON, IN

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

DRAINAGE AREA.--721 mi^2.

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

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

GAGE.--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.--48 years, 615 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,900 ft^3/s Feb. 10, 1959; maximum gage height 23.20 ft, Feb. 10, 1959 (backwater from ice); minimum daily discharge, 0.00 ft^3/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, 5,820 ft^3/s, Jan. 29; minimum daily discharge, 21 ft^3/s, Sept. 10-14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	108	80	54	5240	3300	225	839	338	127	61	49
2	87	108	65	58	4390	4150	231	526	662	105	61	38
3	87	107	65	60	3060	3940	215	378	1100	95	61	30
4	87	106	65	59	2570	3910	210	300	1280	87	61	27
5	86	105	65	59	2420	3980	208	253	473	84	61	27
6	86	104	65	59	1880	2760	211	270	145	83	50	27
7	98	103	75	59	1060	2560	175	302	183	83	43	27
8	184	102	79	56	828	2470	159	281	237	78	43	27
9	231	101	79	54	1580	2080	172	238	179	66	43	24
10	244	101	60	57	2310	1670	382	213	177	71	43	21
11	262	131	51	59	2480	1010	449	184	112	68	43	21
12	157	200	54	59	2010	595	371	169	112	61	43	21
13	100	229	61	63	1470	442	240	180	132	61	43	21
14	99	252	65	65	1240	411	174	201	142	61	54	21
15	99	228	58	65	624	366	179	189	388	61	71	36
16	99	179	54	65	444	369	432	170	421	61	76	74
17	98	109	58	66	429	941	1430	170	216	52	76	93
18	98	73	60	183	320	2070	3280	179	114	43	76	93
19	97	73	56	409	311	3030	3880	201	94	55	76	92
20	97	73	54	1210	338	2770	2600	210	106	61	76	92
21	96	82	54	1520	325	1490	1140	205	100	71	75	84
22	96	86	54	1050	246	673	736	181	81	76	54	76
23	95	72	80	780	177	470	620	206	75	75	43	72
24	95	58	110	942	172	295	593	594	66	67	43	72
25	94	66	121	1410	209	163	880	966	61	61	43	72
26	94	81	120	2940	248	217	1000	1060	61	61	52	71
27	93	85	97	4660	274	268	548	863	61	61	70	71
28	93	96	64	5560	1670	257	343	431	61	61	76	71
29	92	116	65	5820	---	249	642	155	96	61	70	71
30	103	121	57	5660	---	207	828	126	122	61	61	75
31	109	---	51	5470	---	202	---	176	---	61	61	---
TOTAL	3543	3455	2142	38631	38325	47315	22553	10416	7395	2179	1809	1596
MEAN	114	115	69.1	1246	1369	1526	752	336	246	70.3	58.4	53.2
MAX	262	252	121	5820	5240	4150	3880	1060	1280	127	76	93
MIN	86	58	51	54	172	163	159	126	61	43	43	21

CAL YR 1998 TOTAL 305317 MEAN 836 MAX 4520 MIN 51
WTR YR 1999 TOTAL 179359 MEAN 491 MAX 5820 MIN 21

03324000 LITTLE RIVER NEAR HUNTINGTON, IN

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

DRAINAGE AREA.--263 mi².

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

REVISED RECORDS.--WSP 2109: Drainage area.

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

REMARKS.--Records good except for estimated daily discharges, which are fair. During periods of extreme high water in the St. Marys River, some water leaves the St. Marys River Basin through Junk Ditch and flows into Little River Basin via Graham McCulloch Ditch.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	49	47	e45	297	1160	90	280	1230	31	23	16
2	26	40	43	e42	357	630	91	212	972	39	24	16
3	28	37	42	e40	417	1370	87	174	574	32	17	16
4	36	34	41	e39	309	710	89	145	272	28	16	15
5	35	34	40	e38	225	377	84	131	179	25	16	17
6	35	34	40	e37	202	695	80	133	137	24	16	16
7	498	33	76	e37	231	575	81	119	113	22	15	15
8	448	34	99	e37	740	341	76	102	96	21	22	14
9	155	32	67	e37	1120	271	747	95	87	21	25	14
10	86	110	55	e37	542	247	889	89	79	21	18	15
11	62	450	49	e37	335	197	564	79	72	22	17	14
12	50	178	47	e37	1070	174	407	77	77	21	17	16
13	43	102	45	e37	536	168	227	83	74	19	19	15
14	39	80	42	e37	277	157	171	83	131	19	36	14
15	37	68	42	e37	218	149	224	74	159	19	31	14
16	36	59	40	e38	198	227	2150	69	75	19	23	15
17	34	53	43	e40	194	1400	2260	68	55	19	18	15
18	35	46	44	e42	171	1680	1230	77	47	21	16	15
19	43	45	43	e45	148	678	778	91	41	21	18	17
20	42	43	41	e56	131	372	468	70	41	22	28	16
21	35	40	44	e350	116	268	341	63	38	23	23	14
22	33	38	e78	2290	105	205	466	63	34	19	20	15
23	33	40	e70	4260	99	163	3060	91	34	18	18	15
24	32	37	e66	4790	95	144	2560	790	36	17	18	14
25	32	39	e60	4090	98	126	1580	412	35	19	52	16
26	31	82	58	2670	94	113	788	186	32	17	58	16
27	31	81	56	1520	532	105	525	123	35	16	51	16
28	33	60	54	947	1860	102	1190	99	39	18	42	14
29	34	52	54	670	---	97	749	86	36	19	28	41
30	36	50	e52	481	---	88	401	81	30	19	22	72
31	69	---	e48	347	---	85	---	1000	---	18	19	---
TOTAL	2193	2080	1626	23210	10717	13074	22453	5245	4860	669	766	538
MEAN	70.7	69.3	52.5	749	383	422	748	169	162	21.6	24.7	17.9
MAX	498	450	99	4790	1860	1680	3060	1000	1230	39	58	72
MIN	26	32	40	37	94	85	76	63	30	16	15	14
CFSM	.27	.26	.20	2.85	1.46	1.60	2.85	.64	.62	.08	.09	.07
IN.	.31	.29	.23	3.28	1.52	1.85	3.18	.74	.69	.09	.11	.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1999, BY WATER YEAR (WY)

MEAN	83.4	162	275	333	395	488	427	241	227	118	64.7	57.8
MAX	701	1137	1010	1693	1164	1765	1396	748	809	661	501	414
(WY)	1955	1993	1967	1950	1959	1982	1957	1996	1958	1996	1958	1992
MIN	5.72	10.2	8.93	6.25	17.5	90.7	40.3	35.2	22.3	15.9	7.76	4.22
(WY)	1963	1965	1964	1977	1964	1981	1946	1963	1988	1962	1963	1962

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1945 - 1999	
ANNUAL TOTAL	118255		87431			
ANNUAL MEAN	324		240		238	
HIGHEST ANNUAL MEAN					450	1950
LOWEST ANNUAL MEAN					67.0	1954
HIGHEST DAILY MEAN	4120	Apr 10	4790	Jan 24	5610	Mar 14 1982
LOWEST DAILY MEAN	26	Sep 15	14	Sep 8	1.1	Oct 8 1946
ANNUAL SEVEN-DAY MINIMUM	27	Sep 27	15	Sep 8	1.8	Oct 7 1946
INSTANTANEOUS PEAK FLOW			4850	Jan 24	5990	Jan 4 1950
INSTANTANEOUS PEAK STAGE			18.20	Jan 24	19.50	Feb 25 1985
ANNUAL RUNOFF (CFSM)	1.23		.91		.91	
ANNUAL RUNOFF (INCHES)	16.73		12.37		12.32	
10 PERCENT EXCEEDS	876		597		596	
50 PERCENT EXCEEDS	86		52		68	
90 PERCENT EXCEEDS	33		17		14	

e Estimated

03324300 SALAMONIE RIVER NEAR WARREN, IN

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

DRAINAGE AREA.--425 mi^2.

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

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 784.65 ft above sea level, (levels by State of Indiana, Department of Natural Resources). Prior to July 28, 1960, nonrecording gage at same site and datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	65	61	e42	292	4280	96	179	662	62	21	15
2	35	66	58	e41	414	2230	97	155	1100	54	19	14
3	37	72	64	e39	487	1670	95	139	1440	58	27	15
4	39	176	60	e40	365	1000	93	129	433	76	24	15
5	48	129	56	e45	260	522	92	123	230	58	19	15
6	60	95	54	e38	216	1410	89	116	162	49	15	15
7	122	80	62	e37	740	1950	85	111	129	41	13	16
8	569	71	88	e36	3020	727	80	104	109	34	16	16
9	194	66	91	e35	1660	443	85	93	95	34	14	15
10	90	207	71	e34	645	359	461	83	88	37	11	14
11	59	823	62	e34	417	274	241	78	88	34	11	13
12	46	384	56	e34	647	235	169	74	143	30	9.8	14
13	42	169	55	e38	709	215	138	121	93	33	25	15
14	38	117	53	e50	362	201	108	122	92	28	34	14
15	40	95	51	e116	261	190	120	87	77	19	41	15
16	43	80	48	e100	236	230	2030	70	74	15	24	15
17	45	71	48	e82	228	2040	4160	62	66	13	19	15
18	53	64	48	e240	223	2850	2860	76	54	17	17	13
19	62	56	46	e2150	194	944	1190	92	51	27	17	12
20	65	53	45	e1600	166	476	625	78	51	26	17	12
21	61	52	51	e1100	146	349	618	65	51	29	16	13
22	55	50	236	5110	123	265	1270	116	51	32	14	15
23	49	49	278	10900	116	208	1490	296	50	36	15	13
24	48	45	104	9780	113	180	1190	632	57	32	24	12
25	52	50	e79	7120	112	158	524	304	59	30	30	12
26	58	85	e64	2790	112	136	338	155	56	25	28	12
27	61	130	e54	1080	396	122	255	103	67	26	27	13
28	62	93	e49	784	3870	114	401	79	90	27	24	15
29	66	74	e46	543	---	109	348	67	76	30	25	23
30	78	66	e44	401	---	99	232	61	64	27	19	38
31	92	---	e43	315	---	94	---	418	---	22	16	---
TOTAL	2405	3633	2225	44754	16530	24080	19580	4388	5858	1061	631.8	454
MEAN	77.6	121	71.8	1444	590	777	653	142	195	34.2	20.4	15.1
MAX	569	823	278	10900	3870	4280	4160	632	1440	76	41	38
MIN	35	45	43	34	112	94	80	61	50	13	9.8	12
CFSM	.18	.28	.17	3.40	1.39	1.83	1.54	.33	.46	.08	.05	.04
IN.	.21	.32	.19	3.92	1.45	2.11	1.71	.38	.51	.09	.06	.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1999, BY WATER YEAR (WY)

MEAN	83.8	312	478	510	634	864	704	366	371	246	144	92.2
MAX	489	1794	1685	1724	1906	2616	2214	1371	2312	1477	1363	894
(WY)	1991	1993	1991	1974	1976	1978	1964	1996	1958	1998	1998	1972
MIN	8.13	13.7	11.4	6.12	19.2	103	74.5	32.8	16.7	23.8	11.8	9.22
(WY)	1964	1964	1977	1977	1964	1981	1976	1988	1988	1967	1965	1963

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1958 - 1999	
ANNUAL TOTAL	223795		125599.8			
ANNUAL MEAN	613		344		399	
HIGHEST ANNUAL MEAN					665	1993
LOWEST ANNUAL MEAN					109	1966
HIGHEST DAILY MEAN	10800	Aug 5	10900	Jan 23	10900	Jan 23 1999
LOWEST DAILY MEAN	28	Sep 20	9.8	Aug 12	5.1	Jan 2 1977
ANNUAL SEVEN-DAY MINIMUM	30	Sep 15	13	Sep 19	5.9	Dec 29 1976
INSTANTANEOUS PEAK FLOW			11400	Jan 23	13500	Aug 5 1998
INSTANTANEOUS PEAK STAGE			15.55	Jan 23	17.05	Feb 10 1959
ANNUAL RUNOFF (CFSM)	1.44		.81		.94	
ANNUAL RUNOFF (INCHES)	19.59		10.99		12.75	
10 PERCENT EXCEEDS	1890		653		977	
50 PERCENT EXCEEDS	116		70		93	
90 PERCENT EXCEEDS	45		16		17	

e Estimated

03324500 SALAMONIE RIVER AT DORA, IN

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

DRAINAGE AREA.--557 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 673.96 ft above sea level, (levels by State of Indiana, Department of Natural Resources). Prior to Oct. 1, 1951, non-recording gage at site 1.5 mi upstream at datum 688.59 ft above sea level, (levels by U.S. Army Corps of Engineers) and Oct. 1, 1951, to Oct. 8, 1961, water-stage recorder located on left bank 2,000 ft upstream at datum 679.77 ft above sea level, (levels by U.S. Army Corps of Engineers). Oct. 9, 1961, to Sept. 30, 1974, water-stage recorder at site described in "LOCATION" paragraph.

REMARKS.--Flow regulated by Salamonie Lake since April 1967.

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

AVERAGE DISCHARGE.--75 years, 520 ft^3/s.

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

EXTREMES FOR CURRENT YEAR.-- Maximum daily discharge, 5,690 ft^3/s Feb. 8; minimum daily, 26 ft^3/s, June 17-29, July 6 to Aug. 12, Aug. 14-24, Aug. 30 to Sept. 3, and Sept. 7-30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	256	351	458	119	1790	1060	77	409	1000	88	26	26
2	337	350	455	117	2380	1740	35	291	1400	95	26	26
3	336	349	561	117	3400	2010	36	206	1720	95	26	26
4	336	348	933	117	4400	2000	36	126	1070	79	26	42
5	335	347	305	117	4860	2380	36	70	472	46	26	48
6	334	346	304	98	5160	2490	36	106	261	26	26	39
7	461	345	302	91	5410	2460	37	120	179	26	26	26
8	667	344	301	91	5690	1720	37	120	131	26	26	26
9	925	343	299	91	5160	961	37	120	120	26	26	26
10	919	343	298	91	4420	1590	37	120	191	26	26	26
11	913	344	347	91	4250	1710	38	120	251	26	26	26
12	550	442	390	91	4080	1280	38	120	239	26	26	26
13	370	501	386	107	3890	844	39	120	198	26	36	26
14	369	427	362	117	3660	519	39	120	112	26	26	26
15	368	305	348	117	2240	395	39	120	61	26	26	26
16	367	305	345	117	1120	299	40	120	33	26	26	26
17	366	432	343	204	985	702	43	120	26	26	26	26
18	366	494	339	324	637	1350	45	120	26	26	26	26
19	365	491	322	973	392	1940	46	172	26	26	26	26
20	364	488	303	2100	339	2040	46	244	26	26	26	26
21	363	486	301	1720	337	1610	46	167	26	26	26	26
22	362	483	298	455	334	826	47	120	26	26	26	26
23	361	480	297	114	203	279	47	257	26	26	26	26
24	360	477	297	122	171	240	57	885	26	26	26	26
25	359	474	314	127	207	201	70	822	26	26	222	26
26	358	471	321	129	186	201	302	355	26	26	106	26
27	357	469	318	130	152	201	418	184	26	26	48	26
28	356	466	314	130	418	180	449	120	26	26	48	26
29	355	464	310	659	---	169	522	120	26	26	35	26
30	354	461	306	1090	---	169	507	120	57	26	26	26
31	352	---	168	1380	---	169	---	201	---	26	26	---
TOTAL	13241	12426	10945	11346	66271	33735	3282	6415	7833	1079	1145	831
MEAN	427	414	353	366	2367	1088	109	207	261	34.8	36.9	27.7
MAX	925	501	933	2100	5690	2490	522	885	1720	95	222	48
MIN	256	305	168	91	152	169	35	70	26	26	26	26

CAL YR 1998 TOTAL 317266 MEAN 869 MAX 4480 MIN 49
WTR YR 1999 TOTAL 168549 MEAN 462 MAX 5690 MIN 26

03325000 WABASH RIVER AT WABASH, IN

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

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

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

REVISED RECORDS.--WSP 1275: 1931-37(M), 1938-39, 1940(M). WSP 1385: 1942. WSP 1505: 1955. WSP 2109: Drainage area. 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 poor. Flow regulated by Salamonie Lake beginning April 1967 and by Huntington Lake beginning October 1976.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	342	549	760	e220	7010	6070	584	1840	3180	263	96	103
2	473	509	631	e202	7020	6410	560	1490	3610	273	92	93
3	480	459	670	e202	6700	7580	547	1010	3680	245	98	80
4	482	455	1290	e200	6680	6750	496	888	3020	222	96	76
5	485	447	436	e198	6800	6670	490	647	1840	190	106	84
6	502	443	433	e178	6710	6740	477	645	755	141	89	84
7	1440	442	475	e170	6540	5960	504	671	616	135	75	67
8	1710	440	589	e166	6900	5410	412	663	568	129	74	66
9	1570	443	522	e165	7450	3610	923	603	575	127	77	65
10	1400	712	511	e168	6910	4040	1770	550	663	120	100	62
11	1330	1260	456	e170	6830	3670	1470	512	579	106	72	60
12	1040	1070	524	e176	7430	2840	1310	461	523	100	65	60
13	523	1050	553	e210	6420	2130	939	468	541	95	133	58
14	478	981	576	e240	5660	1640	593	482	547	103	103	58
15	464	840	533	e225	4370	1410	606	494	625	98	108	57
16	456	733	427	e210	2390	1400	4080	446	784	102	124	60
17	449	746	506	e320	2270	3790	5900	434	538	100	120	102
18	458	673	516	e700	1780	6080	5100	442	270	98	115	129
19	456	647	504	e1800	1300	5930	5340	473	219	89	129	127
20	451	632	454	e4120	1160	5940	4170	611	194	99	126	128
21	446	621	464	4660	1130	4640	2340	545	207	106	120	126
22	444	642	471	7700	1050	2620	1500	459	189	116	117	118
23	438	646	443	11500	846	1430	6450	554	163	116	100	108
24	435	606	545	8320	606	1260	4890	1920	156	113	129	101
25	439	601	589	6640	729	819	3490	2570	149	103	345	101
26	436	669	617	6210	755	954	2660	1820	141	94	289	99
27	433	741	621	6660	2010	904	2140	1450	152	94	193	99
28	441	710	574	6880	5010	803	2400	1060	151	92	190	107
29	436	757	485	7120	---	757	2470	500	146	110	170	186
30	447	775	494	7180	---	716	2090	424	208	97	134	152
31	483	---	356	7020	---	624	---	1290	---	95	113	---
TOTAL	19867	20299	17025	89930	120466	109597	66701	26422	24989	3971	3898	2816
MEAN	641	677	549	2901	4302	3535	2223	852	833	128	126	93.9
MAX	1710	1260	1290	11500	7450	7580	6450	2570	3680	273	345	186
MIN	342	440	356	165	606	624	412	424	141	89	65	57
CFSM	.36	.38	.31	1.64	2.43	2.00	1.26	.48	.47	.07	.07	.05
IN.	.42	.43	.36	1.89	2.53	2.31	1.40	.56	.53	.08	.08	.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1999, BY WATER YEAR (WY)

MEAN	594	964	1734	2251	2424	3112	2698	1601	1383	848	526	503
MAX	3200	5044	5829	13260	7764	8144	11060	10410	8260	4776	4887	5676
(WY)	1927	1993	1968	1950	1959	1982	1957	1943	1958	1993	1998	1926
MIN	32.3	61.7	56.0	72.8	114	177	264	135	78.3	55.4	43.4	29.9
(WY)	1964	1965	1964	1977	1964	1941	1971	1941	1988	1934	1941	1941

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1924 - 1999	
ANNUAL TOTAL	843277		505981			
ANNUAL MEAN	2310		1386		1550	
HIGHEST ANNUAL MEAN					2994	1950
LOWEST ANNUAL MEAN					276	1931
HIGHEST DAILY MEAN	15100	Jul 22	11500	Jan 23	47800	May 18 1943
LOWEST DAILY MEAN	205	Sep 7	57	Sep 15	17	Aug 3 1934
ANNUAL SEVEN-DAY MINIMUM	243	Sep 12	59	Sep 10	18	Aug 3 1934
INSTANTANEOUS PEAK FLOW			12100	Jan 23	49600	May 18 1943
INSTANTANEOUS PEAK STAGE			16.20	Jan 23	24.44	Feb 11 1959
ANNUAL RUNOFF (CFSM)	1.31		.78		.88	
ANNUAL RUNOFF (INCHES)	17.74		10.65		11.91	
10 PERCENT EXCEEDS	5150		5510		4600	
50 PERCENT EXCEEDS	1100		506		529	
90 PERCENT EXCEEDS	434		99		87	

e Estimated

03325500 MISSISSINEWA RIVER NEAR RIDGEVILLE, IN

LOCATION.--Lat 40°16'48", long 84°59'33", in NW¼NW¼ sec.17, T.21 N., R.14 E., Randolph County, Hydrologic Unit 05120103, on left bank 800 ft upstream from county road bridge, 0.6 mi downstream from Mud Creek, 2 mi east of Ridgeville, and at mile 99.7.

DRAINAGE AREA.--133 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 965.28 ft above sea level (levels by State of Indiana, Department of Natural Resources). Prior to Oct. 5, 1950, nonrecording gage at site 800 ft downstream, at same datum. Oct. 5, 1950 to Oct. 15, 1994, water-stage recorder, at site 800 ft downstream, at same datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	10	8.9	e6.9	68	548	33	46	30	16	13	1.9
2	3.7	8.3	8.8	e6.9	103	268	31	43	282	76	8.0	1.9
3	9.1	13	8.0	e6.8	102	297	31	41	130	21	4.8	1.7
4	14	16	7.5	e6.8	78	156	35	39	64	13	3.7	1.7
5	4.3	14	7.1	e6.7	54	112	30	39	46	9.6	3.4	1.5
6	3.1	11	6.5	e6.6	55	849	30	47	37	8.4	3.0	1.5
7	6.5	9.1	9.7	e6.5	962	328	27	41	32	8.4	2.8	1.7
8	11	8.0	12	e6.4	931	170	27	34	28	7.1	3.1	1.6
9	6.5	7.9	9.0	e6.3	324	127	37	31	26	6.7	2.8	1.7
10	4.6	26	7.9	e6.2	181	86	39	28	24	7.3	2.7	1.5
11	3.6	53	7.0	e6.2	130	67	35	27	22	6.5	2.7	1.6
12	2.9	17	6.3	e7.4	669	59	30	26	20	5.4	2.6	1.2
13	3.0	10	6.3	e17	255	57	26	31	40	5.1	3.5	1.0
14	3.3	8.5	6.1	e8.6	134	57	26	28	72	4.8	4.5	.84
15	3.9	7.6	5.9	e6.4	109	50	47	24	42	4.6	4.2	.83
16	4.1	6.9	6.1	e9.0	97	148	318	23	25	4.5	3.2	.88
17	4.7	6.7	6.4	e45	107	532	840	23	22	3.9	2.7	.94
18	7.0	6.2	7.3	e610	86	250	443	61	18	5.6	2.4	.91
19	11	6.3	6.8	e480	69	124	237	49	17	5.8	3.0	.73
20	7.5	6.2	6.6	e250	56	93	148	33	16	12	3.1	.87
21	6.3	6.3	9.7	e580	47	80	879	29	15	9.0	3.1	1.0
22	e6.0	6.1	113	3650	41	61	392	67	14	6.2	2.5	1.0
23	e5.6	5.9	e44	3280	40	51	299	82	13	7.9	2.1	.93
24	e5.4	5.8	e25	1140	38	46	184	177	14	7.0	2.6	.93
25	e5.2	6.4	e16	410	38	41	121	93	14	4.8	3.5	.80
26	e5.0	8.5	11	250	35	37	93	54	13	5.8	4.2	.59
27	e5.2	8.9	10	192	314	36	74	39	18	9.7	3.5	.48
28	e10	7.1	9.4	144	1340	34	80	33	30	6.1	2.9	.76
29	13	6.7	e9.6	104	---	33	63	29	22	6.6	2.7	3.3
30	15	7.0	e10	78	---	30	50	27	16	5.2	2.2	13
31	17	---	e8.0	65	---	30	---	29	---	4.6	1.9	---
TOTAL	211.2	320.4	415.9	11398.7	6463	4857	4705	1373	1162	304.6	110.4	49.29
MEAN	6.81	10.7	13.4	368	231	157	157	44.3	38.7	9.83	3.56	1.64
MAX	17	53	113	3650	1340	849	879	177	282	76	13	13
MIN	2.9	5.8	5.9	6.2	35	30	26	23	13	3.9	1.9	.48
CFSM	.05	.08	.10	2.76	1.74	1.18	1.18	.33	.29	.07	.03	.01
IN.	.06	.09	.12	3.19	1.81	1.36	1.32	.38	.33	.09	.03	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1999, BY WATER YEAR (WY)

MEAN	29.3	94.4	147	186	205	251	222	122	150	99.5	38.7	29.6
MAX	272	729	872	865	548	714	810	354	1417	709	454	337
(WY)	1987	1994	1991	1950	1950	1978	1964	1996	1958	1979	1979	1972
MIN	1.25	1.82	2.62	3.25	5.00	46.1	25.8	15.3	6.52	2.37	2.13	.99
(WY)	1947	1954	1964	1977	1964	1957	1976	1988	1988	1952	1983	1954

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1947 - 1999	
ANNUAL TOTAL	50636.0		31370.49			
ANNUAL MEAN	139		85.9		131	
HIGHEST ANNUAL MEAN					223	1958
LOWEST ANNUAL MEAN					29.8	1954
HIGHEST DAILY MEAN	3680	Jun 12	3650	Jan 22	11300	Jun 10 1958
LOWEST DAILY MEAN	2.2	Sep 25	.48	Sep 27	.10	Oct 24 1946
ANNUAL SEVEN-DAY MINIMUM	2.6	Sep 23	.78	Sep 22	.23	Oct 5 1946
INSTANTANEOUS PEAK FLOW			4020	Jan 22	13900	Jun 10 1958
INSTANTANEOUS PEAK STAGE			13.94	Jan 22	16.25	Jun 10 1958
ANNUAL RUNOFF (CFSM)	1.04		.65		.98	
ANNUAL RUNOFF (INCHES)	14.16		8.77		13.35	
10 PERCENT EXCEEDS	250		162		278	
50 PERCENT EXCEEDS	26		13		29	
90 PERCENT EXCEEDS	5.5		2.7		3.8	

e Estimated

03326070 BIG LICK CREEK NEAR HARTFORD CITY, IN

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

DRAINAGE AREA.--29.2 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 good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	5.4	54	3.4	35	137	6.4	9.1	32	1.9	2.7	.83
2	1.2	5.8	23	e3.3	54	69	6.1	8.0	469	2.5	1.2	.91
3	1.6	27	13	e3.3	34	127	5.8	7.4	76	1.6	.85	.90
4	2.7	5.4	8.8	e3.2	21	39	6.2	6.9	23	1.5	.82	.94
5	1.3	3.2	7.6	e3.2	15	26	5.5	6.5	12	1.3	.87	1.1
6	1.1	2.6	7.3	e3.1	15	232	5.8	6.5	7.0	1.2	.75	1.1
7	94	2.2	77	e3.1	296	71	5.2	5.7	5.2	1.1	.63	1.0
8	29	2.0	14	e3.0	177	29	5.1	5.3	4.3	1.1	.63	.86
9	5.0	1.9	6.4	e3.0	57	22	121	4.9	3.7	1.1	.58	.73
10	2.8	93	5.1	e2.9	28	17	83	4.5	3.3	1.3	.62	.56
11	2.2	107	4.5	e2.9	21	14	24	4.4	2.9	1.1	.62	.63
12	1.8	19	4.3	e3.5	67	13	13	5.9	3.8	1.1	.67	.77
13	1.7	10	4.3	e8.0	26	12	9.4	8.0	3.8	1.0	3.2	.73
14	1.7	7.2	3.9	e3.5	17	12	7.9	6.8	4.5	1.0	1.8	.59
15	1.7	5.7	3.5	e3.0	16	11	64	5.2	2.6	1.1	1.0	.23
16	1.5	4.9	3.6	e3.2	16	53	350	4.6	2.1	1.0	1.0	.22
17	1.3	4.5	3.6	e7.0	21	300	376	4.4	1.9	1.0	.83	.29
18	1.4	4.0	3.3	e200	15	116	168	5.4	1.7	1.1	.75	.49
19	1.9	4.1	3.3	e122	12	32	56	4.9	1.7	1.4	.86	.76
20	1.5	3.9	3.2	e61	10	21	26	4.1	1.7	2.7	1.2	.69
21	1.3	3.7	39	e120	9.1	16	238	3.8	1.7	1.3	.98	.73
22	1.4	3.5	166	1230	8.0	12	72	4.4	1.7	1.2	.82	.77
23	1.4	3.7	18	1100	7.7	11	98	12	1.5	1.2	.81	.78
24	1.6	3.5	7.8	271	7.4	9.6	31	43	1.6	1.0	1.1	.74
25	1.8	4.8	5.9	129	7.7	8.3	18	9.4	1.6	.94	2.9	.76
26	2.0	53	5.4	81	7.7	7.6	14	6.5	1.4	.96	3.1	.76
27	2.9	15	5.0	62	310	7.1	11	5.1	3.2	1.1	1.6	.88
28	8.0	6.8	4.7	41	611	6.9	56	4.4	2.5	1.4	1.3	.95
29	5.1	5.4	4.8	25	---	6.4	17	4.1	2.3	2.1	.97	3.7
30	4.5	5.9	4.1	19	---	6.0	11	3.7	1.7	1.4	.85	4.9
31	6.5	---	3.7	17	---	6.0	---	110	---	1.1	.88	---
TOTAL	193.1	424.1	518.1	3540.6	1921.6	1449.9	1910.4	324.9	681.4	40.80	36.89	29.30
MEAN	6.23	14.1	16.7	114	68.6	46.8	63.7	10.5	22.7	1.32	1.19	.98
MAX	94	107	166	1230	611	300	376	110	469	2.7	3.2	4.9
MIN	1.1	1.9	3.2	2.9	7.4	6.0	5.1	3.7	1.4	.94	.58	.22
CFSM	.21	.48	.57	3.91	2.35	1.60	2.18	.36	.78	.05	.04	.03
IN.	.25	.54	.66	4.51	2.45	1.85	2.43	.41	.87	.05	.05	.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1999, BY WATER YEAR (WY)

MEAN	6.85	26.7	36.3	35.8	44.1	57.3	42.5	26.4	29.8	20.1	10.4	7.13
MAX	53.4	135	157	114	124	152	112	114	148	99.4	84.3	55.0
(WY)	1991	1986	1991	1999	1990	1978	1972	1981	1981	1992	1998	1972
MIN	.50	.82	1.13	.76	3.41	9.38	4.85	2.37	1.21	1.11	.95	.61
(WY)	1998	1998	1996	1977	1978	1983	1976	1988	1988	1977	1988	1983

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1972 - 1999	
ANNUAL TOTAL	15898.37		11071.09			
ANNUAL MEAN	43.6		30.3		28.5	
HIGHEST ANNUAL MEAN					43.3	1993
LOWEST ANNUAL MEAN					9.21	1977
HIGHEST DAILY MEAN	1390	Aug 5	1230	Jan 22	1580	Jun 6 1981
LOWEST DAILY MEAN	.62	Jan 1	.22	Sep 16	.19	Oct 4 1983
ANNUAL SEVEN-DAY MINIMUM	1.2	Sep 24	.47	Sep 14	.32	Sep 28 1983
INSTANTANEOUS PEAK FLOW			1440	Jan 22	1940	Jun 6 1981
INSTANTANEOUS PEAK STAGE			14.35	Jan 22	16.14	Jun 6 1981
ANNUAL RUNOFF (CFSM)	1.49		1.04		.98	
ANNUAL RUNOFF (INCHES)	20.25		14.10		13.27	
10 PERCENT EXCEEDS	90		65		66	
50 PERCENT EXCEEDS	7.2		4.4		5.7	
90 PERCENT EXCEEDS	1.6		.88		1.1	

e Estimated

03326500 MISSISSINEWA RIVER AT MARION, IN

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

DRAINAGE AREA.--682 mi².

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

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

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

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow periodically regulated by dam 0.1 mile above station. 1930 water year not used in summary statistics.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	161	146	e100	659	4270	273	483	591	134	96	42
2	64	175	145	e96	893	2200	269	410	1690	129	71	42
3	69	275	154	e95	932	1910	264	363	2020	127	63	41
4	74	280	153	e94	765	1440	260	335	905	142	58	41
5	75	206	144	e93	603	940	271	315	530	138	60	41
6	93	174	142	e92	519	1560	277	307	383	129	64	40
7	678	149	189	e91	1420	2420	260	284	307	117	60	37
8	950	130	237	e91	4330	1470	245	269	263	112	53	34
9	500	128	204	e90	3190	919	261	254	233	126	51	33
10	294	651	180	e90	1440	735	499	228	1130	121	49	33
11	210	1110	164	e89	960	594	381	216	499	109	50	32
12	161	755	147	e93	1100	508	328	216	316	96	50	32
13	132	425	136	e110	1490	467	290	630	261	84	131	32
14	113	306	128	e95	975	442	258	510	268	75	108	32
15	105	249	122	e90	668	422	314	345	235	69	88	32
16	99	209	117	e94	588	478	1750	267	227	65	65	33
17	92	185	116	e110	556	2010	4460	244	206	62	53	33
18	123	162	116	e230	526	2780	3480	288	170	60	48	33
19	141	146	113	e2400	483	1310	1950	263	154	59	60	31
20	123	138	110	e2300	427	813	1130	284	151	58	56	32
21	108	130	128	e2000	379	653	1580	246	143	60	51	33
22	99	123	328	12100	340	548	3170	246	138	61	49	33
23	94	117	404	19900	315	468	2240	296	128	63	47	33
24	90	114	297	15400	306	414	1410	743	119	63	51	32
25	90	135	189	5940	307	374	897	525	118	63	66	31
26	85	219	203	2330	300	343	663	411	112	59	62	29
27	85	224	200	1610	606	317	576	297	109	139	58	30
28	101	192	178	1270	5510	302	1300	243	123	48	55	28
29	105	175	157	970	---	290	995	212	131	31	53	54
30	118	157	126	769	---	275	625	192	134	64	48	56
31	161	---	124	653	---	267	---	307	---	76	44	---
TOTAL	5297	7600	5297	69485	30587	31939	30676	10229	11794	2739	1918	1065
MEAN	171	253	171	2241	1092	1030	1023	330	393	88.4	61.9	35.5
MAX	950	1110	404	19900	5510	4270	4460	743	2020	142	131	56
MIN	64	114	110	89	300	267	245	192	109	31	44	28
CFSM	.25	.37	.25	3.29	1.60	1.51	1.50	.48	.58	.13	.09	.05
IN.	.29	.41	.29	3.79	1.67	1.74	1.67	.56	.64	.15	.10	.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1999, BY WATER YEAR (WY)

MEAN	171	410	689	918	945	1254	1140	710	643	403	205	223
MAX	1072	2626	2947	5129	2707	3181	3699	3776	4765	2831	1522	4223
(WY)	1927	1993	1991	1930	1990	1982	1964	1933	1958	1992	1998	1926
MIN	22.8	28.0	36.9	36.1	52.5	65.3	123	40.5	49.3	32.6	25.4	24.1
(WY)	1929	1929	1964	1945	1964	1941	1941	1941	1988	1936	1940	1940

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1924 - 1999	
ANNUAL TOTAL	329855		208626			
ANNUAL MEAN	904		572		633	
HIGHEST ANNUAL MEAN					1167	1927
LOWEST ANNUAL MEAN					106	1941
HIGHEST DAILY MEAN	19100	Aug 5	19900	Jan 23	23400	Jun 11 1958
LOWEST DAILY MEAN	62	Jan 1	28	Sep 28	3.4	Oct 25 1968
ANNUAL SEVEN-DAY MINIMUM	69	Sep 29	31	Sep 22	8.4	Oct 17 1940
INSTANTANEOUS PEAK FLOW			20200	Jan 23	25000	Mar 21 1927
INSTANTANEOUS PEAK STAGE			15.42	Jan 23	17.40	Mar 21 1927
ANNUAL RUNOFF (CFSM)	1.33		.84		.93	
ANNUAL RUNOFF (INCHES)	17.99		11.38		12.61	
10 PERCENT EXCEEDS	2200		1280		1500	
50 PERCENT EXCEEDS	244		175		200	
90 PERCENT EXCEEDS	99		50		48	

e Estimated

03327000 MISSISSINEWA RIVER AT PEORIA, IN

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

DRAINAGE AREA.--808 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 660.00 ft above sea level. Oct. 1, 1962, to Sept. 30, 1974, water-stage recorder site described in "LOCATION" paragraph. Prior to Oct. 7, 1954, nonrecording gage and crest-stage gage on highway bridge 2,500 ft upstream, and Oct. 7, 1954, to Sept. 30, 1962, water-stage recorder on right bank at site 2,500 ft upstream at same datum.

REMARKS.--Flow regulated by Mississinewa Lake since April 1968.

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

AVERAGE DISCHARGE.--47 years, 742 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,000 ft^3/s June 11, 1958, gage height 19.26 ft, site then in use; zero flow, Sept. 11 to Oct. 2, 1985, Nov 14, 1991.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 6,160 ft^3/s Feb. 17; minimum daily, 25 ft^3/s Apr. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	354	435	e129	2570	1550	172	1040	411	96	96	55
2	110	353	435	129	2780	2520	25	608	412	163	96	55
3	110	419	434	129	3110	2810	43	541	1780	274	96	55
4	110	458	433	129	3500	2800	43	471	2570	274	96	55
5	110	458	433	129	3670	2780	44	410	1490	192	96	55
6	110	457	432	129	3650	2760	44	336	429	96	96	55
7	111	456	431	146	3620	2760	44	233	304	96	72	55
8	725	455	431	161	3620	2750	44	233	261	96	55	55
9	1220	538	431	161	3630	2740	45	233	304	96	55	55
10	1210	608	430	161	3620	2290	45	233	304	96	69	247
11	688	1180	466	161	3600	1510	46	233	558	96	55	410
12	217	1540	519	161	3850	767	46	233	602	96	55	409
13	163	1530	518	161	3970	550	46	345	411	96	131	774
14	110	925	517	161	4760	551	47	845	411	96	203	929
15	234	548	515	161	5700	551	47	798	267	96	177	1000
16	358	571	514	399	6080	552	48	284	233	96	96	1040
17	358	570	513	550	6160	1060	51	233	233	96	96	1040
18	358	533	511	551	6040	1730	53	233	233	96	96	1030
19	358	506	510	1040	4770	2430	55	233	233	96	96	1020
20	357	505	509	1430	3530	2720	723	233	233	96	96	927
21	357	471	507	1450	3480	2040	1160	233	233	96	76	854
22	357	442	506	640	3430	941	1760	344	233	96	55	783
23	357	441	569	90	2000	550	2620	411	233	96	55	845
24	356	440	622	131	695	406	2360	602	233	96	55	841
25	356	439	620	134	561	407	1890	738	129	96	159	836
26	356	438	618	136	478	477	1880	615	77	96	129	831
27	355	438	615	783	550	550	1380	411	96	96	55	825
28	355	437	613	1870	841	375	738	411	96	96	55	820
29	355	437	610	2360	---	346	1140	309	134	96	55	814
30	354	436	574	2590	---	406	1540	197	96	96	55	808
31	375	---	e260	2580	---	406	---	317	---	96	55	---
TOTAL	11060	17383	15531	18942	94265	45085	18179	12596	13239	3495	2732	17578
MEAN	357	579	501	611	3367	1454	606	406	441	113	88.1	586
MAX	1220	1540	622	2590	6160	2810	2620	1040	2570	274	203	1040
MIN	110	353	260	90	478	346	25	197	77	96	55	55

CAL YR 1998 TOTAL 395225 MEAN 1083 MAX 5380 MIN 42
WTR YR 1999 TOTAL 270085 MEAN 740 MAX 6160 MIN 25

e Estimated

03327500 WABASH RIVER AT PERU, IN

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

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

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

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

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

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated by reservoirs on Wabash River (station 03323500), Salamonie River (station 03324500) and Mississinewa River (station 03327000).

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	484	1010	1230	e585	10000	7730	983	3270	3450	381	192	160
2	627	996	1150	e393	10400	9100	643	2460	4120	417	185	159
3	643	1010	1100	e391	10200	11300	646	1800	5150	604	184	148
4	634	1070	1600	e389	10400	10400	618	1610	5940	577	187	136
5	619	1070	1150	e387	10900	9900	594	1290	4140	535	201	134
6	633	1060	934	e367	10700	10300	579	1180	1610	327	197	160
7	1520	1050	964	e376	10700	9060	586	1030	1080	301	178	158
8	2400	1050	1020	e387	11100	8670	539	1020	963	296	154	149
9	2990	1090	1020	e386	11900	6530	689	954	1010	298	144	148
10	2750	1550	988	e389	11100	6480	1760	915	1070	303	176	203
11	2360	2550	961	e391	11000	5570	1650	883	1300	262	171	519
12	1530	2900	1080	e397	12100	4010	1480	845	1420	264	145	518
13	951	2780	1090	e431	11000	2950	1150	931	1010	250	276	764
14	723	2320	1080	e461	10200	2370	773	1310	1100	237	336	1110
15	754	1560	1050	e446	10200	2170	683	1650	912	230	347	1160
16	980	1490	1040	e650	8240	2010	3420	954	1050	222	223	1220
17	963	1440	947	e900	8230	4400	7030	793	932	228	216	1240
18	981	1440	1040	e1360	7650	7980	5360	792	693	231	210	1280
19	986	1310	1030	e2980	6350	8420	5590	776	548	214	226	1280
20	977	1290	986	e5100	4730	8890	5160	849	487	221	227	1230
21	973	1260	992	6350	4620	7270	4040	875	482	226	207	1120
22	964	1190	1000	10000	4490	4300	3360	844	469	229	188	1050
23	953	1190	1030	15200	3470	2280	8490	986	458	240	180	1110
24	950	1180	1180	11200	1540	1830	8180	1920	439	228	169	1090
25	945	1170	1220	7650	1460	1450	5710	3650	397	219	343	1080
26	950	1220	1260	6730	1310	1450	4840	2720	260	206	590	1070
27	945	1230	1260	7470	2610	1620	4140	2050	296	204	281	1070
28	961	1220	1240	9050	5790	1420	3190	1650	293	219	241	1090
29	948	1220	1180	9850	---	1140	3830	1140	285	217	232	1270
30	966	1240	1140	10400	---	1210	3860	706	295	199	199	1150
31	989	---	932	10000	---	1120	---	960	---	192	169	---
TOTAL	35049	42156	33894	121066	222390	163330	89573	42813	41659	8777	6974	22976
MEAN	1131	1405	1093	3905	7942	5269	2986	1381	1389	283	225	766
MAX	2990	2900	1600	15200	12100	11300	8490	3650	5940	604	590	1280
MIN	484	996	932	367	1310	1120	539	706	260	192	144	134
CFSM	.42	.52	.41	1.45	2.96	1.96	1.11	.51	.52	.11	.08	.29
IN.	.49	.58	.47	1.68	3.08	2.26	1.24	.59	.58	.12	.10	.32

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1999, BY WATER YEAR (WY)

MEAN	1080	1727	2711	3440	3694	4740	4141	2399	2413	1591	882	816
MAX	4319	7653	8314	18500	10740	10890	14840	6882	14260	7036	7049	3936
(WY)	1973	1973	1958	1950	1959	1982	1957	1996	1958	1993	1998	1992
MIN	110	150	142	141	247	830	412	345	194	175	163	119
(WY)	1954	1954	1964	1945	1964	1983	1971	1976	1988	1944	1966	1963

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1944 - 1999	
ANNUAL TOTAL	1352657		830657			
ANNUAL MEAN	3706		2276		2462	
HIGHEST ANNUAL MEAN					4425	1950
LOWEST ANNUAL MEAN					691	1954
HIGHEST DAILY MEAN	15700	Jul 22	15200	Jan 23	50900	Jun 12 1958
LOWEST DAILY MEAN	421	Jun 8	134	Sep 5	72	Oct 5 1946
ANNUAL SEVEN-DAY MINIMUM	534	Sep 26	148	Sep 3	85	Oct 29 1944
INSTANTANEOUS PEAK FLOW			16000	Jan 23	68000	May 18 1943
INSTANTANEOUS PEAK STAGE			12.47	Jan 23	24.46	May 18 1943
ANNUAL RUNOFF (CFSM)	1.38		.85		.92	
ANNUAL RUNOFF (INCHES)	18.73		11.50		12.46	
10 PERCENT EXCEEDS	8750		7830		7000	
50 PERCENT EXCEEDS	1930		1050		1020	
90 PERCENT EXCEEDS	758		218		220	

e Estimated

03327520 PIPE CREEK NEAR BUNKER HILL, IN

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

DRAINAGE AREA.--159 mi^2.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	43	51	e31	e230	436	69	182	89	23	12	5.2
2	20	41	44	e31	e400	273	66	157	488	23	11	4.4
3	21	53	45	e31	e500	295	60	141	593	21	9.5	4.3
4	23	101	45	e32	e320	294	60	127	300	20	8.6	4.1
5	26	88	43	e32	e240	211	53	118	198	19	8.6	4.0
6	26	72	43	e32	e180	331	51	112	148	17	9.0	4.3
7	567	59	49	e33	e300	319	48	97	117	16	8.7	4.5
8	1050	51	63	e33	e1300	245	46	82	96	15	9.9	e4.4
9	564	48	59	e33	e640	218	66	71	82	15	9.6	e4.0
10	339	364	50	e32	374	178	64	62	91	17	9.2	e4.4
11	231	949	45	e32	281	140	54	58	75	17	9.4	e4.5
12	166	477	42	e33	517	123	45	62	60	16	9.2	e5.0
13	130	293	40	e35	432	112	40	228	254	15	19	e5.2
14	103	222	39	e34	261	107	39	339	186	14	17	e5.8
15	85	176	36	e33	212	100	52	239	117	14	12	e7.4
16	70	143	36	e35	194	121	349	169	73	13	10	e6.0
17	59	121	37	e38	176	575	1200	130	61	13	9.2	e5.4
18	59	95	36	e150	157	802	898	124	48	15	8.5	e5.0
19	106	87	35	e400	139	415	540	160	41	14	9.6	e4.6
20	109	78	33	e340	117	278	367	122	38	14	11	e4.5
21	84	67	34	e300	96	223	315	95	36	14	8.0	e4.0
22	70	59	40	1810	82	175	407	118	34	13	6.7	e3.6
23	59	55	e43	e4780	80	146	515	171	32	13	6.3	e3.0
24	53	51	e41	e4210	76	127	438	533	32	13	7.7	e4.0
25	50	50	e40	2380	76	109	284	293	30	13	16	e3.6
26	46	68	e38	963	68	92	224	183	28	12	19	e3.3
27	43	75	e37	656	145	82	191	134	27	11	14	e2.9
28	44	64	e36	507	438	76	346	108	27	11	9.7	e3.1
29	44	57	e35	e420	---	71	337	86	25	12	7.6	e16
30	44	54	e34	e350	---	67	229	74	23	9.9	5.6	25
31	45	---	e33	e280	---	64	---	74	---	9.7	5.1	---
TOTAL	4356	4161	1282	18106	8031	6805	7453	4649	3449	462.6	316.7	165.5
MEAN	141	139	41.4	584	287	220	248	150	115	14.9	10.2	5.52
MAX	1050	949	63	4780	1300	802	1200	533	593	23	19	25
MIN	20	41	33	31	68	64	39	58	23	9.7	5.1	2.9
CFSM	.88	.87	.26	3.67	1.80	1.38	1.56	.94	.72	.09	.06	.03
IN.	1.02	.97	.30	4.24	1.88	1.59	1.74	1.09	.81	.11	.07	.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1999, BY WATER YEAR (WY)

MEAN	51.2	138	173	181	221	297	245	171	149	107	54.8	40.8
MAX	238	797	563	731	648	902	637	525	429	726	321	226
(WY)	1991	1993	1991	1974	1990	1982	1972	1996	1980	1998	1998	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1968 - 1999	
ANNUAL TOTAL	87235.2		59236.8			
ANNUAL MEAN	239		162		153	
HIGHEST ANNUAL MEAN					266	1993
LOWEST ANNUAL MEAN					67.6	1977
HIGHEST DAILY MEAN	3670	Jul 23	4780	Jan 23	4780	Jan 23 1999
LOWEST DAILY MEAN	5.8	Jan 1	2.9	Sep 27	2.9	Sep 27 1999
ANNUAL SEVEN-DAY MINIMUM	21	Sep 27	3.4	Sep 22	3.4	Sep 22 1999
INSTANTANEOUS PEAK FLOW			5440	Jan 23	5440	Jan 23 1999
INSTANTANEOUS PEAK STAGE			18.50	Jan 23	18.50	Jan 23 1999
ANNUAL RUNOFF (CFSM)	1.50		1.02		.96	
ANNUAL RUNOFF (INCHES)	20.41		13.86		13.04	
10 PERCENT EXCEEDS	590		365		367	
50 PERCENT EXCEEDS	74		55		55	
90 PERCENT EXCEEDS	32		8.6		10	

e Estimated

03328000 EEL RIVER AT NORTH MANCHESTER, IN

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

DRAINAGE AREA.--417 mi^2, includes that of Pony Creek.

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

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

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

REMARKS.--Records good except for estimated daily discharges, which are poor and estimated daily discharges in July, August, and September, which are fair. Records include flow of Pony Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum instantaneous gage height occurred Dec. 30, 1990 during period of no gage height record.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	121	115	e90	763	1960	230	687	779	141	e83	e64
2	81	112	110	e100	733	1220	226	581	1010	144	e86	61
3	89	106	106	e99	776	2070	221	503	853	136	e85	60
4	93	104	104	e98	650	1680	231	446	505	129	e83	58
5	87	103	102	e97	529	988	233	406	368	120	e81	55
6	90	102	102	e96	471	1220	222	379	299	119	e78	55
7	244	100	119	e94	464	1040	216	356	258	117	e76	56
8	344	99	136	e96	636	740	206	327	229	113	e78	56
9	207	99	125	e99	1170	600	450	306	207	106	e82	56
10	148	166	114	e105	868	543	985	282	193	e100	e87	54
11	125	432	108	e108	631	463	1780	263	181	e97	e76	54
12	112	288	104	e112	693	420	1900	251	183	e94	e70	53
13	104	191	101	e120	646	395	1120	262	963	e91	e86	55
14	100	157	99	e113	475	370	708	267	1120	e88	86	55
15	98	142	98	e111	414	352	575	241	902	e87	e76	54
16	96	129	97	e112	385	386	2120	225	500	e86	e73	54
17	94	122	101	e120	374	1270	2620	215	344	e85	e70	53
18	98	117	99	e250	346	1760	1790	268	275	e85	e69	53
19	102	112	100	e700	322	1000	1230	249	236	e85	e81	53
20	99	109	100	e630	299	647	943	219	210	e84	e84	53
21	96	105	105	e530	272	510	777	202	191	e85	e75	53
22	96	102	116	2120	251	425	757	284	177	e88	e71	52
23	95	101	111	5420	241	371	3770	436	170	e86	e68	53
24	93	100	144	5780	233	337	3820	1280	167	e84	e70	53
25	93	102	122	4280	231	310	3010	763	160	e82	79	52
26	94	127	e102	3290	226	291	1960	466	150	e81	91	52
27	95	137	e98	2490	825	277	1220	345	155	e82	94	51
28	100	124	e96	1880	2420	264	1650	284	160	e87	e79	59
29	102	117	e95	1390	---	251	1200	248	153	e84	e73	204
30	106	116	e95	1090	---	237	848	226	141	e87	e69	143
31	114	---	e95	900	---	232	---	431	---	e86	e66	---
TOTAL	3575	4042	3319	32520	16344	22629	37018	11698	11239	3039	2425	1884
MEAN	115	135	107	1049	584	730	1234	377	375	98.0	78.2	62.8
MAX	344	432	144	5780	2420	2070	3820	1280	1120	144	94	204
MIN	80	99	95	90	226	232	206	202	141	81	66	51
CFSM	.28	.32	.26	2.52	1.40	1.75	2.96	.90	.90	.24	.19	.15
IN.	.32	.36	.30	2.90	1.46	2.02	3.30	1.04	1.00	.27	.22	.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1999, BY WATER YEAR (WY)

MEAN	168	275	399	490	574	723	678	427	338	219	157	133
MAX	1165	1416	1717	2258	1772	2425	1768	2021	1376	767	1031	566
(WY)	1955	1993	1967	1950	1959	1982	1957	1943	1981	1951	1990	1992
MIN	46.2	53.4	49.4	43.2	62.0	200	141	86.1	68.1	44.2	30.7	27.6
(WY)	1947	1940	1964	1977	1964	1941	1946	1931	1934	1941	1941	1941

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1930 - 1999	
ANNUAL TOTAL	179598		149732			
ANNUAL MEAN	492		410		382	
HIGHEST ANNUAL MEAN					783	1950
LOWEST ANNUAL MEAN					103	1931
HIGHEST DAILY MEAN	5270	Jul 22	5780	Jan 24	7770	Dec 31 1990
LOWEST DAILY MEAN	79	Sep 29	51	Sep 27	16	Oct 19 1956
ANNUAL SEVEN-DAY MINIMUM	80	Sep 26	52	Sep 21	23	Sep 13 1941
INSTANTANEOUS PEAK FLOW			6340	Jan 24	8740	Dec 30 1990
INSTANTANEOUS PEAK STAGE			12.26	Jan 24	14.81	Dec 30 1990
ANNUAL RUNOFF (CFSM)	1.18		.98		.92	
ANNUAL RUNOFF (INCHES)	16.02		13.36		12.44	
10 PERCENT EXCEEDS	1120		1000		898	
50 PERCENT EXCEEDS	203		129		175	
90 PERCENT EXCEEDS	95		72		65	

e Estimated

03328430 WEESAU CREEK NEAR DEEDSVILLE, IN

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

DRAINAGE AREA.--8.87 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 785.00 ft above sea level.

REMARKS.--Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	2.1	1.9	e1.1	22	48	4.8	16	5.4	2.5	.93	.88
2	1.4	2.1	1.8	e1.5	28	38	4.6	13	18	2.2	.90	.91
3	2.0	2.1	1.8	e2.6	26	56	5.2	12	11	2.0	.93	.91
4	2.1	2.1	1.7	e2.5	19	33	6.3	11	7.7	1.8	.95	.90
5	1.9	2.0	1.5	e2.4	14	25	5.8	9.8	6.4	1.5	1.2	.88
6	3.4	1.7	1.3	e2.3	14	55	6.2	9.6	5.5	1.5	1.0	.95
7	22	1.4	3.8	e2.3	17	32	5.8	9.1	4.8	1.3	1.2	.96
8	6.2	1.4	2.7	e2.2	40	22	5.5	8.9	4.1	1.2	2.1	.94
9	2.9	1.4	1.9	e2.2	46	17	10	8.4	3.9	1.2	1.2	.94
10	1.9	29	1.5	e2.1	28	14	8.7	8.0	4.1	1.2	1.4	.91
11	1.5	27	1.3	e2.1	22	13	36	7.7	3.9	1.2	1.3	.82
12	1.5	9.5	1.1	e2.0	30	12	22	7.6	3.9	1.1	1.3	.79
13	1.6	5.4	1.1	e2.0	19	10	13	8.7	11	1.1	2.1	.94
14	1.5	4.2	1.0	e2.0	15	9.0	9.6	8.8	8.1	1.2	1.6	.94
15	1.0	3.5	.96	e2.0	13	8.8	14	8.3	5.2	1.0	1.3	.86
16	1.0	2.9	.96	e2.0	13	17	72	8.0	4.1	1.1	1.2	.83
17	1.3	2.7	1.0	e3.5	12	60	70	8.2	3.6	.84	1.1	.92
18	1.9	2.2	1.1	e20	9.9	43	43	15	3.0	1.0	1.2	.81
19	1.9	2.2	1.2	e17	9.0	23	28	12	2.7	.98	1.6	.69
20	1.7	2.0	1.2	e14	7.9	15	18	10	2.6	1.0	1.4	.84
21	1.1	1.5	1.8	e12	7.0	12	16	9.0	2.3	1.0	1.1	.80
22	1.2	1.2	2.1	123	6.1	9.9	42	11	2.4	.91	1.1	.83
23	1.3	1.2	1.7	159	5.7	8.6	139	16	2.3	.90	1.1	.67
24	1.3	1.1	e1.5	92	5.5	7.8	67	21	2.5	.92	1.4	.61
25	1.1	1.3	e1.4	66	5.8	6.9	51	12	2.5	.87	1.3	.68
26	1.2	2.5	e1.4	52	5.7	6.3	41	9.0	2.3	.82	1.3	.69
27	1.3	2.0	e1.3	47	59	5.9	35	7.4	2.4	.85	1.3	1.1
28	1.9	1.8	e1.3	44	77	5.7	41	6.5	2.4	1.1	1.2	1.9
29	1.9	1.6	e1.2	36	---	5.3	29	5.8	2.7	1.1	.98	3.7
30	2.2	1.6	e1.2	30	---	4.8	20	5.2	2.2	.96	.86	.64
31	2.1	---	e1.1	24	---	4.7	---	5.7	---	.89	.87	---
TOTAL	77.2	122.7	46.82	772.8	576.6	628.7	869.5	308.7	143.0	37.24	38.42	29.24
MEAN	2.49	4.09	1.51	24.9	20.6	20.3	29.0	9.96	4.77	1.20	1.24	.97
MAX	22	29	3.8	159	77	60	139	21	18	2.5	2.1	3.7
MIN	1.0	1.1	.96	1.1	5.5	4.7	4.6	5.2	2.2	.82	.86	.61
CFSM	.28	.46	.17	2.81	2.32	2.29	3.27	1.12	.54	.14	.14	.11
IN.	.32	.51	.20	3.24	2.42	2.64	3.65	1.29	.60	.16	.16	.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1999, BY WATER YEAR (WY)

MEAN	4.71	9.30	13.1	12.9	16.4	20.8	16.6	10.9	9.07	7.02	4.61	4.12
MAX	28.5	34.5	35.9	55.6	47.6	53.7	34.5	24.6	31.6	31.8	47.0	21.6
(WY)	1991	1993	1991	1993	1985	1982	1983	1983	1986	1998	1990	1989
MIN	.79	.95	.61	.30	2.50	3.50	3.74	3.30	1.17	.80	.66	.45
(WY)	1975	1977	1977	1977	1996	1981	1996	1977	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1971 - 1999	
ANNUAL TOTAL	5351.17		3650.92			
ANNUAL MEAN	14.7		10.0		10.8	
HIGHEST ANNUAL MEAN					19.1	1993
LOWEST ANNUAL MEAN					5.07	1996
HIGHEST DAILY MEAN	219	Jul 4	159	Jan 23	436	Aug 18 1990
LOWEST DAILY MEAN	.81	Sep 25	.61	Sep 24	.26	Feb 1 1977
ANNUAL SEVEN-DAY MINIMUM	1.0	Dec 12	.73	Sep 19	.27	Jan 29 1977
INSTANTANEOUS PEAK FLOW			222	Apr 23	518	Aug 18 1990
INSTANTANEOUS PEAK STAGE			6.43	Apr 23	7.39	Apr 12 1994
ANNUAL RUNOFF (CFSM)	1.65		1.13		1.21	
ANNUAL RUNOFF (INCHES)	22.44		15.31		16.47	
10 PERCENT EXCEEDS	39		28		25	
50 PERCENT EXCEEDS	5.3		2.3		4.5	
90 PERCENT EXCEEDS	1.3		.94		1.1	

e Estimated

03328500 EEL RIVER NEAR LOGANSPORT, IN

LOCATION.--Lat 40°46'55", long 8615'50", in NE$^1/_4$SE$^1/_4$ sec.14, T.27 N., R.2 E., Cass County, Hydrologic Unit 05120104, on right bank at downstream side of bridge on Adamsboro Road, 5.5 mi northeast of Logansport, and 7.4 mi upstream from mouth.

DRAINAGE AREA.--789 mi^2.

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

REVISED RECORDS.--WSP 2109: Drainage area.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	234	285	333	e250	1390	3720	521	1370	851	321	167	147
2	231	291	328	e290	1350	2510	514	1180	1220	318	168	144
3	240	282	325	e285	1420	2770	506	1050	1600	306	171	142
4	256	273	316	e280	1270	2940	516	954	1100	288	164	140
5	260	269	312	e275	1070	2010	521	878	812	272	164	139
6	261	269	307	e270	938	2170	528	832	680	258	160	133
7	538	265	316	e265	975	2220	507	787	598	249	157	131
8	833	263	368	e275	1500	1590	488	740	542	241	171	129
9	651	264	367	e280	1920	1310	529	700	511	233	177	129
10	472	452	344	e295	1760	1140	933	669	478	236	181	127
11	382	1070	322	e305	1320	1010	1690	641	456	220	170	126
12	338	888	309	e315	1250	913	2590	625	436	215	171	127
13	311	622	302	e340	1260	857	1990	651	1550	208	199	128
14	294	492	296	e330	1020	801	1310	668	1470	202	189	126
15	288	428	295	e320	865	771	1060	634	1660	200	183	126
16	280	387	291	e310	805	801	2710	592	1070	194	170	125
17	272	362	292	e380	774	1880	5270	571	729	191	163	124
18	275	341	297	e640	741	3180	3870	714	573	192	156	125
19	280	328	298	e1340	695	2170	2380	720	490	189	166	127
20	284	315	298	e1150	652	1420	1800	630	440	190	174	129
21	275	308	308	e1000	605	1120	1470	573	408	197	177	125
22	265	301	315	3080	552	956	1320	573	381	196	166	124
23	263	295	296	9110	525	820	5870	720	361	189	161	124
24	264	292	300	11800	517	751	7350	1220	376	184	169	123
25	263	301	e290	9310	518	692	5160	1570	424	177	186	123
26	262	336	e280	6050	508	648	3600	1030	368	176	179	122
27	263	365	e260	4200	1180	627	2390	785	385	172	178	121
28	274	363	e260	3280	4470	602	2350	668	371	181	185	132
29	274	345	e260	2440	---	581	2520	600	357	175	171	229
30	281	335	e260	1920	---	537	1720	554	338	184	158	322
31	284	---	e240	1590	---	521	---	550	---	175	151	---
TOTAL	9948	11387	9385	61975	31850	44038	63983	24449	21035	6729	5302	4169
MEAN	321	380	303	1999	1138	1421	2133	789	701	217	171	139
MAX	833	1070	368	11800	4470	3720	7350	1570	1660	321	199	322
MIN	231	263	240	250	508	521	488	550	338	172	151	121
CFSM	.41	.48	.38	2.53	1.44	1.80	2.70	1.00	.89	.28	.22	.18
IN.	.47	.54	.44	2.92	1.50	2.08	3.02	1.15	.99	.32	.25	.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1999, BY WATER YEAR (WY)

MEAN	353	528	824	983	1126	1383	1325	871	775	501	366	308
MAX	1806	2384	2898	4507	3090	4612	3285	1827	2208	2072	2115	1052
(WY)	1991	1993	1967	1950	1959	1982	1950	1983	1975	1998	1990	1972
MIN	95.1	110	98.2	101	184	353	366	245	176	140	128	101
(WY)	1964	1964	1964	1977	1964	1966	1966	1958	1988	1988	1966	1963

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1944 - 1999	
ANNUAL TOTAL	404637		294250			
ANNUAL MEAN	1109		806		776	
HIGHEST ANNUAL MEAN					1573	1950
LOWEST ANNUAL MEAN					324	1954
HIGHEST DAILY MEAN	13400	Jul 23	11800	Jan 24	16600	Feb 24 1985
LOWEST DAILY MEAN	231	Oct 2	121	Sep 27	70	Mar 15 1960
ANNUAL SEVEN-DAY MINIMUM	236	Sep 27	123	Sep 21	76	Dec 17 1963
INSTANTANEOUS PEAK FLOW			12400	Jan 24	17700	Feb 24 1985
INSTANTANEOUS PEAK STAGE			10.94	Jan 24	12.68	Feb 24 1985
ANNUAL RUNOFF (CFSM)	1.41		1.02		.98	
ANNUAL RUNOFF (INCHES)	19.08		13.87		13.37	
10 PERCENT EXCEEDS	2500		1740		1760	
50 PERCENT EXCEEDS	571		344		405	
90 PERCENT EXCEEDS	265		164		153	

e Estimated

03329000 WABASH RIVER AT LOGANSPORT, IN

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

DRAINAGE AREA.--3,779 mi².

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

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

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

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow partially regulated by Huntington Lake, Salamonie Lake, and Mississinewa Lake.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	782	1170	1730	e855	12700	12400	1820	5540	3910	825	440	370
2	851	1160	1670	e495	13000	12500	1460	4300	6080	886	401	356
3	1010	1120	1590	e610	13000	14700	1390	3400	7540	989	404	347
4	1020	1220	1730	e605	12800	14700	1410	2970	8090	1030	403	318
5	1020	1230	2030	e600	12900	12900	1350	2530	6070	991	413	304
6	1070	1200	1420	e590	12700	13800	1340	2300	3010	817	405	305
7	2360	1180	1460	e580	12800	12600	1300	2070	1920	654	400	296
8	4740	1180	1540	e570	14500	11400	1280	1960	1720	628	408	283
9	4610	1170	1590	e560	15200	9010	1340	1880	1580	606	369	262
10	3840	2130	1510	e560	14200	8480	2620	1770	1690	610	371	251
11	3330	4720	1470	e575	13300	7550	3790	1670	1700	581	418	537
12	2050	4790	1500	e585	14300	5800	4490	1640	2050	542	410	738
13	1410	4010	1550	e650	13700	4400	3610	1750	2790	534	613	773
14	1040	3530	1520	e670	12100	3720	2500	2230	3000	534	670	1300
15	953	2320	1510	e660	12200	3400	2060	2830	2970	525	673	1330
16	1120	2140	1480	e900	9970	3160	5740	1950	2300	522	582	1410
17	1130	2000	1400	e1440	9790	6490	15000	1620	1920	522	462	1420
18	1160	1980	1470	e2400	9230	12700	11500	1760	1550	522	445	1460
19	1180	1800	1470	e3800	8110	11800	9470	1740	1250	522	491	1470
20	1190	1760	1440	e6800	5930	11400	8140	1680	1150	522	497	1470
21	1170	1730	1450	8190	5710	9810	6750	1680	1090	503	491	1330
22	1130	1630	1450	15000	5500	6410	5570	1620	1070	500	441	1290
23	1120	1630	1430	29900	4960	3910	13900	1950	1010	493	403	1300
24	1100	1610	1600	29300	2410	3030	17400	3170	1040	484	411	1310
25	1090	1620	1770	20800	2250	2620	12200	6010	1060	459	497	1300
26	1090	1740	1690	15400	1990	2300	9620	4470	864	443	893	1290
27	1090	1740	1660	13300	3610	2510	7850	3290	833	436	771	1280
28	1120	1760	1650	14000	11000	2400	6590	2660	845	488	568	1360
29	1100	1720	1590	13800	---	1940	7470	2160	813	457	526	1740
30	1120	1740	1500	13800	---	1980	6520	1530	782	462	471	1600
31	1120	---	1440	13000	---	1890	---	1430	---	443	409	---
TOTAL	48116	58730	48310	210995	279860	231710	175480	77560	71697	18530	15156	28800
MEAN	1552	1958	1558	6806	9995	7475	5849	2502	2390	598	489	960
MAX	4740	4790	2030	29900	15200	14700	17400	6010	8090	1030	893	1740
MIN	782	1120	1400	495	1990	1890	1280	1430	782	436	369	251
CFSM	.41	.52	.41	1.80	2.64	1.98	1.55	.66	.63	.16	.13	.25
IN.	.47	.58	.48	2.08	2.75	2.28	1.73	.76	.71	.18	.15	.28

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1999, BY WATER YEAR (WY)

MEAN	1415	2224	3682	4731	5183	6539	5905	3785	3203	2070	1341	1226
MAX	6547	10940	12340	25590	15880	18180	17520	21310	16440	10720	9044	10710
(WY)	1991	1973	1968	1950	1959	1982	1957	1943	1958	1998	1998	1926
MIN	197	296	252	290	417	638	929	600	388	269	203	176
(WY)	1964	1964	1964	1945	1964	1941	1971	1941	1988	1936	1941	1941

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1924 - 1999	
ANNUAL TOTAL	1969780		1264944			
ANNUAL MEAN	5397		3466		3432	
HIGHEST ANNUAL MEAN					6614	1950
LOWEST ANNUAL MEAN					796	1941
HIGHEST DAILY MEAN	32500	Jul 23	29900	Jan 23	84700	May 19 1943
LOWEST DAILY MEAN	782	Oct 1	251	Sep 10	135	Sep 26 1941
ANNUAL SEVEN-DAY MINIMUM	861	Sep 26	288	Sep 4	142	Sep 24 1941
INSTANTANEOUS PEAK FLOW			32700	Jan 23	89800	May 18 1943
INSTANTANEOUS PEAK STAGE			12.76	Jan 23	21.32	May 18 1943
ANNUAL RUNOFF (CFSM)	1.43		.92		.91	
ANNUAL RUNOFF (INCHES)	19.39		12.45		12.34	
10 PERCENT EXCEEDS	11600		12100		9300	
50 PERCENT EXCEEDS	3130		1550		1470	
90 PERCENT EXCEEDS	1120		486		420	

e Estimated

03329700 DEER CREEK NEAR DELPHI, IN

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

DRAINAGE AREA.--274 mi^2.

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

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	57	76	e51	344	516	151	381	240	72	35	22
2	e36	59	71	e52	403	389	144	324	1040	69	31	21
3	e37	64	68	e52	427	440	139	287	988	65	30	20
4	e39	65	68	e51	362	402	143	261	522	62	29	19
5	40	89	68	e51	285	329	133	242	351	57	28	18
6	52	83	67	e50	263	604	133	226	271	54	27	18
7	93	71	74	e50	448	630	126	205	222	50	27	18
8	399	66	74	e49	1150	458	120	186	194	48	28	17
9	265	64	79	e49	807	405	165	172	174	46	27	17
10	166	169	73	e48	544	331	160	160	180	46	26	16
11	119	656	68	e48	432	268	174	151	160	44	25	16
12	94	437	65	e53	440	239	139	153	157	42	27	16
13	79	265	64	e60	412	223	124	191	513	41	92	17
14	67	202	63	e58	317	217	121	217	371	39	57	16
15	62	169	62	e56	283	210	182	208	244	37	42	16
16	60	139	61	e60	264	238	745	172	181	36	35	15
17	56	121	60	e64	244	769	2050	158	152	37	31	16
18	60	106	58	e200	217	1010	1440	284	132	47	29	16
19	57	95	58	e400	199	591	912	180	114	38	30	16
20	60	90	56	e600	183	422	652	150	106	46	29	16
21	65	85	62	e500	166	358	652	136	101	48	27	16
22	59	78	59	e2500	153	297	680	159	97	39	26	16
23	56	75	e58	5730	148	256	634	230	91	49	26	17
24	55	72	e57	4530	145	231	589	373	95	44	26	15
25	57	77	e56	1880	145	205	440	372	116	41	26	16
26	52	93	e54	1200	138	186	368	248	94	37	29	16
27	51	91	53	931	203	175	347	188	94	37	27	15
28	58	85	e53	737	605	168	846	160	91	39	26	19
29	56	82	e52	555	---	160	772	141	81	35	25	93
30	56	77	e53	441	---	150	492	129	73	33	23	34
31	57	---	e52	372	---	147	---	199	---	33	22	---
TOTAL	2499	3882	1942	21478	9727	11024	13773	6643	7245	1411	968	603
MEAN	80.6	129	62.6	693	347	356	459	214	242	45.5	31.2	20.1
MAX	399	656	79	5730	1150	1010	2050	381	1040	72	92	93
MIN	36	57	52	48	138	147	120	129	73	33	22	15
CFSM	.29	.47	.23	2.53	1.27	1.30	1.68	.78	.88	.17	.11	.07
IN.	.34	.53	.26	2.92	1.32	1.50	1.87	.90	.98	.19	.13	.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1999, BY WATER YEAR (WY)

MEAN	94.2	165	250	323	370	451	428	303	269	183	101	80.2
MAX	575	1249	983	1882	1039	1311	1109	793	1799	1080	537	568
(WY)	1991	1993	1991	1950	1959	1982	1959	1983	1958	1998	1958	1989
MIN	15.0	22.7	22.2	17.6	36.1	46.8	83.0	62.2	30.7	22.5	12.5	10.6
(WY)	1965	1954	1945	1977	1954	1954	1971	1976	1977	1944	1966	1954

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1944 - 1999	
ANNUAL TOTAL	130734		81195			
ANNUAL MEAN	358		222		251	
HIGHEST ANNUAL MEAN					510	1950
LOWEST ANNUAL MEAN					62.7	1966
HIGHEST DAILY MEAN	8570	Jul 23	5730	Jan 23	12600	Jun 10 1958
LOWEST DAILY MEAN	35	Sep 30	15	Sep 16	6.2	Sep 25 1954
ANNUAL SEVEN-DAY MINIMUM	37	Sep 27	16	Sep 14	6.3	Sep 22 1954
INSTANTANEOUS PEAK FLOW			6190	Jan 23	14400	Jun 10 1958
INSTANTANEOUS PEAK STAGE			10.84	Jan 23	18.26	Jun 10 1958
ANNUAL RUNOFF (CFSM)	1.31		.81		.92	
ANNUAL RUNOFF (INCHES)	17.75		11.02		12.43	
10 PERCENT EXCEEDS	871		495		561	
50 PERCENT EXCEEDS	147		90		105	
90 PERCENT EXCEEDS	53		26		27	

e Estimated

03330241 TIPPECANOE RIVER AT NORTH WEBSTER, IN

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

DRAINAGE AREA.--49.3 mi^2.

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 by dams at Webster Lake, 0.25 mi upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e4.8	e7.9	e17	e16	235	51	43	221	54	9.6	e7.0	e2.6
2	e5.0	e7.7	e17	e16	208	73	43	169	44	10	e6.0	e2.5
3	e6.0	e7.6	e16	e16	176	137	48	131	48	11	e5.0	e2.5
4	e7.4	e7.7	e17	e16	157	128	56	128	49	11	e4.5	e2.4
5	e7.8	e9.6	e18	e16	134	148	56	119	48	10	e4.2	e2.4
6	e8.0	e12	e18	e16	109	165	51	87	48	9.7	e4.1	e2.3
7	e11	e11	e18	e16	90	166	36	34	47	8.7	e3.9	e2.3
8	e18	e10	e17	e16	93	169	32	28	47	8.0	e3.7	e2.2
9	e14	e8.0	e17	e16	92	167	52	59	43	7.2	e3.8	e2.1
10	e12	e6.7	e16	e16	71	157	72	38	39	6.8	e3.6	e2.0
11	e10	e9.7	e15	e16	86	138	73	23	29	5.9	e3.2	e1.9
12	e9.8	e12	e14	e15	112	104	77	20	20	e5.6	e3.1	e1.8
13	e9.7	e15	e13	e15	98	87	84	22	43	e5.4	e3.3	e1.8
14	e9.5	e17	e9.0	e15	86	77	103	19	31	e5.2	e3.5	e1.6
15	e9.4	e19	e11	e15	70	53	144	20	18	e5.0	e3.1	e1.6
16	e9.3	e21	e14	e16	77	53	142	23	17	e4.9	e2.8	e1.5
17	e9.4	e20	e15	e16	72	54	130	23	17	e4.8	e2.5	e1.4
18	e9.6	e18	e17	e17	59	55	116	92	17	e4.7	e2.3	e1.3
19	e9.7	e17	e20	e17	57	54	117	68	17	e4.6	e2.4	e1.2
20	e9.6	e16	e20	e17	53	73	130	26	17	e4.5	e2.3	e1.2
21	e9.5	e15	e23	e17	45	92	156	25	17	e4.5	e2.4	e1.1
22	e9.2	e15	e25	66	36	85	166	29	16	e4.4	e2.3	e1.0
23	e8.5	e13	e23	127	24	69	208	31	14	e4.4	e2.2	e.98
24	e6.4	e10	e22	191	6.5	69	220	60	16	e4.3	e2.3	e.96
25	e3.2	e15	e21	215	6.2	66	230	81	20	e4.1	e2.5	e.94
26	e3.3	e20	e20	252	13	58	240	54	19	e4.0	e2.6	e.92
27	e3.7	e18	e19	286	34	40	253	44	22	e4.0	e2.8	e.90
28	e5.0	e17	e18	301	51	14	276	45	43	e4.5	e3.0	e.96
29	e7.0	e17	e17	298	---	10	267	51	68	e10	e2.9	e2.0
30	e8.1	e16	e16	286	---	10	253	65	8.6	e6.5	e2.8	e1.8
31	e8.0	---	e16	264	---	20	---	73	---	e4.5	e2.7	---
TOTAL	261.9	408.9	539.0	2622	2350.7	2642	3874	1908	936.6	197.8	102.8	50.16
MEAN	8.45	13.6	17.4	84.6	84.0	85.2	129	61.5	31.2	6.38	3.32	1.67
MAX	18	21	25	301	235	169	276	221	68	11	7.0	2.6
MIN	3.2	6.7	9.0	15	6.2	10	32	19	8.6	4.0	2.2	.90
CFSM	.17	.28	.35	1.72	1.70	1.73	2.62	1.25	.63	.13	.07	.03
IN.	.20	.31	.41	1.98	1.77	1.99	2.92	1.44	.71	.15	.08	.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1999, BY WATER YEAR (WY)

MEAN	34.0	43.8	48.1	82.1	59.7	70.3	81.1	51.6	50.3	25.2	21.7	17.4
MAX	142	133	98.8	209	119	137	129	112	138	72.0	80.1	87.7
(WY)	1991	1993	1987	1993	1990	1997	1999	1996	1996	1996	1990	1990
MIN	2.68	6.61	12.3	26.5	31.5	24.1	46.8	15.4	3.08	4.36	2.00	1.67
(WY)	1995	1995	1996	1996	1989	1996	1992	1988	1988	1988	1988	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1987 - 1999	
ANNUAL TOTAL	18533.9		15893.86			
ANNUAL MEAN	50.8		43.5		48.7	
HIGHEST ANNUAL MEAN					70.5	1991
LOWEST ANNUAL MEAN					29.6	1992
HIGHEST DAILY MEAN	308	Jan 10	301	Jan 28	420	Jan 8 1993
LOWEST DAILY MEAN	3.2	May 27	.90	Sep 27	.06	Aug 18 1988
ANNUAL SEVEN-DAY MINIMUM	3.4	Sep 10	.95	Sep 22	.36	Aug 14 1988
INSTANTANEOUS PEAK FLOW			306	Jan 28	430	Jan 10 1993
INSTANTANEOUS PEAK STAGE			5.67	Jan 28	6.49	Jan 2 1991
ANNUAL RUNOFF (CFSM)	1.03		.88		.99	
ANNUAL RUNOFF (INCHES)	13.99		11.99		13.42	
10 PERCENT EXCEEDS	153		130		117	
50 PERCENT EXCEEDS	21		17		31	
90 PERCENT EXCEEDS	4.2		2.5		5.0	

e Estimated

03330500 TIPPECANOE RIVER AT OSWEGO, IN

LOCATION.--Lat 41°19'14", long 85°47'21", in NE¼NE¼ sec.14, T.33 N., R.6 E., Kosciusko County, Hydrologic Unit 05120106, on left bank 50 ft downstream from dam at Tippecanoe Lake Outlet in Oswego, 3 mi east of Leesburg, and at mile 158.9.

DRAINAGE AREA.--113 mi^2.

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

REVISED RECORDS.--WSP 2109: Drainage area.

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

REMARKS.--Records good. Regulation by gates at lake outlet.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	31	73	43	404	127	94	459	135	42	12	8.9
2	21	31	69	43	396	141	18	435	135	41	11	9.1
3	29	30	68	43	383	168	18	405	132	41	10	9.3
4	32	30	67	43	364	196	22	378	130	21	9.6	9.8
5	30	35	66	43	350	219	80	355	111	16	9.0	9.5
6	31	48	65	43	337	254	117	335	102	32	8.4	9.0
7	75	39	67	43	313	275	115	298	102	36	8.1	8.4
8	70	31	65	43	296	291	112	265	102	29	8.2	7.8
9	46	26	61	43	282	306	120	244	101	12	7.8	7.1
10	41	28	57	43	267	306	124	227	85	13	7.7	6.5
11	38	32	50	43	253	302	146	208	50	13	7.5	6.1
12	38	42	50	43	251	290	176	187	49	13	7.3	5.9
13	38	60	44	43	248	274	181	170	52	12	7.6	5.7
14	38	63	38	43	242	258	186	126	53	12	7.6	5.5
15	38	75	38	42	230	238	200	16	51	12	7.4	5.2
16	38	79	38	42	221	221	218	15	49	12	7.0	4.9
17	37	74	39	43	211	208	233	21	47	12	6.7	4.9
18	38	71	39	44	201	202	246	111	33	12	6.4	4.8
19	38	108	39	44	188	199	256	145	20	13	7.5	4.5
20	38	109	40	44	175	197	259	136	20	13	8.1	4.3
21	37	99	41	49	163	197	268	127	22	13	7.9	4.0
22	37	92	41	78	152	197	282	122	23	12	7.7	3.6
23	30	85	43	100	142	194	346	66	40	11	7.9	3.3
24	12	82	44	136	129	188	374	51	85	11	8.2	3.2
25	13	78	44	184	120	181	411	82	51	10	8.7	3.1
26	14	77	44	243	110	173	443	144	28	9.7	8.7	3.0
27	15	75	44	294	111	165	466	140	36	9.3	9.0	3.0
28	21	73	44	335	117	151	486	137	41	8.9	9.4	3.3
29	32	70	43	362	---	138	485	134	43	9.3	9.9	6.0
30	32	70	43	377	---	127	474	133	43	9.0	9.6	5.8
31	31	---	43	412	---	118	---	135	---	9.8	9.1	---
TOTAL	1050	1843	1547	3431	6656	6501	6956	5807	1971	520.0	261.0	175.5
MEAN	33.9	61.4	49.9	111	238	210	232	187	65.7	16.8	8.42	5.85
MAX	75	109	73	412	404	306	486	459	135	42	12	9.8
MIN	12	26	38	42	110	118	18	15	20	8.9	6.4	3.0
CFSM	.30	.54	.44	.98	2.10	1.86	2.05	1.66	.58	.15	.07	.05
IN.	.35	.61	.51	1.13	2.19	2.14	2.29	1.91	.65	.17	.09	.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1999, BY WATER YEAR (WY)

MEAN	58.9	75.4	109	132	142	186	194	132	103	64.9	46.1	43.3
MAX	369	230	298	443	373	498	493	340	363	198	188	237
(WY)	1955	1993	1967	1950	1950	1982	1950	1956	1981	1968	1990	1958
MIN	4.73	7.25	16.0	7.51	11.0	44.0	58.6	30.8	18.6	11.4	1.13	.40
(WY)	1954	1954	1963	1963	1963	1964	1966	1958	1988	1988	1967	1967

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1950 - 1999	
ANNUAL TOTAL	47683.3		36718.5			
ANNUAL MEAN	131		101		107	
HIGHEST ANNUAL MEAN					196	1950
LOWEST ANNUAL MEAN					30.8	1964
HIGHEST DAILY MEAN	550	Jan 12	486	Apr 28	944	Mar 21 1982
LOWEST DAILY MEAN	9.3	Jun 8	3.0	Sep 26	.08	Aug 4 1967
ANNUAL SEVEN-DAY MINIMUM	19	May 29	3.2	Sep 22	.28	Aug 22 1967
INSTANTANEOUS PEAK FLOW			492	Apr 28	950	Mar 21 1982
INSTANTANEOUS PEAK STAGE			8.03	Apr 28	9.25	Mar 21 1982
ANNUAL RUNOFF (CFSM)	1.16		.89		.95	
ANNUAL RUNOFF (INCHES)	15.70		12.09		12.87	
10 PERCENT EXCEEDS	303		274		241	
50 PERCENT EXCEEDS	88		44		76	
90 PERCENT EXCEEDS	25		7.9		15	

03331110 WALNUT CREEK NEAR WARSAW, IN

LOCATION.--Lat 41°12'17", long 85°52'11", in NW¼NE¼ sec.30, T.32 N., R.6 E., Kosciusko County, Hydrologic Unit 05120106, on left bank 10 ft upstream from bridge on County Road 200 South, 0.3 mi downstream from small right-bank tributary, and 2.5 mi south of court house in Warsaw.

DRAINAGE AREA.--19.6 mi².

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.9	5.0	e3.5	32	52	12	46	12	6.8	6.1	1.4
2	1.1	2.1	4.7	e4.5	32	46	12	39	18	6.6	4.4	1.4
3	1.3	2.1	8.4	e3.6	32	58	11	34	15	6.3	3.2	1.4
4	1.2	2.2	22	e3.5	29	53	12	30	14	5.7	2.7	1.4
5	1.0	2.2	11	e3.4	25	46	12	25	11	5.1	2.5	1.4
6	2.1	2.2	6.6	e3.3	23	56	11	22	10	4.8	2.4	1.3
7	3.7	2.2	7.4	e3.3	22	52	11	20	10	4.2	2.5	1.3
8	2.8	2.3	6.0	e3.2	25	44	11	19	8.9	3.8	2.3	1.3
9	2.3	2.5	5.3	e3.2	32	39	24	18	8.7	3.5	2.2	1.2
10	2.1	6.9	5.0	e3.1	31	32	24	16	8.3	3.5	2.2	1.1
11	2.0	9.5	4.9	e3.1	28	28	40	15	7.7	3.2	2.4	1.1
12	1.9	8.4	4.6	e3.0	32	24	42	14	8.8	2.2	2.5	.99
13	1.8	7.3	3.4	e3.0	28	22	36	13	17	1.6	2.8	1.0
14	1.7	6.5	2.9	e2.9	23	21	30	13	15	1.5	2.8	.97
15	1.8	6.1	3.1	e2.9	28	20	27	12	12	1.5	2.3	.93
16	1.7	5.3	3.8	e3.0	22	21	39	11	9.6	1.5	2.1	.94
17	1.6	4.3	4.0	e3.5	21	32	52	11	7.9	1.5	2.1	.88
18	2.0	4.0	3.4	e4.5	20	37	50	18	7.0	1.6	2.0	.85
19	2.1	3.9	4.0	e6.0	18	31	45	20	6.5	2.1	2.4	.81
20	1.9	3.8	3.9	e10	14	27	40	19	6.4	2.8	2.0	.79
21	1.8	3.6	4.4	e18	13	23	37	16	6.2	2.1	1.8	.79
22	2.0	3.5	6.5	e45	13	21	45	16	5.9	2.0	1.7	.84
23	2.0	3.5	e13	94	13	18	197	17	5.9	2.0	1.6	.80
24	2.1	3.5	e9.0	118	13	17	157	25	6.9	1.9	2.1	.80
25	7.6	4.2	e7.0	92	13	16	113	25	8.0	1.8	2.1	.84
26	10	5.8	e5.6	66	12	15	84	21	6.9	1.7	2.1	.74
27	4.1	5.7	4.6	54	33	14	68	18	8.4	1.6	2.1	.71
28	2.7	5.0	3.8	49	56	13	81	15	9.5	1.9	1.9	.90
29	2.3	4.9	3.5	44	---	13	71	14	8.0	5.8	1.8	2.0
30	2.2	5.0	e3.4	40	---	12	58	12	6.6	4.1	1.6	1.5
31	2.0	---	e3.3	34	---	12	---	13	---	5.2	1.6	---
TOTAL	76.0	130.4	183.5	730.5	683	915	1452	607	286.1	99.9	74.3	32.38
MEAN	2.45	4.35	5.92	23.6	24.4	29.5	48.4	19.6	9.54	3.22	2.40	1.08
MAX	10	9.5	22	118	56	58	197	46	18	6.8	6.1	2.0
MIN	1.0	1.9	2.9	2.9	12	12	11	11	5.9	1.5	1.6	.71
CFSM	.13	.22	.30	1.20	1.24	1.51	2.47	1.00	.49	.16	.12	.06
IN.	.14	.25	.35	1.39	1.30	1.74	2.76	1.15	.54	.19	.14	.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1999, BY WATER YEAR (WY)

MEAN	8.05	14.7	20.6	20.5	24.0	34.6	35.2	21.3	19.1	10.7	6.89	6.88
MAX	54.6	44.9	48.3	77.7	60.6	110	66.5	60.8	80.3	49.3	53.7	27.0
(WY)	1991	1993	1991	1993	1985	1982	1981	1981	1981	1997	1990	1980
MIN	1.04	2.18	1.43	.91	2.87	10.5	14.3	6.35	2.34	1.73	1.07	.80
(WY)	1977	1979	1977	1977	1979	1996	1976	1988	1988	1988	1971	1976

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1970 - 1999	
ANNUAL TOTAL	7348.4		5270.08			
ANNUAL MEAN	20.1		14.4		18.5	
HIGHEST ANNUAL MEAN					31.9	1997
LOWEST ANNUAL MEAN					10.0	1977
HIGHEST DAILY MEAN	179	Apr 10	197	Apr 23	389	Jun 14 1981
LOWEST DAILY MEAN	1.0	Oct 5	.71	Sep 27	.40	Oct 15 1988
ANNUAL SEVEN-DAY MINIMUM	1.2	Sep 29	.79	Sep 21	.46	Sep 12 1983
INSTANTANEOUS PEAK FLOW			218	Apr 23	561	Jun 13 1981
INSTANTANEOUS PEAK STAGE			3.74	Apr 23	5.38	Jun 13 1981
ANNUAL RUNOFF (CFSM)	1.03		.74		.94	
ANNUAL RUNOFF (INCHES)	13.95		10.00		12.83	
10 PERCENT EXCEEDS	51		39		42	
50 PERCENT EXCEEDS	9.7		6.0		11	
90 PERCENT EXCEEDS	2.2		1.5		1.9	

e Estimated

03331500 TIPPECANOE RIVER NEAR ORA, IN

LOCATION.--Lat 41°09'26", long 86°33'49", in SE¼SE¼ sec.6, T.31 N., R.1 W., Pulaski County, Hydrologic Unit 05120106, on right bank at downstream side of bridge on County Road 700 East, 1.0 mi upstream from Bartee Ditch, 1.3 mi southwest of Ora, and at mile 78.5.

DRAINAGE AREA.--856 mi^2.

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

REVISED RECORDS.--WSP 1335: 1944(M). WSP 1505: 1949-50(P). WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 692.91 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to July 30, 1956, nonrecording gage on upstream side of old highway bridge, 120 ft downstream. July 30, 1956, to Dec. 20, 1964, water-stage recorder on right bank at downstream side of old highway bridge, and Dec. 21, 1964, to Aug. 19, 1965, nonrecording gage on right bank 500 ft downstream. All gages at same datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	304	359	474	411	2130	2090	988	2950	1080	636	269	196
2	297	377	475	350	2010	2070	958	2780	1100	638	284	189
3	303	387	473	351	1950	2060	935	2620	1210	580	299	183
4	315	434	463	e345	1880	2280	1170	2450	1170	529	274	177
5	309	450	452	e340	1780	2300	1460	2280	1100	480	257	173
6	317	431	442	e335	1690	2290	1440	2110	1030	441	238	170
7	416	402	466	e330	1650	2520	1300	1940	940	403	231	170
8	588	380	488	e330	1670	2560	1150	1790	839	371	236	166
9	629	379	488	e325	1760	2390	1340	1670	757	363	231	162
10	617	436	480	e325	1830	2200	1850	1580	706	355	221	161
11	550	655	468	e320	1760	2030	2010	1500	665	340	218	161
12	475	748	457	e320	1700	1900	2180	1410	637	316	212	158
13	427	708	446	e320	1690	1790	2210	1350	656	300	220	157
14	395	655	432	e315	1600	1690	1960	1310	740	287	222	156
15	380	589	420	e315	1500	1600	1780	1230	666	275	219	158
16	368	544	410	e315	1440	1550	1910	1170	621	263	214	154
17	361	518	399	e340	1390	1640	2370	1080	596	259	202	154
18	362	496	392	e400	1340	1850	2680	1020	559	260	196	154
19	367	485	397	e540	1270	1870	2610	1010	533	252	200	150
20	366	468	402	e740	1210	1770	2380	965	508	248	210	148
21	371	455	415	e1100	1150	1680	2220	945	482	252	210	148
22	366	447	429	1550	1090	1590	2160	982	443	255	211	149
23	359	450	483	2470	1040	1490	2610	1040	424	254	203	149
24	355	446	786	3790	985	1410	3940	1070	425	247	206	146
25	350	444	653	4220	962	1330	5200	1080	438	236	230	145
26	345	466	e590	3870	941	1250	4400	1050	450	225	249	144
27	338	476	e580	3510	1060	1190	3820	1000	551	221	256	143
28	346	477	e570	3180	1660	1140	3600	963	891	217	256	149
29	339	478	559	2910	---	1100	3410	928	729	221	236	196
30	346	472	469	2640	---	1060	3160	894	639	238	219	238
31	347	---	429	2350	---	1020	---	968	---	282	207	---
TOTAL	12008	14512	14887	38957	42138	54710	69201	45135	21585	10244	7136	4904
MEAN	387	484	480	1257	1505	1765	2307	1456	720	330	230	163
MAX	629	748	786	4220	2130	2560	5200	2950	1210	638	299	238
MIN	297	359	392	315	941	1020	935	894	424	217	196	143
CFSM	.45	.57	.56	1.47	1.76	2.06	2.69	1.70	.84	.39	.27	.19
IN.	.52	.63	.65	1.69	1.83	2.38	3.01	1.96	.94	.45	.31	.21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1999, BY WATER YEAR (WY)

MEAN	464	604	810	1022	1180	1480	1577	1145	920	620	442	366
MAX	2112	1933	2478	3552	3020	4239	4116	2869	3468	1943	2699	1224
(WY)	1991	1973	1967	1950	1959	1982	1950	1981	1981	1996	1990	1958
MIN	134	155	177	183	192	451	525	337	243	180	155	107
(WY)	1954	1954	1964	1963	1963	1957	1958	1958	1988	1988	1988	1966

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1944 - 1999	
ANNUAL TOTAL	497061		335417			
ANNUAL MEAN	1362		919		884	
HIGHEST ANNUAL MEAN					1580	1950
LOWEST ANNUAL MEAN					354	1964
HIGHEST DAILY MEAN	6100	Jan 10	5200	Apr 25	8450	Jun 15 1981
LOWEST DAILY MEAN	297	Oct 2	143	Sep 27	87	Sep 13 1966
ANNUAL SEVEN-DAY MINIMUM	306	Sep 27	146	Sep 21	93	Sep 8 1966
INSTANTANEOUS PEAK FLOW			5340	Apr 25	8660	Jun 15 1981
INSTANTANEOUS PEAK STAGE			14.08	Apr 25	15.22	Aug 20 1990
ANNUAL RUNOFF (CFSM)	1.59		1.07		1.03	
ANNUAL RUNOFF (INCHES)	21.60		14.58		14.03	
10 PERCENT EXCEEDS	2710		2170		1870	
50 PERCENT EXCEEDS	1070		483		618	
90 PERCENT EXCEEDS	370		210		216	

e Estimated

03333050 TIPPECANOE RIVER NEAR DELPHI, IN

LOCATION.--Lat 40°35'38", long 86°46'12", in SW$^1/_4$SW$^1/_4$ 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, 5 mi west of Delphi, 8.1 mi downstream from Big Creek, and at mile 8.7.

DRAINAGE AREA.--1,869 mi^2.

PERIOD OF RECORD.--March to December 1903, March to December 1904, March 1905 to July 1906, November and December 1908, July 1939 to September 1987, October 1987 to current year. Published as "at Springboro" 1903-08. 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 ft^3/s). WDR-IN-94-1: 1991 (maximum discharge).

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	456	593	957	e630	3890	3880	1740	5270	1860	1220	602	447
2	556	768	758	e709	3630	3670	1810	4870	2230	1260	295	379
3	830	707	902	e317	3640	5010	1650	4210	2260	1170	530	407
4	526	579	713	e372	3220	4400	1850	4120	1960	1100	422	292
5	559	680	842	e423	2890	4180	1870	3720	1960	967	362	277
6	762	867	903	e578	3000	5530	2170	3510	1820	928	436	270
7	949	555	976	e794	3040	5530	2170	3310	1660	615	429	313
8	1160	720	815	e880	3900	4470	2180	3030	1660	712	468	333
9	1070	616	873	e603	4290	4730	2110	2700	1420	704	473	316
10	938	1090	780	e900	3750	4080	2310	2570	1630	708	380	269
11	1120	1500	938	e647	3220	3640	3370	2340	1300	434	366	324
12	834	1320	781	e629	3420	3310	3450	2510	1390	694	428	309
13	835	1500	817	e731	3090	3240	3290	2530	1700	502	1150	276
14	721	1130	813	e719	2720	2880	3400	2460	1630	574	447	299
15	781	1170	884	e511	2630	2860	3280	2200	1410	530	453	285
16	567	1040	590	556	2590	2880	5480	2310	1350	468	434	336
17	688	1060	883	736	2470	4630	7660	2170	1190	538	423	281
18	999	755	461	1270	2440	4110	6010	1990	989	575	386	277
19	418	951	952	1870	2180	3270	5490	e1730	1030	443	475	374
20	665	945	790	2040	1970	3520	4750	1850	1120	674	461	302
21	859	729	727	1610	2070	2900	4400	1700	1010	1040	367	283
22	507	755	785	4620	1800	2810	4070	2000	895	750	383	262
23	686	1000	538	9470	1790	2610	5490	1880	836	658	499	229
24	554	589	565	10400	1910	2450	6140	1840	1130	563	440	239
25	632	910	565	8600	1610	2400	5790	2070	818	460	478	239
26	676	968	545	7790	1590	2230	6310	1740	955	522	464	346
27	535	910	932	6870	2450	2060	6520	1790	1110	297	431	250
28	941	773	823	6470	4180	1970	8490	1570	1010	528	370	359
29	489	587	750	5390	---	1950	8300	1670	1380	429	505	749
30	756	1080	684	4770	---	1700	6440	1620	1140	413	395	414
31	727	---	567	4230	---	1910	---	1640	---	446	415	---
TOTAL	22796	26847	23909	86135	79380	104810	127990	78920	41853	20922	14167	9736
MEAN	735	895	771	2779	2835	3381	4266	2546	1395	675	457	325
MAX	1160	1500	976	10400	4290	5530	8490	5270	2260	1260	1150	749
MIN	418	555	461	317	1590	1700	1650	1570	818	297	295	229
CFSM	.39	.48	.41	1.49	1.52	1.81	2.28	1.36	.75	.36	.24	.17
IN.	.45	.53	.48	1.71	1.58	2.09	2.55	1.57	.83	.42	.28	.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1999, BY WATER YEAR (WY)

MEAN	1245	1670	2008	2920	2502	3194	3268	2477	2320	1779	1274	1107
MAX	4185	4120	3819	6854	4774	5184	4958	3726	4324	3901	4849	3092
(WY)	1991	1993	1991	1993	1997	1998	1994	1998	1997	1998	1990	1993
MIN	369	831	572	943	762	811	1287	983	493	360	308	325
(WY)	1996	1996	1996	1996	1996	1996	1996	1988	1988	1988	1988	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1988 - 1999	
ANNUAL TOTAL	1028342		637465			
ANNUAL MEAN	2817		1746		2145	
HIGHEST ANNUAL MEAN					3046	1993
LOWEST ANNUAL MEAN					1512	1996
HIGHEST DAILY MEAN	11200	May 8	10400	Jan 24	18400	Dec 30 1990
LOWEST DAILY MEAN	418	Oct 19	229	Sep 23	131	Aug 5 1988
ANNUAL SEVEN-DAY MINIMUM	561	Sep 26	264	Sep 21	255	Aug 2 1988
INSTANTANEOUS PEAK FLOW			11800	Jan 24	20600	Apr 12 1994
INSTANTANEOUS PEAK STAGE			9.68	Jan 24	13.72	Apr 12 1994
ANNUAL RUNOFF (CFSM)	1.51		.93		1.15	
ANNUAL RUNOFF (INCHES)	20.47		12.69		15.59	
10 PERCENT EXCEEDS	6410		4180		4420	
50 PERCENT EXCEEDS	2060		967		1610	
90 PERCENT EXCEEDS	638		385		488	

e Estimated

03333450 WILDCAT CREEK NEAR JEROME, IN

LOCATION.--Lat 40°26'29", long 85°55'08", in NE$^{1}/_{4}$SE$^{1}/_{4}$ sec.14, T.23 N., R.5 E., Howard County, Hydrologic Unit 05120107, on right bank at downstream side of bridge on County Road 1100 East, 0.5 mi downstream from Mud Creek, 1.5 mi southeast of Jerome, and at mile 79.9.

DRAINAGE AREA.--146 mi^{2}.

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

REVISED RECORDS.--WSP 2109: Drainage area.

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

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of about 18 ft, from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	24	42	e20	317	473	74	200	71	16	6.6	.98
2	6.9	18	35	e19	479	312	67	161	595	15	6.0	.75
3	6.8	21	38	e19	386	418	63	137	542	14	4.0	.70
4	7.4	28	37	e18	288	311	63	122	278	12	3.5	.82
5	7.6	20	34	e18	198	228	54	114	178	11	3.9	.85
6	9.8	16	35	e18	185	363	59	107	126	9.7	3.4	.96
7	247	16	61	e18	640	368	51	89	101	9.0	3.0	.74
8	228	10	71	e17	1350	262	50	77	86	8.2	2.7	1.0
9	80	10	52	e17	747	238	60	66	74	7.8	2.6	1.2
10	37	245	43	e17	488	171	51	58	76	8.4	2.5	1.1
11	20	617	39	e17	373	130	46	55	66	7.5	2.4	1.1
12	13	294	36	e18	558	114	42	66	67	6.5	2.7	.93
13	9.4	183	36	e20	391	106	37	154	177	6.1	5.5	.98
14	7.7	140	33	e18	257	104	38	231	193	5.9	6.1	.98
15	6.3	108	28	e17	218	97	53	130	117	5.7	3.9	.92
16	4.8	88	29	e19	193	118	254	97	74	5.7	3.0	.78
17	4.5	74	30	e50	170	629	734	93	56	5.6	2.4	.71
18	8.3	56	27	e300	144	604	485	170	43	5.6	1.8	.69
19	21	54	26	e600	126	340	321	154	37	5.3	1.8	.68
20	14	48	23	e400	109	245	231	104	33	6.1	1.7	.70
21	10	42	26	e350	96	204	532	87	31	7.9	1.9	.64
22	8.8	37	35	3800	85	155	638	86	28	8.2	1.9	.59
23	6.7	37	49	5790	83	127	401	109	26	6.5	1.4	.62
24	7.6	35	34	2650	80	114	259	205	25	6.0	1.7	.54
25	6.4	36	30	1330	78	98	193	115	24	5.1	2.4	.48
26	6.0	81	31	903	67	88	164	80	21	4.5	2.6	.49
27	5.6	71	31	698	92	82	156	61	22	4.5	2.2	.47
28	8.5	57	30	534	637	79	648	52	21	5.7	1.6	.48
29	9.7	51	29	397	---	73	448	46	21	6.4	1.4	1.9
30	16	48	e28	307	---	65	276	43	18	5.6	1.1	2.6
31	38	---	e22	254	---	66	---	49	---	5.4	1.0	---
TOTAL	869.2	2565	1100	18653	8835	6782	6548	3318	3227	236.9	88.7	26.38
MEAN	28.0	85.5	35.5	602	316	219	218	107	108	7.64	2.86	.88
MAX	247	617	71	5790	1350	629	734	231	595	16	6.6	2.6
MIN	4.5	10	22	17	67	65	37	43	18	4.5	1.0	.47
CFSM	.19	.59	.24	4.12	2.16	1.50	1.49	.73	.74	.05	.02	.01
IN.	.22	.65	.28	4.75	2.25	1.73	1.67	.85	.82	.06	.02	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1999, BY WATER YEAR (WY)

MEAN	41.3	116	161	165	204	285	229	154	140	101	43.9	43.9
MAX	252	834	622	687	649	793	689	460	720	692	401	589
(WY)	1970	1993	1991	1974	1976	1982	1964	1996	1998	1992	1998	1989
MIN	1.72	2.95	2.49	1.02	11.2	52.6	38.7	17.9	8.20	7.00	2.86	.88
(WY)	1967	1977	1977	1977	1963	1981	1971	1976	1988	1994	1999	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1962 - 1999	
ANNUAL TOTAL	91716.2		52249.18			
ANNUAL MEAN	251		143		140	
HIGHEST ANNUAL MEAN					253	1993
LOWEST ANNUAL MEAN					50.2	1966
HIGHEST DAILY MEAN	6300	Jun 12	5790	Jan 23	6300	Jun 12 1998
LOWEST DAILY MEAN	4.5	Oct 17	.47	Sep 27	.47	Sep 27 1999
ANNUAL SEVEN-DAY MINIMUM	6.4	Sep 13	.52	Sep 22	.52	Sep 22 1999
INSTANTANEOUS PEAK FLOW			6710	Jan 23	7120	Jul 14 1992
INSTANTANEOUS PEAK STAGE			13.30	Jan 23	13.71	Dec 30 1990
ANNUAL RUNOFF (CFSM)	1.72		.98		.96	
ANNUAL RUNOFF (INCHES)	23.37		13.31		13.02	
10 PERCENT EXCEEDS	620		355		342	
50 PERCENT EXCEEDS	54		37		46	
90 PERCENT EXCEEDS	7.9		1.8		4.9	

e Estimated

03333600 KOKOMO CREEK NEAR KOKOMO, IN

LOCATION.--Lat 40°26'28", long 86°05'20", in NW¼SW¼ sec.16, T.23 N., R.4 E., Howard County, Hydrologic Unit 05120107, on left bank at upstream side of bridge on County Road 200 East, 2.6 mi southeast of intersection of U.S. Highways 31 and 35 in Kokomo, and 4.2 mi upstream from mouth.

DRAINAGE AREA.--24.7 mi^2.

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

REVISED RECORDS.--WSP 2109: Drainage area. WDR IN-72-1: 1970-71(P).

GAGE.--Water-stage recorder. Datum of gage is 807.68 ft above sea level.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	7.1	7.2	5.2	54	55	12	36	21	3.0	1.7	.38
2	2.4	6.8	6.6	4.1	69	39	11	30	159	2.9	1.1	.31
3	2.6	8.3	6.9	e4.2	58	48	10	26	89	2.5	.80	.27
4	3.0	9.6	6.7	e4.0	47	37	10	23	44	2.2	.75	.27
5	3.1	8.4	6.5	e3.9	36	30	9.3	22	28	2.0	.70	.25
6	8.2	7.5	6.7	e3.8	35	44	9.6	20	20	1.7	.60	.23
7	170	6.3	9.3	e3.8	117	43	8.8	18	16	1.6	.54	.22
8	101	5.5	9.3	e3.7	159	34	8.6	16	14	1.4	.57	.21
9	42	5.7	7.9	e3.7	96	32	9.9	14	12	1.3	.58	.23
10	23	82	7.1	e3.6	61	24	8.7	13	9.7	1.3	.50	.25
11	14	123	6.8	e3.5	49	20	7.9	12	8.4	1.2	.48	.23
12	9.8	54	6.6	e3.7	102	18	7.4	15	9.3	1.0	.49	.19
13	7.3	35	6.5	e4.1	57	17	6.7	25	52	.95	2.1	.22
14	5.9	27	6.2	e3.7	38	17	6.7	26	42	.95	1.3	.22
15	5.0	21	5.7	e3.6	33	17	9.5	20	23	.87	.92	.19
16	4.2	17	5.7	e4.0	30	25	44	17	15	.85	.75	.16
17	4.1	14	5.9	e9.5	27	99	127	18	12	.83	.70	.15
18	5.7	12	5.9	e40	23	75	74	23	8.8	.98	.58	.14
19	8.9	11	6.4	e70	21	43	49	22	7.4	.98	.70	.14
20	7.3	9.8	6.1	e42	18	34	36	18	6.7	1.5	.69	.13
21	5.9	8.5	7.1	e38	16	29	94	16	6.2	1.1	.62	.18
22	5.0	7.7	8.8	588	15	23	83	17	5.6	1.1	.46	.19
23	4.5	7.8	8.1	715	15	20	62	48	5.2	1.2	.45	.20
24	4.6	7.4	7.7	376	14	18	42	88	5.0	1.1	.62	.18
25	4.7	8.0	7.2	180	13	16	33	40	4.6	.97	1.2	.16
26	4.6	12	7.3	135	12	15	28	26	4.0	.85	1.2	.14
27	4.5	10	7.3	116	20	14	39	21	3.9	.75	.96	.14
28	5.9	9.1	7.2	90	85	13	149	18	3.7	1.0	.81	.16
29	5.8	8.4	7.0	67	---	12	79	16	3.7	1.1	.63	1.2
30	6.4	7.9	6.3	54	---	11	49	14	3.1	.94	.46	.52
31	7.8	---	5.8	47	---	11	---	14	---	.96	.45	---
TOTAL	489.5	557.8	215.8	2630.1	1320	933	1124.1	732	642.3	41.08	24.41	7.46
MEAN	15.8	18.6	6.96	84.8	47.1	30.1	37.5	23.6	21.4	1.33	.79	.25
MAX	170	123	9.3	715	159	99	149	88	159	3.0	2.1	1.2
MIN	2.3	5.5	5.7	3.5	12	11	6.7	12	3.1	.75	.45	.13
CFSM	.64	.75	.28	3.43	1.91	1.22	1.52	.96	.87	.05	.03	.01
IN.	.74	.84	.33	3.96	1.99	1.41	1.69	1.10	.97	.06	.04	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1999, BY WATER YEAR (WY)

MEAN	9.27	19.9	25.4	26.1	34.3	49.1	41.3	25.6	19.5	15.0	7.59	6.45
MAX	68.1	144	102	114	129	150	117	87.2	99.7	90.2	58.5	66.7
(WY)	1970	1993	1991	1974	1990	1982	1964	1996	1980	1992	1998	1989
MIN	.55	.57	.44	.33	1.98	7.87	6.91	2.52	1.20	1.07	.50	.16
(WY)	1965	1977	1977	1977	1964	1981	1976	1976	1988	1988	1988	1991

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1960 - 1999	
ANNUAL TOTAL	13863.9		8717.55			
ANNUAL MEAN	38.0		23.9		23.2	
HIGHEST ANNUAL MEAN					45.2	1993
LOWEST ANNUAL MEAN					8.76	1966
HIGHEST DAILY MEAN	650	Jun 12	715	Jan 23	757	Dec 30 1990
LOWEST DAILY MEAN	1.2	Jan 1	.13	Sep 20	.07	Sep 18 1988
ANNUAL SEVEN-DAY MINIMUM	1.8	Sep 13	.16	Sep 15	.11	Jul 25 1975
INSTANTANEOUS PEAK FLOW			786	Jan 23	1040	Apr 20 1964
INSTANTANEOUS PEAK STAGE			9.26	Jan 23	9.88	Apr 20 1964
ANNUAL RUNOFF (CFSM)	1.54		.97		.94	
ANNUAL RUNOFF (INCHES)	20.88		13.13		12.78	
10 PERCENT EXCEEDS	99		54		54	
50 PERCENT EXCEEDS	9.8		7.9		7.6	
90 PERCENT EXCEEDS	3.1		.53		.89	

e Estimated

03333700 WILDCAT CREEK AT KOKOMO, IN

LOCATION.--Lat 40°28'15", long 86°09'11", in SW¼NE¼ sec.2, T.23 N., R.3 E., Howard County, Hydrologic Unit 05120107, on right bank on property of Kokomo Sewage Treatment Plant in Kokomo, 250 ft downstream from Kokomo Creek, 1.0 mi upstream from Dixon Road bridge, and at mile 62.9.

DRAINAGE AREA.--242 mi^2.

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

REVISED RECORDS.--WSP 2109: Drainage area. WDR-IN-83: 1980, 1981(P), 1982. WDR-IN-88: 1986(P), 1987 (M).

GAGE.--Water-stage recorder. Datum of gage is 775.62 ft above sea level (levels by State of Indiana, Department of Natural Resources). Prior to May 9, 1986, recording gage at site 0.4 mi downstream at present datum.

REMARKS.--Records good. Some regulation by Kokomo Reservoirs Nos. 1 and 2, (combined capacity 4,170 acre-ft, used for municipal water supply) and by Kokomo Sewage Treatment Plant.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	82	97	58	467	939	112	389	133	56	55	14
2	22	85	90	62	751	616	112	302	1160	48	31	13
3	23	88	83	71	731	588	107	255	1170	44	27	13
4	22	67	85	54	524	600	105	224	595	37	28	12
5	23	72	83	49	389	417	104	199	349	37	25	13
6	104	68	88	47	316	509	96	201	243	38	24	13
7	752	62	123	46	804	665	95	165	189	35	25	14
8	672	60	111	47	1990	486	87	139	159	31	26	14
9	426	70	109	49	1510	420	127	129	138	30	27	14
10	250	518	96	51	955	334	103	115	128	31	27	13
11	164	1080	88	52	713	246	80	106	120	30	26	13
12	118	708	85	63	942	208	73	246	116	28	53	14
13	91	385	81	93	838	189	73	289	306	28	127	16
14	76	269	80	84	513	183	71	383	335	25	33	13
15	88	213	75	86	384	166	151	269	239	24	26	14
16	78	171	73	94	336	231	404	187	156	29	27	12
17	57	147	68	110	297	542	1340	159	121	31	22	12
18	79	128	72	436	261	865	1050	227	106	32	23	11
19	67	110	68	1070	220	680	676	261	93	30	21	11
20	73	104	65	886	192	446	463	188	85	54	20	11
21	65	100	92	715	164	350	828	150	83	33	18	10
22	59	92	78	3820	148	280	1200	190	81	63	18	11
23	52	86	84	7660	138	226	959	337	74	57	17	11
24	48	85	83	5450	132	195	578	587	76	33	17	12
25	46	114	78	2590	135	171	392	318	70	27	19	10
26	44	110	76	1690	125	150	318	205	63	25	23	10
27	47	131	74	1280	184	133	459	146	57	24	21	14
28	62	118	75	1020	726	125	1170	121	62	42	18	16
29	48	106	74	771	---	120	988	106	64	34	17	96
30	66	103	71	571	---	114	571	99	52	32	16	14
31	58	---	67	448	---	106	---	128	---	111	14	---
TOTAL	3803	5532	2572	29523	14885	11300	12892	6820	6623	1179	871	464
MEAN	123	184	83.0	952	532	365	430	220	221	38.0	28.1	15.5
MAX	752	1080	123	7660	1990	939	1340	587	1170	111	127	96
MIN	22	60	65	46	125	106	71	99	52	24	14	10
CFSM	.51	.76	.34	3.94	2.20	1.51	1.78	.91	.91	.16	.12	.06
IN.	.58	.85	.40	4.54	2.29	1.74	1.98	1.05	1.02	.18	.13	.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1999, BY WATER YEAR (WY)

MEAN	83.9	198	260	268	342	450	424	270	257	186	96.2	83.7
MAX	469	1387	968	1375	1097	1376	1117	835	1432	1018	602	879
(WY)	1970	1993	1991	1974	1990	1982	1957	1996	1958	1998	1998	1989
MIN	11.2	15.5	13.8	16.5	25.8	67.4	71.7	53.6	28.2	28.6	25.2	12.8
(WY)	1957	1957	1964	1961	1964	1981	1966	1988	1988	1988	1966	1956

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1956 - 1999	
ANNUAL TOTAL	155396		96464			
ANNUAL MEAN	426		264		243	
HIGHEST ANNUAL MEAN					444	1993
LOWEST ANNUAL MEAN					89.7	1966
HIGHEST DAILY MEAN	6580	Jun 12	7660	Jan 23	7660	Jan 23 1999
LOWEST DAILY MEAN	20	Jan 1	10	Sep 21	7.2	Sep 30 1956
ANNUAL SEVEN-DAY MINIMUM	22	Sep 13	11	Sep 20	8.3	Dec 28 1963
INSTANTANEOUS PEAK FLOW			8020	Jan 23	8100	Feb 10 1959
INSTANTANEOUS PEAK STAGE			16.89	Jan 23	16.95	Dec 30 1990
ANNUAL RUNOFF (CFSM)	1.76		1.09		1.00	
ANNUAL RUNOFF (INCHES)	23.89		14.83		13.62	
10 PERCENT EXCEEDS	1080		678		576	
50 PERCENT EXCEEDS	110		93		88	
90 PERCENT EXCEEDS	42		18		25	

03334000 WILDCAT CREEK AT OWASCO, IN

LOCATION.--Lat 40°27'50", long 86°38'15", in SE¼SE¼ sec.4, T.23 N., R.2 W., Carroll County, Hydrologic Unit 05120107, 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 mi^2.

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. WDR 94-1: 1988-1993 (Peak of record).

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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	110	148	e96	599	880	209	619	347	106	79	29
2	46	126	140	e92	685	792	213	498	1140	104	109	29
3	46	134	135	e89	842	647	209	433	1490	103	65	28
4	48	145	129	e105	730	668	207	389	1040	87	55	27
5	50	128	128	e96	580	592	198	359	625	80	48	28
6	53	124	129	e90	494	638	196	333	458	76	48	27
7	232	122	134	e86	588	734	189	321	368	73	43	23
8	740	118	177	e84	1660	698	180	278	306	70	41	23
9	543	114	160	e83	2020	600	195	248	264	67	39	23
10	375	177	155	e82	1370	523	219	229	291	65	36	23
11	266	867	144	e80	933	441	188	212	245	59	36	23
12	208	962	134	e93	895	379	164	200	272	57	40	24
13	168	600	130	e125	1030	349	148	349	553	57	77	23
14	143	406	125	e115	776	332	146	408	468	54	167	23
15	129	322	123	e123	588	319	173	425	425	52	76	23
16	127	273	119	e130	511	320	442	342	327	49	52	25
17	131	236	115	e140	468	621	1310	278	243	52	47	24
18	112	206	113	e220	430	829	1550	271	201	55	45	23
19	127	186	112	e870	391	964	1080	334	179	58	42	23
20	118	166	110	e810	355	671	756	330	161	62	40	22
21	118	155	112	e700	323	538	940	265	147	68	41	21
22	111	147	131	2550	288	463	1410	263	140	64	42	21
23	103	141	124	6230	268	400	1280	308	133	68	35	21
24	101	132	e120	8740	255	359	948	686	135	101	33	20
25	92	132	e118	7060	250	324	653	602	140	73	34	21
26	86	165	e116	3220	245	292	530	404	123	57	35	21
27	87	170	e112	1860	258	267	470	312	118	50	34	21
28	93	177	e113	1400	437	247	925	249	120	50	40	22
29	116	164	115	1090	---	236	1280	218	111	50	41	36
30	100	155	109	833	---	224	891	196	128	61	40	113
31	117	---	e110	682	---	216	---	304	---	55	33	---
TOTAL	4835	7060	3940	37974	18269	15563	17299	10663	10698	2083	1593	810
MEAN	156	235	127	1225	652	502	577	344	357	67.2	51.4	27.0
MAX	740	962	177	8740	2020	964	1550	686	1490	106	167	113
MIN	46	110	109	80	245	216	146	196	111	49	33	20
CFSM	.39	.59	.32	3.09	1.65	1.27	1.46	.87	.90	.17	.13	.07
IN.	.45	.66	.37	3.57	1.72	1.46	1.63	1.00	1.00	.20	.15	.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1999, BY WATER YEAR (WY)

MEAN	147	268	335	557	518	643	696	455	406	310	146	136
MAX	670	2024	1325	3083	1725	1301	1857	1108	2536	1589	707	1339
(WY)	1970	1993	1958	1950	1959	1997	1957	1996	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1945 - 1999	
ANNUAL TOTAL	209351		130787			
ANNUAL MEAN	574		358		384	
HIGHEST ANNUAL MEAN					733	1950
LOWEST ANNUAL MEAN					104	1954
HIGHEST DAILY MEAN	9090	Jun 13	8740	Jan 24	9850	Jan 5 1950
LOWEST DAILY MEAN	45	Jan 1	20	Sep 24	12	Oct 23 1944
ANNUAL SEVEN-DAY MINIMUM	48	Sep 28	21	Sep 21	15	Sep 23 1954
INSTANTANEOUS PEAK FLOW			8980	Jan 24	10800	Jan 4 1980
INSTANTANEOUS PEAK STAGE			11.66	Jan 24	13.30	Jan 5 1950
ANNUAL RUNOFF (CFSM)	1.45		.90		.97	
ANNUAL RUNOFF (INCHES)	19.67		12.29		13.17	
10 PERCENT EXCEEDS	1300		799		905	
50 PERCENT EXCEEDS	190		147		165	
90 PERCENT EXCEEDS	89		36		41	

e Estimated

03334500 SOUTH FORK WILDCAT CREEK NEAR LAFAYETTE, IN

LOCATION.--Lat 40°25'04", long 86°46'05", in $SW^1/_4SW^1/_4$ sec.21, T.23 N., R.3 W., Tippecanoe County, Hydrologic Unit 05120107, on right bank 40 ft upstream from bridge on State Highway 26, 0.5 mi upstream from Middle Fork, 4.4 mi upstream from mouth, and 5 mi east of Lafayette.

DRAINAGE AREA.--243 mi^2.

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

REVISED RECORDS.--WSP 1335: 1948(M). WSP 1505: 1947. WSP 1725: 1951-53(M), 1955(M). WSP 1909: 1955(P). WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 566.60 ft above sea level (Indiana Department of Highways bench mark). Prior to July 29, 1954, nonrecording gage at site 40 ft downstream at same datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Backwater from Middle Fork at times on peaks.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1943 reached a stage of 16.8 ft, from floodmarks, discharge, 17,900 ft^3/s by contracted-opening measurement.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	72	70	e56	436	358	135	269	135	85	38	25
2	39	69	68	e58	481	301	133	235	362	77	35	25
3	41	63	66	e68	501	283	128	213	610	71	33	24
4	41	60	63	e58	440	267	130	195	391	65	33	23
5	42	58	64	e56	366	240	123	181	279	59	34	23
6	51	57	64	e54	333	402	123	172	223	55	38	22
7	88	55	68	e54	739	474	122	161	185	54	33	21
8	121	55	79	e53	1570	361	114	145	164	51	32	21
9	116	55	79	e52	995	335	137	136	150	48	31	21
10	84	101	74	e52	656	288	130	125	137	46	30	20
11	69	367	70	e54	506	234	117	120	139	44	30	21
12	61	304	67	e60	567	209	109	116	128	41	32	21
13	57	199	64	e76	504	197	102	131	132	40	53	20
14	53	152	63	e72	391	191	99	166	180	40	63	19
15	52	128	62	e76	343	186	135	138	150	39	41	20
16	51	110	61	e78	315	194	436	123	124	37	35	21
17	49	96	60	e90	283	532	968	119	111	41	32	21
18	51	89	60	e259	250	557	703	130	102	57	31	21
19	57	79	60	e731	229	388	531	161	94	50	31	20
20	55	75	59	e454	209	308	419	145	89	50	31	20
21	50	71	61	e337	188	274	597	125	85	212	36	19
22	50	67	67	4090	172	242	832	208	82	93	31	21
23	49	64	69	7150	164	210	543	209	79	64	29	20
24	49	63	e67	3430	161	193	393	165	85	52	29	20
25	48	66	e64	1780	157	178	315	142	108	49	31	19
26	48	82	60	1220	150	163	276	124	90	43	31	19
27	48	80	58	981	152	154	274	111	82	40	29	18
28	52	78	59	804	245	148	473	102	112	52	29	18
29	59	73	60	612	---	142	440	95	116	72	28	36
30	58	70	56	513	---	136	326	89	101	48	26	62
31	86	---	e56	452	---	133	---	89	---	41	25	---
TOTAL	1814	2958	1998	23880	11503	8278	9363	4640	4825	1816	1040	681
MEAN	58.5	98.6	64.5	770	411	267	312	150	161	58.6	33.5	22.7
MAX	121	367	79	7150	1570	557	968	269	610	212	63	62
MIN	39	55	56	52	150	133	99	89	79	37	25	18
CFSM	.24	.41	.27	3.17	1.69	1.10	1.28	.62	.66	.24	.14	.09
IN.	.28	.45	.31	3.66	1.76	1.27	1.43	.71	.74	.28	.16	.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1999, BY WATER YEAR (WY)

MEAN	95.9	176	242	303	338	420	408	305	286	171	100	97.7
MAX	426	1304	954	1808	929	1143	1172	881	1674	954	510	849
(WY)	1970	1993	1991	1950	1985	1982	1964	1983	1958	1992	1958	1989
MIN	22.9	27.8	23.5	19.5	37.5	78.2	102	67.6	40.6	26.2	18.3	18.0
(WY)	1964	1957	1964	1977	1963	1981	1971	1976	1977	1977	1944	1944

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1944 - 1999	
ANNUAL TOTAL	118283		72796			
ANNUAL MEAN	324		199		244	
HIGHEST ANNUAL MEAN					473	1950
LOWEST ANNUAL MEAN					79.2	1954
HIGHEST DAILY MEAN	9640	Jun 12	7150	Jan 23	11000	May 2 1983
LOWEST DAILY MEAN	33	Jan 1	18	Sep 27	15	Sep 19 1944
ANNUAL SEVEN-DAY MINIMUM	39	Sep 27	19	Sep 22	16	Sep 17 1944
INSTANTANEOUS PEAK FLOW			8390	Jan 23	15100	May 2 1983
INSTANTANEOUS PEAK STAGE			13.34	Jan 23	15.68	May 2 1983
ANNUAL RUNOFF (CFSM)	1.33		.82		1.01	
ANNUAL RUNOFF (INCHES)	18.11		11.14		13.67	
10 PERCENT EXCEEDS	634		426		532	
50 PERCENT EXCEEDS	93		80		110	
90 PERCENT EXCEEDS	49		30		34	

e Estimated

03335000 WILDCAT CREEK NEAR LAFAYETTE, IN

LOCATION.--Lat 40°26'26", long 86°49'45", in SW¼NW¼ sec.13, T.23 N., R.4 W., Tippecanoe County, Hydrologic Unit 05120107, on right bank about 200 ft downstream of bridge on County Road 2A East, 2.8 mi downstream from South Fork Wildcat Creek, 3.7 mi northeast of courthouse in Lafayette, and 4.8 mi upstream from mouth.

DRAINAGE AREA.--794 mi^2.

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

REVISED RECORDS.--WSP 1555: 1955, 1957(M). WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 527.66 ft above sea level (Indiana Flood Control and Water Resources Commission bench mark). Nonrecording gage prior to June 13, 1957, and August 31, 1974, to May 20, 1976, at present site and datum.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1913 reached a stage of about 25.4 ft, from profile by State of Indiana, Department of Natural Resources.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115	210	239	e180	1390	1370	433	1230	635	254	115	77
2	114	202	232	e179	1430	1390	429	1040	1830	228	159	73
3	118	212	221	e225	1610	1230	418	893	2490	217	134	72
4	118	213	211	e220	1480	1180	432	788	1860	200	112	70
5	118	205	209	e213	1240	1120	405	713	1280	186	106	69
6	149	194	212	e200	1110	1370	407	666	961	170	103	68
7	222	193	223	e190	1630	1540	397	621	742	164	99	66
8	726	188	263	e182	3740	1370	365	553	611	158	100	63
9	681	188	261	e182	3540	1230	449	501	531	e149	93	63
10	513	289	255	e180	2610	1100	448	458	496	e140	88	61
11	383	963	243	e180	1940	929	397	425	591	e135	87	63
12	308	1200	230	e198	1860	791	362	403	495	e131	97	63
13	260	859	222	e248	1910	712	324	520	793	e127	185	64
14	230	610	215	e231	1570	668	318	717	847	e124	216	62
15	207	487	210	e242	1280	648	430	699	723	e120	164	62
16	196	416	207	e253	1140	658	1270	585	572	116	124	63
17	206	360	201	e275	1050	1390	2960	491	447	126	104	65
18	194	322	202	e631	958	1720	2800	523	383	161	99	65
19	186	295	201	e1580	859	1560	2160	583	337	139	97	64
20	210	269	198	e1480	768	1280	1650	572	311	151	93	63
21	186	251	205	e1160	691	1090	2100	492	289	276	96	61
22	185	239	207	e6700	624	947	2780	597	269	193	96	62
23	177	229	209	14700	582	807	2250	666	257	159	91	62
24	173	219	214	13400	560	713	1780	1040	265	168	85	60
25	168	225	e210	11300	545	641	1370	1060	299	151	87	60
26	160	245	e207	6250	524	584	1150	737	266	134	89	58
27	159	283	e198	3570	560	537	1090	562	249	118	86	58
28	169	269	e200	2750	816	504	1560	463	295	144	85	60
29	176	265	208	2180	---	480	1970	407	313	150	90	121
30	193	249	183	1800	---	457	1600	372	295	130	84	145
31	202	---	e180	1530	---	437	---	421	---	123	81	---
TOTAL	7202	10349	6676	72609	38017	30453	34504	19798	19732	4942	3345	2063
MEAN	232	345	215	2342	1358	982	1150	639	658	159	108	68.8
MAX	726	1200	263	14700	3740	1720	2960	1230	2490	276	216	145
MIN	114	188	180	179	524	437	318	372	249	116	81	58
CFSM	.29	.43	.27	2.95	1.71	1.24	1.45	.80	.83	.20	.14	.09
IN.	.34	.48	.31	3.40	1.78	1.43	1.62	.93	.92	.23	.16	.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1999, BY WATER YEAR (WY)

MEAN	301	589	816	849	1075	1416	1313	946	885	613	347	296
MAX	1298	3963	2474	3711	3227	3991	3657	2614	5210	2968	1511	2546
(WY)	1970	1993	1991	1974	1976	1982	1964	1983	1958	1992	1958	1989
MIN	67.9	85.6	67.0	61.6	104	290	310	231	130	84.4	79.8	68.8
(WY)	1964	1964	1964	1977	1963	1981	1971	1976	1988	1977	1966	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1955 - 1999	
ANNUAL TOTAL	398084		249690			
ANNUAL MEAN	1091		684		785	
HIGHEST ANNUAL MEAN					1460	1993
LOWEST ANNUAL MEAN					310	1987
HIGHEST DAILY MEAN	16600	Jun 13	14700	Jan 23	22100	Jun 10 1958
LOWEST DAILY MEAN	93	Jan 2	58	Sep 26	47	Sep 6 1964
ANNUAL SEVEN-DAY MINIMUM	116	Sep 28	60	Sep 22	51	Dec 20 1963
INSTANTANEOUS PEAK FLOW			15400	Jan 23	25000	Jun 10 1958
INSTANTANEOUS PEAK STAGE			18.15	Jan 23	21.52	Jun 10 1958
ANNUAL RUNOFF (CFSM)	1.37		.86		.99	
ANNUAL RUNOFF (INCHES)	18.65		11.70		13.44	
10 PERCENT EXCEEDS	2720		1530		1790	
50 PERCENT EXCEEDS	373		265		364	
90 PERCENT EXCEEDS	168		89		113	

e Estimated

03335500 WABASH RIVER AT LAFAYETTE, IN

LOCATION.--Lat 40°25'19", long 86°53'49", in NE¼SW¼ sec.20, T.23 N., R.4 W., Tippecanoe County, Hydrologic Unit 05120108, on right bank 20 ft downstream from Brown St. in Lafayette, 0.2 mi upstream from Main St. bridge, 0.3 mi downstream from Harrison Memorial Bridge, 5.1 mi downstream from Wildcat Creek, and at mile 311.9.

DRAINAGE AREA.--7,267 mi^2.

PERIOD OF RECORD.--February 1901 to January 1902, March to December 1902, January to May 1903 (gage height only), October 1923 to current year. Monthly discharge only for some periods, published in WSP 1305. Gage-height records collected at present site since October 1913 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 1335: 1929, 1932-33, 1936. WSP 1505: 1950. WSP 1555: 1928(M). WSP 2109: Drainage area. WDR IN-81-1: 1979.

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

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow partially regulated by upstream reservoirs and power development.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 26, 1913, reached a stage of 32.9 ft, from floodmark determined by National Weather Service, discharge, 190,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1970	2410	3180	e1500	19300	18900	4820	14600	4560	2730	1430	e1200
2	1970	2450	3040	e1200	18800	18500	4670	12400	9540	2820	1500	e1210
3	2010	2180	2960	e980	19600	20100	4350	10400	13200	2770	1340	e1110
4	2340	2460	2950	e920	18900	22500	4300	9070	12900	2850	1390	e1130
5	2030	2410	3160	e880	17900	20100	4380	8330	11400	2740	1330	e971
6	2440	2370	3020	e870	17600	20800	4520	7580	8600	2700	1290	e924
7	2830	2540	2920	e860	18300	23100	4510	7120	5760	e2260	1300	e895
8	5320	2300	2680	e855	23800	19900	4400	6630	4880	e2060	1320	e876
9	6610	2410	2940	e850	25200	17800	4580	6070	4560	e1970	1330	e854
10	6030	2910	3060	e845	23800	15000	4700	5800	4190	e1890	1340	818
11	5490	5620	2690	e840	20900	13500	6920	5350	4400	e1760	1280	823
12	4690	7810	2720	e845	20300	11600	8250	5300	4290	e1780	1250	962
13	3740	6660	2840	e860	20800	9740	7960	5410	4810	e1660	1850	1180
14	3070	e5780	2910	e890	18400	8460	7180	5730	6200	e1640	e2100	1220
15	2510	e4980	2620	e940	16900	7720	6590	5920	5690	e1600	1730	1690
16	2630	e4520	2660	e1100	15600	7490	10100	6200	5240	e1580	1590	1770
17	2710	3980	2760	e1500	13900	10400	25200	5230	4570	e1560	1490	1830
18	2770	3660	2340	e2300	13400	17700	28200	5140	4000	1830	1360	1820
19	2730	3390	2720	e3500	12300	19100	22300	5140	3550	1560	1270	1900
20	2700	3380	2540	e6000	10300	17300	18000	4850	3150	1610	1280	1960
21	2760	3080	2640	e9000	8900	15900	16300	4730	3010	2310	1260	1850
22	2550	3240	2860	e20000	8530	12900	15800	4940	3010	2050	1210	1730
23	2700	2960	2280	42700	8080	9590	16000	5110	2790	1910	1210	1640
24	2310	2890	2440	58600	6940	7490	26200	5990	2820	1800	1220	1650
25	2300	2910	2580	55600	5280	6700	24400	7800	3080	1660	1210	1650
26	2210	3340	2740	42300	5140	6030	20100	8600	2790	1570	1240	1650
27	2070	3180	2730	31100	5440	5790	17800	6970	2820	1450	1400	1730
28	2520	3050	2990	26500	13300	5740	19200	5820	2750	1400	1530	1690
29	2180	3150	2960	24200	---	5430	21400	5240	2930	1560	1390	2880
30	2390	3070	2610	22100	---	4950	18100	4810	2890	1490	1340	2440
31	2150	---	2400	20600	---	4970	---	4310	---	1420	1250	---
TOTAL	92730	105090	85940	381235	427610	405200	381230	206590	154380	59990	43030	44053
MEAN	2991	3503	2772	12300	15270	13070	12710	6664	5146	1935	1388	1468
MAX	6610	7810	3180	58600	25200	23100	28200	14600	13200	2850	2100	2880
MIN	1970	2180	2280	840	5140	4950	4300	4310	2750	1400	1210	818
CFSM	.41	.48	.38	1.69	2.10	1.80	1.75	.92	.71	.27	.19	.20
IN.	.47	.54	.44	1.95	2.19	2.07	1.95	1.06	.79	.31	.22	.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1999, BY WATER YEAR (WY)

MEAN	2986	4323	6724	8606	9574	11940	11650	8278	6641	4337	2836	2659
MAX	14750	19910	25250	42040	28000	33560	28000	37290	31830	19180	12890	20120
(WY)	1927	1993	1928	1950	1959	1982	1957	1943	1958	1998	1998	1926
MIN	652	828	747	735	1232	1663	3135	1460	1029	655	484	435
(WY)	1964	1965	1964	1977	1964	1941	1941	1934	1934	1936	1941	1941

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1924 - 1999	
ANNUAL TOTAL	3746230		2387078			
ANNUAL MEAN	10260		6540		6696	
HIGHEST ANNUAL MEAN					12340	1950
LOWEST ANNUAL MEAN					1631	1941
HIGHEST DAILY MEAN	54000	Jul 24	58600	Jan 24	129000	May 19 1943
LOWEST DAILY MEAN	1970	Sep 29	818	Sep 10	399	Sep 26 1941
ANNUAL SEVEN-DAY MINIMUM	2020	Sep 27	851	Jan 7	404	Sep 21 1941
INSTANTANEOUS PEAK FLOW			61100	Jan 24	131000	May 19 1943
INSTANTANEOUS PEAK STAGE			21.83	Jan 24	28.47	May 19 1943
ANNUAL RUNOFF (CFSM)	1.41		.90		.92	
ANNUAL RUNOFF (INCHES)	19.18		12.22		12.52	
10 PERCENT EXCEEDS	23200		18600		16000	
50 PERCENT EXCEEDS	6510		3020		3650	
90 PERCENT EXCEEDS	2410		1260		1150	

e Estimated

03335690 MUD PINE CREEK NEAR OXFORD, IN

LOCATION.--Lat 40°31'24", long 87°20'30", in NE¼SE¼ sec.17, T.24 N., R.8 W., Benton County, Hydrologic Unit 05120108, on right bank 5 ft downstream from county road bridge, 0.3 mi north of Chase, 2.0 mi east of Boswell, and 5.0 mi west of Oxford.

DRAINAGE AREA.--39.4 mi^2.

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

REVISED RECORDS.--WDR IN-80-1: 1971-79 (P).

GAGE.--Water-stage recorder. Datum of gage is 718.00 ft above sea level.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	.24	2.5	e1.6	68	e80	22	71	22	10	.55	.36
2	1.5	.23	2.2	e1.7	79	e70	20	57	145	8.4	.63	.39
3	2.0	.26	2.6	e1.7	70	e76	24	50	80	7.0	.79	.34
4	2.9	.21	2.4	e1.6	54	e70	36	45	54	6.0	.81	.30
5	3.2	.16	2.4	e1.6	44	e58	31	42	43	5.3	.92	.26
6	20	.15	2.6	e1.6	43	e107	29	39	35	5.0	.66	.46
7	21	.09	3.0	e1.6	e70	e114	24	33	31	4.3	.75	.37
8	5.0	.34	2.3	e1.5	e200	e80	25	30	28	3.7	.97	.33
9	1.9	.66	2.1	e1.5	e120	e66	30	28	26	3.3	1.0	.19
10	.98	14	2.0	e1.5	e90	e54	24	27	28	2.9	.90	.07
11	.61	15	2.3	e1.5	e77	e45	104	26	23	2.3	.77	.01
12	.45	6.9	2.1	e1.6	e80	e42	61	26	28	2.1	1.7	.01
13	.37	5.6	2.1	e1.9	e70	e40	46	40	44	1.8	6.9	.03
14	.29	5.1	2.0	e1.8	e54	e39	40	48	89	1.6	2.4	.07
15	.32	4.2	1.9	e1.7	e45	e37	115	37	37	1.5	.69	.05
16	.28	3.8	2.0	e2.0	e40	e43	557	33	28	1.3	.48	.06
17	.28	3.3	2.1	e2.5	e36	e150	547	31	23	1.7	.48	.06
18	.42	2.8	1.9	e10	e33	e180	196	28	19	4.0	.64	.09
19	.55	3.1	2.4	e40	e31	e90	136	25	18	2.1	.85	.15
20	.21	2.7	2.1	e68	e29	e64	103	24	17	1.6	.72	.17
21	.17	2.4	2.2	e45	e28	e45	122	24	15	1.3	.65	.19
22	.13	2.3	2.5	e350	e27	e37	102	30	14	1.1	.71	.16
23	.15	2.5	2.1	e640	e27	e31	83	31	14	.94	.99	.11
24	.29	2.3	e2.0	e455	e26	29	65	38	21	.76	.55	.07
25	.08	2.8	e1.9	e208	e25	26	56	29	22	.72	.60	.17
26	.16	3.6	e1.8	146	e25	25	51	25	14	.67	.54	.14
27	.27	2.5	e1.8	151	e40	24	51	23	13	.71	.50	.15
28	.60	2.3	e1.7	122	e110	24	184	22	12	1.0	.38	.41
29	.37	2.5	e1.7	87	---	22	169	21	10	1.0	.35	9.8
30	.32	2.8	e1.6	72	---	21	97	21	8.6	.72	.35	1.8
31	.31	---	e1.6	62	---	22	---	23	---	.57	.41	---
TOTAL	66.61	94.84	65.9	2484.9	1641	1811	3150	1027	961.6	85.39	29.64	16.77
MEAN	2.15	3.16	2.13	80.2	58.6	58.4	105	33.1	32.1	2.75	.96	.56
MAX	21	15	3.0	640	200	180	557	71	145	10	6.9	9.8
MIN	.08	.09	1.6	1.5	25	21	20	21	8.6	.57	.35	.01
CFSM	.05	.08	.05	2.03	1.49	1.48	2.66	.84	.81	.07	.02	.01
IN.	.06	.09	.06	2.35	1.55	1.71	2.97	.97	.91	.08	.03	.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1999, BY WATER YEAR (WY)

MEAN	15.7	29.9	44.7	42.6	57.3	77.8	72.6	62.9	62.2	24.6	14.5	16.2
MAX	113	169	154	164	158	237	267	159	240	147	122	134
(WY)	1994	1986	1991	1993	1990	1979	1994	1981	1998	1993	1981	1993
MIN	.86	.79	.98	.47	3.41	6.54	17.2	8.49	2.85	.65	.79	.40
(WY)	1998	1981	1977	1977	1977	1981	1977	1976	1988	1988	1988	1983

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1972 - 1999	
ANNUAL TOTAL	26546.07		11434.65			
ANNUAL MEAN	72.7		31.3		43.3	
HIGHEST ANNUAL MEAN					93.0	1993
LOWEST ANNUAL MEAN					16.2	1977
HIGHEST DAILY MEAN	2320	Jun 11	640	Jan 23	4550	Apr 12 1994
LOWEST DAILY MEAN	.08	Oct 25	.01	Sep 11	.01	Sep 11 1999
ANNUAL SEVEN-DAY MINIMUM	.17	Oct 20	.04	Sep 11	.04	Sep 11 1999
INSTANTANEOUS PEAK FLOW			1100	Jan 23	12100	Apr 12 1994
INSTANTANEOUS PEAK STAGE			10.36	Jan 23	16.98	Apr 12 1994
ANNUAL RUNOFF (CFSM)	1.85		.80		1.10	
ANNUAL RUNOFF (INCHES)	25.06		10.80		14.93	
10 PERCENT EXCEEDS	146		79		100	
50 PERCENT EXCEEDS	20		4.0		16	
90 PERCENT EXCEEDS	.84		.29		.92	

e Estimated

03336000 WABASH RIVER AT COVINGTON, IN

LOCATION.--Lat 40°08'24", long 87°24'24", in NE$^1/_4$NW$^1/_4$ sec.35, T.20 N., R.9 W., Warren County, Hydrologic Unit 05120108, on right approach to old U.S. Highway 136 bridge at Covington, 2.9 mi downstream from Oppossum Run, 3.6 mi upstream from Spring Creek, and at mile 271.1.

DRAINAGE AREA.--8,218 mi^2.

PERIOD OF RECORD.--October 1939 to current year. Gage-height records collected at site 0.4 mi downstream January 1927 to December 1930, and at present site since January 1931 are contained in reports of National Weather Service.

REVISED RECORDS.--WDR IN-73-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 473.97 ft above sea level. Prior to Oct. 1, 1979, nonrecording gage on old bridge.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow partially regulated by upstream reservoirs.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 35.1 ft, from floodmark determined by National Weather Service, discharge, 200,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e2300	2980	3450	e1800	22800	16700	5540	19600	4750	2980	1450	e1240
2	e2220	3020	3500	e1270	21300	19300	5370	15600	7530	2900	1510	e1250
3	2140	3080	3360	e1020	20800	19900	5180	13000	13300	2970	1540	e1190
4	2360	2910	3300	e990	20700	21800	4920	11000	14300	2820	1410	e1200
5	2570	3030	3220	e980	19700	22800	4980	9930	13400	2840	1480	e1160
6	2580	3020	3490	e960	18800	22200	4910	9010	11200	2710	1360	e1130
7	2990	3050	3330	e940	19800	23000	5070	8330	8230	2540	1410	e1100
8	3380	3080	3220	e935	23500	23800	4980	7750	6090	2240	1410	e1090
9	5860	2950	3110	e930	26100	21900	5070	7110	5380	2120	1420	1080
10	6430	3450	3250	e925	27000	18800	5210	6570	4890	2030	1430	1100
11	5840	4450	3280	e920	26300	15900	5730	6230	4840	1970	1410	1070
12	e5150	7170	3120	e930	24300	13900	8010	5840	4860	1860	1330	1060
13	e4380	7890	3100	e950	e23300	11900	8700	6030	4870	1890	1500	1160
14	e3840	6950	3160	e980	22300	10200	8220	6530	5790	1780	2190	1340
15	e3300	6020	3200	e1080	19900	9060	7770	6810	6560	1760	1980	1390
16	e3000	5210	3050	e1290	18300	8600	10900	6850	5920	1720	1780	1710
17	e2910	4400	2990	e1700	16200	9580	20900	6550	5300	1690	1620	1820
18	e3050	4230	3140	e2400	14800	14500	26600	5740	4700	1720	1520	1870
19	e3020	3920	2800	e3500	13900	19400	29000	5730	4120	1950	1360	1870
20	e3110	3770	3050	e5200	12600	19300	26700	5460	3760	1750	1430	1920
21	e3000	3710	2980	e8000	10400	18000	22500	5250	3500	1770	1430	1960
22	e3100	3520	e3000	e15000	9500	15900	20600	5540	3310	2320	1360	1900
23	2900	3520	e3150	e23000	9030	12500	18200	6120	3240	2010	1330	1810
24	2970	3410	2720	44700	8590	9580	20300	6290	3090	1940	1390	1760
25	2780	3280	2850	62800	7040	7910	24500	7330	3160	1780	1310	1750
26	2880	3410	3000	60700	5990	7250	25000	9240	3250	1640	1360	1760
27	2820	3640	3110	48300	5840	6570	22300	8390	3050	1590	1400	1750
28	2750	3550	3220	36600	8390	6400	20800	7070	3050	1490	1620	1800
29	3080	3470	3310	30700	---	6270	22400	6060	2980	1550	1530	2000
30	3090	3420	e3260	27500	---	5890	22900	5570	3100	1580	1390	2720
31	3130	---	e3040	24900	---	5500	---	5000	---	1500	1400	---
TOTAL	102930	119510	97760	411900	477180	444310	423260	241530	171520	63410	46060	45960
MEAN	3320	3984	3154	13290	17040	14330	14110	7791	5717	2045	1486	1532
MAX	6430	7890	3500	62800	27000	23800	29000	19600	14300	2980	2190	2720
MIN	2140	2910	2720	920	5840	5500	4910	5000	2980	1490	1310	1060
CFSM	.40	.48	.38	1.62	2.07	1.74	1.72	.95	.70	.25	.18	.19
IN.	.47	.54	.44	1.86	2.16	2.01	1.92	1.09	.78	.29	.21	.21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1999, BY WATER YEAR (WY)

MEAN	3387	4915	7262	9272	10860	13420	13240	9941	8365	5466	3533	2943
MAX	14370	23930	22080	49700	34450	34840	28470	43540	36010	19840	13470	11960
(WY)	1991	1993	1968	1950	1959	1982	1957	1943	1958	1998	1998	1989
MIN	738	919	810	896	1357	1915	3536	1814	1542	1212	640	545
(WY)	1965	1965	1964	1977	1963	1941	1941	1941	1988	1988	1941	1941

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1940 - 1999	
ANNUAL TOTAL	4196460		2645330			
ANNUAL MEAN	11500		7247		7697	
HIGHEST ANNUAL MEAN					14980	1950
LOWEST ANNUAL MEAN					1862	1941
HIGHEST DAILY MEAN	48200	Jun 15	62800	Jan 25	143000	May 20 1943
LOWEST DAILY MEAN	2140	Oct 3	920	Jan 11	487	Sep 29 1941
ANNUAL SEVEN-DAY MINIMUM	2260	Sep 28	933	Jan 7	497	Sep 24 1941
INSTANTANEOUS PEAK FLOW			66900	Jan 25	147000	May 20 1943
INSTANTANEOUS PEAK STAGE			26.26	Jan 25	32.44	May 20 1943
ANNUAL RUNOFF (CFSM)	1.40		.88		.94	
ANNUAL RUNOFF (INCHES)	19.00		11.97		12.73	
10 PERCENT EXCEEDS	25700		20700		18600	
50 PERCENT EXCEEDS	7170		3410		4470	
90 PERCENT EXCEEDS	2990		1380		1450	

e Estimated

03339280 PRAIRIE CREEK NEAR LEBANON, IN

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

DRAINAGE AREA.--33.2 mi².

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 for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	8.6	e13	e4.5	59	121	18	45	72	7.0	2.0	.98
2	1.1	9.7	e11	e5.0	70	80	16	38	210	6.9	1.8	.94
3	2.9	16	e11	e6.8	62	74	16	33	93	5.6	1.4	.86
4	3.8	10	e9.6	e5.8	49	56	17	30	54	4.9	1.4	.52
5	2.8	8.8	e8.2	e5.2	38	47	16	27	39	4.2	4.6	.67
6	19	8.9	e14	e4.8	39	138	24	30	29	4.6	1.7	.67
7	109	7.5	e19	e4.7	545	83	17	24	24	5.1	1.7	.35
8	23	7.8	e12	e4.6	329	60	16	21	21	3.7	4.3	.34
9	12	8.8	e9.0	e4.4	156	55	19	18	19	3.6	1.8	.28
10	11	88	e7.6	e4.1	98	42	16	17	17	3.4	1.4	e.25
11	8.5	53	e7.0	e4.7	78	36	15	17	15	3.2	1.3	e.20
12	7.5	24	e6.5	e5.6	113	35	14	16	18	3.4	1.8	e.20
13	7.7	16	e6.4	e53	69	34	13	194	40	2.7	15	e.80
14	6.5	e9.4	e7.8	e17	53	31	13	222	23	2.7	4.8	e.58
15	6.1	e7.1	e8.7	e16	48	29	35	94	16	2.6	2.5	e.45
16	5.6	e6.0	e5.8	e14	44	50	92	59	13	2.8	1.6	e.40
17	5.6	e5.2	e5.1	e90	40	111	118	44	11	3.4	1.2	e.35
18	20	e5.0	e5.3	405	34	69	78	78	10	21	1.6	e.32
19	11	e6.0	e5.5	159	30	49	58	61	9.6	7.3	1.6	e.30
20	7.2	e6.8	e5.7	112	26	41	45	41	10	6.9	1.5	e.35
21	6.0	e5.4	e25	209	23	37	148	34	9.8	5.8	1.3	e.30
22	4.6	e4.8	e42	1450	21	30	104	43	8.8	4.5	1.0	e.27
23	5.8	e4.6	e10	655	21	26	67	35	8.6	2.9	1.2	e.25
24	6.7	e4.5	e8.2	241	20	25	46	56	16	4.2	1.3	e.23
25	6.8	e15	e6.8	146	20	22	39	35	11	2.6	1.2	e.22
26	5.3	20	e5.9	98	18	21	35	26	8.7	2.4	.95	e.21
27	4.9	9.8	e5.3	81	63	21	63	21	8.0	2.2	3.7	e.20
28	9.3	7.8	e5.2	64	271	18	122	19	8.9	12	1.7	e.30
29	9.1	7.2	e5.1	51	---	17	88	17	13	5.2	1.1	e20
30	26	15	e5.0	43	---	16	58	17	7.8	3.1	.84	5.4
31	10	---	e4.7	41	---	16	---	30	---	2.6	1.0	---
TOTAL	365.8	406.7	301.4	4005.2	2437	1490	1426	1442	844.2	152.5	70.29	37.19
MEAN	11.8	13.6	9.72	129	87.0	48.1	47.5	46.5	28.1	4.92	2.27	1.24
MAX	109	88	42	1450	545	138	148	222	210	21	15	20
MIN	1.0	4.5	4.7	4.1	18	16	13	16	7.8	2.2	.84	.20
CFSM	.36	.41	.29	3.89	2.62	1.45	1.43	1.40	.85	.15	.07	.04
IN.	.41	.46	.34	4.49	2.73	1.67	1.60	1.62	.95	.17	.08	.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1999, BY WATER YEAR (WY)

MEAN	9.91	40.8	28.8	47.0	45.6	58.3	59.3	66.0	42.1	30.6	8.23	20.7
MAX	25.8	205	158	129	139	109	96.7	248	158	95.6	34.8	139
(WY)	1993	1993	1991	1993	1990	1990	1989	1996	1998	1989	1989	1989
MIN	1.59	2.37	3.84	10.9	7.18	19.2	21.9	6.45	4.34	3.08	2.27	1.24
(WY)	1998	1998	1998	1998	1998	1994	1997	1988	1988	1991	1999	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1988 - 1999	
ANNUAL TOTAL	15420.29		12978.28			
ANNUAL MEAN	42.2		35.6		38.0	
HIGHEST ANNUAL MEAN					63.0	1993
LOWEST ANNUAL MEAN					19.3	1988
HIGHEST DAILY MEAN	984	Jun 12	1450	Jan 22	1900	Dec 30 1990
LOWEST DAILY MEAN	.83	Sep 30	.20	Sep 11	.20	Sep 11 1999
ANNUAL SEVEN-DAY MINIMUM	.90	Sep 24	.24	Sep 21	.24	Sep 21 1999
INSTANTANEOUS PEAK FLOW			1920	Jan 22	2710	Mar 11 1990
INSTANTANEOUS PEAK STAGE			11.92	Jan 22	13.99	Mar 11 1990
ANNUAL RUNOFF (CFSM)	1.27		1.07		1.14	
ANNUAL RUNOFF (INCHES)	17.28		14.54		15.56	
10 PERCENT EXCEEDS	96		78		75	
50 PERCENT EXCEEDS	11		11		14	
90 PERCENT EXCEEDS	3.1		1.2		2.7	

e Estimated

03339500 SUGAR CREEK AT CRAWFORDSVILLE, IN

LOCATION.--Lat 40°02'56", long 86°53'58", in SW¼NW¼ sec.32, T.19 N., R.4 W., Montgomery County, Hydrologic Unit 05120110, on left bank 327 ft upstream from Crawfordsville Electric Light and Power Co.'s dam at Crawfordsville, 700 ft upstream from bridge on U.S. Highway 231, 1.0 mi downstream from Walnut Fork Sugar Creek, and at mile 40.4.

DRAINAGE AREA.--509 mi^2.

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

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

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

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 17.3 ft from information by local resident, discharge, about 36,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	94	116	e51	825	1330	238	661	378	118	17	13
2	19	76	134	e51	1020	938	235	540	1410	104	13	12
3	19	65	127	e50	1020	835	221	461	1590	87	14	e12
4	22	62	118	s49	843	738	227	411	958	80	13	e11
5	25	54	110	e48	626	591	208	379	692	70	25	e11
6	34	49	102	e47	578	1210	212	354	522	62	17	e10
7	163	46	168	e46	3550	1300	214	318	417	52	16	11
8	281	45	279	e45	5560	883	197	275	357	53	15	13
9	143	44	223	e44	2450	781	209	249	313	41	13	13
10	86	163	169	e44	1570	613	214	224	277	39	14	12
11	61	1100	142	e43	1220	472	186	208	254	38	13	12
12	48	641	127	e56	1520	419	173	199	234	33	15	12
13	39	362	118	e77	1210	402	158	422	707	30	26	12
14	34	259	111	e70	872	388	154	1650	524	29	28	12
15	31	204	101	e79	748	365	226	967	350	24	27	12
16	29	164	93	e89	666	428	840	643	267	24	20	12
17	27	137	90	e129	592	1330	1590	493	227	32	17	12
18	33	118	88	e274	515	1140	1330	597	198	70	15	13
19	41	104	86	e957	458	791	1020	719	181	69	13	13
20	43	94	81	e853	406	617	798	512	167	65	12	13
21	35	88	88	e645	353	554	1160	414	163	69	12	12
22	32	79	94	13100	314	471	1580	778	149	44	13	13
23	30	73	92	13100	300	401	1020	706	138	33	13	13
24	29	71	115	5950	296	363	714	556	160	25	18	14
25	29	78	106	2580	285	322	561	459	212	21	17	14
26	29	117	105	1880	263	287	498	349	188	20	15	13
27	29	136	108	1530	275	272	501	284	150	19	16	12
28	30	125	99	1250	1320	261	1250	242	134	23	16	13
29	29	110	93	1000	---	251	1330	217	133	33	15	28
30	66	103	53	833	---	233	885	198	133	32	14	39
31	132	---	e52	736	---	224	---	207	---	20	13	---
TOTAL	1667	4861	3588	45706	29655	19210	18149	14692	11583	1459	505	412
MEAN	53.8	162	116	1474	1059	620	605	474	386	47.1	16.3	13.7
MAX	281	1100	279	13100	5560	1330	1590	1650	1590	118	28	39
MIN	19	44	52	43	263	224	154	198	133	19	12	10
CFSM	.11	.32	.23	2.90	2.08	1.22	1.19	.93	.76	.09	.03	.03
IN.	.12	.36	.26	3.34	2.17	1.40	1.33	1.07	.85	.11	.04	.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1999, BY WATER YEAR (WY)

MEAN	147	347	483	631	718	895	869	678	586	315	165	157
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	23.5	17.0	17.1	68.4	79.2	148	74.9	32.5	16.6	8.42	4.80
(WY)	1964	1998	1964	1977	1964	1941	1976	1941	1988	1988	1941	1941

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1939 - 1999	
ANNUAL TOTAL	215639		151487			
ANNUAL MEAN	591		415		498	
HIGHEST ANNUAL MEAN					1086	1950
LOWEST ANNUAL MEAN					65.0	1941
HIGHEST DAILY MEAN	16600	Jun 12	13100	Jan 22	20100	Jun 29 1957
LOWEST DAILY MEAN	19	Sep 30	10	Sep 6	2.4	Sep 24 1941
ANNUAL SEVEN-DAY MINIMUM	20	Sep 27	11	Sep 1	2.7	Sep 21 1941
INSTANTANEOUS PEAK FLOW			14900	Jan 22	26300	Jun 28 1957
INSTANTANEOUS PEAK STAGE			10.93	Jan 22	14.48	Jun 28 1957
ANNUAL RUNOFF (CFSM)	1.16		.82		.98	
ANNUAL RUNOFF (INCHES)	15.76		11.07		13.28	
10 PERCENT EXCEEDS	1420		962		1170	
50 PERCENT EXCEEDS	122		132		179	
90 PERCENT EXCEEDS	29		14		28	

e Estimated

03340500 WABASH RIVER AT MONTEZUMA, IN

LOCATION.--Lat 39°47'33", long 87°22'26", in SE¼NE¼ sec.35, T.16 N., R.9 W., Parke County, Hydrologic Unit 05120108, on left bank 20 ft upstream from bridge on U.S. Highway 36 at Montezuma, 2.0 mi upstream from Big Raccoon Creek, 4.9 mi downstream from Sugar Creek, and at mile 240.0.

DRAINAGE AREA.--11,118 mi^2.

PERIOD OF RECORD.--October 1927 to current year. July 1924 to September 1927 (gage height only) in reports of State of Indiana, Department of Natural Resources.

REVISED RECORDS.--WSP 1335: 1929, 1931(M). WSP 1505: 1954. WSP 1915: 1954(m). WSP 2109: Drainage area. WDR IN-74-1: 1973.

GAGE.--Water-stage recorder. Datum of gage is 457.75 ft above sea level (levels by U.S. Army Corps of Engineers). Oct. 1, 1927, to July 12, 1950, nonrecording gage on downstream side of bridge located 50 ft upstream of present bridge and at same datum. July 12, 1950 to July 27, 1988, recording gage in downstream side of first pier from left bank at same datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow partially regulated by upstream reservoirs.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 27, 1913, reached a stage of 34.0 ft, from floodmarks, discharge, 230,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2470	3720	4080	2250	31800	18400	7740	24300	6990	4250	1930	1630
2	2410	3610	4160	1330	29900	22100	7670	21100	11200	4090	1810	1490
3	2280	3590	4120	1040	28600	23000	7440	17900	18700	4180	1950	1500
4	2340	3570	3930	e1020	27300	24700	7280	15500	20200	4210	1860	1390
5	2700	3620	3860	e1000	25900	25700	7180	13800	19000	3960	1860	1410
6	2930	3610	3840	e1000	24400	26400	7260	12800	17200	3850	1860	1240
7	4000	3500	4310	e995	28600	27500	7110	12000	14400	3630	1740	1180
8	4320	3560	4250	e990	41400	27600	7060	11600	10600	3440	1800	1140
9	5380	3340	4020	e990	41300	27200	7100	10500	8610	3020	1770	1110
10	7060	4090	3900	e985	38300	25500	7560	9500	7720	2850	1760	1120
11	6840	7380	3910	e980	35600	22300	7620	8880	7040	2460	1760	1130
12	6160	9170	3700	e990	33900	19800	9570	8280	7740	2380	1730	1100
13	5480	10600	3630	e1000	31600	18000	11300	8520	7270	2180	1770	1120
14	4550	9390	3580	e1040	29200	16100	10900	11200	9080	2210	2210	1200
15	3930	8120	3600	e1170	27000	14600	10500	12700	10900	2070	3050	1380
16	3360	7160	3530	e1460	24900	13700	15400	11300	9410	2050	2480	1530
17	3150	5990	3470	e2220	23100	14200	27400	10500	8110	2010	2210	1890
18	3140	5420	3360	e3600	21300	17500	32100	9310	7090	2340	1990	2030
19	3330	5070	3370	e5500	19900	20900	35400	8850	6270	2490	1800	2100
20	3400	4660	3180	e8800	18600	22000	35400	8560	5650	3340	1620	2110
21	3130	4540	3410	e14400	16700	21300	33200	7940	5220	2940	1690	2180
22	3130	4310	3380	34800	14700	20000	30600	8470	4960	2830	1680	2150
23	3180	4160	3340	53200	13800	17500	27400	10400	4760	2970	1610	2100
24	3010	4010	3150	60500	13200	14400	24500	10200	4580	2620	1600	1980
25	2960	4020	2940	66400	12200	11900	25200	10200	4620	2480	1700	1920
26	2930	4020	3040	71500	10400	10500	26500	11300	4880	2270	1600	1950
27	2910	4280	3340	69500	9820	9690	26400	11800	4720	2220	1690	1930
28	2930	4340	3460	60900	12600	9030	24800	10200	4600	2220	1790	1920
29	3010	4230	3700	50900	---	8930	24600	8790	4590	2110	1990	2060
30	3530	4180	3500	42000	---	8550	25200	7890	4340	2220	1790	2550
31	3820	---	3210	35400	---	7950	---	7330	---	2120	1670	---
TOTAL	113770	151260	112270	597860	686020	566950	537390	351620	260450	88010	57770	49540
MEAN	3670	5042	3622	19290	24500	18290	17910	11340	8682	2839	1864	1651
MAX	7060	10600	4310	71500	41400	27600	35400	24300	20200	4250	3050	2550
MIN	2280	3340	2940	980	9820	7950	7060	7330	4340	2010	1600	1100
CFSM	.33	.45	.33	1.73	2.20	1.64	1.61	1.02	.78	.26	.17	.15
IN.	.38	.51	.38	2.00	2.30	1.90	1.80	1.18	.87	.29	.19	.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1999, BY WATER YEAR (WY)

MEAN	4175	6211	9419	12770	14230	17430	17600	13910	10780	7361	4478	3609
MAX	16990	36840	40350	66690	40610	49690	37650	58400	42730	25110	18840	17800
(WY)	1991	1993	1928	1950	1959	1982	1938	1943	1958	1993	1958	1989
MIN	973	1202	1041	1107	1789	2370	4941	2082	1357	1210	815	710
(WY)	1964	1965	1964	1977	1931	1941	1931	1934	1934	1934	1941	1941

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1928 - 1999	
ANNUAL TOTAL	5588840		3572910			
ANNUAL MEAN	15310		9789		10140	
HIGHEST ANNUAL MEAN					20290	1950
LOWEST ANNUAL MEAN					2506	1931
HIGHEST DAILY MEAN	81900	Jun 16	71500	Jan 26	182000	May 20 1943
LOWEST DAILY MEAN	2280	Oct 3	980	Jan 11	571	Sep 24 1941
ANNUAL SEVEN-DAY MINIMUM	2470	Sep 29	990	Jan 6	600	Sep 23 1941
INSTANTANEOUS PEAK FLOW			73100	Jan 26	184000	May 20 1943
INSTANTANEOUS PEAK STAGE			26.30	Jan 26	32.83	May 20 1943
ANNUAL RUNOFF (CFSM)	1.38		.88		.91	
ANNUAL RUNOFF (INCHES)	18.70		11.95		12.39	
10 PERCENT EXCEEDS	32400		26100		25000	
50 PERCENT EXCEEDS	9230		4310		5720	
90 PERCENT EXCEEDS	3300		1680		1720	

e Estimated

03340800 BIG RACCOON CREEK NEAR FINCASTLE, IN

LOCATION.--Lat 39°48'45", long 86°57'14", in NW¼SW¼ sec.22, T.16 N., R.5 W., Putnam County, Hydrologic Unit 05120108, on left bank at downstream side of county road bridge, 1.6 mi upstream from Ramp Creek, 3.1 mi west of Fincastle, and at mile 48.8.

DRAINAGE AREA.--139 mi^2.

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

REVISED RECORDS.--WSP 1909: 1958. WSP 2109: Drainage area. WDR IN-79-1: 1978.

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

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 28, 1957, reached a stage of 19.10 ft discharge, 39,900 ft^3/s, from slope-area measurement.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	13	29	e21	249	374	80	130	81	26	7.5	1.5
2	4.4	13	31	e21	298	249	77	115	524	22	6.6	1.5
3	3.9	16	30	e20	276	218	75	104	359	21	6.2	1.3
4	4.1	23	30	e20	226	185	77	96	185	18	5.2	1.3
5	4.3	21	28	e20	182	161	72	93	132	16	4.6	1.1
6	5.7	22	27	e20	178	523	79	91	100	14	4.3	1.2
7	21	20	46	e20	1830	356	75	85	81	13	4.0	1.3
8	35	19	75	e19	1670	224	71	76	71	15	3.9	1.4
9	28	18	55	e19	552	202	74	72	64	13	3.9	1.2
10	18	46	42	e19	347	162	72	67	57	12	3.4	1.1
11	13	175	38	e19	267	139	66	64	54	11	3.2	1.1
12	10	89	35	e21	390	134	64	62	51	9.7	3.2	1.1
13	9.0	57	33	e45	265	142	59	94	239	9.1	6.8	1.5
14	8.0	45	30	e140	201	138	58	173	111	8.5	5.1	1.5
15	7.6	39	27	e120	179	129	74	129	72	7.7	3.9	1.5
16	7.7	35	26	e70	164	155	268	102	56	7.6	3.6	1.2
17	8.1	31	24	e56	151	293	564	90	48	8.3	3.2	1.1
18	11	27	24	e800	138	220	339	198	43	30	2.9	1.1
19	13	23	23	e600	128	165	233	225	39	25	2.9	1.4
20	11	22	23	421	119	143	182	144	37	24	2.6	1.5
21	13	21	25	771	108	136	314	116	35	37	e2.5	1.4
22	12	21	37	5090	100	122	335	332	33	29	e2.4	1.4
23	11	21	e35	3150	98	111	213	225	31	18	e2.3	1.5
24	11	19	e34	828	99	105	157	184	33	14	e2.3	1.5
25	11	21	e33	497	96	97	135	150	30	12	e2.2	1.5
26	11	28	e32	356	91	91	126	119	35	10	e2.1	1.6
27	11	36	32	296	184	87	124	99	32	9.5	e2.0	1.7
28	12	34	28	248	773	86	156	88	27	9.5	e2.0	2.0
29	11	31	28	208	---	82	195	80	27	9.3	e1.9	5.3
30	12	29	e26	184	---	78	156	74	33	8.7	1.9	4.8
31	13	---	e23	175	---	76	---	73	---	7.9	1.6	---
TOTAL	355.3	1015	1009	14294	9359	5383	4570	3750	2720	475.8	110.2	48.6
MEAN	11.5	33.8	32.5	461	334	174	152	121	90.7	15.3	3.55	1.62
MAX	35	175	75	5090	1830	523	564	332	524	37	7.5	5.3
MIN	3.9	13	23	19	91	76	58	62	27	7.6	1.6	1.1
CFSM	.08	.24	.23	3.32	2.40	1.25	1.10	.87	.65	.11	.03	.01
IN.	.10	.27	.27	3.83	2.50	1.44	1.22	1.00	.73	.13	.03	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1999, BY WATER YEAR (WY)

MEAN	48.1	130	184	172	203	261	224	183	126	93.4	47.3	40.6
MAX	312	844	913	616	694	683	730	811	614	430	268	545
(WY)	1970	1993	1991	1974	1985	1978	1964	1996	1998	1979	1979	1989
MIN	2.14	2.58	3.91	4.69	14.8	28.6	43.5	19.5	11.1	4.83	2.75	1.62
(WY)	1998	1998	1998	1977	1998	1981	1976	1976	1988	1991	1991	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1958 - 1999	
ANNUAL TOTAL	52339.5		43089.9			
ANNUAL MEAN	143		118		142	
HIGHEST ANNUAL MEAN					292	1974
LOWEST ANNUAL MEAN					38.5	1966
HIGHEST DAILY MEAN	3780	Jun 15	5090	Jan 22	12200	Dec 30 1990
LOWEST DAILY MEAN	3.8	Jan 1	1.1	Sep 5	1.0	Oct 11 1988
ANNUAL SEVEN-DAY MINIMUM	4.4	Sep 29	1.2	Sep 5	1.1	Oct 6 1988
INSTANTANEOUS PEAK FLOW			6880	Jan 22	16000	Dec 30 1990
INSTANTANEOUS PEAK STAGE			14.26	Jan 22	16.10	Dec 30 1990
ANNUAL RUNOFF (CFSM)	1.03		.85		1.02	
ANNUAL RUNOFF (INCHES)	14.01		11.53		13.92	
10 PERCENT EXCEEDS	337		235		298	
50 PERCENT EXCEEDS	34		33		53	
90 PERCENT EXCEEDS	10		2.3		6.5	

e Estimated

03340900 BIG RACCOON CREEK AT FERNDALE, IN

LOCATION.--Lat 39°42'40", long 87°04'15", in $SE^1/_4SE^1/_4$ 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 mi^2.

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

REVISED RECORDS.--WSP 2109: Drainage area. WDR IN-94-1: 1992; 1993: Average discharge.

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

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.--43 years, 229 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,500 ft^3/s June 28, 1957, gage height 19.87 ft, from rating curve extended above 5,000 ft^3/s on basis of records for station at Big Raccoon Creek at Mansfield; minimum daily, 2.7 ft^3/s Oct. 11, 1956; no flow, Aug. 23, 24, 1977, July 26, 1986, Mar. 11, 12, 18, 19, 1987, due to regulation.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,560 ft^3/s, Feb 20; minimum daily 17.0 ft^3/s, Oct. 1-9, 11-16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	799	32	31	87	622	66	28	159	43	28	28
2	17	791	32	32	87	744	23	28	121	29	28	28
3	17	782	32	32	87	973	23	28	203	29	28	28
4	17	773	43	79	87	1080	23	28	521	29	28	28
5	17	763	54	80	414	1070	23	28	639	29	28	28
6	17	752	53	42	746	1060	23	28	637	29	28	28
7	17	742	54	31	278	1060	24	28	371	29	28	28
8	17	731	81	31	91	1050	24	28	159	29	28	28
9	17	719	107	32	92	1040	24	28	130	29	28	28
10	186	708	107	32	92	1040	24	28	82	29	28	28
11	17	698	88	32	92	1020	24	28	82	29	28	28
12	17	688	53	32	93	1010	24	28	82	28	28	28
13	17	312	53	32	93	1000	24	28	83	28	28	28
14	17	85	53	110	93	990	24	28	189	28	28	28
15	17	85	53	320	308	977	24	28	245	28	28	28
16	17	58	53	433	747	659	24	28	245	28	28	28
17	356	31	53	304	1280	276	25	28	163	28	28	28
18	503	42	39	78	1470	214	26	28	82	29	28	28
19	501	53	31	119	1520	139	26	28	44	29	28	28
20	499	53	31	172	1560	139	26	28	28	109	28	28
21	496	53	32	139	1540	139	26	28	29	160	28	28
22	494	37	43	72	1520	86	27	29	29	131	28	28
23	491	31	54	81	1500	23	27	29	29	82	28	28
24	488	31	54	84	1490	82	27	115	29	44	28	28
25	486	31	54	84	1470	140	27	225	29	28	28	28
26	483	32	54	85	1450	140	27	321	56	28	28	28
27	481	70	69	85	988	140	27	320	83	29	28	28
28	540	85	85	86	688	140	27	319	82	29	28	28
29	794	85	85	86	---	140	27	253	82	29	28	28
30	817	58	67	86	---	124	28	159	82	28	28	28
31	808	---	41	86	---	108	---	159	---	28	28	---
TOTAL	8678	10178	1740	3028	19963	17425	794	2517	4795	1284	868	840
MEAN	280	339	56.1	97.7	713	562	26.5	81.2	160	41.4	28.0	28.0
MAX	817	799	107	433	1560	1080	66	321	639	160	28	28
MIN	17	31	31	31	87	23	23	28	28	28	28	28

CAL YR 1998 TOTAL 77964 MEAN 214 MAX 1330 MIN 17
WTR YR 1999 TOTAL 72110 MEAN 198 MAX 1560 MIN 17

03341300 BIG RACCOON CREEK AT COXVILLE, IN

LOCATION.--Lat 39°39'09", long 87°17'37", in $SW^1/_4 SW^1/_4$ sec.15, T.14 N., R.8 W., Parke County, Hydrologic Unit 05120108, on right bank at downstream side of covered bridge on county road at Coxville, 0.8 mi upstream from Rock Run, 1.5 mi downstream from Little Raccoon Creek, 2.1 mi northwest of Rosedale, and at mile 13.1.

DRAINAGE AREA.--448 mi^2.

PERIOD OF RECORD.--October 1956 to September 1988 (discharge). October 1988 to September 1992 (gage height only). October 1992 to current year (discharge). Prior to October 1963, published as Raccoon Creek at Coxville.

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

GAGE.--Water-stage recorder. Datum of gage is 494.00 ft above sea level (Indiana Flood Control and Water Resources Commission bench mark).

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated by Cecil M. Harden Lake.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	813	117	111	683	1250	251	261	332	163	74	46
2	44	818	111	203	645	1090	205	245	1780	323	71	45
3	44	849	107	293	573	1260	191	231	865	160	68	45
4	44	845	103	267	467	1420	210	218	777	129	65	45
5	45	825	117	e230	421	1400	196	220	1050	111	64	44
6	69	814	121	e200	882	1780	210	234	934	102	62	43
7	145	799	154	e170	3650	1600	202	221	821	95	61	43
8	111	789	182	e160	2960	1490	185	201	455	90	60	42
9	75	776	193	e150	1360	1480	182	191	383	87	58	42
10	100	1020	188	e145	944	1440	172	181	310	85	57	42
11	121	1120	182	e140	734	1450	163	170	274	81	56	42
12	63	919	151	e155	1100	1460	155	164	407	79	56	42
13	57	754	133	e240	735	1490	150	200	346	77	65	43
14	53	324	129	e350	578	1420	145	244	293	74	67	42
15	52	260	124	e560	522	1340	178	214	344	73	60	41
16	50	229	122	888	865	1260	520	195	343	70	58	41
17	90	182	120	712	1350	690	1460	184	320	72	56	41
18	442	152	118	2420	1830	600	871	197	218	368	55	44
19	482	151	101	1180	1850	460	601	192	200	121	55	44
20	484	148	95	898	1940	420	468	169	151	1320	54	44
21	488	140	101	1440	1920	398	1370	162	142	616	53	42
22	490	134	126	5910	1890	373	903	403	136	414	52	41
23	492	116	135	4240	1870	290	590	367	128	250	51	42
24	493	107	146	2070	1840	259	449	348	182	185	51	42
25	497	109	145	1420	1830	311	378	353	244	126	53	43
26	502	139	126	1020	1800	312	345	425	166	105	51	42
27	501	128	123	797	1750	303	330	434	165	100	50	40
28	509	153	136	661	1930	297	375	422	170	102	49	40
29	697	153	141	511	---	291	328	412	182	97	48	53
30	815	151	132	424	---	284	285	294	165	85	47	49
31	816	---	e125	402	---	255	---	286	---	79	46	---
TOTAL	8914	13917	4104	28367	38919	28173	12068	8038	12283	5839	1773	1295
MEAN	288	464	132	915	1390	909	402	259	409	188	57.2	43.2
MAX	816	1120	193	5910	3650	1780	1460	434	1780	1320	74	53
MIN	43	107	95	111	421	255	145	162	128	70	46	40
CFSM	.64	1.04	.30	2.04	3.10	2.03	.90	.58	.91	.42	.13	.10
IN.	.74	1.16	.34	2.36	3.23	2.34	1.00	.67	1.02	.48	.15	.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1999, BY WATER YEAR (WY)

MEAN	320	558	640	577	637	670	663	599	526	353	235	215
MAX	994	1684	2070	1572	1648	1493	1648	2370	3613	1001	1062	1542
(WY)	1990	1994	1968	1974	1969	1985	1957	1996	1957	1981	1958	1989
MIN	17.5	44.3	48.2	25.9	72.8	145	137	107	64.2	59.4	34.4	34.6
(WY)	1957	1957	1964	1977	1998	1981	1995	1976	1988	1988	1966	1966

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1957 - 1999	
ANNUAL TOTAL	157046		163690			
ANNUAL MEAN	430		448		497	
HIGHEST ANNUAL MEAN					914	1974
LOWEST ANNUAL MEAN					160	1966
HIGHEST DAILY MEAN	5460	Jun 15	5910	Jan 22	51400	Jun 28 1957
LOWEST DAILY MEAN	43	Oct 1	40	Sep 27	6.5	Oct 10 1956
ANNUAL SEVEN-DAY MINIMUM	44	Sep 28	41	Sep 22	8.8	Oct 7 1956
INSTANTANEOUS PEAK FLOW			6890	Jan 22	108000	Jun 28 1957
INSTANTANEOUS PEAK STAGE			14.40	Jan 22	21.23	Jun 28 1957
ANNUAL RUNOFF (CFSM)	.96		1.00		1.11	
ANNUAL RUNOFF (INCHES)	13.04		13.59		15.06	
10 PERCENT EXCEEDS	1010		1330		1180	
50 PERCENT EXCEEDS	235		195		266	
90 PERCENT EXCEEDS	57		49		67	

e Estimated

03341500 WABASH RIVER AT TERRE HAUTE, IN

LOCATION.--Lat 39°28'33", long 87°25'07", in NE$^1/_4$NW$^1/_4$ sec.21, T.12 N., R.9 W., Vigo County, Hydrologic Unit 05120111, on left bank at Indiana America Water Company, Inc., 1st and Elm Streets in Terre Haute, 3.0 mi upstream from Sugar Creek, and 3.6 mi downstream from Lost Creek and at mile 215.

DRAINAGE AREA.--12,263 mi^2.

PERIOD OF RECORD.--August 1902 to December 1903 (gage height only), February 1905 to July 1906, October 1927 to current year. Gage-height records collected at site 100 ft downstream June 1891 to June 1897 and since December 1904 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 205: 1905. WSP 1335: 1944. WDR IN-73-1: Drainage area. WDR IN-84-1: 1983. WDR IN-86 1: 1913 (Gage height).

GAGE.--Water-stage recorder. Datum of gage is 445.78 ft above sea level. Prior to Oct. 17, 1984, water-stage recorder at Wabash Avenue bridge 3,400 ft downstream at datum 2.88 ft lower. See WSP 1725 for history of changes prior to Oct. 27, 1928.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow partially regulated by upstream reservoirs.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 27, 1913, reached a stage of about 31.2 ft, present site and datum, discharge, 245,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2890	4890	4690	3500	39500	18400	8840	26600	8240	4790	2390	1780
2	2880	4720	4660	2480	36000	23000	8760	24400	14200	4610	2220	1650
3	2740	4900	4670	1760	33400	24400	8570	20900	19800	4520	2200	1600
4	2700	4970	4530	1690	31800	25700	8480	18000	22400	4480	2240	1560
5	2910	4810	4410	e1630	30300	26900	8300	15900	22200	4260	2090	1510
6	3680	4880	4350	e1620	28600	28200	8450	14700	20200	4080	2110	1460
7	4360	4750	4680	e1620	30800	29100	8350	13700	17500	3840	2040	1320
8	5020	4660	4970	e1610	41700	29400	8120	13100	13800	3590	2000	1230
9	5100	4660	4870	e1600	46100	29500	8050	12200	10900	3350	2000	1170
10	7070	5320	4620	e1600	43600	28900	8330	11100	9460	3110	1990	1150
11	7620	8280	4570	e1600	40700	26700	8560	10200	8520	2910	1980	1150
12	7080	9890	4500	e1610	39200	23500	9290	9590	8610	2790	1970	1150
13	6480	11300	4270	e1640	37000	21200	11700	9330	8740	2660	1990	1130
14	5640	11000	4190	e1720	34000	19100	12000	10800	9170	2550	2110	1140
15	4830	9540	4180	e1920	31800	17200	11600	13500	11300	2480	2740	1310
16	4260	8380	4190	e2400	29700	15800	14000	12800	11000	2390	2910	1390
17	3780	7300	4070	e3500	27700	15300	25300	11800	9520	2380	2460	1670
18	3830	6280	3980	e5000	25500	17400	30500	10900	8380	2640	2220	1890
19	4130	5870	3990	e8000	23600	20900	33100	9940	7430	2820	2070	1980
20	4290	5470	3790	e11500	22000	23000	35400	9710	6630	4350	1910	2010
21	4160	5170	3930	e16000	20200	23000	36500	9140	6060	4570	1850	2030
22	4080	5010	4000	32400	17900	22000	36000	9090	5630	3510	1890	2100
23	4110	4740	3930	50800	16500	19900	32800	10700	5310	3540	1830	2060
24	4010	4640	3930	60300	15600	16900	29400	11500	5470	3380	1790	1960
25	3990	4540	3630	61800	14800	14000	27500	11100	5340	3120	1800	1880
26	3850	4600	3580	66500	13100	12200	27800	11600	5290	2840	1800	1840
27	3910	4740	3820	70200	12100	11300	28400	12800	5370	2740	1760	1860
28	3860	4920	4000	66900	15500	10500	27800	11900	5100	2680	1810	1860
29	3880	4860	4160	59600	---	10100	26700	10400	5170	2550	1940	2100
30	4360	4720	4190	51100	---	9900	26700	9210	4890	2490	1990	2240
31	4880	---	4010	44100	---	9300	---	8550	---	2520	1810	---
TOTAL	136380	179810	131360	637700	798700	622700	575300	395160	301630	102540	63910	49180
MEAN	4399	5994	4237	20570	28520	20090	19180	12750	10050	3308	2062	1639
MAX	7620	11300	4970	70200	46100	29500	36500	26600	22400	4790	2910	2240
MIN	2700	4540	3580	1600	12100	9300	8050	8550	4890	2380	1760	1130
CFSM	.36	.49	.35	1.68	2.33	1.64	1.56	1.04	.82	.27	.17	.13
IN.	.41	.55	.40	1.93	2.42	1.89	1.75	1.20	.91	.31	.19	.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1999, BY WATER YEAR (WY)

MEAN	4636	6778	10300	14010	15630	18950	19270	15600	12000	8199	5049	4040
MAX	18880	40220	44490	77540	47990	51250	41940	64810	44130	27840	21330	21440
(WY)	1991	1993	1928	1950	1950	1982	1938	1943	1958	1957	1958	1989
MIN	1103	1405	1145	1216	1998	2645	5250	2405	1492	1292	1002	966
(WY)	1957	1954	1964	1977	1963	1941	1931	1934	1934	1936	1941	1941

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1928 - 1999	
ANNUAL TOTAL	6024730		3994370			
ANNUAL MEAN	16510		10940		11180	
HIGHEST ANNUAL MEAN					22800	1950
LOWEST ANNUAL MEAN					2864	1931
HIGHEST DAILY MEAN	83300	Jun 17	70200	Jan 27	186000	May 20 1943
LOWEST DAILY MEAN	2700	Oct 4	1130	Sep 13	701	Aug 3 1934
ANNUAL SEVEN-DAY MINIMUM	2880	Sep 29	1160	Sep 8	732	Sep 24 1941
INSTANTANEOUS PEAK FLOW			71000	Jan 27	189000	May 20 1943
INSTANTANEOUS PEAK STAGE			22.42	Jan 27	30.50	May 20 1943
ANNUAL RUNOFF (CFSM)	1.35		.89		.91	
ANNUAL RUNOFF (INCHES)	18.28		12.12		12.39	
10 PERCENT EXCEEDS	34000		28700		27600	
50 PERCENT EXCEEDS	10100		5000		6460	
90 PERCENT EXCEEDS	3990		1840		1980	

e Estimated

03342000 WABASH RIVER AT RIVERTON, IN

LOCATION.--Lat 39°01'13", long 87°34'07", in NE¼SW¼ sec.30, T.7 N., R.10 W., Sullivan County, Hydrologic Unit 05120111, on left bank at downstream side of Illinois Central Railroad bridge at Riverton, 0.5 mi downstream from Turtle Creek, and at mile 162.0.

DRAINAGE AREA.--13,161 mi^2.

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.--Records fair except for estimated daily discharges, which are poor. 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 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3740	5310	5170	4220	63500	18200	9890	28200	9690	6010	2960	2200
2	3580	5370	5100	3870	57200	20600	9520	27600	18700	5980	2850	2120
3	3610	6270	5080	2990	51200	23500	9470	25900	25900	5720	2690	2050
4	3480	6370	5090	2200	46500	24600	10200	22700	24900	5560	2620	1970
5	3430	5800	4980	e2170	42300	25400	9890	19500	25500	5490	2620	1940
6	4230	5470	4860	e2150	38800	27100	10100	18300	24400	5260	2510	1880
7	5840	5390	4990	e2140	41400	28200	10200	16800	21800	5110	2490	1840
8	6590	5230	5340	e2130	46500	28700	9490	15000	18400	4840	2440	1780
9	6040	5150	5440	e2120	46700	29900	10300	14000	14600	4590	2380	1730
10	6130	5500	5270	e2120	47500	30900	9850	13000	12100	4440	2380	1670
11	7630	8050	5020	e2120	48800	30900	9840	11900	10600	4220	2360	1620
12	7940	9270	4940	e2130	49300	29500	9670	11000	10100	3910	e2350	1570
13	7460	10300	4840	e2200	48400	26800	10500	11000	9960	3730	e2340	1540
14	6910	11300	4640	e2300	46500	24000	12200	12400	10800	3570	e2330	1510
15	6160	10700	4540	e2500	44000	21100	12500	12900	11700	3450	e2400	1480
16	5490	9520	4510	e3000	41300	18600	12900	14200	12200	3350	e3060	1450
17	4970	8510	4500	e4500	38200	17000	18200	13300	11400	3240	3250	1440
18	4590	7530	4380	e6000	34600	16700	25500	12500	10100	3370	2910	1910
19	4680	6720	4270	e9000	31000	18800	27600	11500	9030	3550	2690	2150
20	4880	6330	4290	e13000	27800	21600	29100	10700	8180	3650	2540	2260
21	4960	5920	4190	e19000	25300	23100	31600	10400	7470	5090	2420	2300
22	4790	5630	4420	33100	22600	23200	34500	11100	6940	5220	2300	2310
23	4680	5430	4430	43800	19900	22200	37100	10900	6560	4240	2280	2350
24	4680	5200	4300	48500	18200	20100	37800	11800	7360	4150	2270	2320
25	4570	5090	4220	53300	17000	17100	36000	12000	8060	4000	2190	2240
26	4520	5140	3950	59600	15800	14500	33100	11700	6750	3680	2170	2160
27	4420	5170	3890	66200	14100	12900	31000	12300	6610	3540	2170	2130
28	4440	5240	4070	71900	16100	11900	30900	12900	6440	3450	2140	2150
29	4410	5350	4240	74700	---	11100	30600	12000	6340	3210	2150	2220
30	4460	5280	4350	73100	---	10800	29100	10700	6240	3060	2190	2350
31	4880	---	4390	68400	---	10400	---	9760	---	2970	2300	---
TOTAL	158190	197540	143700	684460	1040500	659400	598620	447960	368830	131650	76750	58640
MEAN	5103	6585	4635	22080	37160	21270	19950	14450	12290	4247	2476	1955
MAX	7940	11300	5440	74700	63500	30900	37800	28200	25900	6010	3250	2350
MIN	3430	5090	3890	2120	14100	10400	9470	9760	6240	2970	2140	1440
CFSM	.39	.50	.35	1.68	2.82	1.62	1.52	1.10	.93	.32	.19	.15
IN.	.45	.56	.41	1.93	2.94	1.86	1.69	1.27	1.04	.37	.22	.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1999, BY WATER YEAR (WY)

MEAN	4902	7377	10910	14110	17200	21150	21360	17430	13950	9218	5856	4583
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	2058	2763	6363	3435	2601	1968	1215	1261
(WY)	1957	1954	1964	1977	1963	1941	1941	1941	1977	1988	1941	1940

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1940 - 1999	
ANNUAL TOTAL	6696560		4566240			
ANNUAL MEAN	18350		12510		12310	
HIGHEST ANNUAL MEAN					24340	1950
LOWEST ANNUAL MEAN					3206	1941
HIGHEST DAILY MEAN	90100	Jun 20	74700	Jan 29	200000	May 21 1943
LOWEST DAILY MEAN	3430	Oct 5	1440	Sep 17	858	Sep 27 1941
ANNUAL SEVEN-DAY MINIMUM	3690	Sep 29	1520	Sep 11	870	Sep 25 1941
INSTANTANEOUS PEAK FLOW			75100	Jan 29	201000	May 21 1943
INSTANTANEOUS PEAK STAGE			21.89	Jan 29	29.36	May 21 1943
ANNUAL RUNOFF (CFSM)	1.39		.95		.94	
ANNUAL RUNOFF (INCHES)	18.93		12.91		12.70	
10 PERCENT EXCEEDS	39400		30900		30000	
50 PERCENT EXCEEDS	10700		6040		7240	
90 PERCENT EXCEEDS	4510		2200		2200	

e Estimated

03342100 BUSSERON CREEK NEAR HYMERA, IN

LOCATION.--Lat 39°12'54", long 87°18'41", in NW¼NW¼ sec.21, T.9 N., R.8 W., Sullivan County, Hydrologic Unit 05120111, on right bank at downstream side of bridge on County Road 900 North, 1.3 mi upstream from East Fork Busseron Creek, 1.9 mi northwest of Hymera, 4.1 mi upstream from West Fork Busseron Creek, and at mile 30.3.

DRAINAGE AREA.--16.7 mi^2.

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

REVISED RECORDS.--WDR IN-72-1: 1971. 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 daily discharges below 0.3 ft^3/s and 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.59	1.1	2.3	e2.0	112	19	3.7	8.7	7.3	4.8	.23	.00
2	.64	1.2	2.1	e2.5	65	16	3.5	7.8	547	3.5	.17	.00
3	.73	47	2.0	e13	43	14	7.2	7.0	120	3.0	.14	.00
4	.72	17	1.8	e10	31	12	11	6.4	58	3.0	.14	.00
5	.93	13	1.7	e8.0	24	11	6.8	7.4	49	2.8	.11	.00
6	7.4	9.5	1.8	e7.2	19	99	41	10	37	2.9	.08	.00
7	73	7.1	6.7	e6.0	500	34	15	7.3	26	3.4	.08	.00
8	27	5.4	3.9	e5.6	151	23	11	6.3	17	3.1	.12	.00
9	19	4.3	3.0	e5.0	62	48	69	5.6	12	3.5	.04	.00
10	14	14	2.6	e4.8	47	42	43	5.1	9.8	3.7	.06	.00
11	11	10	2.2	e4.7	39	25	31	4.7	18	3.0	.07	.00
12	10	7.2	2.0	e7.0	50	20	22	4.5	13	2.5	.19	.00
13	8.4	5.5	1.9	e54	28	17	16	8.4	20	2.1	1.2	.00
14	6.9	4.7	1.6	e48	22	14	12	7.1	68	1.7	.42	.00
15	5.0	3.9	1.5	e44	19	11	15	5.9	32	1.4	.22	.00
16	4.0	3.1	3.0	e41	17	11	26	5.4	24	1.3	.16	.00
17	3.5	2.7	5.4	e64	16	11	56	5.1	18	4.1	.15	.00
18	14	2.3	3.2	e140	14	8.6	55	5.9	14	16	.12	.00
19	9.7	4.6	2.2	e68	12	7.2	43	4.8	11	6.2	.15	.00
20	7.1	9.2	1.7	e64	12	6.5	33	4.1	9.4	3.5	.10	.00
21	5.2	5.7	6.4	248	11	5.8	84	26	8.3	2.5	.01	.00
22	4.2	3.2	14	918	10	5.1	42	59	7.3	1.7	.00	.00
23	3.4	2.0	11	e290	9.9	4.9	28	17	6.7	1.3	.00	.00
24	2.8	1.5	6.1	e85	9.6	4.8	19	13	8.0	1.2	.02	.00
25	2.4	3.0	e5.4	e55	9.4	4.5	15	9.9	6.8	.86	.00	.00
26	2.0	5.0	e4.0	45	8.9	4.2	13	8.0	5.6	.70	.00	.00
27	1.8	3.6	e3.0	36	21	4.0	15	6.7	5.2	1.1	.00	.00
28	1.6	3.1	e2.6	27	32	3.9	19	5.8	4.9	.62	.00	.00
29	1.5	2.7	e2.3	20	---	3.8	13	5.1	4.8	.49	.00	.00
30	1.4	2.6	e2.2	16	---	3.5	10	4.8	4.7	.36	.00	.00
31	1.4	---	e2.1	78	---	3.5	---	4.9	---	.27	.00	---
TOTAL	251.31	205.2	111.7	2416.8	1394.8	497.3	778.2	287.7	1172.8	86.60	3.98	0.00
MEAN	8.11	6.84	3.60	78.0	49.8	16.0	25.9	9.28	39.1	2.79	.13	.000
MAX	73	47	14	918	500	99	84	59	547	16	1.2	.00
MIN	.59	1.1	1.5	2.0	8.9	3.5	3.5	4.1	4.7	.27	.00	.00
CFSM	.49	.41	.22	4.67	2.98	.96	1.55	.56	2.34	.17	.01	.00
IN.	.56	.46	.25	5.38	3.11	1.11	1.73	.64	2.61	.19	.01	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1999, BY WATER YEAR (WY)

MEAN	3.04	16.0	23.5	25.2	27.3	34.2	34.2	23.5	12.0	11.9	5.03	7.05
MAX	18.8	79.0	96.8	105	67.4	112	74.9	86.2	43.0	79.3	25.4	60.9
(WY)	1994	1994	1983	1969	1971	1973	1992	1981	1998	1973	1979	1989
MIN	.020	.058	.026	.006	1.63	7.23	1.48	1.23	.22	.17	.065	.000
(WY)	1988	1972	1977	1977	1978	1969	1971	1976	1977	1972	1983	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1967 - 1999	
ANNUAL TOTAL	6198.74		7206.39			
ANNUAL MEAN	17.0		19.7		18.5	
HIGHEST ANNUAL MEAN					36.1	1973
LOWEST ANNUAL MEAN					6.93	1977
HIGHEST DAILY MEAN	446	Jun 19	918	Jan 22	918	Jan 22 1999
LOWEST DAILY MEAN	.12	Jan 1	.00	Aug 22	.00	Oct 12 1966
ANNUAL SEVEN-DAY MINIMUM	.33	Sep 24	.00	Aug 25	.00	Oct 23 1966
INSTANTANEOUS PEAK FLOW			1570	Jan 22	1890	Sep 12 1974
INSTANTANEOUS PEAK STAGE			18.55	Jan 22	19.16	Jul 8 1982
ANNUAL RUNOFF (CFSM)	1.02		1.18		1.11	
ANNUAL RUNOFF (INCHES)	13.81		16.05		15.07	
10 PERCENT EXCEEDS	40		43		45	
50 PERCENT EXCEEDS	5.7		5.4		3.8	
90 PERCENT EXCEEDS	1.2		.00		.10	

e Estimated

03342500 BUSSERON CREEK NEAR CARLISLE, IN

LOCATION.--Lat 38°58'27", long 87°25'33", in NW¼ survey 17, Vincennes Tract, Sullivan County, Hydrologic Unit 05120111, on left bank 10 ft downstream from bridge on State Highway 58, 1.5 mi northwest of Carlisle, and 6.7 mi upstream from mouth.

DRAINAGE AREA.--228 mi^2.

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

REVISED RECORDS.--WSP 1335: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 425.36 ft above 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 fair except for estimated daily discharges, which are poor. Flow affected by U.S. Soil Conservation Service floodwater-retarding structures and surface-mined areas.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	32	48	e31	1500	299	69	163	83	109	20	6.8
2	23	35	46	e30	1460	211	68	133	1510	196	18	6.9
3	24	196	43	e50	1180	186	118	113	1590	111	16	6.8
4	25	290	41	80	727	157	386	102	1610	86	15	6.6
5	26	103	39	70	492	138	271	112	1630	71	14	6.4
6	30	73	37	e58	402	930	815	291	1160	61	14	6.6
7	386	58	57	e55	2200	898	572	229	499	57	13	6.3
8	381	47	67	e53	2460	446	323	145	345	53	13	5.8
9	150	42	56	e51	2690	781	477	117	275	49	13	5.5
10	101	195	44	e49	2510	971	547	99	212	77	16	6.1
11	74	265	39	e47	1660	576	339	86	174	65	14	5.7
12	55	134	37	e52	1330	391	265	78	280	49	15	6.0
13	42	86	36	e300	922	314	197	465	282	42	47	5.8
14	37	71	33	773	592	267	167	293	952	36	28	5.4
15	33	62	30	634	466	218	245	186	379	33	21	5.5
16	31	55	29	359	380	183	395	137	214	30	15	5.5
17	31	50	29	506	330	175	426	112	149	30	13	5.4
18	64	45	30	1610	278	156	479	142	114	129	11	5.4
19	130	42	31	1300	236	135	343	116	94	83	11	5.6
20	87	45	29	e1000	201	124	282	91	82	48	11	6.0
21	53	73	45	1240	173	120	307	80	74	39	12	e5.8
22	44	55	275	e3400	153	109	411	1140	71	33	11	e5.7
23	40	44	134	e4300	144	100	271	825	66	29	10	e5.7
24	37	37	97	e4600	136	94	200	401	153	29	9.6	e5.6
25	36	40	77	e3950	127	88	154	271	132	27	8.8	e5.6
26	33	98	60	e2870	119	80	149	197	206	23	8.4	e5.5
27	32	76	47	1890	132	77	181	149	275	22	8.2	e5.5
28	30	60	e42	1290	383	74	436	123	104	26	8.2	e5.4
29	30	52	e37	921	---	72	340	100	102	26	8.1	e5.4
30	33	48	e34	793	---	68	217	84	83	24	7.5	8.9
31	32	---	e33	896	---	66	---	77	---	22	6.8	---
TOTAL	2153	2509	1682	33258	23383	8504	9450	6657	12900	1715	436.6	179.2
MEAN	69.5	83.6	54.3	1073	835	274	315	215	430	55.3	14.1	5.97
MAX	386	290	275	4600	2690	971	815	1140	1630	196	47	8.9
MIN	23	32	29	30	119	66	68	77	66	22	6.8	5.4
CFSM	.30	.37	.24	4.71	3.66	1.20	1.38	.94	1.89	.24	.06	.03
IN.	.35	.41	.27	5.43	3.82	1.39	1.54	1.09	2.10	.28	.07	.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1999, BY WATER YEAR (WY)

MEAN	46.1	170	253	329	366	451	435	335	185	108	55.4	69.1
MAX	263	1250	1421	2380	1317	1284	1102	1268	988	1101	633	701
(WY)	1950	1994	1983	1950	1950	1978	1945	1996	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1944 - 1999	
ANNUAL TOTAL	80396		102826.8			
ANNUAL MEAN	220		282		233	
HIGHEST ANNUAL MEAN					548	1950
LOWEST ANNUAL MEAN					10.8	1954
HIGHEST DAILY MEAN	2280	May 1	4600	Jan 24	8500	Jan 5 1950
LOWEST DAILY MEAN	10	Jan 1	5.4	Sep 14	.00	Jul 12 1954
ANNUAL SEVEN-DAY MINIMUM	12	Sep 11	5.5	Sep 13	.00	Jul 12 1954
INSTANTANEOUS PEAK FLOW			4590	Jan 24	8800	Jan 5 1950
INSTANTANEOUS PEAK STAGE			16.99	Jan 24	20.30	May 9 1961
ANNUAL RUNOFF (CFSM)	.97		1.24		1.02	
ANNUAL RUNOFF (INCHES)	13.12		16.78		13.87	
10 PERCENT EXCEEDS	613		786		644	
50 PERCENT EXCEEDS	76		77		56	
90 PERCENT EXCEEDS	22		8.9		5.6	

e Estimated

03343000 WABASH RIVER AT VINCENNES, IN

LOCATION.--Lat 38°42'19", long 87°31'14", T.3 N., R.10 W., Lawrence County, IL, Hydrologic Unit 05120111, on right bank 30 ft east of Illinois State Highway 33, 300 ft upstream from Kelso Creek, 570 ft downstream from U.S. Highway 50 bridge, 5.1 mi downstream from Maria Creek, 7.5 mi upstream from Embarras River and at mile 129.6.

DRAINAGE AREA.--13,706 mi^2.

PERIOD OF RECORD.--October 1929 to September 1994 (discharge), October 1994 to current year (stage-only). Prior to December 1929 monthly discharge only, published in WSP 1305. Gage-height records for flood peaks in 1867 and 1883, intermittent records 1887-1904, and continuous since November 1904, collected at site 1.8 mi downstream, are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 1173: 1943 (maximum gage height only). WSP 1335: 1930-31, 1933, 1936. WSP 1909: 1955. WDR IN-73-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 394.43 ft above sea level. Oct. 1, 1968, to June 19, 1979, recording gage at site 570 ft upstream at same datum. Oct. 1, 1960, to September 30, 1968, nonrecording gage at site 1.8 mi downstream at same datum. Oct. 1, 1960, to Sept. 30, 1968, auxiliary water-stage recorder at site 2.8 mi upstream from base gage at datum 0.80 ft lower. See WSP 1725 for history of changes prior to Oct. 1, 1960.

REMARKS.--Flow partially regulated by upstream reservoirs.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 29, 1913, reached a stage of 26.3 ft, at former site 1.8 mi downstream and at present datum, from floodmarks, determined by U.S. Army Corps of Engineers, discharge, 255,000 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 29.33 ft, May 22, 1943; minimum gage height unknown prior to 1988, since 1998 minimum gage height, 3.92 ft, Sept. 4, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 24.09 ft, Jan. 29, 30; minimum gage height, 4.07 ft, Sept. 15, 16.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.94	5.76	5.65	5.04	23.03	11.97	8.09	15.43	8.02	---	4.71	4.36
2	4.92	5.80	5.62	5.00	22.23	12.54	7.92	14.92	13.40	---	4.66	4.32
3	4.90	6.37	5.61	4.69	21.30	13.31	8.24	14.36	14.77	---	4.59	4.30
4	4.87	6.43	5.56	5.57	20.38	13.56	8.90	13.18	15.00	---	4.55	4.26
5	4.85	6.08	5.56	5.77	19.37	13.94	8.63	12.12	15.15	---	4.55	4.25
6	5.34	5.91	5.55	5.14	18.49	15.13	9.23	12.01	14.84	---	4.50	4.22
7	6.68	5.87	5.53	5.07	19.44	15.38	8.82	11.32	14.02	5.93	4.48	4.20
8	6.60	5.78	5.69	5.22	20.06	15.35	8.19	10.46	12.88	5.76	4.47	4.17
9	6.15	5.73	5.73	5.45	20.34	16.17	8.62	9.97	11.16	6.23	4.43	4.14
10	6.12	6.01	5.63	5.70	20.69	16.33	8.54	9.49	9.52	5.96	4.44	4.11
11	6.79	7.23	5.53	5.70	21.15	16.15	8.35	8.95	8.73	5.53	4.41	4.11
12	7.03	7.76	5.48	5.96	21.18	15.80	8.09	8.64	8.40	5.32	4.43	4.10
13	6.75	8.08	5.41	6.33	20.76	15.03	8.44	8.77	8.64	5.20	4.61	4.09
14	6.51	8.46	5.33	6.06	20.24	13.95	9.06	9.18	9.14	5.12	4.48	4.08
15	6.20	8.23	5.29	5.89	19.72	12.77	9.31	9.35	9.15	5.04	4.46	4.08
16	5.91	7.75	5.24	5.87	19.05	12.14	9.45	9.78	9.15	4.98	4.62	4.10
17	5.67	7.29	5.19	6.78	18.30	11.39	11.38	9.65	8.78	4.92	4.80	4.16
18	5.51	6.86	5.18	10.29	17.56	11.00	13.57	9.19	8.24	5.00	4.66	4.21
19	5.48	6.51	5.16	12.40	16.75	11.69	14.40	8.74	7.70	5.07	4.55	4.33
20	5.55	6.32	5.14	12.92	15.84	12.51	14.95	8.41	7.30	5.18	4.49	4.38
21	5.58	6.07	5.41	13.53	14.85	12.97	15.49	8.46	6.95	5.76	4.42	4.40
22	5.55	5.88	5.44	17.37	13.87	13.07	16.01	9.35	6.69	5.89	4.37	4.41
23	5.49	5.80	5.29	19.37	12.78	12.89	16.44	8.85	6.55	5.38	4.37	4.43
24	5.43	5.60	---	20.94	12.01	12.19	16.73	9.03	7.17	5.36	4.38	4.43
25	5.36	5.69	5.10	22.34	11.35	11.14	16.80	8.98	7.49	5.25	4.34	4.40
26	5.37	5.75	5.01	22.87	10.76	10.02	16.51	8.89	6.98	5.11	4.33	4.37
27	5.32	5.72	4.93	23.39	10.82	9.36	16.10	9.09	7.06	4.99	4.34	4.36
28	5.33	5.73	5.01	23.84	11.35	8.95	16.30	9.30	7.38	4.97	4.32	4.36
29	5.32	5.76	5.09	24.09	---	8.62	16.35	8.91	6.86	4.86	4.33	4.39
30	5.31	5.70	5.17	23.95	---	8.48	16.08	8.40	---	4.79	4.35	4.45
31	5.51	---	5.17	23.65	---	8.33	---	8.00	---	4.73	4.41	---
MEAN	5.69	6.40	---	11.81	17.63	12.65	11.83	10.04	---	---	4.48	4.27
MAX	7.03	8.46	---	24.09	23.03	16.33	16.80	15.43	---	---	4.80	4.45
MIN	4.85	5.60	---	4.69	10.76	8.33	7.92	8.00	---	---	4.32	4.08

03347000 WHITE RIVER AT MUNCIE, IN

LOCATION.--Lat 40°12'15", long 85°23'14", in NW¼NW¼, sec.10, T.20 N., R.10 E., Delaware County, Hydrologic Unit 05120201, on right bank 200 ft downstream from Walnut Street bridge in Muncie, 6 mi upstream from Bell Creek, and at mile 315.8.

DRAINAGE AREA.--241 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 917.10 ft above 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 poor. Natural flow affected by regulation of Prairie Creek Reservoir and by diversion of municipal water supply by Muncie Water Works Co. above gage. Records of diversion available since October 1937.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 22.6 ft in March 1913, present datum, discharge, 20,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	81	48	e30	257	963	109	218	88	83	29	13
2	20	60	44	e33	305	594	108	200	258	134	23	11
3	50	52	39	e39	338	503	112	185	330	122	20	22
4	61	53	36	e50	290	403	122	170	204	64	17	24
5	44	54	35	e48	237	323	109	157	148	48	22	24
6	36	53	35	e47	217	726	105	169	114	61	21	23
7	116	50	44	e47	806	855	99	159	91	62	20	21
8	73	45	59	e46	2050	469	91	124	77	48	25	22
9	49	46	53	e43	965	368	113	109	71	37	24	22
10	39	103	45	e36	564	307	161	92	67	31	23	20
11	39	258	42	e33	428	250	150	85	69	30	19	21
12	33	149	39	e38	713	224	116	92	101	28	18	22
13	30	89	36	e60	673	209	92	149	66	23	28	19
14	29	64	34	e80	410	197	85	138	78	21	22	19
15	30	54	32	e54	329	188	128	106	116	20	23	19
16	31	46	30	e60	296	209	326	92	70	19	21	16
17	28	38	30	e150	280	515	897	87	55	31	18	17
18	36	38	31	e400	263	470	814	366	47	70	17	18
19	34	35	30	e940	236	322	535	379	43	53	19	18
20	39	27	29	e700	213	257	380	228	41	44	18	16
21	32	27	43	e580	192	232	918	170	40	40	17	16
22	29	27	225	3720	172	209	1130	152	34	32	18	17
23	29	26	219	4520	159	188	660	156	32	44	15	17
24	32	24	134	2530	153	170	464	200	33	41	16	17
25	34	33	92	1010	150	151	343	194	35	29	19	20
26	34	47	93	668	144	135	284	137	40	69	19	17
27	36	65	78	527	197	126	262	104	76	28	20	16
28	42	53	63	430	1250	121	429	86	97	31	18	15
29	44	46	57	349	---	114	325	77	145	36	16	34
30	93	46	43	292	---	108	248	70	125	28	15	22
31	145	---	e34	258	---	105	---	88	---	24	13	---
TOTAL	1388	1789	1852	17818	12287	10011	9715	4739	2791	1431	613	578
MEAN	44.8	59.6	59.7	575	439	323	324	153	93.0	46.2	19.8	19.3
MAX	145	258	225	4520	2050	963	1130	379	330	134	29	34
MIN	20	24	29	30	144	105	85	70	32	19	13	11
CFSM	.19	.25	.25	2.38	1.82	1.34	1.34	.63	.39	.19	.08	.08
IN.	.21	.28	.29	2.75	1.90	1.55	1.50	.73	.43	.22	.09	.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1999, BY WATER YEAR (WY)

MEAN	55.1	146	221	304	339	414	402	262	220	120	68.6	56.0
MAX	409	1068	1119	1654	1122	963	1476	1239	1492	750	816	825
(WY)	1987	1994	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1932 - 1999	
ANNUAL TOTAL	91101		65012			
ANNUAL MEAN	250		178		217	
HIGHEST ANNUAL MEAN					421	1950
LOWEST ANNUAL MEAN					42.1	1941
HIGHEST DAILY MEAN	4570	Apr 10	4520	Jan 23	11600	Apr 21 1964
LOWEST DAILY MEAN	18	Sep 15	11	Sep 2	1.1	Sep 16 1954
ANNUAL SEVEN-DAY MINIMUM	21	Sep 9	15	Aug 27	1.2	Sep 21 1954
INSTANTANEOUS PEAK FLOW			5000	Jan 23	14300	Apr 21 1964
INSTANTANEOUS PEAK STAGE			9.63	Jan 23	21.07	Jan 15 1937
ANNUAL RUNOFF (CFSM)	1.04		.74		.90	
ANNUAL RUNOFF (INCHES)	14.06		10.04		12.21	
10 PERCENT EXCEEDS	594		401		482	
50 PERCENT EXCEEDS	86		61		75	
90 PERCENT EXCEEDS	29		20		12	

e Estimated

03347500 BUCK CREEK NEAR MUNCIE, IN

LOCATION.--Lat 40°08'05", long 85°22'25", in SW¼SE¼ sec.34, T.20 N., R.10 E., Delaware County, Hydrologic Unit 05120201, on left bank at downstream side of bridge on County Road 400 South, 1.0 mi upstream from Muncie Water Works Co. pumping station, 4.2 mi southeast of court house in Muncie, and at mile 10.6.

DRAINAGE AREA.--35.5 mi^2.

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

REVISED RECORDS.--WSP 1909: 1955, 1957. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 944.67 ft above sea level. Prior to May 5, 1955, nonrecording gage at same site and datum.

REMARKS.--Records poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 15 ft, from information by local residents. Date unknown.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	28	22	e17	44	114	33	44	26	22	13	8.3
2	13	27	21	e21	50	77	31	41	38	22	12	8.2
3	25	30	20	e28	47	70	37	42	31	20	12	8.1
4	21	29	20	e23	41	59	40	41	27	18	12	8.1
5	17	27	19	e22	36	53	34	40	25	18	12	8.0
6	17	27	19	e22	35	120	34	42	24	20	12	8.3
7	38	25	26	e21	276	82	32	39	22	19	12	8.9
8	25	25	23	e21	184	63	31	38	22	18	15	8.1
9	18	25	20	e20	101	59	36	37	21	17	12	8.6
10	17	60	18	e20	75	52	37	36	21	17	12	9.9
11	16	67	17	e19	64	48	35	35	21	16	12	10
12	17	40	17	e19	104	45	32	59	33	16	11	10
13	19	34	17	e72	72	43	30	64	26	15	13	11
14	21	31	16	e45	59	43	30	49	27	14	12	9.8
15	22	28	15	e35	55	41	38	38	23	15	11	10
16	22	26	15	e27	52	49	67	34	21	15	11	9.3
17	25	24	15	e29	51	69	137	32	20	22	10	8.8
18	33	23	15	e300	47	55	103	53	20	21	9.6	9.2
19	27	23	15	e180	43	47	69	44	19	17	11	9.4
20	23	23	15	e100	40	44	54	35	19	17	10	10
21	23	22	24	256	39	42	181	31	18	16	9.7	11
22	23	22	59	651	37	39	102	32	18	15	9.3	12
23	23	22	30	341	37	38	76	34	17	15	9.2	12
24	22	22	24	155	36	37	60	49	19	14	9.6	10
25	22	23	21	95	36	35	52	36	18	14	9.7	9.6
26	21	33	e19	74	35	34	49	33	18	14	9.4	9.7
27	22	27	e18	62	72	33	48	30	23	16	9.2	11
28	24	25	e18	53	248	33	80	28	23	15	9.0	11
29	24	24	e17	46	---	33	57	27	34	15	8.6	18
30	49	23	e17	41	---	32	48	26	22	14	8.6	16
31	34	---	e17	39	---	31	---	28	---	13	8.7	---
TOTAL	716	865	629	2854	2016	1620	1693	1197	696	520	335.6	302.3
MEAN	23.1	28.8	20.3	92.1	72.0	52.3	56.4	38.6	23.2	16.8	10.8	10.1
MAX	49	67	59	651	276	120	181	64	38	22	15	18
MIN	13	22	15	17	35	31	30	26	17	13	8.6	8.0
CFSM	.65	.81	.57	2.59	2.03	1.47	1.59	1.09	.65	.47	.30	.28
IN.	.75	.91	.66	2.99	2.11	1.70	1.77	1.25	.73	.54	.35	.32

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1999, BY WATER YEAR (WY)

MEAN	20.6	32.0	37.6	42.2	50.4	57.4	56.8	44.5	42.7	30.0	22.9	18.3
MAX	58.6	146	109	96.2	123	117	166	101	153	97.9	108	76.4
(WY)	1991	1994	1991	1959	1971	1982	1964	1996	1958	1992	1979	1989
MIN	8.73	9.30	8.77	6.36	11.2	16.4	16.7	17.2	11.3	8.64	9.00	8.13
(WY)	1964	1964	1965	1977	1964	1966	1966	1988	1988	1966	1965	1963

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1955 - 1999	
ANNUAL TOTAL	16064		13443.9			
ANNUAL MEAN	44.0		36.8		37.9	
HIGHEST ANNUAL MEAN					57.3	1991
LOWEST ANNUAL MEAN					15.4	1966
HIGHEST DAILY MEAN	576	Jun 15	651	Jan 22	1260	Apr 21 1964
LOWEST DAILY MEAN	10	Feb 8	8.0	Sep 5	4.7	Jan 17 1977
ANNUAL SEVEN-DAY MINIMUM	11	Feb 4	8.2	Aug 31	5.5	Jan 15 1977
INSTANTANEOUS PEAK FLOW			860	Jan 22	1780	Apr 21 1964
INSTANTANEOUS PEAK STAGE			9.98	Jan 22	13.96	Apr 21 1964
ANNUAL RUNOFF (CFSM)	1.24		1.04		1.07	
ANNUAL RUNOFF (INCHES)	16.83		14.09		14.49	
10 PERCENT EXCEEDS	82		62		66	
50 PERCENT EXCEEDS	24		24		24	
90 PERCENT EXCEEDS	14		11		12	

e Estimated

03348350 PIPE CREEK AT FRANKTON, IN

LOCATION.--Lat 40°13'38", long 85°45'58", in SE$^1/_4$NE$^1/_4$ sec.31, T.21 N., R.7 E., Madison County, Hydrologic Unit 05120201, on right bank 20 ft downstream from bridge on County Road 500 West, at northeast edge of Frankton.

DRAINAGE AREA.--113 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 810.00 ft above sea level.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 10, 1958, reached a stage of 15.5 ft, from floodmark determined by State of Indiana, Department of Natural Resources, discharge, 4,900 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	29	27	e19	171	791	54	132	50	22	12	3.7
2	10	25	27	e18	230	386	53	107	322	23	8.8	3.6
3	12	25	26	e18	204	372	52	90	387	21	8.1	3.3
4	15	26	25	e17	158	261	51	80	170	19	7.3	3.2
5	14	28	23	e16	120	189	48	74	108	17	7.7	3.0
6	14	26	22	e16	111	305	48	73	79	16	7.0	3.0
7	36	25	31	e15	376	292	45	66	65	16	6.7	3.0
8	44	24	41	e15	857	190	44	59	57	15	7.9	3.0
9	30	23	34	e14	409	159	67	55	95	14	7.1	2.9
10	22	32	28	e14	241	129	85	51	601	13	6.5	3.1
11	19	72	25	e14	183	108	69	49	246	13	6.2	3.1
12	17	52	23	e15	270	95	57	48	120	12	5.8	3.3
13	15	36	22	e16	205	88	50	58	82	12	9.4	4.0
14	14	31	21	e15	144	84	48	78	71	11	8.7	3.9
15	15	28	20	e14	124	79	73	65	53	11	7.3	4.1
16	14	25	19	e15	114	95	330	55	43	11	6.3	4.1
17	14	23	19	e35	107	374	596	52	38	10	5.7	3.4
18	15	22	18	e100	97	380	463	65	34	10	5.4	3.2
19	18	20	18	e400	89	196	267	62	31	10	5.4	3.0
20	16	20	17	e180	82	144	186	52	29	13	5.2	3.0
21	16	19	19	e150	75	121	440	48	28	17	5.0	2.7
22	17	18	52	2130	68	99	578	48	26	11	4.7	2.3
23	16	18	e43	2970	65	84	303	46	24	15	4.5	2.1
24	16	18	e35	1580	63	77	213	48	24	12	5.2	2.5
25	16	18	e31	974	62	69	155	46	24	9.9	6.0	2.4
26	16	29	e28	587	59	64	125	41	22	9.2	5.6	2.2
27	16	32	27	381	113	60	123	38	25	9.8	5.4	2.0
28	19	28	25	288	1240	58	460	35	27	10	4.7	2.1
29	19	25	24	221	---	55	339	34	29	10	4.4	6.4
30	32	24	e22	179	---	53	185	33	23	8.8	4.0	5.3
31	33	---	e20	150	---	51	---	35	---	7.7	3.8	---
TOTAL	579.9	821	812	10576	6037	5508	5607	1823	2933	409.4	197.8	96.9
MEAN	18.7	27.4	26.2	341	216	178	187	58.8	97.8	13.2	6.38	3.23
MAX	44	72	52	2970	1240	791	596	132	601	23	12	6.4
MIN	9.9	18	17	14	59	51	44	33	22	7.7	3.8	2.0
CFSM	.17	.24	.23	3.02	1.91	1.57	1.65	.52	.87	.12	.06	.03
IN.	.19	.27	.27	3.48	1.99	1.81	1.85	.60	.97	.13	.07	.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1999, BY WATER YEAR (WY)

MEAN	30.9	93.8	128	133	161	201	170	99.6	128	73.5	47.8	40.8
MAX	176	519	482	409	416	544	467	276	409	526	250	529
(WY)	1991	1993	1991	1974	1990	1982	1972	1996	1980	1992	1998	1989
MIN	5.70	6.71	7.31	5.29	16.5	42.4	33.3	19.1	10.3	7.94	4.97	3.23
(WY)	1989	1998	1977	1977	1995	1981	1971	1976	1988	1977	1988	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1969 - 1999	
ANNUAL TOTAL	51099.2		35401.0			
ANNUAL MEAN	140		97.0		109	
HIGHEST ANNUAL MEAN					180	1973
LOWEST ANNUAL MEAN					32.7	1977
HIGHEST DAILY MEAN	1880	Jun 12	2970	Jan 23	3840	Jul 14 1992
LOWEST DAILY MEAN	9.1	Jan 2	2.0	Sep 27	2.0	Sep 27 1999
ANNUAL SEVEN-DAY MINIMUM	10	Sep 26	2.2	Sep 22	2.2	Sep 22 1999
INSTANTANEOUS PEAK FLOW			3420	Jan 22	5630	Jul 13 1992
INSTANTANEOUS PEAK STAGE			12.74	Jan 22	15.00	Jul 13 1992
ANNUAL RUNOFF (CFSM)	1.24		.86		.96	
ANNUAL RUNOFF (INCHES)	16.82		11.65		13.06	
10 PERCENT EXCEEDS	315		225		253	
50 PERCENT EXCEEDS	36		27		40	
90 PERCENT EXCEEDS	15		5.2		9.0	

e Estimated

03349000 WHITE RIVER AT NOBLESVILLE, IN

LOCATION.--Lat 40°02'50", long 86°01'00", in SE¼SE¼ sec.36, T.19 N., R.4 E., Hamilton County, Hydrologic Unit 05120201, on right bank at downstream side of Logan Street bridge in Noblesville, 1.5 mi upstream from Cicero Creek, 5.1 mi downstream from dam at Clare, and at mile 263.5.

DRAINAGE AREA.--858 mi^2.

PERIOD OF RECORD.--October 1946 to current year. Gage-height records collected at present site from December 1913 to December 1935, and at site 400 ft downstream January 1936 to May 1951, are contained in reports of National Weather Service. Prior to October 1948, published as West Fork White River at Noblesville.

REVISED RECORDS.--WSP 1335: 1949. WSP 2109: Drainage area. WDR IN-94-1: 1993 (M).

GAGE.--Water-stage recorder. Datum of gage is 738.16 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow partially regulated by powerplant above station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	155	356	244	156	1320	4730	514	1240	495	393	159	108
2	145	287	259	e250	1660	2900	515	1030	1140	393	173	105
3	157	252	245	e247	1670	2230	505	898	2180	365	157	105
4	268	241	238	e244	1480	1960	515	808	1430	337	148	105
5	250	232	230	e237	1190	1510	529	745	906	271	141	107
6	e220	233	222	e230	1040	1650	512	721	682	241	137	106
7	e614	223	248	e223	2150	2640	493	700	568	251	139	105
8	704	210	290	e212	6090	2040	466	632	499	281	164	107
9	415	203	292	e190	5420	1580	510	576	442	236	169	105
10	283	239	276	e174	2840	1310	667	533	742	208	149	105
11	230	493	255	e168	2040	1080	662	502	944	e195	139	105
12	206	687	242	e172	2110	936	595	483	573	e190	137	105
13	193	484	233	e250	2380	858	508	710	637	184	153	105
14	178	374	222	e370	1770	815	465	1100	536	180	176	105
15	174	319	216	e280	1370	774	506	868	451	172	158	105
16	172	289	210	e320	1210	768	1230	677	423	167	138	104
17	167	270	207	e500	1120	1660	2600	594	367	167	136	99
18	168	251	e200	e1500	1020	2370	3280	672	329	167	130	98
19	194	239	e190	e3800	927	1690	2460	990	301	203	126	99
20	206	229	e195	4330	836	1250	1780	885	286	209	125	100
21	184	219	e210	3070	753	1060	1970	669	276	222	124	99
22	176	206	e290	8490	687	928	3970	603	269	199	121	99
23	165	202	e470	19500	649	816	2920	561	256	193	121	97
24	162	197	441	20400	628	744	2070	586	264	185	122	97
25	160	203	319	9870	615	684	1540	624	246	179	133	97
26	160	242	326	4170	599	636	1260	564	240	164	128	97
27	160	281	316	3010	640	599	1110	482	276	220	128	97
28	172	272	294	2400	3120	573	2180	431	366	246	126	94
29	190	255	266	1920	---	553	2550	396	410	212	121	109
30	254	243	e260	1570	---	527	1650	375	487	210	113	224
31	371	---	223	1340	---	510	---	386	---	175	110	---
TOTAL	7253	8431	8129	89593	47334	42381	40532	21041	17021	7015	4301	3193
MEAN	234	281	262	2890	1690	1367	1351	679	567	226	139	106
MAX	704	687	470	20400	6090	4730	3970	1240	2180	393	176	224
MIN	145	197	190	156	599	510	465	375	240	164	110	94
CFSM	.27	.33	.31	3.37	1.97	1.59	1.57	.79	.66	.26	.16	.12
IN.	.31	.37	.35	3.88	2.05	1.84	1.76	.91	.74	.30	.19	.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1999, BY WATER YEAR (WY)

MEAN	277	604	869	1178	1275	1578	1498	962	916	580	365	296
MAX	1264	3359	3472	6494	3485	3732	4281	2951	4432	2778	2264	3143
(WY)	1991	1994	1991	1950	1950	1978	1964	1996	1958	1992	1979	1989
MIN	88.4	109	107	102	141	368	322	249	143	138	93.8	69.3
(WY)	1964	1964	1964	1977	1964	1981	1971	1988	1988	1966	1988	1954

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1947 - 1999	
ANNUAL TOTAL	391707		296224			
ANNUAL MEAN	1073		812		864	
HIGHEST ANNUAL MEAN					1455	1950
LOWEST ANNUAL MEAN					266	1954
HIGHEST DAILY MEAN	13100	Jun 13	20400	Jan 24	25400	Dec 31 1990
LOWEST DAILY MEAN	145	Oct 2	94	Sep 28	44	Sep 28 1954
ANNUAL SEVEN-DAY MINIMUM	154	Sep 27	97	Sep 22	58	Sep 23 1954
INSTANTANEOUS PEAK FLOW			23300	Jan 24	27000	Dec 31 1990
INSTANTANEOUS PEAK STAGE			20.42	Jan 24	21.31	Apr 22 1964
ANNUAL RUNOFF (CFSM)	1.25		.95		1.01	
ANNUAL RUNOFF (INCHES)	16.98		12.84		13.68	
10 PERCENT EXCEEDS	2400		1840		1950	
50 PERCENT EXCEEDS	441		289		404	
90 PERCENT EXCEEDS	181		125		138	

e Estimated

03350700 STONY CREEK NEAR NOBLESVILLE, IN

LOCATION.--Lat 40°01'44", long 85°59'44", in NE¼NE¼ 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 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 749.00 ft above 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 fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	7.4	e17	e10	96	144	45	69	21	27	4.5	4.3
2	4.6	e6.5	e19	e12	117	109	43	63	65	30	4.4	4.1
3	5.8	e6.2	e17	e17	104	108	42	59	63	19	4.3	4.0
4	6.4	e6.3	e16	e14	89	91	43	55	42	14	4.3	3.7
5	5.8	e6.4	e15	e12	74	79	40	53	33	12	4.9	3.4
6	5.7	e6.2	e14	e12	72	133	41	53	28	11	4.6	3.4
7	23	e6.0	e25	e11	315	119	39	49	24	13	4.6	3.3
8	16	e6.2	e33	e11	345	91	39	46	22	10	4.8	3.6
9	8.8	e6.4	e30	e10	182	85	60	43	21	9.0	5.3	4.0
10	7.2	e33	e25	e10	140	72	68	41	19	9.1	5.0	4.0
11	6.6	e26	e21	e9.8	117	65	59	39	17	8.4	4.8	4.1
12	6.2	e20	e19	e12	157	60	52	38	23	7.6	4.7	4.1
13	6.0	e17	e17	e40	119	59	47	41	34	7.4	7.2	3.9
14	5.8	e14	e15	e18	95	58	46	46	22	7.4	7.0	3.7
15	5.8	e12	e13	e16	88	56	60	38	17	7.0	5.9	3.8
16	5.8	e11	e12	e20	81	69	132	34	14	6.7	5.2	3.7
17	5.6	e10	e11	e45	78	139	169	33	13	6.7	4.8	3.7
18	6.2	e9.6	e11	e250	72	107	151	35	11	7.0	4.8	3.7
19	7.2	e9.2	e10	e160	67	83	125	34	10	6.9	5.6	3.3
20	6.4	e8.8	e10	e92	62	74	102	30	10	6.7	5.0	3.1
21	5.9	e8.4	e14	e144	58	69	203	28	10	6.9	4.9	2.9
22	5.7	e8.2	e35	949	55	62	177	30	9.7	6.5	4.7	2.7
23	6.0	e8.0	e25	884	54	58	122	27	9.2	6.0	4.4	2.8
24	6.0	e8.4	e21	512	53	56	95	27	29	6.2	5.0	2.7
25	5.9	e10	e17	227	53	52	82	25	25	5.6	4.6	2.5
26	5.8	e26	e15	162	50	50	74	23	15	4.9	6.0	2.5
27	5.7	e20	e14	140	62	49	73	21	26	4.9	5.9	2.4
28	6.2	e17	e14	119	203	48	135	21	23	5.2	5.1	2.3
29	6.0	e15	e13	102	---	46	101	20	27	5.8	5.5	4.3
30	9.2	e13	e13	90	---	44	78	18	21	4.9	4.6	3.9
31	9.6	---	e11	82	---	44	---	20	---	4.7	4.3	---
TOTAL	221.5	362.2	542	4192.8	3058	2379	2543	1159	703.9	287.5	156.7	103.9
MEAN	7.15	12.1	17.5	135	109	76.7	84.8	37.4	23.5	9.27	5.05	3.46
MAX	23	33	35	949	345	144	203	69	65	30	7.2	4.3
MIN	4.6	6.0	10	9.8	50	44	39	18	9.2	4.7	4.3	2.3
CFSM	.14	.24	.34	2.66	2.15	1.51	1.67	.74	.46	.18	.10	.07
IN.	.16	.27	.40	3.07	2.24	1.74	1.86	.85	.52	.21	.11	.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1999, BY WATER YEAR (WY)

MEAN	16.0	47.5	57.6	59.6	78.7	87.0	81.5	62.9	50.6	31.0	21.3	17.0
MAX	68.0	287	235	145	190	203	160	229	241	128	80.5	210
(WY)	1991	1993	1991	1974	1990	1978	1972	1996	1998	1979	1979	1989
MIN	2.41	4.50	4.99	3.87	6.26	17.6	16.9	16.1	6.50	3.25	3.84	3.38
(WY)	1996	1998	1998	1977	1998	1981	1971	1988	1988	1977	1988	1995

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1968 - 1999	
ANNUAL TOTAL	20765.9		15709.5			
ANNUAL MEAN	56.9		43.0		50.7	
HIGHEST ANNUAL MEAN					83.0	1993
LOWEST ANNUAL MEAN					19.5	1977
HIGHEST DAILY MEAN	1170	Jun 12	949	Jan 22	1760	Dec 30 1990
LOWEST DAILY MEAN	3.3	Jan 4	2.3	Sep 28	.88	Oct 9 1995
ANNUAL SEVEN-DAY MINIMUM	3.7	Feb 10	2.6	Sep 22	.96	Oct 8 1995
INSTANTANEOUS PEAK FLOW			1280	Jan 22	2090	Dec 30 1990
INSTANTANEOUS PEAK STAGE			7.06	Jan 22	9.21	Dec 30 1990
ANNUAL RUNOFF (CFSM)	1.12		.85		1.00	
ANNUAL RUNOFF (INCHES)	15.21		11.50		13.56	
10 PERCENT EXCEEDS	127		102		115	
50 PERCENT EXCEEDS	17		17		23	
90 PERCENT EXCEEDS	4.7		4.6		5.7	

e Estimated

03351000 WHITE RIVER NEAR NORA, IN

LOCATION.--Lat 39°54'35", long 86°06'20", in NW¼NW¼ sec.20, T.17 N., R.4 E., Marion County, Hydrologic Unit 05120201, on downstream side of center bridge pier on 82nd Street, 2 mi east of Nora, 14 mi upstream from Fall Creek, and at mile 247.9.

DRAINAGE AREA.--1,219 mi^2.

PERIOD OF RECORD.--October 1929 to current year. Prior to April 1930, monthly discharge only, published in WSP 1305. Prior to October 1948, published as West Fork White River near Nora.

REVISED RECORDS.--WSP 1335: 1930-31, 1934(m), 1936, 1941, 1943, 1945, 1947-48. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 710.94 ft above sea level (levels by U.S. Army Corps of Engineers). Oct. 26, 1929 to July 29, 1942, at site 200 ft downstream at same datum. Supplemental water-stage recorder 4.5 mi downstream.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow partially regulated by Morse Reservoir.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 26, 1913, reached a stage of 22.4 ft, from floodmark, determined by Indiana Department of Highways, discharge, 58,500 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	e471	346	269	1880	6060	776	1720	659	620	238	169
2	181	e346	341	e320	2230	4200	780	1440	1250	563	222	162
3	224	e303	337	e315	2300	3010	758	1270	2720	515	234	162
4	263	e280	322	e310	2080	2670	768	1140	2120	469	213	156
5	329	e273	316	e302	1740	2100	778	1060	1380	397	225	157
6	292	e272	305	e298	1520	2330	778	1060	1030	347	182	167
7	735	e263	352	e286	3070	3290	743	1010	825	357	177	167
8	821	e254	385	e273	7590	2870	694	928	713	373	193	180
9	605	e245	405	e253	8010	2210	827	848	652	328	225	181
10	403	e294	383	e235	4410	1890	946	785	692	288	198	168
11	314	e540	348	e225	3030	1580	951	735	1170	268	182	165
12	265	e794	326	e234	3040	1380	870	701	804	251	175	159
13	244	e623	307	e350	3250	1260	742	794	776	229	232	164
14	227	e527	300	e480	2570	1200	682	1290	866	218	217	165
15	215	e454	277	e400	1990	1140	780	1180	708	213	201	162
16	212	e406	269	e450	1760	1130	1420	938	599	199	170	158
17	207	e371	272	e700	1640	1950	3000	839	526	254	152	165
18	230	e343	264	e1900	1500	3080	4100	965	453	272	192	165
19	238	e321	249	e4500	1380	2430	3350	1140	408	261	230	160
20	248	e301	255	5500	1260	1800	2420	1210	395	408	213	166
21	233	e286	293	4520	1150	1540	2600	938	374	353	209	168
22	225	e273	439	9710	1050	1360	4760	903	358	292	207	165
23	211	264	473	18200	977	1200	4190	834	347	230	197	171
24	206	262	597	21800	951	1090	2790	830	514	280	208	164
25	199	282	444	17200	931	1020	2080	821	504	275	215	160
26	200	378	388	7420	902	940	1710	793	409	255	212	164
27	e198	393	397	4480	981	885	1550	687	546	238	200	158
28	e216	376	386	3480	3400	846	2390	619	563	362	196	169
29	e261	358	357	2750	---	818	3290	579	652	316	182	207
30	e350	329	354	2250	---	789	2280	558	636	281	174	253
31	e490	---	310	1940	---	763	---	575	---	270	173	---
TOTAL	9232	10882	10797	111350	66592	58831	53803	29190	23649	9982	6244	5077
MEAN	298	363	348	3592	2378	1898	1793	942	788	322	201	169
MAX	821	794	597	21800	8010	6060	4760	1720	2720	620	238	253
MIN	181	245	249	225	902	763	682	558	347	199	152	156
CFSM	.24	.30	.29	2.95	1.95	1.56	1.47	.77	.65	.26	.17	.14
IN.	.28	.33	.33	3.40	2.03	1.80	1.64	.89	.72	.30	.19	.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1999, BY WATER YEAR (WY)

MEAN	360	743	1094	1612	1671	2101	2057	1418	1173	727	456	372
MAX	1699	5115	4366	9015	4805	5113	5878	6815	6093	3672	2612	4397
(WY)	1991	1993	1991	1950	1950	1978	1964	1943	1958	1992	1979	1989
MIN	108	110	119	119	182	194	280	141	200	102	82.5	72.3
(WY)	1941	1935	1935	1945	1964	1941	1941	1941	1931	1936	1941	1941

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1930 - 1999	
ANNUAL TOTAL	544565		395629			
ANNUAL MEAN	1492		1084		1146	
HIGHEST ANNUAL MEAN					2052	1950
LOWEST ANNUAL MEAN					235	1941
HIGHEST DAILY MEAN	15800	Jun 13	21800	Jan 24	31500	May 19 1943
LOWEST DAILY MEAN	159	Sep 28	152	Aug 17	49	Sep 17 1941
ANNUAL SEVEN-DAY MINIMUM	176	Sep 26	163	Sep 11	53	Sep 17 1941
INSTANTANEOUS PEAK FLOW			22100	Jan 24	32400	May 19 1943
INSTANTANEOUS PEAK STAGE			16.69	Jan 24	19.19	Jan 1 1991
ANNUAL RUNOFF (CFSM)	1.22		.89		.94	
ANNUAL RUNOFF (INCHES)	16.62		12.07		12.77	
10 PERCENT EXCEEDS	3200		2490		2600	
50 PERCENT EXCEEDS	570		406		520	
90 PERCENT EXCEEDS	232		182		162	

e Estimated

03351060 WHITE RIVER AT BROAD RIPPLE, IN

LOCATION.--Lat 39°52'17", long 86°08'16", in SW$^1/_4$ 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 mi^2.

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, 8.42 ft, Jan. 24; minimum 2.61 ft, Aug. 17.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.82	3.05	2.99	2.86	3.85	5.28	3.29	3.76	3.24	3.31	2.78	2.70
2	2.82	3.02	3.00	2.86	4.03	4.65	3.28	3.63	3.93	3.11	2.78	2.68
3	2.91	2.97	2.98	2.98	3.99	4.38	3.27	3.54	4.29	3.06	2.78	2.66
4	2.96	2.94	2.98	3.00	3.87	4.21	3.28	3.47	3.81	3.02	2.78	2.66
5	2.96	2.91	2.98	3.01	3.69	3.97	3.27	3.44	3.56	2.94	2.81	2.70
6	3.06	2.92	2.98	3.01	3.64	4.10	3.28	3.45	3.40	2.94	2.71	2.69
7	3.30	2.92	3.02	2.98	5.07	4.42	3.22	3.40	3.28	2.95	2.75	2.69
8	3.34	2.90	3.05	2.97	5.92	4.28	3.20	3.35	3.23	2.95	2.78	2.73
9	3.10	2.92	3.05	2.97	5.48	4.08	3.35	3.30	3.22	2.90	2.78	2.73
10	3.00	3.14	3.02	2.91	4.58	3.93	3.41	3.25	3.43	2.86	2.76	2.69
11	2.94	3.33	2.99	2.94	4.26	3.77	3.38	3.22	3.45	2.85	2.72	2.70
12	2.90	3.45	2.98	2.99	4.41	3.63	3.30	3.21	3.29	2.82	2.74	2.70
13	2.88	3.26	2.96	3.20	4.42	3.55	3.22	3.42	3.42	2.79	2.84	2.74
14	2.86	3.15	2.94	3.24	4.06	3.52	3.18	3.63	3.32	2.78	2.80	2.71
15	2.85	3.10	2.93	3.45	3.86	3.47	3.40	3.46	3.21	2.75	2.78	2.69
16	2.85	3.05	2.91	3.42	3.78	3.48	3.92	3.33	3.16	2.74	2.70	2.70
17	2.82	3.02	2.92	3.54	3.72	3.99	4.59	3.38	3.09	2.85	2.64	2.72
18	2.92	2.99	2.90	4.54	3.63	4.36	4.78	3.44	3.03	2.87	2.82	2.71
19	2.88	2.98	2.90	5.28	3.58	4.14	4.45	3.62	3.01	2.90	2.81	2.74
20	2.89	2.97	2.90	5.26	3.52	3.91	4.10	3.47	3.00	3.12	2.78	2.74
21	2.87	2.95	3.05	5.08	3.46	3.77	4.37	3.36	2.96	2.89	2.78	2.71
22	2.86	2.91	3.09	7.18	3.39	3.64	5.11	3.37	2.93	2.82	2.78	2.74
23	2.83	2.90	3.20	8.19	3.37	3.54	4.62	3.34	2.93	2.87	2.78	2.74
24	2.83	2.90	3.13	8.30	3.35	3.48	4.27	3.32	3.25	2.88	2.81	2.71
25	2.84	3.02	3.05	6.79	3.34	3.44	3.95	3.33	3.05	2.85	2.82	2.70
26	2.83	3.02	3.03	5.05	3.32	3.38	3.78	3.27	3.00	2.81	2.81	2.71
27	2.82	3.05	3.03	4.62	3.57	3.35	3.78	3.18	3.14	2.79	2.79	2.72
28	2.84	3.02	3.02	4.36	4.92	3.32	4.42	3.15	3.20	2.92	2.78	2.74
29	2.87	2.99	3.00	4.12	---	3.30	4.42	3.12	3.21	2.87	2.76	2.85
30	2.97	2.98	2.98	3.93	---	3.27	3.98	3.11	3.16	2.84	2.74	2.89
31	3.08	---	2.94	3.81	---	3.26	---	3.14	---	2.82	2.72	---
MEAN	2.93	3.02	3.00	4.16	4.00	3.83	3.80	3.37	3.27	2.90	2.77	2.72
MAX	3.34	3.45	3.20	8.30	5.92	5.28	5.11	3.76	4.29	3.31	2.84	2.89
MIN	2.82	2.90	2.90	2.86	3.32	3.26	3.18	3.11	2.93	2.74	2.64	2.66

CAL YR 1998 MEAN 3.51 MAX 7.52 MIN 2.77
WTR YR 1999 MEAN 3.31 MAX 8.30 MIN 2.64

03351310 CROOKED CREEK AT INDIANAPOLIS, IN

LOCATION.--Lat 39°49'47", long 86°12'22", in NW¼SE¼ sec.16, T.16 N., R.3 E., Marion County, Hydrologic Unit 05120201, on left bank 150 ft downstream from 42nd Street bridge in Indianapolis, and at mile 1.6.

DRAINAGE AREA.--17.9 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 711.00 ft above 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	5.2	3.7	1.6	37	32	12	16	13	60	1.5	e2.3
2	5.6	4.8	3.0	1.7	29	26	12	14	99	25	1.4	e2.0
3	9.2	11	2.5	e2.5	24	27	12	13	18	9.9	1.5	e1.8
4	6.8	12	2.3	e2.4	20	21	13	12	12	6.3	1.3	e1.7
5	12	6.6	2.1	e2.3	16	18	12	12	9.5	4.7	2.2	e1.6
6	23	5.2	2.6	e2.3	16	88	21	29	7.4	10	1.7	e1.5
7	159	4.3	8.9	e2.2	343	36	14	15	6.3	7.9	1.3	e1.4
8	12	4.0	4.2	e2.2	78	25	12	12	5.5	4.5	1.2	e1.4
9	4.4	3.8	2.8	e2.1	38	25	47	11	4.9	3.7	1.2	e1.3
10	2.8	47	2.2	e2.0	29	25	21	9.7	4.6	4.3	1.1	e1.2
11	2.1	16	2.0	e2.0	27	23	25	9.1	6.7	3.0	1.1	e1.1
12	1.6	6.3	1.7	e2.0	68	21	15	17	19	2.7	1.1	e1.0
13	2.4	4.1	1.7	e30	31	21	13	56	31	2.5	16	e.96
14	2.9	3.4	1.9	e10	24	20	13	33	13	2.2	6.5	e.90
15	2.9	2.9	2.3	e5.0	21	19	45	15	6.9	2.1	3.0	e.86
16	2.3	2.6	1.8	e4.5	20	25	49	11	5.0	1.9	2.0	e.82
17	3.0	2.6	1.6	e20	20	33	48	15	4.5	1.8	1.6	e.80
18	11	2.5	1.7	151	18	26	31	38	4.4	3.3	1.3	e.78
19	8.5	2.2	1.8	24	16	20	24	17	3.9	3.3	1.5	e.75
20	4.1	3.2	1.9	15	15	18	20	12	3.3	28	5.6	e.70
21	3.1	2.3	13	92	14	17	86	11	3.1	9.7	2.4	e.68
22	2.9	2.1	19	853	13	15	34	24	2.9	4.1	2.6	e.64
23	2.8	2.0	5.6	243	13	15	24	14	2.8	5.5	2.5	e.60
24	2.7	2.1	3.5	57	13	14	17	18	8.3	20	2.7	e.59
25	2.6	11	2.6	36	14	13	15	11	7.9	4.8	3.4	e.57
26	2.4	17	2.2	27	13	12	13	9.1	4.4	3.3	3.3	e.54
27	2.5	5.2	2.2	24	49	13	33	7.9	87	2.7	6.7	.51
28	3.2	3.8	2.0	20	82	12	55	8.1	16	2.6	3.1	.54
29	4.6	3.4	2.0	17	---	11	29	6.4	13	2.7	2.7	2.2
30	19	4.0	e1.7	17	---	11	19	6.0	8.4	2.0	2.5	1.3
31	8.3	---	e1.6	16	---	11	---	12	---	1.5	2.5	---
TOTAL	335.7	202.6	108.1	1686.8	1101	693	784	494.3	431.7	246.0	88.5	33.04
MEAN	10.8	6.75	3.49	54.4	39.3	22.4	26.1	15.9	14.4	7.94	2.85	1.10
MAX	159	47	19	853	343	88	86	56	99	60	16	2.3
MIN	1.6	2.0	1.6	1.6	13	11	12	6.0	2.8	1.5	1.1	.51
CFSM	.60	.38	.19	3.04	2.20	1.25	1.46	.89	.80	.44	.16	.06
IN.	.70	.42	.22	3.51	2.29	1.44	1.63	1.03	.90	.51	.18	.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1999, BY WATER YEAR (WY)

MEAN	8.61	21.1	21.7	19.8	25.2	31.4	30.1	27.5	18.3	12.7	7.91	8.30
MAX	60.9	88.2	95.4	54.8	79.4	63.7	58.2	110	90.8	57.7	30.8	69.9
(WY)	1987	1994	1991	1974	1975	1991	1972	1996	1998	1979	1978	1989
MIN	1.06	.88	1.23	.94	4.17	5.65	5.63	4.31	1.59	1.59	1.94	1.07
(WY)	1998	1972	1977	1977	1978	1981	1971	1988	1988	1997	1991	1991

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1970 - 1999	
ANNUAL TOTAL	7266.96		6204.74			
ANNUAL MEAN	19.9		17.0		19.3	
HIGHEST ANNUAL MEAN					29.6	1974
LOWEST ANNUAL MEAN					8.30	1977
HIGHEST DAILY MEAN	497	Jun 11	853	Jan 22	1570	Jun 26 1978
LOWEST DAILY MEAN	.15	Sep 5	.51	Sep 27	.00	Oct 7 1991
ANNUAL SEVEN-DAY MINIMUM	.30	Aug 31	.57	Sep 22	.00	Oct 12 1991
INSTANTANEOUS PEAK FLOW			1380	Jan 22	5500	Jun 26 1978
INSTANTANEOUS PEAK STAGE			8.16	Jan 22	13.31	Jun 26 1978
ANNUAL RUNOFF (CFSM)	1.11		.95		1.08	
ANNUAL RUNOFF (INCHES)	15.10		12.89		14.68	
10 PERCENT EXCEEDS	35		30		38	
50 PERCENT EXCEEDS	5.5		6.5		7.5	
90 PERCENT EXCEEDS	1.6		1.5		1.6	

e Estimated

03351500 FALL CREEK NEAR FORTVILLE, IN

LOCATION.--Lat 39°57'15", long 85°52'05", in NW¼NE¼ sec.5, T.17 N., R.6 E., Hamilton County, Hydrologic Unit 05120201, on right bank 100 ft downstream from bridge on State Highway 238, 0.2 mi downstream from Lick Creek, 2 mi northwest of Fortville, and at mile 26.1.

DRAINAGE AREA.--169 mi^2.

PERIOD OF RECORD.--July 1941 to current year.

REVISED RECORDS.--WSP 1435: 1949(P). WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 787.43 ft above sea level (levels by Indianapolis Water Co.). Prior to June 27, 1942, nonrecording gage at same site and datum.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, about 12 ft March 1913 (information by local resident).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	74	63	e44	263	493	117	216	81	85	28	15
2	28	67	60	e42	331	337	117	189	141	103	28	14
3	44	63	61	e69	315	293	114	169	176	89	23	15
4	73	64	60	e58	271	246	119	154	119	71	22	14
5	52	63	61	e52	221	212	113	145	101	62	22	15
6	41	58	61	e49	210	361	113	145	95	59	22	14
7	165	57	74	e47	728	411	108	135	87	53	21	15
8	164	60	82	e46	1710	285	102	124	77	49	23	13
9	84	60	72	e45	786	260	119	122	73	47	28	13
10	70	72	63	e44	479	223	130	113	70	46	22	12
11	65	147	59	e44	373	194	124	108	66	46	20	12
12	58	118	56	e50	483	176	113	105	71	44	19	12
13	49	91	57	e170	425	170	100	114	74	40	24	13
14	45	86	57	e140	304	167	96	122	96	40	28	12
15	46	81	53	e110	262	159	119	107	79	38	25	12
16	46	75	51	e98	241	177	234	102	66	37	24	12
17	44	65	51	e90	233	307	457	97	62	37	20	13
18	51	62	50	812	211	265	473	103	60	41	18	12
19	70	61	48	749	193	208	354	113	57	41	17	13
20	57	59	49	489	177	185	270	99	58	55	17	14
21	49	57	53	712	163	179	536	90	59	60	17	14
22	46	58	103	2250	152	164	705	92	54	46	18	14
23	46	58	e90	2700	149	148	412	93	52	39	18	14
24	46	54	e80	1580	153	141	305	95	57	36	17	15
25	49	55	e70	724	147	134	242	87	57	36	20	14
26	53	78	e62	503	138	128	212	80	52	35	26	14
27	50	78	e58	418	150	126	210	76	79	34	21	15
28	47	69	e54	352	580	125	540	71	84	35	20	16
29	51	64	e50	296	---	122	401	69	145	34	20	20
30	76	64	e47	256	---	113	271	69	110	31	19	34
31	89	---	e45	230	---	113	---	72	---	26	16	---
TOTAL	1883	2118	1900	13269	9848	6622	7326	3476	2458	1495	663	435
MEAN	60.7	70.6	61.3	428	352	214	244	112	81.9	48.2	21.4	14.5
MAX	165	147	103	2700	1710	493	705	216	176	103	28	34
MIN	28	54	45	42	138	113	96	69	52	26	16	12
CFSM	.36	.42	.36	2.53	2.08	1.26	1.44	.66	.48	.29	.13	.09
IN.	.41	.47	.42	2.92	2.17	1.46	1.61	.77	.54	.33	.15	.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1999, BY WATER YEAR (WY)

MEAN	64.1	120	169	215	252	301	292	226	188	115	75.3	56.5
MAX	353	788	727	1210	720	674	829	753	888	416	467	498
(WY)	1987	1994	1991	1950	1950	1978	1964	1996	1958	1992	1979	1989
MIN	20.1	30.1	24.2	24.4	42.1	71.2	70.3	71.4	39.2	24.7	16.0	14.5
(WY)	1964	1945	1964	1977	1964	1981	1971	1955	1988	1966	1988	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1942 - 1999	
ANNUAL TOTAL	79037		51493			
ANNUAL MEAN	217		141		172	
HIGHEST ANNUAL MEAN					298	1950
LOWEST ANNUAL MEAN					61.4	1966
HIGHEST DAILY MEAN	3810	Jun 13	2700	Jan 23	6950	Apr 21 1964
LOWEST DAILY MEAN	28	Oct 2	12	Sep 10	7.0	Oct 1 1941
ANNUAL SEVEN-DAY MINIMUM	36	Sep 13	12	Sep 10	9.7	Aug 21 1988
INSTANTANEOUS PEAK FLOW			3020	Jan 23	8750	Apr 21 1964
INSTANTANEOUS PEAK STAGE			7.76	Jan 23	9.88	Apr 21 1964
ANNUAL RUNOFF (CFSM)	1.28		.83		1.02	
ANNUAL RUNOFF (INCHES)	17.40		11.33		13.86	
10 PERCENT EXCEEDS	439		299		351	
50 PERCENT EXCEEDS	86		70		90	
90 PERCENT EXCEEDS	45		19		31	

e Estimated

03351700 GEIST RESERVOIR AT INDIANAPOLIS, IN

LOCATION.--Lat 39°54'28", long 85°59'09", in $NW^{1}/_{4}SW^{1}/_{4}NE^{1}/_{4}$ sec.20, T.17 N., R.5 E., Marion County, Hydrologic Unit 05120201, on right end inside of Geist Reservoir dam on Fall Creek, 1500 ft southeast of Fall Creek Road, 0.75 mi north of 82nd St., and 4.3 mi east of the intersection of Interstate Highway 69 and 82nd St. in Indianapolis.

DRAINAGE AREA.--215 mi^2.

PERIOD OF RECORD.--April 1998 to September, 1998 (temporarily discontinued).

GAGE.--Water-stage recorder. Datum of gage is 787.43 ft above sea level (levels by Indianapolis Water Co.). Prior to June 27, 1942, nonrecording gage at same site and datum.

(Values are not published due to a varible drawdown affect on gage heights. Gage heights published in the 1998 report may be erroneous. No extremes are recorded due to drawdown affect.)

03352500 FALL CREEK AT MILLERSVILLE, IN

LOCATION.--Lat 39°51'07", long 86°05'15", in NE¼NE¼ sec.9, T.16 N., R.4 E., Marion County, Hydrologic Unit 05120201, on right bank at downstream side of Emerson Way bridge at Millersville, and 9.2 mi upstream from mouth.

DRAINAGE AREA.--298 mi^2.

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for October 1929, published in WSP 1305. Twice-daily chain gage readings at former site from July 1925 to September 1926 are available in the district office.

REVISED RECORDS.--WSP 1335: 1930-31, 1933, 1936-38, 1942-43. WSP 2109: Drainage area.WDR-IN-97-1: (P) 1991, 1994.

GAGE.--Water-stage recorder. Datum of gage is 722.16 ft above sea level. Prior to Oct. 21, 1961, water-stage recorder at site 500 ft downstream at same datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated by Geist Reservoir.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 16.3 ft Mar. 26, 1913, from floodmarks, discharge, 22,000 ft^3/s by slope-area measurement.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	55	86	e54	466	926	174	398	102	171	67	44
2	85	51	78	e48	615	715	174	335	232	641	66	44
3	174	67	67	e80	601	578	175	290	313	276	66	44
4	89	67	66	e70	501	482	185	257	239	180	66	51
5	60	57	66	e64	416	400	187	231	177	129	67	51
6	65	52	69	e60	355	683	167	237	149	94	66	50
7	324	51	104	e57	1230	801	167	223	128	96	65	50
8	125	50	93	e54	2310	611	153	199	114	72	65	51
9	57	50	76	e52	1930	550	181	197	111	55	63	50
10	48	94	70	e50	1140	466	227	179	92	52	57	42
11	43	126	66	e48	778	374	179	161	80	52	56	42
12	40	74	63	e54	846	326	182	149	76	45	60	42
13	39	64	69	e200	826	314	165	171	132	38	76	49
14	38	60	64	e150	630	328	152	172	125	40	51	50
15	49	65	55	e130	500	247	207	162	113	52	48	50
16	48	55	54	e110	441	271	358	154	85	54	45	50
17	48	64	52	e100	413	537	684	148	70	64	45	50
18	71	65	49	e900	376	567	813	181	56	75	44	49
19	86	55	48	1410	341	458	707	164	55	63	46	49
20	61	57	67	1100	290	365	545	146	51	73	45	50
21	56	51	70	1210	264	328	800	127	53	74	45	75
22	52	54	134	3400	237	294	1210	158	50	60	54	49
23	51	53	136	5170	226	263	917	151	55	58	52	45
24	51	53	125	3600	227	237	645	159	155	73	49	45
25	50	67	106	1990	226	228	469	132	203	65	48	44
26	49	142	90	1210	218	207	391	119	102	59	41	44
27	49	116	86	872	253	191	382	104	100	62	40	44
28	51	101	84	711	758	188	618	97	104	62	39	45
29	50	88	79	573	---	186	719	102	176	62	39	57
30	79	81	e70	472	---	175	524	95	158	62	43	40
31	68	---	e60	405	---	164	---	97	---	68	44	---
TOTAL	2213	2085	2402	24404	17414	12460	12457	5495	3656	3027	1658	1446
MEAN	71.4	69.5	77.5	787	622	402	415	177	122	97.6	53.5	48.2
MAX	324	142	136	5170	2310	926	1210	398	313	641	76	75
MIN	38	50	48	48	218	164	152	95	50	38	39	40
CFSM	.24	.23	.26	2.64	2.09	1.35	1.39	.59	.41	.33	.18	.16
IN.	.28	.26	.30	3.05	2.17	1.56	1.56	.69	.46	.38	.21	.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1999, BY WATER YEAR (WY)

MEAN	96.5	189	278	405	427	520	513	390	296	188	117	93.1
MAX	713	1283	1059	2390	1278	1399	1503	1524	1638	796	739	966
(WY)	1987	1994	1991	1950	1950	1963	1964	1943	1998	1979	1979	1989
MIN	23.4	32.1	38.2	37.1	50.4	47.5	59.7	33.6	42.2	29.1	15.5	11.5
(WY)	1941	1935	1935	1945	1935	1941	1941	1941	1934	1936	1941	1941

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1930 - 1999	
ANNUAL TOTAL	136397		88717			
ANNUAL MEAN	374		243		292	
HIGHEST ANNUAL MEAN					539	1950
LOWEST ANNUAL MEAN					44.0	1941
HIGHEST DAILY MEAN	6060	Jun 13	5170	Jan 23	10600	May 18 1943
LOWEST DAILY MEAN	32	Feb 13	38	Oct 14	7.8	Sep 28 1941
ANNUAL SEVEN-DAY MINIMUM	40	Feb 9	41	Aug 26	9.0	Sep 24 1941
INSTANTANEOUS PEAK FLOW			5510	Jan 23	12900	May 28 1956
INSTANTANEOUS PEAK STAGE			10.95	Jan 23	13.53	May 28 1956
ANNUAL RUNOFF (CFSM)	1.25		.82		.98	
ANNUAL RUNOFF (INCHES)	17.03		11.07		13.31	
10 PERCENT EXCEEDS	847		605		656	
50 PERCENT EXCEEDS	100		88		127	
90 PERCENT EXCEEDS	49		48		47	

e Estimated

03353000 WHITE RIVER AT INDIANAPOLIS, IN

LOCATION.--Lat 39°45'15", long 86°10'26", in $SW^1/_4SW^1/_4$ sec.11, T.15 N., R.3 E., Marion County, Hydrologic Unit 05120201, on right bank of Interstate 70 bridge in Indianapolis, 2.4 mi downstream from Fall Creek, 3.6 mi upstream from Eagle Creek, 4.2 mi upstream from Indianapolis Power and Light Company dam, and at mile 230.1.

DRAINAGE AREA.--1,635 mi^2.

PERIOD OF RECORD.--March 1904 to July 1906 and April 1930 to current year. Gage-height record published in reports of National Weather Service for site 0.9 mi upstream Feb. 8, 1911, to Mar. 25, 1913, and at site 2.1 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.--Acoustic Velocity Meter and Data Collection Platform. Datum of gage is 662.26 ft above sea level. March 1904 to July 1906, nonrecording gage at railroad bridge 0.6 mi upstream at datum approximately 2.9 ft higher. April 1930 to July 20, 1931, nonrecording gage at Indianapolis sanitation plant, 2.7 mi downstream at datum 2.26 ft lower. July 21, 1931 to Mar. 2, 1932, nonrecording gage and March 3, 1932, to September 30, 1960, water-stage recorder at Morris Street at datum 2.26 ft lower. October 1, 1998 to present, Acoustic Velocity Meter at Interstate 70 bridge.

REMARKS.--Records poor. Natural flow affected by regulation of Morse Reservoir and Geist Reservoir, and by diversion of municipal water supply by the Indianapolis Water Company. Stage-discharge relation affected at times by large releases from Eagle Creek and by variable leakage at Indianapolis Power and Light Company dam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 26, 1913, reached a stage of 30.0 ft, from floodmarks determined by Indianapolis Water Company, discharge, 70,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	154	494	406	296	2260	e6200	e840	2190	e628	e978	e145	e190
2	146	410	375	206	2670	e4500	e840	1950	e1480	e1360	e130	e180
3	362	346	414	e300	2760	3520	829	1600	e2640	e792	e110	e170
4	387	323	440	e340	2600	3100	810	1380	e2490	e601	e92	e160
5	310	302	453	e325	2140	2580	799	1270	e1800	e525	e110	e152
6	307	307	371	e310	1890	2920	860	1280	e1240	e448	e130	e143
7	1470	311	410	e320	4310	3750	816	1210	e1010	e447	e90	e151
8	1030	298	436	e300	9200	3600	767	1070	e950	e378	e90	e130
9	770	233	386	e290	10200	2780	871	1000	e840	e321	e100	e122
10	501	422	367	e280	6120	2320	782	910	e800	e283	e110	e138
11	438	629	353	272	3900	e1920	931	887	e1100	e268	e100	e92
12	292	897	339	483	3790	e1690	855	877	e1100	e295	e90	e102
13	263	893	334	789	3880	1560	800	863	e920	e210	e125	e105
14	220	647	320	855	3270	1500	820	1410	e990	e190	e200	e114
15	171	519	289	949	2480	1320	838	1380	e799	e180	e170	e117
16	146	439	264	1140	2100	1270	1530	1080	e606	e170	e130	e144
17	129	387	251	1180	1920	2070	3170	1050	e525	e164	e110	e170
18	291	367	209	2790	1910	3340	4630	1190	e491	e267	e90	e140
19	358	406	226	4950	1870	2940	4110	1140	e422	e260	e100	e140
20	354	358	249	5840	1470	e2500	3020	1340	e412	e580	e140	e138
21	344	389	358	5300	1260	e2000	3230	1080	e365	e350	e130	e135
22	302	370	553	12700	e1100	e1600	5360	1040	e294	e120	e120	e164
23	280	307	529	21500	e1070	e1400	5280	982	e220	e100	e130	e163
24	188	251	659	24000	e1020	1240	3450	922	e439	e380	e140	e162
25	161	394	582	19700	e1000	1110	2570	e880	e773	e180	e175	e150
26	153	519	471	9720	966	1030	2080	e840	e511	e150	e200	e140
27	151	463	397	5430	1160	966	1930	762	e681	e130	e234	e135
28	176	452	394	4120	3300	901	2550	636	e635	e120	e248	e140
29	160	395	366	3310	---	859	3720	597	e747	e160	e230	e165
30	365	374	373	2710	---	871	2910	556	e764	e150	e210	e148
31	412	---	348	2300	---	e840	---	576	---	e150	e200	---
TOTAL	10791	12902	11922	133005	81616	68197	61998	33948	26672	10707	4379	4300
MEAN	348	430	385	4290	2915	2200	2067	1095	889	345	141	143
MAX	1470	897	659	24000	10200	6200	5360	2190	2640	1360	248	190
MIN	129	233	209	206	966	840	767	556	220	100	90	92
CFSM	.21	.26	.24	2.62	1.78	1.35	1.26	.67	.54	.21	.09	.09
IN.	.25	.29	.27	3.03	1.86	1.55	1.41	.77	.61	.24	.10	.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1999, BY WATER YEAR (WY)

MEAN	419	921	1372	1956	2135	2723	2687	1908	1480	896	536	413
MAX	2081	6425	5826	12120	6452	6610	7777	8594	7910	4259	3399	5063
(WY)	1991	1994	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1931 - 1999	
ANNUAL TOTAL	627021		460437			
ANNUAL MEAN	1718		1261		1450	
HIGHEST ANNUAL MEAN					2698	1950
LOWEST ANNUAL MEAN					233	1941
HIGHEST DAILY MEAN	20800	Jun 15	24000	Jan 24	36800	Dec 31 1990
LOWEST DAILY MEAN	129	Sep 29	90	Aug 7	8.0	Sep 29 1941
ANNUAL SEVEN-DAY MINIMUM	147	Sep 26	101	Aug 7	12	Sep 24 1941
INSTANTANEOUS PEAK FLOW			24600	Jan 24	38000	Dec 31 1990
INSTANTANEOUS PEAK STAGE			16.61	Jan 24	21.57	Jan 16 1937
ANNUAL RUNOFF (CFSM)	1.05		.77		.89	
ANNUAL RUNOFF (INCHES)	14.27		10.48		12.05	
10 PERCENT EXCEEDS	4510		2970		3360	
50 PERCENT EXCEEDS	604		494		651	
90 PERCENT EXCEEDS	210		140		146	

e Estimated

03353120 PLEASANT RUN AT ARLINGTON AVENUE AT INDIANAPOLIS, IN

LOCATION.--Lat 39°46'33", long 86°03'50", in $SW^1/_4NW^1/_4$ sec.2, T.15 N., R.4 E., Marion County, Hydrologic Unit 05120201, on right bank 46 ft upstream from Arlington Avenue bridge in Indianapolis, 0.5 mi downstream from small left-bank tributary, and at mile 7.9.

DRAINAGE AREA.--7.58 mi^2.

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

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 780.00 ft 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 RECORD.--Flood in May 1956 reached a stage of 16.0 ft, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	1.0	3.1	.70	20	8.3	2.1	1.7	1.5	44	1.9	.00
2	.03	3.5	1.4	.71	9.0	5.8	1.6	1.5	46	22	.22	.05
3	26	11	1.0	e3.2	5.5	7.9	2.8	1.3	3.1	2.6	.16	.09
4	1.8	3.7	.97	e2.5	3.8	3.9	5.3	1.3	1.6	1.9	.19	.01
5	.44	2.2	.93	e2.0	2.9	3.4	1.8	1.2	1.1	.77	.29	.00
6	37	2.7	1.2	e1.8	3.1	37	7.8	7.5	.98	.68	.16	.00
7	101	1.8	11	e1.7	132	7.1	1.9	1.9	.83	.59	1.0	.00
8	6.4	1.7	1.7	e1.6	19	4.6	1.5	1.3	.72	.33	.67	.00
9	2.2	2.1	1.3	e1.5	8.0	5.8	8.2	1.1	.62	.29	.14	.00
10	1.3	38	2.1	e1.4	5.5	9.5	2.0	.94	.61	.36	.09	.00
11	.89	5.9	.93	e1.4	11	6.8	2.0	.93	.50	.27	.08	.00
12	.75	2.6	.82	e2.9	24	6.8	1.4	1.1	.61	.22	.19	.00
13	.73	1.6	.76	e17	6.3	5.4	1.2	5.7	1.7	.25	25	.00
14	.99	1.3	.71	e10	4.4	4.3	1.1	1.5	1.1	.33	1.8	.00
15	1.0	1.1	.66	e4.5	3.8	4.9	22	1.0	.90	.17	.47	.00
16	1.0	.98	.93	e3.0	5.4	7.8	18	.84	.47	.22	.29	.00
17	1.2	.97	.65	e15	4.6	7.3	23	10	.49	22	.27	.00
18	26	1.1	.83	87	3.0	4.7	7.6	7.8	.39	2.3	.25	.00
19	4.0	1.2	.88	15	2.5	3.2	4.3	2.5	.41	4.7	1.4	.00
20	1.5	4.9	.66	16	2.0	2.7	3.0	1.2	.50	11	.77	.00
21	1.2	1.2	22	83	1.7	2.4	45	3.1	.49	1.3	.21	.00
22	1.3	.97	8.6	204	1.6	2.0	7.6	12	.38	.56	.14	.04
23	1.6	1.1	2.5	52	1.7	1.8	4.6	4.6	.37	5.3	.12	.08
24	1.7	1.1	1.5	14	1.7	1.7	2.9	3.1	20	33	1.4	.01
25	1.8	31	1.1	7.5	4.6	1.6	2.4	1.5	2.0	1.3	.34	.07
26	1.7	7.9	.98	5.5	2.1	1.5	2.1	1.1	.96	.68	.18	.01
27	1.7	2.6	.97	4.7	49	1.4	14	.96	5.9	.51	.31	.00
28	4.9	1.6	.97	3.8	25	1.4	8.0	.70	5.1	.39	.10	.00
29	.99	1.3	2.4	2.9	---	1.3	3.4	.64	2.1	.45	.05	18
30	7.0	4.0	.79	2.5	---	1.3	2.2	.71	.46	.21	.01	1.2
31	2.2	---	.74	5.8	---	1.3	---	1.2	---	2.9	.01	---
TOTAL	240.37	142.12	75.08	574.61	363.2	164.9	210.8	81.92	101.89	161.58	38.21	19.56
MEAN	7.75	4.74	2.42	18.5	13.0	5.32	7.03	2.64	3.40	5.21	1.23	.65
MAX	101	38	22	204	132	37	45	12	46	44	25	18
MIN	.03	.97	.65	.70	1.6	1.3	1.1	.64	.37	.17	.01	.00
CFSM	1.02	.62	.32	2.45	1.71	.70	.93	.35	.45	.69	.16	.09
IN.	1.18	.70	.37	2.82	1.78	.81	1.03	.40	.50	.79	.19	.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1999, BY WATER YEAR (WY)

MEAN	4.26	8.96	8.59	8.07	8.77	13.1	11.4	10.3	7.69	8.44	5.04	4.06
MAX	27.5	36.9	33.3	25.0	25.7	42.3	28.5	37.8	49.2	33.8	21.3	23.2
(WY)	1987	1994	1991	1969	1971	1963	1961	1996	1998	1979	1979	1989
MIN	.38	1.28	.72	.45	1.11	1.94	1.61	1.12	69	.61	.67	.49
(WY)	1964	1964	1964	1977	1978	1994	1971	1964	1967	1967	1967	1967

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1960 - 1999	
ANNUAL TOTAL	4031.24		2174.24			
ANNUAL MEAN	11.0		5.96		8.24	
HIGHEST ANNUAL MEAN					11.6	1978
LOWEST ANNUAL MEAN					3.25	1966
HIGHEST DAILY MEAN	361	Jun 11	204	Jan 22	574	Mar 4 1963
LOWEST DAILY MEAN	.00	Sep 30	.00	Sep 1	.00	Sep 11 1960
ANNUAL SEVEN-DAY MINIMUM	.03	Sep 26	.00	Sep 5	.00	Oct 5 1960
INSTANTANEOUS PEAK FLOW			504	Jan 22	2600	Jun 25 1978
INSTANTANEOUS PEAK STAGE			6.11	Jan 22	13.86	Jun 25 1978
ANNUAL RUNOFF (CFSM)	1.46		.79		1.09	
ANNUAL RUNOFF (INCHES)	19.78		10.67		14.77	
10 PERCENT EXCEEDS	26		13		17	
50 PERCENT EXCEEDS	1.9		1.5		1.9	
90 PERCENT EXCEEDS	.34		.11		.50	

e Estimated

03353200 EAGLE CREEK AT ZIONSVILLE, IN

LOCATION.--Lat 39°56'56", long 86°15'22", in SW¼NW¼ sec.1, T.17 N., R.2 E., Boone County, Hydrologic Unit 05120201, on downstream side of second pier from right bank of bridge on State Highway 334 at Zionsville, 200 ft upstream from Long Branch, and at mile 24.7.

DRAINAGE AREA.--103 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 fair except for those below 1.15 ft³/s and estimated daily discharges, which are poor. Prior to 1989, low flow affected by the Zionsville well field located on the right bank downstream of the gage.

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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.23	e1.1	8.7	5.8	128	248	41	109	130	14	1.4	.06
2	.20	e2.0	11	6.6	170	162	37	98	437	11	.98	.02
3	.23	e6.0	10	9.6	148	172	38	88	268	8.9	.74	.00
4	.42	e3.5	10	e7.1	117	130	38	82	153	7.1	.54	.00
5	.68	e2.7	8.8	e6.6	84	105	30	81	111	6.2	.52	.00
6	.94	e2.1	8.5	e6.4	86	405	41	82	82	6.2	.47	.00
7	38	e2.0	15	e6.2	1230	234	33	76	64	7.2	.42	.00
8	15	e1.9	19	e6.1	847	145	29	67	53	5.9	.30	.00
9	3.5	e3.0	17	e6.1	407	134	43	60	44	5.5	.21	.00
10	1.5	55	13	e6.0	240	100	36	53	43	4.8	.20	.00
11	1.0	46	11	e6.0	178	81	29	50	38	4.1	.17	.00
12	.89	26	9.3	e7.0	281	73	25	47	36	3.3	.15	.00
13	e.82	17	8.7	e25	174	72	20	59	36	3.0	3.2	.00
14	e.78	12	8.1	e13	126	70	20	91	34	3.2	2.4	.00
15	e.74	9.5	7.6	e10	111	63	52	71	30	3.5	.99	.00
16	e.72	8.4	6.7	e9.0	99	119	195	56	26	3.5	.94	.00
17	e.70	7.3	e6.4	e25	89	363	325	50	23	3.3	.84	.00
18	e7.0	6.8	e6.2	e652	77	204	221	66	20	6.9	.92	.00
19	e2.0	6.2	e6.0	542	67	130	156	68	17	4.6	1.1	.00
20	e1.2	5.4	e5.9	302	57	104	118	53	16	3.6	2.2	.00
21	e1.4	5.4	11	575	50	94	483	47	15	3.9	1.5	.00
22	e1.2	5.2	20	3700	44	76	346	66	15	6.3	.71	.00
23	e1.1	4.9	15	1960	43	64	209	75	14	5.2	.30	.00
24	e1.0	5.1	12	721	43	59	153	86	15	3.8	.24	.00
25	e.94	7.6	9.5	413	42	50	127	71	17	2.8	.32	.00
26	e.90	15	8.5	264	37	45	114	53	14	2.3	.30	.00
27	e1.0	11	8.4	207	65	41	129	45	14	2.0	.16	.00
28	e3.1	9.4	8.6	154	471	40	231	41	14	1.7	.26	.00
29	e1.5	8.2	8.6	122	---	36	170	37	13	1.6	.24	.00
30	e3.4	8.0	7.9	99	---	31	128	33	11	1.6	.16	.00
31	e2.5	---	7.0	90	---	31	---	42	---	1.6	.10	---
TOTAL	94.59	303.7	313.4	9962.5	5511	3681	3617	2003	1803	148.6	22.98	0.08
MEAN	3.05	10.1	10.1	321	197	119	121	64.6	60.1	4.79	.74	.003
MAX	38	55	20	3700	1230	405	483	109	437	14	3.2	.06
MIN	.20	1.1	5.9	5.8	37	31	20	33	11	1.6	.10	.00
CFSM	.03	.10	.10	3.12	1.91	1.15	1.17	.63	.58	.05	.01	.00
IN.	.03	.11	.11	3.60	1.99	1.33	1.31	.72	.65	.05	.01	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1999, BY WATER YEAR (WY)

MEAN	20.8	86.2	124	121	149	197	177	107	93.5	60.8	36.0	20.8
MAX	131	542	530	452	423	459	532	456	523	520	444	332
(WY)	1970	1993	1991	1974	1976	1963	1964	1996	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1958 - 1999	
ANNUAL TOTAL	39992.51		27460.85			
ANNUAL MEAN	110		75.2		99.1	
HIGHEST ANNUAL MEAN					188	1974
LOWEST ANNUAL MEAN					22.2	1977
HIGHEST DAILY MEAN	2560	Jun 12	3700	Jan 22	6840	Dec 30 1990
LOWEST DAILY MEAN	.19	Sep 14	.00	Sep 3	.00	Sep 9 1959
ANNUAL SEVEN-DAY MINIMUM	.24	Sep 11	.00	Sep 3	.00	Sep 15 1959
INSTANTANEOUS PEAK FLOW			4750	Jan 22	12400	Apr 20 1964
INSTANTANEOUS PEAK STAGE			10.72	Jan 22	14.64	Apr 20 1964
ANNUAL RUNOFF (CFSM)	1.06		.73		.96	
ANNUAL RUNOFF (INCHES)	14.44		9.92		13.07	
10 PERCENT EXCEEDS	266		158		215	
50 PERCENT EXCEEDS	16		11		30	
90 PERCENT EXCEEDS	.70		.20		1.3	

e Estimated

03353450 EAGLE CREEK RESERVOIR NEAR INDIANAPOLIS, IN

LOCATION.--Lat 39°49'20", long 86°18'11", in NW¼NW¼ sec. 22, T.16 N., R.2 E., Marion County, Hydrologic Unit 05120201, in outlet structure of reservoir on Eagle Creek, 800 ft upstream from Interstate Highway 74, 0.5 mi downstream from School Branch, 1.0 mi northeast of Clermont, and 2 mi west of Indianapolis.

DRAINAGE AREA.--162 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 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, 25,550 acre-ft Apr. 21, June 12, 13, elevation, 791.11 ft; minimum, 17,930 acre-ft Sept. 30, elevation, 785.19 ft.

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	788.24	21,712	
Oct. 31	787.53	20,790	- 922
Nov. 30	787.31	20,500	- 290
Dec. 31	787.09	20,220	- 280
CAL YR 1998	-	-	+ 4522
Jan. 31	788.50	22,050	+ 1830
Feb. 28	788.65	22,240	+ 190
Mar. 31	788.66	22,260	+ 20
Apr. 30	790.78	25,090	+ 2830
May 31	790.79	25,110	+ 20
June 30	790.57	24,800	- 310
July 31	789.62	23,510	- 1290
Aug. 31	785.57	20,840	- 2670
Sept. 30	785.19	17,930	- 2910
WYR YR 1999	-	-	- 3782

03353451 EAGLE CREEK BELOW RESERVOIR AT INDIANAPOLIS, IN

LOCATION.--Lat 39°49'20", long 86°18'11", in NW¼NW¼ sec. 22, T.16 N., R.2 E., Marion County, Hydrologic Unit 05120201, in outlet structure of reservoir on Eagle Creek, 800 ft upstream from Interstate Highway 74, 0.5 mi downstream from School Branch, 1.0 mi northeast of Clermont, and 2 mi west of Indianapolis.

DRAINAGE AREA.--162 mi^2.

PERIOD OF RECORD.--October 1992 to current year. Published as "03353450 Eagle Creek Reservoir near Indianapolis" October 1992 to September 1994.

GAGE.--Water stage recorder located 100 ft downstream of outlet structure. Datum of gage is 741.15 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are fair. Mean daily discharges below 50 ft^3/s published. Unit discharges below 50 ft^3/s available in district office. For a complete record of Eagle Creek in this vicinity use records of Eagle Creek at Indianapolis, IN (station 03353500) about 4.9 mile downstream. Prior to this year this station was published under Eagle Creek Reservoir at Indianapolis (station 03353450).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	10	11	e10	---	---	11	---	11	15	13	12
2	11	10	11	10	---	---	10	---	---	14	13	13
3	12	10	11	10	---	---	11	---	---	13	13	12
4	11	11	11	e10	---	---	10	11	---	13	13	12
5	11	11	11	e10	---	---	11	11	---	14	13	12
6	10	10	11	10	---	---	11	---	---	---	13	12
7	11	11	11	e10	---	---	12	---	13	16	13	12
8	11	10	11	10	---	---	11	---	13	16	12	12
9	11	10	11	e10	---	---	13	11	13	16	13	13
10	12	10	11	e10	---	---	13	11	14	15	12	13
11	12	11	11	e10	---	13	13	9.8	14	14	12	13
12	11	11	11	10	---	12	12	11	14	13	12	12
13	11	11	11	11	---	---	11	---	---	13	12	12
14	12	11	11	11	---	---	10	---	---	12	13	12
15	12	11	11	11	---	---	12	---	16	12	12	12
16	12	11	11	11	---	11	14	---	17	12	12	12
17	12	11	11	11	---	---	---	12	16	13	11	12
18	12	11	11	---	---	---	---	13	16	13	12	12
19	13	11	11	---	---	---	---	12	15	13	12	11
20	12	11	11	---	---	---	---	---	14	13	14	11
21	12	11	10	---	---	---	---	---	13	12	15	11
22	11	11	11	---	---	---	---	---	13	13	15	11
23	12	10	11	---	---	---	---	---	13	12	14	11
24	12	11	10	---	12	---	---	15	13	13	14	11
25	11	11	11	---	12	---	---	14	13	12	14	10
26	11	11	11	---	---	---	---	13	13	12	14	10
27	11	11	11	---	---	---	---	12	13	12	14	10
28	11	11	11	---	---	---	---	11	13	13	13	11
29	11	10	10	---	---	12	---	11	14	13	13	11
30	10	10	10	---	---	11	---	12	14	12	14	11
31	10	---	e10	---	---	12	---	12	---	13	13	---
TOTAL	352	320	336	---	---	---	---	---	---	---	403	349
MEAN	11.4	10.7	10.8	---	---	---	---	---	---	---	13.0	11.6
MAX	13	11	11	---	---	---	---	---	---	---	15	13
MIN	10	10	10	---	---	---	---	---	---	---	11	10
CFSM	.07	.07	.07	---	---	---	---	---	---	---	.08	.07
IN.	.08	.07	.08	---	---	---	---	---	---	---	.09	.08

e Estimated

03353500 EAGLE CREEK AT INDIANAPOLIS, IN

LOCATION.--Lat 39°46'33", long 86°15'01", in NW¼NW¼ sec.6, T.15 N., R.3 E., Marion County, Hydrologic Unit 05120201, on right bank at downstream side of bridge on Lynhurst Drive, approximately 600 ft south of intersection of West 10th Street and Lynhurst Drive, 0.5 mi downstream from West 10th Street bridge, 1.0 mi upstream from Vermont Street bridge, 3.0 mi upstream from Little Eagle Creek, and 7.1 mi upstream from mouth.

DRAINAGE AREA.--174 mi^2.

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

REVISED RECORDS.--WSP 953: 1939. WSP 1625: 1958. WSP 2109: Drainage area. WDR IN-93-1: 1992.

GAGE.--Water-stage recorder. Datum of gage is 697.00 ft above sea level. Aug. 8, 1957 to June 30, 1958, temporary site during reconstruction of bridge on Lynhurst Drive, a nonrecording gage on downstream side of 10th Street bridge. Mar. 10, 1966 to Aug. 16, 1967, during channelization of Eagle Creek, a nonrecording gage on downstream side of Lynhurst Drive bridge. Prior to Oct. 1, 1967, at datum 9.21 ft higher, (erroneously published as 7.21 ft higher in 1992 report). Oct. 1, 1967 to Sept. 30, 1992 at datum 2 ft higher.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 23.2 ft present datum, from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	11	13	11	e500	544	17	106	20	98	13	11
2	10	12	12	21	e500	90	13	106	634	62	15	11
3	24	18	12	15	e640	290	12	90	393	24	14	11
4	12	14	11	e13	e380	194	12	17	129	21	13	11
5	11	11	12	e11	e500	37	11	16	100	20	14	11
6	34	11	12	e11	e450	553	16	96	100	48	13	11
7	118	12	18	e10	e1020	514	13	140	19	27	12	12
8	18	11	13	e10	e1530	124	11	80	16	20	12	12
9	13	12	13	e9.8	e470	398	22	18	15	18	10	10
10	11	40	13	e9.8	466	191	16	16	13	17	12	11
11	13	18	13	e9.7	459	22	14	15	15	15	12	11
12	12	14	13	e11	469	21	13	25	16	14	13	9.1
13	11	13	12	e12	374	112	12	54	103	13	35	8.7
14	12	12	12	e11	110	215	11	133	97	e12	14	8.9
15	11	12	12	e10	296	106	28	107	19	e10	12	9.0
16	11	12	12	e11	91	20	30	160	19	8.7	10	8.6
17	11	11	11	e15	91	469	376	29	17	9.7	8.8	8.5
18	26	11	11	e70	90	356	324	31	17	12	9.2	8.8
19	15	11	11	554	89	47	43	21	15	9.8	8.8	8.6
20	14	12	10	796	88	152	155	63	15	21	9.0	8.7
21	13	12	23	978	87	84	487	75	14	11	11	9.2
22	12	12	20	5750	86	85	550	130	13	11	11	9.6
23	13	10	11	4730	76	84	196	152	12	15	11	4.9
24	12	10	11	1480	17	85	265	22	18	39	10	8.9
25	11	27	10	883	17	87	139	20	12	15	11	8.2
26	11	18	10	358	54	84	154	19	15	14	21	8.3
27	11	12	9.8	e350	151	83	120	18	55	14	13	8.7
28	12	11	9.5	e240	702	68	334	16	17	14	11	8.9
29	11	11	9.4	e240	---	18	266	16	15	14	9.8	7.8
30	13	13	11	e140	---	21	108	16	15	13	10	4.7
31	11	---	9.5	e300	---	18	---	20	---	13	11	---
TOTAL	527	414	380.2	17070.3	9803	5172	3768	1827	1958	653.2	389.6	280.1
MEAN	17.0	13.8	12.3	551	350	167	126	58.9	65.3	21.1	12.6	9.34
MAX	118	40	23	5750	1530	553	550	160	634	98	35	12
MIN	10	10	9.4	9.7	17	18	11	15	12	8.7	8.8	4.7
CFSM	.10	.08	.07	3.16	2.01	.96	.72	.34	.38	.12	.07	.05
IN.	.11	.09	.08	3.65	2.10	1.11	.81	.39	.42	.14	.08	.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1999, BY WATER YEAR (WY)

MEAN	32.7	113	164	209	241	307	304	213	149	85.4	39.4	38.5
MAX	201	851	906	1485	765	900	906	1127	904	800	490	625
(WY)	1970	1993	1991	1950	1976	1978	1964	1943	1957	1979	1958	1989
MIN	1.52	3.05	3.48	4.06	10.8	27.7	28.0	14.3	4.66	3.69	.19	.40
(WY)	1941	1941	1945	1945	1998	1941	1976	1976	1988	1968	1941	1941

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1939 - 1999	
ANNUAL TOTAL	55227.2		42242.4			
ANNUAL MEAN	151		116		158	
HIGHEST ANNUAL MEAN					316	1974
LOWEST ANNUAL MEAN					18.8	1941
HIGHEST DAILY MEAN	4880	Jun 12	5750	Jan 22	9890	Dec 30 1990
LOWEST DAILY MEAN	8.7	Feb 16	4.7	Sep 30	.00	Aug 7 1941
ANNUAL SEVEN-DAY MINIMUM	9.6	Sep 10	7.9	Sep 24	.01	Aug 22 1941
INSTANTANEOUS PEAK FLOW			7650	Jan 22	28800	Jun 28 1957
INSTANTANEOUS PEAK STAGE			11.64	Jan 22	23.59	Jun 28 1957
ANNUAL RUNOFF (CFSM)	.87		.67		.91	
ANNUAL RUNOFF (INCHES)	11.81		9.03		12.31	
10 PERCENT EXCEEDS	307		310		354	
50 PERCENT EXCEEDS	15		15		39	
90 PERCENT EXCEEDS	10		10		5.9	

e Estimated

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

LOCATION.--Lat 39°50'45", long 86°14'55", in NE¼SW¼ sec.7, T.16 N., R.2 E., Marion County, Hydrologic Unit 05120201, on right bank at downstream side of West 52nd Street at Indianapolis, 0.4 mi east of Lafayette Road, 1.1 mi upstream from Guion Creek, and at mile 7.2.

DRAINAGE AREA.--6.28 mi^2.

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

REVISED RECORDS.--WDR IN-95-1: Drainage area.

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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.49	.20	3.7	e.82	26	11	3.5	5.0	9.6	27	.96	.80
2	.31	.56	1.8	e1.1	14	9.1	3.5	4.2	54	15	.80	.45
3	9.7	3.5	1.8	e4.7	12	12	3.0	3.7	7.4	3.8	.78	.39
4	4.7	2.7	1.6	e2.6	8.4	7.8	4.8	3.4	3.9	2.2	.74	.36
5	1.5	3.0	1.4	e2.0	6.4	6.6	3.7	3.3	3.1	1.6	4.4	.33
6	8.4	1.7	1.8	e1.6	6.2	45	10	6.2	2.4	47	1.2	.33
7	103	1.0	15	e1.4	121	12	4.5	4.5	1.9	13	.73	.31
8	11	.84	4.5	e1.4	22	8.0	3.3	3.0	1.7	5.3	.66	.29
9	4.1	.97	2.4	e1.3	12	8.5	31	2.7	1.4	4.3	.51	.16
10	2.1	35	1.1	e1.2	8.4	8.9	8.0	2.4	1.2	4.9	.44	.12
11	1.4	12	.93	e1.2	11	8.7	17	2.1	1.6	e3.0	.39	.19
12	.87	5.2	.82	e5.0	29	8.2	6.1	2.9	3.7	e2.0	1.5	.26
13	.86	3.7	.72	e26	9.6	9.0	4.4	38	12	e1.7	19	.27
14	.52	2.4	.68	e7.0	6.8	7.4	5.0	15	6.8	e1.5	3.3	.24
15	.44	1.9	.79	e4.0	5.9	7.8	31	6.3	2.6	e1.3	1.3	.28
16	.33	1.4	.56	e2.6	5.8	12	29	4.3	1.4	e1.2	.89	.23
17	.53	1.2	.50	e18	6.6	12	27	8.5	1.3	e1.2	.66	.19
18	11	1.1	.69	e54	5.0	8.0	12	23	.92	e3.0	.49	.16
19	6.7	1.4	.60	e9.2	4.5	6.0	8.4	7.1	.87	e2.1	2.3	.16
20	1.8	2.3	.65	e7.0	4.0	5.4	6.5	4.3	1.2	34	1.5	.26
21	.86	1.4	17	e31	3.7	5.0	39	3.7	1.6	e5.2	.66	.31
22	1.1	.74	16	268	3.2	4.3	13	16	1.7	e3.8	.69	.30
23	.42	.64	8.2	50	3.4	4.0	7.8	6.0	1.7	3.0	.59	.31
24	.28	.68	4.3	17	3.5	4.1	5.6	7.0	5.6	23	1.1	.32
25	.23	12	3.0	14	4.5	3.6	4.6	3.7	4.0	3.5	1.3	.34
26	.22	13	2.2	12	4.3	3.2	4.2	2.9	2.0	1.9	1.9	.38
27	.69	4.2	1.3	10	31	3.1	19	2.4	66	1.5	1.4	.41
28	1.1	2.7	e1.1	8.6	30	2.9	25	2.2	6.0	1.8	1.8	.29
29	.32	1.9	e1.1	7.0	---	2.8	11	1.8	3.2	1.6	.87	5.0
30	.22	2.0	e.92	6.2	---	2.6	6.4	1.9	1.8	1.2	1.0	3.8
31	.22	---	e.84	8.3	---	2.5	---	9.9	---	1.0	1.6	---
TOTAL	175.41	121.33	98.00	584.22	408.2	251.5	357.3	207.4	212.59	222.6	55.46	17.24
MEAN	5.66	4.04	3.16	18.8	14.6	8.11	11.9	6.69	7.09	7.18	1.79	.57
MAX	103	35	17	268	121	45	39	38	66	47	19	5.0
MIN	.22	.20	.50	.82	3.2	2.5	3.0	1.8	.87	1.0	.39	.12
CFSM	.90	.64	.50	3.00	2.32	1.29	1.90	1.07	1.13	1.14	.28	.09
IN.	1.04	.72	.58	3.46	2.42	1.49	2.12	1.23	1.26	1.32	.33	.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1999, BY WATER YEAR (WY)

MEAN	4.77	14.2	10.1	12.3	11.5	12.7	15.0	15.0	10.3	7.81	4.08	4.98
MAX	13.3	41.1	49.8	23.2	31.1	25.0	29.1	43.0	35.8	22.5	6.54	16.3
(WY)	1991	1994	1991	1996	1990	1991	1996	1996	1998	1992	1995	1993
MIN	1.06	2.38	1.15	5.92	3.12	3.36	4.66	4.32	1.63	2.21	1.02	.57
(WY)	1995	1998	1990	1995	1995	1994	1995	1992	1991	1991	1996	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1989 - 1999	
ANNUAL TOTAL	3672.14		2711.25			
ANNUAL MEAN	10.1		7.43		10.2	
HIGHEST ANNUAL MEAN					13.3	1993
LOWEST ANNUAL MEAN					6.14	1995
HIGHEST DAILY MEAN	247	Jun 11	268	Jan 22	664	Nov 14 1993
LOWEST DAILY MEAN	.10	Sep 4	.12	Sep 10	.10	Sep 4 1998
ANNUAL SEVEN-DAY MINIMUM	.13	Aug 31	.22	Sep 9	.13	Aug 31 1998
INSTANTANEOUS PEAK FLOW			641	Jan 22	1550	Nov 14 1993
INSTANTANEOUS PEAK STAGE			5.23	Jan 22	8.30	Jul 5 1992
ANNUAL RUNOFF (CFSM)	1.60		1.18		1.63	
ANNUAL RUNOFF (INCHES)	21.75		16.06		22.11	
10 PERCENT EXCEEDS	22		15		20	
50 PERCENT EXCEEDS	3.3		3.0		3.1	
90 PERCENT EXCEEDS	.47		.42		.69	

e Estimated

03353560 GUION CREEK ABOVE 52ND STREET AT INDIANAPOLIS, IN

LOCATION.--Lat 39°50'45", long 86°13'57", in NW¼SW¼ sec.08., T.16 N., R.3 E., Marion County, Hydrologic Unit 05120201, on right bank 25 ft upstream from private bridge at Indianapolis, 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.--4.10 mi^2.

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

REVISED RECORDS.--WDR IN-95-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 760.11 ft above sea level.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.22	1.2	1.4	e.52	10	14	2.1	4.1	2.7	30	.48	.08
2	.11	1.8	1.0	e.90	8.9	8.0	1.4	2.7	21	24	.37	.10
3	2.5	4.9	.89	e.87	6.8	7.1	1.3	2.2	11	9.4	.35	.14
4	.54	2.9	.77	e.80	4.7	4.4	1.5	1.8	5.4	4.9	.38	.16
5	.17	1.3	.72	e.80	3.1	2.7	1.1	3.3	3.2	2.9	.55	.27
6	6.0	1.5	.78	e.78	2.9	22	3.3	6.7	2.3	19	.33	.38
7	54	1.9	2.7	e.75	71	13	1.4	3.5	1.8	12	.23	.51
8	17	1.6	1.3	e.72	37	7.6	1.1	2.4	1.4	5.1	.31	.54
9	7.6	1.7	.91	e.70	18	6.8	10	1.9	1.1	3.4	.23	.50
10	3.2	15	.68	e.66	9.7	6.0	5.8	1.5	.86	2.6	.17	.35
11	1.4	7.6	.58	e.64	9.3	4.9	4.9	1.2	3.7	1.6	.17	.27
12	1.8	4.2	.51	e.64	18	4.4	3.1	3.4	6.7	1.2	.27	.24
13	1.7	2.6	.43	e10	9.6	4.0	2.3	36	8.6	.88	5.1	.28
14	.93	1.8	.39	e3.5	6.1	3.5	1.7	29	5.0	.76	1.4	.36
15	.55	1.3	.34	e2.0	4.3	3.9	12	13	2.8	.70	.74	.41
16	.51	1.0	.33	e1.5	3.7	5.7	16	7.1	1.7	.67	.49	.36
17	.55	.92	.33	e7.0	3.4	6.7	17	8.7	1.2	.68	.36	.33
18	4.4	.75	.29	49	2.7	5.1	10	14	.91	1.4	.26	.31
19	2.3	.64	.30	21	2.2	3.7	6.5	7.9	.74	.85	.27	.25
20	1.5	.74	.33	14	1.9	3.1	4.5	5.0	.67	14	.26	.38
21	1.0	.70	4.8	32	1.6	2.5	21	4.1	.57	5.0	.16	.55
22	.66	.63	5.7	186	1.4	1.9	13	7.4	.61	2.7	.14	.61
23	2.1	.65	e2.5	85	1.4	1.5	7.6	4.8	.50	4.6	.15	.57
24	1.1	.63	e1.5	34	1.4	1.4	4.7	4.0	2.4	18	.37	.55
25	.95	5.6	e1.0	18	1.7	1.4	3.0	2.9	1.5	5.1	.34	.58
26	.84	5.1	e.90	10	1.4	.98	2.3	2.1	.97	2.7	.27	.57
27	.70	2.7	e.82	6.9	15	.94	8.4	1.7	33	1.8	.24	.72
28	1.5	1.9	.78	4.9	25	1.1	17	1.4	13	1.4	.20	.52
29	1.2	1.5	.79	3.6	---	.74	11	1.2	5.8	1.1	.16	1.9
30	3.6	1.6	e.66	2.5	---	.86	6.8	1.2	3.0	.77	.12	.84
31	1.6	---	e.56	3.7	---	1.6	---	2.0	---	.60	.10	---
TOTAL	122.23	76.36	34.99	503.38	282.2	151.52	201.8	188.2	144.13	179.81	14.97	13.63
MEAN	3.94	2.55	1.13	16.2	10.1	4.89	6.73	6.07	4.80	5.80	.48	.45
MAX	54	15	5.7	186	71	22	21	36	33	30	5.1	1.9
MIN	.11	.63	.29	.52	1.4	.74	1.1	1.2	.50	.60	.10	.08
CFSM	.96	.62	.28	3.96	2.46	1.19	1.64	1.48	1.17	1.41	.12	.11
IN.	1.11	.69	.32	4.57	2.56	1.37	1.83	1.71	1.31	1.63	.14	.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1999, BY WATER YEAR (WY)

MEAN	1.85	6.87	4.37	6.90	5.74	6.87	7.64	8.06	5.91	3.49	1.39	1.92
MAX	5.45	20.8	19.6	16.2	16.4	12.5	12.1	21.4	26.2	10.5	3.32	9.03
(WY)	1991	1994	1991	1999	1990	1991	1996	1996	1998	1992	1993	1993
MIN	.15	.45	.52	1.94	1.17	1.77	1.98	1.76	.56	.33	.15	.17
(WY)	1995	1998	1990	1992	1995	1994	1995	1992	1991	1991	1991	1991

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1990 - 1999	
ANNUAL TOTAL	2258.70		1913.22			
ANNUAL MEAN	6.19		5.24		5.07	
HIGHEST ANNUAL MEAN					7.26	1993
LOWEST ANNUAL MEAN					2.87	1995
HIGHEST DAILY MEAN	143	Jun 12	186	Jan 22	283	Nov 14 1993
LOWEST DAILY MEAN	.00	Aug 30	.08	Sep 1	.00	Aug 28 1991
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 30	.12	Aug 29	.00	Aug 30 1998
INSTANTANEOUS PEAK FLOW			271	Jan 22	435	Nov 14 1993
INSTANTANEOUS PEAK STAGE			5.24	Jan 22	7.35	May 16 1990
ANNUAL RUNOFF (CFSM)	1.51		1.28		1.24	
ANNUAL RUNOFF (INCHES)	20.49		17.36		16.81	
10 PERCENT EXCEEDS	14		13		11	
50 PERCENT EXCEEDS	1.6		1.6		1.5	
90 PERCENT EXCEEDS	.09		.33		.15	

e Estimated

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

LOCATION.--Lat 39°48'33", long 86°13'56", in NW¼NW¼ 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 at Indianapolis, 0.6 mi west of Lafayette Road, and 0.6 mi upstream of confluence with Little Eagle Creek.

DRAINAGE AREA.--4.15 mi^2.

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

REVISED RECORDS.--WDR IN-95-1: Drainage area.

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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.43	.46	.92	.55	12	6.6	1.6	2.3	2.8	46	.98	.72
2	.47	1.2	.75	.78	7.8	4.8	1.5	2.0	23	20	.94	.73
3	11	5.1	.70	e1.1	4.8	4.9	1.7	2.0	3.6	3.2	.98	.72
4	.73	1.2	.64	e.86	3.3	3.0	2.0	1.7	3.5	1.7	2.1	.72
5	.45	.79	.64	e.72	2.4	3.1	1.5	6.3	2.2	1.3	1.3	.73
6	16	.70	1.5	e.66	2.3	24	5.8	4.4	1.4	42	.94	.72
7	57	.64	3.1	e.62	73	7.2	1.9	2.0	1.3	16	1.3	.74
8	4.0	.64	.85	e.62	18	4.1	1.6	1.8	1.3	3.9	.99	.74
9	1.2	1.9	.72	e.60	7.4	4.6	12	1.6	1.3	2.3	.90	.74
10	.76	15	.66	e.59	4.4	5.6	4.6	1.5	1.2	1.9	.88	.81
11	.60	2.6	.64	e.59	9.5	4.5	4.0	1.5	1.3	1.3	.88	.79
12	.54	1.1	.64	e1.2	16	4.4	3.1	12	1.3	1.2	.81	.79
13	.52	.84	.64	e7.0	6.1	4.3	2.1	8.6	1.9	1.1	11	.82
14	.55	.55	.62	e2.5	3.9	3.7	1.8	5.5	1.4	.89	1.0	.82
15	.60	.49	.57	e1.5	3.2	3.5	16	2.5	1.1	.85	.79	.83
16	.60	.47	.61	e1.2	3.2	4.9	16	1.9	1.1	.85	.69	.85
17	.64	.51	.61	e3.0	2.8	5.7	13	8.9	1.2	1.3	.68	.85
18	8.7	.47	.76	e27	2.3	3.9	6.7	9.1	1.2	1.3	.69	.85
19	1.1	.52	.95	e5.6	2.1	2.8	4.4	3.5	1.2	2.5	.74	.85
20	.63	.65	1.1	e3.2	1.8	2.4	3.5	2.1	1.2	7.1	.74	.85
21	.54	.46	9.3	e20	1.6	2.2	22	3.6	1.1	1.3	.74	.85
22	.54	.46	4.4	134	1.5	2.1	7.6	5.1	1.1	.92	.74	.87
23	.54	.46	1.5	47	1.5	1.9	4.1	3.0	1.2	8.9	.74	.86
24	.54	.50	.93	13	1.6	1.8	2.8	2.2	5.9	13	.99	.85
25	.54	10	.76	7.1	2.2	1.7	2.3	1.6	1.3	1.8	.72	.85
26	.55	2.4	.72	4.5	1.6	1.7	2.0	1.9	1.2	1.3	9.1	.85
27	.56	.90	.73	3.4	17	1.6	13	1.4	30	1.2	1.2	.85
28	.99	.75	.64	2.7	17	1.5	9.6	1.3	3.3	1.3	.74	.85
29	.53	.81	.75	2.2	---	1.4	4.9	1.2	1.7	1.1	.70	4.6
30	5.6	1.5	.74	1.9	---	1.4	3.2	1.2	1.3	.98	.67	.69
31	.58	---	.64	4.9	---	1.5	---	4.1	---	.98	.70	---
TOTAL	118.03	54.07	38.73	300.59	230.3	126.8	176.3	107.8	102.6	189.47	46.37	27.79
MEAN	3.81	1.80	1.25	9.70	8.23	4.09	5.88	3.48	3.42	6.11	1.50	.93
MAX	57	15	9.3	134	73	24	22	12	30	46	11	4.6
MIN	.43	.46	.57	.55	1.5	1.4	1.5	1.2	1.1	.85	.67	.69
CFSM	.92	.43	.30	2.34	1.98	.99	1.42	.84	.82	1.47	.36	.22
IN.	1.06	.48	.35	2.69	2.06	1.14	1.58	.97	.92	1.70	.42	.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1999, BY WATER YEAR (WY)

MEAN	1.87	5.62	3.95	4.90	4.72	5.88	7.13	8.12	5.45	3.60	1.69	1.96
MAX	4.37	16.0	17.8	9.70	13.7	12.3	13.1	26.9	18.9	10.0	2.70	6.22
(WY)	1991	1994	1991	1999	1990	1991	1996	1996	1998	1992	1998	1993
MIN	.31	.57	.73	1.44	.89	1.37	1.91	1.57	.82	.61	.30	.52
(WY)	1995	1998	1996	1992	1995	1994	1995	1992	1991	1991	1996	1991

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1989 - 1999	
ANNUAL TOTAL	1820.45		1518.85			
ANNUAL MEAN	4.99		4.16		4.57	
HIGHEST ANNUAL MEAN					6.00	1996
LOWEST ANNUAL MEAN					2.66	1995
HIGHEST DAILY MEAN	114	Jun 11	134	Jan 22	226	Nov 14 1993
LOWEST DAILY MEAN	.08	Sep 5	.43	Oct 1	.00	Sep 21 1991
ANNUAL SEVEN-DAY MINIMUM	.13	Aug 31	.50	Nov 18	.07	Sep 26 1991
INSTANTANEOUS PEAK FLOW			352	Jul 1	565	Jul 18 1996
INSTANTANEOUS PEAK STAGE			5.99	Jul 1	6.78	Jul 18 1996
ANNUAL RUNOFF (CFSM)	1.20		1.00		1.10	
ANNUAL RUNOFF (INCHES)	16.32		13.61		14.96	
10 PERCENT EXCEEDS	11		9.1		10	
50 PERCENT EXCEEDS	.85		1.4		1.2	
90 PERCENT EXCEEDS	.38		.62		.25	

e Estimated

03353600 LITTLE EAGLE CREEK AT SPEEDWAY, IN

LOCATION.--Lat 39°47'15", long 86°13'41", in NE¼SW¼ sec.32, T.16 N., R.3 E., Marion County, Hydrologic Unit 05120201, on right bank at downstream side of 16th Street bridge in Speedway, 0.6 mi upstream from Dry Run, and 2.3 mi upstream from mouth.

DRAINAGE AREA.--24.3 mi^2 including 5.57 mi^2 from Dry Run basin. Since June 1964 part of the flow from the 5.57 mi^2 of Dry Run basin has been diverted into Little Eagle Creek above gage.

PERIOD OF RECORD.--October 1959 to current year. Figures of runoff for June 1964 to September 1966 have been found to be in error and should not be used.

REVISED RECORDS.--WDR IN-95-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 707.82 ft above sea level (levels by State of Indiana, Department of Natural Resources). Prior to June 13, 1975, at datum 3.00 ft higher.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	2.2	4.1	2.4	105	51	28	14	24	177	4.7	3.3
2	3.7	2.9	3.3	2.3	63	36	26	12	147	125	3.7	2.8
3	31	12	2.8	e6.3	53	41	27	11	35	31	3.4	2.4
4	12	8.9	2.6	e5.6	e45	26	34	9.8	22	18	5.5	2.5
5	6.1	3.6	2.4	e5.0	e40	21	30	20	21	12	10	2.5
6	37	3.0	2.4	e4.5	e45	138	65	38	15	179	4.7	2.4
7	259	3.1	15	e4.1	e400	52	34	22	12	79	4.0	2.5
8	22	2.7	4.8	e4.0	e100	37	26	e14	11	24	3.7	2.7
9	9.9	3.2	3.3	e3.8	62	47	114	e10	9.5	15	3.1	2.3
10	5.3	55	2.9	e3.6	40	49	58	e9.4	8.2	15	2.9	2.3
11	3.3	15	2.4	e3.5	49	43	64	e9.0	10	9.3	2.8	2.3
12	2.7	6.6	2.6	e9.4	112	42	39	40	13	7.5	4.0	2.2
13	2.8	4.6	2.9	e41	44	43	28	91	33	6.5	57	2.3
14	2.2	3.7	3.0	e22	32	37	25	69	24	6.0	10	2.2
15	1.8	2.9	3.1	e10	28	36	103	29	13	5.6	5.2	2.3
16	1.5	2.9	1.9	e7.4	26	e49	105	19	9.4	5.4	3.9	2.3
17	1.4	3.7	1.8	e50	26	51	95	37	8.5	5.3	3.4	2.4
18	19	3.7	1.9	e160	22	39	53	73	7.6	14	3.0	2.5
19	7.0	3.5	2.0	e33	19	31	34	28	6.8	9.6	3.5	2.1
20	2.8	10	2.1	e20	17	28	25	18	6.8	87	4.4	2.1
21	2.1	51	23	e91	15	27	122	16	7.6	17	2.8	2.0
22	1.7	5.3	23	795	14	24	52	47	6.7	11	2.3	2.2
23	1.9	4.0	7.7	265	14	22	29	23	6.4	15	2.2	2.3
24	1.7	3.6	4.8	88	15	22	20	22	25	67	3.0	2.1
25	1.4	24	3.7	54	18	22	14	15	15	11	3.2	2.4
26	1.3	18	3.2	41	15	21	11	13	8.9	55	33	2.4
27	1.3	5.1	3.0	39	81	20	53	11	175	44	8.9	2.4
28	3.4	3.6	2.9	42	121	20	66	9.9	36	14	4.0	2.5
29	2.6	3.3	2.9	42	---	21	35	10	21	8.6	3.1	13
30	14	4.5	e2.8	39	---	20	20	8.7	13	5.7	2.5	7.6
31	3.7	---	2.5	51	---	22	---	26	---	5.0	3.8	---
TOTAL	468.9	275.6	146.8	1944.9	1621	1138	1435	774.8	751.4	1084.5	211.7	87.3
MEAN	15.1	9.19	4.74	62.7	57.9	36.7	47.8	25.0	25.0	35.0	6.83	2.91
MAX	259	55	23	795	400	138	122	91	175	179	57	13
MIN	1.3	2.2	1.8	2.3	14	20	11	8.7	6.4	5.0	2.2	2.0
CFSM	.62	.38	.19	2.58	2.38	1.51	1.97	1.03	1.03	1.44	.28	.12
IN.	.72	.42	.22	2.98	2.48	1.74	2.20	1.19	1.15	1.66	.32	.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1999, BY WATER YEAR (WY)

MEAN	10.8	25.8	28.8	27.3	31.4	38.0	37.1	33.6	20.7	19.1	11.5	11.0
MAX	88.9	115	111	78.3	77.1	87.8	84.4	140	112	92.3	44.7	101
(WY)	1987	1994	1991	1969	1997	1978	1996	1996	1998	1979	1979	1989
MIN	.81	1.50	.85	.32	3.82	4.84	5.51	4.84	.98	.67	.15	.20
(WY)	1967	1966	1977	1977	1978	1981	1976	1976	1988	1966	1966	1966

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1965 - 1999	
ANNUAL TOTAL	10284.20		9939.9			
ANNUAL MEAN	28.2		27.2		24.6	
HIGHEST ANNUAL MEAN					43.6	1993
LOWEST ANNUAL MEAN					4.86	1966
HIGHEST DAILY MEAN	663	Jun 11	795	Jan 22	1670	Nov 14 1993
LOWEST DAILY MEAN	.30	Sep 5	1.3	Oct 26	.00	Jul 8 1966
ANNUAL SEVEN-DAY MINIMUM	.49	Aug 31	1.6	Oct 21	.07	Aug 2 1966
INSTANTANEOUS PEAK FLOW			1290	Jan 22	3330	Jul 28 1979
INSTANTANEOUS PEAK STAGE			6.83	Jan 22	12.13	Jul 28 1979
ANNUAL RUNOFF (CFSM)	1.16		1.12		1.01	
ANNUAL RUNOFF (INCHES)	15.74		15.22		13.73	
10 PERCENT EXCEEDS	55		56		51	
50 PERCENT EXCEEDS	7.8		11		8.0	
90 PERCENT EXCEEDS	1.8		2.4		1.4	

e Estimated

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

LOCATION.--Lat 39°42'52", long 86°12'02", in SE$^1/_4$NE$^1/_4$ 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 mi^2.

PERIOD OF RECORD.--Oct. 1, 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 663.40 above sea level.

REMARKS.--Records good except for estimated daily discharges, which are poor. Natural flow affected by regulation of Morse Reservoir and Geist Reservoir, and by diversion of municipal water supply by the Indianapolis Water Company.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	341	478	613	493	2410	7220	1060	2440	938	1400	285	231
2	348	475	560	437	2630	5520	1090	2050	2730	2100	266	217
3	693	508	557	e500	2840	4060	1080	1830	3370	967	245	199
4	547	472	526	e560	2490	3510	1110	1570	3010	733	252	185
5	473	407	509	e550	2110	2700	1110	1450	2070	606	280	170
6	579	395	490	e540	1790	3940	1270	1590	1550	726	278	159
7	2890	393	686	e520	6030	4560	1100	1600	1270	763	247	169
8	1180	391	644	e500	10600	3930	1020	1370	1080	509	237	162
9	791	387	621	e480	10300	3410	1360	1240	980	466	248	165
10	499	830	613	e460	6540	2890	1430	1150	950	410	260	179
11	406	926	563	e440	4320	2240	1460	1050	1290	385	243	165
12	386	1070	531	e598	4470	1920	1330	1040	1270	369	232	164
13	376	1110	509	e1230	4290	1820	1170	1220	1230	351	384	172
14	368	821	509	e1100	3430	1870	1060	1870	1410	338	349	172
15	358	661	477	e1250	2810	1720	1380	1690	1130	332	295	174
16	358	584	454	e1500	2300	1540	2050	1510	930	332	274	166
17	352	528	439	1750	2120	2510	3870	1330	820	330	245	158
18	552	504	430	4490	1940	3920	5290	1660	690	402	217	152
19	463	468	437	6270	1780	3180	4420	1430	621	412	233	152
20	390	493	424	7510	1630	2520	3450	1600	604	842	279	155
21	386	451	644	7510	1500	2050	4230	1410	599	433	271	172
22	383	425	1030	18600	1380	1840	6230	1490	548	343	255	191
23	378	414	797	26000	1280	1640	5840	1470	477	307	267	192
24	371	407	945	24200	1190	1500	4060	1270	845	496	293	194
25	369	654	821	19500	1210	1420	2950	1170	1150	338	308	182
26	369	910	683	9210	1170	1320	2480	1110	800	314	324	174
27	369	677	650	5220	1570	1250	2410	995	1220	286	330	170
28	380	660	650	3920	4240	1190	3150	880	1090	285	291	179
29	373	603	622	3200	---	1080	4410	806	1160	329	277	258
30	452	598	587	2600	---	1060	3310	785	1110	311	255	260
31	468	---	558	2270	---	1030	---	860	---	296	241	---
TOTAL	16648	17700	18579	153408	90370	80360	76180	42936	36942	16511	8461	5438
MEAN	537	590	599	4949	3228	2592	2539	1385	1231	533	273	181
MAX	2890	1110	1030	26000	10600	7220	6230	2440	3370	2100	384	260
MIN	341	387	424	437	1170	1030	1020	785	477	285	217	152
CFSM	.28	.31	.32	2.61	1.70	1.37	1.34	.73	.65	.28	.14	.10
IN.	.33	.35	.36	3.01	1.77	1.58	1.49	.84	.72	.32	.17	.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1999, BY WATER YEAR (WY)

MEAN	541	2704	1538	3012	1970	3107	3047	3088	2795	1400	610	520
MAX	1039	7366	4215	4949	4000	5526	4170	7735	6924	3806	1360	1485
(WY)	1993	1994	1997	1999	1997	1997	1993	1996	1998	1993	1998	1993
MIN	227	345	382	1024	666	1375	1574	1385	829	533	273	181
(WY)	1995	1998	1996	1998	1995	1994	1997	1999	1994	1999	1999	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1992 - 1999	
ANNUAL TOTAL	776556		563533			
ANNUAL MEAN	2128		1544		2025	
HIGHEST ANNUAL MEAN					2947	1993
LOWEST ANNUAL MEAN					1186	1995
HIGHEST DAILY MEAN	25400	Jun 15	26000	Jan 23	32700	Nov 17 1993
LOWEST DAILY MEAN	279	Jan 4	152	Sep 18	150	Oct 1 1995
ANNUAL SEVEN-DAY MINIMUM	318	Sep 25	161	Sep 14	161	Sep 14 1999
INSTANTANEOUS PEAK FLOW			27600	Jan 23	36500	Nov 17 1993
INSTANTANEOUS PEAK STAGE			11.63	Jan 23	13.22	Nov 17 1993
ANNUAL RUNOFF (CFSM)	1.12		.81		1.07	
ANNUAL RUNOFF (INCHES)	15.22		11.05		14.50	
10 PERCENT EXCEEDS	5250		3440		4690	
50 PERCENT EXCEEDS	821		726		1000	
90 PERCENT EXCEEDS	368		246		290	

e Estimated

03353620 LICK CREEK AT INDIANAPOLIS, IN

LOCATION.--Lat 39°42'21", long 86°06'13", in NE¼NE¼ sec.32, T.15 N., R.4 E., Marion County, Hydrologic Unit 05120201, on left bank, at upstream side of Sherman Drive bridge, in Indianapolis, and at mile 6.2.

DRAINAGE AREA.--15.6 mi^2.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.78	2.3	12	e2.6	55	39	6.2	7.6	4.2	5.2	e.34	e.12
2	.78	4.0	4.4	e2.4	37	23	5.7	6.7	95	13	e.32	e.11
3	28	14	3.6	e9.0	23	23	7.7	6.1	13	3.9	e.31	.08
4	5.1	8.4	3.1	e7.0	17	15	9.6	5.8	10	3.8	e.40	.08
5	2.0	3.7	2.8	e5.8	12	13	7.2	6.2	12	3.3	e.76	.07
6	19	2.7	2.6	e5.3	13	121	15	10	5.6	6.8	e.54	.08
7	168	2.3	13	e4.9	246	34	7.2	6.5	4.4	2.6	e.40	.08
8	14	2.2	4.4	e4.6	84	20	5.7	5.3	3.7	1.7	e.35	.09
9	4.9	2.4	3.1	e4.3	37	25	18	5.0	3.5	1.8	e.30	.08
10	3.0	45	2.5	e3.9	23	22	8.5	4.8	3.7	1.7	e.26	.07
11	2.2	12	2.2	e3.8	29	20	6.9	4.6	3.5	1.3	e.24	.08
12	1.8	5.4	2.1	e7.0	83	18	5.6	5.1	4.7	1.2	e.72	.08
13	1.7	5.0	2.0	e53	27	19	4.7	13	5.9	1.0	e15	.10
14	1.7	2.7	1.9	e25	18	16	4.4	7.4	4.1	1.0	e6.5	e.09
15	2.3	2.2	2.0	e12	16	15	31	7.1	2.5	.94	e1.7	e.09
16	3.1	2.2	1.8	e7.6	15	24	39	4.5	2.0	.89	e.52	e.08
17	2.0	2.2	1.8	e12	16	26	54	11	1.7	2.0	e.35	e.08
18	27	2.2	1.8	e120	12	17	28	18	1.6	5.2	e.27	e.07
19	7.5	2.2	1.8	e50	10	12	17	6.0	1.5	1.7	e.25	e.07
20	3.2	8.6	1.7	e21	9.1	11	13	4.1	1.5	24	e.35	e.07
21	2.7	3.1	30	e70	8.2	9.7	88	4.1	1.4	3.5	e.25	e.08
22	2.0	2.2	34	e400	7.3	8.5	30	12	1.3	1.3	e.22	e.07
23	2.0	2.0	12	178	7.3	7.5	17	12	1.2	.76	e.17	e.07
24	1.9	1.9	5.5	65	7.7	7.2	11	11	21	5.0	e.23	e.07
25	1.8	32	4.3	37	10	6.5	9.1	5.0	5.6	1.3	e.25	e.07
26	1.8	21	3.9	25	8.7	6.0	8.8	3.6	2.6	.64	e10	e.06
27	1.9	5.6	3.4	21	68	5.6	29	2.9	14	.54	e5.0	e.06
28	5.1	3.7	3.2	17	103	5.3	28	2.8	6.6	.53	e.96	e.06
29	2.7	3.1	3.2	14	---	5.2	15	2.8	19	.44	e.36	e.09
30	9.9	8.0	3.1	11	---	5.1	9.3	3.1	3.4	.40	e.19	e2.7
31	3.3	---	2.9	15	---	6.2	---	5.0	---	.35	e.29	---
TOTAL	333.16	214.3	176.1	1214.2	1002.3	585.8	539.6	209.1	260.2	97.79	47.80	5.00
MEAN	10.7	7.14	5.68	39.2	35.8	18.9	18.0	6.75	8.67	3.15	1.54	.17
MAX	168	45	34	400	246	121	88	18	95	24	15	2.7
MIN	.78	1.9	1.7	2.4	7.3	5.1	4.4	2.8	1.2	.35	.17	.06
CFSM	.69	.46	.36	2.51	2.29	1.21	1.15	.43	.56	.20	.10	.01
IN.	.79	.51	.42	2.90	2.39	1.40	1.29	.50	.62	.23	.11	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1999, BY WATER YEAR (WY)

MEAN	7.69	21.9	23.3	21.9	26.6	31.8	27.7	26.0	18.0	17.3	11.0	7.62
MAX	53.1	102	76.4	50.5	57.1	64.6	71.4	102	88.8	95.5	54.1	48.2
(WY)	1987	1994	1991	1997	1975	1978	1996	1996	1998	1992	1979	1989
MIN	1.03	1.44	2.14	1.00	4.67	5.98	3.92	1.87	.39	2.55	1.28	.17
(WY)	1983	1982	1981	1981	1978	1994	1971	1988	1988	1991	1986	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1971 - 1999	
ANNUAL TOTAL	8080.58		4685.35			
ANNUAL MEAN	22.1		12.8		20.0	
HIGHEST ANNUAL MEAN					27.6	1979
LOWEST ANNUAL MEAN					11.7	1977
HIGHEST DAILY MEAN	776	Jun 15	400	Jan 22	1380	Nov 14 1993
LOWEST DAILY MEAN	.76	Sep 30	.06	Sep 26	.05	Sep 19 1983
ANNUAL SEVEN-DAY MINIMUM	.79	Sep 26	.07	Sep 22	.07	Sep 22 1999
INSTANTANEOUS PEAK FLOW			499	Feb 7	2500	Jun 25 1978
INSTANTANEOUS PEAK STAGE			b4.76	Jan 22	9.61	Jun 25 1978
ANNUAL RUNOFF (CFSM)	1.42		.82		1.28	
ANNUAL RUNOFF (INCHES)	19.27		11.17		17.45	
10 PERCENT EXCEEDS	57		27		44	
50 PERCENT EXCEEDS	4.5		4.7		7.0	
90 PERCENT EXCEEDS	1.4		.25		1.2	

e Estimated
b ice jam

03353630 LITTLE BUCK CREEK NEAR SOUTHPORT, IN

LOCATION.--Lat 39°40'11", long 86°04'57", in $SW^1/_4SW^1/_4$ 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.--5.75 mi^2.

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

REVISED RECORDS.--WDR IN-95-1: Drainage area.

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.42	1.9	e.81	20	16	1.7	4.4	.60	.33	.02	.01
2	.00	.53	1.5	e.80	16	10	1.6	3.4	29	.51	.02	.01
3	.34	1.2	1.0	e.79	11	8.9	2.5	2.7	6.9	.30	.02	.01
4	.88	1.6	1.0	e.78	8.3	6.5	3.1	2.3	3.9	.19	.02	.01
5	.43	.90	1.1	e.78	6.3	5.7	2.2	2.2	4.2	.13	.02	.01
6	1.6	.63	1.2	e.74	6.1	55	4.8	3.3	2.0	1.2	.02	.01
7	44	.55	2.5	e.70	107	16	2.8	2.2	1.4	1.0	.05	.01
8	10	.40	1.6	e.67	34	9.9	2.3	1.6	.97	.35	.02	.02
9	3.2	.43	1.2	e.64	17	9.3	6.0	1.4	.80	1.4	.02	.01
10	1.4	5.8	1.1	e.62	10	8.9	3.7	1.1	.64	2.4	.02	.01
11	.64	4.3	.81	3.0	10	7.7	2.9	.83	.59	.64	.02	.02
12	.37	3.2	.81	7.4	27	7.6	2.2	.82	.54	.27	.02	.02
13	.28	2.0	.79	43	12	8.3	1.9	2.2	1.3	.16	1.3	.02
14	.25	1.5	.72	28	8.5	7.1	1.9	1.6	.61	.11	1.2	.02
15	.23	1.1	.59	e13	7.1	6.7	5.8	1.2	.38	.08	.26	.02
16	.17	1.1	.53	e5.4	6.4	9.4	9.8	.87	.28	.06	.09	.02
17	.13	1.9	.52	e19	5.9	9.4	14	.85	.21	.04	.04	.01
18	3.4	1.4	.80	e80	4.9	6.6	10	2.5	.17	.04	.02	.02
19	2.2	1.2	.79	e28	4.3	5.0	7.1	1.4	.16	.02	.01	.02
20	1.0	2.2	.71	e13	3.7	4.5	5.3	.84	.15	1.5	.01	.02
21	1.0	1.6	4.0	101	3.5	4.2	24	.70	.15	1.0	.01	.02
22	2.1	1.3	8.0	217	2.8	3.4	11	2.1	.13	.28	.01	.02
23	1.1	1.2	4.2	83	2.9	3.0	7.2	2.1	.11	.14	.01	.02
24	.69	1.2	2.2	30	3.1	2.8	4.9	3.1	3.2	.09	.01	.02
25	.12	2.6	e1.5	18	4.0	2.4	3.9	1.5	1.6	.06	.02	.02
26	.09	4.6	e1.2	12	3.6	2.6	3.3	.93	.65	.02	.01	.02
27	.19	2.3	e1.0	8.6	22	2.7	8.2	.67	4.3	.02	.01	.02
28	.41	1.9	e.93	6.6	38	2.3	16	.50	1.3	.03	.01	.02
29	.38	1.6	e.88	5.6	---	1.9	10	.38	.69	.02	.01	.16
30	.42	1.7	e.85	4.8	---	1.8	6.0	.33	.37	.02	.01	.02
31	.42	---	e.82	5.3	---	1.7	---	.43	---	.02	.01	---
TOTAL	77.45	52.36	46.75	739.03	405.4	247.3	186.1	50.45	67.30	12.43	3.32	0.64
MEAN	2.50	1.75	1.51	23.8	14.5	7.98	6.20	1.63	2.24	.40	.11	.021
MAX	44	5.8	8.0	217	107	55	24	4.4	29	2.4	1.3	.16
MIN	.00	.40	.52	.62	2.8	1.7	1.6	.33	.11	.02	.01	.01
CFSM	.43	.30	.26	4.15	2.52	1.39	1.08	.28	.39	.07	.02	.00
IN.	.50	.34	.30	4.78	2.62	1.60	1.20	.33	.44	.08	.02	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1999, BY WATER YEAR (WY)

MEAN	2.83	12.3	8.58	12.5	9.32	12.9	14.9	13.9	10.3	7.19	1.69	2.08
MAX	6.73	38.1	34.3	23.8	23.2	26.9	31.8	48.0	26.2	39.0	4.94	9.18
(WY)	1994	1994	1991	1999	1990	1991	1996	1996	1998	1992	1990	1993
MIN	.12	.80	.33	4.39	2.98	3.67	3.32	1.63	.18	.23	.11	.021
(WY)	1998	1998	1998	1992	1996	1994	1997	1999	1991	1991	1999	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1990 - 1999	
ANNUAL TOTAL	3371.96		1888.53			
ANNUAL MEAN	9.24		5.17		9.02	
HIGHEST ANNUAL MEAN					12.0	1996
LOWEST ANNUAL MEAN					5.17	1999
HIGHEST DAILY MEAN	179	Jun 15	217	Jan 22	531	Nov 14 1993
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 2	.00	Jun 27 1991
ANNUAL SEVEN-DAY MINIMUM	.01	Sep 13	.01	Aug 26	.00	Jun 27 1991
INSTANTANEOUS PEAK FLOW			508	Jan 21	1260	Jul 9 1992
INSTANTANEOUS PEAK STAGE			7.53	Jan 21	8.93	Jul 9 1992
ANNUAL RUNOFF (CFSM)	1.61		.90		1.57	
ANNUAL RUNOFF (INCHES)	21.82		12.22		21.31	
10 PERCENT EXCEEDS	23		10		18	
50 PERCENT EXCEEDS	1.7		1.2		2.6	
90 PERCENT EXCEEDS	.12		.02		.09	

e Estimated

03353635 DERBYSHIRE CREEK AT SOUTHPORT, IN

LOCATION.--Lat 39°40'15", long 86°07'21", in NE$^1/_4$SE$^1/_4$ 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.--1.76 mi^2.

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

REVISED RECORDS.--WDR IN-95-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 746.37 ft above sea level.

REMARKS.--Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.24	.43	.57	.60	5.8	3.8	.91	1.4	.60	.50	.14	.06
2	.23	.47	.51	e.60	4.6	2.8	.86	1.2	9.7	.49	.13	.06
3	.91	.68	.51	e.60	3.4	2.6	1.0	1.1	1.5	.39	.12	.07
4	.47	.60	.49	e.60	2.7	2.0	1.0	1.0	1.1	.32	.10	.06
5	.35	.51	.47	e.59	2.1	1.8	.91	1.0	2.0	.29	.11	.06
6	1.7	.48	.50	e.58	2.1	16	1.6	1.2	1.0	1.1	.11	.06
7	12	.46	.73	e.55	38	4.1	1.0	1.0	.82	.63	.16	.06
8	1.5	.45	.53	e.52	7.4	2.8	.95	.92	.71	.37	.19	.05
9	.82	.47	.47	e.50	3.6	2.6	1.6	.91	.64	.71	.12	.05
10	.65	1.9	.46	e.47	2.7	3.0	1.1	.84	.58	.49	.11	.04
11	.58	1.0	.43	e.60	3.9	2.7	1.1	.80	.55	.35	.10	.04
12	.53	.70	.44	e.80	9.2	2.7	.91	.80	.76	.31	.11	.04
13	.48	.64	.43	7.8	3.5	2.8	.84	1.4	.76	.29	1.4	.04
14	.47	.58	.42	3.6	2.6	2.6	.84	.92	.59	.26	.39	.04
15	.44	.55	.41	2.4	2.3	2.2	2.2	.79	.50	.26	.22	.04
16	.43	.55	.42	2.6	2.1	2.4	3.1	.76	.50	.24	.18	.04
17	.42	.51	.43	6.6	1.9	2.4	3.9	.89	.51	.22	.14	.04
18	1.5	.51	.46	19	1.7	1.8	2.8	.97	.49	.26	.12	.03
19	.81	.50	.46	5.6	1.5	1.5	2.0	.76	.48	.23	.13	.03
20	.59	.78	.46	4.7	1.4	1.4	1.6	.72	.47	2.3	.11	.04
21	.56	.54	2.3	34	1.3	1.3	7.6	.69	.49	.73	.11	.04
22	.47	.51	2.0	69	1.2	1.2	3.3	.99	.49	.35	.10	.04
23	.43	.49	1.1	28	1.2	1.1	2.1	1.2	.54	.29	.10	.04
24	.42	.50	.88	6.4	1.2	1.1	1.5	1.1	1.6	.24	.12	.04
25	.41	1.2	.79	3.9	1.3	1.0	1.3	.78	.60	.23	.18	.03
26	.39	.80	.78	3.0	1.2	.95	1.2	.68	.44	.22	.20	.03
27	.39	.58	.78	2.6	10	.91	3.8	.65	1.4	.21	.12	.03
28	.53	.52	.72	2.2	12	.91	4.3	.56	.64	.24	.08	.17
29	.42	.51	.72	1.9	---	.87	2.9	.55	.50	.20	.08	.99
30	.46	.55	.68	1.7	---	.84	1.8	.56	.41	.18	.07	.49
31	.46	---	.66	2.3	---	.84	---	.63	---	.14	.06	---
TOTAL	30.06	18.97	21.01	214.31	131.9	75.02	60.02	27.77	31.37	13.04	5.41	2.85
MEAN	.97	.63	.68	6.91	4.71	2.42	2.00	.90	1.05	.42	.17	.095
MAX	12	1.9	2.3	69	38	16	7.6	1.4	9.7	2.3	1.4	.99
MIN	.23	.43	.41	.47	1.2	.84	.84	.55	.41	.14	.06	.03
CFSM	.55	.36	.39	3.93	2.68	1.37	1.14	.51	.59	.24	.10	.05
IN.	.64	.40	.44	4.53	2.79	1.59	1.27	.59	.66	.28	.11	.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1999, BY WATER YEAR (WY)

MEAN	.79	3.37	3.11	3.77	3.47	4.20	4.24	4.28	2.96	2.08	.78	.67
MAX	2.49	11.9	17.0	6.91	13.1	8.25	7.78	12.2	11.4	10.8	2.54	2.30
(WY)	1991	1994	1991	1999	1990	1991	1996	1996	1998	1992	1990	1993
MIN	.078	.24	.37	1.00	.98	.87	1.52	.74	.28	.26	.17	.052
(WY)	1998	1998	1998	1995	1998	1994	1997	1992	1991	1991	1991	1991

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1990 - 1999	
ANNUAL TOTAL	1043.84		631.73			
ANNUAL MEAN	2.86		1.73		2.81	
HIGHEST ANNUAL MEAN					4.25	1990
LOWEST ANNUAL MEAN					1.60	1995
HIGHEST DAILY MEAN	84	Jun 15	69	Jan 22	273	Dec 30 1990
LOWEST DAILY MEAN	.22	Jan 1	.03	Sep 18	.03	Sep 14 1991
ANNUAL SEVEN-DAY MINIMUM	.25	Sep 26	.04	Sep 21	.04	Sep 21 1999
INSTANTANEOUS PEAK FLOW			175	Jan 21	1010	May 15 1990
INSTANTANEOUS PEAK STAGE			3.93	Jan 21	5.14	Jul 9 1992
ANNUAL RUNOFF (CFSM)	1.62		.98		1.59	
ANNUAL RUNOFF (INCHES)	22.06		13.35		21.66	
10 PERCENT EXCEEDS	4.6		2.8		4.9	
50 PERCENT EXCEEDS	.81		.64		.93	
90 PERCENT EXCEEDS	.39		.11		.20	

e Estimated

03353636 LITTLE BUCK CREEK AT SOUTHPORT, IN

LOCATION.--Lat 39°39'54", long 86°08'11", in SW¼SW¼ 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.--10.8 mi².

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

REVISED RECORDS.--WDR IN-95-1: Drainage area.

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.17	1.2	2.7	e1.5	38	38	4.1	11	1.5	1.3	.23	.19
2	.17	1.3	2.2	e1.5	34	24	3.7	8.1	76	1.6	.22	.13
3	4.3	3.4	1.8	e1.5	25	21	5.2	6.3	25	1.2	.19	.10
4	2.5	3.9	1.7	e1.5	18	16	6.8	5.3	10	.82	.17	.10
5	1.4	2.9	1.7	e1.5	13	14	5.0	4.8	12	.58	.18	.09
6	5.9	2.2	1.9	e1.4	13	116	12	7.8	6.3	16	.19	.09
7	114	1.7	4.8	e1.3	240	42	6.7	6.0	3.9	10	.35	.10
8	23	1.5	2.8	e1.2	76	24	5.1	4.2	2.7	2.1	.65	.24
9	6.6	1.5	2.2	e1.2	40	22	12	3.6	2.3	3.7	.42	.21
10	3.3	14	1.9	e1.2	26	22	8.2	3.0	1.8	10	.35	.19
11	2.0	8.2	1.6	4.7	24	20	6.5	2.5	1.4	3.6	.29	.25
12	1.4	4.1	1.5	13	65	18	4.8	2.4	1.6	1.6	.26	.13
13	1.2	2.8	1.4	69	31	20	3.8	7.1	4.6	.93	8.2	.15
14	.87	2.1	1.3	40	21	17	3.5	5.1	2.2	.77	12	.14
15	.88	1.7	1.2	21	17	15	12	3.3	1.4	.67	4.1	.23
16	.77	1.4	1.1	e12	15	18	22	2.6	1.0	.51	1.8	.23
17	.63	1.8	1.1	e15	14	20	31	2.5	.84	.42	.96	.40
18	8.0	1.9	1.1	e147	12	15	24	5.3	.70	.48	.59	.58
19	5.7	1.6	1.4	e52	10	11	17	3.6	.62	.42	.43	.56
20	2.7	3.8	1.2	e18	8.6	9.5	12	2.4	.60	8.2	.40	.63
21	2.5	2.2	10	192	7.6	8.7	47	1.8	.62	9.1	.31	.75
22	2.3	1.8	17	547	6.4	7.2	30	6.3	.55	2.7	.24	.58
23	2.0	1.7	9.2	186	6.2	6.3	18	5.8	.55	1.4	.19	.38
24	1.5	1.6	4.8	67	6.5	6.0	12	11	7.8	.89	.27	.23
25	1.0	5.9	e2.3	40	8.7	5.2	8.7	4.9	5.7	.63	.55	.17
26	.76	7.9	e2.0	29	8.1	4.8	7.1	2.9	2.2	.47	.93	.13
27	.69	3.8	e1.9	21	54	5.1	16	2.1	13	.40	1.2	.13
28	1.9	2.8	e1.8	15	88	4.7	34	1.6	6.3	.51	.66	.14
29	1.3	2.4	e1.7	13	---	4.1	29	1.3	3.1	.59	.43	6.3
30	1.2	2.5	e1.6	11	---	3.6	16	1.1	1.8	.38	.32	3.4
31	1.2	---	e1.6	12	---	3.4	---	1.5	---	.28	.24	---
TOTAL	201.84	95.6	90.5	1538.5	926.1	561.6	423.2	137.2	198.08	82.25	37.32	16.95
MEAN	6.51	3.19	2.92	49.6	33.1	18.1	14.1	4.43	6.60	2.65	1.20	.56
MAX	114	14	17	547	240	116	47	11	76	16	12	6.3
MIN	.17	1.2	1.1	1.2	6.2	3.4	3.5	1.1	.55	.28	.17	.09
CFSM	.60	.30	.27	4.60	3.06	1.68	1.31	.41	.61	.25	.11	.05
IN.	.70	.33	.31	5.30	3.19	1.93	1.46	.47	.68	.28	.13	.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1999, BY WATER YEAR (WY)

MEAN	5.52	20.9	16.6	22.4	19.1	25.6	28.1	25.9	19.6	13.5	4.53	4.38
MAX	14.0	68.9	72.5	49.6	48.1	53.8	50.4	73.9	65.7	70.6	12.9	17.8
(WY)	1991	1994	1991	1999	1990	1991	1996	1996	1998	1992	1990	1993
MIN	.73	1.52	2.21	7.58	6.38	7.12	9.67	4.43	1.68	1.55	1.20	.36
(WY)	1998	1998	1998	1995	1996	1994	1997	1999	1991	1991	1999	1991

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1990 - 1999	
ANNUAL TOTAL	6993.71		4309.14			
ANNUAL MEAN	19.2		11.8		17.2	
HIGHEST ANNUAL MEAN					19.9	1991
LOWEST ANNUAL MEAN					10.8	1995
HIGHEST DAILY MEAN	530	Jun 15	547	Jan 22	1110	Dec 30 1990
LOWEST DAILY MEAN	.17	Sep 29	.09	Sep 5	.09	Sep 27 1997
ANNUAL SEVEN-DAY MINIMUM	.20	Sep 26	.11	Sep 1	.11	Sep 26 1997
INSTANTANEOUS PEAK FLOW			1000	Jan 22	2120	Dec 30 1990
INSTANTANEOUS PEAK STAGE			7.81	Jan 22	10.63	Nov 14 1993
ANNUAL RUNOFF (CFSM)	1.77		1.09		1.59	
ANNUAL RUNOFF (INCHES)	24.09		14.84		21.58	
10 PERCENT EXCEEDS	40		23		34	
50 PERCENT EXCEEDS	4.8		2.7		6.1	
90 PERCENT EXCEEDS	.77		.30		.65	

e Estimated

03353637 LITTLE BUCK CREEK NEAR INDIANAPOLIS, IN

LOCATION.--Lat 39°40'00", long 86°11'48", in SW¼SW¼ 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.--17.0 mi^2.

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

REVISED RECORDS.--WDR IN-95-1: Drainage area.

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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	1.1	e.59	44	46	6.0	10	1.3	1.1	.00	.00
2	.00	.00	1.0	e.58	39	30	5.2	8.2	93	1.5	.00	.00
3	3.6	.81	.68	e.58	28	27	7.2	6.7	23	.46	.00	.00
4	1.4	1.7	.33	e.57	21	20	8.5	5.6	11	.01	.00	.00
5	.53	.99	.24	e.56	15	17	6.4	5.1	14	.00	.00	.00
6	6.6	.68	.21	e.54	14	131	15	10	7.0	16	.00	.00
7	121	.24	2.4	e.52	262	50	7.8	6.2	4.6	8.4	.00	.00
8	27	.04	1.2	e.48	103	31	6.2	4.7	3.1	1.9	.00	.00
9	8.7	.00	.80	e.47	49	29	16	4.0	2.3	3.7	.00	.00
10	4.0	12	.61	e.47	34	29	9.3	3.2	1.6	10	.00	.00
11	2.4	9.1	.49	e6.0	31	27	7.8	2.5	1.7	2.9	.00	.00
12	1.6	3.1	.36	e22	82	25	5.7	2.2	.70	1.0	.00	.00
13	1.1	2.1	.32	e170	38	26	4.8	9.6	4.7	36	13	.00
14	.67	1.1	.28	e66	28	23	4.4	5.6	1.7	.00	9.7	.00
15	.53	.63	.28	e20	23	20	15	3.6	.84	.00	1.3	.00
16	.46	.35	.23	e14	21	23	26	2.7	.20	.00	.00	.00
17	.16	.24	.18	e15	20	24	32	7.4	.00	.00	.00	.00
18	8.5	.62	.13	e220	16	19	25	7.8	.00	.00	.00	.00
19	7.0	.31	.24	e54	14	15	18	4.2	.00	.00	.00	.00
20	2.7	2.5	.25	e23	11	13	13	2.8	.00	21	.00	.00
21	1.8	1.1	6.0	171	9.9	12	58	2.0	.00	9.6	.00	.00
22	1.8	.59	18	686	8.7	9.8	29	9.2	.00	2.3	.00	.00
23	1.7	.37	18	229	8.3	8.6	19	9.6	.00	.90	.00	.00
24	1.1	.40	6.9	78	8.3	8.1	12	14	12	.05	.00	.00
25	.82	3.2	e1.5	45	11	7.0	9.1	5.4	5.4	.00	.00	.00
26	.36	5.7	e.84	33	9.6	6.5	8.1	3.2	1.9	.00	.56	.00
27	.15	2.4	e.74	25	52	6.6	25	2.0	13	.00	.19	.00
28	.75	1.8	e.68	19	116	6.2	34	1.4	5.1	.00	.00	.00
29	.24	1.3	e.64	15	---	5.5	25	1.0	2.4	.00	.00	.00
30	.11	1.1	e.63	12	---	4.9	15	.68	1.1	.00	.00	.00
31	.00	---	e.62	14	---	4.9	---	1.3	---	.00	.00	---
TOTAL	206.78	54.47	65.88	1942.36	1116.8	705.1	473.5	161.88	211.64	116.82	24.75	0.00
MEAN	6.67	1.82	2.13	62.7	39.9	22.7	15.8	5.22	7.05	3.77	.80	.000
MAX	121	12	18	686	262	131	58	14	93	36	13	.00
MIN	.00	.00	.13	.47	8.3	4.9	4.4	.68	.00	.00	.00	.00
CFSM	.39	.11	.13	3.69	2.35	1.34	.93	.31	.41	.22	.05	.00
IN.	.45	.12	.14	4.25	2.44	1.54	1.04	.35	.46	.26	.05	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1999, BY WATER YEAR (WY)

MEAN	7.15	28.3	21.7	30.2	24.1	31.9	36.1	34.2	26.0	17.6	6.20	5.81
MAX	20.6	91.9	99.4	62.7	54.5	68.0	63.7	105	77.3	85.7	18.3	28.6
(WY)	1991	1994	1991	1999	1990	1991	1996	1996	1998	1992	1990	1993
MIN	.094	.53	1.02	8.93	6.39	9.58	14.1	5.22	4.99	2.67	.80	.000
(WY)	1998	1998	1998	1995	1998	1994	1997	1999	1991	1991	1999	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1990 - 1999	
ANNUAL TOTAL	7689.63		5079.98			
ANNUAL MEAN	21.1		13.9		22.4	
HIGHEST ANNUAL MEAN					30.3	1993
LOWEST ANNUAL MEAN					11.9	1995
HIGHEST DAILY MEAN	665	Jun 15	686	Jan 22	1390	Dec 30 1990
LOWEST DAILY MEAN	.00	Jan 3	.00	Oct 1	.00	Sep 8 1991
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 5	.00	Jun 17	.00	Sep 8 1991
INSTANTANEOUS PEAK FLOW			1080	Jan 22	2300	Dec 30 1990
INSTANTANEOUS PEAK STAGE			7.71	Jan 22	11.21	Nov 14 1993
ANNUAL RUNOFF (CFSM)	1.24		.82		1.32	
ANNUAL RUNOFF (INCHES)	16.83		11.12		17.91	
10 PERCENT EXCEEDS	48		28		45	
50 PERCENT EXCEEDS	4.3		2.1		8.7	
90 PERCENT EXCEEDS	.13		.00		.00	

e Estimated

03353700 WEST FORK WHITE LICK CREEK AT DANVILLE, IN

LOCATION.--Lat 39°45'39", long 86°30'54", in NW¼NE¼ sec.10, T.15 N., R.1 W., Hendricks County, Hydrologic Unit 05120201, 600 ft upstream of U.S. Highway 36 bridge, at Danville Filtration Plant, 0.6 mi upstream from small left bank tributary, and 7 mi west of Avon.

DRAINAGE AREA.--28.8 mi^2.

PERIOD OF RECORD.--May 1958 to current year.

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 828.83 ft above sea level. Prior to Oct. 23, 1968, nonrecording gage and crest-stage gage on upstream side of bridge at same datum. Oct. 23, 1968, to Aug. 6, 1970, water-stage recorder on upstream side of bridge at same datum. Aug. 7, 1970 to Nov. 14, 1994, water-stage recorder on downstream side of bridge at same datum.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 28, 1957, reached a stage of 16.0 ft, from floodmarks, discharge, 6,660 ft^3/s, from contracted-opening measurement.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.16	2.7	e2.2	97	67	11	29	14	58	.26	.00
2	.00	.52	2.3	e5.0	85	48	9.0	24	104	63	.16	.00
3	.21	4.0	1.8	e7.6	62	43	8.8	21	57	11	.10	.00
4	.05	2.5	1.6	e5.0	42	35	9.0	19	33	4.9	.05	.00
5	.07	2.3	1.4	e4.0	31	32	7.1	18	25	2.9	.07	.00
6	1.5	1.9	1.6	e3.1	29	167	15	22	18	3.2	.02	.00
7	6.9	1.6	11	e2.6	525	78	11	16	15	3.6	.04	.00
8	.48	1.5	8.2	e2.2	212	52	11	12	12	2.5	.06	.00
9	.13	1.9	4.5	e2.0	110	47	17	10	10	1.6	.04	.00
10	.07	30	2.8	e1.8	73	30	10	9.0	8.5	.86	.02	.00
11	.06	26	2.2	e1.8	58	27	16	7.9	7.5	.64	.01	.00
12	.06	5.5	1.9	e3.5	95	28	9.1	7.8	6.7	.47	.06	.00
13	.06	2.1	2.0	e85	58	34	7.9	21	8.9	.34	2.0	.00
14	.05	1.3	1.5	e35	45	30	8.2	25	7.6	.31	.16	.00
15	.06	.99	1.8	e15	40	28	32	14	5.1	.25	.00	.00
16	.06	.82	1.5	e10	36	50	90	11	4.2	.23	.07	.00
17	.06	.52	1.4	e25	32	59	126	12	3.9	2.8	.00	.00
18	1.1	.47	1.2	e210	26	37	82	39	3.1	3.6	.00	.00
19	.18	.43	.90	e110	23	29	59	32	2.8	1.6	.00	.00
20	.09	.46	1.2	e77	19	27	45	19	2.9	82	.00	.00
21	.24	.33	13	258	17	24	109	15	2.9	54	.00	.00
22	.81	.35	49	2260	15	20	78	15	2.6	12	.00	.00
23	1.2	1.4	e20	491	16	18	50	12	2.1	4.2	.00	.00
24	.09	.68	e11	168	15	17	37	12	2.7	2.7	.00	.00
25	.08	4.1	7.8	100	16	13	32	8.4	2.6	1.8	.00	.00
26	.14	9.0	6.4	72	13	12	29	6.1	1.9	1.2	.00	.00
27	.21	5.0	5.1	58	43	11	34	4.6	1.9	.94	.00	.00
28	.49	2.7	3.9	42	121	11	63	4.1	1.6	1.1	.00	.00
29	.28	1.9	e3.3	33	---	9.5	54	3.5	1.4	.85	.00	.00
30	.71	2.4	e2.9	26	---	8.5	36	3.3	1.2	.53	.00	.00
31	.20	---	e2.4	29	---	9.6	---	6.0	---	.34	.00	---
TOTAL	15.65	112.83	178.30	4144.8	1954	1101.6	1106.1	458.7	370.1	323.46	3.12	0.00
MEAN	.50	3.76	5.75	134	69.8	35.5	36.9	14.8	12.3	10.4	.10	.000
MAX	6.9	30	49	2260	525	167	126	39	104	82	2.0	.00
MIN	.00	.16	.90	1.8	13	8.5	7.1	3.3	1.2	.23	.00	.00
CFSM	.02	.13	.20	4.64	2.42	1.23	1.28	.51	.43	.36	.00	.00
IN.	.02	.15	.23	5.35	2.52	1.42	1.43	.59	.48	.42	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1999, BY WATER YEAR (WY)

MEAN	8.68	28.3	38.1	39.4	48.3	60.9	52.0	39.2	22.6	19.3	8.04	6.14
MAX	82.0	156	154	134	151	145	123	178	174	134	69.4	109
(WY)	1987	1986	1991	1999	1990	1978	1996	1996	1998	1979	1979	1989
MIN	.000	.053	.035	.062	2.82	8.86	9.14	3.87	.51	.14	.026	.000
(WY)	1965	1965	1964	1977	1964	1994	1971	1976	1988	1991	1964	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1959 - 1999	
ANNUAL TOTAL	13647.76		9768.66			
ANNUAL MEAN	37.4		26.8		30.9	
HIGHEST ANNUAL MEAN					55.7	1973
LOWEST ANNUAL MEAN					6.35	1966
HIGHEST DAILY MEAN	1570	Jun 15	2260	Jan 22	2260	Jan 22 1999
LOWEST DAILY MEAN	.00	Oct 2	.00	Oct 2	.00	Oct 3 1960
ANNUAL SEVEN-DAY MINIMUM	.04	Sep 26	.00	Aug 17	.00	Oct 3 1960
INSTANTANEOUS PEAK FLOW			4590	Jan 22	5120	Feb 27 1997
INSTANTANEOUS PEAK STAGE			11.56	Jan 22	12.13	Jul 13 1979
ANNUAL RUNOFF (CFSM)	1.30		.93		1.07	
ANNUAL RUNOFF (INCHES)	17.63		12.62		14.57	
10 PERCENT EXCEEDS	82		58		72	
50 PERCENT EXCEEDS	6.5		4.0		8.1	
90 PERCENT EXCEEDS	.17		.00		.17	

e Estimated

03353800 WHITE LICK CREEK AT MOORESVILLE, IN

LOCATION.--Lat 39°36'28", long 86°22'56", in NE¼SE¼ sec.35, T.14 N., R.1 E., Morgan County, Hydrologic Unit 05120201, on right bank at downstream side of bridge on State Highway 42 at Mooresville, 0.9 mi downstream from McCracken Creek, 2.0 mi upstream from East Fork White Lick Creek, and at mile 11.4.

DRAINAGE AREA.--212 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 644.64 ft above sea level. Dec. 10, 1963 to Sept. 30, 1964, nonrecording gage at bridge 1,950 ft upstream at datum 1.39 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Pumpage from a well field above gage affects low flows.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 28, 1957, reached a stage of 22.5 ft, from levels to high-water mark by State of Indiana, Department of Natural Resources.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	22	36	e29	615	486	125	234	99	37	17	7.2
2	19	22	34	e29	650	351	124	197	581	247	16	6.6
3	24	28	32	e45	529	325	121	174	441	103	15	6.1
4	34	40	30	e44	418	278	128	159	246	57	14	6.6
5	26	34	29	e43	332	240	118	148	186	41	13	5.8
6	25	29	29	e42	312	827	148	158	147	39	13	5.5
7	307	25	39	e41	2810	556	136	148	124	91	13	4.9
8	169	24	44	e41	1980	361	120	128	108	50	13	5.5
9	59	23	38	e40	799	330	165	118	94	39	12	4.7
10	38	73	33	e39	526	292	157	107	82	35	11	4.8
11	31	185	30	e39	414	269	143	99	74	29	11	5.0
12	26	82	29	e42	634	264	131	93	69	25	11	4.3
13	24	50	28	e120	457	296	114	141	64	23	30	3.8
14	22	40	27	e390	351	268	107	271	69	22	70	4.0
15	21	35	26	e300	311	239	160	187	65	21	25	3.8
16	20	31	26	e210	283	272	361	142	54	20	17	e3.6
17	19	30	25	158	278	381	604	129	48	20	15	e3.5
18	27	28	25	1250	245	319	450	168	44	29	13	e3.3
19	46	26	24	1050	222	248	326	186	43	31	12	e3.1
20	33	29	24	665	202	218	263	143	41	178	11	e2.9
21	27	27	29	1100	182	204	514	119	39	135	10	e2.8
22	24	25	111	8000	167	185	528	148	39	70	9.5	e2.6
23	22	25	e70	5480	162	170	333	132	36	43	9.0	e2.5
24	21	24	e52	1390	164	162	248	158	40	36	9.8	e2.3
25	20	30	e45	820	167	148	206	122	40	35	10	e2.3
26	24	95	e37	604	162	138	188	102	37	28	12	e2.2
27	22	53	e34	514	197	133	204	90	64	25	13	e2.2
28	21	41	e32	437	910	129	503	79	48	24	11	e2.4
29	21	36	e31	364	---	126	474	73	41	24	9.7	e6.0
30	23	34	e31	315	---	120	306	69	34	21	8.3	11
31	23	---	e30	302	---	117	---	73	---	18	7.3	---
TOTAL	1236	1246	1110	23943	14479	8452	7505	4295	3097	1596	461.6	131.3
MEAN	39.9	41.5	35.8	772	517	273	250	139	103	51.5	14.9	4.38
MAX	307	185	111	8000	2810	827	604	271	581	247	70	11
MIN	18	22	24	29	162	117	107	69	34	18	7.3	2.2
CFSM	.19	.20	.17	3.64	2.44	1.29	1.18	.65	.49	.24	.07	.02
IN.	.22	.22	.19	4.20	2.54	1.48	1.32	.75	.54	.28	.08	.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1999, BY WATER YEAR (WY)

MEAN	65.5	199	264	270	329	430	380	295	173	144	79.7	55.9
MAX	547	1193	975	845	942	1154	1328	1062	936	764	567	712
(WY)	1987	1994	1991	1969	1971	1963	1964	1996	1998	1979	1979	1989
MIN	5.47	9.86	8.83	9.60	35.7	98.2	83.1	46.3	12.9	11.7	5.10	3.51
(WY)	1998	1968	1964	1977	1964	1966	1971	1976	1988	1966	1966	1991

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1957 - 1999	
ANNUAL TOTAL	86032		67551.9			
ANNUAL MEAN	236		185		224	
HIGHEST ANNUAL MEAN					372	1974
LOWEST ANNUAL MEAN					51.1	1966
HIGHEST DAILY MEAN	6210	Jun 15	8000	Jan 22	12100	Dec 30 1990
LOWEST DAILY MEAN	15	Jan 1	2.2	Sep 26	.68	Aug 27 1988
ANNUAL SEVEN-DAY MINIMUM	18	Sep 26	2.4	Sep 22	1.8	Sep 24 1988
INSTANTANEOUS PEAK FLOW			10900	Jan 22	19000	Jul 13 1979
INSTANTANEOUS PEAK STAGE			20.31	Jan 22	23.31	Jul 13 1979
ANNUAL RUNOFF (CFSM)	1.11		.87		1.06	
ANNUAL RUNOFF (INCHES)	15.10		11.85		14.36	
10 PERCENT EXCEEDS	573		371		476	
50 PERCENT EXCEEDS	56		44		88	
90 PERCENT EXCEEDS	22		10		13	

e Estimated

03354000 WHITE RIVER NEAR CENTERTON, IN

(Former National stream-quality accounting network station)

LOCATION.--Lat 39°29'51", long 86°24'02", in NE¼NE¼ sec.10, T.12 N., R.1 E., Morgan County, Hydrologic Unit 05120201, on right bank at upstream side of bridge on Blue Bluff Road, 0.8 mi downstream from White Lick Creek, 1 mi south of Centerton, and at mile 199.3.

DRAINAGE AREA.--2,444 mi^2.

PERIOD OF RECORD.--July 1925 to September 1930 (gage heights only), October 1930 to March 1932, October 1946 to current year. Monthly discharge only for October and November 1946, published in WSP 1305. Published as West Fork White River at Martinsville prior to March 1932, and as West Fork White River near Centerton October 1946 to September 1948.

REVISED RECORDS.--WSP 1335: 1948-49. WSP 1909: 1931(M). WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 595.44 ft above sea level (Corps of Engineers bench mark), levels by Indianapolis Power and Light Co. See WSP 1725 for history of changes prior to July 1953. July 1953 to Aug. 7, 1975, water-stage recorder at site 0.4 mi downstream at same datum.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 22.8 ft at Martinsville site (from information by Indiana State Highway Commission) and 21.9 ft at site 0.4 mi downstream (from information by Corps of Engineers), discharge, 90,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	407	713	855	720	5240	7890	1620	3690	1240	1190	494	330
2	406	708	821	701	5350	7760	1640	3080	5110	2380	464	328
3	459	777	786	675	5150	5880	1620	2730	4170	1670	434	311
4	983	853	762	e750	4740	5100	1680	2450	4010	1220	419	307
5	681	727	734	e740	3960	4190	1620	2200	3040	1040	430	291
6	675	646	718	e720	3540	6290	1860	2280	2320	924	438	283
7	2980	586	828	e720	10100	6560	1760	2290	1950	1400	421	285
8	2740	583	905	e700	15600	5760	1580	2040	1630	999	399	289
9	1540	558	866	e650	13600	4930	1840	1860	1590	864	385	296
10	1160	734	842	e620	11300	4600	2030	1670	1390	959	393	300
11	892	1520	801	e600	7380	3820	2010	1550	1370	740	392	302
12	746	1240	755	e731	7620	3370	1900	1450	1660	636	377	295
13	651	1360	719	e1450	6790	3240	1720	1680	1510	588	458	292
14	591	1210	690	e1400	5870	3130	1550	2350	1610	537	941	292
15	546	1010	687	e1500	4730	2970	1630	2330	1540	488	577	299
16	516	898	659	e1700	4150	2740	2690	2110	1300	477	455	300
17	504	820	630	2040	3730	3030	4350	1840	1150	461	415	286
18	517	762	617	6610	3400	4730	5930	2530	1040	495	382	288
19	1050	729	614	6730	3130	4480	5730	2130	924	581	367	286
20	735	735	585	7870	2890	3710	4650	2010	855	1390	429	294
21	636	714	633	9310	2670	3180	5700	1970	820	1490	403	291
22	594	669	1310	22700	2480	2830	6990	1960	797	982	379	312
23	559	626	1180	33000	2320	2560	7230	2010	735	744	362	310
24	530	601	1080	29800	2210	2370	5560	2100	773	813	377	307
25	510	598	1110	27000	2150	2210	4290	1740	1280	855	397	298
26	509	1210	969	22500	2100	2080	3590	1590	1140	636	418	288
27	501	1020	896	11300	2310	1960	3200	1470	1100	567	486	289
28	527	906	881	7380	5880	1890	4360	1330	1480	528	430	286
29	543	858	870	5960	---	1790	5430	1210	1240	581	375	313
30	538	808	812	4980	---	1690	4810	1130	1230	592	352	530
31	734	---	792	4230	---	1640	---	1150	---	524	341	---
TOTAL	24960	25179	25407	215787	150390	118380	100570	61930	50004	27351	13390	9178
MEAN	805	839	820	6961	5371	3819	3352	1998	1667	882	432	306
MAX	2980	1520	1310	33000	15600	7890	7230	3690	5110	2380	941	530
MIN	406	558	585	600	2100	1640	1550	1130	735	461	341	283
CFSM	.33	.34	.34	2.85	2.20	1.56	1.37	.82	.68	.36	.18	.13
IN.	.38	.38	.39	3.28	2.29	1.80	1.53	.94	.76	.42	.20	.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1999, BY WATER YEAR (WY)

MEAN	830	1860	2566	3358	3793	4625	4372	3093	2501	1834	1122	883
MAX	3709	11760	8248	17760	10430	10390	11530	11280	10310	6629	6001	8417
(WY)	1987	1994	1958	1950	1950	1963	1964	1996	1998	1979	1979	1989
MIN	281	320	305	302	460	1207	1097	799	419	344	338	213
(WY)	1964	1954	1964	1977	1964	1966	1971	1976	1988	1954	1966	1954

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1948 - 1999	
ANNUAL TOTAL	1095154		822526			
ANNUAL MEAN	3000		2253		2562	
HIGHEST ANNUAL MEAN					4115	1950
LOWEST ANNUAL MEAN					812	1954
HIGHEST DAILY MEAN	37100	Jun 16	33000	Jan 23	47100	Apr 22 1964
LOWEST DAILY MEAN	406	Oct 2	283	Sep 6	138	Sep 27 1954
ANNUAL SEVEN-DAY MINIMUM	434	Sep 27	292	Sep 13	157	Sep 27 1954
INSTANTANEOUS PEAK FLOW			34600	Jan 23	50500	Apr 22 1964
INSTANTANEOUS PEAK STAGE			16.59	Jan 23	18.38	Dec 31 1990
ANNUAL RUNOFF (CFSM)	1.23		.92		1.05	
ANNUAL RUNOFF (INCHES)	16.67		12.52		14.24	
10 PERCENT EXCEEDS	6690		5190		5760	
50 PERCENT EXCEEDS	1290		1050		1350	
90 PERCENT EXCEEDS	559		378		408	

e Estimated

03357000 WHITE RIVER AT SPENCER, IN

LOCATION.--Lat 39°16'51", long 86°45'44", in NE¼NE¼ sec.29, T.10 N., R. 3 W., Owen County, Hydrologic Unit 05120202, on right bank at upstream side of county road bridge at the south edge of Spencer, 3.3 mi upstream from McBrides Creek, and at mile 165.9.

DRAINAGE AREA.--2,988 mi^2.

PERIOD OF RECORD.--July 1925 to September 1971 (discharge), October 1971 to current year (gage heights only).

REVISED RECORDS.--WDR IN-95-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 526.04 ft above sea level. Prior to Dec. 26, 1940, nonrecording gage at same site and datum.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 23.99 ft Jan. 1, 1991; minimum gage height, 0.88 ft Sept. 25, 30, and Oct. 1, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 28.5 ft Mar. 26, 1913, from flood marks.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 22.33 ft, Jan. 24; minimum gage height, 2.50 ft, Sept. 22, 27.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.93	3.42	3.62	3.43	10.60	11.58	5.08	7.71	4.43	4.14	3.09	2.67
2	2.94	3.47	3.64	3.49	10.58	11.98	5.07	6.99	12.51	5.51	3.03	2.67
3	2.97	3.72	3.59	3.49	9.94	10.28	5.12	6.52	8.78	5.03	2.99	2.67
4	3.56	3.74	3.56	3.97	9.35	9.33	5.28	6.18	8.23	4.38	2.94	2.64
5	3.35	3.60	3.51	5.14	8.40	8.51	5.17	5.92	7.12	4.06	2.92	2.62
6	3.42	3.46	3.53	5.02	7.89	11.63	5.70	6.41	6.23	3.85	2.94	2.59
7	5.59	3.36	3.53	4.63	15.52	11.74	5.63	6.24	5.68	4.58	2.91	2.57
8	6.40	3.32	3.74	4.34	18.28	10.61	5.34	5.84	5.20	4.04	2.88	2.57
9	4.81	3.32	3.70	3.54	17.75	9.74	5.78	5.52	5.08	3.80	2.85	2.56
10	4.29	3.70	3.60	3.46	16.75	9.51	5.84	5.21	4.74	4.33	2.83	2.55
11	3.89	4.68	3.54	3.40	13.26	8.76	5.92	5.02	4.68	3.94	2.86	2.56
12	3.64	4.26	3.49	3.39	13.03	8.21	5.62	4.88	4.97	3.64	2.83	2.56
13	3.47	4.35	3.43	4.94	12.13	7.97	5.37	5.63	4.79	3.47	2.87	2.55
14	3.36	4.25	3.40	5.95	10.91	7.66	5.12	6.19	4.74	3.36	3.40	2.55
15	3.28	3.98	3.38	5.28	9.55	7.33	5.25	6.08	4.76	3.25	3.23	2.54
16	3.22	3.81	3.36	5.17	8.84	6.98	7.05	5.73	4.46	3.19	3.00	2.54
17	3.17	3.70	3.34	6.36	8.25	7.05	8.78	5.45	4.24	3.21	2.91	2.52
18	3.24	3.61	3.30	11.26	7.79	8.52	9.94	6.67	4.09	3.12	2.85	2.51
19	3.82	3.57	3.30	10.86	7.39	8.51	9.96	6.02	3.93	3.22	2.79	2.51
20	3.56	3.52	3.25	11.45	7.03	7.77	8.89	5.61	3.82	4.64	2.79	2.51
21	3.36	3.53	3.48	14.32	6.72	7.18	11.80	5.63	3.76	4.78	2.86	2.52
22	3.28	3.45	4.22	19.09	6.43	6.74	11.83	5.70	3.70	4.00	2.79	2.52
23	3.22	3.41	4.23	21.95	6.22	6.41	11.59	5.63	3.62	3.61	2.76	2.56
24	3.18	3.37	4.01	22.07	6.08	6.16	10.08	5.94	3.63	3.40	2.76	2.53
25	3.13	3.42	4.08	21.33	5.92	5.92	8.66	5.32	4.09	3.72	2.77	2.53
26	3.11	3.89	3.93	20.57	5.85	5.75	7.79	5.04	4.16	3.39	2.81	2.51
27	3.09	4.01	3.77	18.58	6.91	5.56	7.36	4.84	3.93	3.28	2.82	2.53
28	3.10	3.79	3.72	12.85	10.54	5.45	8.50	4.62	4.53	3.20	2.92	2.52
29	3.16	3.72	3.70	10.46	---	5.32	9.23	4.42	4.17	3.17	2.79	2.56
30	3.10	3.65	3.63	9.39	---	5.17	8.88	4.30	4.18	3.24	2.73	2.70
31	3.38	---	3.51	8.99	---	5.11	---	4.30	---	3.15	2.70	---
MEAN	3.55	3.70	3.62	9.30	9.93	8.01	7.39	5.66	5.07	3.80	2.89	2.56
MAX	6.40	4.68	4.23	22.07	18.28	11.98	11.83	7.71	12.51	5.51	3.40	2.70
MIN	2.93	3.32	3.25	3.39	5.85	5.11	5.07	4.30	3.62	3.12	2.70	2.51

WTR YR 1999 MEAN 5.43 MAX 22.07 MIN 2.51

03357350 PLUM CREEK NEAR BAINBRIDGE, IN

LOCATION.--Lat 39°45'42", long 86°43'46", in SW$^1/_4$SE$^1/_4$ 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 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.27	.44	9.1	6.2	1.3	2.0	2.4	1.8	.04	.00
2	.00	.00	.25	e.46	8.7	4.8	1.0	1.7	13	1.1	.04	.00
3	.00	.01	.24	e.46	6.5	4.3	1.1	1.4	5.1	.32	.03	.00
4	.00	.01	.23	e.42	4.7	3.5	1.2	1.2	3.3	.17	.03	.00
5	.00	.00	.22	e.40	3.7	3.3	.91	1.4	2.7	.07	.03	.00
6	.15	.00	.25	e.38	3.7	24	2.1	2.2	1.5	.11	.03	.00
7	4.5	.00	3.6	e.37	70	7.9	1.3	1.4	1.1	.19	.03	.00
8	.16	.00	1.6	e.36	16	5.7	1.2	1.0	.93	.06	.03	.00
9	.00	.00	.96	e.36	8.2	5.2	1.3	.88	.80	.05	.03	.00
10	.00	3.2	.78	e.35	5.8	4.1	.84	.79	.71	.06	.03	.00
11	.00	1.8	.69	e.35	5.3	4.1	.84	.72	.62	.06	.02	.00
12	.00	.60	.65	e.50	9.3	5.2	.69	.67	.59	.05	.03	.00
13	.00	.40	.62	e5.2	5.2	5.5	.68	3.7	.60	.05	.14	.00
14	.00	.33	.54	e2.5	4.4	4.5	.70	2.2	.59	.05	.04	.00
15	.00	.27	.49	e1.5	3.9	3.9	2.3	1.4	.48	.04	.03	.00
16	.00	.23	.51	e1.1	3.4	4.5	9.5	1.1	.46	.04	.03	.00
17	.00	.21	.49	e3.0	2.9	4.5	13	31	.45	1.1	.03	.00
18	.00	.18	.44	e29	2.7	3.5	8.2	25	.38	1.5	.03	.00
19	.00	.19	.44	e11	2.4	2.9	5.9	9.7	.34	.30	.03	.00
20	.00	.19	.45	e8.0	1.9	2.8	4.6	6.2	.35	7.8	.03	.00
21	.00	.15	1.7	47	1.6	2.6	13	4.8	.33	.60	.03	.00
22	.00	.14	2.9	177	1.4	2.1	7.0	7.1	.27	.29	.02	.00
23	.00	.14	1.3	28	1.5	2.0	4.9	5.0	.24	.13	.02	.00
24	.00	.13	.96	11	1.4	1.8	3.8	4.2	.32	.05	.03	.00
25	.00	.50	.78	7.3	1.5	1.4	3.4	3.0	.35	.04	.03	.00
26	.00	1.2	e.70	5.7	1.3	1.3	3.1	2.0	.21	.04	.02	.00
27	.00	.44	e.64	4.9	6.0	1.3	3.4	1.6	.22	.07	.02	.00
28	.00	.33	e.60	3.9	12	1.2	3.6	1.3	.16	.07	.01	.00
29	.00	.29	e.56	3.3	---	1.1	2.8	1.1	.08	.05	.01	.00
30	.00	.28	.53	2.8	---	1.0	2.3	.96	.05	.05	.00	.00
31	.00	---	.50	3.7	---	1.1	---	1.9	---	.05	.00	---
TOTAL	4.81	11.22	24.89	360.75	204.5	127.3	105.96	128.62	38.63	16.36	0.92	0.00
MEAN	.16	.37	.80	11.6	7.30	4.11	3.53	4.15	1.29	.53	.030	.000
MAX	4.5	3.2	3.6	177	70	24	13	31	13	7.8	.14	.00
MIN	.00	.00	.22	.35	1.3	1.0	.68	.67	.05	.04	.00	.00
CFSM	.05	.12	.27	3.88	2.43	1.37	1.18	1.38	.43	.18	.01	.00
IN.	.06	.14	.31	4.47	2.54	1.58	1.31	1.59	.48	.20	.01	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1999, BY WATER YEAR (WY)

MEAN	1.09	3.84	4.66	3.96	5.67	6.72	5.46	4.14	2.60	2.30	1.13	1.04
MAX	5.80	20.6	18.4	13.5	17.1	19.1	12.8	16.1	13.7	12.9	7.90	12.8
(WY)	1987	1986	1991	1974	1971	1978	1996	1981	1998	1979	1979	1989
MIN	.000	.000	.000	.000	.55	1.46	.92	.14	.007	.019	.001	.000
(WY)	1997	1998	1998	1977	1998	1981	1971	1976	1988	1988	1991	1988

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1969 - 1999	
ANNUAL TOTAL	1039.18		1023.96			
ANNUAL MEAN	2.85		2.81		3.53	
HIGHEST ANNUAL MEAN					5.71	1973
LOWEST ANNUAL MEAN					1.55	1995
HIGHEST DAILY MEAN	128	Jun 15	177	Jan 22	218	Nov 19 1985
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Aug 18 1970
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 16	.00	Oct 9	.00	Aug 26 1970
INSTANTANEOUS PEAK FLOW			498	Jan 22	940	Sep 14 1989
INSTANTANEOUS PEAK STAGE			4.64	Jan 22	6.50	Sep 14 1989
ANNUAL RUNOFF (CFSM)	.95		.94		1.18	
ANNUAL RUNOFF (INCHES)	12.89		12.70		15.99	
10 PERCENT EXCEEDS	6.0		5.6		7.2	
50 PERCENT EXCEEDS	.53		.51		.96	
90 PERCENT EXCEEDS	.00		.00		.01	

e Estimated

03357500 BIG WALNUT CREEK NEAR REELSVILLE, IN

LOCATION.--Lat 39°32'11", long 86°58'35", in NW¼SW¼ sec.28, T.13 N., R.5 W., Putnam County, Hydrologic Unit 05120203, on left bank at downstream side of county highway bridge, 1.5 mi southwest of Reelsville, and 4.1 mi upstream from Mill Creek.

DRAINAGE AREA.--326 mi^2.

PERIOD OF RECORD.--July 1949 to current year. Published as Eel River near Reelsville, October 1952 to September 1956.

REVISED RECORDS.--WSP 1335: 1950. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 588.24 ft above sea level (levels by State of Indiana, Department of Natural Resources). Prior to Dec. 10, 1949, nonrecording gage at same site and datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow partly regulated by Soil Conservation Service control structures on tributaries to Little Walnut Creek beginning in 1971.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	27	58	e54	987	849	192	390	232	106	41	12
2	36	29	54	e52	1080	601	192	336	981	888	39	12
3	39	38	52	e74	980	513	187	303	852	344	35	11
4	38	44	50	e120	799	446	205	279	498	171	31	11
5	39	45	49	e115	666	396	192	271	414	120	30	10
6	46	44	48	e110	615	1300	229	282	327	97	29	9.5
7	215	40	99	e98	3930	1160	225	269	269	93	27	8.9
8	171	38	153	e94	4110	719	201	238	233	85	24	8.1
9	76	36	126	e88	1850	623	214	220	209	80	23	7.6
10	48	93	98	e86	1200	573	204	205	191	75	21	7.3
11	38	278	82	e83	893	517	213	192	201	72	20	7.2
12	32	183	73	e90	1060	491	184	182	196	69	20	6.9
13	28	113	67	e250	879	513	168	245	215	66	24	6.9
14	25	85	63	e700	664	465	161	332	237	64	32	6.3
15	23	70	59	e640	572	407	247	391	182	61	33	6.3
16	21	61	54	e600	513	386	752	292	157	60	29	6.1
17	20	54	53	e540	471	452	1730	249	142	78	24	5.9
18	25	49	52	e1500	418	487	1130	538	132	262	20	5.6
19	34	46	50	e1200	380	392	772	600	125	99	21	5.5
20	29	45	50	e970	347	344	587	400	121	641	18	5.6
21	27	41	62	e1300	315	320	1340	317	118	262	17	5.2
22	25	39	165	8290	290	296	1130	427	115	130	16	4.9
23	23	38	160	9010	278	272	738	377	110	95	16	4.7
24	22	36	e130	3340	274	254	535	434	120	110	17	4.3
25	22	40	e110	2050	274	235	436	342	118	68	16	3.9
26	25	79	e100	1340	262	220	392	283	115	58	15	3.6
27	26	84	e86	1040	335	209	404	244	116	56	15	3.5
28	27	74	e74	882	1040	202	588	217	108	59	14	3.6
29	26	63	e66	747	---	196	616	198	113	58	13	5.5
30	27	59	e60	654	---	187	502	183	101	50	12	8.2
31	27	---	e56	643	---	182	---	187	---	45	13	---
TOTAL	1297	1971	2459	36760	25482	14207	14666	9423	7048	4522	705	207.1
MEAN	41.8	65.7	79.3	1186	910	458	489	304	235	146	22.7	6.90
MAX	215	278	165	9010	4110	1300	1730	600	981	888	41	12
MIN	20	27	48	52	262	182	161	182	101	45	12	3.5
CFSM	.13	.20	.24	3.64	2.79	1.41	1.50	.93	.72	.45	.07	.02
IN.	.15	.22	.28	4.19	2.91	1.62	1.67	1.08	.80	.52	.08	.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1999, BY WATER YEAR (WY)

MEAN	95.9	271	396	473	523	644	593	465	333	222	123	112
MAX	642	1655	1602	2947	1402	1636	1459	1848	2183	1221	1047	1248
(WY)	1987	1986	1991	1950	1950	1978	1957	1996	1957	1979	1979	1989
MIN	4.79	13.7	9.71	13.6	65.1	151	142	69.5	26.7	19.4	9.49	4.76
(WY)	1965	1964	1964	1977	1964	1966	1971	1976	1988	1954	1966	1954

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1950 - 1999	
ANNUAL TOTAL	125355		118747.1			
ANNUAL MEAN	343		325		353	
HIGHEST ANNUAL MEAN					640	1950
LOWEST ANNUAL MEAN					76.0	1954
HIGHEST DAILY MEAN	7030	Jun 15	9010	Jan 23	18600	Jun 29 1957
LOWEST DAILY MEAN	14	Sep 30	3.5	Sep 27	1.4	Sep 8 1954
ANNUAL SEVEN-DAY MINIMUM	16	Sep 15	4.1	Sep 22	2.3	Oct 6 1988
INSTANTANEOUS PEAK FLOW			10300	Jan 23	30700	Jun 28 1957
INSTANTANEOUS PEAK STAGE			16.06	Jan 23	18.63	Jun 28 1957
ANNUAL RUNOFF (CFSM)	1.05		1.00		1.08	
ANNUAL RUNOFF (INCHES)	14.30		13.55		14.73	
10 PERCENT EXCEEDS	851		742		768	
50 PERCENT EXCEEDS	101		115		148	
90 PERCENT EXCEEDS	25		16		22	

e Estimated

03358000 MILL CREEK NEAR CATARACT, IN

LOCATION.--Lat 39°26'00", long 86°45'48", in NE¼SE¼ sec.32, T.12 N., R.3 W., Owen County, Hydrologic Unit 05120203, on left bank at downstream side of bridge on U.S. Highway 231, 3 mi east of Cataract, and at mile 17.5.

DRAINAGE AREA.--245 mi^2.

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

REVISED RECORDS.--WSP 1505: 1956(P). WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 706.40 ft above sea level. Prior to Nov. 8, 1949, nonrecording gage, and Nov. 8, 1949, to Sept. 22, 1968, water-stage recorder at site 100 ft upstream at same datum.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum instantaneous gage height may have occurred Dec. 30, 1990, during period of no gage height record.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	19	51	e32	1190	798	96	176	211	37	12	3.6
2	6.4	18	43	e30	1070	470	97	157	2830	179	11	3.4
3	6.6	37	41	e35	684	407	91	142	2210	95	9.5	3.3
4	8.4	57	41	e52	456	325	108	131	664	49	8.7	3.0
5	10	45	37	e50	319	276	94	128	384	35	8.3	2.9
6	9.7	31	36	e49	297	1580	138	136	269	29	8.1	2.7
7	161	23	45	e48	2550	1030	133	130	226	78	7.9	2.4
8	176	18	64	e47	4490	475	103	106	179	49	7.7	2.5
9	48	16	51	e47	2720	406	145	95	183	32	7.8	2.7
10	23	48	40	e46	806	384	145	88	137	154	7.3	2.6
11	16	319	36	e45	509	447	129	82	115	53	7.1	2.3
12	13	133	33	e48	1160	475	129	76	116	31	7.0	2.1
13	12	78	32	e190	642	538	97	202	99	24	10	1.9
14	11	60	31	e640	437	389	90	230	104	21	12	2.2
15	11	50	27	e360	374	300	129	148	86	19	13	2.2
16	11	39	26	e260	324	274	478	120	69	18	9.2	2.0
17	11	35	27	e220	294	268	1320	105	62	18	7.2	2.0
18	15	28	26	e2100	256	227	659	158	55	36	6.5	1.9
19	41	25	24	2250	228	186	424	162	51	32	6.4	2.0
20	36	27	23	884	201	169	320	118	50	223	6.6	e1.9
21	22	28	26	1540	180	169	1670	102	50	498	6.1	e1.8
22	18	24	151	5210	161	148	1160	481	46	175	5.6	e1.8
23	16	21	e120	7190	156	134	469	305	42	67	5.1	e1.7
24	14	21	e96	5810	157	128	314	755	44	60	4.9	e1.7
25	14	21	e74	2460	156	116	247	360	51	32	4.7	e1.6
26	14	98	e64	865	150	106	223	216	43	23	4.8	e1.6
27	14	114	e56	522	228	102	236	157	48	21	4.6	e1.5
28	15	73	e50	399	1840	98	421	128	43	21	4.7	e1.5
29	17	57	e45	312	---	94	278	109	50	25	4.7	e2.0
30	17	52	e40	264	---	87	205	96	42	19	4.0	5.1
31	18	---	e35	271	---	86	---	103	---	14	3.6	---
TOTAL	812.2	1615	1491	32276	22035	10692	10148	5502	8559	2167	226.1	69.9
MEAN	26.2	53.8	48.1	1041	787	345	338	177	285	69.9	7.29	2.33
MAX	176	319	151	7190	4490	1580	1670	755	2830	498	13	5.1
MIN	6.4	16	23	30	150	86	90	76	42	14	3.6	1.5
CFSM	.11	.22	.20	4.25	3.21	1.41	1.38	.72	1.16	.29	.03	.01
IN.	.12	.25	.23	4.90	3.35	1.62	1.54	.84	1.30	.33	.03	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1999, BY WATER YEAR (WY)

MEAN	58.2	231	308	357	413	505	425	335	243	184	107	76.5
MAX	435	1576	1135	2214	1088	1425	1064	1522	1120	1694	1092	918
(WY)	1987	1994	1958	1950	1971	1963	1964	1981	1957	1979	1993	1989
MIN	2.88	4.46	4.05	6.55	41.1	108	74.5	35.1	11.2	6.84	3.72	.91
(WY)	1965	1965	1964	1977	1954	1994	1971	1954	1988	1954	1954	1954

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1950 - 1999	
ANNUAL TOTAL	100670.9		95593.2			
ANNUAL MEAN	276		262		269	
HIGHEST ANNUAL MEAN					528	1979
LOWEST ANNUAL MEAN					37.3	1954
HIGHEST DAILY MEAN	4060	Jun 16	7190	Jan 23	11500	Dec 30 1990
LOWEST DAILY MEAN	5.4	Sep 30	1.5	Sep 27	.10	Sep 7 1954
ANNUAL SEVEN-DAY MINIMUM	6.2	Sep 27	1.6	Sep 22	.20	Sep 2 1954
INSTANTANEOUS PEAK FLOW			7400	Jan 23	12200	Dec 30 1990
INSTANTANEOUS PEAK STAGE			19.42	Jan 23	22.58	Jun 24 1960
ANNUAL RUNOFF (CFSM)	1.13		1.07		1.10	
ANNUAL RUNOFF (INCHES)	15.29		14.51		14.94	
10 PERCENT EXCEEDS	654		479		579	
50 PERCENT EXCEEDS	79		56		81	
90 PERCENT EXCEEDS	8.9		4.9		7.9	

e Estimated

03359000 MILL CREEK NEAR MANHATTAN, IN

LOCATION.--Lat 39°29'16", long 86°55'30", in $SE^1/_4SE^1/_4$ 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 mi^2.

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

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

GAGE.--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.--61 years (1938 to current year), 324 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,960 ft^3/s, Jan. 5, 1950, gage height, 18.38 ft; no flow Aug. 7, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,750 ft^3/s Feb. 20; minimum daily, 18 ft^3/s Sept. 19-30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	103	82	57	288	436	1520	1010	124	69	33	19
2	19	103	82	64	142	889	1420	332	131	69	29	19
3	19	82	71	65	239	1280	1250	245	379	122	20	19
4	19	47	64	65	780	1560	1100	259	1010	145	20	19
5	19	47	64	76	1300	1650	514	189	1120	69	20	19
6	19	47	77	83	1390	989	205	155	1270	69	20	19
7	69	47	82	98	479	653	205	155	1310	55	20	19
8	106	47	70	120	104	1120	205	154	1290	50	20	19
9	106	47	64	92	106	1110	204	98	1270	50	20	19
10	87	47	64	64	106	1110	204	69	1180	51	20	19
11	39	64	64	64	107	1110	134	83	535	155	20	19
12	33	117	64	64	107	1450	99	90	172	120	20	19
13	33	136	64	152	108	1620	99	163	122	65	20	19
14	33	135	64	461	614	1610	100	209	106	50	20	19
15	33	135	64	617	936	1600	100	209	106	50	20	19
16	33	109	58	358	934	1590	202	209	106	39	20	19
17	33	66	46	204	1120	1570	170	139	82	24	20	19
18	33	66	46	139	1410	1560	118	214	56	20	20	19
19	33	66	46	103	1670	1550	185	173	50	20	20	18
20	33	66	46	279	1750	1530	502	103	50	20	20	18
21	33	65	46	222	1740	1520	272	90	50	155	19	18
22	33	65	46	111	1730	1500	125	142	50	211	19	18
23	33	65	82	119	1710	1490	177	471	50	210	19	18
24	33	73	102	109	1700	1550	467	775	50	122	19	18
25	33	83	102	100	1690	1580	948	978	50	105	19	18
26	33	159	102	101	1680	1640	1250	465	50	104	19	18
27	71	204	102	101	1670	1650	1320	149	61	69	19	18
28	104	92	83	101	1040	1630	1300	124	69	38	19	18
29	104	69	46	101	---	1600	1290	124	69	33	19	18
30	103	82	46	392	---	1580	1270	124	69	33	19	18
31	103	---	46	565	---	1550	---	124	---	33	19	---
TOTAL	1501	2534	2085	5247	26650	43277	16955	7824	11037	2425	631	558
MEAN	48.4	84.5	67.3	169	952	1396	565	252	368	78.2	20.4	18.6
MAX	106	204	102	617	1750	1650	1520	1010	1310	211	33	19
MIN	19	47	46	57	104	436	99	69	50	20	19	18

CAL YR 1998 TOTAL 123862 MEAN 339 MAX 1780 MIN 19
WTR YR 1999 TOTAL 120724 MEAN 331 MAX 1750 MIN 18

03360000 EEL RIVER AT BOWLING GREEN, IN

LOCATION.--Lat 39°22'58", long 87°01'14", in NE¼NE¼ sec.24, T.11 N., R.6 W., Clay County, Hydrologic Unit 05120203, on left bank 500 ft downstream from bridge on State Highway 46 at Bowling Green, 0.2 mi downstream from Jordan Creek, and at mile 38.4.

DRAINAGE AREA.--830 mi².

PERIOD OF RECORD.--January 1931 to current year. Prior to October 1934, published as "near Centerpoint".

REVISED RECORDS.--WSP 893: 1935, 1937-39. WSP 973: 1937-38, 1939(M). WSP 1335: 1931(M). WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 548.02 ft above sea level, (levels by U.S. Army Corps of Engineers). See WSP 1725 for history of changes prior to Dec. 1, 1949.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated by Cagles Mill Lake.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, about 30.0 ft in 1875, present datum, from information by U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	145	201	e180	2320	1770	1720	1790	417	202	107	49
2	54	145	197	e200	1910	1620	1690	1010	4160	259	100	48
3	57	203	191	e305	1660	1960	1480	673	2000	352	90	47
4	59	153	173	e350	1550	2070	1500	642	1770	376	83	47
5	57	129	168	e330	1990	2150	1010	602	1980	371	80	45
6	64	121	168	e310	2060	3260	669	552	1750	e260	77	44
7	542	114	206	370	5950	2380	617	540	1710	e200	74	43
8	437	108	261	400	9210	2230	545	487	1610	181	73	43
9	223	104	246	389	3860	2080	619	436	1530	172	71	42
10	161	178	220	305	2010	2150	591	360	1460	229	70	41
11	118	400	204	299	1510	2140	554	340	1090	189	68	41
12	94	369	194	305	1980	2100	446	333	607	224	67	40
13	86	332	187	599	1610	2360	391	391	467	172	77	40
14	81	296	182	1390	1370	2300	365	588	639	144	76	40
15	77	276	177	1820	1850	2190	456	655	429	138	74	40
16	75	264	174	1560	1740	2110	1160	580	356	133	72	39
17	73	198	169	1160	1750	2120	3300	490	317	136	68	38
18	92	177	163	4310	1920	2170	2140	541	273	809	65	38
19	121	171	158	3160	2070	2080	1400	922	250	265	64	38
20	101	170	155	1810	2170	1990	1290	638	240	2340	70	38
21	88	166	167	3030	2120	1950	3330	502	234	871	63	38
22	83	161	298	10900	2070	1890	2320	1150	225	546	60	37
23	79	156	291	13300	2030	1840	1420	877	216	390	58	37
24	77	152	331	8360	2020	1830	1200	1430	223	536	57	37
25	75	165	272	3020	2010	1850	1470	1410	236	281	57	36
26	73	249	266	1950	1990	1840	1730	1140	218	225	56	35
27	72	356	272	1490	2010	1870	1930	533	217	203	55	35
28	130	313	264	1230	3090	1840	2350	424	227	151	53	35
29	138	196	214	1020	---	1800	2150	389	226	148	53	39
30	142	203	182	982	---	1770	2040	363	223	132	51	41
31	147	---	184	1390	---	1730	---	351	---	116	50	---
TOTAL	3730	6170	6535	66224	67830	63440	41883	21139	25300	10751	2139	1211
MEAN	120	206	211	2136	2422	2046	1396	682	843	347	69.0	40.4
MAX	542	400	331	13300	9210	3260	3330	1790	4160	2340	107	49
MIN	54	104	155	180	1370	1620	365	333	216	116	50	35
CFSM	.14	.25	.25	2.57	2.92	2.47	1.68	.82	1.02	.42	.08	.05
IN.	.17	.28	.29	2.97	3.04	2.84	1.88	.95	1.13	.48	.10	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1999, BY WATER YEAR (WY)

MEAN	267	578	892	1246	1309	1567	1623	1229	874	595	323	294
MAX	1393	3076	2960	7212	3249	3843	4120	5090	4077	2746	2656	2488
(WY)	1987	1986	1991	1950	1950	1938	1944	1943	1957	1987	1979	1989
MIN	22.5	29.7	29.0	27.5	107	125	285	129	66.9	39.4	24.1	13.9
(WY)	1941	1965	1964	1977	1934	1941	1971	1934	1988	1954	1936	1954

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1931 - 1999	
ANNUAL TOTAL	337745		316352			
ANNUAL MEAN	925		867		901	
HIGHEST ANNUAL MEAN					1551	1950
LOWEST ANNUAL MEAN					161	1954
HIGHEST DAILY MEAN	10400	Jun 16	13300	Jan 23	28700	Jun 29 1957
LOWEST DAILY MEAN	54	Sep 29	35	Sep 26	11	Oct 7 1954
ANNUAL SEVEN-DAY MINIMUM	55	Sep 27	36	Sep 22	12	Oct 2 1954
INSTANTANEOUS PEAK FLOW			15800	Jan 23	34000	Jan 4 1950
INSTANTANEOUS PEAK STAGE			20.79	Jan 23	23.53	Jan 4 1950
ANNUAL RUNOFF (CFSM)	1.11		1.04		1.09	
ANNUAL RUNOFF (INCHES)	15.14		14.18		14.74	
10 PERCENT EXCEEDS	2090		2080		2200	
50 PERCENT EXCEEDS	329		299		360	
90 PERCENT EXCEEDS	75		55		57	

e Estimated

03360500 WHITE RIVER AT NEWBERRY, IN

LOCATION.--Lat 38°55'39", long 87°00'41", in NE$^1/_4$NW$^1/_4$ sec.30, T.6 N., R.5 W., Greene County, Hydrologic Unit 05120202, on left bank 0.4 mi upstream from bridge on State Highway 57 at Newberry, 1.9 mi downstream from Doans Creek, and at mile 113.0.

DRAINAGE AREA.--4,688 mi^2.

PERIOD OF RECORD.--September 1928 to current year. Prior to October 1948, published as West Fork White River at Newberry.

REVISED RECORDS.--WSP 873: 1937(M). WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 465.59 ft above sea level. Nonrecording gage prior to Oct. 21, 1928. Prior to Aug. 5, 1982, recording gage 0.3 mi downstream at same datum.

REMARKS.--Records fair, except those for estimated daily discharges, which are poor. Flow regulated by upstream reservoirs.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1875, 27.5 ft Mar. 27, 1913, from floodmarks by Indiana Department of Highways, discharge, 130,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	789	970	1440	1200	14400	12200	4400	9140	2260	1950	1020	563
2	743	1070	1390	e1180	15600	12400	4340	7780	6020	2320	951	553
3	748	1230	1380	e1160	14300	12700	4350	6190	15000	2140	901	540
4	749	1800	1360	e1320	11900	11800	4850	5060	15800	3060	840	533
5	776	1590	1320	e1300	10100	10300	4730	4600	11000	2410	799	524
6	999	1390	1290	e1290	9150	12800	5150	5290	8280	1980	764	513
7	1830	1250	1350	e1280	15500	15200	5100	5020	6570	1790	746	498
8	3490	1160	1430	e1270	23900	15200	4520	4570	5410	1690	766	486
9	3980	1090	1460	e1240	25700	13900	4350	4070	4640	1820	731	477
10	2670	1110	1480	e1130	28600	14000	4960	3610	4150	1680	704	469
11	1970	1770	1420	e1120	27500	12200	4490	3230	3840	1720	689	463
12	1620	1980	1360	e1160	24800	10700	4430	2950	3540	1680	680	458
13	1380	2070	1310	e1500	20300	9330	3980	2890	3110	1480	707	462
14	1210	1910	1270	e3000	16100	8890	3570	3370	3290	1340	720	452
15	1110	1890	1220	e8600	13000	8370	3340	3870	3240	1210	728	447
16	1040	1750	1190	e8000	11100	7790	3900	4040	2790	1110	916	444
17	983	1610	1180	e6600	9670	7250	6030	3750	2440	1040	823	434
18	1010	1500	1150	11100	8570	6960	10300	3510	2170	1150	745	432
19	1120	1400	1140	14300	7990	7730	10800	3780	1980	1810	708	428
20	1210	1340	1120	15300	7550	8460	9990	4280	1830	1430	678	429
21	1320	1300	1190	14300	7200	7810	9110	3760	1720	3470	646	425
22	1160	1270	2190	21000	6740	7030	12300	4300	1630	3410	662	422
23	1060	1250	2010	35400	6350	6400	13800	5210	1560	2280	656	419
24	1010	1210	1960	47500	6080	5970	12100	4310	1560	1760	641	420
25	968	1190	1720	60000	5870	5610	10400	4460	1740	1610	624	428
26	929	1300	1670	62900	5670	5380	8640	4310	1740	1540	615	420
27	904	1450	1640	48900	5730	5150	7870	3800	1900	1370	616	418
28	891	1730	1570	36100	10500	5000	9220	3050	1770	1230	629	414
29	887	1670	1500	26600	---	4820	9310	2650	1890	1140	651	431
30	940	1530	1430	16600	---	4650	9200	2410	1930	1050	642	435
31	967	---	1310	10700	---	4480	---	2280	---	1040	591	---
TOTAL	40463	43780	44450	463050	369870	280480	209530	131540	124800	54710	22589	13837
MEAN	1305	1459	1434	14940	13210	9048	6984	4243	4160	1765	729	461
MAX	3980	2070	2190	62900	28600	15200	13800	9140	15800	3470	1020	563
MIN	743	970	1120	1120	5670	4480	3340	2280	1560	1040	591	414
CFSM	.28	.31	.31	3.19	2.82	1.93	1.49	.91	.89	.38	.16	.10
IN.	.32	.35	.35	3.67	2.93	2.23	1.66	1.04	.99	.43	.18	.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1999, BY WATER YEAR (WY)

MEAN	1434	3067	4554	6873	7011	8747	8934	6935	4703	3247	1968	1569
MAX	6193	24180	16780	36920	21870	19150	20340	25090	19350	13270	15900	13510
(WY)	1994	1994	1958	1950	1950	1963	1944	1943	1998	1979	1979	1989
MIN	259	408	386	405	705	686	1539	677	771	536	308	317
(WY)	1941	1945	1945	1945	1931	1941	1941	1941	1988	1936	1941	1940

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1929 - 1999	
ANNUAL TOTAL	2231058		1799099			
ANNUAL MEAN	6112		4929		4908	
HIGHEST ANNUAL MEAN					8752	1950
LOWEST ANNUAL MEAN					958	1941
HIGHEST DAILY MEAN	56100	Jun 19	62900	Jan 26	103000	Nov 18 1993
LOWEST DAILY MEAN	743	Oct 2	414	Sep 28	200	Oct 1 1941
ANNUAL SEVEN-DAY MINIMUM	813	Sep 29	420	Sep 22	211	Sep 26 1941
INSTANTANEOUS PEAK FLOW			66200	Jan 26	105000	Nov 18 1993
INSTANTANEOUS PEAK STAGE			23.51	Jan 26	25.87	Nov 18 1993
ANNUAL RUNOFF (CFSM)	1.30		1.05		1.05	
ANNUAL RUNOFF (INCHES)	17.70		14.28		14.22	
10 PERCENT EXCEEDS	17200		12200		11600	
50 PERCENT EXCEEDS	2530		1820		2540	
90 PERCENT EXCEEDS	1070		642		628	

e Estimated

03361000 BIG BLUE RIVER AT CARTHAGE, IN

LOCATION.--Lat 39°44'38", long 85°34'33", in SW¼SW¼ sec.18, T.15 N., R.9 E., Rush County, Hydrologic Unit 05120204, on right bank 300 ft upstream from highway bridge, 0.5 mi northwest of Carthage, 2.2 mi downstream from Three Mile Creek, and at mile 50.7.

DRAINAGE AREA.--184 mi^2.

PERIOD OF RECORD.--October 1950 to current year. Prior to October 1961, published as Blue River at Carthage.

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 859.33 ft above sea level. Prior to July 19, 1951, nonrecording gage at site 300 ft downstream at same datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow partly regulated by Big Blue River Conservancy District control structures on tributaries to Big Blue River beginning in 1969.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	75	73	e56	271	448	139	196	142	119	52	33
2	50	72	68	e50	331	343	133	179	286	321	48	33
3	73	79	68	e72	313	297	136	168	278	165	46	32
4	80	80	67	e64	262	242	152	159	184	119	46	30
5	64	73	67	e60	212	213	137	154	149	99	46	30
6	62	70	66	e56	202	499	138	173	132	90	44	29
7	91	68	88	e55	941	441	130	152	121	85	43	29
8	90	66	83	e54	1220	322	127	142	114	80	46	30
9	72	66	75	e53	612	298	141	135	109	81	44	31
10	69	106	69	e52	446	249	144	129	105	80	43	29
11	67	138	67	e52	370	215	137	125	100	71	41	29
12	67	96	65	e60	560	196	129	121	103	69	40	29
13	63	84	65	e80	430	191	122	142	123	69	54	29
14	60	76	63	e170	336	186	122	139	112	66	50	32
15	60	73	62	e130	299	175	139	124	97	65	44	31
16	62	70	62	e110	269	192	192	117	88	63	41	30
17	60	71	61	e100	252	302	470	116	86	64	40	30
18	71	68	60	549	225	268	452	367	83	80	38	31
19	87	65	64	518	206	215	354	296	81	65	40	32
20	69	72	61	331	191	193	284	203	80	88	39	31
21	67	67	70	677	177	186	650	164	81	73	37	32
22	65	64	140	2610	165	171	598	168	79	64	36	31
23	64	65	109	1980	161	160	402	152	77	64	36	32
24	64	63	89	957	159	156	309	181	78	59	39	31
25	63	66	e78	614	159	148	256	151	79	55	43	33
26	62	99	e71	471	149	144	229	133	74	55	41	30
27	62	82	e69	401	170	139	234	123	162	69	40	30
28	70	74	e68	347	592	136	385	115	138	59	37	31
29	67	71	e64	295	---	134	283	109	277	65	35	58
30	107	70	e61	252	---	130	223	104	150	57	33	52
31	89	---	e59	225	---	129	---	140	---	53	33	---
TOTAL	2148	2289	2232	11501	9680	7118	7347	4877	3768	2612	1295	970
MEAN	69.3	76.3	72.0	371	346	230	245	157	126	84.3	41.8	32.3
MAX	107	138	140	2610	1220	499	650	367	286	321	54	58
MIN	50	63	59	50	149	129	122	104	74	53	33	29
CFSM	.38	.41	.39	2.02	1.88	1.25	1.33	.86	.68	.46	.23	.18
IN.	.43	.46	.45	2.33	1.96	1.44	1.49	.99	.76	.53	.26	.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1999, BY WATER YEAR (WY)

MEAN	93.3	167	213	235	290	332	330	259	212	150	103	77.2
MAX	579	925	702	619	741	967	829	916	848	581	649	400
(WY)	1987	1994	1991	1959	1951	1963	1964	1996	1958	1979	1979	1989
MIN	34.2	38.6	33.2	27.9	59.6	84.2	97.8	81.5	48.1	32.5	30.5	24.4
(WY)	1964	1977	1977	1977	1964	1981	1971	1976	1988	1977	1988	1954

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1951 - 1999	
ANNUAL TOTAL	76662		55837			
ANNUAL MEAN	210		153		205	
HIGHEST ANNUAL MEAN					324	1973
LOWEST ANNUAL MEAN					78.8	1977
HIGHEST DAILY MEAN	2680	Jun 15	2610	Jan 22	6900	Mar 5 1963
LOWEST DAILY MEAN	50	Sep 30	29	Sep 6	17	Jan 18 1977
ANNUAL SEVEN-DAY MINIMUM	51	Sep 26	29	Sep 6	19	Jul 31 1977
INSTANTANEOUS PEAK FLOW			3110	Jan 22	12900	Mar 4 1963
INSTANTANEOUS PEAK STAGE			8.61	Jan 22	14.62	Mar 4 1963
ANNUAL RUNOFF (CFSM)	1.14		.83		1.11	
ANNUAL RUNOFF (INCHES)	15.50		11.29		15.11	
10 PERCENT EXCEEDS	406		311		407	
50 PERCENT EXCEEDS	110		83		117	
90 PERCENT EXCEEDS	61		39		51	

e Estimated

03361500 BIG BLUE RIVER AT SHELBYVILLE, IN

LOCATION.--Lat 39°31'45", long 85°46'55", in SE¼SE¼ sec.31, T.13 N., R.7 E., Shelby County, Hydrologic Unit 05120204, on left bank 0.2 mi downstream from bridge on State Highway 9 in Shelbyville, 0.6 mi downstream from Little Blue River, and at mile 23.9.

DRAINAGE AREA.--421 mi^2.

PERIOD OF RECORD.--September 1943 to current year. Prior to October 1961, published as Blue River at Shelbyville.

REVISED RECORDS.--WSP 1505: 1944. WSP 1909: 1959(M). WSP 2109: Drainage area. WDR IN-79-1: 1975.

GAGE.--Water-stage recorder. Datum of gage is 737.67 ft above sea level. Prior to Oct. 1, 1953, nonrecording gage at bridge 0.2 mi upstream at datum 3.5 ft higher.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of about 20.2 ft from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	109	106	e86	620	1340	263	369	278	198	67	46
2	62	97	105	e82	851	952	264	341	823	264	64	45
3	70	101	101	e76	777	752	269	320	958	286	60	44
4	95	102	103	e104	647	603	298	305	614	200	58	43
5	93	101	100	e90	516	510	280	298	441	164	58	42
6	82	97	101	e84	469	1080	273	310	353	144	56	41
7	101	94	110	e83	1420	1290	261	305	305	134	56	40
8	126	92	123	e82	3650	843	249	274	272	124	55	41
9	109	91	116	e81	1970	698	317	259	249	126	56	41
10	95	106	108	e80	1230	586	325	243	228	127	54	40
11	91	159	102	e80	935	493	309	232	212	118	53	39
12	89	161	100	e90	1380	445	291	224	218	109	52	39
13	86	132	99	e120	1230	432	261	250	219	105	63	40
14	81	121	96	e200	872	420	250	285	307	102	65	39
15	80	112	94	e240	725	397	269	241	248	99	61	41
16	80	106	93	e170	640	425	353	217	202	96	55	41
17	80	109	93	e150	585	569	667	216	182	94	52	40
18	90	102	91	665	528	571	969	438	169	101	49	40
19	104	100	92	1470	478	473	765	558	160	103	50	41
20	104	100	94	927	435	421	609	406	155	189	48	42
21	92	102	108	1230	398	404	879	320	153	132	47	43
22	89	98	131	5260	367	374	1490	294	147	103	44	44
23	86	95	183	6830	351	346	931	288	140	91	44	43
24	86	95	e140	4530	345	330	664	291	145	85	49	43
25	85	100	e120	2000	339	311	533	286	144	79	56	42
26	84	108	e117	1320	324	295	471	243	137	74	60	42
27	84	131	e115	1030	370	284	443	218	141	74	57	41
28	87	117	113	839	1410	276	525	203	240	94	56	40
29	91	110	109	680	---	270	513	192	253	77	52	59
30	88	107	105	572	---	259	417	181	273	79	48	70
31	127	---	e98	510	---	253	---	195	---	71	46	---
TOTAL	2779	3255	3366	29761	23862	16702	14408	8802	8366	3842	1691	1292
MEAN	89.6	108	109	960	852	539	480	284	279	124	54.5	43.1
MAX	127	161	183	6830	3650	1340	1490	558	958	286	67	70
MIN	62	91	91	76	324	253	249	181	137	71	44	39
CFSM	.21	.26	.26	2.28	2.02	1.28	1.14	.67	.66	.29	.13	.10
IN.	.25	.29	.30	2.63	2.11	1.48	1.27	.78	.74	.34	.15	.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1999, BY WATER YEAR (WY)

MEAN	168	352	478	644	712	808	791	604	470	319	199	144
MAX	1199	2114	1575	4319	2208	1970	1973	2605	1729	1363	1404	953
(WY)	1987	1994	1967	1950	1950	1963	1964	1996	1998	1979	1979	1989
MIN	41.7	52.5	52.3	38.3	92.0	204	183	149	81.2	56.1	46.4	43.1
(WY)	1964	1954	1964	1977	1964	1957	1971	1976	1988	1954	1988	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1944 - 1999	
ANNUAL TOTAL	189075		118126			
ANNUAL MEAN	518		324		473	
HIGHEST ANNUAL MEAN					908	1950
LOWEST ANNUAL MEAN					166	1954
HIGHEST DAILY MEAN	6380	Jun 16	6830	Jan 23	13800	Mar 5 1963
LOWEST DAILY MEAN	62	Oct 1	39	Sep 11	27	Jan 18 1977
ANNUAL SEVEN-DAY MINIMUM	64	Sep 26	40	Sep 8	32	Jan 16 1977
INSTANTANEOUS PEAK FLOW			7060	Jan 23	13800	Nov 15 1993
INSTANTANEOUS PEAK STAGE			14.68	Jan 23	18.41	Nov 15 1993
ANNUAL RUNOFF (CFSM)	1.23		.77		1.12	
ANNUAL RUNOFF (INCHES)	16.71		10.44		15.26	
10 PERCENT EXCEEDS	1150		687		1010	
50 PERCENT EXCEEDS	229		131		240	
90 PERCENT EXCEEDS	84		50		74	

e Estimated

03361650 SUGAR CREEK AT NEW PALESTINE, IN

LOCATION.--Lat 39°42'51", long 85°53'08", in SE¼SW¼ sec.29, T.15 N., R.6 E., Hancock County, Hydrologic Unit 05120204, on left bank 10 ft downstream from bridge on County Road 450 West, 0.5 mi south of New Palestine, 3.1 mi upstream from Little Sugar Creek, and 37.3 mi upstream from mouth.

DRAINAGE AREA.--93.9 mi^2.

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	16	19	e19	174	452	45	114	27	26	6.0	1.4
2	3.0	12	17	e18	237	277	44	90	100	80	5.4	1.2
3	4.8	15	17	e40	221	196	44	77	152	100	4.7	.96
4	7.3	14	17	e38	173	151	44	68	105	61	4.4	1.2
5	6.1	14	18	e33	130	121	42	64	61	37	4.1	1.1
6	6.2	12	17	e32	111	286	42	65	46	27	4.1	.85
7	31	15	19	e31	501	320	39	56	38	22	3.9	.56
8	35	10	21	e30	760	216	38	50	33	19	4.1	.40
9	19	11	26	e30	742	164	41	46	30	16	4.0	.35
10	13	15	26	e29	372	131	42	42	29	15	3.9	.33
11	10	33	22	e29	249	104	39	39	25	13	3.8	.30
12	8.7	44	19	e31	315	89	36	37	29	12	3.6	.26
13	7.9	37	18	e80	327	84	34	38	49	11	5.8	.36
14	7.1	26	17	e62	204	81	33	39	35	10	5.4	.37
15	6.8	21	16	e52	153	76	40	38	27	9.7	4.6	.39
16	6.3	18	16	e45	132	95	80	34	24	9.9	4.4	.35
17	6.5	16	15	e50	121	181	200	33	21	10	4.1	.34
18	7.0	15	14	e350	109	193	290	38	19	9.3	3.7	.30
19	9.2	14	14	e250	98	134	246	35	18	9.5	3.4	.11
20	11	16	14	e200	86	105	179	40	17	13	3.2	.20
21	7.7	15	16	e250	75	94	256	36	16	10	3.1	.22
22	7.0	14	39	e800	67	82	421	36	16	30	2.9	.27
23	9.0	13	60	1410	62	70	311	34	15	19	2.7	.40
24	7.8	13	e45	1140	60	63	206	39	21	13	2.6	.54
25	7.8	14	e37	689	59	58	146	63	21	11	2.9	.51
26	7.9	21	e31	360	55	53	121	50	16	8.9	2.9	.63
27	7.3	21	e28	267	82	49	115	37	39	8.1	2.8	.46
28	8.2	22	e23	209	407	48	128	32	33	7.5	2.6	.30
29	8.5	23	e22	161	---	49	222	28	25	7.3	2.3	2.1
30	9.8	21	e21	131	---	45	157	26	29	6.9	2.0	2.8
31	8.7	---	e20	115	---	44	---	26	---	6.6	1.8	---
TOTAL	298.8	551	704	6981	6082	4111	3681	1450	1116	638.7	115.2	19.56
MEAN	9.64	18.4	22.7	225	217	133	123	46.8	37.2	20.6	3.72	.65
MAX	35	44	60	1410	760	452	421	114	152	100	6.0	2.8
MIN	3.0	10	14	18	55	44	33	26	15	6.6	1.8	.11
CFSM	.10	.20	.24	2.40	2.31	1.41	1.31	.50	.40	.22	.04	.01
IN.	.12	.22	.28	2.77	2.41	1.63	1.46	.57	.44	.25	.05	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1999, BY WATER YEAR (WY)

MEAN	34.8	93.1	122	133	165	176	160	133	98.3	62.6	43.4	27.5
MAX	309	441	352	345	439	413	299	549	469	241	306	314
(WY)	1987	1994	1991	1969	1982	1978	1996	1996	1998	1969	1979	1989
MIN	4.10	6.96	9.11	5.35	35.7	35.0	30.0	23.4	8.47	9.21	3.72	.65
(WY)	1998	1998	1977	1977	1978	1981	1971	1976	1988	1977	1999	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1968 - 1999	
ANNUAL TOTAL	40498.6		25748.26			
ANNUAL MEAN	111		70.5		104	
HIGHEST ANNUAL MEAN					150	1973
LOWEST ANNUAL MEAN					37.7	1977
HIGHEST DAILY MEAN	1720	Jun 15	1410	Jan 23	1930	Nov 15 1993
LOWEST DAILY MEAN	3.0	Oct 2	.11	Sep 19	.11	Sep 19 1999
ANNUAL SEVEN-DAY MINIMUM	3.7	Sep 26	.26	Sep 16	.26	Sep 16 1999
INSTANTANEOUS PEAK FLOW			1470	Jan 23	2340	Nov 14 1993
INSTANTANEOUS PEAK STAGE			8.50	Jan 23	10.34	Feb 23 1979
ANNUAL RUNOFF (CFSM)	1.18		.75		1.10	
ANNUAL RUNOFF (INCHES)	16.04		10.20		14.99	
10 PERCENT EXCEEDS	286		194		244	
50 PERCENT EXCEEDS	27		26		46	
90 PERCENT EXCEEDS	6.7		2.8		8.6	

e Estimated

03361850 BUCK CREEK AT ACTON, IN

LOCATION.--Lat 39°39'25", long 85°57'27", in NW¼SE¼ sec.15, T.14 N., R.5 E., Marion County, Hydrologic Unit 05120204, on left bank 30 ft downstream from McGregor Road bridge, 0.5 mi east of Acton, and 4.1 mi upstream from mouth.

DRAINAGE AREA.--78.8 mi^2.

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

REVISED RECORDS.--WDR IN-79-1: 1969 (M).

GAGE.--Water-stage recorder. Datum of gage is 757.00 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are poor. Low flow is affected by regulation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	19	16	e14	160	269	30	47	17	25	3.9	1.4
2	4.0	18	14	e13	226	155	29	42	168	38	3.5	1.4
3	7.5	22	12	e26	165	119	29	38	110	63	2.6	1.6
4	27	30	11	e25	115	91	32	35	64	47	2.3	1.6
5	13	31	10	e23	82	73	29	34	46	32	2.1	1.3
6	8.6	28	10	e23	74	354	34	37	37	24	1.9	1.1
7	195	24	16	e22	800	238	32	35	33	19	1.7	1.1
8	120	22	19	e22	809	130	27	30	28	15	2.0	1.3
9	32	20	15	e21	334	104	36	28	25	14	2.0	1.5
10	18	34	13	e20	202	85	34	25	23	15	1.9	1.4
11	13	59	11	e20	142	74	29	23	21	11	1.7	1.4
12	10	24	11	e22	280	65	25	22	51	9.2	1.6	1.3
13	8.9	14	10	e76	189	68	22	26	147	7.8	3.4	1.2
14	8.8	10	10	e45	120	63	22	28	71	7.7	14	1.0
15	8.7	8.2	9.6	e36	99	59	32	22	43	7.1	8.0	.95
16	8.6	6.9	9.6	e31	86	86	80	20	33	8.6	4.4	.86
17	9.4	6.3	9.6	e35	80	163	166	21	27	11	2.8	1.0
18	12	5.9	10	e330	69	120	159	39	23	21	1.9	1.3
19	23	5.2	9.8	e160	60	79	99	31	20	20	1.9	1.2
20	14	8.3	10	e130	55	62	71	23	18	29	2.0	1.1
21	11	10	12	e320	50	56	207	20	17	15	1.7	1.0
22	9.8	8.1	69	2380	46	49	236	26	17	6.9	1.7	1.2
23	9.0	7.0	43	1770	43	44	124	26	16	4.4	1.5	1.1
24	8.9	6.8	29	730	43	41	74	32	34	4.9	1.6	1.0
25	8.8	7.6	23	358	43	38	56	26	45	6.2	1.7	.86
26	9.2	35	21	232	43	35	51	21	26	4.4	2.4	.93
27	8.8	26	20	172	67	33	52	18	91	3.7	4.7	.95
28	12	16	19	129	499	32	110	16	57	3.6	2.0	.84
29	17	12	e17	97	---	31	87	15	47	3.8	1.7	1.3
30	22	11	e16	79	---	29	57	14	31	3.6	1.5	2.9
31	24	---	e15	69	---	28	---	15	---	3.4	1.5	---
TOTAL	685.5	535.3	520.6	7430	4981	2873	2071	835	1386	484.3	87.6	37.09
MEAN	22.1	17.8	16.8	240	178	92.7	69.0	26.9	46.2	15.6	2.83	1.24
MAX	195	59	69	2380	809	354	236	47	168	63	14	2.9
MIN	3.5	5.2	9.6	13	43	28	22	14	16	3.4	1.5	.84
CFSM	.28	.23	.21	3.04	2.26	1.18	.88	.34	.59	.20	.04	.02
IN.	.32	.25	.25	3.51	2.35	1.36	.98	.39	.65	.23	.04	.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1999, BY WATER YEAR (WY)

MEAN	31.1	98.8	112	119	138	160	139	119	84.2	66.6	37.4	21.8
MAX	312	463	333	352	349	347	302	462	478	324	216	166
(WY)	1987	1994	1991	1969	1971	1978	1996	1996	1998	1969	1979	1989
MIN	2.96	6.86	8.11	4.09	18.8	27.8	18.5	17.4	6.04	5.97	2.83	1.24
(WY)	1998	1998	1977	1977	1978	1969	1971	1976	1988	1991	1999	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1968 - 1999	
ANNUAL TOTAL	39654.5		21926.39			
ANNUAL MEAN	109		60.1		93.6	
HIGHEST ANNUAL MEAN					138	1979
LOWEST ANNUAL MEAN					36.7	1977
HIGHEST DAILY MEAN	2840	Jun 15	2380	Jan 22	3570	Nov 14 1993
LOWEST DAILY MEAN	2.0	Sep 15	.84	Sep 28	.60	Oct 1 1967
ANNUAL SEVEN-DAY MINIMUM	2.2	Sep 10	.98	Sep 22	.98	Sep 22 1999
INSTANTANEOUS PEAK FLOW			2610	Jan 22	7140	Jul 20 1969
INSTANTANEOUS PEAK STAGE			11.04	Jan 22	14.99	Jul 20 1969
ANNUAL RUNOFF (CFSM)	1.38		.76		1.19	
ANNUAL RUNOFF (INCHES)	18.72		10.35		16.14	
10 PERCENT EXCEEDS	245		122		207	
50 PERCENT EXCEEDS	22		22		33	
90 PERCENT EXCEEDS	4.8		1.7		5.7	

e Estimated

03362000 YOUNGS CREEK NEAR EDINBURGH, IN

LOCATION.--Lat 39°25'08", long 86°00'18", in SE¼SW¼ sec.5, T.11 N., R.5 E., Johnson County, Hydrologic Unit 05120204, on right bank at downstream side of county highway bridge, 0.5 mi southwest of Amity, 2.0 mi upstream from mouth, and 5.0 mi northwest of Edinburgh.

DRAINAGE AREA.--107 mi^2.

PERIOD OF RECORD.--October 1942 to current year. Prior to December 1942 monthly discharge only, published in WSP 1305.

REVISED RECORDS.--WSP 1335: 1944. WSP 1909: 1958. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 670.20 ft above sea level. Prior to June 30, 1955, nonrecording gage at same site and datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	12	12	9.7	340	347	47	80	44	27	11	e4.7
2	6.8	12	e12	13	402	229	45	69	660	28	11	e4.5
3	7.3	19	e11	16	275	176	45	63	435	25	10	e4.4
4	10	23	e10	e14	201	129	58	59	206	21	10	e4.0
5	12	20	e9.8	e13	141	109	47	56	134	18	10	e3.8
6	11	18	e10	e12	128	567	52	80	100	29	9.2	e3.6
7	86	16	e20	e11	1090	396	54	67	77	65	9.1	e3.4
8	95	15	e19	e11	1360	234	46	51	64	35	10	e3.3
9	27	14	e16	e11	522	196	73	45	122	29	10	e3.9
10	17	32	e14	e10	340	170	76	41	74	316	9.8	e3.6
11	12	83	e12	e10	259	172	66	39	54	91	9.2	e3.4
12	9.6	31	e11	e11	717	176	69	38	139	48	8.8	e3.3
13	8.9	19	e11	e30	383	221	52	232	410	34	19	e3.7
14	9.3	14	e10	e110	261	178	48	429	133	27	20	e3.0
15	8.7	11	e10	e100	213	140	54	153	83	23	16	e2.9
16	8.4	11	e10	81	175	166	82	99	60	20	11	e3.2
17	8.2	10	e11	83	150	176	181	80	49	19	9.5	e3.0
18	14	9.8	e10	715	126	134	150	91	41	28	8.9	e2.9
19	32	10	e10	490	109	104	112	77	36	21	14	e2.8
20	19	10	e11	301	93	92	91	61	34	92	43	e3.0
21	12	12	e16	644	82	87	342	53	32	90	9.5	e3.3
22	11	11	93	2420	72	76	326	60	29	46	6.5	e3.2
23	11	10	41	2360	70	68	180	62	28	29	5.8	e3.1
24	10	9.7	25	901	69	65	117	110	35	22	5.9	e3.0
25	8.8	11	18	492	68	59	94	78	36	19	6.1	e2.9
26	8.4	23	15	346	65	54	84	57	28	16	6.3	e2.8
27	8.9	22	14	278	90	51	86	47	29	15	6.5	e2.8
28	14	13	13	216	562	49	138	42	58	18	6.1	e2.8
29	15	11	13	163	---	48	132	38	48	31	5.3	e6.0
30	13	11	12	132	---	44	97	34	32	17	5.0	e9.9
31	13	---	11	119	---	44	---	39	---	13	5.2	---
TOTAL	534.2	523.5	510.8	10122.7	8363	4757	3044	2530	3310	1312	327.7	110.2
MEAN	17.2	17.5	16.5	327	299	153	101	81.6	110	42.3	10.6	3.67
MAX	95	83	93	2420	1360	567	342	429	660	316	43	9.9
MIN	6.8	9.7	9.8	9.7	65	44	45	34	28	13	5.0	2.8
CFSM	.16	.16	.15	3.05	2.79	1.43	.95	.76	1.03	.40	.10	.03
IN.	.19	.18	.18	3.52	2.91	1.65	1.06	.88	1.15	.46	.11	.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1999, BY WATER YEAR (WY)

MEAN	21.3	83.5	116	160	176	211	184	149	99.7	71.7	29.0	21.7
MAX	260	593	470	837	441	498	516	551	463	492	231	228
(WY)	1994	1994	1991	1950	1971	1963	1964	1996	1958	1979	1979	1989
MIN	1.82	3.91	2.90	3.13	15.1	40.9	28.3	20.7	6.73	2.03	2.43	2.36
(WY)	1954	1954	1964	1977	1954	1969	1971	1988	1988	1944	1954	1954

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1944 - 1999	
ANNUAL TOTAL	45691.5		35445.1			
ANNUAL MEAN	125		97.1		110	
HIGHEST ANNUAL MEAN					176	1979
LOWEST ANNUAL MEAN					20.3	1954
HIGHEST DAILY MEAN	3650	Jun 15	2420	Jan 22	6260	May 24 1968
LOWEST DAILY MEAN	6.5	Sep 16	2.8	Sep 19	.50	Sep 29 1953
ANNUAL SEVEN-DAY MINIMUM	7.0	Sep 10	2.9	Sep 22	.73	Oct 19 1953
INSTANTANEOUS PEAK FLOW			3430	Jan 22	10700	Jan 27 1952
INSTANTANEOUS PEAK STAGE			9.83	Jan 22	13.40	Jan 27 1952
ANNUAL RUNOFF (CFSM)	1.17		.91		1.03	
ANNUAL RUNOFF (INCHES)	15.89		12.32		13.95	
10 PERCENT EXCEEDS	271		218		248	
50 PERCENT EXCEEDS	37		31		36	
90 PERCENT EXCEEDS	8.9		6.2		4.6	

e Estimated

03362500 SUGAR CREEK NEAR EDINBURGH, IN

LOCATION.--Lat 39°21'39", long 85°59'51", in SW¼SE¼ sec.29, T.11 N., R.5 E., Johnson County, Hydrologic Unit 05120204, on left bank 50 ft upstream from highway bridge in Camp Atterbury, 1.3 mi upstream from confluence with Blue River, 1.5 mi northwest of Edinburgh, and at mile 1.3.

DRAINAGE AREA.--474 mi^2.

PERIOD OF RECORD.--October 1942 to current year. Prior to February 1943 monthly discharge only, published in WSP 1305. Prior to October 1977, published as "near Edinburg".

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 646.23 ft above sea level. Prior to Oct. 1, 1952, nonrecording gage on downstream side of old highway bridge, 100 ft downstream at same datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	59	71	e84	777	1840	232	437	166	138	46	23
2	37	58	69	e90	1380	1240	229	367	1010	128	43	22
3	40	67	71	e119	1110	892	225	324	1360	160	41	21
4	44	68	68	e110	860	697	244	296	719	198	39	20
5	64	67	66	e98	648	575	230	278	490	155	38	19
6	63	68	65	e90	551	1430	225	308	372	125	36	17
7	91	66	70	e86	2020	1870	241	296	294	161	35	16
8	323	63	72	e83	5270	1130	218	253	250	119	37	17
9	182	63	76	e81	3330	873	255	227	276	99	36	19
10	104	67	72	e81	1810	728	303	208	229	368	35	18
11	76	128	72	e80	1180	643	259	196	193	189	34	17
12	64	145	68	e83	1880	594	261	188	177	119	33	17
13	58	112	65	e119	1630	639	219	390	832	95	43	19
14	54	102	63	e310	1110	597	204	930	522	85	51	16
15	51	83	62	e500	863	532	210	418	329	77	49	16
16	50	75	59	e450	730	570	298	298	233	72	45	15
17	48	69	59	e400	644	721	572	286	192	69	39	16
18	51	66	58	e1100	571	752	797	404	163	76	35	16
19	69	63	57	2410	507	604	705	369	145	72	35	14
20	73	63	56	1680	452	502	560	285	135	124	68	15
21	67	63	60	1920	404	456	849	241	130	163	40	16
22	59	64	89	5310	361	412	1420	234	123	116	32	16
23	53	63	146	10400	338	370	1030	246	116	88	30	16
24	52	61	e130	7910	328	341	690	309	122	79	30	16
25	51	61	e122	3950	319	315	519	294	149	67	31	15
26	51	68	e109	1830	306	290	440	249	152	62	29	15
27	50	88	e104	1270	317	273	405	214	128	58	29	14
28	52	94	87	987	1690	260	529	186	242	57	29	15
29	54	79	81	769	---	251	694	168	204	72	29	29
30	52	75	75	622	---	241	566	154	162	56	25	35
31	53	---	74	540	---	231	---	155	---	50	24	---
TOTAL	2174	2268	2396	43562	31386	20869	13629	9208	9615	3497	1146	540
MEAN	70.1	75.6	77.3	1405	1121	673	454	297	320	113	37.0	18.0
MAX	323	145	146	10400	5270	1870	1420	930	1360	368	68	35
MIN	37	58	56	80	306	231	204	154	116	50	24	14
CFSM	.15	.16	.16	2.96	2.36	1.42	.96	.63	.68	.24	.08	.04
IN.	.17	.18	.19	3.42	2.46	1.64	1.07	.72	.75	.27	.09	.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1999, BY WATER YEAR (WY)

MEAN	130	379	511	719	794	950	849	690	477	321	176	122
MAX	983	2591	1742	4000	2192	2281	2076	2878	2381	1564	1348	1295
(WY)	1987	1994	1991	1950	1950	1961	1964	1996	1998	1979	1979	1989
MIN	22.2	33.4	30.4	36.5	74.8	215	170	120	58.7	29.5	25.4	13.4
(WY)	1945	1954	1964	1977	1964	1981	1971	1976	1988	1954	1954	1954

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1943 - 1999	
ANNUAL TOTAL	213540		140290			
ANNUAL MEAN	585		384		508	
HIGHEST ANNUAL MEAN					849	1950
LOWEST ANNUAL MEAN					160	1954
HIGHEST DAILY MEAN	11200	Jun 16	10400	Jan 23	19200	May 29 1956
LOWEST DAILY MEAN	37	Oct 2	14	Sep 19	9.2	Sep 18 1954
ANNUAL SEVEN-DAY MINIMUM	39	Sep 27	15	Sep 22	10	Sep 13 1954
INSTANTANEOUS PEAK FLOW			10800	Jan 23	27600	May 29 1956
INSTANTANEOUS PEAK STAGE			14.56	Jan 23	18.38	May 29 1956
ANNUAL RUNOFF (CFSM)	1.23		.81		1.07	
ANNUAL RUNOFF (INCHES)	16.76		11.01		14.56	
10 PERCENT EXCEEDS	1420		853		1160	
50 PERCENT EXCEEDS	153		123		210	
90 PERCENT EXCEEDS	51		30		46	

e Estimated

03363500 FLATROCK RIVER AT ST. PAUL, IN

LOCATION.--Lat 39°25'03", long 85°38'03", in SE¼NE¼ sec.9, T.11 N., R.8 E., Shelby County, Hydrologic Unit 05120205, on right bank 500 ft downstream from county road bridge, 0.8 mi southwest of St. Paul, 1.5 mi downstream from Mill Creek, and at mile 34.4.

DRAINAGE AREA.--303 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 764.84 ft above 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	20	21	e26	437	1210	163	257	116	84	17	4.0
2	7.7	17	20	e25	615	773	161	246	153	102	16	3.0
3	8.2	19	20	e35	523	594	159	240	373	96	15	2.6
4	9.1	19	21	e55	435	465	164	234	286	83	13	2.4
5	8.4	21	23	e43	324	383	151	232	204	64	11	1.7
6	13	21	22	e40	283	823	147	403	167	52	10	1.2
7	15	19	29	e36	1460	989	144	347	140	44	10	1.0
8	22	17	33	e32	2680	625	142	257	122	40	10	1.1
9	18	16	28	e30	1840	532	182	224	112	37	10	1.0
10	15	28	23	e29	874	430	261	206	102	68	10	.84
11	13	45	21	e28	648	347	211	192	94	44	9.6	.85
12	11	39	20	75	1020	306	229	185	139	34	9.3	.82
13	9.4	32	19	221	968	290	194	185	390	30	9.6	.83
14	7.9	30	19	336	657	281	186	307	173	27	9.4	.95
15	7.8	e28	19	312	549	260	200	206	129	26	13	.79
16	7.6	24	18	257	488	304	227	172	99	23	11	.71
17	7.4	18	18	242	476	477	356	157	87	40	10	1.2
18	12	17	18	824	435	458	673	173	79	60	9.4	.73
19	21	17	17	979	378	368	578	281	74	37	8.9	.81
20	20	17	17	654	319	313	486	224	70	404	7.6	1.1
21	16	17	30	783	272	294	588	179	67	152	6.5	.91
22	15	e17	100	2100	238	259	1150	161	63	76	6.2	.86
23	13	16	70	5800	223	228	738	157	56	50	5.9	.85
24	e13	17	e54	2940	216	216	530	167	63	38	6.2	.83
25	e12	19	e42	1250	208	199	432	163	63	32	7.3	.85
26	e12	21	e36	730	195	189	389	143	56	27	7.3	.85
27	12	25	33	583	283	179	368	128	65	24	8.8	2.4
28	15	27	28	482	1490	174	349	118	73	26	10	2.1
29	15	27	27	379	---	169	320	112	97	25	10	1.7
30	18	21	e27	304	---	160	281	109	76	23	6.8	1.8
31	15	---	e27	263	---	156	---	108	---	19	5.2	---
TOTAL	396.5	671	900	19893	18534	12451	10159	6273	3788	1887	300.0	40.78
MEAN	12.8	22.4	29.0	642	662	402	339	202	126	60.9	9.68	1.36
MAX	22	45	100	5800	2680	1210	1150	403	390	404	17	4.0
MIN	7.0	16	17	25	195	156	142	108	56	19	5.2	.71
CFSM	.04	.07	.10	2.12	2.18	1.33	1.12	.67	.42	.20	.03	.00
IN.	.05	.08	.11	2.44	2.28	1.53	1.25	.77	.47	.23	.04	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1999, BY WATER YEAR (WY)

MEAN	83.0	216	342	501	524	590	580	450	296	187	92.2	65.9
MAX	585	1342	1567	3450	1808	1605	1534	1968	1502	915	716	392
(WY)	1937	1994	1991	1937	1950	1961	1964	1996	1998	1979	1979	1989
MIN	1.96	9.67	9.98	15.1	27.7	41.8	51.9	42.9	19.7	9.28	4.06	1.36
(WY)	1964	1954	1964	1977	1935	1941	1941	1934	1934	1936	1988	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1931 - 1999	
ANNUAL TOTAL	142837.8		75293.28			
ANNUAL MEAN	391		206		326	
HIGHEST ANNUAL MEAN					642	1950
LOWEST ANNUAL MEAN					40.6	1941
HIGHEST DAILY MEAN	7480	Jun 12	5800	Jan 23	16500	Jan 5 1949
LOWEST DAILY MEAN	7.0	Oct 1	.71	Sep 16	.60	Aug 7 1931
ANNUAL SEVEN-DAY MINIMUM	7.8	Sep 28	.83	Sep 10	.80	Oct 12 1963
INSTANTANEOUS PEAK FLOW			7420	Jan 23	18500	Jan 5 1949
INSTANTANEOUS PEAK STAGE			7.71	Jan 23	12.37	May 24 1968
ANNUAL RUNOFF (CFSM)	1.29		.68		1.08	
ANNUAL RUNOFF (INCHES)	17.54		9.24		14.63	
10 PERCENT EXCEEDS	804		487		751	
50 PERCENT EXCEEDS	160		55		132	
90 PERCENT EXCEEDS	12		6.9		16	

e Estimated

03363900 FLATROCK RIVER AT COLUMBUS, IN

LOCATION.--Lat 39°14'06", long 85°55'36", in NE¼SW¼ sec.12, T.9 N., R.5 E., Bartholomew County, Hydrologic Unit 05120205, on left bank at downstream side of bridge on U.S. Highway 31, 0.2 mi northwest of Columbus city limits, and 2.6 mi upstream from mouth.

DRAINAGE AREA.--534 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 610.14 ft above sea level.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	58	70	e72	865	1780	381	432	291	182	e64	e22
2	54	60	66	e78	1190	1310	383	404	565	189	e54	e21
3	55	65	64	e83	1090	1040	377	380	966	199	e49	e20
4	55	65	64	e78	952	883	393	364	761	182	e45	e20
5	55	62	64	e75	841	766	383	355	578	172	e42	e19
6	55	61	65	e72	768	1020	364	388	465	149	e40	e19
7	62	61	70	e70	1300	1590	347	498	390	131	e38	e18
8	69	61	72	e69	4490	1170	331	420	337	117	e37	e20
9	71	61	74	e68	3630	974	342	362	303	106	e39	e21
10	71	64	74	e67	1770	868	487	328	278	130	e36	20
11	68	64	70	e67	1290	764	473	306	258	181	e35	16
12	64	73	67	e69	1370	706	422	294	243	143	e38	16
13	61	85	64	e89	1620	695	400	290	422	118	e42	15
14	59	81	62	e112	1250	677	356	481	451	102	e46	15
15	57	78	61	387	1050	648	350	507	367	91	e50	14
16	55	75	61	346	957	660	368	387	293	83	e45	14
17	54	75	60	309	898	805	386	335	240	77	e41	14
18	56	73	58	862	862	853	648	480	206	74	e37	13
19	57	66	58	1690	803	751	758	643	184	89	e34	13
20	58	65	58	1340	750	676	681	574	178	123	e32	14
21	63	64	66	1210	697	638	717	458	174	619	e29	14
22	63	63	107	2580	644	608	1160	398	168	293	e27	14
23	60	62	178	5760	602	561	1080	368	164	185	e24	13
24	59	63	151	7880	579	524	814	384	158	149	e26	13
25	58	63	121	3110	555	496	677	364	156	112	e25	13
26	56	65	109	1570	533	467	613	326	148	91	e24	14
27	57	66	102	1250	527	445	576	292	146	78	e24	14
28	59	66	99	1070	1390	429	562	267	178	e89	e25	20
29	58	68	93	935	---	416	540	250	227	e94	e24	25
30	59	70	e82	838	---	397	481	237	217	e79	e23	26
31	57	---	e76	773	---	380	---	236	---	e71	e23	---
TOTAL	1840	2003	2486	32979	33273	23997	15850	11808	9512	4498	1118	510
MEAN	59.4	66.8	80.2	1064	1188	774	528	381	317	145	36.1	17.0
MAX	71	85	178	7880	4490	1780	1160	643	966	619	64	26
MIN	54	58	58	67	527	380	331	236	146	71	23	13
CFSM	.11	.13	.15	1.99	2.23	1.45	.99	.71	.59	.27	.07	.03
IN.	.13	.14	.17	2.30	2.32	1.67	1.10	.82	.66	.31	.08	.04
MEAN	158	443	675	767	957	984	1010	913	610	395	256	149
MAX	912	2336	2092	1827	2524	2223	2301	3871	2728	1556	1296	837
(WY)	1994	1994	1991	1969	1982	1978	1996	1996	1998	1979	1979	1989
MIN	33.2	47.6	44.8	30.6	189	204	251	132	77.2	50.8	35.0	17.0
(WY)	1992	1977	1977	1977	1992	1992	1976	1976	1988	1988	1988	1999

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1999, BY WATER YEAR (WY)

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1968 - 1999	
ANNUAL TOTAL	266870		139874			
ANNUAL MEAN	731		383		608	
HIGHEST ANNUAL MEAN					949	1996
LOWEST ANNUAL MEAN					271	1977
HIGHEST DAILY MEAN	10400	Jun 13	7880	Jan 24	18200	Dec 31 1990
LOWEST DAILY MEAN	54	Oct 2	13	Sep 18	13	Sep 18 1999
ANNUAL SEVEN-DAY MINIMUM	55	Sep 30	13	Sep 18	13	Sep 18 1999
INSTANTANEOUS PEAK FLOW			9800	Jan 24	20000	May 25 1968
INSTANTANEOUS PEAK STAGE			12.78	Jan 24	15.87	May 25 1968
ANNUAL RUNOFF (CFSM)	1.37		.72		1.14	
ANNUAL RUNOFF (INCHES)	18.59		9.74		15.46	
10 PERCENT EXCEEDS	1630		889		1340	
50 PERCENT EXCEEDS	340		130		316	
90 PERCENT EXCEEDS	61		25		60	

e Estimated

03364000 EAST FORK WHITE RIVER AT COLUMBUS, IN

LOCATION.--Lat 39°12'00", long 85°55'32", in NE¼NW¼ sec.25, T.9 N., R.5 E., Bartholomew County, Hydrologic Unit 05120205, on left bank at abutment of abandoned bridge at west end of Second Street in Columbus, 0.6 mi downstream from confluence of Driftwood River and Flatrock River, 1.3 mi upstream from Haw Creek, and at mile 238.7.

DRAINAGE AREA.--1,707 mi^2.

PERIOD OF RECORD.--October 1947 to current year. Prior to January 1948 monthly discharge only, published in WSP 1305.

REVISED RECORDS.--WSP 1335: 1948-49. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 603.12 ft above sea level. Prior to Oct. 22, 1952, nonrecording gage 600 ft upstream at same datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	259	314	364	337	2630	7030	1010	1500	822	656	245	e165
2	254	363	344	310	3820	4760	1010	1340	1480	591	234	e160
3	263	385	340	e340	3570	3360	1010	1230	3240	633	223	e158
4	271	367	334	e300	2920	2670	1080	1150	2350	701	215	e151
5	282	348	330	e280	2370	2210	1070	1110	1890	584	210	e148
6	316	346	325	e270	2020	3360	1030	1240	1520	485	204	e145
7	333	342	341	e260	6450	6150	1010	1320	1270	471	201	e142
8	529	331	348	e257	12800	4260	964	1160	1100	434	207	e145
9	615	324	351	e252	13500	3180	1020	1030	1000	383	202	e156
10	436	354	355	e250	9030	2740	1270	941	948	608	199	e155
11	360	415	338	e250	4680	2370	1200	876	831	633	195	e150
12	319	542	330	e260	5210	2130	1140	854	776	435	190	e135
13	303	579	321	e450	6840	2070	1050	1230	1250	364	193	e127
14	293	507	313	e740	4390	1980	956	2820	1410	331	210	e122
15	286	455	306	1050	3300	1850	950	1630	1140	313	208	e120
16	281	418	303	1130	2800	1820	1050	1210	910	302	206	e117
17	277	391	299	1050	2520	2130	1390	1060	755	294	196	e115
18	283	372	296	2210	2300	2350	2300	2200	656	294	188	e115
19	300	359	294	5540	2070	2090	2550	1880	590	308	190	e114
20	317	357	292	5150	1880	1810	2160	1630	551	369	213	e113
21	333	344	343	4530	1700	1650	2670	1330	523	1030	202	e115
22	317	342	585	9410	1550	1550	4310	1180	500	627	182	116
23	303	340	643	19400	1450	1450	4010	1130	477	431	178	116
24	296	330	691	29600	1410	1370	2730	1190	500	349	185	116
25	290	335	e550	17700	1370	1290	2090	1170	514	309	180	116
26	288	349	e510	8980	1320	1210	1800	1050	529	289	179	113
27	287	361	e500	4740	1370	1160	1650	942	537	276	181	113
28	296	426	487	3560	3970	1110	1780	846	586	265	178	115
29	294	401	445	2830	---	1070	1980	776	754	275	175	128
30	296	375	422	2350	---	1040	1750	722	697	273	172	149
31	301	---	393	2060	---	1000	---	703	---	256	169	---
TOTAL	9878	11472	12093	125846	109240	74220	49990	38450	30106	13569	6110	3950
MEAN	319	382	390	4060	3901	2394	1666	1240	1004	438	197	132
MAX	615	579	691	29600	13500	7030	4310	2820	3240	1030	245	165
MIN	254	314	292	250	1320	1000	950	703	477	256	169	113
CFSM	.19	.22	.23	2.38	2.29	1.40	.98	.73	.59	.26	.12	.08
IN.	.22	.25	.26	2.74	2.38	1.62	1.09	.84	.66	.30	.13	.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1999, BY WATER YEAR (WY)

MEAN	538	1354	1965	2684	3018	3278	3101	2569	1748	1275	760	514
MAX	2957	8137	6004	14400	8640	8014	7466	10960	8272	4990	5185	3696
(WY)	1987	1994	1967	1950	1950	1963	1964	1996	1998	1958	1979	1989
MIN	104	172	191	163	342	829	852	532	325	161	136	101
(WY)	1995	1955	1964	1977	1964	1954	1971	1976	1988	1954	1954	1954

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1949 - 1999	
ANNUAL TOTAL	853539		484924			
ANNUAL MEAN	2338		1329		1894	
HIGHEST ANNUAL MEAN					3304	1950
LOWEST ANNUAL MEAN					534	1954
HIGHEST DAILY MEAN	27800	Jun 17	29600	Jan 24	49000	Mar 6 1963
LOWEST DAILY MEAN	254	Oct 2	113	Sep 20	85	Sep 22 1994
ANNUAL SEVEN-DAY MINIMUM	266	Sep 28	115	Sep 17	90	Sep 28 1954
INSTANTANEOUS PEAK FLOW			32100	Jan 24	52300	Mar 6 1963
INSTANTANEOUS PEAK STAGE			12.65	Jan 24	16.23	Mar 6 1963
ANNUAL RUNOFF (CFSM)	1.37		.78		1.11	
ANNUAL RUNOFF (INCHES)	18.60		10.57		15.08	
10 PERCENT EXCEEDS	5470		2760		4280	
50 PERCENT EXCEEDS	987		510		962	
90 PERCENT EXCEEDS	315		180		250	

e Estimated

03364500 CLIFTY CREEK AT HARTSVILLE, IN

LOCATION.--Lat 39°16'25", long 85°42'10", in NW¼NW¼ sec.36, T.10 N., R.7 E., Bartholomew County, Hydrologic Unit 05120206, at downstream side of left abutment of county highway bridge, 0.2 mi north of Hartsville, 5.9 mi upstream from Duck Creek, and at mile 22.0.

DRAINAGE AREA.--91.4 mi^2.

PERIOD OF RECORD.--February 1948 to current year.

REVISED RECORDS.--WSP 1335: 1950. WSP 1725: 1949(M). WSP 2109: Drainage area. WDR IN-74-1: 1973.

GAGE.--Water-stage recorder. Datum of gage is 677.34 ft above sea level. Prior to Sept. 24, 1952, nonrecording gage at same site and datum.

REMARKS.--Records good except for estimated daily discharges and those below 1 ft^3/s, which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1913 reached an elevation of 702.4 ft above sea level, from floodmarks, upstream from bridge.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.17	e1.7	3.3	e7.4	285	333	39	27	23	121	1.8	.46
2	e.15	2.2	2.9	e9.0	323	207	38	25	171	179	1.4	.35
3	e.22	3.4	2.7	e16	204	156	39	24	152	82	1.0	.27
4	e.35	3.7	2.7	e13	149	115	47	23	73	46	.89	.21
5	e.30	3.2	2.7	e9.0	108	96	40	24	49	30	.82	.14
6	e.23	2.8	2.5	e8.0	101	325	37	146	37	24	.71	.01
7	e.29	2.5	3.6	e7.5	1170	245	35	136	30	20	.65	.00
8	e.39	2.6	4.0	e7.0	707	154	34	74	26	16	.76	.00
9	.81	2.5	4.7	e6.5	338	142	39	52	24	15	.87	.00
10	1.1	4.0	3.7	e6.5	211	116	35	41	22	177	.74	.00
11	.94	5.5	2.9	e7.8	160	99	30	35	20	91	.76	.00
12	.83	8.2	2.5	22	435	94	29	32	17	41	.67	.00
13	.73	4.7	2.3	170	288	99	26	35	146	26	.86	.00
14	.71	3.6	2.1	343	190	92	26	235	85	19	1.1	.00
15	.67	3.0	2.0	162	159	82	29	101	51	15	.83	.02
16	.63	2.7	1.9	96	138	108	33	64	29	13	.73	.00
17	.61	2.3	1.9	119	137	225	33	48	22	12	.74	.00
18	.82	2.2	2.5	855	127	161	32	47	18	18	.74	.00
19	1.1	2.1	3.3	370	109	114	33	43	15	13	.74	.00
20	1.2	2.5	2.5	e220	91	96	33	35	13	28	.64	.00
21	1.6	2.4	12	e435	78	90	94	30	12	61	.51	.00
22	1.9	2.3	98	892	68	77	146	31	11	22	.42	.00
23	1.5	2.3	e45	1500	65	66	91	31	10	12	.35	.00
24	e1.4	2.3	e26	541	62	61	65	74	14	8.1	.59	.00
25	e1.3	2.6	e18	290	59	54	51	49	14	5.9	.71	.00
26	e1.2	4.2	e14	192	54	48	48	34	12	4.6	.58	.00
27	e1.1	4.0	e12	154	131	45	49	28	20	3.8	.52	.00
28	e1.0	3.9	e11	123	630	45	46	24	56	3.7	.75	.00
29	e1.6	3.7	e10	97	---	41	36	22	213	3.8	.74	.00
30	e1.8	3.5	e8.5	82	---	38	29	19	83	2.7	.69	.00
31	e2.1	---	e7.5	78	---	37	---	21	---	2.2	.59	---
TOTAL	28.75	96.6	318.7	6838.7	6577	3661	1342	1610	1468	1115.8	23.90	1.46
MEAN	.93	3.22	10.3	221	235	118	44.7	51.9	48.9	36.0	.77	.049
MAX	2.1	8.2	98	1500	1170	333	146	235	213	179	1.8	.46
MIN	.15	1.7	1.9	6.5	54	37	26	19	10	2.2	.35	.00
CFSM	.01	.04	.11	2.41	2.57	1.29	.49	.57	.54	.39	.01	.00
IN.	.01	.04	.13	2.78	2.68	1.49	.55	.66	.60	.45	.01	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1999, BY WATER YEAR (WY)

MEAN	20.3	70.9	116	162	166	182	158	135	77.8	55.3	32.2	17.9
MAX	183	431	515	874	551	465	572	482	487	242	264	261
(WY)	1978	1986	1991	1949	1950	1961	1996	1996	1998	1992	1995	1974
MIN	.000	.000	.13	1.47	7.18	21.1	17.7	10.9	1.16	.000	.000	.000
(WY)	1954	1954	1954	1977	1954	1954	1976	1976	1988	1954	1954	1953

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1949 - 1999	
ANNUAL TOTAL	41736.58		23081.91			
ANNUAL MEAN	114		63.2		99.2	
HIGHEST ANNUAL MEAN					197	1950
LOWEST ANNUAL MEAN					9.00	1954
HIGHEST DAILY MEAN	2270	Apr 16	1500	Jan 23	6230	Apr 29 1996
LOWEST DAILY MEAN	.15	Oct 2	.00	Sep 7	.00	Oct 14 1948
ANNUAL SEVEN-DAY MINIMUM	.22	Sep 27	.00	Sep 7	.00	Sep 2 1951
INSTANTANEOUS PEAK FLOW			2090	Feb 7	11300	Jan 21 1959
INSTANTANEOUS PEAK STAGE			6.23	Feb 7	14.29	Jan 21 1959
ANNUAL RUNOFF (CFSM)	1.25		.69		1.09	
ANNUAL RUNOFF (INCHES)	16.99		9.39		14.75	
10 PERCENT EXCEEDS	281		157		218	
50 PERCENT EXCEEDS	37		16		32	
90 PERCENT EXCEEDS	.89		.35		.82	

e Estimated

03365500 EAST FORK WHITE RIVER AT SEYMOUR, IN

LOCATION.--Lat 38°58'57", long 85°53'57", in NW¼NE¼ sec.7, T.6 N., R.6 E., Jackson County, Hydrologic Unit 05120206, on left bank 1,700 ft downstream from highway bridge, 1 mi north of Seymour, 9.5 mi downstream from Sand Creek, and at mile 214.6.

DRAINAGE AREA.--2,341 mi².

PERIOD OF RECORD.--October 1927 to current year. Yearly maximum discharge only for water years 1924-27 published in WSP 1305. Daily gage heights from May 1923 to September 1927 are available in the district office.

REVISED RECORDS.--WSP 743: 1928-29, 1931-32. WSP 783: 1934. WSP 873: 1938. WSP 1335: 1928(M), 1929-30, 1932-33(M), 1937(M), 1942. WSP 1435: 1949. WSP 1705: 1958. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 550.67 ft above 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	358	358	442	489	5530	8500	1460	2020	954	1040	370	237
2	352	381	425	420	7430	8190	1460	1790	1340	1250	351	232
3	357	442	415	e460	6630	6010	1480	1630	3560	1270	337	224
4	360	427	412	e410	5320	4560	1650	1520	3800	1060	324	220
5	357	415	409	e380	4290	3700	1660	1440	2680	923	316	215
6	374	421	405	e360	3600	5220	1590	1520	2040	790	307	210
7	425	407	426	e350	7660	8270	1590	2150	1680	707	299	203
8	467	397	426	e340	21800	7720	1480	1850	1430	677	305	201
9	627	384	432	e340	17500	5690	1470	1540	1330	625	299	193
10	621	399	444	e330	14400	5160	1640	1360	1220	624	292	185
11	527	431	438	e330	9140	4790	1700	1240	1100	965	287	182
12	469	545	425	e350	7200	4090	1530	1170	1010	845	284	178
13	437	587	415	e1000	8770	3950	1440	1220	1090	664	278	176
14	412	565	401	e4000	8150	3630	1320	2530	1810	584	280	172
15	395	520	394	e2500	6000	3260	1270	2640	1550	537	288	168
16	384	482	394	e1600	4910	3080	1320	1820	1280	505	285	166
17	372	453	391	e2700	4360	3340	1490	1480	1040	485	283	164
18	373	428	380	e7400	4010	3770	1960	2000	916	480	273	164
19	386	418	383	e9000	3640	3480	2800	2340	836	478	274	166
20	392	418	381	e8000	3300	2980	2670	2160	778	491	296	168
21	419	406	433	6850	2990	2660	2580	1790	741	694	286	164
22	423	394	2260	8940	2720	2460	4850	1540	712	875	269	161
23	396	399	1500	22400	2510	2270	5420	1430	688	671	255	160
24	380	395	e900	32700	2380	2100	4140	1430	707	561	311	159
25	371	395	e770	28900	2290	1970	3060	1540	800	500	307	158
26	366	415	e690	17000	2200	1850	2510	1440	756	458	270	155
27	363	411	e670	9190	2160	1750	2240	1260	788	433	265	155
28	367	437	652	6400	5760	1670	2220	1140	775	413	266	155
29	365	471	609	5020	---	1610	2360	1050	989	399	259	155
30	361	452	568	4140	---	1550	2330	977	1330	409	249	164
31	358	---	538	3590	---	1490	---	938	---	387	243	---
TOTAL	12614	13053	17828	185889	176650	120770	64690	49955	39730	20800	9008	5410
MEAN	407	435	575	5996	6309	3896	2156	1611	1324	671	291	180
MAX	627	587	2260	32700	21800	8500	5420	2640	3800	1270	370	237
MIN	352	358	380	330	2160	1490	1270	938	688	387	243	155
CFSM	.17	.19	.25	2.56	2.69	1.66	.92	.69	.57	.29	.12	.08
IN.	.20	.21	.28	2.95	2.81	1.92	1.03	.79	.63	.33	.14	.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1999, BY WATER YEAR (WY)

MEAN	702	1615	2543	3869	3997	4598	4359	3496	2325	1583	964	637
MAX	3599	11570	9245	19560	12290	10690	9211	17020	12630	6040	8795	4244
(WY)	1994	1994	1928	1950	1950	1963	1944	1996	1998	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1928 - 1999	
ANNUAL TOTAL	1285573		716397			
ANNUAL MEAN	3522		1963		2550	
HIGHEST ANNUAL MEAN					4575	1950
LOWEST ANNUAL MEAN					287	1941
HIGHEST DAILY MEAN	39800	Apr 17	32700	Jan 24	63500	Jan 6 1949
LOWEST DAILY MEAN	352	Oct 2	155	Sep 26	86	Sep 28 1941
ANNUAL SEVEN-DAY MINIMUM	360	Sep 29	157	Sep 23	93	Sep 25 1941
INSTANTANEOUS PEAK FLOW			33300	Jan 24	78500	Jan 5 1949
INSTANTANEOUS PEAK STAGE			17.47	Jan 24	19.67	Jan 5 1949
ANNUAL RUNOFF (CFSM)	1.50		.84		1.09	
ANNUAL RUNOFF (INCHES)	20.43		11.38		14.80	
10 PERCENT EXCEEDS	8450		4870		5780	
50 PERCENT EXCEEDS	1550		694		1220	
90 PERCENT EXCEEDS	396		268		300	

e Estimated

03366200 HARBERTS CREEK NEAR MADISON, IN

LOCATION.--Lat 38°46'55", long 85°29'08", in SW¼SE¼ sec.14, T.4 N., R.9 E., Jefferson County, Hydrologic Unit 05120207, mounted on left downstream wingwall of bridge on County Road 533 West, 0.2 mi west of Smyrna, 3.7 mi upstream from Big Creek, and 4 mi northwest of Madison.

DRAINAGE AREA.--9.31 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 725.75 ft above sea level.

REMARKS.--Records good except for estimated daily discharges and daily discharges below 1.0 ft^3/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.12	e.60	180	21	2.5	1.4	.13	1.8	.00	.00
2	.00	.00	.10	e2.0	45	12	3.0	1.1	1.2	6.0	.00	.00
3	.00	.04	.09	e15	23	15	39	.95	.42	2.0	.00	.00
4	.00	.07	.09	e8.0	14	10	36	.86	.13	1.1	.00	.00
5	.00	.13	.08	e5.0	8.5	7.3	12	.87	.02	.77	.00	.00
6	.00	.09	.08	e3.5	7.9	108	12	4.1	.00	.59	.00	.00
7	.25	.07	3.1	e2.5	226	23	7.6	2.6	.00	.41	.00	.00
8	.78	.05	.54	e10	35	12	5.4	1.4	.00	.33	.00	.00
9	.14	.04	.24	e60	16	92	6.2	.88	.00	.28	.00	.00
10	.05	1.3	.18	e17	10	90	5.0	.76	.00	.30	.00	.00
11	.02	.44	.14	e10	8.0	33	3.7	.71	.00	.24	.00	.00
12	.01	.18	.11	17	61	19	2.7	.66	.00	.11	.00	.00
13	.00	.11	.12	240	21	13	2.2	.68	.17	.04	.00	.00
14	.00	.08	.10	53	12	14	2.0	.59	1.8	.00	.00	.00
15	.00	.07	.09	16	9.2	10	2.4	.53	.36	.00	.00	.00
16	.00	.06	.09	16	7.6	57	5.0	.52	.08	.00	.00	.00
17	.00	.05	.10	41	12	38	3.6	.47	.00	.08	.00	.00
18	.01	.04	.09	64	8.8	15	3.1	.58	.00	.19	.00	.00
19	.01	.04	.09	18	6.4	9.3	2.8	.47	.00	.09	.00	.00
20	.09	.10	.10	12	5.0	7.1	7.0	.34	.00	.00	.00	.00
21	.07	.18	65	34	4.2	5.6	35	.30	.00	.00	.00	.00
22	.04	.11	79	300	3.5	4.5	13	.29	.00	.00	.00	.00
23	.03	.08	8.1	356	3.4	3.9	5.5	.32	.00	.00	.00	.00
24	.02	.07	3.5	36	3.4	3.6	3.5	.34	5.3	.00	.00	.00
25	.01	.17	e1.8	17	3.7	3.1	2.6	.27	4.9	.00	.00	.00
26	.00	.65	e1.3	11	3.8	2.7	2.5	.19	2.4	.00	.00	.00
27	.00	.26	1.1	8.3	28	2.4	2.6	.11	11	.02	.00	.00
28	.01	.17	.99	6.7	82	2.1	3.1	.04	5.8	.11	.00	.00
29	.01	.12	.96	5.2	---	1.9	2.6	.00	4.5	.01	.00	.01
30	.00	.11	e.80	4.3	---	1.7	1.8	.00	1.7	.00	.00	2.8
31	.00	---	e.69	61	---	1.7	---	.12	---	.00	.00	---
TOTAL	1.55	4.88	168.89	1450.10	848.4	638.9	235.4	22.45	39.91	14.47	0.00	2.81
MEAN	.050	.16	5.45	46.8	30.3	20.6	7.85	.72	1.33	.47	.000	.094
MAX	.78	1.3	79	356	226	108	39	4.1	11	6.0	.00	2.8
MIN	.00	.00	.08	.60	3.4	1.7	1.8	.00	.00	.00	.00	.00
CFSM	.01	.02	.59	5.02	3.25	2.21	.84	.08	.14	.05	.00	.01
IN.	.01	.02	.67	5.79	3.39	2.55	.94	.09	.16	.06	.00	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1999, BY WATER YEAR (WY)

MEAN	3.62	12.8	18.5	19.3	20.9	25.8	24.5	18.2	8.86	3.96	3.97	2.07
MAX	28.8	48.6	64.1	57.5	51.9	52.0	84.5	76.1	51.3	14.7	28.2	18.7
(WY)	1984	1980	1991	1982	1971	1975	1996	1996	1997	1993	1992	1979
MIN	.036	.16	1.52	.49	1.47	4.72	2.65	.72	.083	.21	.000	.000
(WY)	1998	1999	1977	1977	1992	1969	1976	1999	1988	1991	1999	1998

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1969 - 1999	
ANNUAL TOTAL	4311.54		3427.76			
ANNUAL MEAN	11.8		9.39		13.5	
HIGHEST ANNUAL MEAN					23.7	1996
LOWEST ANNUAL MEAN					6.13	1981
HIGHEST DAILY MEAN	506	Apr 16	356	Jan 23	1110	Apr 29 1996
LOWEST DAILY MEAN	.00	Aug 12	.00	Oct 1	.00	Oct 1 1968
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 12	.00	Jun 6	.00	Aug 26 1969
INSTANTANEOUS PEAK FLOW			738	Jan 23	2150	May 16 1990
INSTANTANEOUS PEAK STAGE			5.84	Jan 23	8.96	May 16 1990
ANNUAL RUNOFF (CFSM)	1.27		1.01		1.45	
ANNUAL RUNOFF (INCHES)	17.23		13.70		19.69	
10 PERCENT EXCEEDS	19		17		26	
50 PERCENT EXCEEDS	1.1		.28		2.4	
90 PERCENT EXCEEDS	.00		.00		.07	

e Estimated

03366500 MUSCATATUCK RIVER NEAR DEPUTY, IN

LOCATION.--Lat 38°48'15", long 85°40'26", in SW¼NE¼ sec.7, T.4 N., R.8 E., Jefferson County, Hydrologic Unit 05120207, on left bank at downstream side of highway bridge, 1.4 mi northwest of Deputy, 1.9 mi upstream from Coffee Creek, 2.4 mi downstream from confluence of Graham Creek and Big Creek, and at mile 50.0.

DRAINAGE AREA.--293 mi^2.

PERIOD OF RECORD.--November 1947 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 540.00 ft above sea level. Prior to June 22, 1955, nonrecording gage at same site. Prior to Aug. 25, 1983, at datum 1.17 ft higher.

REMARKS.--Records fair except for discharges below 0.3 ft^3/s and estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e4.0	e5.3	15	e42	3260	951	94	86	e16	28	1.0	.28
2	e8.0	e4.8	13	e45	1850	465	100	71	e24	120	.67	.23
3	e18	e11	12	297	780	363	187	63	31	44	.49	.20
4	e3.5	e9.4	11	e260	446	335	998	57	30	17	.40	.19
5	e1.5	e9.0	10	e190	306	249	491	53	e23	12	.43	.18
6	e3.0	e9.0	9.6	e143	250	2190	345	115	e19	10	.40	.17
7	e5.1	e8.4	17	e104	3860	1390	320	131	e16	e4.8	.44	.14
8	e10	e8.0	40	e80	2770	497	233	126	e15	e3.1	.55	.11
9	e7.2	e7.7	46	e720	705	1410	566	81	e14	e1.8	1.3	.11
10	e5.4	e27	28	e560	412	2240	759	61	e12	e2.2	1.8	.09
11	e3.8	e96	21	e430	303	1280	305	50	e11	e1.8	1.5	.08
12	e3.0	e29	17	331	990	666	210	44	e10	e1.6	1.4	.14
13	e2.6	14	15	3890	909	529	164	41	e20	e1.5	1.2	.15
14	e2.6	12	14	3660	431	416	142	40	101	e1.4	1.0	.14
15	e2.6	11	13	768	322	345	135	37	54	e1.3	.85	.12
16	e2.4	10	12	394	271	614	151	35	32	e1.2	.74	.11
17	e2.3	9.6	12	560	296	1250	198	34	29	e1.5	.60	.10
18	e3.4	9.7	11	2090	352	567	180	34	e17	e2.5	.55	.09
19	e4.8	9.7	11	937	262	341	175	34	e13	e2.2	.68	.10
20	e6.0	11	10	429	212	255	164	32	e11	e3.0	.77	.10
21	e4.7	11	276	612	180	219	331	30	e10	e4.0	.54	.09
22	e3.8	11	4270	3290	158	190	728	30	e8.6	e4.5	.40	.08
23	e3.0	9.7	790	10800	144	168	296	30	e8.0	e1.4	.32	.08
24	e3.2	9.6	271	2490	141	158	195	30	e40	e1.1	.30	.10
25	e3.2	10	e150	740	140	144	151	30	134	e.95	.54	.11
26	e2.9	24	e123	428	139	131	133	29	66	e.80	.84	.12
27	e2.6	28	112	316	172	119	126	27	95	e2.5	.70	.12
28	e4.2	31	89	259	2040	108	124	26	144	e1.9	.74	.13
29	e7.0	18	78	215	---	101	136	e21	146	e1.7	.74	.19
30	e6.3	16	72	184	---	92	113	e16	75	1.6	.55	.22
31	e5.8	---	e60	206	---	85	---	e17	---	1.3	.40	---
TOTAL	145.9	479.9	6628.6	35470	22101	17868	8250	1511	1224.6	282.65	22.84	4.07
MEAN	4.71	16.0	214	1144	789	576	275	48.7	40.8	9.12	.74	.14
MAX	18	96	4270	10800	3860	2240	998	131	146	120	1.8	.28
MIN	1.5	4.8	9.6	42	139	85	94	16	8.0	.80	.30	.08
CFSM	.02	.05	.73	3.91	2.69	1.97	.94	.17	.14	.03	.00	.00
IN.	.02	.06	.84	4.50	2.81	2.27	1.05	.19	.16	.04	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1999, BY WATER YEAR (WY)

MEAN	58.3	248	441	623	635	725	578	462	244	154	88.5	46.2
MAX	720	1438	1723	2896	1826	2055	1957	1967	1552	661	748	480
(WY)	1984	1980	1991	1950	1950	1964	1996	1983	1997	1958	1992	1974
MIN	.000	.15	.21	9.24	18.1	65.2	73.2	23.8	9.46	.42	.000	.000
(WY)	1954	1964	1964	1977	1954	1954	1976	1976	1988	1954	1954	1954

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1949 - 1999	
ANNUAL TOTAL	130806.9		93988.56			
ANNUAL MEAN	358		258		357	
HIGHEST ANNUAL MEAN					636	1950
LOWEST ANNUAL MEAN					25.3	1954
HIGHEST DAILY MEAN	11400	Apr 16	10800	Jan 23	32400	Jan 21 1959
LOWEST DAILY MEAN	1.5	Sep 15	.08	Sep 11	.00	Oct 1 1948
ANNUAL SEVEN-DAY MINIMUM	1.9	Sep 11	.09	Sep 17	.00	Oct 1 1948
INSTANTANEOUS PEAK FLOW			13800	Jan 23	52200	Jan 21 1959
INSTANTANEOUS PEAK STAGE			23.50	Jan 23	34.27	Jan 21 1959
ANNUAL RUNOFF (CFSM)	1.22		.88		1.22	
ANNUAL RUNOFF (INCHES)	16.61		11.93		16.57	
10 PERCENT EXCEEDS	809		562		752	
50 PERCENT EXCEEDS	89		26		76	
90 PERCENT EXCEEDS	3.5		.42		3.4	

e Estimated

03368000 BRUSH CREEK NEAR NEBRASKA, IN

LOCATION.--Lat 39°04'13", long 85°29'10" in NW¼NE¼ sec.11, T.7 N., R.9 E., Jennings County, Hydrologic Unit 05120207, at upstream side of bridge on right bank on county road, 1.5 mi northwest of Nebraska, 2.9 mi northeast of Butlerville, and 3.6 mi upstream from Brush Creek Dam.

DRAINAGE AREA.--11.4 mi^2.

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

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 717.17 ft above sea level (levels by State of Indiana, Department of Natural Resources).

REMARKS.--Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.08	1.2	130	e33	e4.1	e2.7	e.19	e.22	e.00	e.00
2	.00	.00	.07	2.9	45	e13	e3.5	e2.4	e1.4	e.26	e.00	e.00
3	.00	.00	.07	13	29	e13	e15	e2.3	e.53	e.17	e.00	e.00
4	.00	.00	.05	4.9	23	e13	e19	e2.2	e.24	e.10	e.00	e.00
5	.00	.00	.06	2.8	19	e12	e9.7	e2.2	e.16	e.07	e.00	e.00
6	.00	.00	.06	2.4	20	e139	e13	e8.7	e.12	e.05	e.00	e.00
7	.00	.00	.29	2.0	387	e22	e8.6	e2.0	e.10	e.04	e.00	e.00
8	.00	.00	.27	2.2	e26	e14	e6.8	e1.3	e.09	e.03	e.01	e.00
9	.00	.00	.18	8.8	e12	e23	e114	e.83	e.09	e.02	e.00	e.00
10	.00	.39	.12	6.9	e8.3	e36	e23	e.63	e.13	e.02	e.00	e.00
11	.00	1.1	.09	2.5	e7.0	e27	e14	e.52	e.07	e.02	e.00	e.00
12	.00	.36	.08	4.1	e29	e30	e9.0	e.76	e.06	e.02	e.00	e.00
13	.00	.13	.09	336	e12	e24	e6.9	e1.1	e.25	e.02	e.00	e.00
14	.00	.07	.08	41	e8.3	e18	e5.8	e1.0	e3.2	e.01	e.00	e.00
15	.00	.06	.07	15	e7.3	e25	e7.3	e.80	e.61	e.01	e.00	e.00
16	.00	.05	.06	16	e7.1	e65	e11	e.60	e.19	e.01	e.00	e.00
17	.00	.05	.06	81	e14	e31	e9.8	e.41	e.10	e.01	e.00	e.00
18	.00	.05	.06	100	e8.4	e15	e9.6	e.60	e.06	e.01	e.00	e.00
19	.00	.05	.06	21	e6.5	e11	e7.9	e.47	e.05	e.01	e.00	e.00
20	.00	.09	.23	23	e5.5	e9.1	e7.0	e.30	e.04	e.01	e.00	e.00
21	.00	.12	71	58	e4.9	e7.3	e34	e.25	e.04	e.01	e.00	e.00
22	.00	.07	38	262	e6.4	e6.1	e15	e.25	e.03	e.01	e.00	e.00
23	.00	.06	3.5	388	e6.5	e5.7	e9.3	e.56	e.03	e.00	e.00	e.00
24	.00	.06	2.4	46	e6.4	e5.3	e6.4	e.99	e4.3	e.00	e.00	e.00
25	.00	.08	2.0	27	e11	e4.7	e5.0	e.81	e2.9	e.00	e.00	e.00
26	.00	.25	1.8	21	e11	e4.2	e4.1	e.34	e.47	e.00	e.00	e.00
27	.00	.19	1.6	19	e117	e4.1	e4.3	e.24	e.41	e.00	e.00	e.00
28	.00	.12	1.6	17	e103	e3.9	e5.0	e.22	e.78	e.00	e.00	e.00
29	.00	.09	1.5	16	---	e3.7	e3.8	e.19	e.82	e.00	e.00	e.01
30	.00	.08	1.3	15	---	e3.3	e3.0	e.17	e.27	e.00	e.00	e.24
31	.00	---	1.3	47	---	e3.3	---	e.18	---	e.00	e.00	---
TOTAL	0.00	3.52	128.13	1602.7	1070.6	624.7	394.9	36.02	17.73	1.13	0.01	0.25
MEAN	.000	.12	4.13	51.7	38.2	20.2	13.2	1.16	.59	.036	.000	.008
MAX	.00	1.1	71	388	387	139	114	8.7	4.3	.26	.01	.24
MIN	.00	.00	.05	1.2	4.9	3.3	3.0	.17	.03	.00	.00	.00
CFSM	.00	.01	.36	4.54	3.35	1.77	1.15	.10	.05	.00	.00	.00
IN.	.00	.01	.42	5.23	3.49	2.04	1.29	.12	.06	.00	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1999, BY WATER YEAR (WY)

MEAN	2.40	9.77	17.0	20.2	22.2	28.3	25.3	20.6	9.53	6.99	4.19	1.54
MAX	19.7	64.5	86.9	70.4	51.8	89.6	79.9	86.1	45.6	72.0	41.9	11.0
(WY)	1984	1986	1991	1959	1971	1963	1998	1995	1997	1962	1978	1974
MIN	.000	.000	.000	.063	1.44	4.22	2.12	.76	.12	.025	.000	.000
(WY)	1958	1964	1964	1977	1964	1969	1976	1976	1965	1970	1964	1957

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1956 - 1999	
ANNUAL TOTAL	6454.94		3879.69			
ANNUAL MEAN	17.7		10.6		14.0	
HIGHEST ANNUAL MEAN					27.3	1996
LOWEST ANNUAL MEAN					5.92	1977
HIGHEST DAILY MEAN	1210	Apr 16	388	Jan 23	1460	Jan 21 1959
LOWEST DAILY MEAN	.00	Sep 13	.00	Oct 1	.00	Oct 4 1955
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 13	.00	Oct 1	.00	Aug 6 1956
INSTANTANEOUS PEAK FLOW			1630	Feb 7	9360	Jun 10 1981
INSTANTANEOUS PEAK STAGE			8.72	Feb 7	12.99	Jun 10 1981
ANNUAL RUNOFF (CFSM)	1.55		.93		1.23	
ANNUAL RUNOFF (INCHES)	21.06		12.66		16.65	
10 PERCENT EXCEEDS	26		21		24	
50 PERCENT EXCEEDS	1.9		.19		2.1	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated

03369000 VERNON FORK MUSCATATUCK RIVER NEAR BUTLERVILLE, IN

LOCATION.--Lat 39°02'55", long 85°32'40", in NW¼SE¼ sec.17, T.7 N., R.9 E., Jennings County, Hydrologic Unit 05120207, on left bank 0.3 mi downstream from Muscatatuck State School dam, 1.1 mi downstream from Brush Creek, 2 mi northwest of Butlerville, and at mile 50.6.

DRAINAGE AREA.--85.9 mi^2.

PERIOD OF RECORD.--February 1942 to current year. Prior to October 1960, published as North Fork of Vernon Fork near Butlerville, and as Vernon Fork near Butlerville, October 1960 to September 1979.

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 669.40 ft above sea level. Prior to Aug. 19, 1942, nonrecording gage at same site and datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Water supply for the Muscatatuck State School is diverted and the sewage effluent returned above station. Flow regulated by Brush Creek Reservoir.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	2.7	3.9	11	644	259	32	30	5.7	5.3	1.7	3.8
2	21	2.3	3.5	15	287	139	32	28	7.5	5.1	1.2	10
3	.37	3.7	3.4	73	152	107	44	26	12	7.8	.95	.27
4	.41	2.9	3.3	e50	91	81	123	25	8.3	5.1	10	.18
5	.41	3.1	3.6	e35	62	66	68	25	6.6	3.9	18	.19
6	.45	4.1	3.8	e25	56	617	95	98	5.8	3.2	1.0	.18
7	1.3	4.2	5.6	e22	2260	219	78	53	5.2	2.7	1.4	.21
8	1.1	4.0	5.8	e20	396	122	57	24	5.1	2.5	2.8	.39
9	.85	3.3	6.2	e43	190	135	339	18	4.8	2.5	1.7	5.7
10	1.0	8.0	3.8	e49	122	176	158	15	4.3	2.9	2.0	10
11	e1.0	21	5.4	e33	93	166	89	13	5.9	4.3	1.6	.39
12	e.90	11	3.7	e30	357	148	61	12	6.1	3.3	.58	.38
13	e.83	5.5	3.6	e300	184	170	49	12	8.0	2.8	.43	.40
14	1.3	4.0	3.1	e170	121	123	43	12	20	2.5	.35	.37
15	1.1	3.3	3.4	e100	101	102	45	11	12	2.6	.32	.32
16	1.0	2.7	2.8	e70	86	250	86	9.8	7.0	2.5	.34	2.3
17	.91	2.3	2.6	e130	121	296	63	8.9	5.4	3.1	.29	10
18	2.3	2.1	2.5	829	95	145	71	11	4.6	2.6	10	.37
19	2.7	2.1	2.9	266	75	90	59	11	4.4	2.2	13	.40
20	2.1	3.1	2.8	202	63	70	52	9.5	4.2	2.7	.23	.42
21	e1.8	3.0	95	384	56	62	345	8.0	3.9	2.9	.15	.38
22	e1.5	3.0	457	1130	48	54	180	7.9	3.7	3.0	.20	.35
23	e1.3	2.8	71	2120	47	48	100	8.0	3.7	2.8	.38	.32
24	e1.4	2.9	38	332	46	45	66	9.9	7.2	2.6	1.0	5.5
25	e1.4	3.4	23	150	46	41	52	11	25	2.5	.99	.40
26	e1.3	4.5	20	88	46	39	46	8.4	7.6	2.4	.74	.42
27	e1.2	4.1	17	64	226	37	43	7.2	6.4	2.5	.47	.50
28	3.2	4.7	16	52	723	35	43	6.5	7.5	2.3	.42	.52
29	2.7	4.2	15	41	---	33	38	6.3	7.9	2.0	.39	3.9
30	2.5	4.1	14	34	---	32	33	5.9	6.1	1.9	.36	11
31	2.7	---	12	39	---	31	---	5.9	---	1.9	.34	---
TOTAL	85.03	132.1	853.7	6907	6794	3938	2590	537.2	221.9	96.4	73.33	69.56
MEAN	2.74	4.40	27.5	223	243	127	86.3	17.3	7.40	3.11	2.37	2.32
MAX	23	21	457	2120	2260	617	345	98	25	7.8	18	11
MIN	.37	2.1	2.5	11	46	31	32	5.9	3.7	1.9	.15	.18
CFSM	.03	.05	.32	2.59	2.82	1.48	1.01	.20	.09	.04	.03	.03
IN.	.04	.06	.37	2.99	2.94	1.71	1.12	.23	.10	.04	.03	.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1999, BY WATER YEAR (WY)

MEAN	15.6	60.2	106	154	161	203	171	130	62.9	43.6	27.7	14.8
MAX	99.7	441	395	763	492	604	509	554	317	277	308	126
(WY)	1991	1986	1991	1950	1950	1945	1998	1968	1998	1992	1978	1950
MIN	.33	.34	.37	1.28	11.3	29.3	18.4	6.91	1.56	1.22	1.32	.37
(WY)	1952	1944	1944	1977	1964	1983	1976	1949	1965	1954	1951	1943

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1943 - 1999	
ANNUAL TOTAL	42111.93		22298.22			
ANNUAL MEAN	115		61.1		95.6	
HIGHEST ANNUAL MEAN					188	1950
LOWEST ANNUAL MEAN					13.1	1954
HIGHEST DAILY MEAN	8000	Apr 16	2260	Feb 7	13200	Jan 21 1959
LOWEST DAILY MEAN	.37	Oct 3	.15	Aug 21	.00	Jul 20 1944
ANNUAL SEVEN-DAY MINIMUM	.70	Oct 3	.53	Aug 20	.00	Oct 29 1944
INSTANTANEOUS PEAK FLOW			6360	Feb 7	26200	Jan 21 1959
INSTANTANEOUS PEAK STAGE			12.82	Feb 7	25.41	Jan 21 1959
ANNUAL RUNOFF (CFSM)	1.34		.71		1.11	
ANNUAL RUNOFF (INCHES)	18.24		9.66		15.11	
10 PERCENT EXCEEDS	234		137		188	
50 PERCENT EXCEEDS	22		7.2		20	
90 PERCENT EXCEEDS	1.8		.46		1.4	

e Estimated

03369500 VERNON FORK MUSCATATUCK RIVER AT VERNON, IN

LOCATION.--Lat 38°58'34", long 85°37'13", in NW¼SE¼ sec.10, T.6 N., R.8 E., Jennings County, Hydrologic Unit 05120207, at left upstream side of bridge, 1 mi southwest of Vernon, 3.1 mi downstream from Otter Creek, and at mile 36.4.

DRAINAGE AREA.--198 mi^2.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1305. Prior to October 1979, published as Vernon Fork at Vernon.

REVISED RECORDS.--WSP 1335: 1940, 1953. WSP 1909: 1952-53. WSP 2109: Drainage area. WDR IN-91-1: 1990. WDR IN-95-1: 1991-94 (M). WDR IN-99-1: 1991-94, 1998 (M).

GAGE.--Water-stage recorder. Datum of gage is 585.00 ft above sea level, (levels by State of Indiana, Department of Natural Resources). Prior to Jan. 14, 1940, and June 23 to Nov. 13, 1967, nonrecording gage, and Jan. 14, 1940, to June 22, 1967, water-stage recorder at site on right bank. Prior to Aug. 8, 1983, datum 2.30 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversion above station for municipal water supply of North Vernon and Vernon. Part of this diverson returned above gage as sewage effluent by North Vernon Sewage Treatment Plant. Some regulation at times at low flow by Old Timbers Lake on Jefferson Proving Grounds and Brush Creek Reservoir.

REVISED RECORD.--The annual peak discharge for the 91-94 and 98 water years were revised as follows:

Water Year	Date	Discharge (ft^3/s)	Gage Height (ft)	Water Year	Date	Discharge (ft^3/s)	Gage Height (ft)
1991	Dec. 30, 1990	11,600	18.35	1994	Apr. 10, 1994	13,300	19.68
1992	July 17, 1992	9,400	16.49	1998	Apr. 16, 1998	28,400	26.93
1993	Jan. 5, 1993	8,250	15.44				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	4.4	9.5	e22	1840	668	60	65	9.5	19	3.1	1.5
2	11	3.8	9.2	e35	784	353	62	58	14	20	2.5	1.5
3	13	5.4	7.3	e190	430	e280	91	54	19	15	2.9	1.8
4	1.8	9.7	7.5	e100	293	e212	416	49	23	16	3.3	2.1
5	1.1	7.8	7.4	e80	208	150	222	47	15	12	4.1	2.0
6	1.2	7.4	7.0	e60	163	1740	211	101	11	9.8	8.1	1.9
7	2.2	7.1	15	e50	4820	593	206	159	9.3	8.4	1.7	1.4
8	6.4	6.2	29	e40	1170	307	144	68	9.4	6.5	.98	1.1
9	2.9	6.2	18	e100	457	386	1310	46	8.0	5.2	1.1	1.3
10	2.6	35	18	e130	297	676	493	35	7.5	6.5	.96	1.2
11	2.0	75	14	e76	220	500	271	29	6.8	7.9	1.3	3.3
12	1.8	39	11	e60	702	399	183	25	6.2	6.1	1.7	2.2
13	1.6	26	13	e800	e420	425	139	24	19	6.0	2.1	1.3
14	2.0	18	11	e400	e300	303	118	23	28	5.9	2.2	1.1
15	1.8	12	9.8	e250	222	256	111	22	62	4.5	2.1	1.4
16	1.9	8.6	8.8	e140	189	391	184	20	24	4.1	1.8	1.3
17	1.8	6.2	9.2	e230	256	837	165	18	14	4.8	1.6	1.3
18	1.9	5.6	8.8	e2200	233	387	171	20	10	7.4	2.0	1.4
19	3.2	5.7	8.1	e608	175	230	145	20	7.9	5.7	2.4	3.5
20	4.8	7.0	8.2	e420	140	173	125	18	6.7	6.8	5.9	1.1
21	4.6	9.2	e148	647	123	147	632	16	6.1	5.7	1.3	.94
22	3.7	8.2	e1200	2720	104	124	445	14	5.9	5.0	.50	1.3
23	2.3	7.1	e333	5650	98	108	235	15	5.0	4.2	.39	1.3
24	2.4	6.5	e89	970	93	100	160	18	8.4	3.8	2.4	1.2
25	2.4	7.2	e65	440	93	90	122	18	125	3.6	2.9	1.5
26	2.3	16	e51	281	93	81	108	19	48	3.3	1.8	1.3
27	2.0	15	e37	216	301	75	102	15	24	3.5	1.4	1.0
28	3.1	11	e33	179	2180	69	100	12	33	4.3	1.4	.84
29	5.2	9.5	e31	155	---	64	90	10	54	4.1	1.2	1.1
30	5.3	9.7	e28	128	---	59	75	9.2	25	3.9	.86	1.5
31	4.6	---	e25	125	---	56	---	8.9	---	3.5	.68	---
TOTAL	106.6	395.5	2269.8	17502	16404	10239	6896	1056.1	644.7	222.5	66.67	45.68
MEAN	3.44	13.2	73.2	565	586	330	230	34.1	21.5	7.18	2.15	1.52
MAX	13	75	1200	5650	4820	1740	1310	159	125	20	8.1	3.5
MIN	1.1	3.8	7.0	22	93	56	60	8.9	5.0	3.3	.39	.84
CFSM	.02	.07	.37	2.85	2.96	1.67	1.16	.17	.11	.04	.01	.01
IN.	.02	.07	.43	3.29	3.08	1.92	1.30	.20	.12	.04	.01	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1999, BY WATER YEAR (WY)

MEAN	36.2	138	254	359	389	474	412	302	165	98.8	63.2	32.6
MAX	292	986	962	2049	1188	1798	1402	1440	963	581	639	284
(WY)	1984	1986	1991	1950	1950	1945	1998	1968	1960	1962	1978	1974
MIN	.22	.61	1.03	4.23	24.4	19.0	37.3	8.77	1.80	.63	.003	.19
(WY)	1941	1954	1944	1977	1964	1941	1941	1941	1988	1954	1940	1943

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1940 - 1999	
ANNUAL TOTAL	113576.7		55848.55			
ANNUAL MEAN	311		153		226	
HIGHEST ANNUAL MEAN					468	1950
LOWEST ANNUAL MEAN					32.8	1954
HIGHEST DAILY MEAN	22000	Apr 16	5650	Jan 23	31900	Jan 21 1959
LOWEST DAILY MEAN	1.1	Oct 5	.39	Aug 23	.00	Aug 2 1940
ANNUAL SEVEN-DAY MINIMUM	1.8	Oct 12	1.2	Sep 23	.00	Aug 2 1940
INSTANTANEOUS PEAK FLOW			10900	Feb 7	56800	Jan 21 1959
INSTANTANEOUS PEAK STAGE			17.24	Feb 7	32.83	Jan 21 1959
ANNUAL RUNOFF (CFSM)	1.57		.77		1.14	
ANNUAL RUNOFF (INCHES)	21.34		10.49		15.52	
10 PERCENT EXCEEDS	600		366		460	
50 PERCENT EXCEEDS	50		15		47	
90 PERCENT EXCEEDS	2.8		1.5		2.7	

e Estimated

03371500 EAST FORK WHITE RIVER NEAR BEDFORD, IN

LOCATION.--Lat 38°46'10", long 86°24'30", in SW¼NE¼ sec.21, T.4 N., R.1 E., Lawrence County, Hydrologic Unit 05120208, on right downstream side of county road bridge, 0.4 mi upstream from Mill Creek, 2.9 mi downstream from Sugar Creek, 3.9 mi northeast of Mitchell, 7.8 mi southeast of Bedford, and at mile 153.3.

DRAINAGE AREA.--3,861 mi^2.

PERIOD OF RECORD.--May 1939 to current year (high-water records only October 1943 to September 1957).

REVISED RECORDS.--WSP 2109: Drainage area. WDR IN-73-1: 1972.

GAGE.--Water-stage recorder. Datum of gage is 473.59 ft above sea level. Prior to Feb. 6, 1940, nonrecording gage, and Feb. 6, 1940 to Sept. 24, 1957, water-stage recorder, at site 9.8 mi downstream at datum 4.39 ft lower.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 47.5 ft, from floodmark determined by U.S. Army Corps of Engineers, discharge, 155,000 ft^3/s, at former site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	552	505	674	e1300	10500	7000	2560	4320	1330	1710	627	400
2	534	499	657	e1100	10600	9310	2490	3700	1300	1910	606	391
3	530	508	634	e1000	11000	10800	2540	3230	1430	1730	576	371
4	525	542	612	e960	11700	10900	3690	2880	2390	1920	548	365
5	522	573	591	e920	11600	9210	4570	2650	3770	1750	521	359
6	519	572	580	e900	10500	8780	5260	2550	3500	1540	495	351
7	558	559	631	e900	11600	9320	5170	2690	2890	1370	472	345
8	601	557	678	e860	13100	10200	4590	3090	2440	1220	504	336
9	630	549	669	e840	15100	12300	4780	3220	2140	1110	506	343
10	632	563	668	e820	20300	14000	4920	2790	2080	1050	485	391
11	703	593	679	e820	22600	12900	5140	2380	1820	989	447	346
12	714	637	681	e1500	21800	11800	5280	2120	1690	1000	431	317
13	668	637	666	e4000	17900	11100	4490	2090	1560	1180	415	298
14	625	708	645	e9000	13900	10400	3620	2030	1480	1080	413	292
15	591	743	627	e8000	12700	9500	3120	2270	1710	959	411	287
16	567	726	615	e7000	11500	8590	2910	3220	2010	882	405	282
17	545	688	614	e7200	9470	7880	2850	2840	1920	829	403	278
18	536	649	604	e8800	7590	7370	2890	2450	1690	801	401	267
19	532	623	601	e10000	6670	7530	3130	2280	1470	778	414	269
20	529	607	595	e9600	6060	7270	3690	2910	1330	764	402	267
21	522	597	750	e11700	5400	6210	4020	2880	1240	760	390	267
22	530	584	3000	12400	4830	5220	4080	2610	1160	754	413	267
23	546	574	4510	16400	4400	4610	5520	2280	1110	958	403	264
24	551	569	e5100	18100	4080	4220	6730	2070	1100	1080	426	261
25	537	574	e4800	24400	3840	3880	6220	1950	1100	955	449	260
26	523	598	4520	35300	3680	3600	5040	1970	1140	851	560	258
27	517	625	3350	36000	3620	3350	4190	1940	1310	773	537	254
28	520	626	2260	30800	5060	3110	4350	1790	1400	712	474	251
29	517	640	1810	23800	---	2920	5250	1630	1370	682	443	256
30	516	657	1620	16900	---	2770	5260	1490	1420	657	423	257
31	509	---	e1480	11500	---	2650	---	1400	---	637	412	---
TOTAL	17401	18082	45921	312820	291100	238700	128350	77720	52300	33391	14412	9150
MEAN	561	603	1481	10090	10400	7700	4278	2507	1743	1077	465	305
MAX	714	743	5100	36000	22600	14000	6730	4320	3770	1920	627	400
MIN	509	499	580	820	3620	2650	2490	1400	1100	637	390	251
CFSM	.15	.16	.38	2.61	2.69	1.99	1.11	.65	.45	.28	.12	.08
IN.	.17	.17	.44	3.01	2.80	2.30	1.24	.75	.50	.32	.14	.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1999, BY WATER YEAR (WY)

MEAN	1023	2387	4329	5080	6431	8134	7455	6513	3865	2473	1812	1079
MAX	4186	15520	12090	15010	15610	18710	15180	30650	16310	9649	11280	5234
(WY)	1994	1994	1958	1991	1982	1964	1989	1996	1997	1958	1979	1989
MIN	228	297	272	300	712	450	730	382	622	603	291	244
(WY)	1941	1965	1964	1977	1941	1941	1941	1941	1988	1941	1941	1941

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1940 - 1999	
ANNUAL TOTAL	2003589		1239347			
ANNUAL MEAN	5489		3395		4204	
HIGHEST ANNUAL MEAN					6752	1996
LOWEST ANNUAL MEAN					643	1941
HIGHEST DAILY MEAN	42200	Apr 19	36000	Jan 27	78200	May 1 1996
LOWEST DAILY MEAN	499	Nov 2	251	Sep 28	138	Sep 7 1941
ANNUAL SEVEN-DAY MINIMUM	511	Oct 28	257	Sep 24	196	Sep 5 1941
INSTANTANEOUS PEAK FLOW			37200	Jan 26	80500	May 1 1996
INSTANTANEOUS PEAK STAGE			28.17	Jan 26	36.32	May 1 1996
ANNUAL RUNOFF (CFSM)	1.42		.88		1.09	
ANNUAL RUNOFF (INCHES)	19.30		11.94		14.79	
10 PERCENT EXCEEDS	14000		10100		10400	
50 PERCENT EXCEEDS	2820		1240		2120	
90 PERCENT EXCEEDS	574		409		480	

e Estimated

03371520 BACK CREEK AT LEESVILLE, IN

LOCATION.--Lat 38°50'48", long 86°18'06", in SW¼SE¼ sec.21, T.5 N., R.2 E., Lawrence County, Hydrologic Unit 05120208, on left bank at downstream side of county road bridge, 0.9 mi west of Leesville, 2.5 mi upstream from Jones Defeat Hollow, and 7 mi above mouth.

DRAINAGE AREA.--24.1 mi^2.

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

REVISED RECORDS.--WDR IN-72-1: 1971.

GAGE.--Water-stage recorder. Datum of gage is 575.00 ft above sea level.

REMARKS.--Records fair 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.04	1.7	e2.9	265	63	14	34	4.4	42	.00	e.04
2	.00	.05	1.4	e4.5	128	44	13	25	13	29	.00	e.03
3	.00	.10	1.3	e17	83	37	31	20	7.8	7.6	.00	e.02
4	.00	.10	1.2	e35	66	29	64	16	5.6	4.5	.00	e.01
5	.00	.11	1.1	e25	53	26	39	16	6.6	3.3	.00	.00
6	.00	.11	1.0	e18	53	314	50	26	5.0	2.3	.00	.00
7	.06	.11	2.7	e12	826	102	38	20	4.0	1.8	.00	.00
8	.05	.11	2.5	e54	162	60	32	15	3.4	1.4	.00	.00
9	.05	.10	2.4	e35	79	246	73	12	15	1.2	.00	.00
10	.05	.20	2.1	e24	51	218	43	10	8.3	1.4	.00	.00
11	.04	.48	1.7	e15	41	128	33	8.5	4.2	1.0	.00	.00
12	.03	.49	1.5	e23	98	78	26	7.6	3.4	.81	.00	.00
13	.02	.33	1.4	e76	63	56	22	41	2.8	.64	.00	.00
14	.01	.38	1.2	76	47	49	19	29	2.5	.58	.00	.00
15	.01	.48	1.1	37	40	42	22	19	2.2	.50	.00	.00
16	.00	.49	.94	33	34	55	24	14	1.9	.44	.00	.00
17	.00	.48	.93	65	35	50	23	24	1.7	.40	.00	.00
18	.02	.43	.85	198	29	39	22	57	1.5	.65	.00	.00
19	.03	.40	.84	66	25	32	21	27	1.3	.61	.00	.00
20	.02	.56	.86	48	22	28	20	18	1.3	.59	.00	.00
21	.01	.56	56	50	19	25	36	14	1.3	.44	.00	.00
22	.01	.43	91	393	16	22	32	17	1.2	.33	.00	.00
23	.02	.39	22	501	16	20	26	13	1.1	.28	.00	.00
24	.02	.39	13	130	15	19	20	14	2.2	.22	e.25	.00
25	.02	.77	e9.0	80	15	16	17	10	1.8	.17	e.19	.00
26	.02	1.7	e6.6	61	13	15	17	8.3	1.7	.11	e.13	.00
27	.02	1.1	e5.0	53	63	13	24	6.8	2.1	.07	e.19	.00
28	.02	.94	e4.3	47	141	12	104	5.8	3.3	.07	e.15	.00
29	.03	.95	e3.7	41	---	12	82	4.8	2.5	.05	e.11	.00
30	.04	1.0	e3.4	37	---	11	48	4.1	2.0	.02	e.08	.00
31	.04	---	e3.1	80	---	10	---	4.1	---	.00	e.05	---
TOTAL	0.64	13.78	245.82	2337.4	2498	1871	1035	541.0	115.1	102.48	1.15	0.10
MEAN	.021	.46	7.93	75.4	89.2	60.4	34.5	17.5	3.84	3.31	.037	.003
MAX	.06	1.7	91	501	826	314	104	57	15	42	.25	.04
MIN	.00	.04	.84	2.9	13	10	13	4.1	1.1	.00	.00	.00
CFSM	.00	.02	.33	3.13	3.70	2.50	1.43	.72	.16	.14	.00	.00
IN.	.00	.02	.38	3.61	3.86	2.89	1.60	.84	.18	.16	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1999, BY WATER YEAR (WY)

MEAN	7.73	29.9	40.7	43.5	50.0	65.1	69.0	47.0	23.1	20.3	14.4	5.59
MAX	48.0	132	101	147	105	168	176	174	159	195	92.4	60.9
(WY)	1984	1986	1983	1982	1979	1989	1972	1995	1997	1973	1979	1974
MIN	.000	.46	2.37	.98	5.78	9.74	8.62	2.70	.25	.014	.037	.000
(WY)	1989	1999	1990	1977	1992	1981	1976	1988	1988	1991	1999	1988

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1971 - 1999	
ANNUAL TOTAL	13572.95		8761.47			
ANNUAL MEAN	37.2		24.0		34.6	
HIGHEST ANNUAL MEAN					64.6	1973
LOWEST ANNUAL MEAN					14.4	1987
HIGHEST DAILY MEAN	2160	Apr 16	826	Feb 7	5000	Jul 21 1973
LOWEST DAILY MEAN	.00	Oct 1	.00	Oct 1	.00	Oct 4 1970
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 30	.00	Jul 31	.00	Jul 12 1975
INSTANTANEOUS PEAK FLOW			3310	Feb 7	15300	Jul 21 1973
INSTANTANEOUS PEAK STAGE			7.84	Feb 7	14.00	Jul 21 1973
ANNUAL RUNOFF (CFSM)	1.54		1.00		1.44	
ANNUAL RUNOFF (INCHES)	20.95		13.52		19.51	
10 PERCENT EXCEEDS	79		56		75	
50 PERCENT EXCEEDS	8.7		2.5		9.1	
90 PERCENT EXCEEDS	.05		.00		.30	

e Estimated

03372500 SALT CREEK NEAR HARRODSBURG, IN

LOCATION.--Lat 39°00'16", long 86°30'31", in NE$^1/_4$NW$^1/_4$ sec.34, T.7 N., R.1 W., Monroe County, Hydrologic Unit 05120208, on right bank 0.35 mi downstream from Monroe Lake, 0.9 mi upstream from Clear Creek, 2.2 mi southeast of Harrodsburg, and 25.7 mi upstream from mouth.

DRAINAGE AREA.--432 mi^2.

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

REVISED RECORDS.--WSP 1705: 1959. WSP 1725: 1956(M). WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 480.00 ft above sea level, (levels by U.S. Army Corps of Engineers). Oct. 1, 1960, to Sept. 30, 1974, water-stage recorder at site described in "LOCATION" paragraph. Prior to Oct. 1, 1960, nonrecording gage at site 0.7 mi upstream at datum 2.41 ft higher.

REMARKS.--Flow regulated by U.S. Army Corps of Engineers from Monroe Lake since April 1966.

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

AVERAGE DISCHARGE.--44 years, 502 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,000 ft^3/s June 25, 1960, gage height, 32.76 ft site and datum then in use; maximum gage height at present site and datum, 35.35 ft May 9, 1961; no flow Sept. 29 to Dec. 2, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,140 ft^3/s Feb. 20; minimum daily, 54 ft^3/s Sept. 17-24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	55	55	55	941	2080	201	560	92	56	56	55
2	56	55	55	55	947	2080	201	560	92	56	56	55
3	56	55	55	55	1160	2070	201	559	92	56	56	55
4	55	55	55	55	1490	2060	201	558	92	56	55	55
5	55	55	55	55	1690	2060	202	557	92	56	55	55
6	55	55	55	55	1860	1870	202	557	92	56	55	55
7	56	55	55	55	831	1920	202	557	92	56	55	55
8	56	55	55	55	226	1610	203	557	92	56	55	55
9	56	55	55	55	228	1120	203	557	92	56	55	55
10	55	55	55	55	228	1120	424	427	92	56	55	55
11	55	55	55	55	229	1120	562	200	92	56	55	55
12	55	55	55	55	229	1120	562	200	92	56	55	55
13	55	55	55	56	230	1490	561	201	92	56	55	55
14	55	55	55	56	610	1770	560	411	92	56	55	55
15	55	55	55	147	1190	1860	559	562	92	56	55	55
16	55	55	55	201	1560	2050	558	562	92	56	55	55
17	55	55	55	201	1690	2040	558	562	92	56	55	54
18	55	55	55	202	1870	2040	558	571	92	56	55	54
19	55	55	55	204	2070	2030	558	930	92	56	55	54
20	55	55	55	205	2140	2020	558	1410	92	56	55	54
21	55	55	55	205	2130	2010	558	1550	92	56	55	54
22	55	55	55	208	2120	2000	558	1540	71	56	55	54
23	55	55	55	212	2110	1990	558	1540	56	56	55	54
24	55	55	55	215	2100	1980	559	1530	56	56	55	54
25	55	55	55	216	2090	1980	558	1530	56	56	55	66
26	55	55	55	217	2090	1970	557	1180	56	56	55	71
27	55	55	55	217	2080	1440	557	703	56	56	55	74
28	55	55	55	217	2080	792	559	323	56	56	55	75
29	55	55	55	462	---	558	560	200	56	56	55	75
30	55	55	55	815	---	557	561	132	56	56	55	75
31	55	---	55	938	---	408	---	92	---	56	55	---
TOTAL	1711	1650	1705	5854	38219	51215	13419	21378	2451	1736	1708	1748
MEAN	55.2	55.0	55.0	189	1365	1652	447	690	81.7	56.0	55.1	58.3
MAX	56	55	55	938	2140	2080	562	1550	92	56	56	75
MIN	55	55	55	55	226	408	201	92	56	56	55	54

CAL YR 1998 TOTAL 241941 MEAN 663 MAX 2270 MIN 38
WTR YR 1999 TOTAL 142794 MEAN 391 MAX 2140 MIN 54

03373500 EAST FORK WHITE RIVER AT SHOALS, IN

LOCATION.--Lat 38°39'58", long 86°47'35", in SW¼NW¼ sec.30, T.3 N., R.3 W., Martin County, Hydrologic Unit 05120208, on left bank 100 feet downstream of railroad bridge, 440 feet downstream from U.S. Highway 50 bridge at Shoals, 0.9 mi upstream from Beaver Creek, 6.6 mi downstream from Indian Creek, and at mile 105.2

DRAINAGE AREA.--4,927 mi².

PERIOD OF RECORD.--June 1903 to July 1906, October 1908 to September 1916, June 1923 to current year. Monthly discharge only for some periods, published in WSP 1305. Published as East Branch White River at Shoals, 1903-06, 1908-16. Gage-height records collected at same site since May 1908 are contained in reports of the National Weather Service. Prior to Dec. 13, 1989 at site 440 ft upstream at same datum.

REVISED RECORDS.--WSP 353: 1912. WSP 1335: 1903-6. WSP 2109: Drainage area. WDR IN-91-1: Location.

GAGE.--Water-stage recorder. Datum of gage is 442.25 ft above sea level. Oct. 26, 1932 to Dec. 13, 1989, water-stage recorder located at U.S. Highway 50 bridge 440 ft upstream. See WSP 1725 for history of changes prior to Oct. 26, 1932.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	609	568	840	1650	16000	10200	3560	5900	1790	1870	670	458
2	585	565	836	1380	16100	11100	3270	5120	1770	3400	636	455
3	579	563	824	1190	14300	12600	3370	4590	2000	3060	603	439
4	568	568	804	e1210	13900	13600	4570	4180	2100	2470	572	424
5	562	647	775	e1100	14100	12800	5330	3890	3180	2400	546	410
6	562	676	740	e1050	13500	13500	5650	3920	3960	2230	510	400
7	636	670	824	e1040	16800	15100	6350	4430	3600	2030	477	389
8	797	652	904	e1000	22400	13500	5730	4210	3120	1810	533	382
9	946	647	971	e990	21100	15100	5620	4260	2770	1640	e560	375
10	857	666	924	e980	19700	19000	5960	4090	2580	1570	e560	371
11	778	706	868	e970	21500	18400	5710	3630	2510	1410	e501	394
12	811	724	849	e1000	23500	16100	5970	3080	2270	1370	e493	397
13	836	774	841	e2000	23700	14400	5660	3200	2110	1340	e492	372
14	782	770	811	e10000	19800	13500	4970	3720	1980	1540	e492	353
15	721	834	775	9220	15900	12600	4380	3570	1890	1460	e491	339
16	671	893	745	7810	14600	11800	4100	3840	2130	1220	e489	331
17	636	886	728	8210	13100	11300	4000	4190	2340	1110	491	328
18	640	845	716	9850	10800	10200	3990	5220	2240	1080	489	323
19	638	798	720	11800	9110	9640	4050	5030	2050	1050	488	317
20	629	781	707	11400	8410	9550	4270	4440	1840	1030	498	313
21	621	748	846	12100	7770	8890	4700	4750	1700	996	496	311
22	592	719	2870	14200	7130	7720	4900	4730	1590	925	497	e310
23	577	703	4890	22100	6570	6880	5190	4460	1490	886	489	e317
24	590	680	5140	25200	6150	6340	6470	4230	1430	1080	570	e320
25	606	679	5070	23400	5880	5900	6930	4090	1410	1210	847	e324
26	595	725	4780	25100	5680	5630	6160	3940	1430	1100	702	e326
27	579	768	4250	30000	5680	5390	5360	3690	1490	976	655	e330
28	573	803	3250	32800	8370	4890	5710	3130	1640	877	626	e336
29	569	798	2420	31700	---	4240	6610	2530	1740	810	563	349
30	566	813	2030	26500	---	3860	6910	2100	1670	761	505	353
31	561	---	1840	19100	---	3700	---	1910	---	710	474	---
TOTAL	20272	21669	53588	346050	381550	327430	155450	124070	63820	45421	17015	10846
MEAN	654	722	1729	11160	13630	10560	5182	4002	2127	1465	549	362
MAX	946	893	5140	32800	23700	19000	6930	5900	3960	3400	847	458
MIN	561	563	707	970	5680	3700	3270	1910	1410	710	474	310
CFSM	.13	.15	.35	2.27	2.77	2.14	1.05	.81	.43	.30	.11	.07
IN.	.15	.16	.40	2.61	2.88	2.47	1.17	.94	.48	.34	.13	.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 1999, BY WATER YEAR (WY)

MEAN	1575	2918	5300	8725	8694	11100	10170	7669	4593	2963	1955	1356
MAX	12520	18370	17890	47640	30880	34300	24000	35120	19290	13520	15220	9154
(WY)	1911	1994	1928	1937	1950	1945	1913	1996	1997	1958	1979	1926
MIN	262	293	305	432	589	562	1029	529	696	365	265	233
(WY)	1941	1955	1964	1931	1931	1941	1915	1941	1936	1954	1936	1954

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1904 - 1999	
ANNUAL TOTAL	2514765		1567181			
ANNUAL MEAN	6890		4294		5564	
HIGHEST ANNUAL MEAN					10370	1950
LOWEST ANNUAL MEAN					855	1941
HIGHEST DAILY MEAN	41400	Apr 21	32800	Jan 28	155000	Mar 28 1913
LOWEST DAILY MEAN	561	Oct 31	310	Sep 22	64	Oct 6 1935
ANNUAL SEVEN-DAY MINIMUM	566	Oct 29	316	Sep 18	168	Oct 3 1935
INSTANTANEOUS PEAK FLOW			33200	Jan 28	160000	Mar 28 1913
INSTANTANEOUS PEAK STAGE			21.19	Jan 28	42.20	Mar 28 1913
ANNUAL RUNOFF (CFSM)	1.40		.87		1.13	
ANNUAL RUNOFF (INCHES)	18.99		11.83		15.34	
10 PERCENT EXCEEDS	17300		13300		14500	
50 PERCENT EXCEEDS	4440		1640		2620	
90 PERCENT EXCEEDS	678		490		527	

e Estimated

03373530 LOST RIVER NEAR LEIPSIC, IN

LOCATION.--Lat 38°38'11", long 86°21'55", in NE¼SE¼, sec.2, T.2N., R.1E., Orange County, Hydrologic Unit 05120208, on left bank, 5 ft upstream from bridge on Potato Road, 400 ft upstream from Carter Creek, and 2.2 mile south of Leipsic.

DRAINAGE AREA.--34.8 mi^2 (Above a gage height of about 12.5 ft, flow from Carter Creek is included. Total drainage area is 44 mi^2.).

PERIOD OF RECORD.--October 1992 to current year.

REVISED RECORDS.--WDR IN-94-1: 1993.

GAGE.--Water-stage recorder. Datum of gage is 645.00 ft above sea level.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	4.1	3.3	e8.8	275	88	20	40	11	125	2.4	.89
2	1.3	4.3	3.0	e9.8	138	71	18	35	36	157	2.1	.62
3	1.8	5.2	2.9	e17	108	61	69	31	25	53	2.0	.55
4	2.0	4.9	2.8	e14	88	51	95	28	20	37	1.9	.54
5	2.0	4.5	2.8	e11	73	44	53	27	22	28	1.8	.50
6	2.1	3.9	2.8	e10	68	188	100	56	17	23	1.7	.39
7	5.3	3.7	6.0	e9.0	276	91	58	38	18	19	1.6	.39
8	5.6	3.8	5.2	e10	122	73	49	30	16	17	4.1	.47
9	2.9	3.8	3.3	e30	96	369	127	26	14	15	3.2	.53
10	2.0	6.2	2.5	e23	80	155	78	24	13	14	2.0	.50
11	1.7	8.1	2.1	e17	71	108	65	22	12	12	1.8	.52
12	1.7	5.8	1.9	e20	105	89	53	21	11	10	1.7	.52
13	1.7	4.4	2.0	e330	72	74	47	51	11	9.1	1.5	.61
14	1.7	4.0	1.7	141	60	67	42	39	11	8.5	1.3	.62
15	1.7	4.0	1.6	91	56	58	41	32	9.9	7.7	1.3	.61
16	1.7	4.1	1.5	77	52	100	38	28	9.4	6.9	1.2	.60
17	2.0	4.0	1.5	87	52	98	33	26	8.6	6.4	1.2	.49
18	2.7	3.5	1.5	151	47	71	30	26	8.1	6.4	1.0	.56
19	3.4	3.2	1.5	82	42	57	27	24	7.8	5.5	1.0	.50
20	2.8	4.3	1.6	67	38	50	25	21	7.6	20	1.2	.49
21	2.9	4.3	71	164	34	46	24	20	7.4	46	.96	.61
22	3.8	3.3	184	573	31	40	22	19	7.1	9.3	.86	.46
23	3.8	3.0	46	733	29	37	21	19	6.7	6.4	.77	.41
24	4.0	3.0	30	171	28	34	19	19	7.5	5.3	3.7	.48
25	3.2	3.2	22	131	26	30	18	16	7.1	4.7	2.5	.48
26	2.0	5.1	17	109	24	27	18	15	6.4	4.1	1.4	.48
27	2.0	4.1	15	94	86	25	21	14	50	3.8	1.3	.48
28	2.5	3.4	13	81	157	23	41	13	27	3.5	1.1	.63
29	2.7	3.3	11	70	---	21	83	12	55	3.2	1.1	.98
30	3.3	3.4	10	61	---	20	49	12	19	2.9	.77	1.5
31	3.7	---	9.1	103	---	19	---	12	---	2.6	.74	---
TOTAL	81.4	125.9	479.6	3495.6	2334	2285	1384	796	481.6	672.3	51.20	17.41
MEAN	2.63	4.20	15.5	113	83.4	73.7	46.1	25.7	16.1	21.7	1.65	.58
MAX	5.6	8.1	184	733	276	369	127	56	55	157	4.1	1.5
MIN	1.3	3.0	1.5	8.8	24	19	18	12	6.4	2.6	.74	.39
CFSM	.08	.12	.44	3.24	2.40	2.12	1.33	.74	.46	.62	.05	.02
IN.	.09	.13	.51	3.74	2.49	2.44	1.48	.85	.51	.72	.05	.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1999, BY WATER YEAR (WY)

MEAN	7.76	33.6	42.6	67.6	53.7	77.6	113	101	56.7	15.5	15.2	17.4
MAX	21.1	148	106	113	83.4	168	307	251	131	28.1	40.2	94.7
(WY)	1997	1994	1997	1999	1999	1997	1996	1995	1996	1995	1993	1996
MIN	1.96	3.97	7.91	23.6	22.4	24.1	43.5	25.7	8.15	5.95	1.65	.58
(WY)	1998	1998	1998	1998	1996	1994	1997	1999	1994	1994	1999	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1993 - 1999	
ANNUAL TOTAL	13036.4		12204.01			
ANNUAL MEAN	35.7		33.4		50.1	
HIGHEST ANNUAL MEAN					79.0	1996
LOWEST ANNUAL MEAN					33.4	1999
HIGHEST DAILY MEAN	1020	Apr 16	733	Jan 23	4100	Apr 29 1996
LOWEST DAILY MEAN	1.2	Sep 29	.39	Sep 6	.39	Sep 6 1999
ANNUAL SEVEN-DAY MINIMUM	1.3	Sep 26	.47	Sep 5	.47	Sep 5 1999
INSTANTANEOUS PEAK FLOW			1650	Jan 22	10700	Apr 29 1996
INSTANTANEOUS PEAK STAGE			11.24	Jan 22	15.01	Apr 29 1996
ANNUAL RUNOFF (CFSM)	1.03		.96		1.44	
ANNUAL RUNOFF (INCHES)	13.94		13.05		19.55	
10 PERCENT EXCEEDS	82		87		101	
50 PERCENT EXCEEDS	15		11		19	
90 PERCENT EXCEEDS	2.0		1.1		2.4	

e Estimated

03373980 WHITE RIVER ABOVE PETERSBURG, IN

LOCATION.--Lat 38°31'42", long 87°15'12", in NE$^1/_4$SW$^1/_4$ sec.12, T.1 N., R.8 W., Pike County, Hydrologic Unit 05120202, on left bank 300 ft upstream from intake structure of Indianapolis Power and Light Company's generating plant, 1.5 mi downstream from East Fork White River, 2.2 mi upstream from State Highway 61, 2.9 mi northeast of Petersburg, and at mile 48.0.

DRAINAGE AREA.--11,123 mi^2.

PERIOD OF RECORD.--October 1976 to current year. Discharges below 1500 ft^3/s only, published 1980 to 1993, and 1995 to current year.

GAGE.--Water-stage recorder. Datum of gage is 401.52 ft above sea level.

REMARKS.--Discharges below 1,500 ft^3/s only, published. No estimated daily discharges. Records good. For a complete record of White River in this vicinity use records of White River at Petersburg, IN (sta. 03374000), 2.3 mi downstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	1430
2	---	---	---	---	---	---	---	---	---	---	---	1400
3	---	---	---	---	---	---	---	---	---	---	---	1370
4	---	---	---	---	---	---	---	---	---	---	---	1340
5	---	---	---	---	---	---	---	---	---	---	---	1320
6	---	---	---	---	---	---	---	---	---	---	---	1300
7	---	---	---	---	---	---	---	---	---	---	---	1270
8	---	---	---	---	---	---	---	---	---	---	---	1250
9	---	---	---	---	---	---	---	---	---	---	---	1230
10	---	---	---	---	---	---	---	---	---	---	---	1210
11	---	---	---	---	---	---	---	---	---	---	---	1190
12	---	---	---	---	---	---	---	---	---	---	---	1180
13	---	---	---	---	---	---	---	---	---	---	---	1180
14	---	---	---	---	---	---	---	---	---	---	---	1160
15	---	---	---	---	---	---	---	---	---	---	---	1150
16	---	---	---	---	---	---	---	---	---	---	---	1120
17	---	---	---	---	---	---	---	---	---	---	---	1110
18	---	---	---	---	---	---	---	---	---	---	---	1100
19	---	---	---	---	---	---	---	---	---	---	---	1100
20	---	---	---	---	---	---	---	---	---	---	---	1080
21	---	---	---	---	---	---	---	---	---	---	---	1060
22	---	---	---	---	---	---	---	---	---	---	---	1040
23	---	---	---	---	---	---	---	---	---	---	---	1030
24	---	---	---	---	---	---	---	---	---	---	---	1010
25	---	---	---	---	---	---	---	---	---	---	---	1010
26	---	---	---	---	---	---	---	---	---	---	---	1000
27	---	---	---	---	---	---	---	---	---	---	---	1000
28	---	---	---	---	---	---	---	---	---	---	---	997
29	---	---	---	---	---	---	---	---	---	---	---	1020
30	---	---	---	---	---	---	---	---	---	---	---	1010
31	---	---	---	---	---	---	---	---	---	---	1480	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	34667
MEAN	---	---	---	---	---	---	---	---	---	---	---	1156
MAX	---	---	---	---	---	---	---	---	---	---	---	1430
MIN	---	---	---	---	---	---	---	---	---	---	---	997
CFSM	---	---	---	---	---	---	---	---	---	---	---	.10
IN.	---	---	---	---	---	---	---	---	---	---	---	.12

03374000 WHITE RIVER AT PETERSBURG, IN

LOCATION.--Lat 38°30'39", long 87°17'22", in SE¼SW¼ sec.15, T.1 N., R.8 W., Pike County, Hydrologic Unit 05120202, on left bank 300 ft downstream from bridge on State Highway 61, 0.4 mi upstream from Prides Creek, 1.4 mi north of Petersburg, and at mile 45.7.

DRAINAGE AREA.--11,125 mi^2.

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only for October 1927, published in WSP 1305. Published as "at Hazleton" October 1927 to September 1938. Records published for both sites October 1937 to September 1938. Gage-height records collected at present site and datum since January 1935 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 1305: 1930(M). WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 400.00 ft above sea level. See WSP 1725 for history of changes prior to Apr. 1, 1941.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913, reached a stage of 29.5 ft, present site and datum, from floodmarks by U.S. Army Corps of Engineers, discharge, 235,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1970	1940	2670	3540	56900	20600	9380	18400	5480	5520	2360	1450
2	1910	1940	2570	3280	45500	23200	9070	17000	6280	13300	2260	1400
3	1860	2060	2500	3200	39700	24500	9570	15000	8280	12200	2160	1370
4	1840	2160	2450	2440	36000	25600	14100	12800	12800	8610	2080	1340
5	1820	2410	2410	2310	32600	26000	13500	11200	15800	7210	2010	1320
6	1840	2590	2370	e2800	29100	28700	15400	11000	15900	6260	1950	1280
7	3460	2460	2620	e2780	30700	30800	15100	11300	13900	5390	1890	1250
8	4260	2360	2680	e2760	37700	31500	14700	11400	11600	4720	1870	1210
9	4220	2250	2630	e2730	42400	34100	14500	10600	9790	4340	1920	1190
10	4690	2240	2640	e2720	47400	38300	13800	9880	8460	5210	e1890	1160
11	4240	2420	2660	e2700	51000	38700	13700	9130	7630	4870	e1850	1130
12	3520	2550	2590	e3000	55800	37500	12900	8250	7140	4020	e1790	1110
13	3130	2870	2510	e3500	58300	33600	12500	7820	6620	3780	e1760	1120
14	2870	3030	2420	e11000	56400	29200	11700	7930	6160	3540	e1730	1100
15	2650	2990	2340	16700	50100	25900	10500	7980	5890	3430	e1700	1070
16	2470	2940	2280	15900	41200	24300	9570	8190	5780	3280	e1680	1040
17	2340	2910	2230	14900	33600	24600	9280	8510	5510	3070	1710	1020
18	2280	2800	2150	18300	27300	22300	10300	9070	5350	2920	1770	1010
19	2300	2670	2120	22000	22600	20200	13000	9730	5050	2770	1700	1000
20	2250	2600	2100	24700	19500	19400	14300	9750	4710	3070	1630	988
21	2270	2490	2540	26000	17900	19500	14400	9420	4390	3470	1610	971
22	2330	2380	6170	30600	16600	18500	14300	9420	4120	3630	1600	951
23	2310	2320	6560	41600	15500	16800	15600	9510	3910	4680	1560	931
24	2180	2270	7950	50000	14500	15400	17600	10200	3840	4020	1600	915
25	2100	2240	7890	60300	13800	14300	18800	9640	3900	3540	1670	910
26	2060	2250	7370	71000	13200	13400	18200	9060	3760	3310	1700	905
27	2020	2330	6770	80300	12900	12700	16500	8930	5550	3190	1770	898
28	1980	2420	6170	87700	16700	12100	17500	8350	6400	3000	1660	891
29	1940	2580	5290	86100	---	11300	19400	7400	6840	2770	1620	941
30	1920	2720	4440	79100	---	10400	19100	6420	5290	2590	1570	934
31	1900	---	3930	69000	---	9700	---	5820	---	2440	1520	---
TOTAL	78930	74190	114020	842960	934900	713100	418270	309110	216130	144150	55590	32805
MEAN	2546	2473	3678	27190	33390	23000	13940	9971	7204	4650	1793	1094
MAX	4690	3030	7950	87700	58300	38700	19400	18400	15900	13300	2360	1450
MIN	1820	1940	2100	2310	12900	9700	9070	5820	3760	2440	1520	891
CFSM	.23	.22	.33	2.44	3.00	2.07	1.25	.90	.65	.42	.16	.10
IN.	.26	.25	.38	2.82	3.13	2.38	1.40	1.03	.72	.48	.19	.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1999, BY WATER YEAR (WY)

MEAN	3181	6602	10920	17410	18360	22720	22240	17790	11410	7462	4745	3363
MAX	12780	46800	38140	86440	67080	55340	42900	70110	38550	25620	39590	19640
(WY)	1994	1994	1986	1950	1950	1945	1944	1996	1998	1958	1979	1989
MIN	653	884	861	981	1388	1597	3767	1597	1950	1118	870	878
(WY)	1941	1954	1964	1977	1931	1941	1941	1941	1988	1954	1936	1936

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1928 - 1999	
ANNUAL TOTAL	5411680		3934155			
ANNUAL MEAN	14830		10780		12160	
HIGHEST ANNUAL MEAN					22760	1950
LOWEST ANNUAL MEAN					2138	1941
HIGHEST DAILY MEAN	83200	Jun 22	87700	Jan 28	182000	Jan 22 1937
LOWEST DAILY MEAN	1820	Oct 5	891	Sep 28	573	Oct 1 1941
ANNUAL SEVEN-DAY MINIMUM	1900	Sep 30	913	Sep 23	598	Sep 26 1941
INSTANTANEOUS PEAK FLOW			88700	Jan 28	183000	Jan 22 1937
INSTANTANEOUS PEAK STAGE			24.39	Jan 28	28.30	Jan 22 1937
ANNUAL RUNOFF (CFSM)	1.33		.97		1.09	
ANNUAL RUNOFF (INCHES)	18.10		13.16		14.85	
10 PERCENT EXCEEDS	37600		27900		30000	
50 PERCENT EXCEEDS	8570		4440		6430	
90 PERCENT EXCEEDS	2270		1620		1520	

e Estimated

03374455 PATOKA RIVER NEAR HARDINSBURG, IN

LOCATION.--Lat 38°26'41", long 86°23'14", in NW¼SE¼ sec.10, T.1 S., R.1 E., Orange County, Hydrologic Unit 05120209, on downstream end of center pier of county road bridge, 0.3 mi downstream from Fudge Creek, 0.7 mi northeast of Valeene, 6.0 mi southwest of Hardinsburg, and at mile 158.0.

DRAINAGE AREA.--12.8 mi^2.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 606.89 ft above sea level.

REMARKS.--Records fair except for daily discharges of less than 1.0 ft^3/s and estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	1.3	e1.8	e14	276	46	15	31	1.7	289	.11	.00
2	.03	1.2	e1.7	e28	137	39	19	25	23	256	.10	.00
3	.03	1.1	e1.6	e76	93	35	90	20	11	81	.05	.00
4	.07	1.1	e1.6	e40	63	32	118	16	4.9	e27	.03	.00
5	.08	1.0	e1.5	e25	47	29	48	15	3.7	e16	.02	.00
6	.08	1.0	e1.6	e18	43	128	109	181	2.8	e9.9	.01	.00
7	1.7	1.0	e5.8	e15	134	84	62	88	2.2	e6.5	.00	.00
8	2.6	1.0	e3.5	e19	100	57	37	40	2.0	e4.8	1.8	.00
9	1.2	1.0	e2.5	e66	66	328	36	25	1.8	e3.9	1.7	.00
10	.75	1.7	e2.0	e30	49	142	29	18	1.7	e3.0	.45	.00
11	.54	2.9	e2.5	e25	43	76	26	14	1.6	e2.3	.25	.00
12	.40	e1.5	e2.4	e33	86	41	20	9.6	1.5	e1.8	.15	.00
13	.26	e1.0	e2.3	e146	70	31	17	23	1.4	e1.5	.08	.00
14	e.12	e.80	e2.0	e80	51	28	16	17	1.7	e1.3	.04	.00
15	e.04	e.70	e1.5	e60	44	26	16	11	1.8	e1.2	.03	.00
16	e.03	e.78	e.98	e45	41	67	18	8.5	1.5	e1.1	.02	.00
17	e.12	e.86	e.96	e54	44	118	18	6.9	1.2	e1.0	.01	.00
18	.27	e.96	e.86	e78	43	55	16	6.9	1.0	e.94	.00	.00
19	.57	e.90	e.74	e50	39	34	15	6.2	1.1	e.95	.00	.00
20	.58	e1.5	e.72	e37	34	28	14	4.8	1.1	1.0	.00	.00
21	.52	e1.4	e10	e150	30	26	13	3.7	.91	.83	.00	.00
22	.47	e1.4	e84	571	27	21	13	3.3	.77	.72	.00	.00
23	.42	e1.3	e56	615	26	19	12	3.1	.78	.63	.00	.00
24	.43	e1.3	e40	149	26	21	11	3.1	1.0	.56	.00	.00
25	.44	e2.4	e22	90	26	20	10	2.6	1.2	.50	.00	.00
26	.42	e4.5	e15	61	25	17	10	2.4	1.1	.42	.00	e.00
27	.42	e2.5	e10	49	24	15	17	2.1	54	.33	.00	e.00
28	.52	e2.1	e7.8	44	59	14	131	2.0	32	.27	.00	e.00
29	.74	e1.9	e6.6	40	---	14	141	2.0	51	.24	.00	e.00
30	1.0	e1.8	e6.0	35	---	13	53	1.8	15	.20	.00	e.00
31	1.2	---	e5.4	84	---	12	---	1.7	---	.16	.00	---
TOTAL	16.08	43.90	301.36	2827	1746	1616	1150	594.7	226.46	715.05	4.85	0.00
MEAN	.52	1.46	9.72	91.2	62.4	52.1	38.3	19.2	7.55	23.1	.16	.000
MAX	2.6	4.5	84	615	276	328	141	181	54	289	1.8	.00
MIN	.03	.70	.72	14	24	12	10	1.7	.77	.16	.00	.00
CFSM	.04	.11	.76	7.12	4.87	4.07	2.99	1.50	.59	1.80	.01	.00
IN.	.05	.13	.88	8.22	5.07	4.70	3.34	1.73	.66	2.08	.01	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1999, BY WATER YEAR (WY)

MEAN	3.11	18.6	31.5	35.7	39.2	51.3	51.5	38.9	19.4	9.99	5.69	3.98
MAX	11.9	77.3	109	107	89.6	134	133	158	108	89.6	35.8	34.4
(WY)	1991	1980	1991	1982	1990	1997	1996	1996	1997	1979	1998	1996
MIN	.000	.20	1.17	.61	2.58	8.80	6.79	2.66	.46	.26	.000	.000
(WY)	1998	1992	1981	1981	1992	1981	1976	1988	1988	1983	1991	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1969 - 1999	
ANNUAL TOTAL	10253.02		9241.40			
ANNUAL MEAN	28.1		25.3		25.7	
HIGHEST ANNUAL MEAN					47.3	1996
LOWEST ANNUAL MEAN					6.35	1992
HIGHEST DAILY MEAN	762	Apr 30	615	Jan 23	1770	Jul 26 1979
LOWEST DAILY MEAN	.03	Oct 1	.00	Aug 7	.00	Oct 4 1970
ANNUAL SEVEN-DAY MINIMUM	.05	Sep 29	.00	Aug 18	.00	Sep 11 1972
INSTANTANEOUS PEAK FLOW			1430	Jan 22	9270	Jul 26 1979
INSTANTANEOUS PEAK STAGE			7.36	Jan 22	11.35	Jul 26 1979
ANNUAL RUNOFF (CFSM)	2.19		1.98		2.01	
ANNUAL RUNOFF (INCHES)	29.80		26.86		27.25	
10 PERCENT EXCEEDS	68		66		54	
50 PERCENT EXCEEDS	4.1		2.5		5.3	
90 PERCENT EXCEEDS	.27		.00		.26	

e Estimated

03374500 PATOKA RIVER NEAR CUZCO, IN

LOCATION.--Lat 38°26'31", long 86°42'51", in $SW^1/_4SW^1/_4$ sec.11, T.1 S., R.3 W., Dubois County, Hydrologic Unit 05120209 on right bank 30 ft upstream from bridge on Cuzco Road South, 0.7 mi downstream from Patoka Lake, 2.3 mi south of Cuzco, 4.5 mi upstream from Dillon Creek, and at mile 117.8.

DRAINAGE AREA.--170 mi^2.

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

GAGE.--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.--38 years, 223 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 14,700 ft^3/s Mar. 10, 1964, gage height, 20.02 ft; no flow Oct. 30, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 19.1 ft according to information by local resident, discharge, 12,300 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,040 ft^3/s Feb. 18-20; minimum daily, 19 ft^3/s May 12 to June 16, June 19-30, and Aug. 17 to Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	97	45	558	424	815	94	44	19	20	20	19
2	161	97	45	441	344	813	94	44	19	20	20	19
3	195	97	45	285	426	635	94	44	19	20	20	19
4	194	97	45	284	515	405	94	44	19	20	20	19
5	130	97	45	456	771	288	94	44	19	20	20	19
6	98	97	45	535	849	205	95	45	19	20	20	19
7	98	97	45	527	848	205	95	45	19	20	20	19
8	98	97	193	522	848	203	95	45	19	20	20	19
9	98	97	287	423	846	201	95	45	19	20	20	19
10	98	97	287	283	845	323	95	45	19	20	20	19
11	98	97	287	283	844	396	95	29	19	20	20	19
12	98	97	286	283	843	444	95	19	19	20	20	19
13	146	67	286	284	842	489	95	19	19	20	20	19
14	194	45	286	159	841	484	95	19	19	20	20	19
15	106	45	125	389	839	482	95	19	19	20	20	19
16	53	45	45	418	838	479	95	19	19	20	20	19
17	53	45	45	285	991	481	95	19	28	20	19	19
18	53	45	205	285	1040	479	95	19	26	20	19	19
19	147	45	285	285	1040	475	95	19	19	20	19	19
20	194	45	285	284	1040	468	95	19	19	20	19	19
21	194	45	175	169	1030	460	95	19	19	20	19	19
22	194	45	45	62	1030	452	95	19	19	20	19	19
23	194	45	166	46	1030	448	95	19	19	20	19	19
24	194	45	463	46	1030	442	95	19	19	20	19	19
25	194	45	567	46	1020	435	95	19	19	20	19	19
26	236	45	461	495	945	319	95	19	19	20	19	19
27	289	45	286	848	817	188	95	19	19	20	19	19
28	289	45	286	847	816	118	63	19	19	20	19	19
29	145	45	286	707	---	94	44	19	19	20	19	19
30	61	45	472	422	---	94	44	19	19	20	19	19
31	97	---	564	422	---	94	---	19	---	20	19	---
TOTAL	4497	1996	6988	11379	23592	11914	2711	854	586	620	605	570
MEAN	145	66.5	225	367	843	384	90.4	27.5	19.5	20.0	19.5	19.0
MAX	289	97	567	848	1040	815	95	45	28	20	20	19
MIN	53	45	45	46	344	94	44	19	19	20	19	19

CAL YR 1998 TOTAL 59679 MEAN 164 MAX 567 MIN 25
WTR YR 1999 TOTAL 66312 MEAN 182 MAX 1040 MIN 19

03375500 PATOKA RIVER AT JASPER, IN

LOCATION.--Lat 38°24'49", long 86°52'36", in NW¼SE¼ sec.20, T.1 S., R.4 W., Dubois County, Hydrologic Unit 05120209, on left bank 0.3 mi upstream from unnamed outlet of Idlewild Lake, 1.0 mi downstream from Coon Seitz bridge, 1.2 mi downstream from Beaver Creek, 3.3 mi northeast of Jasper, and at mile 91.5.

DRAINAGE AREA.--262 mi^2.

PERIOD OF RECORD.--November 1947 to current year.

REVISED RECORDS.--WSP 1909: 1958. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 446.00 ft above sea level (levels by State of Indiana, Department of Natural Resources). Nonrecording gage at bridge 5.6 mi downstream, used for high-water periods when flow exceeds about 2,500 ft^3/s, at datum 0.34 ft lower. Prior to Sept. 18, 1956, nonrecording gage at bridge 5.6 mi downstream at datum 0.34 ft lower.

REMARKS.--Records good. Flow regulated by Beaver Creek Reservoir beginning Oct. 11, 1955, and by Patoka Lake beginning Feb. 13, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 15.9 ft at downstream site, from floodmark furnished by local residents, discharge 16,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114	99	49	696	1100	1200	159	152	39	348	23	22
2	112	106	47	730	1290	1150	164	124	215	1070	23	22
3	174	111	45	739	994	1050	210	109	219	739	23	22
4	219	110	45	545	810	902	662	101	85	208	23	23
5	219	107	48	477	759	644	422	101	80	104	23	23
6	173	107	48	750	870	809	354	266	71	76	23	23
7	136	108	101	784	1020	789	352	293	60	61	23	23
8	153	108	111	757	1180	477	258	166	60	50	25	23
9	117	108	275	902	1270	916	504	122	48	43	26	23
10	110	123	397	727	1200	1230	531	106	43	41	24	24
11	109	145	393	533	1100	1070	305	96	39	38	23	23
12	108	123	391	528	1140	690	232	81	37	34	23	23
13	108	115	389	972	1190	622	197	67	35	31	23	22
14	141	96	385	1200	1170	664	182	66	34	30	22	23
15	214	52	375	698	1090	700	177	59	33	28	22	23
16	125	45	163	479	1030	822	180	55	32	28	22	23
17	51	44	49	536	1040	924	170	52	31	28	23	23
18	48	45	42	578	1100	863	165	60	30	27	23	23
19	51	47	213	557	1140	729	160	61	37	26	23	23
20	140	53	364	508	1140	660	157	53	30	26	22	23
21	216	56	614	769	1130	635	152	48	27	37	22	23
22	221	51	1300	1230	1110	614	147	45	27	35	22	22
23	225	49	904	2040	1100	620	140	44	27	27	22	22
24	228	48	555	2130	1100	641	133	45	28	25	24	22
25	229	49	710	1450	1090	617	127	45	31	24	26	22
26	232	57	734	616	1060	593	129	42	88	24	23	22
27	303	57	602	712	1050	396	169	40	473	24	22	22
28	383	50	459	911	1120	246	407	38	740	23	22	23
29	399	48	449	940	---	178	331	37	807	23	22	23
30	238	47	447	864	---	146	217	36	241	23	22	22
31	55	---	632	773	---	143	---	38	---	24	21	---
TOTAL	5351	2364	11336	26131	30393	21740	7493	2648	3747	3325	710	680
MEAN	173	78.8	366	843	1085	701	250	85.4	125	107	22.9	22.7
MAX	399	145	1300	2130	1290	1230	662	293	807	1070	26	24
MIN	48	44	42	477	759	143	127	36	27	23	21	22
CFSM	.66	.30	1.40	3.22	4.14	2.68	.95	.33	.48	.41	.09	.09
IN.	.76	.34	1.61	3.71	4.32	3.09	1.06	.38	.53	.47	.10	.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1999, BY WATER YEAR (WY)

MEAN	105	235	430	622	674	774	618	435	214	123	102	91.8
MAX	494	800	1506	2742	1898	2543	1574	2034	1044	787	530	484
(WY)	1980	1975	1952	1950	1950	1964	1972	1996	1996	1958	1977	1979
MIN	.000	.000	.17	17.5	27.7	144	130	37.5	8.66	.074	.000	.000
(WY)	1949	1954	1954	1964	1964	1992	1976	1952	1953	1954	1952	1953

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1949 - 1999	
ANNUAL TOTAL	108626		115918			
ANNUAL MEAN	298		318		367	
HIGHEST ANNUAL MEAN					673	1950
LOWEST ANNUAL MEAN					63.6	1954
HIGHEST DAILY MEAN	2170	May 1	2130	Jan 24	13500	Mar 11 1964
LOWEST DAILY MEAN	32	Jul 2	21	Aug 31	.00	Oct 1 1948
ANNUAL SEVEN-DAY MINIMUM	47	Nov 29	22	Aug 27	.00	Oct 1 1948
INSTANTANEOUS PEAK FLOW			2480	Jan 24	14100	Mar 11 1964
INSTANTANEOUS PEAK STAGE			14.82	Jan 24	21.20	Mar 11 1964
ANNUAL RUNOFF (CFSM)	1.14		1.21		1.40	
ANNUAL RUNOFF (INCHES)	15.42		16.46		19.03	
10 PERCENT EXCEEDS	668		1000		1080	
50 PERCENT EXCEEDS	199		114		136	
90 PERCENT EXCEEDS	52		23		6.9	

03375800 HALL CREEK NEAR ST. ANTHONY, IN

LOCATION.--Lat 38°21'45", long 86°49'43", in NW¼NW¼ sec.11, T.2 S., R.4 W., Dubois County, Hydrologic Unit 05120209, on 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 mi^2.

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

REVISED RECORDS.--WDR IN-75-1: 1971-74.

GAGE.--Water-stage recorder. Datum of gage is 456.22 ft above sea level (levels by State of Indiana, Department of Natural Resources). Prior to Oct. 1, 1997 at datum 3.00 ft higher.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.34	.41	.99	e3.8	207	28	26	15	7.7	475	.57	.00
2	.30	.98	1.0	e32	81	22	18	12	38	157	.57	.00
3	.63	1.3	.84	e28	48	20	90	9.8	11	49	.57	.00
4	.41	1.3	.89	e15	31	16	64	8.2	9.6	27	.48	.00
5	.29	1.4	.89	e11	23	15	36	11	37	19	.40	.00
6	.36	1.2	.87	e9.6	21	157	92	73	11	14	.35	.00
7	23	1.1	60	e9.0	90	44	40	25	7.6	11	.29	.00
8	3.9	.92	9.3	e62	41	32	29	17	6.2	9.6	.46	.00
9	.63	1.0	4.6	e68	29	355	63	12	5.1	8.6	.63	.00
10	.33	5.6	3.3	e35	23	76	32	9.0	4.2	9.5	.63	.00
11	.24	4.2	2.6	e15	21	42	24	7.5	3.4	7.9	.54	.00
12	.16	.78	2.2	e60	76	30	17	7.2	3.1	7.4	.46	.00
13	.13	.56	2.4	e170	e38	24	15	7.1	2.8	4.7	.40	.00
14	.12	.50	2.4	77	e26	33	14	6.7	2.6	e3.5	.31	.00
15	.13	.43	2.0	35	e22	64	17	6.0	2.2	e3.0	.28	.00
16	.12	.38	1.8	27	22	133	14	5.5	1.9	e2.5	.24	.00
17	.13	.37	1.8	29	32	73	13	5.0	1.7	e2.2	.20	.00
18	.33	.33	1.6	58	23	39	12	9.1	1.5	e2.0	.17	.00
19	1.0	.33	1.4	26	19	28	11	7.1	1.4	e3.5	.13	.00
20	.53	1.6	1.4	21	16	23	11	6.1	1.3	e30	.09	.00
21	.34	1.6	316	156	14	20	10	5.2	1.3	7.4	.05	.00
22	.24	.81	145	807	e12	16	9.0	4.6	1.3	2.7	.01	.00
23	.22	.64	29	551	e11	58	8.3	4.4	2.6	1.9	.00	.00
24	.24	.63	e11	76	15	39	7.4	7.2	5.9	1.6	.00	.00
25	.24	.69	e7.0	41	14	26	7.1	4.3	2.8	1.4	.00	.00
26	.27	3.9	e6.0	29	12	20	10	3.2	41	1.1	.00	.00
27	.31	1.6	e5.2	24	36	17	33	2.7	51	1.0	.00	.00
28	.28	1.0	e5.0	20	54	15	103	2.4	990	.95	.00	.00
29	.33	.98	e5.2	17	---	14	44	2.8	164	.88	.00	.00
30	.43	.98	e4.3	15	---	12	23	7.9	43	.75	.00	.00
31	.42	---	e3.9	151	---	13	---	8.4	---	.67	.00	---
TOTAL	36.40	37.52	639.88	2678.4	1057	1504	892.8	312.4	1462.2	866.75	7.83	0.00
MEAN	1.17	1.25	20.6	86.4	37.8	48.5	29.8	10.1	48.7	28.0	.25	.000
MAX	23	5.6	316	807	207	355	103	73	990	475	.63	.00
MIN	.12	.33	.84	3.8	11	12	7.1	2.4	1.3	.67	.00	.00
CFSM	.05	.06	.95	3.96	1.73	2.23	1.37	.46	2.24	1.28	.01	.00
IN.	.06	.06	1.09	4.57	1.80	2.57	1.52	.53	2.50	1.48	.01	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1999, BY WATER YEAR (WY)

MEAN	8.00	32.8	40.4	41.2	54.0	60.1	55.7	36.1	22.4	20.2	11.0	10.5
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	.000
(WY)	1988	1988	1977	1977	1992	1981	1986	1988	1988	1983	1991	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1971 - 1999	
ANNUAL TOTAL	10519.83		9495.18			
ANNUAL MEAN	28.8		26.0		32.6	
HIGHEST ANNUAL MEAN					78.4	1979
LOWEST ANNUAL MEAN					11.5	1992
HIGHEST DAILY MEAN	1180	Jul 7	990	Jun 28	5110	Jul 26 1979
LOWEST DAILY MEAN	.12	Oct 14	.00	Aug 23	.00	Jun 23 1972
ANNUAL SEVEN-DAY MINIMUM	.15	Oct 11	.00	Aug 23	.00	Jun 23 1972
INSTANTANEOUS PEAK FLOW			1830	Jan 22	11500	Jul 26 1979
INSTANTANEOUS PEAK STAGE			14.32	Jan 22	15.30	Jul 26 1979
ANNUAL RUNOFF (CFSM)	1.32		1.19		1.49	
ANNUAL RUNOFF (INCHES)	17.95		16.20		20.30	
10 PERCENT EXCEEDS	60		52		63	
50 PERCENT EXCEEDS	6.4		5.1		7.2	
90 PERCENT EXCEEDS	.42		.00		.27	

e Estimated

03376300 PATOKA RIVER AT WINSLOW, IN

LOCATION.--Lat 38°22'48", long 87°13'00", in SW¼SW¼ sec.32, T.1 S., R.7 W., Pike County, Hydrologic Unit 05120209, on right bank at abandoned bridge abutment, 65 ft upstream from bridge on State Highway 61, 100 ft downstream from dam of Winslow Water Company, and 41.3 mi above mouth.

DRAINAGE AREA.--603 mi^2.

PERIOD OF RECORD.--October 1963 to September 1974, May 1986 to current year. Discharge measurements and gage readings June 1961 to September 1963, obtained by State of Indiana, Department of Natural Resources, are available in the district office.

GAGE.--Water-stage recorder. Datum of gage is 400.00 ft above sea level (levels by State of Indiana, Department of Natural Resources). Prior to Nov. 21, 1963, nonrecording gage on downstream side of bridge 65 ft downstream at same datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow regulated by Patoka Lake. Minor diversion by municipal water supply 100 ft above gage.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January 1937 reached a stage of 28.9 ft, from floodmarks, information from State of Indiana, Department of Natural Resources.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	205	189	107	580	3060	1650	508	1760	101	2330	47	23
2	181	114	107	720	2960	1630	563	1430	214	3470	43	22
3	165	107	108	e860	2810	1640	648	1020	762	3560	42	22
4	166	119	107	e905	2710	1620	1280	689	738	3570	40	27
5	190	123	105	e780	2630	1590	1430	486	547	3480	37	28
6	207	121	105	e680	2540	1970	1550	891	640	3240	34	27
7	311	118	156	e620	2590	1970	1480	1240	427	2840	30	24
8	394	117	485	e720	2530	1900	1300	1110	242	2220	28	21
9	346	118	432	e780	2380	2630	1310	801	175	1460	27	21
10	195	121	261	e1100	2230	2750	1350	514	149	926	49	22
11	135	154	325	e860	2110	2610	1330	348	130	643	66	22
12	122	223	370	e700	2160	2540	1180	263	118	424	45	25
13	119	176	368	e800	2120	2490	892	235	112	179	34	24
14	117	138	366	e1400	2030	2450	628	254	115	124	28	23
15	117	124	361	1670	1950	2390	514	196	110	107	26	23
16	132	118	348	1680	1900	2370	494	161	107	93	25	22
17	156	106	312	1620	1880	2490	462	147	99	89	22	e22
18	130	97	190	1610	1820	2380	407	150	90	101	21	e22
19	106	94	127	1510	1750	2250	373	189	87	95	22	e21
20	106	96	117	1330	1690	2110	347	174	82	89	22	e21
21	104	101	403	1340	1630	1960	329	144	81	106	23	e24
22	126	113	1820	2060	1580	1740	310	129	83	234	23	e23
23	169	108	1780	3360	1530	1710	289	126	80	165	23	e23
24	177	102	1760	3280	1520	1810	260	127	80	112	23	e22
25	178	101	1790	3730	1500	1700	234	135	95	86	22	e22
26	178	106	1770	4590	1470	1610	262	131	117	72	24	e22
27	177	130	1640	4940	1450	1480	549	115	374	63	28	e21
28	182	140	1380	4610	1660	1270	1960	105	986	57	30	e21
29	234	118	1070	3960	---	1000	2130	98	1920	59	27	e24
30	278	110	794	3250	---	746	1960	94	1840	55	24	e30
31	276	---	607	2880	---	556	---	97	---	50	23	---
TOTAL	5679	3702	19671	58925	58190	59012	26329	13359	10701	30099	958	694
MEAN	183	123	635	1901	2078	1904	878	431	357	971	30.9	23.1
MAX	394	223	1820	4940	3060	2750	2130	1760	1920	3570	66	30
MIN	104	94	105	580	1450	556	234	94	80	50	21	21
CFSM	.30	.20	1.05	3.15	3.45	3.16	1.46	.71	.59	1.61	.05	.04
IN.	.35	.23	1.21	3.64	3.59	3.64	1.62	.82	.66	1.86	.06	.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1999, BY WATER YEAR (WY)

MEAN	158	397	750	1051	1330	1590	1453	1155	590	317	167	180
MAX	579	2218	2048	2576	2832	5126	3426	4863	2958	1305	503	708
(WY)	1991	1994	1991	1991	1991	1964	1972	1996	1996	1969	1995	1996
MIN	2.84	6.83	13.8	56.3	45.5	428	349	85.7	13.4	13.5	7.46	.94
(WY)	1965	1964	1964	1964	1964	1969	1967	1988	1972	1966	1965	1972

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1964 - 1999	
ANNUAL TOTAL	255909		287319			
ANNUAL MEAN	701		787		758	
HIGHEST ANNUAL MEAN					1332	1997
LOWEST ANNUAL MEAN					224	1992
HIGHEST DAILY MEAN	4980	May 8	4940	Jan 27	15200	Mar 13 1964
LOWEST DAILY MEAN	94	Nov 19	21	Aug 18	.50	Aug 5 1964
ANNUAL SEVEN-DAY MINIMUM	102	Nov 18	22	Sep 14	.61	Sep 8 1972
INSTANTANEOUS PEAK FLOW			5120	Jan 27	15500	Mar 13 1964
INSTANTANEOUS PEAK STAGE			24.02	Jan 27	28.84	Mar 13 1964
ANNUAL RUNOFF (CFSM)	1.16		1.31		1.26	
ANNUAL RUNOFF (INCHES)	15.79		17.73		17.08	
10 PERCENT EXCEEDS	1720		2240		2000	
50 PERCENT EXCEEDS	337		234		312	
90 PERCENT EXCEEDS	124		24		22	

e Estimated

03376350 SOUTH FORK PATOKA RIVER NEAR SPURGEON, IN

LOCATION.--Lat 38°17'49", long 87°15'37", in NW¼SW¼ sec. 36, T. 2 S., R. 8 W., Pike County, Hydrologic Unit 05120209, on the left bank, 150 ft upstream of the bridge on State Road 61, 0.5 mi north of Enos Corner, and 3.1 mi north of Spurgeon, IN.

DRAINAGE AREA.--42.8 mi^2.

PERIOD OF RECORD.--October 1964 to October 1986. October 1998 to September 1999.

GAGE.--Water-stage recorder. Datum of gage is 420.88 ft above sea level (Indiana Flood Control and Water Resources Commission bench mark).

REMARKS.--Records fair except for estimated daily discharges, which are poor. Runoff affected by un-reclaimed surface mined lands.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	7.8	17	e19	297	46	54	61	19	938	8.0	5.2
2	4.4	8.5	8.1	e60	120	40	44	50	76	513	7.6	7.2
3	5.8	17	7.1	e35	75	39	131	44	30	112	7.4	7.3
4	6.9	13	6.2	e27	56	32	130	48	23	70	7.0	6.8
5	7.1	14	6.4	e22	48	31	75	62	51	55	7.2	6.0
6	6.0	9.8	6.5	e19	48	179	137	257	30	49	7.0	5.8
7	37	8.9	83	e18	134	67	75	83	27	44	7.1	5.9
8	19	9.0	26	e20	71	54	62	55	21	40	11	5.8
9	9.1	14	14	e40	51	690	116	46	17	55	11	5.6
10	7.8	52	10	e32	40	151	68	41	15	39	8.3	5.6
11	7.1	34	8.7	e29	41	80	55	37	14	35	7.5	5.0
12	6.5	18	8.4	e26	119	61	43	36	12	32	7.5	4.4
13	5.7	14	9.7	e130	59	52	40	40	17	28	7.0	4.2
14	5.3	13	9.4	76	46	94	39	37	15	24	6.2	4.6
15	5.2	11	8.5	42	41	144	50	34	11	22	5.9	4.1
16	4.8	8.8	7.4	40	40	226	44	29	11	21	5.9	4.7
17	5.1	8.0	7.5	50	50	139	38	28	10	25	5.8	4.7
18	12	8.6	7.0	102	39	75	35	35	9.7	28	5.7	5.6
19	16	10	8.3	43	39	55	33	28	8.6	22	5.8	5.8
20	9.2	23	9.0	37	33	48	32	25	8.8	20	6.0	5.5
21	7.5	16	280	89	30	43	31	25	8.7	16	5.9	5.0
22	6.9	11	253	945	28	38	31	29	7.5	15	5.5	e4.9
23	6.6	9.2	50	868	33	312	28	28	6.8	13	5.6	e4.8
24	6.7	8.3	e33	152	41	122	27	29	12	17	5.8	e4.7
25	6.8	13	e26	82	39	69	26	23	9.9	14	6.0	e4.6
26	7.7	34	e22	62	32	53	53	21	17	13	6.6	e4.5
27	6.8	15	20	55	44	47	272	18	18	11	7.1	e4.5
28	6.9	11	19	47	73	42	463	18	747	13	6.9	e5.0
29	7.2	10	19	41	---	38	210	16	176	12	6.6	e8.2
30	8.0	10	17	37	---	38	88	18	59	9.3	6.0	e6.4
31	8.2	---	e15	395	---	40	---	24	---	8.2	4.8	---
TOTAL	264.1	439.9	1022.2	3640	1767	3145	2530	1325	1488.0	2313.5	211.7	162.4
MEAN	8.52	14.7	33.0	117	63.1	101	84.3	42.7	49.6	74.6	6.83	5.41
MAX	37	52	280	945	297	690	463	257	747	938	11	8.2
MIN	4.4	7.8	6.2	18	28	31	26	16	6.8	8.2	4.8	4.1
CFSM	.20	.34	.77	2.74	1.47	2.37	1.97	1.00	1.16	1.74	.16	.13
IN.	.23	.38	.89	3.16	1.54	2.73	2.20	1.15	1.29	2.01	.18	.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1999, BY WATER YEAR (WY)

MEAN	15.7	39.2	57.8	60.7	79.8	95.8	91.3	68.4	44.5	34.3	21.3	16.7
MAX	32.1	136	154	186	229	188	223	263	227	283	127	72.7
(WY)	1978	1986	1983	1982	1985	1975	1983	1983	1979	1979	1979	1982
MIN	3.35	6.28	4.84	.81	26.1	21.2	23.6	12.5	11.0	6.02	6.83	5.00
(WY)	1965	1965	1977	1977	1978	1981	1976	1965	1972	1966	1999	1972

SUMMARY STATISTICS	FOR 1999 WATER YEAR		WATER YEARS 1965 - 1999	
ANNUAL TOTAL	18308.8			
ANNUAL MEAN	50.2		52.0	
HIGHEST ANNUAL MEAN			118	1979
LOWEST ANNUAL MEAN			25.3	1981
HIGHEST DAILY MEAN	945	Jan 22	3640	Jun 9 1979
LOWEST DAILY MEAN	4.1	Sep 15	.00	Jan 20 1977
ANNUAL SEVEN-DAY MINIMUM	4.5	Sep 11	.00	Jan 20 1977
INSTANTANEOUS PEAK FLOW	2830	Jul 1	5900	Jun 9 1979
INSTANTANEOUS PEAK STAGE	12.02	Jul 1	15.07	Jun 9 1979
ANNUAL RUNOFF (CFSM)	1.17		1.21	
ANNUAL RUNOFF (INCHES)	15.91		16.49	
10 PERCENT EXCEEDS	85		114	
50 PERCENT EXCEEDS	21		22	
90 PERCENT EXCEEDS	5.8		6.4	

e Estimated

03376500 PATOKA RIVER NEAR PRINCETON, IN

LOCATION.--Lat 38°23'25", long 87°32'55", in sec. 107, T.1 S., R.10 W., Gibson County, Hydrologic Unit 05120209, on right downstream side of bridge on State Highway 65, 0.5 mi downstream from Indian Creek, 2 mi northeast of Princeton, and at mile 21.4.

DRAINAGE AREA.--822 mi^2.

PERIOD OF RECORD.--August 1934 to current year. Published as "at Patoka" August 1934 to September 1940. Records published for both sites October 1939 to September 1940 (monthly discharge only at present site, for October, November 1939, published in WSP 1305).

REVISED RECORDS.--WSP 1275: 1952. WSP 1335: 1935-36, 1938-39, 1949(M), 1940-50. WSP 1385: 1951-52. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 390.00 ft above sea level. Jan. 21, 1941 to Oct. 23, 1986, water-stage recorder at dam 0.1 mi downstream and at datum 4.14 ft higher. See WSP 1725 for history of changes prior to Jan. 21, 1941.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated by Patoka Lake.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	208	252	139	664	4410	1970	929	2870	204	2480	67	37
2	196	181	138	897	4310	1930	820	2800	515	3120	62	36
3	166	138	130	e960	4150	1890	1200	2640	675	3050	58	34
4	149	141	128	e1000	3980	1860	2000	2320	891	3180	56	37
5	161	154	125	e800	3780	1840	1850	1670	958	3330	53	36
6	263	154	123	e740	3590	2310	2450	1500	759	3430	51	36
7	1820	147	244	e700	3740	2280	2190	1550	684	3470	49	34
8	977	142	406	e740	3600	2320	2070	1550	460	3450	48	32
9	524	141	525	e840	3460	2840	2220	1380	325	3370	55	31
10	334	188	360	e1100	3300	2930	2060	1000	263	3160	58	31
11	206	244	287	e880	3150	3010	1940	641	226	2810	73	31
12	162	253	349	e800	3120	3090	1800	471	199	2220	73	33
13	145	252	360	e940	2960	3110	1590	409	186	1130	60	36
14	138	205	353	e1600	2850	3100	1240	404	190	466	52	36
15	133	175	348	1760	2760	3070	930	374	179	251	46	34
16	132	161	340	1770	2650	3090	769	316	174	167	43	33
17	162	146	327	1860	2550	3210	676	277	160	170	42	32
18	179	125	269	2220	2440	3200	613	309	143	187	39	33
19	170	110	186	2080	2330	3140	555	294	132	147	42	37
20	134	110	145	1990	2210	3070	516	298	127	133	44	35
21	127	125	596	1910	2100	2950	486	263	126	121	41	33
22	121	131	1930	2960	2000	2810	461	234	131	168	39	34
23	167	141	1830	3050	1910	2810	435	221	129	249	38	34
24	206	132	1840	3060	1850	2740	401	253	392	172	38	34
25	204	122	1850	3270	1790	2630	369	236	344	131	40	35
26	202	131	1840	3500	1740	2520	523	235	618	106	42	35
27	201	154	1820	3670	1830	2380	825	214	1330	91	43	34
28	200	180	1770	3820	2090	2210	2440	193	934	83	46	33
29	212	173	1660	3960	---	1990	2790	182	1640	77	46	36
30	260	146	1340	4070	---	1620	2860	176	1780	76	44	39
31	275	---	933	4240	---	1180	---	180	---	72	39	---
TOTAL	8534	4854	22691	61851	80650	79100	40008	25460	14874	41067	1527	1031
MEAN	275	162	732	1995	2880	2552	1334	821	496	1325	49.3	34.4
MAX	1820	253	1930	4240	4410	3210	2860	2870	1780	3470	73	39
MIN	121	110	123	664	1740	1180	369	176	126	72	38	31
CFSM	.33	.20	.89	2.43	3.50	3.10	1.62	1.00	.60	1.61	.06	.04
IN.	.39	.22	1.03	2.80	3.65	3.58	1.81	1.15	.67	1.86	.07	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1999, BY WATER YEAR (WY)

MEAN	252	522	974	1524	1801	2207	1980	1510	827	452	308	223
MAX	2573	2978	3735	8365	5570	8531	4664	6810	4322	3075	3915	1125
(WY)	1946	1994	1952	1937	1950	1945	1989	1961	1996	1958	1979	1979
MIN	1.53	9.83	10.2	44.3	64.2	61.5	373	117	7.93	15.0	4.60	8.12
(WY)	1943	1944	1944	1944	1964	1941	1976	1941	1936	1944	1936	1942

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1935 - 1999	
ANNUAL TOTAL	336689		381647			
ANNUAL MEAN	922		1046		1044	
HIGHEST ANNUAL MEAN					2080	1950
LOWEST ANNUAL MEAN					151	1954
HIGHEST DAILY MEAN	5420	May 9	4410	Feb 1	18500	Jan 26 1937
LOWEST DAILY MEAN	110	Nov 19	31	Sep 9	.00	Aug 29 1936
ANNUAL SEVEN-DAY MINIMUM	124	Nov 19	33	Sep 6	.00	Aug 29 1936
INSTANTANEOUS PEAK FLOW			4430	Feb 1	18700	Jan 26 1937
INSTANTANEOUS PEAK STAGE			18.91	Feb 1	26.80	Jan 26 1937
ANNUAL RUNOFF (CFSM)	1.12		1.27		1.27	
ANNUAL RUNOFF (INCHES)	15.24		17.27		17.26	
10 PERCENT EXCEEDS	2160		3060		2840	
50 PERCENT EXCEEDS	419		348		389	
90 PERCENT EXCEEDS	154		41		27	

e Estimated

03377500 WABASH RIVER AT MOUNT CARMEL, IL

LOCATION.--Lat 38°24'07", long 87°45'10", in SE¼NW¼ sec.28, T.1 S., R.12 W., Wabash County, Illinois, Hydrologic Unit 05120113, on right bank on downstream side of Southern Railway bridge at Mount Carmel, 0.2 mi downstream from Patoka River, and at mile 94.4.

DRAINAGE AREA.--28,635 mi^2.

PERIOD OF RECORD.--January 1908 to September 1913 (gage heights only), October 1927 to current year. Gage-height records collected in this vicinity November 1874 to December 1878, are contained in files of Louisville office of the U.S. Army Corps of Engineers and since June 1884, are contained in reports of National Weather Service.

REVISED RECORDS.--WDR IN-73-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 369.46 ft above sea level. Oct. 1, 1949, to Feb. 8, 1977, at datum 2.00 ft higher. See WSP 1725 for history of changes prior to Sept. 30, 1949.

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

EXTREMES OUTSIDE THE PERIOD OF RECORD.--(1874-78, 1884 to 1985) Maximum discharge, 428,000 ft^3/s Mar. 30, 1913, gage height, 33.0 ft, present site and datum.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6040	7030	8710	9860	167000	43900	23600	60200	17300	18800	6010	4040
2	5830	7350	8540	9870	153000	48800	22500	56200	20900	32000	5760	3960
3	5690	7690	8420	e9000	137000	51000	23000	51900	35900	36500	5580	3800
4	5610	9150	8260	e8500	122000	52800	32300	47500	44100	28000	5430	3730
5	5540	9980	8210	e8400	110000	54500	35900	42000	50900	20800	5210	3620
6	5760	9380	8080	e8300	98100	59100	38400	38400	53200	18100	5120	3550
7	10600	8890	8420	e8200	91900	64500	39000	39000	52800	16500	5020	3460
8	15700	8560	8820	e8100	92900	66400	35200	36400	49800	15500	4990	3430
9	13800	8220	9190	e8100	97200	69000	32300	32500	44700	14400	4830	3320
10	11800	8400	9160	e8050	102000	73200	32600	29400	37100	14800	4780	3220
11	11500	9880	8850	e8000	110000	76200	32900	26700	28400	15500	4740	3220
12	12000	13300	8580	e8400	119000	76600	29900	24300	23400	13000	4630	3150
13	11700	14700	8510	e10000	124000	74700	27900	22700	21100	10900	4680	3060
14	10800	14600	8300	e17000	125000	70300	27400	22500	21900	9390	5080	3010
15	9970	15100	8070	e20000	123000	63800	27600	23400	23400	8520	4800	2970
16	9120	14500	7850	e22000	117000	57200	27000	24100	22500	8030	4550	2880
17	8350	13300	7700	e25000	106000	53900	26600	25100	21200	7680	4810	2910
18	7910	12200	7650	e30000	92800	50400	31200	25200	19600	7370	5210	3010
19	7740	11100	7370	e36000	80500	46600	39300	24600	18100	7220	5060	3140
20	7720	10200	7150	e45000	69800	45500	44600	23900	16500	7180	4770	3370
21	7540	9550	7580	e55000	61700	46800	47300	22700	15000	7520	4610	3450
22	7480	9090	12200	67300	55000	47600	48800	22600	13700	8610	4440	3530
23	7450	8690	14400	81900	49400	47400	50200	25700	12600	9450	4320	3610
24	7370	8380	14500	94600	44400	45400	52800	24800	12200	9500	4310	3630
25	7300	8190	15100	109000	40400	41400	55600	24600	14100	8850	4280	3650
26	7130	8220	14900	126000	37400	37100	57300	23600	16200	8230	4230	3640
27	7000	8570	14200	145000	35100	33400	56300	22900	17000	7620	4170	3540
28	6880	8440	13400	162000	38400	30600	56700	23000	20400	7260	4230	3520
29	6820	8510	12800	174000	---	28600	60400	22600	22900	7010	4080	3540
30	6810	8700	11900	175000	---	26600	61600	20800	21000	6620	3960	3580
31	6780	---	10800	173000	---	24900	---	18700	---	6300	3990	---
TOTAL	261740	299870	307620	1670580	2600000	1608200	1176200	928000	787900	397160	147680	102540
MEAN	8443	9996	9923	53890	92860	51880	39210	29940	26260	12810	4764	3418
MAX	15700	15100	15100	175000	167000	76600	61600	60200	53200	36500	6010	4040
MIN	5540	7030	7150	8000	35100	24900	22500	18700	12200	6300	3960	2880
CFSM	.29	.35	.35	1.88	3.24	1.81	1.37	1.05	.92	.45	.17	.12
IN.	.34	.39	.40	2.17	3.38	2.09	1.53	1.21	1.02	.52	.19	.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1999, BY WATER YEAR (WY)

MEAN	9195	15500	25440	37960	41210	50510	50660	42120	28760	19270	12040	8915
MAX	37700	87950	92340	199300	147100	108700	106400	144100	80120	73580	75530	50670
(WY)	1994	1994	1986	1950	1950	1985	1938	1996	1998	1958	1979	1989
MIN	2465	2632	2266	2861	3758	4815	11900	5805	5035	3366	2372	2572
(WY)	1941	1931	1964	1977	1931	1941	1941	1934	1988	1936	1936	1940

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1928 - 1999	
ANNUAL TOTAL	13576230		10287490			
ANNUAL MEAN	37200		28180		28400	
HIGHEST ANNUAL MEAN					56740	1950
LOWEST ANNUAL MEAN					6144	1941
HIGHEST DAILY MEAN	174000	Jun 24	175000	Jan 30	302000	May 25 1943
LOWEST DAILY MEAN	5540	Oct 5	2880	Sep 16	1650	Sep 27 1941
ANNUAL SEVEN-DAY MINIMUM	5820	Sep 30	3000	Sep 13	1700	Dec 19 1963
INSTANTANEOUS PEAK FLOW			176000	Jan 29	305000	May 25 1943
INSTANTANEOUS PEAK STAGE			29.12	Jan 29	31.75	Jan 7 1991
ANNUAL RUNOFF (CFSM)	1.30		.98		.99	
ANNUAL RUNOFF (INCHES)	17.64		13.36		13.47	
10 PERCENT EXCEEDS	82500		66800		68300	
50 PERCENT EXCEEDS	25400		14400		16600	
90 PERCENT EXCEEDS	7670		4260		4370	

e Estimated

03378500 WABASH RIVER AT NEW HARMONY, IN

LOCATION.--Lat 38°07'55", long 87°56'25"in $SE^1/_4SE^1/_4$ sec.35, T.4 S., R.14 W., Posey County, Hydrologic Unit 05120113, at bridge on State Highway 66 at New Harmony, at Indiana-Illinois state line, and at mile 51.5.

DRAINAGE AREA.--29,234 mi^2.

WATER STAGE RECORDS

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, 20.22 ft, Jan. 31, Feb. 1; minimum gage height, 0.55 ft, Sept. 16.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.57	1.81	2.29	2.62	20.00	10.20	5.85	13.02	4.30	5.52	1.59	.98
2	1.52	1.97	2.27	2.82	19.66	11.08	5.58	12.40	5.00	8.33	1.51	.96
3	1.47	2.02	2.23	3.01	19.11	11.40	6.08	11.64	8.20	9.04	1.46	.90
4	1.45	2.35	2.19	2.19	18.42	11.66	8.28	10.84	9.90	7.45	1.41	.88
5	1.44	2.57	2.19	1.75	17.86	12.04	9.00	9.91	11.14	5.84	1.35	.84
6	1.53	2.43	2.20	2.04	17.16	12.96	9.76	9.24	11.64	5.07	1.31	.80
7	3.07	2.31	2.33	1.93	16.81	13.66	9.63	9.14	11.50	4.58	1.28	.78
8	3.97	2.24	2.39	2.11	16.58	14.08	8.88	8.57	10.88	4.13	1.27	.74
9	3.61	2.17	2.43	2.35	16.75	14.64	8.26	7.75	9.96	3.80	1.21	.72
10	3.09	2.17	2.41	2.39	16.96	14.94	8.00	7.07	8.48	3.81	1.18	.68
11	2.93	2.55	2.35	2.49	17.32	15.17	7.85	6.48	6.75	3.97	1.18	.68
12	3.03	3.26	2.28	2.66	17.66	15.20	7.24	5.98	5.72	3.43	1.15	.66
13	2.97	3.55	2.27	4.39	18.00	15.07	6.78	5.63	5.22	2.93	1.12	.60
14	2.79	3.53	2.21	5.66	18.17	14.72	6.66	5.48	5.54	2.57	1.24	.61
15	2.61	3.65	2.15	6.25	18.13	13.96	6.66	5.66	5.76	2.33	1.22	.59
16	2.42	3.55	2.09	6.43	17.93	13.18	6.57	5.77	5.44	2.21	1.12	.57
17	2.21	3.30	2.04	6.34	17.54	12.53	6.41	6.00	5.08	2.19	1.14	.57
18	2.13	3.08	2.04	7.93	16.84	11.68	7.29	6.04	4.77	2.06	1.31	.59
19	2.07	2.85	1.96	10.05	15.97	10.89	8.90	5.90	4.44	1.99	---	.62
20	2.07	2.64	1.91	11.45	15.05	10.54	9.96	5.74	4.09	1.96	---	.71
21	2.00	2.50	2.34	12.37	13.97	10.67	10.50	5.49	3.76	2.03	---	.73
22	1.97	2.39	3.35	14.68	12.85	10.78	10.78	5.38	3.48	2.28	---	.75
23	1.97	2.27	3.74	15.66	11.74	11.18	11.04	6.09	3.22	2.49	---	.77
24	1.95	2.23	3.66	16.40	10.70	10.74	11.50	5.89	3.18	2.63	---	.79
25	1.92	2.17	3.72	17.16	9.81	9.86	12.01	5.85	3.73	2.39	---	.81
26	1.88	2.16	3.67	17.85	9.12	8.93	12.37	5.65	4.05	2.21	---	.82
27	1.84	2.26	3.52	18.42	8.70	8.08	12.30	5.49	4.41	2.10	1.00	.78
28	1.80	2.25	3.36	18.96	9.33	7.46	12.58	5.50	5.17	1.99	1.03	.77
29	1.79	2.23	3.26	19.53	---	6.99	13.09	5.42	5.69	1.91	.99	.77
30	1.77	2.28	3.06	19.90	---	6.54	13.22	5.06	4.99	1.77	.95	.78
31	1.75	---	2.81	20.22	---	6.16	---	4.64	---	1.67	.95	---
MEAN	2.21	2.56	2.60	8.97	15.65	11.52	9.10	7.06	6.18	3.44	---	.74
MAX	3.97	3.65	3.74	20.22	20.00	15.20	13.22	13.02	11.64	9.04	---	.98
MIN	1.44	1.81	1.91	1.75	8.70	6.16	5.58	4.64	3.18	1.67	---	.57

03378500 WABASH RIVER AT NEW HARMONY, IN

(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL ANALYSES: October 1974 to 1986, 1997 to current water year. Data collected for water years 1997 and 1998 were published in the Kentucky Water Resources Data reports, and are stored in the Indiana NWIS/QW data base.
SEDIMENT DISCHARGE: Partial record station--October 1974 to 1985.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1974 to September 1980.
WATER TEMPERATURE: October 1974 to September 1980.

REMARKS.--Water discharge obtained from station Wabash River at Mount Carmel, IL. (03377500).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	SAMPLE TYPE	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	UV ABSORB-ANCE 254 NM, WTR FLT (UNITS /CM) (50624)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
NOV											
12...	1220	ENVIRONMENTAL	13500	--	640	8.4	10.5	27	11.3	--	280
DEC											
16...	1330	ENVIRONMENTAL	7800	--	655	8.5	8.0	7.5	13.2	112	300
16...	1338	FIELD BLANK	--	--	--	--	--	--	--	--	0
JAN											
27...	1200	ENVIRONMENTAL	145000	--	248	7.5	6.0	120	10.4	83	100
MAR											
15...	1250	ENVIRONMENTAL	63500	.111	433	7.8	4.0	40	12.4	94	190
15...	1300	REPLICATE	--	.112	--	--	--	39	--	--	190
APR											
13...	1200	ENVIRONMENTAL	27900	.106	502	7.8	15.5	55	9.2	91	220
26...	1240	ENVIRONMENTAL	57400	.136	486	7.7	15.5	3.0	8.9	90	230
26...	1248	FIELD BLANK	--	--	--	--	--	--	--	--	0
MAY											
11...	1320	ENVIRONMENTAL	26600	.137	553	8.1	21.0	36	10.1	114	250
11...	1328	FIELD BLANK	--	--	--	--	--	--	--	--	--
26...	1150	ENVIRONMENTAL	23600	.092	571	8.0	21.0	30	8.7	97	240
JUN											
08...	1240	ENVIRONMENTAL	49700	.141	429	7.3	25.5	150	5.5	67	180
08...	1248	FIELD BLANK	--	--	--	--	--	--	--	--	--
22...	1230	ENVIRONMENTAL	13700	.086	590	8.2	25.0	--	9.9	120	--
22...	1238	FIELD BLANK	--	--	--	--	--	--	--	--	--
JUL											
21...	1250	ENVIRONMENTAL	7570	.083	528	8.3	30.5	15	12.5	166	200
21...	1300	REPLICATE	--	.083	--	--	--	15	--	--	210
AUG											
24...	1150	ENVIRONMENTAL	4320	.091	639	7.9	27.0	18	9.0	115	230

DATE	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)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	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)	NITRO-GEN, TOTAL (MG/L AS N) (00600)
NOV												
12...	71	24	26	4.6	227	186	35	71	.27	4.6	391	2.4
DEC												
16...	78	25	28	3.7	285	234	38	75	.23	2.9	400	2.5
16...	.018	.003	<.025	--	--	--	--	--	--	<.020	--	--
JAN												
27...	28	7.7	7.3	3.4	--	68	13	22	.14	5.4	153	3.5
MAR												
15...	51	15	11	2.4	137	112	20	41	.15	6.3	263	4.6
15...	50	15	11	2.4	158	130	20	40	.15	6.3	261	4.6
APR												
13...	57	18	15	2.8	178	146	24	57	.17	3.3	298	2.8
26...	60	20	12	2.5	167	137	22	38	.19	6.6	291	7.5
26...	.012	.001	.032	--	--	--	--	--	--	.039	--	--
MAY												
11...	66	21	14	2.4	203	167	23	55	.19	3.4	324	4.2
11...	--	--	--	--	--	--	--	--	--	--	--	--
26...	63	21	16	2.8	223	183	26	57	.20	3.6	340	4.7
JUN												
08...	47	15	9.8	3.8	140	115	19	37	.22	6.7	275	7.5
08...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	.006	<.001	<.025	--	--	--	--	--	--	<.020	--	--
JUL												
21...	41	24	24	2.9	--	--	37	62	.17	.24	284	--
21...	41	25	25	3.0	--	--	36	62	.16	.21	287	--
AUG												
24...	48	27	39	3.5	--	--	52	80	.24	.16	355	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	NITROGEN DISSOLVED (MG/L AS N) (00602)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N) (00607)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4) (00660)
NOV												
12...	1.8	.91	.30	.016	1.51	.027	1.50	.33	.94	.202	.076	.23
DEC												
16...	2.0	.79	.30	.019	1.71	.034	1.69	.34	.82	.129	.054	.13
16...	--	--	--	<.001	<.005	.002	--	--	--	--	--	.001
JAN												
27...	2.9	1.1	.46	.018	2.33	.086	2.31	.54	1.2	.414	.106	.29
MAR												
15...	4.2	.67	.28	.012	3.93	.026	3.92	.31	.70	.172	.060	.16
15...	4.2	.62	.28	.013	3.93	.028	3.91	.31	.64	.178	.061	.16
APR												
13...	2.2	--	--	<.010	1.90	<.020	--	.32	.86	.213	.044	.12
26...	6.9	--	--	.030	6.49	<.020	6.46	.38	1.0	.219	.070	.19
26...	--	--	--	<.001	<.005	.007	--	--	--	--	--	.01
MAY												
11...	3.5	--	--	.013	3.20	<.020	3.19	.32	.99	.194	.032	.07
11...	--	--	--	--	--	--	--	--	--	--	--	--
26...	4.5	--	--	.012	3.43	<.020	3.42	1.1	1.3	.212	.040	.10
JUN												
08...	6.5	--	--	.079	6.00	<.020	5.92	.52	1.5	.397	.105	.29
08...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	<.001	.005	.006	--	--	--	--	--	.001
JUL												
21...	--	--	--	<.010	<.050	<.020	--	.26	1.4	.113	.013	--
21...	--	--	--	<.010	<.050	<.020	--	.26	1.5	.111	.015	--
AUG												
24...	--	--	--	<.010	<.050	<.020	--	.34	1.2	.145	.014	--

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4) (71846)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3) (71851)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2) (71856)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ANTIMONY, DISSOLVED (UG/L AS SB) (01095)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)
NOV												
12...	.03	6.6	.05	.074	1.4	<1.0	3	53	<1.0	130	<1.0	2.0
DEC												
16...	.04	7.5	.06	.042	2.7	<1.0	2	55	<1.0	138	<1.0	<1.0
16...	.00	--	--	.001	<.30	<.20	--	<.20	<.20	<2.0	<.30	<.20
JAN												
27...	.11	10	.06	.096	4.6	<1.0	<1	27	<1.0	35	<1.0	2.6
MAR												
15...	.03	17	.04	.052	--	--	1	--	--	36	--	--
15...	.04	17	.04	.051	--	--	1	--	--	37	--	--
APR												
13...	--	--	--	.038	5.5	<1.0	<1	46	<1.0	64	<1.0	<1.0
26...	--	29	.10	.063	--	--	<1	--	--	49	--	--
26...	.01	--	--	.002	<.30	<.20	--	<.20	<.20	<2.0	<.30	<.20
MAY												
11...	--	14	.04	.023	--	--	1	--	--	72	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	15	.04	.032	--	--	1	--	--	82	--	--
JUN												
08...	--	26	.26	.094	4.3	<1.0	1	46	<1.0	55	<1.0	<1.0
08...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	.01	--	--	.001	<.30	<.20	--	<.20	<.20	<2.0	<.30	<.20
JUL												
21...	--	--	--	<.001	--	--	<1	--	--	121	--	--
21...	--	--	--	<.001	--	--	<1	--	--	128	--	--
AUG												
24...	--	--	--	<.001	7.0	<1.0	1	57	<1.0	178	<1.0	<1.0

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	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)	THAL-LIUM, DIS-SOLVED (UG/L AS TL) (01057)
NOV												
12...	<1.0	1.4	<10	<1.0	E4	2.7	5.8	2.2	1	<1.0	253	--
DEC												
16...	<1.0	1.4	<10	<1.0	6	4.8	5.9	3.3	<1	<1.0	289	--
16...	<.20	<.20	<3.0	<.30	--	<.10	<.20	<.50	--	<.20	<.10	<.10
JAN												
27...	<1.0	1.5	21	<1.0	<6	7.7	1.0	1.7	<1	<1.0	72	--
MAR												
15...	--	--	E7.3	--	<6	--	--	--	1	--	146	--
15...	--	--	E6.8	--	<6	--	--	--	2	--	145	--
APR												
13...	<1.0	1.7	<10	<1.0	E5	2.3	3.2	2.5	<1	<1.0	168	--
26...	--	--	<10	--	10	--	--	--	<1	--	171	--
26...	<.20	.52	<3.0	<.30	--	.13	<.20	<.50	--	<.20	<.10	<.10
MAY												
11...	--	--	<10	--	<6	--	--	--	<1	--	191	--
11...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	<10	--	E4	--	--	--	1	--	187	--
JUN												
08...	<1.0	1.9	<10	<1.0	<6	<1.0	2.7	1.7	1	<1.0	140	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	<.20	<.20	<3.0	<.30	--	<.10	<.20	<.50	--	<.20	<.10	<.10
JUL												
21...	--	--	E6.2	--	E4	--	--	--	<1	--	173	--
21...	--	--	10	--	<6	--	--	--	<1	--	180	--
AUG												
24...	<1.0	1.5	<10	<1.0	9	<1.0	11	2.8	<1	<1.0	209	--

DATE	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)
NOV											
12...	<10	2.6	<1.0	3.9	2.9	E.004	.015	.470	<.002	<.002	<.004
DEC											
16...	<10	3.7	1.1	3.2	2.8	E.002	.008	.223	<.002	<.002	<.004
16...	--	.64	<.20	--	--	--	--	--	--	--	--
JAN											
27...	<10	1.6	<1.0	4.6	3.9	<.010	.016	.141	<.002	<.002	<.004
MAR											
15...	<10	--	--	3.6	1.1	<.007	.008	.091	<.002	<.002	E.003
15...	<10	--	--	3.5	.50	.005	.007	.090	<.002	<.002	E.002
APR											
13...	<10	4.7	1.0	3.5	--	<.002	.017	1.22	<.002	<.002	<.004
26...	<10	--	--	4.3	--	.029	.288	2.24	<.002	<.002	.008
26...	--	4.8	<.20	--	--	--	--	--	--	--	--
MAY											
11...	<10	--	--	3.5	3.2	.009	.261	2.31	<.002	<.002	<.004
11...	--	--	--	<.10	.20	<.002	<.002	<.001	<.002	<.002	<.004
26...	<10	--	--	3.2	3.3	.078	.703	3.82	<.002	<.002	.015
JUN											
08...	<10	1.0	<1.0	4.4	3.8	.089	1.60	11.6	<.002	<.002	E.013
08...	--	--	--	<.10	<.20	--	--	--	--	--	--
22...	--	--	--	3.5	4.4	.019	.164	2.83	<.002	<.002	<.004
22...	--	.95	<.20	--	--	--	--	--	--	--	--
JUL											
21...	<10	--	--	3.4	>5.0	<.002	<.002	.689	<.002	<.002	<.004
21...	<10	--	--	3.5	>5.0	<.002	.015	.687	<.002	<.002	<.004
AUG											
24...	<10	1.3	<1.0	3.7	4.9	<.002	<.002	.370	<.002	<.002	<.004

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DATE	CYANAZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) (04040)	DIAZINON, DISSOLVED (UG/L) (39572)	DIELDRIN DISSOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DISSOLVED (UG/L) (39341)	MALATHION, DISSOLVED (UG/L) (39532)	METRIBUZIN SENCOR WATER DISSOLV (UG/L) (82630)	METOLACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARATHION, DISSOLVED (UG/L) (39542)
NOV											
12...	.161	E.143	<.002	<.001	<.003	<.004	<.005	<.004	.154	<.006	<.004
DEC											
16...	.068	E.087	<.002	<.001	<.003	<.004	<.005	.010	.087	<.006	<.004
16...	--	--	--	--	--	--	--	--	--	--	--
JAN											
27...	.027	E.044	<.002	<.001	<.003	<.004	<.005	.036	.075	<.006	<.004
MAR											
15...	.015	E.038	<.002	<.001	<.003	<.004	<.005	<.004	.050	<.006	<.004
15...	.013	E.035	<.002	<.001	<.003	<.004	<.005	.005	.041	<.006	<.004
APR											
13...	.093	E.075	<.002	<.001	<.003	<.004	<.005	.039	.120	<.006	<.004
26...	.157	E.125	E.003	<.001	<.003	<.004	<.005	.116	.948	<.006	<.004
26...	--	--	--	--	--	--	--	--	--	--	--
MAY											
11...	.170	E.165	E.004	<.001	<.003	<.004	<.005	.047	.415	<.006	<.004
11...	<.004	<.002	<.002	<.001	<.003	<.004	<.005	<.004	<.002	<.006	<.004
26...	.354	E.281	E.004	<.001	<.003	<.004	<.005	.032	1.05	<.006	<.004
JUN											
08...	.560	E.836	.007	<.001	<.003	<.004	<.005	.087	2.48	<.006	<.004
08...	--	--	--	--	--	--	--	--	--	--	--
22...	E.127	E.364	<.002	<.001	<.003	<.004	<.005	.012	.704	<.006	<.004
22...	--	--	--	--	--	--	--	--	--	--	--
JUL											
21...	.056	E.143	<.002	<.001	<.003	<.004	<.005	<.004	.113	<.006	<.004
21...	.053	E.144	<.002	<.001	<.003	<.004	<.005	<.004	.105	<.006	<.004
AUG											
24...	.034	E.081	<.002	<.015	<.003	<.004	<.005	<.004	.057	<.006	<.004

DATE	PROPCHLOR, WATER, DISS, REC (UG/L) (04024)	PROMETON, WATER, DISS, REC (UG/L) (04037)	SIMAZINE, WATER, DISS, REC (UG/L) (04035)	BENFLURALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CARBARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBOFURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DIETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISULFOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHALFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	PENDIMETHALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
NOV											
12...	<.007	.021	.075	<.002	<.003	<.003	<.002	<.003	<.017	<.004	<.004
DEC											
16...	<.007	E.011	.028	<.002	<.003	<.003	<.002	<.003	<.017	<.004	<.004
16...	--	--	--	--	--	--	--	--	--	--	--
JAN											
27...	<.007	<.018	.107	<.002	<.003	<.003	<.002	<.003	<.017	<.004	<.004
MAR											
15...	<.007	E.005	.020	<.002	<.003	<.003	<.002	<.003	<.017	<.004	<.004
15...	<.007	<.018	.020	<.002	<.003	<.003	<.002	<.003	<.017	<.004	<.004
APR											
13...	<.007	E.008	.506	<.002	<.003	<.003	<.002	<.003	<.017	<.004	<.004
26...	<.007	E.012	.148	<.002	<.003	<.003	<.002	<.003	<.017	<.004	<.004
26...	--	--	--	--	--	--	--	--	--	--	--
MAY											
11...	<.007	E.017	.346	<.002	<.003	<.003	<.002	<.003	<.017	<.004	<.004
11...	<.007	<.018	<.005	<.002	<.003	<.003	<.002	<.003	<.017	<.004	<.004
26...	<.007	.026	.333	<.002	<.003	<.003	<.002	<.003	<.017	<.004	<.004
JUN											
08...	<.007	.035	1.00	<.002	<.003	<.003	<.002	<.003	<.017	<.004	.015
08...	--	--	--	--	--	--	--	--	--	--	--
22...	<.007	.042	.159	<.002	<.003	<.003	<.002	<.003	<.017	<.004	<.004
22...	--	--	--	--	--	--	--	--	--	--	--
JUL											
21...	<.007	.040	.062	<.002	<.003	<.003	<.002	<.003	<.017	<.004	<.004
21...	<.007	.041	.062	<.002	<.003	<.003	<.002	<.003	<.017	<.004	<.004
AUG											
24...	<.007	.037	.039	<.002	<.003	<.003	<.002	<.003	<.017	<.004	<.004

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DATE	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)
NOV											
12...	<.003	<.002	<.002	<.001	<.006	<.004	<.003	<.004	<.005	<.002	<.003
DEC											
16...	<.003	<.002	<.002	<.001	<.006	<.004	<.003	<.004	<.005	<.002	<.003
16...	--	--	--	--	--	--	--	--	--	--	--
JAN											
27...	<.003	<.002	<.002	<.001	<.006	<.004	<.003	<.004	<.005	<.002	<.003
MAR											
15...	<.003	<.002	<.002	<.001	<.006	<.004	<.003	<.004	<.005	<.002	<.003
15...	<.003	<.002	<.002	<.001	<.006	<.004	<.003	<.004	<.005	<.002	<.003
APR											
13...	<.003	<.002	<.002	<.001	<.006	<.004	<.003	<.004	<.005	<.002	<.003
26...	<.003	<.002	<.002	<.001	<.006	<.004	<.003	<.004	<.005	<.002	<.003
26...	--	--	--	--	--	--	--	--	--	--	--
MAY											
11...	<.003	E.001	<.002	<.001	<.006	<.004	<.003	<.004	<.005	<.002	<.003
11...	<.003	<.002	<.002	<.001	<.006	<.004	<.003	<.004	<.005	<.002	<.003
26...	<.003	<.002	<.002	<.001	<.006	<.004	<.003	<.004	<.005	<.002	<.003
JUN											
08...	<.003	<.002	<.002	<.001	<.006	<.004	<.003	<.004	<.005	<.002	<.003
08...	--	--	--	--	--	--	--	--	--	--	--
22...	<.003	<.002	<.002	<.001	<.006	<.004	<.003	<.004	<.005	<.002	<.003
22...	--	--	--	--	--	--	--	--	--	--	--
JUL											
21...	<.003	<.002	<.002	<.001	<.006	<.004	<.003	<.004	<.005	<.002	<.003
21...	<.003	<.002	<.002	<.001	<.006	<.004	<.003	<.004	<.005	<.002	<.003
AUG											
24...	<.003	<.002	<.002	<.001	<.006	<.004	<.003	<.004	<.005	<.002	<.003

DATE	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	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											
12...	<.004	<.013	.012	<.007	<.013	<.001	<.002	<.002	70	2550	99
DEC											
16...	<.004	<.013	E.007	<.007	<.013	<.001	<.002	<.002	17	358	96
16...	--	--	--	--	--	--	--	--	--	--	--
JAN											
27...	<.004	<.013	E.005	<.007	<.013	<.001	<.002	<.002	247	96700	84
MAR											
15...	<.004	<.013	E.010	<.007	<.013	<.001	<.002	<.002	85	14600	85
15...	<.004	<.013	E.007	<.007	<.013	<.001	E.002	<.002	--	--	--
APR											
13...	<.004	<.013	<.010	<.007	<.013	<.001	<.002	<.002	142	10700	99
26...	<.004	<.013	.010	<.007	<.013	<.001	E.002	<.002	136	21100	93
26...	--	--	--	--	--	--	--	--	--	--	--
MAY											
11...	<.004	<.013	E.007	<.007	<.013	<.001	<.002	<.002	121	8690	97
11...	<.004	<.013	<.010	<.007	<.013	<.001	<.002	<.002	--	--	--
26...	<.004	<.013	E.007	<.007	<.013	<.001	<.002	<.002	129	8220	98
JUN											
08...	<.004	<.090	.012	<.007	<.013	<.001	<.002	<.002	248	33300	98
08...	--	--	--	--	--	--	--	--	--	--	--
22...	<.004	<.013	E.009	<.007	<.013	<.001	<.002	<.002	116	4290	99
22...	--	--	--	--	--	--	--	--	--	--	--
JUL											
21...	<.004	<.013	E.011	<.007	<.013	<.001	<.002	<.002	23	470	98
21...	<.004	<.013	E.011	<.007	<.013	<.001	<.002	<.002	--	--	--
AUG											
24...	<.004	<.013	<.010	<.007	<.013	<.001	<.002	<.002	45	525	99

E estimate

03378550 BIG CREEK NEAR WADESVILLE, IN

LOCATION.--Lat 38°04'58", long 87°46'10", in SW¼SW¼ sec.16, T.5 S., R.12 W., Posey County, Hydrologic Unit 05120113, on left bank at downstream side of bridge on State Highway 66, 0.6 mi northwest of Blairsville, and 1.6 mi southeast of Wadesville.

DRAINAGE AREA.--104 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 370.00 ft above sea level.

REMARKS.--Records fair except those below 1 ft^3/s and for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.61	2.1	6.3	e17	892	104	65	98	8.2	1730	3.1	.16
2	.53	2.1	5.2	242	318	73	47	63	724	4820	2.3	.15
3	.58	4.3	4.1	304	190	54	196	45	90	733	2.0	.14
4	1.4	4.4	3.9	e90	134	37	580	35	41	115	1.8	.14
5	.75	3.3	4.1	e50	91	35	204	129	257	57	1.6	.14
6	4.4	2.6	4.2	46	83	498	742	704	37	36	1.5	.12
7	1590	2.3	269	e37	457	164	208	161	267	25	1.4	.10
8	336	2.2	50	e41	200	131	143	80	35	19	6.7	.09
9	17	2.3	22	e45	134	1710	493	48	16	17	6.6	.08
10	8.5	46	15	e33	98	414	153	36	12	54	2.8	.06
11	5.4	49	12	e30	87	194	104	28	9.7	20	1.8	.05
12	3.7	6.1	11	e100	174	140	58	23	11	15	1.3	.04
13	2.8	4.3	11	538	97	112	49	23	59	12	.99	.03
14	2.3	3.9	9.0	331	68	132	46	18	23	11	.81	.17
15	2.3	3.6	7.6	126	62	244	59	16	8.4	9.7	.62	.53
16	2.0	3.1	7.9	101	54	602	46	14	6.0	8.6	1.2	.49
17	2.0	2.7	7.7	236	52	434	31	15	6.6	35	1.6	.37
18	7.6	2.5	6.8	837	45	179	27	21	3.8	46	1.2	.31
19	19	2.5	6.9	188	39	123	27	14	3.2	10	1.1	.28
20	6.7	9.7	6.8	140	31	98	25	12	3.3	8.3	.78	.33
21	4.2	10	601	390	26	79	25	10	3.2	7.3	.53	.41
22	3.5	4.6	967	3820	22	57	22	9.3	2.8	6.4	.43	.39
23	2.8	3.7	152	3040	27	786	19	9.7	2.3	5.6	.37	.31
24	2.8	3.3	74	362	36	358	15	12	58	8.6	.32	.22
25	2.6	3.5	e43	180	45	167	15	8.6	742	6.3	.27	.17
26	2.4	4.2	e33	136	35	117	129	7.2	79	4.4	.24	.14
27	2.2	4.2	e28	122	54	86	226	6.0	193	3.7	.23	.12
28	2.1	3.3	e25	92	279	66	693	5.5	1050	3.4	.21	.11
29	2.3	2.9	e27	65	---	50	617	5.3	1030	3.3	.20	.14
30	2.3	3.5	e23	55	---	41	163	5.4	107	4.6	.18	.75
31	2.1	---	e19	686	---	44	---	9.3	---	4.9	.16	---
TOTAL	2042.87	202.2	2462.5	12480	3830	7329	5227	1671.3	4888.5	7840.1	44.34	6.54
MEAN	65.9	6.74	79.4	403	137	236	174	53.9	163	253	1.43	.22
MAX	1590	49	967	3820	892	1710	742	704	1050	4820	6.7	.75
MIN	.53	2.1	3.9	17	22	35	15	5.3	2.3	3.3	.16	.03
CFSM	.63	.06	.76	3.87	1.32	2.27	1.68	.52	1.57	2.43	.01	.00
IN.	.73	.07	.88	4.46	1.37	2.62	1.87	.60	1.75	2.80	.02	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1999, BY WATER YEAR (WY)

MEAN	20.2	81.4	130	148	187	219	205	165	93.5	75.2	43.4	26.1
MAX	131	513	710	559	727	581	702	742	347	264	341	233
(WY)	1978	1986	1983	1982	1990	1975	1996	1990	1996	1992	1977	1982
MIN	.019	.96	.30	.13	9.15	14.3	8.73	2.98	.62	.33	.18	.000
(WY)	1969	1966	1966	1977	1992	1981	1981	1988	1988	1994	1988	1983

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1966 - 1999	
ANNUAL TOTAL	46633.85		48024.35			
ANNUAL MEAN	128		132		116	
HIGHEST ANNUAL MEAN					205	1983
LOWEST ANNUAL MEAN					38.7	1987
HIGHEST DAILY MEAN	4090	Apr 16	4820	Jul 2	9400	Apr 29 1996
LOWEST DAILY MEAN	.33	Sep 17	.03	Sep 13	.00	Jul 22 1966
ANNUAL SEVEN-DAY MINIMUM	.35	Sep 11	.06	Sep 7	.00	Jul 29 1966
INSTANTANEOUS PEAK FLOW			6450	Jul 2	10400	Apr 29 1996
INSTANTANEOUS PEAK STAGE			19.03	Jul 2	20.35	Apr 29 1996
ANNUAL RUNOFF (CFSM)	1.23		1.27		1.11	
ANNUAL RUNOFF (INCHES)	16.68		17.18		15.12	
10 PERCENT EXCEEDS	252		289		212	
50 PERCENT EXCEEDS	22		16		17	
90 PERCENT EXCEEDS	1.3		.42		.21	

e Estimated

04092677 GRAND CALUMET RIVER AT INDUSTRIAL HWY AT GARY, IN

LOCATION.--Lat 41°36'29", long 87°23'39", in NW¼NW¼ sec.6, T.37 N., R.8W., Lake County, Hydrologic Unit 04040001, on left bank, 30 feet upstream of U.S. 12 (Industrial Highway), 100 feet streamward of the centerline of Interstate 90, 2,000 feet downstream of Norfolk and Western railroad bridge, 6,000 feet southeast of Gary Airport terminal.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1991 to September 1994, (gage heights only), October 1994 to current year.

GAGE.--Water-stage recorder and Acoustic Velocity Meter. Datum of gage is 580.00 ft above sea level.

REMARKS.--Records good. Discharge is primarily from industrial and city effluent.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	512	470	489	488	525	537	552	609	661	622	588	581
2	511	474	453	483	524	560	538	591	657	596	603	589
3	528	489	476	491	504	526	544	586	625	596	591	596
4	525	506	507	497	501	535	556	589	616	601	564	604
5	514	512	501	515	510	549	546	570	615	594	581	586
6	500	503	552	502	506	544	544	591	596	592	584	585
7	479	520	546	520	514	575	537	595	578	587	580	603
8	481	513	516	510	532	511	548	574	587	578	598	600
9	487	516	499	502	534	483	586	578	571	573	603	585
10	501	553	493	502	518	502	573	573	587	571	606	584
11	498	501	511	497	545	489	575	567	610	563	609	597
12	488	499	505	503	552	477	563	562	607	571	614	611
13	499	518	513	488	550	529	565	553	602	556	598	608
14	483	516	511	498	539	561	515	569	599	532	597	610
15	490	508	512	496	553	554	558	579	582	538	596	619
16	501	503	506	505	535	564	606	577	592	550	602	597
17	506	510	505	514	527	562	600	602	588	532	597	588
18	529	509	504	540	537	553	579	588	588	542	572	585
19	497	488	508	500	545	568	563	574	590	550	640	586
20	484	495	516	487	544	571	576	574	592	553	595	583
21	456	515	520	491	548	565	579	595	599	562	591	592
22	481	528	511	572	539	559	600	603	629	578	591	579
23	490	521	498	593	543	570	627	600	630	584	597	572
24	477	526	487	569	537	562	641	594	624	621	607	593
25	471	497	486	553	534	557	619	600	610	581	618	591
26	487	498	477	545	534	575	604	594	626	583	597	592
27	484	494	476	523	572	577	613	597	650	600	592	608
28	493	492	475	515	547	573	634	593	620	603	594	626
29	486	497	477	531	---	566	618	599	607	589	582	591
30	494	511	503	520	---	566	618	602	593	602	594	569
31	484	---	494	520	---	573	---	606	---	606	593	---
TOTAL	15316	15182	15527	15970	14949	16993	17377	18184	18231	17906	18474	17810
MEAN	494	506	501	515	534	548	579	587	608	578	596	594
MAX	529	553	552	593	572	577	641	609	661	622	640	626
MIN	456	470	453	483	501	477	515	553	571	532	564	569

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1999, BY WATER YEAR (WY)

MEAN	478	475	460	469	474	480	481	477	501	492	512	509
MAX	494	506	501	515	534	548	579	587	608	578	596	594
(WY)	1998	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999
MIN	454	438	425	427	419	404	381	400	459	434	469	478
(WY)	1995	1996	1996	1996	1996	1996	1996	1996	1995	1995	1995	1995

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1995 - 1999	
ANNUAL TOTAL	186105		201919			
ANNUAL MEAN	510		553		484	
HIGHEST ANNUAL MEAN					553	1999
LOWEST ANNUAL MEAN					444	1996
HIGHEST DAILY MEAN	601	May 7	661	Jun 1	661	Jun 1 1999
LOWEST DAILY MEAN	375	Jun 27	453	Dec 2	305	Apr 27 1996
ANNUAL SEVEN-DAY MINIMUM	389	Jun 24	478	Oct 20	361	Apr 25 1996
INSTANTANEOUS PEAK FLOW			841	Jun 1	891	Jul 18 1996
INSTANTANEOUS PEAK STAGE			b2.67	Jun 2	4.81	Jun 13 1994
10 PERCENT EXCEEDS	540		606		563	
50 PERCENT EXCEEDS	511		561		479	
90 PERCENT EXCEEDS	481		491		424	

b backwater

04092750 INDIANA HARBOR CANAL AT EAST CHICAGO, IN

LOCATION.--Lat 41°39'27", long 87°27'21", in NE¼SE¼ sec.16, T.37N., R.9W., Lake County, Hydrologic Unit 04040001, on right bank 1200 ft downstream (northeast) of Dickey Road bridge, 1 mile north of East Chicago, IN., 1.2 miles upstream (southwest) of mouth at Indiana Harbor, 1.3 miles east of Indianapolis Boulevard.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1991 to current year.

REVISED RECORDS.--WDR IN-96-1: Instantaneous peak flow date.

GAGE.--Water-stage recorder, Acoustic Velocity Meter, Doppler Velocity Meter. Datum of gage is 570.00 ft above sea level.

REMARKS.--Records poor. The instantaneous peak stage published for 1998 was affected by backwater.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	702	513	660	591	607	1420	569	1150	e680	e560	718	547
2	612	462	470	585	471	1100	533	1210	690	e1000	622	465
3	586	476	562	573	694	1410	622	1020	734	e800	584	488
4	599	607	545	602	655	1050	611	716	536	e640	448	478
5	563	594	568	680	733	e1090	636	911	605	e600	664	442
6	600	577	670	533	724	e1800	e800	1320	714	e740	484	538
7	523	604	844	659	888	e1400	e680	1150	638	e620	541	632
8	511	581	712	590	730	e1000	e690	1030	633	e800	644	630
9	517	629	636	626	619	e1000	e700	1320	640	958	668	606
10	528	899	579	582	855	e1140	1340	e1100	656	e600	688	595
11	511	578	632	627	1030	e1090	887	e920	650	447	610	591
12	541	554	588	649	893	e1200	1060	e1900	724	e540	670	623
13	547	617	573	642	727	1380	1000	e1600	700	e600	596	698
14	546	565	700	652	677	1360	987	e1350	701	672	624	571
15	569	675	521	693	709	1180	816	e1100	566	546	601	618
16	551	580	e540	714	720	699	1520	e740	554	608	656	495
17	659	611	e560	636	679	809	1530	e1200	618	695	475	480
18	644	638	591	717	669	1950	813	e1000	579	377	567	504
19	575	547	503	e660	691	531	990	e850	594	315	771	449
20	560	567	550	617	787	1160	651	e740	629	e400	591	657
21	441	647	587	604	732	2120	1110	e900	555	e520	505	632
22	619	622	688	858	674	1310	971	e1000	448	662	556	568
23	596	612	605	989	783	1330	1070	e1200	e990	819	613	489
24	543	586	644	827	787	e1100	916	e1100	e640	572	694	578
25	480	570	601	828	1170	e750	841	e950	e860	798	682	579
26	568	604	576	742	1160	673	871	e850	e640	541	528	593
27	599	564	565	705	1280	694	1030	e720	e580	429	603	607
28	592	528	660	774	847	687	1090	608	e800	852	598	749
29	558	628	484	733	---	649	1230	569	e600	381	598	751
30	572	589	651	435	---	615	1100	605	e740	323	600	671
31	553	---	613	505	---	744	---	671	---	793	609	---
TOTAL	17565	17824	18678	20628	21991	34441	27664	31500	19694	19208	18808	17324
MEAN	567	594	603	665	785	1111	922	1016	656	620	607	577
MAX	702	899	844	989	1280	2120	1530	1900	990	1000	771	751
MIN	441	462	470	435	471	531	533	569	448	315	448	442

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1999, BY WATER YEAR (WY)

MEAN	607	650	692	691	683	716	663	682	618	587	600	580
MAX	752	916	1094	963	843	1111	922	1016	724	761	759	759
(WY)	1997	1997	1997	1997	1997	1999	1999	1999	1996	1996	1996	1996
MIN	418	407	429	467	476	508	498	508	439	471	467	416
(WY)	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1997

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1994 - 1999	
ANNUAL TOTAL	184076		265325			
ANNUAL MEAN	504		727		647	
HIGHEST ANNUAL MEAN					727	1999
LOWEST ANNUAL MEAN					462	1998
HIGHEST DAILY MEAN	899	Nov 10	2120	Mar 21	2120	Mar 21 1999
LOWEST DAILY MEAN	309	Jun 27	315	Jul 19	-641	Oct 21 1993
ANNUAL SEVEN-DAY MINIMUM	377	Jun 25	494	Jul 15	-180	Oct 15 1993
INSTANTANEOUS PEAK FLOW			7210	Jun 7	8530	Apr 11 1992
INSTANTANEOUS PEAK STAGE			b11.83	Dec 29	b14.41	Mar 9 1998
10 PERCENT EXCEEDS	609		1100		819	
50 PERCENT EXCEEDS	491		640		638	
90 PERCENT EXCEEDS	417		521		428	

e Estimated
b backwater

04093000 DEEP RIVER AT LAKE GEORGE OUTLET AT HOBART, IN

LOCATION.--Lat 41°32'10", long 87°15'25", in NW¼NW¼ sec.32, T.36 N., R.7 W., Lake County, Hydrologic Unit 04040001, on left bank at upstream side of bridge on Ridge Road in Hobart, 300 ft upstream from Duck Creek, and 400 ft downstream from Lake George Dam.

DRAINAGE AREA.--124 mi².

PERIOD OF RECORD.--April 1947 to current year.

REVISED RECORDS.--WSP 1337: 1953. WSP 1507: 1956. WDR IN-72-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 588.17 ft above sea level (levels by State of Indiana, Department of Natural Resources). Prior to July 29, 1952, nonrecording gage, and July 30, 1952, to July 20, 1955, water-stage recorder at site 400 ft upstream at datum 11.80 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow subject to regulation by operation of Lake George Dam.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	50	24	e26	191	71	50	571	80	70	28	17
2	29	41	26	e25	176	70	50	315	178	114	33	15
3	29	35	24	e24	194	81	50	230	207	82	26	14
4	28	32	23	e24	182	94	54	167	125	52	19	13
5	26	31	26	e24	146	90	58	146	85	33	21	13
6	26	29	70	e25	121	117	67	93	65	22	23	12
7	24	29	215	e25	112	155	59	83	53	20	20	12
8	26	30	251	e26	116	143	51	75	42	18	18	14
9	28	28	156	e26	127	129	169	74	38	16	17	15
10	27	81	97	e26	135	114	98	67	34	12	17	12
11	24	119	74	e27	141	117	76	64	30	12	15	11
12	23	96	62	e27	124	113	112	59	38	12	19	15
13	20	64	54	e28	112	108	104	57	64	11	27	19
14	18	50	50	e28	101	102	88	59	75	11	25	17
15	19	40	46	e29	89	105	101	59	66	10	22	16
16	20	36	42	e30	83	133	312	56	54	10	19	16
17	23	32	40	33	81	383	554	54	43	10	15	16
18	38	27	42	66	75	492	581	49	38	11	15	16
19	46	27	37	106	70	409	500	46	34	11	34	16
20	38	23	39	107	67	251	253	44	30	11	49	13
21	30	22	42	102	63	165	212	41	29	13	37	12
22	26	24	39	352	60	130	296	47	29	13	26	13
23	25	24	e33	1060	56	109	1080	56	30	18	21	14
24	24	22	e31	1650	55	92	1530	75	32	16	24	9.1
25	23	23	e29	1340	55	81	1110	67	33	11	51	11
26	26	24	e28	977	56	72	824	51	32	10	60	15
27	29	35	e30	762	62	66	653	44	60	8.9	46	11
28	59	21	32	639	74	62	797	38	82	9.5	33	18
29	67	23	33	438	---	57	939	35	63	8.9	25	34
30	65	24	e32	336	---	58	773	32	53	7.8	21	46
31	60	---	e28	243	---	54	---	34	---	8.9	18	---
TOTAL	975	1142	1755	8631	2924	4223	11601	2888	1822	673.0	824	475.1
MEAN	31.5	38.1	56.6	278	104	136	387	93.2	60.7	21.7	26.6	15.8
MAX	67	119	251	1650	194	492	1530	571	207	114	60	46
MIN	18	21	23	24	55	54	50	32	29	7.8	15	9.1
CFSM	.25	.31	.46	2.25	.84	1.10	3.12	.75	.49	.18	.21	.13
IN.	.29	.34	.53	2.59	.88	1.27	3.48	.87	.55	.20	.25	.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1999, BY WATER YEAR (WY)

MEAN	57.4	94.0	113	122	148	221	216	151	116	64.7	49.4	48.4
MAX	433	499	393	475	456	688	477	454	557	315	427	312
(WY)	1955	1986	1983	1993	1997	1979	1950	1970	1993	1996	1990	1993
MIN	6.42	10.7	12.5	10.8	14.7	38.3	23.1	21.8	16.4	10.7	8.81	6.91
(WY)	1957	1957	1963	1977	1964	1957	1963	1958	1988	1988	1964	1948

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1948 - 1999	
ANNUAL TOTAL	59776		37933.1			
ANNUAL MEAN	164		104		116	
HIGHEST ANNUAL MEAN					234	1993
LOWEST ANNUAL MEAN					35.3	1963
HIGHEST DAILY MEAN	1780	Mar 19	1650	Jan 24	3900	Nov 28 1990
LOWEST DAILY MEAN	15	Jul 1	7.8	Jul 30	.00	Nov 5 1978
ANNUAL SEVEN-DAY MINIMUM	18	Sep 23	9.3	Jul 25	.04	Aug 29 1996
INSTANTANEOUS PEAK FLOW			1690	Jan 24	4230	Nov 28 1990
INSTANTANEOUS PEAK STAGE			12.17	Jan 24	19.48	Oct 11 1954
ANNUAL RUNOFF (CFSM)	1.32		.84		.94	
ANNUAL RUNOFF (INCHES)	17.93		11.38		12.76	
10 PERCENT EXCEEDS	426		192		277	
50 PERCENT EXCEEDS	64		40		49	
90 PERCENT EXCEEDS	23		15		13	

e Estimated

04093200 LITTLE CALUMET RIVER AT GARY, IN

LOCATION.--Lat 41°34'19", long 87°19'13", in NE$^1/_4$SE$^1/_4$ 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 mi^2, 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, 10.89 ft, Jan. 26; minimum gage height, 7.99 ft, Aug. 5, 6.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.92	8.77	8.68	8.62	9.54	8.72	8.88	9.83	9.02	8.76	8.16	8.52
2	8.99	8.73	8.69	8.62	9.46	8.72	8.86	9.59	9.25	8.83	8.13	8.49
3	9.05	8.69	8.69	8.61	9.39	8.76	8.77	9.40	9.43	8.84	8.11	8.47
4	9.08	8.67	8.69	8.62	9.34	8.78	8.76	9.27	9.42	8.79	8.04	8.44
5	9.08	8.66	8.69	8.68	9.29	8.80	8.75	9.17	9.32	8.73	7.99	8.40
6	9.08	8.65	9.02	8.67	9.23	8.84	8.75	9.14	9.20	8.68	8.02	8.35
7	9.09	8.64	9.24	8.63	9.17	8.88	8.75	9.08	9.09	8.63	8.05	8.31
8	9.08	8.64	9.26	8.62	9.12	8.90	8.75	9.03	8.97	8.59	8.04	8.28
9	9.08	8.63	9.30	8.62	9.09	8.90	8.93	8.93	8.86	8.56	8.02	8.26
10	9.08	8.94	9.30	8.63	9.05	8.91	9.17	8.86	8.80	8.52	8.03	8.22
11	9.08	9.01	9.24	8.63	9.02	8.91	9.31	8.79	8.86	8.49	8.02	8.19
12	9.08	9.01	9.14	8.61	8.99	8.91	9.34	8.77	8.84	8.48	8.10	8.18
13	9.06	8.99	9.04	8.61	8.93	8.93	9.33	8.83	8.86	8.45	8.30	8.20
14	9.05	8.92	8.96	8.62	8.88	8.92	9.27	8.91	8.97	8.41	8.37	8.20
15	9.04	8.88	8.89	8.61	8.84	8.93	9.20	8.92	8.96	8.37	8.38	8.19
16	9.02	8.87	8.85	8.61	8.82	8.97	9.29	8.90	8.90	8.31	8.38	8.16
17	9.04	8.85	8.81	8.68	8.79	9.05	9.48	8.89	8.83	8.27	8.31	8.15
18	9.12	8.82	8.78	8.88	8.76	9.14	9.54	8.87	8.76	8.27	8.28	8.15
19	9.18	8.81	8.74	8.89	8.73	9.19	9.51	8.85	8.69	8.28	8.59	8.15
20	9.18	8.79	8.72	8.88	8.71	9.19	9.43	8.79	8.64	8.30	8.70	8.14
21	9.03	8.76	8.72	8.91	8.69	9.16	9.35	8.74	8.59	8.31	8.69	8.14
22	8.77	8.74	8.74	9.29	8.68	9.11	9.35	8.74	8.60	8.51	8.65	8.13
23	8.70	8.73	8.69	9.53	8.67	9.07	9.66	8.77	8.65	8.59	8.59	8.17
24	8.65	8.72	8.66	9.75	8.65	9.02	10.29	8.81	8.72	8.55	8.57	8.20
25	8.65	8.71	8.65	10.78	8.65	8.97	10.61	8.82	8.70	8.49	8.75	8.23
26	8.67	8.70	8.64	10.87	8.64	8.91	10.17	8.77	8.69	8.46	8.83	8.26
27	8.71	8.68	8.64	10.55	8.65	8.86	9.83	8.73	8.79	8.44	8.80	8.28
28	8.81	8.67	8.64	10.18	8.71	8.83	9.84	8.68	8.79	8.39	8.75	8.49
29	8.75	8.67	8.64	10.02	---	8.83	10.04	8.64	8.72	8.33	8.68	8.77
30	8.81	8.68	8.62	9.82	---	8.90	10.04	8.60	8.67	8.27	8.61	8.83
31	8.81	---	8.62	9.67	---	8.90	---	8.64	---	8.22	8.56	---
MEAN	8.96	8.77	8.84	9.12	8.95	8.93	9.38	8.93	8.89	8.49	8.37	8.30
MAX	9.18	9.01	9.30	10.87	9.54	9.19	10.61	9.83	9.43	8.84	8.83	8.83
MIN	8.65	8.63	8.62	8.61	8.64	8.72	8.75	8.60	8.59	8.22	7.99	8.13

CAL YR 1998 MEAN 8.96 MAX 11.16 MIN 8.41
WTR YR 1999 MEAN 8.82 MAX 10.87 MIN 7.99

04094000 LITTLE CALUMET RIVER AT PORTER, IN

LOCATION.--Lat 41°37'18", long 87°05'13", in NE¼NE¼ sec.34, T.37 N., R.6 W., Porter County, Hydrologic Unit 04040001, on right bank at downstream end of county road bridge, 200 ft upstream from bridge on U.S. Highway 20, 0.8 mi northwest of Porter, and 4.5 mi upstream from Salt Creek.

DRAINAGE AREA.--66.2 mi².

PERIOD OF RECORD.--May 1945 to current year.

REVISED RECORDS.--WSP 1084: 1945. WSP 1337: 1946-47. WDR IN-72-1: Drainage area. WDR IN-83-1: 1982.

GAGE.--Water-stage recorder. Datum of gage is 603.48 ft above sea level. Prior to June 26, 1952, nonrecording gage at same site and datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	56	46	e32	73	66	54	110	61	e150	e36	22
2	37	54	41	e31	82	59	57	92	94	e110	e34	23
3	44	56	40	e31	105	79	57	83	76	e86	e33	24
4	41	58	39	e31	90	80	60	75	56	e68	e32	22
5	39	55	38	e30	73	67	61	69	49	e58	e31	21
6	44	56	53	e30	69	94	58	71	45	e50	e30	21
7	44	62	132	e30	69	102	56	76	42	e45	e30	21
8	43	59	106	e30	85	88	53	68	39	e41	e32	20
9	41	57	69	e30	98	79	79	64	40	e38	e31	21
10	39	86	54	e30	89	75	82	60	39	e36	e30	21
11	38	102	47	e29	80	71	97	56	37	e35	e30	21
12	37	69	44	e29	97	68	93	54	39	e35	e30	21
13	38	55	40	e29	91	67	76	54	43	e38	e38	23
14	38	54	40	e29	72	63	69	53	51	e38	e41	22
15	38	50	40	e29	67	67	66	53	45	e36	e35	20
16	39	44	39	e30	66	85	130	53	40	e33	e32	20
17	40	43	38	e32	69	188	167	50	39	e33	e30	20
18	45	41	38	e35	64	254	123	49	37	e35	e34	20
19	46	41	39	e39	58	137	101	49	37	e35	e40	20
20	45	40	41	e46	55	101	86	46	36	e40	e40	19
21	44	39	41	83	53	86	85	44	35	e106	e37	20
22	46	39	41	221	50	77	101	46	34	e70	e36	21
23	47	39	35	654	47	72	516	50	35	e58	e36	21
24	49	38	e34	637	46	67	620	61	35	e50	e40	20
25	48	38	e34	350	47	66	268	54	42	e43	e70	20
26	47	39	e33	181	49	63	136	53	38	e40	48	20
27	47	38	e33	126	60	61	111	48	64	e40	32	20
28	53	38	e34	118	69	60	331	44	50	e41	27	21
29	53	38	e34	103	---	59	385	42	43	e38	26	28
30	65	40	e34	88	---	56	162	41	e36	e35	24	30
31	61	---	e33	79	---	54	---	43	---	e35	23	---
TOTAL	1376	1524	1410	3272	1973	2611	4340	1811	1357	1596	1068	643
MEAN	44.4	50.8	45.5	106	70.5	84.2	145	58.4	45.2	51.5	34.5	21.4
MAX	65	102	132	654	105	254	620	110	94	150	70	30
MIN	37	38	33	29	46	54	53	41	34	33	23	19
CFSM	.67	.77	.69	1.59	1.06	1.27	2.19	.88	.68	.78	.52	.32
IN.	.77	.86	.79	1.84	1.11	1.47	2.44	1.02	.76	.90	.60	.36

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1999, BY WATER YEAR (WY)

MEAN	58.5	76.7	80.5	81.5	94.9	123	119	88.6	73.8	48.2	43.2	43.7
MAX	414	285	186	202	208	319	292	277	272	190	277	143
(WY)	1955	1991	1966	1993	1997	1982	1947	1996	1993	1981	1990	1972
MIN	22.3	27.4	24.5	27.0	30.9	52.9	44.6	33.5	25.6	22.2	23.1	21.4
(WY)	1964	1954	1964	1977	1964	1964	1963	1958	1965	1988	1964	1953

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1946 - 1999	
ANNUAL TOTAL	30350		22981			
ANNUAL MEAN	83.2		63.0		77.5	
HIGHEST ANNUAL MEAN					124	1991
LOWEST ANNUAL MEAN					36.5	1964
HIGHEST DAILY MEAN	730	Mar 19	654	Jan 23	3040	Nov 28 1990
LOWEST DAILY MEAN	30	Sep 5	19	Sep 20	17	Aug 24 1965
ANNUAL SEVEN-DAY MINIMUM	31	Sep 9	20	Sep 15	19	Aug 20 1965
INSTANTANEOUS PEAK FLOW			896	Apr 23	3880	Nov 28 1990
INSTANTANEOUS PEAK STAGE			8.06	Apr 23	11.66	Oct 10 1954
ANNUAL RUNOFF (CFSM)	1.26		.95		1.17	
ANNUAL RUNOFF (INCHES)	17.05		12.91		15.90	
10 PERCENT EXCEEDS	148		97		142	
50 PERCENT EXCEEDS	51		45		50	
90 PERCENT EXCEEDS	33		29		28	

e Estimated

04095090 BURNS DITCH AT PORTAGE, IN

LOCATION.--Lat 41°37'53", long 86°10'35", in $SE^{1}/_{4}NW^{1}/_{4}$ sec. 25, T.37 N., R.7 W., Porter County, Hydrologic Unit 04040001, 400 feet south of mouth, 400 feet east of an industrial access road at an industrial footbridge over Burns Ditch, 4,000 feet west of Burns Waterway Harbor west shore, and 4,700 ft north of U.S. 12 bridge over Burns Ditch.

DRAINAGE AREA.--331 mi^2.

PERIOD OF RECORD.--February 2, 1995 to current year.

GAGE.--Water-stage recorder and Acoustic Velocity Meter. Datum of gage is 575 ft above sea level from topographic map.

REMARKS.--Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	221	145	165	160	412	293	208	879	263	258	283	188
2	160	153	122	133	441	242	232	642	392	319	219	190
3	170	152	147	166	467	334	225	429	410	512	211	197
4	158	153	130	188	442	377	238	405	336	575	189	196
5	126	117	131	187	390	303	258	342	313	491	207	155
6	145	140	173	146	348	343	285	303	282	467	193	181
7	153	117	381	176	325	426	277	336	263	472	195	174
8	166	95	349	155	314	427	295	273	241	435	210	167
9	150	127	270	178	354	352	390	274	226	415	175	156
10	128	222	229	153	366	382	390	238	206	369	199	145
11	99	254	209	158	392	459	339	237	216	395	190	149
12	118	210	176	162	415	464	407	253	222	326	181	138
13	141	197	171	166	412	426	405	232	218	350	176	165
14	130	159	182	165	341	410	343	246	241	329	230	144
15	121	178	151	180	304	444	283	234	248	318	191	145
16	110	139	157	168	300	460	504	243	212	258	184	156
17	116	166	166	162	311	641	766	299	226	329	185	149
18	129	151	152	240	312	782	801	297	193	384	168	140
19	128	140	159	279	287	691	735	240	168	266	226	121
20	133	150	150	280	243	555	589	225	183	329	224	184
21	133	147	167	247	257	460	468	207	166	270	206	174
22	144	124	187	467	253	417	519	215	182	274	193	143
23	113	109	161	1020	259	400	1130	222	186	289	175	123
24	99	110	160	1330	259	393	1740	238	191	314	192	155
25	84	96	139	1330	280	329	1420	239	202	285	225	150
26	120	114	139	1160	270	376	1170	219	196	243	288	134
27	132	104	147	972	296	337	876	208	241	256	250	132
28	169	101	170	839	273	267	993	198	208	228	234	170
29	140	120	149	741	---	291	1240	201	267	238	197	244
30	177	130	199	558	---	295	1080	180	210	227	169	196
31	173	---	162	475	---	283	---	180	---	242	184	---
TOTAL	4286	4320	5550	12741	9323	12659	18606	8934	7108	10463	6349	4861
MEAN	138	144	179	411	333	408	620	288	237	338	205	162
MAX	221	254	381	1330	467	782	1740	879	410	575	288	244
MIN	84	95	122	133	243	242	208	180	166	227	168	121

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1999, BY WATER YEAR (WY)

MEAN	229	357	371	435	437	529	574	685	650	433	376	253
MAX	368	512	494	587	754	759	880	1286	963	637	505	398
(WY)	1995	1995	1995	1998	1997	1998	1995	1996	1996	1996	1995	1995
MIN	107	144	179	231	255	321	358	288	237	214	205	147
(WY)	1996	1999	1999	1996	1996	1996	1997	1999	1999	1997	1999	1997

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1995 - 1999	
ANNUAL TOTAL	169901		105200			
ANNUAL MEAN	465		288		444	
HIGHEST ANNUAL MEAN					522	1995
LOWEST ANNUAL MEAN					288	1999
HIGHEST DAILY MEAN	1830	Mar 19	1740	Apr 24	8000	May 10 1996
LOWEST DAILY MEAN	84	Oct 25	84	Oct 25	83	Oct 16 1995
ANNUAL SEVEN-DAY MINIMUM	108	Nov 23	108	Nov 23	95	Oct 13 1995
INSTANTANEOUS PEAK FLOW			2010	Apr 24	2110	May 31 1998
INSTANTANEOUS PEAK STAGE			7.05	Dec 29	10.19	Mar 9 1998
10 PERCENT EXCEEDS	799		467		761	
50 PERCENT EXCEEDS	401		224		375	
90 PERCENT EXCEEDS	139		133		160	

04095380 TRAIL CREEK AT MICHIGAN CITY HARBOR, IN

LOCATION.--Lat 41°43'22", long 86°54'15", sec. 29, T.38 N., R.4 W., LaPorte County, Hydrologic Unit 04040001, 2000 ft north of Michigan Street, 2,600 ft southeast of lake end of west breakwater, 1/2 mi southwest of Washington Park, 3000 ft downstream of U.S. Hwy 12 bridge in Michigan City.

DRAINAGE AREA.--59.1 mi^2.

PERIOD OF RECORD.--October 1994 to current year.

GAGE.--Water-stage recorder and Acoustic Velocity Meter. Datum of gage is 575 ft above sea level from topographic map.

REMARKS.--Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e124	e128	e111	e131	e130	e88	e198	e150	e135	131	109	90
2	e145	e129	e133	e144	e150	e92	e160	e140	e132	144	104	116
3	e135	e123	e107	e207	e130	e90	e140	e140	e130	183	110	98
4	e148	e144	e131	e279	e110	e90	e120	e135	e130	275	149	84
5	e144	e115	e139	e259	e130	e90	e100	e125	e150	172	127	109
6	e143	e128	e151	e286	e110	e90	e98	e160	e140	165	146	112
7	e133	e137	e157	e189	e100	e90	e95	e200	e130	323	135	132
8	e137	e145	e131	e332	e90	e90	e100	e330	e120	294	146	128
9	e160	e145	e120	e134	e86	e367	e120	e280	e110	170	131	110
10	e134	e163	e128	e130	e130	e274	e130	e200	e130	156	121	89
11	e127	e156	e173	e120	e150	e146	e100	e160	e140	161	143	88
12	e131	e156	e168	e125	e114	e105	e100	e140	e170	152	84	93
13	e146	e119	e144	e130	e88	e100	e96	e132	e220	135	122	93
14	e141	e141	e131	e140	e89	e98	e110	e130	e170	129	118	117
15	e121	e151	e120	e130	e90	e95	e160	e127	e150	149	137	117
16	e106	e182	e120	e115	e92	e90	e140	e125	e130	112	130	95
17	e87	e138	e120	e112	e94	e90	e130	e120	e120	127	123	87
18	e104	e122	e130	e110	e130	e195	e100	e140	e140	131	109	96
19	e95	e151	e134	e108	e140	e178	e115	e160	e160	143	138	97
20	e122	e136	e154	e105	e120	e150	e100	e170	e140	140	135	133
21	e111	e132	e127	e103	e110	e145	e130	e150	e130	133	99	147
22	e100	e150	e130	e110	e90	e130	e140	e155	e120	156	124	122
23	e92	e147	e168	e120	e90	e110	e160	e140	e115	135	143	98
24	e105	e146	e134	e110	e88	e100	e120	e160	109	116	135	101
25	e120	e131	e168	e100	e90	e95	e105	e180	142	126	160	90
26	e140	e124	e60	e96	e98	e90	e145	e160	134	105	131	122
27	e159	e122	e137	e105	e90	e100	e130	e150	83	104	114	115
28	e150	e125	e141	e100	e88	e100	e120	e140	82	109	116	111
29	e122	e125	e134	e110	---	e110	e130	e150	95	96	110	114
30	e129	e112	e195	e120	---	e130	e140	e140	142	106	95	120
31	e141	---	e173	e117	---	e150	---	e137	---	84	93	---
TOTAL	3952	4123	4269	4477	3017	3868	3732	4926	3999	4662	3837	3224
MEAN	127	137	138	144	108	125	124	159	133	150	124	107
MAX	160	182	195	332	150	367	198	330	220	323	160	147
MIN	87	112	60	96	86	88	95	120	82	84	84	84

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1998, BY WATER YEAR (WY)

MEAN	124	155	163	147	131	149	154	156	127	137	125	102
MAX	127	173	185	176	155	162	170	159	133	150	126	107
(WY)	1998	1995	1997	1995	1995	1997	1995	1998	1998	1998	1995	1998
MIN	122	137	138	121	108	125	124	153	122	125	124	97.1
(WY)	1995	1998	1998	1997	1998	1998	1998	1995	1995	1995	1998	1995

e Estimated

04095380 TRAIL CREEK AT MICHIGAN CITY HARBOR, IN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	106	126	e105	132	149	134	161	176	224	111	67
2	86	97	113	e100	153	122	135	144	207	156	84	74
3	73	102	123	e120	162	167	133	173	142	130	80	91
4	81	112	e118	e120	142	129	e150	168	123	128	75	101
5	127	89	e115	130	133	112	e170	166	135	137	91	103
6	131	108	e200	105	121	168	e160	152	129	114	75	102
7	122	111	e170	133	125	141	127	169	105	123	81	79
8	123	117	e140	108	140	116	112	145	114	112	84	96
9	120	114	e130	130	139	110	152	127	114	93	100	98
10	121	190	124	107	128	118	131	113	114	130	104	77
11	123	132	119	112	140	151	151	134	127	100	108	77
12	130	120	115	99	e200	143	142	152	138	82	109	86
13	125	125	104	116	e160	130	129	137	137	85	124	106
14	127	120	122	107	e140	127	120	125	137	107	100	76
15	121	129	114	117	e120	143	121	125	129	114	103	78
16	123	115	120	110	e110	162	213	144	127	119	109	74
17	113	115	140	114	e150	258	195	135	118	117	78	72
18	124	122	122	221	e120	192	156	123	115	113	97	75
19	105	118	117	177	e115	158	144	107	111	112	106	68
20	120	116	116	154	e108	144	137	123	112	120	64	116
21	114	134	103	149	e128	140	133	121	114	118	87	102
22	126	119	154	364	e117	141	180	113	123	123	94	87
23	107	122	120	523	e130	127	518	147	130	126	83	81
24	102	116	e110	368	124	118	317	153	122	117	161	92
25	109	122	e100	214	134	107	199	120	120	114	215	91
26	122	133	e100	174	121	119	161	125	135	113	122	108
27	127	122	e115	161	126	117	151	118	188	104	124	97
28	107	112	e130	162	136	128	318	127	122	106	117	109
29	111	123	e110	138	---	124	218	123	127	108	113	118
30	129	125	e140	119	---	127	163	130	116	110	98	107
31	121	---	e110	113	---	136	---	147	---	110	75	---
TOTAL	3598	3586	3840	4970	3754	4324	5270	4247	3907	3665	3172	2708
MEAN	116	120	124	160	134	139	176	137	130	118	102	90.3
MAX	131	190	200	523	200	258	518	173	207	224	215	118
MIN	73	89	100	99	108	107	112	107	105	82	64	67

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1999, BY WATER YEAR (WY)

MEAN	122	143	153	150	132	147	159	150	128	131	117	98.3
MAX	127	173	185	176	155	162	176	159	133	150	126	107
(WY)	1998	1995	1997	1995	1995	1997	1999	1998	1998	1998	1995	1998
MIN	116	120	124	121	108	125	124	137	122	118	102	90.3
(WY)	1999	1999	1999	1997	1998	1998	1998	1999	1995	1999	1999	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1994 - 1999	
ANNUAL TOTAL	46766		47041			
ANNUAL MEAN	128		129		135	
HIGHEST ANNUAL MEAN					145	1995
LOWEST ANNUAL MEAN					129	1999
HIGHEST DAILY MEAN	367	Mar 9	523	Jan 23	4150	Apr 19 1996
LOWEST DAILY MEAN	73	Oct 3	64	Aug 20	-185	Jan 12 1997
ANNUAL SEVEN-DAY MINIMUM	90	Feb 27	78	Sep 13	-28	Jan 12 1997
INSTANTANEOUS PEAK FLOW			2360	Jul 3	2740	Apr 11 1995
INSTANTANEOUS PEAK STAGE			7.69	Oct 1	7.88	Jan 20 1995
10 PERCENT EXCEEDS	160		162		200	
50 PERCENT EXCEEDS	122		122		131	
90 PERCENT EXCEEDS	92		94		95	

e Estimated

04096100 GALENA RIVER NEAR LAPORTE, IN

LOCATION.--Lat 41°44'54", long 86°40'30", in SE$^1/_4$NW$^1/_4$ 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 south of Indiana-Michigan State line, and 9.8 mi north of Courthouse in LaPorte.

DRAINAGE AREA.--17.2 mi^2, of which 2.30 mi^2 does not contribute directly to surface runoff.

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

REVISED RECORDS.--WDR IN-80-1: 1970, 1971(P), 1972, 1973, 1974(P), 1975 (M), 1976 (P), and 1978 (P).

GAGE.--Water-stage recorder. Datum of gage is 625.00 ft above 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	22	17	e12	30	28	18	29	23	48	11	10
2	18	21	16	e12	37	26	18	26	31	36	11	9.2
3	23	20	16	e12	37	34	19	24	25	25	11	8.8
4	20	20	15	e11	31	28	24	22	21	20	10	8.5
5	21	20	15	e11	29	27	22	21	19	18	9.8	8.2
6	24	22	33	e11	29	36	22	22	18	16	9.5	8.4
7	28	21	84	e10	29	33	20	23	17	15	9.8	8.6
8	18	21	36	e10	32	27	19	21	16	14	10	8.3
9	16	21	28	e10	33	27	47	20	15	13	9.9	10
10	14	43	26	e10	29	26	38	19	15	13	9.7	9.0
11	14	33	24	e10	29	25	38	18	14	12	9.5	8.0
12	14	24	23	e11	37	24	31	18	16	12	9.9	7.9
13	14	22	21	e12	30	23	26	17	18	13	13	8.9
14	14	20	21	e12	27	23	24	16	21	12	13	8.6
15	14	19	20	e13	27	24	25	16	18	11	11	8.5
16	14	19	20	e14	27	32	63	16	16	10	10	8.5
17	15	18	21	e15	28	60	44	16	15	10	10	8.5
18	18	17	20	e23	26	44	33	17	14	12	10	8.6
19	18	17	22	e26	25	33	30	18	14	11	14	8.3
20	17	16	22	e22	24	29	27	16	14	13	13	8.5
21	17	16	e18	33	23	26	28	14	13	36	12	8.7
22	18	16	e15	189	21	24	41	15	13	21	11	8.7
23	18	15	e13	263	21	23	207	17	12	19	12	8.7
24	17	15	e13	134	20	22	89	21	14	18	15	8.6
25	17	15	e13	65	21	21	46	17	14	15	39	8.9
26	17	15	e13	47	22	21	35	15	13	14	23	8.9
27	18	15	e13	42	29	20	32	14	23	13	18	9.3
28	21	15	e13	41	30	20	83	13	18	13	15	11
29	21	15	e13	35	---	19	44	13	16	13	13	17
30	26	16	e12	32	---	19	33	12	14	12	11	15
31	23	---	e12	31	---	18	---	13	---	11	11	---
TOTAL	566	589	648	1179	783	842	1226	559	510	519	395.1	278.1
MEAN	18.3	19.6	20.9	38.0	28.0	27.2	40.9	18.0	17.0	16.7	12.7	9.27
MAX	28	43	84	263	37	60	207	29	31	48	39	17
MIN	14	15	12	10	20	18	18	12	12	10	9.5	7.9
CFSM	1.06	1.14	1.22	2.21	1.63	1.58	2.38	1.05	.99	.97	.74	.54
IN.	1.22	1.27	1.40	2.55	1.69	1.82	2.65	1.21	1.10	1.12	.85	.60

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1999, BY WATER YEAR (WY)

MEAN	22.6	30.5	30.6	28.0	31.5	37.9	34.6	27.4	24.2	17.8	16.0	16.8
MAX	43.8	64.4	51.8	54.5	65.3	70.1	56.0	65.5	69.7	39.0	28.5	32.6
(WY)	1991	1991	1973	1998	1997	1982	1970	1996	1993	1996	1996	1993
MIN	14.8	16.8	15.6	15.0	19.2	19.4	18.2	15.5	12.3	10.3	9.71	9.27
(WY)	1990	1981	1990	1976	1980	1981	1971	1992	1971	1988	1970	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1970 - 1999	
ANNUAL TOTAL	10017		8094.2			
ANNUAL MEAN	27.4		22.2		26.4	
HIGHEST ANNUAL MEAN					35.4	1993
LOWEST ANNUAL MEAN					21.0	1977
HIGHEST DAILY MEAN	174	Jan 9	263	Jan 23	650	Nov 28 1990
LOWEST DAILY MEAN	11	Aug 2	7.9	Sep 12	6.7	Sep 13 1973
ANNUAL SEVEN-DAY MINIMUM	12	Aug 16	8.4	Sep 11	7.6	Aug 27 1970
INSTANTANEOUS PEAK FLOW			332	Jan 22	900	Nov 28 1990
INSTANTANEOUS PEAK STAGE			5.53	Jan 22	7.04	Jun 8 1993
ANNUAL RUNOFF (CFSM)	1.60		1.29		1.54	
ANNUAL RUNOFF (INCHES)	21.66		17.51		20.88	
10 PERCENT EXCEEDS	42		33		42	
50 PERCENT EXCEEDS	21		18		21	
90 PERCENT EXCEEDS	13		10		12	

e Estimated

04099510 PIGEON CREEK NEAR ANGOLA, IN

LOCATION.--Lat 41°38'04", long 85°06'35", in NW$^1/_4$SE$^1/_4$ sec.26, T.37 N., R.12 E., Steuben County, Hydrologic Unit 04050001, on left bank 5 ft upstream from bridge on U.S. Highway 20, 1.3 mi downstream from outlet of Hogback Lake, 1.3 mi southeast of Flint, and 5.8 mi west of Angola.

DRAINAGE AREA.--106 mi^2, of which 22.5 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1945 to current year. Prior to October 1947, published as "near Flint". Published as Pigeon Creek at Hogback Lake Outlet near Angola, October 1947 to September 1971, and Pigeon Creek and Hogback Lake near Angola, October 1971 to September 1974.

REVISED RECORDS.--WSP 1144: 1948. WSP 2111: Drainage area. WDR IN 92-1: 1991.

GAGE.--Water-stage recorder. Datum of gage is 940.00 ft above sea level. Prior to October 1947, nonrecording gage at site 0.3 mi downstream at different datum. Oct. 1947 to Aug. 3, 1953, nonrecording gage at site 1.2 mi upstream at same datum. Aug. 4, 1953, to Apr. 3, 1974, recording gage at site 1.3 mi upstream at same datum. Apr. 18, 1974, to Sept. 2, 1974, nonrecording gage at same site and datum.

REMARKS.--Records fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	30	46	35	340	103	92	218	111	53	30	23
2	28	29	46	39	298	112	90	190	129	52	28	22
3	29	29	47	42	267	124	88	169	140	50	27	22
4	28	28	48	37	240	144	92	152	138	48	28	21
5	28	28	47	33	220	158	95	139	128	46	28	20
6	29	27	47	32	202	162	97	130	116	44	28	20
7	39	28	49	32	189	157	98	121	105	42	28	20
8	46	27	52	33	179	149	98	113	94	40	29	19
9	53	26	54	34	170	143	105	107	86	38	29	18
10	55	31	55	33	167	134	122	101	80	37	28	18
11	54	41	54	33	170	127	151	96	74	35	27	17
12	50	49	53	34	171	121	185	91	73	34	27	17
13	46	55	50	34	169	116	204	87	84	33	28	16
14	43	57	48	33	164	112	205	84	81	33	28	16
15	41	57	46	32	156	107	192	81	76	32	28	16
16	38	56	45	32	148	105	197	78	71	32	29	16
17	37	54	43	32	141	108	223	77	67	31	28	16
18	36	53	42	36	134	132	242	98	63	31	28	15
19	35	51	42	43	128	170	243	120	60	31	29	15
20	34	50	42	55	122	196	227	130	57	31	28	16
21	34	48	42	66	116	198	207	130	55	31	28	16
22	34	48	42	92	111	187	196	130	52	34	28	16
23	33	46	43	174	106	171	243	136	50	37	28	16
24	32	44	43	333	101	155	335	149	49	38	28	16
25	31	44	43	462	99	141	388	160	49	37	29	17
26	31	41	42	536	95	130	406	159	47	36	31	16
27	31	44	41	558	95	120	392	150	48	35	33	16
28	30	47	40	542	97	112	350	136	48	34	31	14
29	30	46	39	502	---	105	299	122	51	33	28	21
30	31	45	37	447	---	100	253	110	52	32	26	23
31	30	---	36	392	---	96	---	106	---	31	25	---
TOTAL	1125	1259	1404	4818	4595	4195	6115	3870	2334	1151	878	534
MEAN	36.3	42.0	45.3	155	164	135	204	125	77.8	37.1	28.3	17.8
MAX	55	57	55	558	340	198	406	218	140	53	33	23
MIN	28	26	36	32	95	96	88	77	47	31	25	14
CFSM	.43	.50	.54	1.86	1.97	1.62	2.44	1.50	.93	.44	.34	.21
IN.	.50	.56	.63	2.15	2.05	1.87	2.72	1.72	1.04	.51	.39	.24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1999, BY WATER YEAR (WY)

MEAN	34.6	54.3	76.9	96.9	108	161	165	115	80.2	50.1	37.9	32.7
MAX	154	195	195	385	257	437	491	423	362	164	126	119
(WY)	1955	1993	1968	1993	1959	1982	1950	1996	1996	1981	1981	1981
MIN	4.12	4.51	7.20	7.95	8.55	20.4	48.1	29.8	21.6	10.8	8.12	5.83
(WY)	1965	1965	1964	1964	1963	1964	1946	1963	1988	1963	1964	1963

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1946 - 1999	
ANNUAL TOTAL	39524		32278			
ANNUAL MEAN	108		88.4		84.2	
HIGHEST ANNUAL MEAN					151	1950
LOWEST ANNUAL MEAN					19.5	1964
HIGHEST DAILY MEAN	639	Jan 11	558	Jan 27	996	May 21 1996
LOWEST DAILY MEAN	26	Nov 9	14	Sep 28	3.4	Oct 25 1964
ANNUAL SEVEN-DAY MINIMUM	28	Nov 3	16	Sep 13	3.5	Oct 22 1964
INSTANTANEOUS PEAK FLOW			560	Jan 27	1000	May 21 1996
INSTANTANEOUS PEAK STAGE			9.77	Jan 27	13.90	Mar 22 1982
ANNUAL RUNOFF (CFSM)	1.30		1.06		1.01	
ANNUAL RUNOFF (INCHES)	17.61		14.38		13.71	
10 PERCENT EXCEEDS	261		189		189	
50 PERCENT EXCEEDS	57		48		55	
90 PERCENT EXCEEDS	31		27		17	

04099750 PIGEON RIVER NEAR SCOTT, IN

LOCATION.--Lat 41°44'56", long 85°34'35", in SE$^1/_4$NW$^1/_4$ 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 mi^2 of which 53.9 mi^2 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 except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	180	213	269	e190	1160	442	368	931	446	386	176	161
2	191	207	314	e200	1080	445	362	821	424	456	169	155
3	192	198	264	e185	1020	472	359	743	447	410	160	149
4	191	190	246	e175	951	517	434	678	440	358	153	147
5	184	185	249	e168	843	512	512	607	426	321	172	143
6	180	182	259	e164	767	544	455	567	409	278	171	143
7	348	180	293	e161	734	559	422	554	385	259	167	141
8	405	170	283	e159	717	541	412	515	350	258	171	137
9	293	152	264	e158	687	533	499	488	335	236	164	132
10	273	206	254	e157	662	521	640	461	306	223	157	130
11	261	348	248	e156	654	502	674	433	301	218	160	127
12	251	335	243	e155	634	478	688	398	308	212	156	127
13	241	277	237	e154	616	459	668	374	320	201	162	126
14	233	234	230	e153	582	442	662	368	336	192	165	125
15	225	237	222	e152	560	428	671	358	340	184	159	124
16	216	260	216	e151	536	404	786	346	322	173	157	122
17	210	250	216	e150	535	451	908	340	304	166	153	123
18	212	240	212	e160	514	521	867	386	287	179	144	122
19	214	235	215	e190	477	548	821	412	273	179	151	123
20	205	228	222	e240	463	561	811	421	262	175	162	122
21	199	219	227	e320	443	582	798	427	259	173	154	121
22	204	200	232	e420	421	572	789	469	250	203	152	122
23	202	204	e220	e750	390	565	982	540	233	202	155	121
24	198	223	e208	1090	384	539	1250	568	252	196	158	119
25	196	214	e200	1240	385	509	1290	580	306	184	213	119
26	200	220	e192	1270	380	481	1240	541	304	180	332	120
27	203	234	e184	1300	388	430	1220	524	358	172	214	118
28	204	221	e179	1340	426	425	1170	510	405	171	189	125
29	206	208	e175	1340	---	411	1110	484	378	176	194	161
30	215	226	e172	1290	---	393	1030	456	359	168	181	175
31	218	---	e170	1230	---	378	---	452	---	162	171	---
TOTAL	6950	6696	7115	14968	17409	15165	22898	15752	10125	7051	5342	3980
MEAN	224	223	230	483	622	489	763	508	338	227	172	133
MAX	405	348	314	1340	1160	582	1290	931	447	456	332	175
MIN	180	152	170	150	380	378	359	340	233	162	144	118
CFSM	.73	.73	.75	1.57	2.03	1.59	2.49	1.66	1.10	.74	.56	.43
IN.	.84	.81	.86	1.81	2.11	1.84	2.77	1.91	1.23	.85	.65	.48

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1999, BY WATER YEAR (WY)

MEAN	223	302	369	410	439	602	604	459	385	264	223	206
MAX	575	684	719	1169	836	1389	1089	976	1103	654	516	538
(WY)	1987	1993	1983	1993	1969	1982	1978	1996	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	1996	1971	1971	1988	1988	1988	1971

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1968 - 1999	
ANNUAL TOTAL	152166		133451			
ANNUAL MEAN	417		366		372	
HIGHEST ANNUAL MEAN					545	1993
LOWEST ANNUAL MEAN					207	1972
HIGHEST DAILY MEAN	1510	Jan 9	1340	Jan 28	2340	Mar 21 1982
LOWEST DAILY MEAN	140	Aug 1	118	Sep 27	42	Oct 21 1971
ANNUAL SEVEN-DAY MINIMUM	151	Jul 30	120	Sep 21	69	Aug 27 1971
INSTANTANEOUS PEAK FLOW			1350	Jan 29	2370	Mar 21 1982
INSTANTANEOUS PEAK STAGE			6.28	Jan 29	7.85	Mar 21 1982
ANNUAL RUNOFF (CFSM)	1.36		1.19		1.21	
ANNUAL RUNOFF (INCHES)	18.44		16.17		16.48	
10 PERCENT EXCEEDS	813		687		689	
50 PERCENT EXCEEDS	289		258		300	
90 PERCENT EXCEEDS	184		154		149	

e Estimated

04099808 LITTLE ELKHART RIVER AT MIDDLEBURY, IN

LOCATION.--Lat 41°40'31", long 85°42'01", in NE¼SE¼ sec.10, T.37 N., R.7 E., Elkhart County, Hydrologic Unit 04050001, on left bank 15 ft downstream from bridge on County Road 16, 0.1 mi east of Middlebury, and 1.7 mi downstream from Rowe Eden Ditch.

DRAINAGE AREA.--97.6 mi^2, of which 5.89 mi^2 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.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	79	96	e52	169	153	104	156	97	114	53	42
2	83	78	86	e44	180	140	103	148	97	114	50	40
3	87	77	82	e45	179	185	105	141	92	95	47	41
4	85	76	80	e44	162	155	158	136	88	85	44	39
5	84	75	78	e43	149	145	147	131	86	79	46	41
6	94	74	83	e43	150	162	128	137	84	76	43	41
7	193	73	93	e43	152	152	117	132	82	72	43	40
8	157	73	85	e42	160	141	112	127	80	68	48	40
9	128	73	82	e42	196	138	210	123	79	64	46	41
10	115	103	80	e42	177	134	205	118	77	64	45	40
11	107	121	78	e41	163	129	205	114	75	60	45	40
12	102	103	77	e43	163	125	180	111	77	58	45	40
13	99	96	75	e42	150	122	156	110	79	59	49	41
14	96	92	74	e41	142	119	143	107	80	56	51	40
15	93	89	73	e40	141	118	141	104	76	55	49	40
16	90	87	72	e42	140	125	277	102	75	53	46	39
17	88	84	73	e45	139	198	234	101	73	56	44	39
18	92	82	72	e54	133	211	191	118	69	56	44	39
19	89	81	75	e77	129	163	182	107	68	56	51	39
20	86	80	74	114	125	149	164	99	68	55	50	38
21	87	78	78	108	121	141	155	95	65	55	48	38
22	86	77	78	317	117	133	206	119	62	58	47	39
23	84	77	74	789	114	127	714	119	61	55	47	38
24	82	76	73	635	113	123	443	150	61	53	48	38
25	81	78	72	369	114	119	300	128	63	51	49	38
26	80	81	71	278	112	115	249	114	62	52	49	37
27	80	77	71	249	126	113	218	105	91	50	48	37
28	81	75	70	239	155	110	197	99	93	49	47	39
29	79	74	70	207	---	107	179	95	93	52	46	50
30	84	78	e65	188	---	105	165	92	82	51	45	47
31	81	---	e60	176	---	104	---	98	---	50	43	---
TOTAL	2958	2467	2370	4534	4071	4261	6088	3636	2335	1971	1456	1201
MEAN	95.4	82.2	76.5	146	145	137	203	117	77.8	63.6	47.0	40.0
MAX	193	121	96	789	196	211	714	156	97	114	53	50
MIN	79	73	60	40	112	104	103	92	61	49	43	37
CFSM	1.04	.90	.83	1.59	1.59	1.50	2.21	1.28	.85	.69	.51	.44
IN.	1.20	1.00	.96	1.84	1.65	1.73	2.47	1.48	.95	.80	.59	.49

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1999, BY WATER YEAR (WY)

MEAN	79.4	99.2	111	119	126	150	140	111	104	72.7	64.7	62.9
MAX	172	202	207	307	280	404	210	264	278	189	160	118
(WY)	1991	1986	1991	1993	1985	1982	1985	1996	1993	1981	1998	1981
MIN	36.0	38.6	42.9	53.8	58.4	57.9	81.5	55.3	36.7	37.9	39.9	38.3
(WY)	1995	1981	1990	1981	1996	1996	1996	1988	1988	1988	1987	1994

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1980 - 1999	
ANNUAL TOTAL	46559		37348			
ANNUAL MEAN	128		102		103	
HIGHEST ANNUAL MEAN					155	1993
LOWEST ANNUAL MEAN					70.1	1995
HIGHEST DAILY MEAN	766	Jan 8	789	Jan 23	2040	Feb 24 1985
LOWEST DAILY MEAN	52	Jul 31	37	Sep 26	24	Jul 9 1988
ANNUAL SEVEN-DAY MINIMUM	54	Jul 28	38	Sep 21	26	Jul 3 1988
INSTANTANEOUS PEAK FLOW			1080	Apr 23	2470	Feb 24 1985
INSTANTANEOUS PEAK STAGE			8.60	Apr 23	10.52	Feb 24 1985
ANNUAL RUNOFF (CFSM)	1.39		1.12		1.12	
ANNUAL RUNOFF (INCHES)	18.89		15.15		15.28	
10 PERCENT EXCEEDS	203		164		171	
50 PERCENT EXCEEDS	96		82		81	
90 PERCENT EXCEEDS	72		43		45	

e Estimated

04099850 PINE CREEK NEAR ELKHART, IN

LOCATION.--Lat 41°40'53", long 85°52'57", in NE¼NW¼ sec.7, T.37 N., R.6 E., Elkhart County, Hydrologic Unit 04050001, on right bank 50 ft upstream from bridge on County Road 14, 0.3 mi east of the intersection of County Roads 17 and 14, and 3.1 mi east of Elkhart.

DRAINAGE AREA.--31.0 mi^2, of which 8.75 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 755.00 ft above sea level.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	11	12	e8.8	27	27	18	26	18	40	11	6.7
2	11	11	12	e9.5	31	24	18	25	19	27	10	6.5
3	12	11	11	e9.0	30	32	18	24	18	19	10	6.3
4	11	11	11	e8.6	27	26	28	23	17	17	9.3	6.1
5	11	11	11	e8.5	24	24	25	22	17	16	7.3	6.0
6	11	11	12	e8.4	25	31	21	22	16	15	6.5	5.9
7	19	11	20	e8.3	25	27	20	21	16	14	7.3	6.0
8	14	11	15	e8.2	27	25	19	21	16	13	7.1	5.9
9	13	11	13	e8.1	39	24	46	20	15	13	7.5	5.8
10	12	14	12	e8.0	35	23	38	20	15	11	7.4	5.7
11	12	16	12	e7.9	30	22	36	19	15	11	7.6	5.6
12	12	13	12	e7.8	31	22	30	19	17	11	7.6	5.6
13	11	13	11	e7.7	27	21	26	19	24	9.8	8.6	5.6
14	11	12	11	e7.6	25	21	23	18	26	9.4	8.3	5.6
15	11	12	11	e7.5	25	21	23	18	21	8.9	7.9	5.6
16	11	12	10	e7.6	25	22	78	18	20	8.2	7.5	5.6
17	11	12	10	e8.0	26	43	47	18	19	8.4	6.8	5.6
18	11	11	10	e8.3	24	39	35	20	19	9.3	6.1	5.5
19	11	11	10	e9.2	23	28	34	19	18	11	8.0	5.4
20	11	11	11	e10	22	25	29	18	18	9.0	7.9	5.3
21	11	11	11	e13	21	24	28	17	18	9.2	7.6	5.4
22	11	11	11	85	20	23	40	24	18	11	7.4	5.5
23	11	11	e10	225	20	22	248	22	17	11	7.4	5.5
24	11	11	e9.9	169	20	21	129	31	18	9.6	7.8	5.3
25	11	11	e9.8	63	20	20	53	23	19	8.1	8.9	5.4
26	11	11	e9.7	46	20	20	42	20	17	8.1	8.4	5.3
27	11	11	9.8	41	22	19	36	18	18	6.6	8.0	5.1
28	11	11	9.7	40	26	19	34	18	19	7.8	7.3	5.7
29	11	11	9.7	33	---	18	31	17	24	13	6.8	8.3
30	12	11	9.3	30	---	18	28	17	20	11	6.9	8.0
31	11	---	e9.1	27	---	18	---	19	---	10	6.9	---
TOTAL	359	346	346.0	939.0	717	749	1281	636	552	386.4	243.1	175.8
MEAN	11.6	11.5	11.2	30.3	25.6	24.2	42.7	20.5	18.4	12.5	7.84	5.86
MAX	19	16	20	225	39	43	248	31	26	40	11	8.3
MIN	11	11	9.1	7.5	20	18	18	17	15	6.6	6.1	5.1
CFSM	.37	.37	.36	.98	.83	.78	1.38	.66	.59	.40	.25	.19
IN.	.43	.42	.42	1.13	.86	.90	1.54	.76	.66	.46	.29	.21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1999, BY WATER YEAR (WY)

MEAN	15.2	17.6	20.7	20.9	22.5	27.4	27.0	22.2	22.6	16.3	13.7	12.7
MAX	42.4	32.8	52.7	45.6	47.6	82.3	42.7	50.7	68.1	39.2	26.7	23.7
(WY)	1991	1986	1991	1993	1985	1982	1999	1996	1993	1981	1997	1981
MIN	6.32	7.39	6.93	7.02	9.41	9.78	14.5	11.8	7.79	6.58	6.75	5.86
(WY)	1996	1981	1990	1996	1996	1996	1995	1995	1988	1988	1988	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1980 - 1999	
ANNUAL TOTAL	7974.1		6730.3			
ANNUAL MEAN	21.8		18.4		19.9	
HIGHEST ANNUAL MEAN					30.1	1993
LOWEST ANNUAL MEAN					12.6	1995
HIGHEST DAILY MEAN	199	Apr 10	248	Apr 23	532	Dec 30 1990
LOWEST DAILY MEAN	7.3	Jul 31	5.1	Sep 27	3.6	Feb 5 1996
ANNUAL SEVEN-DAY MINIMUM	7.5	Jul 29	5.4	Sep 21	4.1	Feb 1 1996
INSTANTANEOUS PEAK FLOW			323	Apr 23	607	Dec 30 1990
INSTANTANEOUS PEAK STAGE			6.17	Apr 23	9.74	Jul 26 1981
ANNUAL RUNOFF (CFSM)	.70		.59		.64	
ANNUAL RUNOFF (INCHES)	9.57		8.08		8.71	
10 PERCENT EXCEEDS	35		30		32	
50 PERCENT EXCEEDS	16		12		16	
90 PERCENT EXCEEDS	11		7.2		7.9	

e Estimated

04100222 NORTH BRANCH ELKHART RIVER AT COSPERVILLE, IN

LOCATION.--Lat 41°28'54", long 858'32", in NE¼NW¼ sec.22, T.35 N., R.9 E., Noble County, Hydrologic Unit 04050001, on right bank at downstream side of bridge on County Road 900 North at Cosperville, 1,300 ft downstream from Boyd Ditch, 1.7 mi upstream from Hustin Ditch, and 3.1 mi downstream from Waldron Lake.

DRAINAGE AREA.--142 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 880.12 ft above sea level (levels by State of Indiana, Department of Natural Resources).

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow regulated at times by dam at Waldron Lake.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	58	68	e52	378	150	130	423	176	91	17	20
2	43	61	69	e58	366	157	122	390	174	97	35	19
3	43	62	70	e60	355	174	118	361	173	97	35	24
4	42	60	70	e55	339	185	123	340	168	96	14	22
5	41	59	70	e52	325	190	128	321	161	94	7.6	8.8
6	42	58	70	e50	313	201	125	306	150	91	7.2	6.2
7	59	58	72	e50	304	206	124	292	141	87	8.2	6.2
8	65	57	73	e50	296	207	122	277	132	80	11	7.1
9	65	55	72	e49	287	211	147	263	122	72	11	7.4
10	63	64	71	e49	280	209	169	249	112	66	11	7.4
11	61	73	70	e49	271	206	199	232	103	60	11	7.2
12	60	81	69	e48	263	199	223	216	99	54	11	7.0
13	58	82	68	e48	258	192	233	203	115	49	15	6.5
14	56	81	66	e48	249	186	235	189	122	25	22	6.0
15	55	80	65	e47	239	178	237	176	120	24	25	5.8
16	52	78	63	e47	231	174	266	163	115	31	29	5.6
17	51	76	63	e50	221	183	286	151	108	27	27	5.4
18	50	74	63	e58	212	196	295	160	101	17	25	5.0
19	50	71	64	e68	205	202	301	172	95	29	27	4.8
20	49	69	66	e88	190	202	302	173	88	32	27	4.9
21	47	67	68	e97	179	199	302	169	81	31	21	5.4
22	47	66	68	139	168	196	320	169	75	31	24	5.6
23	45	63	e70	229	158	192	425	174	69	31	24	5.0
24	45	62	e69	305	149	186	517	205	76	31	25	5.4
25	44	62	69	343	144	180	553	221	82	30	28	6.1
26	43	64	66	363	138	173	558	223	66	29	29	6.1
27	44	65	64	378	136	166	549	217	77	29	32	6.9
28	46	64	63	390	142	159	530	209	80	28	30	11
29	48	65	61	395	---	151	497	199	82	13	28	21
30	51	65	58	394	---	144	460	187	84	11	25	29
31	55	---	55	388	---	137	---	181	---	14	23	---
TOTAL	1566	2000	2073	4497	6796	5691	8596	7211	3347	1497	665.0	287.8
MEAN	50.5	66.7	66.9	145	243	184	287	233	112	48.3	21.5	9.59
MAX	65	82	73	395	378	211	558	423	176	97	35	29
MIN	41	55	55	47	136	137	118	151	66	11	7.2	4.8
CFSM	.36	.47	.47	1.02	1.71	1.29	2.02	1.64	.79	.34	.15	.07
IN.	.41	.52	.54	1.18	1.78	1.49	2.25	1.89	.88	.39	.17	.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1999, BY WATER YEAR (WY)

MEAN	81.0	118	142	165	160	258	248	174	145	87.1	64.2	65.1
MAX	272	314	341	542	272	553	530	354	405	211	171	161
(WY)	1987	1973	1986	1993	1990	1985	1985	1996	1996	1981	1997	1972
MIN	17.8	17.8	46.5	42.2	43.2	118	133	67.2	18.1	16.4	18.3	9.59
(WY)	1975	1972	1972	1977	1972	1996	1987	1988	1988	1988	1978	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1972 - 1999	
ANNUAL TOTAL	57168		44226.8			
ANNUAL MEAN	157		121		142	
HIGHEST ANNUAL MEAN					222	1993
LOWEST ANNUAL MEAN					85.7	1972
HIGHEST DAILY MEAN	688	Jan 11	558	Apr 26	916	Mar 22 1982
LOWEST DAILY MEAN	25	Jun 8	4.8	Sep 19	2.2	Jul 7 1988
ANNUAL SEVEN-DAY MINIMUM	28	Jul 30	5.2	Sep 17	2.8	Jul 3 1988
INSTANTANEOUS PEAK FLOW			561	Apr 26	919	Mar 23 1982
INSTANTANEOUS PEAK STAGE			7.21	Apr 26	8.12	Mar 23 1982
ANNUAL RUNOFF (CFSM)	1.10		.85		1.00	
ANNUAL RUNOFF (INCHES)	14.98		11.59		13.60	
10 PERCENT EXCEEDS	358		289		301	
50 PERCENT EXCEEDS	83		70		111	
90 PERCENT EXCEEDS	45		15		31	

e Estimated

04100252 FORKER CREEK NEAR BURR OAK, IN

LOCATION.--Lat 41°19'58", long 85°25'25", in SE¼NE¼ sec.12, T.33 N., R.9 E., Noble County, Hydrologic Unit 04050001, on right bank 300 ft downstream from bridge on State Highway 9, and 400 ft downstream from Miller Lake Outlet, 0.8 mi northeast of Burr Oak, and 4.5 mi south of Albion.

DRAINAGE AREA.--19.2 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 889.00 ft above 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.75	.84	1.9	1.2	25	34	e9.5	27	9.0	1.8	.58	.59
2	.84	.85	1.5	e1.3	23	37	e9.3	22	11	1.8	.60	.57
3	.73	.78	1.4	e1.5	22	47	e9.2	18	11	1.8	.46	.56
4	.67	.80	1.4	e1.1	20	53	e10	16	10	1.8	.23	.54
5	.62	.80	1.3	e.95	18	46	12	13	9.2	1.6	.34	.53
6	.73	.85	1.4	e1.0	16	43	13	12	8.3	1.3	.53	.59
7	.60	.76	2.4	e.92	16	38	13	e11	7.5	1.0	.58	.59
8	.67	.69	1.9	e.91	15	33	13	e10	6.6	.90	.40	.62
9	.82	.64	1.7	e.90	16	31	15	e9.5	6.0	.81	.42	.61
10	.80	1.1	1.5	e.86	20	27	22	e8.9	5.6	.73	.40	.65
11	.82	3.8	1.4	e.86	21	24	30	e8.3	5.3	.64	.43	.60
12	.64	5.9	1.3	e.91	21	22	37	e7.7	5.1	.60	.57	.59
13	.71	6.4	1.2	e.87	20	21	35	8.2	5.5	.58	.35	.61
14	.74	6.0	1.0	e.79	18	20	30	7.7	5.2	.63	.36	.66
15	.67	5.2	.95	e.74	16	19	26	7.2	4.8	.54	.41	.65
16	.72	4.5	1.0	e.70	14	19	36	6.8	4.7	.52	.50	.52
17	.78	3.4	1.3	e.74	13	23	54	7.0	4.3	.51	.51	.51
18	.98	2.6	1.3	e1.2	12	34	55	14	3.7	.41	.53	.48
19	.99	1.7	1.5	e2.5	12	37	46	12	3.4	.42	.42	.50
20	.99	1.4	1.5	e7.0	11	32	38	10	3.1	.50	.39	.44
21	1.1	1.2	2.4	9.4	11	28	33	8.5	2.7	.37	.40	.47
22	.92	1.0	e2.2	25	e10	24	30	9.5	2.4	.35	.30	.42
23	.89	.86	e1.9	117	e9.5	21	87	10	2.3	.48	.29	.36
24	.87	.93	e1.8	198	e9.2	18	139	15	2.2	.42	.39	.38
25	.79	1.3	e1.7	154	e9.0	16	112	16	2.2	.45	.43	.34
26	.73	2.1	e1.7	104	e9.4	13	79	15	2.1	.54	.50	.36
27	.84	2.2	e1.6	74	13	12	58	13	2.2	.66	.51	.30
28	.89	1.8	1.6	56	24	e11	54	11	2.0	.64	.59	.40
29	.84	1.8	1.8	45	---	e10	43	9.0	1.9	.68	.58	.36
30	.87	1.7	1.7	36	---	e9.9	34	8.1	1.8	.69	.68	.34
31	.85	---	1.6	30	---	e9.7	---	8.6	---	.71	.61	---
TOTAL	24.86	63.90	48.85	875.35	444.1	812.6	1182.0	360.0	151.1	24.88	14.29	15.14
MEAN	.80	2.13	1.58	28.2	15.9	26.2	39.4	11.6	5.04	.80	.46	.50
MAX	1.1	6.4	2.4	198	25	53	139	27	11	1.8	.68	.66
MIN	.60	.64	.95	.70	9.0	9.7	9.2	6.8	1.8	.35	.23	.30
CFSM	.04	.11	.08	1.47	.83	1.37	2.05	.60	.26	.04	.02	.03
IN.	.05	.12	.09	1.70	.86	1.57	2.29	.70	.29	.05	.03	.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1999, BY WATER YEAR (WY)

MEAN	7.44	13.7	18.9	18.7	24.1	35.8	34.1	19.2	19.7	9.16	5.03	5.28
MAX	50.6	48.8	52.5	67.1	62.5	111	60.5	41.9	90.7	49.5	36.4	33.4
(WY)	1991	1989	1978	1993	1985	1982	1978	1996	1981	1986	1990	1990
MIN	.31	.25	1.58	1.22	2.96	11.1	9.61	4.70	1.98	.41	.25	.23
(WY)	1995	1995	1999	1977	1979	1996	1971	1988	1988	1971	1971	1978

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1970 - 1999	
ANNUAL TOTAL	5408.65		4017.07			
ANNUAL MEAN	14.8		11.0		17.5	
HIGHEST ANNUAL MEAN					29.0	1982
LOWEST ANNUAL MEAN					9.49	1979
HIGHEST DAILY MEAN	169	Jan 9	198	Jan 24	431	Feb 25 1985
LOWEST DAILY MEAN	.58	Sep 20	.23	Aug 4	.10	Nov 12 1994
ANNUAL SEVEN-DAY MINIMUM	.61	Sep 6	.35	Sep 24	.12	Oct 2 1996
INSTANTANEOUS PEAK FLOW			206	Jan 24	480	Feb 24 1985
INSTANTANEOUS PEAK STAGE			5.71	Jan 24	7.03	Dec 30 1990
ANNUAL RUNOFF (CFSM)	.77		.57		.91	
ANNUAL RUNOFF (INCHES)	10.48		7.78		12.42	
10 PERCENT EXCEEDS	38		30		44	
50 PERCENT EXCEEDS	6.4		1.8		9.1	
90 PERCENT EXCEEDS	.74		.49		.79	

e Estimated

04100295 RIMMELL BRANCH NEAR ALBION, IN

LOCATION.--Lat 41°23'07", long 85°22'14", in NE¼SE¼ sec.21, T.34 N., R.10 E., Noble County, Hydrologic Unit 04050001, on right bank 900 ft downstream from culvert on County Road 300 East, 0.75 mi south of State Highway 8, and 3.0 mi east of intersection of State Highway 9 and State Highway 8 in Albion.

DRAINAGE AREA.--10.7 mi^2.

PERIOD OF RECORD.--November 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 934.49 ft above sea level.

REMARKS.--Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.23	.53	1.5	e1.0	13	21	6.5	12	7.9	3.1	.25	e.13
2	.22	.52	1.4	e.92	14	21	6.4	11	11	2.5	.20	e.13
3	.27	.43	1.4	e.98	14	47	6.4	9.8	11	1.9	.18	e.12
4	.27	.43	1.3	e.90	12	24	7.6	8.8	8.6	1.6	.18	e.12
5	.24	.43	1.2	e.87	10	18	7.3	8.0	7.5	1.3	.18	e.11
6	.30	.41	1.2	e.79	10	25	7.1	7.3	6.7	1.1	.18	e.10
7	2.6	.41	2.2	e.78	10	e17	6.7	6.3	6.1	.91	.17	e.09
8	1.6	.56	2.3	e.76	11	e14	6.6	5.5	5.6	.78	.18	e.09
9	.79	.64	1.9	e.75	19	13	18	5.0	5.2	.79	.16	e.08
10	.54	6.7	1.6	e.74	16	12	16	4.3	5.0	.74	.16	e.08
11	.44	7.1	1.4	e.73	13	e11	57	3.7	4.7	.60	.16	e.07
12	.40	3.1	1.3	e.72	e12	e10	36	3.6	5.3	.50	e.15	e.07
13	.35	2.0	1.2	e.71	e11	e9.2	26	4.5	18	.44	e.17	e.08
14	.34	1.6	1.2	e.70	10	8.7	22	3.9	10	.40	e.20	e.07
15	.34	1.4	1.0	e.69	9.2	8.6	22	3.6	7.3	.35	e.19	e.06
16	.32	1.2	1.0	e.68	8.9	13	77	3.4	6.2	.30	e.18	e.06
17	.31	1.1	1.0	e.90	8.6	36	51	12	5.5	.29	e.17	.05
18	.41	.97	1.0	e2.3	8.0	27	36	54	4.8	.29	e.17	.05
19	.42	.89	1.2	e10	7.6	17	33	21	4.4	.29	.21	.04
20	.37	.87	1.4	e12	7.1	14	27	13	4.0	.35	.20	.04
21	.37	.81	2.3	e20	e6.8	12	25	9.4	3.7	.32	.18	.03
22	.40	.76	e2.5	e80	e6.4	10	41	11	3.4	.36	.16	e.03
23	.35	.76	e1.7	e100	e6.0	9.4	155	22	3.2	.34	.16	e.03
24	.36	.67	e1.6	76	e5.8	8.7	71	42	2.9	.24	.20	e.03
25	.36	.97	e1.5	51	e5.6	8.1	46	21	2.7	.22	.34	e.02
26	.36	2.2	e1.5	38	e5.8	7.7	31	14	2.5	.20	.23	e.02
27	.38	1.7	e1.4	30	11	7.4	22	10	4.3	.22	.22	e.02
28	.47	1.4	e1.4	25	24	7.2	19	8.2	4.3	.21	.18	e.07
29	.44	1.2	e1.3	19	---	6.9	16	7.1	3.8	.29	.16	1.1
30	.64	1.2	e1.2	16	---	6.7	14	6.5	2.9	.22	e.15	.70
31	.63	---	e1.1	14	---	6.7	---	8.1	---	.22	e.14	---
TOTAL	15.52	42.96	45.2	506.92	295.8	457.3	915.6	360.0	178.5	21.37	5.76	3.69
MEAN	.50	1.43	1.46	16.4	10.6	14.8	30.5	11.6	5.95	.69	.19	.12
MAX	2.6	7.1	2.5	100	24	47	155	54	18	3.1	.34	1.1
MIN	.22	.41	1.0	.68	5.6	6.7	6.4	3.4	2.5	.20	.14	.02
CFSM	.05	.13	.14	1.53	.99	1.38	2.85	1.09	.56	.06	.02	.01
IN.	.05	.15	.16	1.76	1.03	1.59	3.18	1.25	.62	.07	.02	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1999, BY WATER YEAR (WY)

MEAN	5.33	10.4	11.7	12.3	16.3	20.2	18.5	11.4	10.4	4.93	2.44	2.14
MAX	26.8	34.3	38.7	46.2	44.8	69.9	31.8	36.0	39.1	33.0	16.1	12.7
(WY)	1991	1993	1991	1993	1985	1982	1981	1996	1981	1986	1990	1992
MIN	.16	.29	1.00	2.27	3.97	4.56	5.94	2.05	.72	.38	.19	.12
(WY)	1995	1995	1990	1981	1995	1996	1986	1985	1988	1994	1999	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1981 - 1999	
ANNUAL TOTAL	2987.30		2848.62			
ANNUAL MEAN	8.18		7.80		10.5	
HIGHEST ANNUAL MEAN					15.1	1993
LOWEST ANNUAL MEAN					6.55	1994
HIGHEST DAILY MEAN	159	Jan 8	155	Apr 23	349	Jul 16 1986
LOWEST DAILY MEAN	.22	Oct 2	.02	Sep 25	.02	Sep 25 1999
ANNUAL SEVEN-DAY MINIMUM	.24	Sep 20	.03	Sep 21	.03	Sep 21 1999
INSTANTANEOUS PEAK FLOW			202	Apr 23	418	Jul 16 1986
INSTANTANEOUS PEAK STAGE			b9.79	Jan 22	12.82	Apr 14 1981
ANNUAL RUNOFF (CFSM)	.76		.73		.98	
ANNUAL RUNOFF (INCHES)	10.39		9.90		13.27	
10 PERCENT EXCEEDS	17		21		23	
50 PERCENT EXCEEDS	3.3		1.6		4.3	
90 PERCENT EXCEEDS	.37		.16		.50	

e Estimated
b Backwater from ice jam.

04100377 SOLOMON CREEK NEAR SYRACUSE, IN

LOCATION.--Lat 41°27'30", long 85°43'12", in NW¼SE¼ 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 mi^2.

PERIOD OF RECORD.--October 1987 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	18	19	e16	55	37	26	62	43	51	19	11
2	16	18	19	e18	55	37	26	58	46	50	19	11
3	17	18	18	e16	55	54	31	55	45	46	18	11
4	17	17	18	e15	51	53	46	53	44	43	18	13
5	16	17	18	e15	47	49	49	50	43	42	15	12
6	19	17	18	e15	46	55	43	47	42	41	11	13
7	28	17	19	e14	45	53	39	44	42	40	11	14
8	25	17	19	e14	46	51	37	42	41	34	11	13
9	23	17	18	e14	50	50	70	40	42	29	13	13
10	22	21	18	e14	47	46	76	38	41	33	13	13
11	22	23	18	e14	47	42	83	37	42	31	13	13
12	21	22	18	e13	47	40	76	35	42	27	13	13
13	21	21	18	e13	44	37	67	33	53	24	15	13
14	21	21	17	e13	41	36	63	33	54	22	16	13
15	21	21	17	e13	40	34	61	31	50	23	14	13
16	21	21	17	e14	38	35	76	30	48	22	16	13
17	21	20	17	e15	37	54	79	30	46	23	15	13
18	21	20	17	e16	35	59	73	34	45	24	11	13
19	20	19	17	e18	33	53	75	33	44	23	14	13
20	20	19	17	e20	32	49	70	31	43	22	16	13
21	20	19	18	e35	30	46	68	30	38	19	16	13
22	19	18	19	e86	29	42	91	33	35	18	16	13
23	19	18	e19	e185	28	39	219	42	32	18	16	13
24	19	17	e18	143	27	37	167	80	34	17	17	13
25	19	18	e17	116	27	35	122	65	47	15	18	13
26	18	18	17	95	26	33	101	55	44	15	17	13
27	18	18	17	83	28	31	87	49	51	14	17	13
28	19	18	17	75	34	30	85	44	53	15	17	13
29	18	18	16	67	---	29	74	41	53	19	16	16
30	19	18	e15	61	---	27	66	40	50	18	14	16
31	18	---	e15	57	---	26	---	43	---	18	11	---
TOTAL	615	564	545	1303	1120	1299	2246	1338	1333	836	466	390
MEAN	19.8	18.8	17.6	42.0	40.0	41.9	74.9	43.2	44.4	27.0	15.0	13.0
MAX	28	23	19	185	55	59	219	80	54	51	19	16
MIN	16	17	15	13	26	26	26	30	32	14	11	11
CFSM	.55	.52	.49	1.16	1.11	1.16	2.07	1.20	1.23	.75	.42	.36
IN.	.63	.58	.56	1.34	1.15	1.34	2.31	1.38	1.37	.86	.48	.40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1999, BY WATER YEAR (WY)

MEAN	24.9	32.5	34.2	46.1	39.9	46.0	51.8	41.8	50.1	30.2	21.7	21.0
MAX	61.5	60.1	60.3	94.8	56.6	75.4	85.8	59.4	82.3	56.3	33.2	36.5
(WY)	1991	1993	1991	1993	1997	1998	1998	1990	1993	1997	1990	1990
MIN	11.2	14.0	14.8	21.5	21.8	21.6	25.7	24.4	16.5	12.1	10.5	11.7
(WY)	1996	1988	1990	1996	1996	1996	1996	1989	1988	1988	1988	1994

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1988 - 1999	
ANNUAL TOTAL	16122		12055			
ANNUAL MEAN	44.2		33.0		36.6	
HIGHEST ANNUAL MEAN					53.2	1993
LOWEST ANNUAL MEAN					24.2	1988
HIGHEST DAILY MEAN	242	Jan 8	219	Apr 23	256	Jun 9 1993
LOWEST DAILY MEAN	15	Dec 30	11	Aug 6	7.9	Aug 9 1988
ANNUAL SEVEN-DAY MINIMUM	16	Dec 25	12	Aug 31	9.0	Aug 8 1988
INSTANTANEOUS PEAK FLOW			255	Apr 23	333	Jun 8 1993
INSTANTANEOUS PEAK STAGE			5.62	Apr 23	6.35	Jun 8 1993
ANNUAL RUNOFF (CFSM)	1.22		.91		1.01	
ANNUAL RUNOFF (INCHES)	16.61		12.42		13.79	
10 PERCENT EXCEEDS	81		57		63	
50 PERCENT EXCEEDS	34		22		31	
90 PERCENT EXCEEDS	18		13		15	

e Estimated

04100500 ELKHART RIVER AT GOSHEN, IN

LOCATION.--Lat 41°35'36", long 85°50'55", in NE¼NE¼ sec.8, T.36 N., R.6 E., Elkhart County, Hydrologic Unit 04050001, on right bank 20 ft downstream from River Avenue bridge at Goshen, 0.4 mi upstream from Rock Run, and at mile 16.1.

DRAINAGE AREA.--594 mi².

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

REVISED RECORDS.--WSP 1337: 1939(M). WSP 1557: 1954. WSP 2111: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 769.43 ft above sea level. Prior to Nov. 20, 1931, nonrecording gage at same site and datum.

REMARKS.--Records poor. Occasional low-flow regulation at Goshen Dam, 3.4 mi upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e190	e250	e330	e200	e1360	e797	e586	e1560	e755	e717	e370	e190
2	e185	e240	e310	e180	e1340	e761	e574	e1440	e785	e914	e310	e182
3	e190	e230	e290	e165	e1320	e897	e567	e1340	e800	e648	e280	e177
4	e185	e225	e260	e155	e1240	e961	e720	e1240	e709	e570	e260	e173
5	e180	e220	e240	e150	e1150	e847	e813	e1140	e647	e542	e245	e172
6	e220	e215	e250	e150	e1090	e964	e718	e1080	e603	e531	e225	e161
7	e300	e215	e300	e150	e1060	e1040	e658	e1020	e562	e516	e219	e146
8	e390	e220	e350	e150	e1070	e955	e628	e953	e522	e492	e214	e139
9	e345	e240	e330	e150	e1160	e930	e881	e900	e497	e478	e215	e128
10	e315	e280	e300	e150	e1110	e903	e1300	e850	e479	e447	e213	e118
11	e300	e370	e285	e150	e1010	e874	e1700	e800	e454	e432	e213	e122
12	e270	e350	e270	e150	e974	e849	e1290	e769	e442	e429	e214	e123
13	e240	e330	e250	e150	e935	e815	e1060	e736	e458	e411	e210	e125
14	e220	e310	e240	e150	e890	e782	e978	e700	e580	e394	e202	e125
15	e210	e285	e235	e150	e870	e761	e960	e657	e800	e370	e200	e138
16	e200	e270	e230	e155	e849	e753	e1200	e611	e540	e342	e203	e139
17	e190	e255	e230	e180	e816	e960	e1410	e592	e499	e337	e200	e130
18	e210	e250	e230	e240	e776	e1240	e1250	e684	e484	e339	e195	e120
19	e230	e240	e250	e350	e744	e1020	e1210	e674	e472	e329	e218	e115
20	e215	e230	e300	e400	e713	e867	e1180	e643	e470	e314	e234	e110
21	e210	e220	e270	e500	e677	e832	e1140	e634	e481	e312	e223	e110
22	e205	e215	e250	e869	e639	e798	e1520	e714	e470	e301	e217	e105
23	e205	e210	e225	e2170	e608	e775	e2760	e768	e450	e298	e212	e100
24	e200	e210	e220	e2960	e579	e758	e3300	e1140	e467	e300	e228	e95
25	e200	e210	e215	e2260	e569	e735	e2480	e1210	e576	e290	e270	e92
26	e200	e215	e210	e1780	e552	e716	e2060	e971	e564	e273	e266	e91
27	e210	e210	e210	e1620	e583	e695	e1870	e871	e569	e265	e257	e88
28	e215	e205	e220	e1610	e739	e674	e1840	e820	e661	e277	e240	e85
29	e230	e200	e230	e1580	---	e648	e1920	e778	e711	e283	e227	e172
30	e250	e230	e220	e1490	---	e623	e1740	e733	e649	e300	e213	e192
31	e260	---	e210	e1420	---	e600	---	e740	---	e330	e196	---
TOTAL	7170	7350	7960	21934	25423	25830	40313	27768	17156	12781	7189	3963
MEAN	231	245	257	708	908	833	1344	896	572	412	232	132
MAX	390	370	350	2960	1360	1240	3300	1560	800	914	370	192
MIN	180	200	210	150	552	600	567	592	442	265	195	85
CFSM	.39	.41	.43	1.19	1.53	1.40	2.26	1.51	.96	.69	.39	.22
IN.	.45	.46	.50	1.37	1.59	1.62	2.52	1.74	1.07	.80	.45	.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1999, BY WATER YEAR (WY)

MEAN	313	395	500	606	699	946	951	713	514	362	273	252
MAX	1652	1132	1276	2058	1657	2497	2424	2354	1521	1079	712	784
(WY)	1955	1973	1983	1993	1959	1982	1950	1943	1996	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1932 - 1999	
ANNUAL TOTAL	236816		204837			
ANNUAL MEAN	649		561		543	
HIGHEST ANNUAL MEAN					1005	1950
LOWEST ANNUAL MEAN					197	1964
HIGHEST DAILY MEAN	3180	Jan 9	3300	Apr 24	6010	Feb 24 1985
LOWEST DAILY MEAN	180	Oct 5	85	Sep 28	7.0	Aug 11 1964
ANNUAL SEVEN-DAY MINIMUM	189	Sep 29	94	Sep 22	50	Sep 21 1941
INSTANTANEOUS PEAK FLOW			3530	Apr 24	6360	Feb 24 1985
INSTANTANEOUS PEAK STAGE			8.11	Apr 24	11.94	Mar 14 1982
INSTANTANEOUS LOW FLOW			85	Sep 28	7.0	Aug 11 1964
ANNUAL RUNOFF (CFSM)	1.09		.94		.91	
ANNUAL RUNOFF (INCHES)	14.83		12.83		12.41	
10 PERCENT EXCEEDS	1410		1170		1120	
50 PERCENT EXCEEDS	390		350		392	
90 PERCENT EXCEEDS	215		163		157	

e Estimated

04101000 ST. JOSEPH RIVER AT ELKHART, IN

LOCATION.--Lat 41°41'30", long 85°58'30", in SW¼NE¼ sec.5, T.37 N., R.5 E., Elkhart County, Hydrologic Unit 04050001, on left bank 200 ft downstream from Elkhart River, 200 ft upstream from Main Street bridge in Elkhart, 2,000 ft downstream from Christiana Creek, 0.5 mi downstream from Elkhart Hydroelectric Plant, and at mile 76.5.

DRAINAGE AREA.--3,370 mi^2.

PERIOD OF RECORD.--August 1947 to current year. Gage heights at site 0.8 mi downstream at different datum from September 1924 to March 1926 are available from the district office.

REVISED RECORDS.--WSP 2111: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 700.00 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are poor. The flow is regulated by Elkhart Hydroelectric Plant.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1660	1810	2030	e1560	7050	3750	3260	7430	3420	3250	1390	1300
2	1600	1960	2070	e1550	6850	3840	3240	6590	3580	3810	1310	1220
3	1700	1950	2050	e1540	6670	4090	3190	6160	3530	3660	1260	1140
4	1660	1840	2000	e1540	6390	4210	3470	5810	3300	3560	1240	1140
5	1640	1560	2120	e1530	5920	4050	3870	5510	3210	3410	1230	1030
6	1720	1780	2110	e1520	5830	4420	3940	5160	3090	3140	1190	1020
7	2270	1770	2420	e1520	5640	4470	3910	4640	3020	2860	1190	1030
8	2670	1720	2610	e1510	5500	4160	3790	4510	2910	2640	1240	1140
9	2540	1750	2430	e1510	5500	4110	4160	4280	2770	2320	1210	1110
10	2450	2010	2540	e1500	5450	3950	4920	4210	2620	2340	1220	1010
11	2320	2250	2400	e1490	5150	4030	5250	4030	2380	2240	1220	1070
12	2400	2280	2220	e1490	5180	4000	5530	3870	2340	1940	1230	1060
13	2180	2280	2440	e1490	5040	3890	5380	3770	2690	2000	1260	978
14	2040	2340	2210	e1480	4890	3760	5180	3660	2630	1880	1430	927
15	1930	2300	2340	e1480	4790	3710	5100	3540	2660	1730	1370	957
16	1950	2140	2130	e1480	4570	3670	5750	3350	2520	1560	1290	1060
17	1910	2260	2110	e1490	4240	3920	6250	3280	2480	1560	1250	1050
18	1850	2150	2050	e1560	4380	4620	6070	3570	2440	1460	1180	1030
19	2080	2090	2300	e1760	4200	4620	5940	3510	2340	1410	1280	889
20	1960	2030	2000	e2150	4200	4440	5780	3500	2290	1490	1150	921
21	1810	2010	2210	e2700	3950	4400	5570	3360	2060	1500	1170	1060
22	1810	1870	2240	e3500	3800	4330	5750	3640	2070	1600	1080	884
23	1910	1980	1950	e5600	3680	4220	8000	3640	1930	1720	1220	1000
24	1900	2030	1800	7830	3550	4170	10000	4050	1770	1740	1300	1040
25	1890	1950	1880	8050	3430	4040	9350	4340	2030	1630	1460	911
26	2020	1990	1980	7910	3420	3910	9270	4180	2260	1560	1550	856
27	1910	1940	2140	7810	3480	3810	8930	3960	2360	1360	1630	959
28	1980	1770	2220	7990	3630	3640	8770	3810	2770	1370	1570	1050
29	1890	1800	2290	7980	---	3480	8540	3680	2950	1390	1430	1440
30	2050	1990	1890	7830	---	3450	8030	3490	3000	1400	1370	1380
31	2000	---	1570	7520	---	3360	---	3520	---	1320	1310	---
TOTAL	61700	59600	66750	105870	136380	124520	176190	132050	79420	64850	40230	31662
MEAN	1990	1987	2153	3415	4871	4017	5873	4260	2647	2092	1298	1055
MAX	2670	2340	2610	8050	7050	4620	10000	7430	3580	3810	1630	1440
MIN	1600	1560	1570	1480	3420	3360	3190	3280	1770	1320	1080	856
CFSM	.59	.59	.64	1.01	1.45	1.19	1.74	1.26	.79	.62	.39	.31
IN.	.68	.66	.74	1.17	1.51	1.37	1.94	1.46	.88	.72	.44	.35

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1999, BY WATER YEAR (WY)

MEAN	2198	2643	3211	3649	3900	5134	5252	4124	3260	2379	1975	1894
MAX	5752	5883	5795	9270	7039	10760	12690	7725	7535	4409	4180	3855
(WY)	1987	1993	1991	1993	1968	1982	1950	1956	1989	1968	1981	1981
MIN	791	856	958	1127	1120	1679	2633	1911	1280	898	737	721
(WY)	1964	1965	1964	1964	1963	1964	1958	1958	1988	1988	1964	1964

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1948 - 1999	
ANNUAL TOTAL	1354390		1079222			
ANNUAL MEAN	3711		2957		3297	
HIGHEST ANNUAL MEAN					5264	1950
LOWEST ANNUAL MEAN					1283	1964
HIGHEST DAILY MEAN	10900	Jan 9	10000	Apr 24	18500	Mar 21 1982
LOWEST DAILY MEAN	1100	Aug 3	856	Sep 26	336	Aug 5 1964
ANNUAL SEVEN-DAY MINIMUM	1320	Jul 29	953	Sep 20	561	Aug 2 1964
INSTANTANEOUS PEAK FLOW			10200	Apr 24	18800	Feb 27 1985
INSTANTANEOUS PEAK STAGE			23.60	Apr 24	27.91	Mar 21 1982
ANNUAL RUNOFF (CFSM)	1.10		.88		.98	
ANNUAL RUNOFF (INCHES)	14.95		11.91		13.29	
10 PERCENT EXCEEDS	7230		5520		5860	
50 PERCENT EXCEEDS	2610		2280		2810	
90 PERCENT EXCEEDS	1720		1220		1390	

e Estimated

04101370 JUDAY CREEK NEAR SOUTH BEND, IN

LOCATION.--Lat 41°43'43", long 85°15'46", in NW¼SE¼ sec.23, T.38 N., R.2 E., St. Joseph County, Hydrologic Unit 04050001, on right bank at downstream side of bridge on access road to Izaak Walton League property, 0.1 mi south of Darden Road in Roseland, IN.

DRAINAGE AREA.--Approx. 38 mi^2.

PERIOD OF RECORD.--October 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	12	13	e11	25	20	17	e22	16	28	7.2	5.1
2	9.8	12	13	e13	26	20	17	e21	15	25	6.8	4.9
3	11	12	13	e11	25	21	17	e20	14	21	6.4	4.6
4	9.5	12	13	e10	24	20	20	e19	13	18	6.4	4.5
5	9.4	12	13	e10	22	20	18	e19	13	16	6.5	4.2
6	11	12	18	e10	23	22	17	e18	12	16	5.2	4.1
7	13	12	24	e10	23	21	17	e18	11	15	5.3	4.2
8	11	12	18	e10	23	21	17	e18	11	14	5.9	4.2
9	11	12	15	e9.9	27	21	e28	e17	10	14	5.5	4.0
10	10	12	14	e9.8	27	20	e25	e17	10	14	5.9	4.1
11	9.8	12	14	e9.7	26	20	e23	e17	9.9	13	6.0	4.1
12	9.7	12	13	e9.6	25	19	e22	e16	11	12	5.3	4.0
13	9.9	12	13	e9.5	24	19	e21	e16	17	11	8.2	4.2
14	9.6	12	12	e9.4	23	19	e21	e15	15	11	7.0	3.8
15	9.6	12	12	e9.4	23	19	e21	e15	13	10	6.1	3.7
16	9.4	12	12	e10	23	19	e44	e15	12	10	5.8	3.7
17	9.3	12	12	e11	22	25	e30	e16	12	9.7	5.2	3.8
18	12	12	12	e12	22	26	e29	e17	11	9.4	4.9	3.7
19	11	14	13	e14	22	22	e28	e16	11	9.1	7.5	3.5
20	11	15	12	e16	21	22	e26	e15	11	8.9	6.7	3.4
21	11	15	12	e23	21	22	e25	e15	11	9.3	6.1	3.1
22	11	14	12	e40	19	21	e30	e18	9.9	8.7	5.8	3.2
23	12	14	e12	61	19	20	e68	e17	10	8.3	6.3	3.4
24	12	13	e12	57	19	20	e45	e22	18	7.8	9.5	3.2
25	12	14	e12	44	19	19	e37	e19	19	7.2	12	3.2
26	11	14	e12	e38	18	20	e36	e17	17	6.8	8.2	3.1
27	11	13	e11	e35	19	20	e35	e16	26	8.0	7.3	3.0
28	12	13	11	33	19	19	e26	e15	20	7.9	6.7	3.4
29	12	13	11	32	---	19	e25	e15	21	6.4	6.3	7.1
30	12	13	11	27	---	18	e23	e15	19	6.2	5.7	5.9
31	12	---	e11	26	---	18	---	16	---	6.5	5.5	---
TOTAL	334.3	381	406	631.3	629	632	808	532	418.8	368.2	203.2	120.4
MEAN	10.8	12.7	13.1	20.4	22.5	20.4	26.9	17.2	14.0	11.9	6.55	4.01
MAX	13	15	24	61	27	26	68	22	26	28	12	7.1
MIN	9.3	12	11	9.4	18	18	17	15	9.9	6.2	4.9	3.0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1999, BY WATER YEAR (WY)

MEAN	16.0	20.9	18.7	23.8	22.6	25.9	29.5	22.9	23.3	17.6	17.3	13.9
MAX	27.3	31.6	23.6	38.3	30.5	33.8	47.0	27.2	44.9	28.6	36.4	24.0
(WY)	1994	1994	1993	1993	1997	1993	1998	1996	1993	1996	1995	1993
MIN	10.8	12.7	13.1	15.1	14.4	17.2	18.0	17.0	14.0	11.9	6.55	4.01
(WY)	1999	1999	1999	1996	1996	1996	1996	1994	1999	1999	1999	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1993 - 1999	
ANNUAL TOTAL	7784.9		5464.2			
ANNUAL MEAN	21.3		15.0		21.0	
HIGHEST ANNUAL MEAN					27.7	1993
LOWEST ANNUAL MEAN					15.0	1999
HIGHEST DAILY MEAN	71	Apr 10	68	Apr 23	163	Jun 9 1993
LOWEST DAILY MEAN	8.7	Aug 3	3.0	Sep 27	3.0	Sep 27 1999
ANNUAL SEVEN-DAY MINIMUM	9.4	Sep 26	3.2	Sep 21	3.2	Sep 21 1999
INSTANTANEOUS PEAK FLOW			unknown		226	Jun 9 1993
INSTANTANEOUS PEAK STAGE			unknown		4.59	Jan 22 1997
10 PERCENT EXCEEDS	39		25		33	
50 PERCENT EXCEEDS	18		13		19	
90 PERCENT EXCEEDS	11		5.8		11	

e Estimated

04177720 FISH CREEK AT HAMILTON, IN

LOCATION.--Lat 41°31'55", long 84°54'12", in SE¼SW¼ sec.34, T.36 N., R.14 E., Steuben County, Hydrologic Unit 04100003, on left bank 6 ft upstream from bridge on County Road 775 South, 0.5 mi downstream from Hamilton Lake outlet, and 0.5 mi southeast of Hamilton.

DRAINAGE AREA.--37.5 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 876.00 ft above sea level.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	7.1	14	e5.4	64	56	19	43	73	13	2.4	1.6
2	3.8	6.4	13	e8.0	63	50	19	37	52	11	2.0	1.6
3	4.8	5.6	12	e10	62	129	22	32	36	9.3	1.6	1.7
4	4.5	5.0	12	e6.0	54	92	34	27	25	8.3	4.2	1.8
5	3.9	4.7	11	e5.0	44	65	32	23	19	8.3	4.1	2.3
6	4.6	4.8	12	e4.8	43	69	31	24	17	7.0	2.4	2.4
7	33	4.2	17	e4.7	44	54	26	22	13	4.4	2.3	2.1
8	28	4.5	15	e4.7	43	44	24	21	11	3.0	3.7	1.9
9	19	4.8	12	e4.6	51	47	105	20	8.5	3.4	2.9	1.6
10	14	22	11	e4.6	54	41	124	18	8.0	3.1	2.8	1.3
11	12	31	9.9	e4.4	48	36	193	15	7.8	3.6	2.5	1.1
12	9.9	19	9.0	e4.5	51	32	159	14	11	3.2	2.2	1.3
13	9.1	15	8.7	e4.3	42	30	107	15	9.1	2.8	6.5	1.9
14	6.5	14	8.0	e4.2	35	27	78	14	57	2.9	8.5	1.6
15	5.8	12	7.7	e4.1	33	25	67	13	32	2.6	5.0	1.2
16	5.6	10	7.7	e4.0	32	31	235	13	20	2.3	3.5	1.2
17	5.7	9.7	8.6	e4.0	30	93	204	12	15	2.5	2.9	1.2
18	7.8	8.0	6.7	e4.6	27	162	139	14	10	2.4	2.7	1.2
19	7.3	8.2	9.3	e6.0	25	108	102	13	8.4	2.3	3.2	1.3
20	6.5	7.2	8.7	e10	23	77	77	11	8.2	2.2	2.9	2.0
21	6.9	5.9	12	29	21	63	64	9.1	7.3	3.2	2.4	1.9
22	8.0	5.5	14	157	19	50	107	30	5.8	11	2.7	1.7
23	6.5	6.3	e7.0	457	18	40	372	35	5.1	4.9	2.7	1.7
24	5.6	5.4	e6.7	520	17	36	345	61	5.0	3.4	2.6	1.6
25	5.4	7.7	e6.4	353	20	31	214	34	5.1	3.5	3.0	1.6
26	5.4	14	e6.2	247	18	27	148	21	4.3	2.8	3.6	1.7
27	6.0	12	e6.1	186	25	25	107	15	11	2.6	3.5	1.8
28	7.1	11	e6.0	167	50	24	79	13	26	4.1	3.3	2.0
29	6.2	10	e6.7	126	---	22	61	12	18	3.6	2.4	9.1
30	7.3	12	e6.2	96	---	20	51	12	10	3.0	2.0	5.7
31	7.6	---	e5.7	76	---	19	---	63	---	2.8	1.5	---
TOTAL	268.6	293.0	296.3	2521.9	1056	1625	3345	706.1	538.6	142.5	98.0	61.1
MEAN	8.66	9.77	9.56	81.4	37.7	52.4	112	22.8	18.0	4.60	3.16	2.04
MAX	33	31	17	520	64	162	372	63	73	13	8.5	9.1
MIN	3.8	4.2	5.7	4.0	17	19	19	9.1	4.3	2.2	1.5	1.1
CFSM	.23	.26	.25	2.17	1.01	1.40	2.97	.61	.48	.12	.08	.05
IN.	.27	.29	.29	2.50	1.05	1.61	3.32	.70	.53	.14	.10	.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1999, BY WATER YEAR (WY)

MEAN	13.1	29.0	38.0	40.0	48.5	72.1	62.8	39.4	29.5	15.5	13.2	10.9
MAX	69.5	117	91.3	161	129	219	112	174	118	64.3	45.2	47.1
(WY)	1987	1993	1991	1993	1976	1982	1978	1996	1981	1992	1996	1981
MIN	2.14	2.46	7.25	5.96	7.84	28.1	18.7	8.24	2.05	2.02	1.89	1.88
(WY)	1995	1972	1977	1977	1979	1981	1971	1985	1988	1988	1970	1988

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1970 - 1999	
ANNUAL TOTAL	14447.0		10952.1			
ANNUAL MEAN	39.6		30.0		34.2	
HIGHEST ANNUAL MEAN					54.7	1993
LOWEST ANNUAL MEAN					17.8	1972
HIGHEST DAILY MEAN	439	Jan 8	520	Jan 24	1220	May 17 1996
LOWEST DAILY MEAN	2.4	Jul 18	1.1	Sep 11	.52	Aug 31 1971
ANNUAL SEVEN-DAY MINIMUM	3.0	Jul 12	1.4	Sep 11	.82	Aug 26 1971
INSTANTANEOUS PEAK FLOW			569	Jan 24	1510	May 17 1996
INSTANTANEOUS PEAK STAGE			9.29	Jan 24	14.49	May 17 1996
ANNUAL RUNOFF (CFSM)	1.06		.80		.91	
ANNUAL RUNOFF (INCHES)	14.33		10.86		12.41	
10 PERCENT EXCEEDS	100		68		81	
50 PERCENT EXCEEDS	14		9.9		17	
90 PERCENT EXCEEDS	4.1		2.4		3.1	

e Estimated

04177810 FISH CREEK NEAR ARTIC, IN

LOCATION.--Lat 41°27'54", long 84°48'53", in NE¼SE¼ sec. 29, T.35 N., R.15 E., DeKalb County, Hydrologic Unit 04100003, on right bank 3 ft upstream from bridge on county road 79, 0.6 miles south of Artic, 0.8 miles upstream from Indiana-Ohio state line and 3.8 miles north-northeast of Butler, IN.

DRAINAGE AREA.--98 mi^2 (approx.).

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--April 1998 to current year.

GAGE.--Water-stage recorder. Datum of gage is 832.96 ft above sea level.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	24	27	e11	e180	189	49	125	285	22	9.7	4.7
2	11	24	29	e16	e175	174	49	108	253	25	9.2	4.5
3	11	23	31	e20	e180	334	49	97	149	21	8.7	4.5
4	11	21	28	e12	e155	355	58	84	100	18	9.0	4.3
5	11	19	26	e10	e130	249	79	73	73	17	11	4.2
6	11	18	24	e9.7	e120	203	81	70	57	16	9.3	4.3
7	42	18	28	e9.5	e122	e140	72	68	47	15	8.5	4.2
8	80	18	36	e9.3	e115	e100	64	61	38	13	8.6	4.1
9	57	18	39	e9.1	e160	e107	228	57	32	12	8.7	4.0
10	35	28	30	e9.0	189	e93	405	53	28	13	8.4	3.9
11	26	83	27	e8.9	200	e84	528	47	39	12	8.2	3.7
12	22	97	22	e9.3	227	e77	541	43	33	12	7.8	3.6
13	19	64	20	e9.7	177	e74	435	43	30	12	8.3	3.7
14	18	46	18	e9.0	133	e72	270	42	101	12	13	3.8
15	16	38	16	e8.5	119	e70	202	38	107	12	9.9	3.9
16	15	31	16	e8.1	110	101	443	36	57	12	8.3	3.9
17	14	26	16	e8.0	106	251	579	34	40	11	7.6	3.9
18	14	24	16	e9.3	98	449	473	34	31	12	7.1	3.9
19	17	21	15	e12	89	496	310	36	26	12	7.1	3.9
20	17	20	17	e20	81	316	231	34	23	12	7.2	4.0
21	18	18	18	e60	71	212	184	30	22	12	6.7	4.1
22	19	16	28	e320	e64	164	215	38	20	25	6.4	4.3
23	20	14	e16	e960	e59	126	627	81	18	20	6.3	4.3
24	19	15	e14	e1200	e55	103	912	129	17	14	6.2	4.3
25	18	14	e14	e900	e52	89	707	108	16	12	6.2	4.2
26	17	22	e13	e600	e50	77	471	73	16	12	6.2	4.2
27	17	32	e13	e480	e65	69	333	52	17	11	6.6	4.1
28	18	32	e13	e380	151	64	240	41	40	11	6.2	4.1
29	20	27	e12	e300	---	60	184	36	38	11	5.8	6.5
30	22	25	e12	e245	---	55	149	33	25	10	5.2	8.4
31	24	---	e12	e200	---	51	---	184	---	9.8	4.9	---
TOTAL	669	876	646	5863.4	3433	5004	9168	1988	1778	438.8	242.3	129.5
MEAN	21.6	29.2	20.8	189	123	161	306	64.1	59.3	14.2	7.82	4.32
MAX	80	97	39	1200	227	496	912	184	285	25	13	8.4
MIN	10	14	12	8.0	50	51	49	30	16	9.8	4.9	3.6
CFSM	.22	.30	.21	1.93	1.25	1.65	3.12	.65	.60	.14	.08	.04
IN.	.25	.33	.25	2.23	1.30	1.90	3.48	.75	.67	.17	.09	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 1999, BY WATER YEAR (WY)

MEAN	21.6	29.2	20.8	189	123	161	306	62.6	42.4	18.7	59.1	11.6
MAX	21.6	29.2	20.8	189	123	161	306	64.1	59.3	23.3	110	18.9
(WY)	1999	1999	1999	1999	1999	1999	1999	1999	1999	1998	1998	1998
MIN	21.6	29.2	20.8	189	123	161	306	61.2	25.6	14.2	7.82	4.32
(WY)	1999	1999	1999	1999	1999	1999	1999	1998	1998	1999	1999	1999

SUMMARY STATISTICS	FOR 1999 WATER YEAR		WATER YEARS 1998 - 1999	
ANNUAL TOTAL	30236.0			
ANNUAL MEAN	82.8		82.8	
HIGHEST ANNUAL MEAN			82.8	1999
LOWEST ANNUAL MEAN			82.8	1999
HIGHEST DAILY MEAN	1200	Jan 24	1200	Jan 24 1999
LOWEST DAILY MEAN	3.6	Sep 12	3.6	Sep 12 1999
ANNUAL SEVEN-DAY MINIMUM	3.8	Sep 10	3.8	Sep 10 1999
INSTANTANEOUS PEAK FLOW	unknown	Jan 24	unknown	Jan 24 1999
INSTANTANEOUS PEAK STAGE	unknown	Jan 24	unknown	Jan 24 1999
ANNUAL RUNOFF (CFSM)	.85		.85	
ANNUAL RUNOFF (INCHES)	11.48		11.48	
10 PERCENT EXCEEDS	220		200	
50 PERCENT EXCEEDS	25		24	
90 PERCENT EXCEEDS	6.4		8.5	

e Estimated

04177810 FISH CREEK NEAR ARTIC, IN--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		OCTOBER			**NOVEMBER**			**DECEMBER**	
1	10	22	.61	24	41	2.6	27	25	1.9
2	11	25	.71	24	32	2.1	29	26	2.1
3	11	22	.64	23	24	1.4	31	26	2.1
4	11	20	.59	21	23	1.3	28	29	2.2
5	11	22	.66	19	22	1.2	26	27	1.9
6	11	26	.74	18	20	.98	24	25	1.6
7	42	65	8.9	18	19	.96	28	25	1.9
8	80	52	11	18	25	1.2	36	27	2.8
9	57	25	3.9	18	21	.98	39	26	2.9
10	35	13	1.3	28	28	2.4	30	11	.88
11	26	11	.78	83	25	5.4	27	12	.91
12	22	17	.98	97	15	4.0	22	13	.79
13	19	16	.82	64	14	2.4	20	20	1.0
14	18	21	1.0	46	7	.87	18	21	1.0
15	16	26	1.1	38	10	.98	16	22	.99
16	15	27	1.1	31	9	.73	16	24	.99
17	14	26	.99	26	9	.67	16	22	.92
18	14	28	1.1	24	8	.51	16	20	.86
19	17	28	1.2	21	11	.63	15	26	1.1
20	17	25	1.2	20	15	.79	17	93	4.3
21	18	15	.73	18	13	.63	18	102	5.0
22	19	17	.83	16	12	.52	28	125	9.3
23	20	13	.69	14	12	.48	e16	88	3.8
24	19	13	.65	15	15	.58	e14	57	2.2
25	18	13	.64	14	13	.50	e14	48	1.8
26	17	23	1.0	22	30	2.0	e13	41	1.4
27	17	33	1.5	32	26	2.2	e13	36	1.3
28	18	32	1.5	32	11	.93	e13	31	1.1
29	20	28	1.5	27	17	1.2	e12	27	.87
30	22	26	1.5	25	23	1.6	e12	23	.75
31	24	30	2.0	---	---	---	e12	20	.65
TOTAL	669	---	51.86	876	---	42.74	646	---	61.31

e Estimated

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		JANUARY			**FEBRUARY**			**MARCH**	
1	e11	17	.51	e180	13	6.3	189	65	33
2	e16	21	.90	e175	13	5.9	174	48	23
3	e20	32	1.7	e180	12	5.9	334	87	79
4	e12	21	.68	e155	12	5.2	355	69	66
5	e10	19	.51	e130	9	3.1	249	64	43
6	e9.7	18	.48	e120	9	2.8	203	59	32
7	e9.5	17	.45	e122	8	2.6	e140	53	20
8	e9.3	17	.42	e115	7	2.2	e100	48	13
9	e9.1	16	.39	e160	15	6.4	e107	44	13
10	e9.0	15	.37	189	22	11	e93	40	10
11	e8.9	14	.35	200	17	9.1	e84	36	8.2
12	e9.3	14	.35	227	14	8.5	e77	33	6.8
13	e9.7	13	.34	177	9	4.4	e74	32	6.4
14	e9.0	13	.31	133	8	2.9	e72	32	6.2
15	e8.5	12	.28	119	7	2.3	e70	32	6.0
16	e8.1	11	.25	110	7	2.1	101	35	9.9
17	e8.0	11	.24	106	7	2.0	251	52	38
18	e9.3	10	.26	98	7	1.9	449	55	67
19	e12	11	.36	89	13	3.1	496	46	61
20	e20	22	1.2	81	83	18	316	45	38
21	e60	49	7.9	71	92	18	212	44	25
22	e320	105	91	e64	76	13	164	43	19
23	e960	115	298	e59	63	10	126	42	14
24	e1200	67	216	e55	52	7.8	103	41	11
25	e900	39	94	e52	44	6.1	89	40	9.6
26	e600	31	51	e50	36	4.9	77	39	8.2
27	e480	30	39	e65	38	6.6	69	39	7.2
28	e380	22	22	151	85	35	64	38	6.5
29	e300	17	13	---	---	---	60	37	6.0
30	e245	16	10	---	---	---	55	38	5.7
31	e200	14	7.3	---	---	---	51	45	6.2
TOTAL	5863.4	---	859.55	3433	---	207.1	5004	---	697.9

e Estimated

04177810 FISH CREEK NEAR ARTIC, IN--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		APRIL			**MAY**			**JUNE**	
1	49	49	6.5	125	20	6.9	285	113	88
2	49	50	6.6	108	24	6.9	253	109	76
3	49	56	7.3	97	26	6.7	149	72	29
4	58	54	8.4	84	25	5.6	100	68	18
5	79	39	8.4	73	28	5.6	73	65	13
6	81	47	10	70	27	5.0	57	56	8.7
7	72	45	8.7	68	29	5.3	47	48	6.0
8	64	41	7.0	61	33	5.5	38	59	6.0
9	228	112	85	57	34	5.3	32	59	5.1
10	405	82	89	53	38	5.4	28	52	3.9
11	528	106	151	47	41	5.2	39	68	7.2
12	541	66	96	43	39	4.4	33	57	5.1
13	435	40	47	43	25	2.9	30	49	3.9
14	270	32	23	42	37	4.2	101	149	51
15	202	30	16	38	29	3.0	107	134	40
16	443	105	132	36	31	3.0	57	79	12
17	579	65	101	34	37	3.5	40	75	8.1
18	473	31	40	34	51	4.7	31	73	6.1
19	310	25	21	36	46	4.5	26	68	4.8
20	231	24	15	34	40	3.6	23	59	3.7
21	184	23	11	30	34	2.8	22	53	3.1
22	215	79	50	38	40	4.6	20	51	2.7
23	627	75	122	81	61	13	18	78	3.7
24	912	38	93	129	79	28	17	68	3.1
25	707	28	53	108	41	12	16	61	2.7
26	471	26	32	73	29	5.6	6	70	3.0
27	333	25	22	52	52	7.1	17	77	3.6
28	240	24	15	41	72	7.9	40	136	15
29	184	22	11	36	73	7.0	38	54	5.7
30	149	21	8.5	33	69	6.2	25	45	3.0
31	---	---	---	184	282	166	---	---	---
TOTAL	9168	---	1296.4	1988	---	357.4	1778	---	441.2

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		JULY			**AUGUST**			**SEPTEMBER**	
1	22	58	3.5	9.7	13	.33	4.7	35	.44
2	25	61	4.1	9.2	11	.28	4.5	41	.50
3	21	60	3.4	8.7	11	.26	4.5	40	.48
4	18	58	2.9	9.0	39	.96	4.3	30	.35
5	17	58	2.6	11	50	1.5	4.2	31	.35
6	16	60	2.6	9.3	47	1.2	4.3	38	.43
7	15	55	2.2	8.5	38	.87	4.2	47	.53
8	13	52	1.8	8.6	41	.96	4.1	43	.47
9	12	64	2.1	8.7	46	1.1	4.0	33	.36
10	13	54	1.8	8.4	47	1.1	3.9	26	.28
11	12	53	1.8	8.2	47	1.0	3.7	25	.25
12	12	40	1.3	7.8	47	1.0	3.6	20	.20
13	12	39	1.3	8.3	49	1.1	3.7	26	.26
14	12	57	1.8	13	38	1.3	3.8	27	.28
15	12	50	1.6	9.9	29	.77	3.9	27	.29
16	12	37	1.1	8.3	23	.52	3.9	29	.30
17	11	35	1.1	7.6	29	.60	3.9	50	.54
18	12	34	1.1	7.1	61	1.2	3.9	35	.37
19	12	33	1.0	7.1	58	1.1	3.9	23	.24
20	12	33	1.0	7.2	52	1.0	4.0	37	.40
21	12	65	2.2	6.7	53	.96	4.1	22	.24
22	25	89	5.9	6.4	42	.72	4.3	24	.28
23	20	42	2.4	6.3	38	.64	4.3	27	.32
24	14	19	.71	6.2	51	.86	4.3	22	.25
25	12	14	.46	6.2	51	.86	4.2	37	.42
26	12	22	.68	6.2	44	.75	4.2	36	.41
27	11	13	.39	6.6	64	1.1	4.1	40	.44
28	11	13	.40	6.2	47	.80	4.1	44	.50
29	11	16	.47	5.8	60	.93	6.5	48	.84
30	10	16	.44	5.2	42	.59	8.4	31	.71
31	9.8	14	.37	4.9	37	.50	---	---	---
TOTAL	438.8	---	54.52	242.3	---	26.86	129.5	---	11.73
YEAR	30236.0		4108.57						

04178000 ST. JOSEPH RIVER NEAR NEWVILLE, IN

LOCATION.--Lat 41°23'08", long 84°48'06", in SW¼SW¼ sec.18, T.5 N., R.1 E., Defiance County, Ohio, Hydrologic Unit 04100003, on left downstream side at bridge on Ohio State Highway 249, 3.5 mi northeast of Newville, 6.5 mi northwest of Hicksville, Ohio, and at mile 42.3.

DRAINAGE AREA.--610 mi^2.

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--October 1946 to current year. Monthly discharge only for some periods, published in WSP 1307.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 795.40 ft above sea level. Prior to Oct. 22, 1947, nonrecording gage at same site and datum.

REMARKS.--Records fair except for discharges below 100 ft^3/s and estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	105	169	e100	1880	863	328	1050	1220	155	69	35
2	98	109	166	e100	1630	796	313	814	1410	151	63	32
3	101	117	171	e100	1440	1270	303	663	1300	142	55	31
4	106	118	186	e100	1280	1450	301	562	826	133	50	30
5	102	117	198	e100	1130	1290	317	489	549	123	54	28
6	100	111	192	e100	1030	1110	359	441	423	116	54	27
7	249	110	196	e100	951	953	389	402	347	110	49	25
8	445	117	193	e100	876	760	383	378	293	101	47	28
9	455	116	199	e100	907	633	860	362	251	95	43	29
10	377	152	212	e100	1000	561	1510	343	224	93	46	28
11	292	302	215	e100	961	553	2060	318	263	88	44	28
12	238	298	207	e100	1140	486	2290	294	264	85	44	27
13	200	315	190	e100	1160	453	2170	283	224	82	52	27
14	176	288	175	e105	1010	434	1900	280	402	80	81	24
15	159	252	161	e105	899	411	1630	275	783	78	63	25
16	143	228	148	e105	790	413	1930	252	809	76	51	26
17	132	209	142	e110	693	886	2230	239	606	74	50	26
18	125	185	139	e125	618	1620	2160	229	384	72	46	25
19	118	171	142	e140	563	1770	1900	219	281	72	45	25
20	111	153	138	e180	509	1720	1640	224	233	72	42	24
21	108	143	135	e500	459	1540	1380	253	204	87	40	24
22	115	135	146	1260	400	1360	1150	266	182	132	39	23
23	110	131	123	2810	356	1110	2110	343	163	147	38	25
24	105	125	153	4260	332	844	2770	673	150	155	39	26
25	102	120	161	5220	323	667	2950	580	143	103	38	26
26	99	147	162	5530	314	554	2800	484	134	86	38	27
27	97	158	145	5160	364	476	2570	416	155	82	44	28
28	95	169	132	4170	709	427	2220	359	192	73	43	29
29	96	180	125	3250	---	386	1820	308	269	71	44	58
30	103	179	115	2660	---	362	1410	270	174	71	40	62
31	107	---	e110	2240	---	344	---	633	---	66	37	---
TOTAL	4965	5060	5046	39230	23724	26502	46153	12702	12858	3071	1488	878
MEAN	160	169	163	1265	847	855	1538	410	429	99.1	48.0	29.3
MAX	455	315	215	5530	1880	1770	2950	1050	1410	155	81	62
MIN	95	105	110	100	314	344	301	219	134	66	37	23
CFSM	.26	.28	.27	2.07	1.39	1.40	2.52	.67	.70	.16	.08	.05
IN.	.30	.31	.31	2.39	1.45	1.62	2.81	.77	.78	.19	.09	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1999, BY WATER YEAR (WY)

MEAN	179	382	593	685	852	1216	1079	626	393	235	154	137
MAX	1066	1756	2085	2545	2302	3512	3102	2499	1864	1045	921	671
(WY)	1987	1993	1968	1950	1976	1982	1950	1956	1989	1951	1998	1997
MIN	21.0	30.5	31.1	38.3	41.4	312	321	148	51.4	32.2	29.1	20.3
(WY)	1964	1965	1964	1963	1963	1964	1971	1988	1988	1988	1967	1963

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1947 - 1999	
ANNUAL TOTAL	239173		181677			
ANNUAL MEAN	655		498		541	
HIGHEST ANNUAL MEAN					1008	1950
LOWEST ANNUAL MEAN					132	1964
HIGHEST DAILY MEAN	4580	Jan 10	5530	Jan 26	9790	May 18 1996
LOWEST DAILY MEAN	50	Jul 18	23	Sep 22	14	Sep 10 1964
ANNUAL SEVEN-DAY MINIMUM	56	Jul 15	25	Sep 17	15	Sep 10 1964
INSTANTANEOUS PEAK FLOW			5600	Jan 26	10400	May 18 1996
INSTANTANEOUS PEAK STAGE			15.13	Jan 26	17.96	Mar 17 1982
ANNUAL RUNOFF (CFSM)	1.07		.82		.89	
ANNUAL RUNOFF (INCHES)	14.59		11.08		12.05	
10 PERCENT EXCEEDS	1910		1410		1490	
50 PERCENT EXCEEDS	215		179		239	
90 PERCENT EXCEEDS	102		41		49	

e Estimated

04178000 ST. JOSEPH RIVER NEAR. NEWVILLE, IN--Continued

National Water-Quality Assessment Program, Lake Erie-Lake St. Clair Basin Study Unit

WATER-QUALITY RECORDS

The data described in the following table were collected and analyzed as part of the NAWQA (National Water-Quality Assessment Program) project in the Lake Erie-Lake St. Clair Basin. The objectives of the NAWQA program are to broadly characterize the water quality of the Nation's streams and aquifers in relation to human and natural factors. This project is one of 59 river basin and aquifer assessment projects being implemented or being planned across the nation from 1991 to 2000. At any one time, 15 to 20 of these projects are actively collecting data. The period of high-intensity data collection for the Lake Erie-Lake St. Clair Basin project was in water years 1996-98.

There is one stream site in Indiana for which data are being reported in this publication as part of the NAWQA study: St. Joseph River near Newville, IN (04178000). One site is reported in the 1999 Ohio annual data report: Maumee River at Waterville (04193500).

These data and historical data can be obtained electronically at http//www-oh.er.usgs.gov/nawqa.index.html.

[---, no data; <, concentration or value reported is less than that indicated; E, estimated value; K, value is estimated from a non-ideal colony count]

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE 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 (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT 28...	0830	95	677	7.6	11.0	11.5	738	7.5	69	180	310	82
NOV 25...	1000	141	655	7.8	5.0	5.0	738	9.9	80	K60	340	93
DEC 16...	1100	186	638	8.1	4.5	2.5	740	12.4	93	K37	310	88
JAN 26...	1200	5570	274	7.6	2.0	3.5	--	--	--	820	110	31
FEB 25...	1300	322	584	7.9	3.0	1.0	743	13.3	96	56	290	82

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	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)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	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)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
OCT 28...	25	19	3.1	308	252	48	32	.5	7.5	412	<.01	.19
NOV 25...	26	18	3.2	318	260	47	28	.4	4.8	409	<.01	.28
DEC 16...	23	14	3.1	307	252	48	29	.4	5.1	393	<.01	.67
JAN 26...	8.0	5.9	4.6	93	76	19	15	.1	4.2	163	.03	3.0
FEB 25...	20	12	2.7	264	216	48	25	.3	6.4	363	.04	5.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	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)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)
OCT 28...	.07	.6	.4	.05	.02	.02	34	37	6.0	.4	12	<.002
NOV 25...	.03	.5	.4	.03	.01	.02	52	30	6.4	.5	6	<.002
DEC 16...	.05	.5	.4	.02	<.05	.02	35	22	6.9	.7	4	<.002
JAN 26...	.07	1.0	.6	.22	.14	.12	66	18	7.5	1.0	39	.027
FEB 25...	.14	.6	.6	.06	.04	.04	25	43	5.6	.5	7	<.002

04178000 ST. JOSEPH RIVER NEAR. NEWVILLE, IN--Continued

National Water-Quality Assessment Program, Lake Erie-Lake St. Clair Basin Study Unit

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	ALACHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRAZINE, WATER, DISS, REC (UG/L) (39632)	DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) (04040)	METHYL AZINPHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	BENFLURALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYLATE, WATER, DISS, REC (UG/L) (04028)	CARBARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBOFURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLORPYRIFOS DISSOLVED (UG/L) (38933)	CYANAZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P,P' DDE DISSOLV (UG/L) (34653)
OCT 28...	<.002	.058	E.022	<.001	<.002	<.002	<.003	<.003	<.004	.0270	<.002	<.006
NOV 25...	.008	.055	E.020	<.001	<.002	<.002	<.003	<.003	<.004	.0254	<.002	<.006
DEC 16...	.005	.098	E.020	<.001	<.002	<.002	<.003	<.003	<.004	.0159	<.002	<.006
JAN 26...	.141	.128	E.034	<.001	<.002	<.002	<.003	<.003	<.010	.0244	<.002	<.006
FEB 25...	.010	.045	E.016	<.001	<.002	<.002	<.003	<.003	<.004	.0122	<.002	<.006

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	DIAZINON, DISSOLVED (UG/L) (39572)	DIELDRIN DISSOLVED (UG/L) (39381)	2,6-DIETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISULFOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHALFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHOPROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DISSOLVED (UG/L) (34253)	LINDANE DISSOLVED (UG/L) (39341)	LINURON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALATHION, DISSOLVED (UG/L) (39532)
OCT 28...	<.002	<.001	<.003	<.017	<.002	<.004	<.003	<.003	<.002	<.004	<.002	<.005
NOV 25...	<.002	<.001	<.003	<.017	<.002	<.004	<.003	<.003	<.002	<.004	<.002	<.005
DEC 16...	<.002	<.001	<.003	<.017	<.002	<.004	<.003	<.003	<.002	<.004	<.002	<.005
JAN 26...	.056	<.001	<.003	<.017	<.002	<.004	<.003	<.003	<.002	<.004	<.002	<.005
FEB 25...	.005	<.001	<.003	<.017	<.002	<.004	<.003	<.003	<.002	<.004	<.002	<.005

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	METOLACHLOR WATER DISSOLV (UG/L) (39415)	METRIBUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOLINATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROPAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PARATHION, DISSOLVED (UG/L) (39542)	METHYL PARATHION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEBULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDIMETHALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PERMETHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PROMETON, WATER, DISS, REC (UG/L) (04037)
OCT 28...	.090	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018
NOV 25...	.101	.005	<.004	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018
DEC 16...	.108	.009	<.004	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018
JAN 26...	.271	.150	<.004	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018
FEB 25...	.035	.011	<.004	<.003	<.004	<.006	<.004	<.004	<.005	<.002	<.018

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	PRONAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPCHLOR, WATER, DISS, REC (UG/L) (04024)	PROPANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PROPARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SIMAZINE, WATER, DISS, REC (UG/L) (04035)	TEBUTHIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TERBACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TERBUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIOBENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIALLATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRIFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
OCT 28...	<.003	<.007	<.004	<.013	.044	<.010	<.007	<.013	<.002	<.001	<.002
NOV 25...	<.003	<.007	<.004	<.013	.030	<.010	<.007	<.013	<.002	<.001	<.002
DEC 16...	<.003	<.007	<.004	<.013	.036	<.010	<.007	<.013	<.002	<.001	<.002
JAN 26...	<.003	<.007	<.004	<.013	.021	<.020	<.007	<.013	<.002	<.001	<.002
FEB 25...	<.003	<.007	<.004	<.013	.024	<.010	<.007	<.013	<.002	<.001	<.002

04180000 CEDAR CREEK NEAR CEDARVILLE, IN

LOCATION.--Lat 41°13'08", long 85°04'35", in NW¼NW¼ sec.19, T.32 N., R.13 E., Allen County, Hydrologic Unit 04100003, on left bank at downstream side of bridge on Tonkle Road, 3 mi northwest of Cedarville, 5.8 mi upstream from mouth, and 10 mi south of Auburn.

DRAINAGE AREA.--270 mi^2.

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

REVISED RECORDS.--WSP 1912: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 780.09 ft above sea level. Prior to Nov. 4, 1947, nonrecording gage at same site and datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	47	60	e48	486	887	171	362	1360	99	43	32
2	23	43	57	e47	463	661	165	321	850	98	37	31
3	26	42	58	e46	491	1290	161	289	585	85	37	30
4	34	39	56	e45	437	1030	174	264	388	77	37	29
5	26	45	54	e44	378	616	191	247	295	71	51	27
6	29	45	53	e43	351	597	189	244	237	68	37	25
7	198	41	75	e43	343	535	177	222	196	66	36	25
8	202	37	77	e43	359	439	166	204	166	62	39	27
9	107	35	71	e43	517	376	437	197	144	59	36	27
10	75	85	65	e43	534	350	809	185	131	61	35	25
11	58	289	60	e43	434	312	1170	176	123	55	35	24
12	50	176	57	e43	535	288	1400	175	118	53	34	23
13	46	119	54	e43	415	274	744	214	112	52	41	23
14	41	92	53	e43	340	258	503	194	497	50	61	26
15	41	79	51	e43	316	243	411	173	405	49	46	24
16	39	68	50	e45	302	267	1360	161	224	47	38	23
17	37	64	52	e47	294	714	1720	156	159	46	35	24
18	37	59	53	e52	275	1230	957	163	133	43	33	24
19	44	56	51	e58	258	753	736	172	117	44	36	24
20	38	52	51	e70	245	500	547	167	107	47	43	22
21	36	51	54	e250	226	394	449	157	99	47	35	23
22	37	48	72	1430	212	335	442	219	94	63	31	23
23	36	47	e62	3700	206	289	2290	314	88	60	30	23
24	37	46	e54	4050	202	261	3400	859	83	64	34	22
25	38	48	e52	3030	202	236	1750	622	82	49	91	22
26	38	80	51	1720	199	218	1050	411	79	46	93	22
27	48	70	50	1170	456	206	737	295	107	50	66	22
28	45	68	51	1010	977	195	596	240	118	46	50	26
29	43	69	e50	800	---	183	485	207	127	49	39	102
30	62	61	e50	655	---	177	410	185	99	46	35	96
31	62	---	e49	556	---	186	---	928	---	44	33	---
TOTAL	1659	2101	1753	19303	10453	14300	23797	8723	7323	1796	1327	896
MEAN	53.5	70.0	56.5	623	373	461	793	281	244	57.9	42.8	29.9
MAX	202	289	77	4050	977	1290	3400	928	1360	99	93	102
MIN	23	35	49	43	199	177	161	156	79	43	30	22
CFSM	.20	.26	.21	2.31	1.38	1.71	2.94	1.04	.90	.21	.16	.11
IN.	.23	.29	.24	2.66	1.44	1.97	3.28	1.20	1.01	.25	.18	.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1999, BY WATER YEAR (WY)

MEAN	111	186	282	328	398	516	472	283	212	123	86.1	84.6
MAX	805	936	908	1393	1290	1724	1130	947	1046	515	331	477
(WY)	1955	1993	1967	1950	1959	1982	1950	1956	1981	1986	1997	1972
MIN	19.8	24.0	24.7	25.9	28.5	146	139	68.6	44.0	35.1	22.0	20.9
(WY)	1965	1965	1964	1963	1963	1957	1971	1958	1988	1953	1964	1964

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1947 - 1999	
ANNUAL TOTAL	95972		93431			
ANNUAL MEAN	263		256		256	
HIGHEST ANNUAL MEAN					485	1950
LOWEST ANNUAL MEAN					85.3	1964
HIGHEST DAILY MEAN	3440	Jan 9	4050	Jan 24	5220	Dec 31 1990
LOWEST DAILY MEAN	23	Oct 2	22	Sep 20	13	Oct 3 1949
ANNUAL SEVEN-DAY MINIMUM	25	Sep 26	22	Sep 20	18	Sep 27 1949
INSTANTANEOUS PEAK FLOW			4150	Jan 24	5580	Dec 30 1990
INSTANTANEOUS PEAK STAGE			10.77	Jan 24	13.38	Dec 30 1990
ANNUAL RUNOFF (CFSM)	.97		.95		.95	
ANNUAL RUNOFF (INCHES)	13.22		12.87		12.90	
10 PERCENT EXCEEDS	575		605		602	
50 PERCENT EXCEEDS	97		72		115	
90 PERCENT EXCEEDS	38		33		32	

e Estimated

04180500 ST. JOSEPH RIVER NEAR FORT WAYNE, IN

LOCATION.--Lat 41°10'41", long 85°03'19", in NW¼NE¼ sec.3, T.31 N., R.13 E., Allen County, Hydrologic Unit 04100003, on left bank 0.8 mi downstream from Ely Run, 1.3 mi upstream from Mayhew Road, 8.0 mi northeast of the Fort Wayne Court House.

DRAINAGE AREA.--1,060 mi^2.

PERIOD OF RECORD.--October 1983 to current year. July 1941 to September 1955 gage located 1.3 mi downstream at Ely Bridge.

GAGE.--Water-stage recorder. Datum of gage is 750.00 ft above 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107	181	266	e170	3030	2580	538	1850	3980	337	169	106
2	108	172	256	e160	2690	1940	521	1380	2940	303	176	102
3	106	170	255	e155	2360	3540	505	1080	2610	261	140	99
4	116	163	256	e152	2100	3170	454	967	1850	265	127	94
5	116	164	257	e150	1830	2490	e500	829	1150	255	143	91
6	121	166	275	e150	1640	2260	e580	667	839	246	133	89
7	405	162	306	e150	1470	1890	e660	645	731	222	131	84
8	723	158	298	e150	1460	1630	e620	689	531	210	135	81
9	594	158	282	e150	1730	1130	s2600	599	518	226	122	79
10	541	271	283	e150	2010	1130	3290	443	460	199	125	74
11	471	594	291	e150	1630	947	4330	712	400	197	126	71
12	329	574	288	e150	2200	1000	4930	287	408	157	115	69
13	204	415	284	e151	2080	794	3920	486	454	165	133	69
14	346	380	275	e154	1500	773	3180	510	808	204	146	69
15	168	343	261	e160	1420	753	2610	403	1280	187	148	66
16	186	297	251	e165	1250	796	4550	401	1170	191	171	56
17	226	297	253	e175	1090	1970	5210	384	999	178	134	58
18	206	279	245	e184	1000	3720	4120	382	675	169	109	69
19	177	259	239	e200	901	3010	3600	397	499	159	124	67
20	146	255	243	e250	784	2620	2850	370	440	173	140	106
21	153	237	249	e700	755	2290	2320	359	381	150	131	67
22	154	208	262	3650	646	2040	2030	410	327	200	126	63
23	156	212	e250	7870	582	1630	6070	546	307	271	111	76
24	158	211	e234	9670	532	1390	7790	1710	301	339	113	104
25	159	213	222	9350	514	1070	6050	1600	282	301	155	103
26	157	251	252	8030	521	860	4880	875	249	221	193	82
27	165	274	278	7340	1120	822	4240	843	302	196	157	72
28	168	263	264	7060	2940	657	3720	640	347	167	145	68
29	162	267	255	5840	---	638	3120	544	387	169	127	140
30	191	261	215	4660	---	562	2330	493	412	165	129	165
31	204	---	184	3750	---	540	---	2440	---	179	122	---
TOTAL	7223	7855	8029	71196	41785	50642	92118	23941	26037	6662	4256	2539
MEAN	233	262	259	2297	1492	1634	3071	772	868	215	137	84.6
MAX	723	594	306	9670	3030	3720	7790	2440	3980	339	193	165
MIN	106	158	184	150	514	540	454	287	249	150	109	56
CFSM	.22	.25	.24	2.17	1.41	1.54	2.90	.73	.82	.20	.13	.08
IN.	.25	.28	.28	2.50	1.47	1.78	3.23	.84	.91	.23	.15	.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1999, BY WATER YEAR (WY)

MEAN	521	1040	1228	1558	1645	1996	1870	1052	925	464	384	359
MAX	1984	3330	2421	4615	3315	3612	3071	3675	2915	1413	1157	1258
(WY)	1987	1993	1991	1993	1990	1985	1999	1996	1989	1986	1998	1997
MIN	78.6	163	167	305	310	909	607	272	153	122	125	81.5
(WY)	1995	1995	1990	1984	1995	1996	1986	1988	1988	1988	1988	1994

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1984 - 1999	
ANNUAL TOTAL	424785		342283			
ANNUAL MEAN	1164		938		1083	
HIGHEST ANNUAL MEAN					1532	1993
LOWEST ANNUAL MEAN					642	1995
HIGHEST DAILY MEAN	8700	Jan 9	9670	Jan 24	13100	Feb 26 1985
LOWEST DAILY MEAN	93	Aug 3	56	Sep 16	43	Oct 17 1991
ANNUAL SEVEN-DAY MINIMUM	112	Sep 30	65	Sep 13	56	Oct 24 1994
INSTANTANEOUS PEAK FLOW			9960	Jan 24	13400	Jan 5 1993
INSTANTANEOUS PEAK STAGE			15.19	Jan 24	18.40	Jan 5 1993
ANNUAL RUNOFF (CFSM)	1.10		.88		1.02	
ANNUAL RUNOFF (INCHES)	14.91		12.01		13.88	
10 PERCENT EXCEEDS	3610		2650		2700	
50 PERCENT EXCEEDS	416		283		528	
90 PERCENT EXCEEDS	158		116		150	

e Estimated

04181500 ST. MARYS RIVER AT DECATUR, IN

LOCATION.--Lat 40°50'55", long 84°56'16", in SW¼SW¼ sec.27, T.28 N., R.14 E., Adams County, Hydrologic Unit 04100004, on left downstream side at bridge on U.S. Highway 27, 0.5 mi upstream from Holthouse Ditch, 1.3 mi north of Decatur, and at mile 29.1.

DRAINAGE AREA.--621 mi^2.

PERIOD OF RECORD.--October 1946 to current year. Monthly discharge only for some periods, published in WSP 1307. Gage-height records collected at site 0.5 mi upstream January 1932 to November 1954, and at present site thereafter are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 1174: 1948. WSP 1337: 1947. WSP 1627: 1950. WSP 1912: 1955, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 760.44 ft above sea level. Prior to July 27, 1948, nonrecording gage at same site and datum.

REMARKS.--Records good, except for estimated daily discharges, which are poor. Flow regulated by Grand Lake. Slight diversion from or into Wabash River Basin and into Miami and Erie Canal.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	40	48	e40	356	3770	146	754	374	77	71	29
2	36	41	44	e40	359	3380	146	726	448	59	59	30
3	36	44	43	e39	415	3390	138	540	362	50	48	28
4	37	46	41	e39	411	3080	142	330	257	47	42	28
5	38	40	43	e38	372	2110	131	245	263	51	41	30
6	41	37	44	e38	312	2030	116	214	184	53	39	29
7	94	35	50	e38	318	2010	112	203	140	47	37	27
8	120	34	46	e38	1310	1180	99	160	116	43	38	27
9	91	34	45	e38	1430	1010	456	140	98	46	38	27
10	61	63	43	e38	1060	931	1330	119	87	70	36	27
11	52	74	41	e38	1020	700	676	104	78	77	36	28
12	48	86	40	e39	1040	489	403	96	73	56	36	27
13	43	70	40	e40	834	371	309	91	267	46	62	27
14	41	75	39	e40	703	315	265	88	343	42	57	27
15	39	67	37	e40	753	287	275	82	388	41	46	28
16	37	55	38	e41	685	333	2110	83	374	39	39	28
17	35	49	46	e46	485	1680	3010	84	260	39	38	26
18	38	45	51	e50	360	2660	2320	91	158	43	38	26
19	37	42	41	e56	318	1710	1550	103	108	123	39	27
20	35	40	40	e66	280	1310	1160	85	84	75	34	27
21	32	42	51	e500	233	1090	851	74	71	49	32	27
22	33	57	81	2200	195	695	596	78	63	45	32	26
23	35	51	e74	5780	168	420	749	177	57	49	33	26
24	38	43	e68	8830	157	306	893	1070	54	47	34	26
25	37	46	e64	9090	161	246	675	759	52	45	33	26
26	35	52	e62	7450	147	208	586	491	50	45	32	27
27	33	55	e60	5020	613	185	425	312	73	41	33	29
28	33	55	58	3310	3490	168	1600	200	99	41	33	29
29	32	53	53	1720	---	158	1750	142	96	43	35	63
30	37	53	e42	795	---	145	885	110	142	59	33	34
31	36	---	e41	476	---	134	---	185	---	61	29	---
TOTAL	1378	1524	1514	46013	17985	36501	23904	7936	5219	1649	1233	866
MEAN	44.5	50.8	48.8	1484	642	1177	797	256	174	53.2	39.8	28.9
MAX	120	86	81	9090	3490	3770	3010	1070	448	123	71	63
MIN	32	34	37	38	147	134	99	74	50	39	29	26
CFSM	.07	.08	.08	2.39	1.03	1.90	1.28	.41	.28	.09	.06	.05
IN.	.08	.09	.09	2.76	1.08	2.19	1.43	.48	.31	.10	.07	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1999, BY WATER YEAR (WY)

MEAN	123	314	563	751	882	1112	960	488	443	328	142	107
MAX	866	1988	2079	3834	2546	3263	3409	1920	2075	2674	848	1225
(WY)	1955	1993	1991	1950	1950	1978	1957	1996	1981	1992	1998	1992
MIN	7.52	13.7	12.8	21.0	30.5	125	79.3	55.6	28.1	20.6	15.5	12.6
(WY)	1964	1965	1964	1961	1964	1981	1966	1988	1988	1965	1963	1963

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1947 - 1999	
ANNUAL TOTAL	221099		145722			
ANNUAL MEAN	606		399		512	
HIGHEST ANNUAL MEAN					879	1993
LOWEST ANNUAL MEAN					140	1966
HIGHEST DAILY MEAN	5810	Apr 10	9090	Jan 25	10600	Feb 15 1950
LOWEST DAILY MEAN	32	Oct 21	26	Sep 17	5.4	Oct 18 1960
ANNUAL SEVEN-DAY MINIMUM	35	Oct 21	26	Sep 17	6.2	Oct 12 1963
INSTANTANEOUS PEAK FLOW			9390	Jan 25	11300	Feb 10 1959
INSTANTANEOUS PEAK STAGE			23.12	Jan 25	24.40	Mar 14 1982
ANNUAL RUNOFF (CFSM)	.98		.64		.82	
ANNUAL RUNOFF (INCHES)	13.24		8.73		11.20	
10 PERCENT EXCEEDS	2410		1010		1510	
50 PERCENT EXCEEDS	157		60		130	
90 PERCENT EXCEEDS	37		33		23	

e Estimated

04182000 ST. MARYS RIVER NEAR FORT WAYNE, IN

LOCATION.--Lat 40°59'16", long 85°06'43", in A. LaFontaine Reserve, T.29 N., R.12 E., Allen County, Hydrologic Unit 04100004, on left bank 130 ft downstream from Anthony Boulevard Extension, 0.8 mi downstream from Houk Ditch, 5 mi south of Fort Wayne, and 10.8 mi upstream from mouth.

DRAINAGE AREA.--762 mi^2.

PERIOD OF RECORD.--October 1930 to current year. Monthly discharge only for some periods, published in WSP 1307. Fragmentary gage-height records for period November 1924 to October 1927 are available from the District Office.

REVISED RECORDS.--WSP 974: 1942. WSP 1337: 1933, 1947. WSP 1912: 1954, 1955, 1960, drainage area. WDR IN- 82-1: 1973, 1974, 1978, 1979.

GAGE.--Water-stage recorder. Datum of gage is 748.97 ft above sea level (levels by State of Indiana, Department of Natural Resources). Prior to Apr. 13, 1939, nonrecording gage on upstream highway bridge at same datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. The flow is sometimes regulated by Grand Lake. Slight diversion from or into Wabash River Basin and into Miami and Erie Canal. During extreme floods, some water bypasses gage and flows through Houk Ditch and Paul Trier Ditch into the Maumee River. Period of record computations do not include 1934 water year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	39	59	e58	481	4630	156	919	655	117	61	35
2	45	42	53	e54	457	4390	164	868	691	73	66	33
3	45	44	49	e50	518	4340	157	741	636	57	57	33
4	44	46	47	e48	508	3960	153	481	362	49	47	33
5	45	53	45	e47	460	2960	153	322	344	44	41	31
6	46	50	46	e47	393	2390	137	259	289	47	39	33
7	151	45	53	e47	364	2640	128	241	211	48	38	34
8	161	41	59	e47	1200	1660	125	209	165	44	37	32
9	137	41	53	e47	2110	1230	435	173	140	41	37	30
10	93	66	50	e47	1420	1140	1560	150	120	43	36	31
11	63	144	47	e47	1200	927	1090	129	107	67	34	31
12	52	101	44	e47	1380	678	596	116	96	68	33	31
13	47	93	43	e47	1100	505	401	111	125	52	38	32
14	42	76	42	e47	824	413	329	108	400	43	60	31
15	38	80	41	e48	821	369	357	102	412	39	56	30
16	36	69	40	e50	825	384	2700	96	423	37	48	31
17	34	58	41	e51	657	1880	3930	97	353	35	41	33
18	34	50	47	e54	467	3520	3400	105	230	35	39	31
19	37	45	53	e60	377	2560	2220	111	148	47	41	31
20	38	43	44	e80	336	1620	1550	117	108	108	42	33
21	35	40	46	e600	285	1380	1150	97	87	67	38	33
22	32	42	69	3360	234	966	997	98	75	47	35	28
23	31	56	110	6910	195	594	2430	140	67	41	34	23
24	32	53	e105	8850	172	409	1480	1110	61	45	38	22
25	36	47	e100	9660	165	316	984	1160	58	43	42	21
26	35	63	e97	9510	164	257	802	695	55	40	40	22
27	34	68	e94	8180	341	222	616	466	54	40	40	23
28	34	63	91	5800	3560	198	1440	306	83	39	38	25
29	34	61	80	3010	---	180	2450	219	96	38	36	39
30	35	58	e74	1220	---	165	1300	172	117	40	38	66
31	38	---	e64	686	---	152	---	620	---	56	38	---
TOTAL	1610	1777	1886	58809	21014	47035	33390	10538	6768	1590	1308	941
MEAN	51.9	59.2	60.8	1897	750	1517	1113	340	226	51.3	42.2	31.4
MAX	161	144	110	9660	3560	4630	3930	1160	691	117	66	66
MIN	31	39	40	47	164	152	125	96	54	35	33	21
CFSM	.07	.08	.08	2.49	.98	1.99	1.46	.45	.30	.07	.06	.04
IN.	.08	.09	.09	2.87	1.03	2.30	1.63	.51	.33	.08	.06	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1999, BY WATER YEAR (WY)

MEAN	146	333	625	886	1030	1338	1152	641	516	353	162	115
MAX	1299	2612	2349	4897	3404	4070	4119	3866	2545	2708	1134	1453
(WY)	1955	1973	1978	1950	1959	1978	1957	1943	1981	1992	1998	1992
MIN	8.28	16.9	16.7	21.3	45.4	87.0	90.7	59.9	34.3	11.9	13.9	11.6
(WY)	1964	1965	1964	1977	1964	1941	1946	1931	1988	1936	1932	1944

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1931 - 1999	
ANNUAL TOTAL	291094		186666			
ANNUAL MEAN	798		511		617	
HIGHEST ANNUAL MEAN					1093	1950
LOWEST ANNUAL MEAN					174	1966
HIGHEST DAILY MEAN	7100	Apr 10	9660	Jan 25	13000	May 19 1943
LOWEST DAILY MEAN	31	Oct 23	21	Sep 25	3.4	Oct 19 1934
ANNUAL SEVEN-DAY MINIMUM	33	Oct 22	23	Sep 22	4.9	Oct 15 1934
INSTANTANEOUS PEAK FLOW			9790	Jan 25	13600	Feb 11 1959
INSTANTANEOUS PEAK STAGE			17.03	Jan 25	19.66	Mar 14 1982
ANNUAL RUNOFF (CFSM)	1.05		.67		.81	
ANNUAL RUNOFF (INCHES)	14.21		9.11		11.00	
10 PERCENT EXCEEDS	3080		1260		1750	
50 PERCENT EXCEEDS	181		67		146	
90 PERCENT EXCEEDS	41		34		24	

e Estimated

04182810 SPY RUN CREEK AT FORT WAYNE, IN

LOCATION.--Lat 41°06'18", long 85°09'12", in $SW^1/_4SW^1/_4$ 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 mi^2.

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.

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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	4.8	3.6	3.1	13	41	5.0	8.3	39	17	9.6	1.7
2	2.7	3.8	2.8	e3.0	26	43	4.9	7.3	67	5.4	3.9	1.6
3	9.0	3.3	2.6	e2.9	20	91	5.5	6.5	17	3.6	2.9	1.7
4	6.3	3.5	2.8	e2.8	13	26	8.6	6.2	9.2	2.9	2.6	1.6
5	3.9	3.3	2.7	e2.8	9.7	18	5.5	20	6.9	2.7	2.5	1.5
6	9.2	3.2	3.8	e2.8	11	47	8.4	20	5.5	10	2.4	1.8
7	171	2.7	19	e2.8	20	24	5.4	7.4	4.7	5.4	5.8	2.2
8	21	2.5	7.3	e2.7	61	18	4.6	5.9	4.2	3.2	15	2.4
9	8.5	2.7	5.6	e2.7	49	15	358	5.3	4.0	2.8	4.0	2.5
10	5.0	100	4.9	e2.7	21	16	61	4.8	3.7	2.8	4.2	2.9
11	3.6	28	4.5	e2.7	26	15	108	4.4	4.0	2.5	3.3	3.0
12	3.1	7.6	4.2	e2.8	101	14	31	5.3	5.9	2.4	2.8	2.7
13	3.6	5.0	3.9	e2.8	20	14	16	6.1	27	2.4	51	3.0
14	3.2	3.6	3.9	e2.8	13	11	13	5.3	50	2.4	24	3.1
15	3.4	2.8	3.9	e2.9	12	13	62	4.2	8.6	2.6	5.2	3.3
16	2.3	2.5	4.0	e2.9	11	41	231	3.7	5.1	2.8	3.6	3.5
17	2.0	2.3	5.0	e3.0	11	80	54	3.8	4.5	2.7	2.8	3.2
18	7.7	2.4	4.5	e3.1	8.9	34	42	13	4.0	2.6	2.6	3.1
19	4.3	2.4	4.3	e4.5	7.8	16	38	5.6	3.6	8.0	16	2.6
20	2.0	2.0	4.0	e15	6.6	12	19	4.0	3.1	6.4	5.8	2.7
21	1.9	1.8	10	23	5.6	9.8	24	3.7	3.0	3.3	3.1	2.9
22	2.0	1.6	9.1	448	5.1	8.3	101	20	3.0	3.0	2.4	3.1
23	1.9	1.7	4.6	359	4.9	7.2	365	27	3.1	8.8	2.5	3.2
24	1.8	2.2	3.8	94	4.9	6.6	51	28	5.2	18	32	2.8
25	1.6	20	3.5	37	8.4	6.1	21	7.6	4.0	3.8	53	3.1
26	1.5	20	3.3	21	8.3	5.7	14	5.2	3.3	18	29	2.4
27	2.3	5.2	3.4	21	130	5.1	11	4.3	17	9.7	17	2.4
28	4.1	3.0	3.6	22	91	4.8	69	3.8	5.7	7.4	4.6	3.1
29	3.9	2.6	3.8	13	---	4.7	17	3.4	4.0	35	2.7	72
30	58	3.1	3.7	11	---	4.3	10	5.6	3.3	5.8	2.1	14
31	9.5	---	3.4	9.5	---	4.2	---	250	---	13	1.8	---
TOTAL	363.0	249.6	149.5	1129.3	719.2	655.8	1763.9	505.7	328.6	216.4	320.2	159.1
MEAN	11.7	8.32	4.82	36.4	25.7	21.2	58.8	16.3	11.0	6.98	10.3	5.30
MAX	171	100	19	448	130	91	365	250	67	35	53	72
MIN	1.5	1.6	2.6	2.7	4.9	4.2	4.6	3.4	3.0	2.4	1.8	1.5
CFSM	.84	.59	.34	2.60	1.83	1.51	4.20	1.17	.78	.50	.74	.38
IN.	.96	.66	.40	3.00	1.91	1.74	4.69	1.34	.87	.58	.85	.42

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1999, BY WATER YEAR (WY)

MEAN	12.0	20.2	19.8	20.0	24.0	26.4	26.1	17.9	14.7	17.9	9.78	12.0
MAX	43.7	61.3	66.2	48.9	64.6	46.6	58.8	46.9	34.3	48.3	23.3	39.8
(WY)	1992	1993	1991	1993	1990	1984	1999	1997	1989	1986	1998	1993
MIN	2.79	8.32	3.03	3.76	5.32	11.4	8.56	4.15	2.16	3.85	4.10	3.94
(WY)	1988	1999	1990	1984	1989	1987	1986	1988	1988	1991	1984	1988

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1984 - 1999	
ANNUAL TOTAL	7339.4		6560.3			
ANNUAL MEAN	20.1		18.0		18.4	
HIGHEST ANNUAL MEAN					27.5	1997
LOWEST ANNUAL MEAN					11.5	1987
HIGHEST DAILY MEAN	484	Apr 9	448	Jan 22	748	Feb 22 1990
LOWEST DAILY MEAN	1.5	Oct 26	1.5	Oct 26	.93	Jul 9 1990
ANNUAL SEVEN-DAY MINIMUM	1.8	Oct 20	1.7	Aug 31	1.1	Jan 15 1994
INSTANTANEOUS PEAK FLOW			738	Apr 23	1370	Feb 22 1990
INSTANTANEOUS PEAK STAGE			8.52	Apr 23	10.74	Jul 22 1997
ANNUAL RUNOFF (CFSM)	1.44		1.28		1.31	
ANNUAL RUNOFF (INCHES)	19.50		17.43		17.84	
10 PERCENT EXCEEDS	34		37		34	
50 PERCENT EXCEEDS	5.2		4.9		5.7	
90 PERCENT EXCEEDS	2.6		2.5		2.6	

e Estimated

04182900 MAUMEE RIVER AT FORT WAYNE, IN

LOCATION.--Lat 41°04'55", long 85°06'53", in SE$^1/_4$NE$^1/_4$ sec. 1, T.30 N., R.12 E., Allen County, Hydrologic Unit 04100004, on left bank at downstream side of Hosey Dam, 250 ft upstream of Anthony Boulevard, 1.2 mi below confluence of St. Joseph and St. Mary's Rivers and 1.5 mi upstream of Highway 930.

DRAINAGE AREA.--1,926 mi^2.

PERIOD OF RECORD.--October 1997 to current year.

GAGE.--Water-stage recorder. Datum of gage 730.07 ft above sea level. Prior to December 12, 1962, nonrecording gage on downstream side of bridge at same datum. Dec. 12, 1962 to Aug. 13, 1997 water-stage recorder at site 310 ft downstream at same datum.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 20.98 ft, Jan. 25, 1999; minimum gage height, 0.75 ft, Sept. 29, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 20.98 ft, Jan. 25; minimum gage height, 0.75 ft, Sept. 29.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.36	1.36	1.46	1.37	7.39	12.18	2.32	6.08	8.50	1.74	1.27	1.10
2	1.39	1.34	1.43	1.29	7.28	11.26	2.27	5.41	7.94	1.06	1.33	1.07
3	1.48	1.34	---	1.37	6.30	13.76	2.47	4.35	6.87	1.57	1.30	1.09
4	1.43	1.34	---	1.36	5.67	11.60	2.11	3.72	4.35	1.57	1.15	1.06
5	1.39	1.36	1.61	1.33	5.11	9.52	2.16	4.38	3.27	1.52	1.22	1.05
6	1.65	1.35	1.89	1.40	4.84	9.25	2.19	2.72	3.17	1.57	1.18	1.04
7	3.00	1.37	1.76	1.38	4.91	8.68	2.30	2.68	2.71	1.48	1.15	1.05
8	2.70	1.35	1.73	1.35	7.60	6.82	2.30	2.77	2.22	1.23	1.39	1.03
9	2.33	1.33	1.67	1.39	8.15	5.75	9.83	2.44	2.09	1.59	1.12	1.02
10	2.05	2.11	1.67	1.39	7.12	5.32	9.51	2.10	1.79	1.29	1.16	1.01
11	1.88	2.22	1.69	1.37	7.04	4.74	11.10	2.63	1.68	1.66	1.23	1.02
12	1.68	2.12	1.67	1.36	8.13	4.30	9.73	1.69	1.73	1.22	1.10	1.00
13	1.60	1.79	1.65	1.35	6.53	3.60	8.39	2.15	2.50	1.15	1.36	1.01
14	1.70	1.64	1.63	1.36	5.65	3.33	7.48	2.22	4.25	1.36	1.40	.98
15	1.60	1.65	1.61	1.36	5.18	3.17	9.05	1.85	3.78	1.18	1.24	.99
16	1.39	1.51	1.65	1.36	5.11	3.99	14.71	2.04	4.19	1.24	1.22	.95
17	1.54	1.55	1.44	1.53	4.16	10.43	14.14	1.58	3.45	1.26	1.29	.98
18	1.50	1.49	1.48	2.12	3.79	12.25	12.51	1.83	2.61	1.25	1.17	.96
19	1.50	1.42	1.43	3.24	3.28	9.64	10.13	1.80	2.49	1.31	1.24	.96
20	1.30	1.41	1.49	4.47	3.21	8.43	8.53	1.77	2.02	1.74	1.22	.94
21	1.40	1.41	1.54	4.68	2.93	7.53	7.37	1.73	1.87	1.20	1.20	.94
22	1.46	1.36	1.55	15.32	2.71	6.44	9.66	1.93	1.54	1.14	1.15	.96
23	1.45	1.37	1.54	19.77	2.47	4.33	15.20	3.35	1.48	1.73	1.21	.95
24	1.43	1.40	1.56	20.74	2.38	4.28	14.45	8.15	1.50	1.48	1.49	.94
25	1.45	1.58	1.56	20.87	2.28	3.50	11.53	5.54	1.48	1.44	1.44	.92
26	1.42	1.53	1.53	20.17	2.18	3.27	10.25	3.64	1.42	1.41	1.46	.90
27	.99	1.50	1.56	18.93	6.37	3.02	9.18	3.08	1.53	1.34	1.34	.90
28	.97	1.48	1.55	17.15	12.27	2.60	10.63	2.74	1.61	1.43	1.32	.90
29	1.51	1.46	1.49	13.34	---	2.56	9.70	2.31	1.68	1.34	1.16	.77
30	1.47	1.48	1.45	10.33	---	2.38	7.61	2.25	1.65	1.19	1.09	.87
31	1.39	---	1.39	8.39	---	2.26	---	10.60	---	1.37	1.13	---
TOTAL	49.41	45.62	---	202.84	150.04	200.19	248.81	101.53	87.37	43.06	38.73	29.36
MEAN	1.59	1.52	---	6.54	5.36	6.46	8.29	3.28	2.91	1.39	1.25	.98
MAX	3.00	2.22	---	20.87	12.27	13.76	15.20	10.60	8.50	1.74	1.49	1.10
MIN	.97	1.33	---	1.29	2.18	2.26	2.11	1.58	1.42	1.06	1.09	.77

04183000 MAUMEE RIVER AT NEW HAVEN, IN

LOCATION.--Lat 41°05'06", long 85°01'20", in SE¼NE¼ sec.2, T.30 N., R.13 E., Allen County, Hydrologic Unit 04100005, on left bank 600 ft upstream from bridge on Landin Road, 1,400 ft upstream from the Norfolk and Western Railroad bridge, 1.1 mi northwest of New Haven, 2.8 mi upstream from Sixmile Creek and at mile 129.0.

DRAINAGE AREA.--1,967 mi^2.

PERIOD OF RECORD.--December 1946 to September 1956 (high-water records only), October 1956 to current year.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 724.51 ft above sea level. Prior to Sept. 7, 1956, nonrecording gage, Sept. 7, 1956 to Sept. 14, 1965, water-stage recorder at site 500 ft downstream at same datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated by hydro-powerplant on the St. Joseph River 10.3 mi upstream from station. Flow slightly regulated by upstream reservoirs.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	181	281	382	257	3880	7910	828	3320	6070	574	265	183
2	e210	258	362	e260	3510	7260	848	2660	4490	317	181	86
3	e220	242	272	e260	3260	8280	855	2330	3850	186	223	97
4	225	234	104	e260	2920	8500	871	1810	2810	293	182	123
5	e215	229	306	e260	2520	6370	729	1570	1890	271	152	119
6	e205	236	344	e260	2290	5310	787	1730	1380	278	152	113
7	196	235	494	e270	2160	5030	820	1070	1270	275	151	116
8	1410	230	430	e270	2730	3970	867	1160	1080	209	244	121
9	1240	224	390	e270	4320	2860	4070	1120	825	177	193	114
10	947	475	375	e270	4100	2700	5710	885	677	252	154	111
11	799	868	382	e270	3240	2290	6010	756	566	181	173	108
12	654	883	379	e270	4160	2090	6400	858	579	248	120	111
13	548	702	371	e270	3800	1730	4980	651	614	141	188	118
14	405	575	363	e280	2720	1530	3920	828	1230	126	402	114
15	344	528	347	e290	2550	1440	3560	723	1950	177	236	113
16	452	477	607	e300	2390	1510	8470	675	1790	162	173	106
17	318	431	416	e320	2180	3520	10500	642	1650	181	209	99
18	195	410	333	e330	1860	7770	9060	493	1130	152	186	100
19	373	370	323	e350	1590	6880	7240	569	714	171	183	101
20	280	342	323	e420	1430	4870	5210	588	634	e300	195	101
21	197	327	348	e1400	1320	4100	4060	565	758	273	175	98
22	270	299	398	6580	1240	3470	3580	640	500	153	155	e102
23	235	285	354	14300	1070	2710	10600	899	416	435	161	100
24	223	298	369	18200	981	2090	10900	2430	374	467	152	99
25	226	327	365	19200	915	1820	8980	3620	378	366	533	96
26	227	465	369	18700	874	1410	6660	2020	329	293	284	91
27	171	417	392	17300	1520	1330	5630	1650	378	296	346	93
28	95	395	392	15200	6200	1200	5800	1260	463	202	212	e121
29	349	377	369	11700	---	1110	6400	968	464	323	192	e150
30	482	396	e330	7420	---	1030	4580	813	553	209	147	119
31	348	---	285	5200	---	883	---	4840	---	177	234	---
TOTAL	12240	11816	11274	140937	71730	112973	148925	44143	39812	7865	6553	3323
MEAN	395	394	364	4546	2562	3644	4964	1424	1327	254	211	111
MAX	1410	883	607	19200	6200	8500	10900	4840	6070	574	533	183
MIN	95	224	104	257	874	883	729	493	329	126	120	86
CFSM	.20	.20	.18	2.31	1.30	1.85	2.52	.72	.67	.13	.11	.06
IN.	.23	.22	.21	2.67	1.36	2.14	2.82	.83	.75	.15	.12	.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1999, BY WATER YEAR (WY)

MEAN	543	1267	2100	2043	2680	3800	3467	1881	1581	1019	579	519
MAX	3087	6523	6292	7203	7649	11460	7955	6914	6480	3988	2461	2737
(WY)	1987	1993	1968	1993	1976	1982	1957	1996	1981	1992	1998	1992
MIN	62.3	102	96.4	119	161	1181	789	382	122	197	99.1	91.2
(WY)	1964	1965	1964	1963	1964	1981	1971	1988	1988	1964	1962	1963

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1957 - 1999	
ANNUAL TOTAL	805480		611591			
ANNUAL MEAN	2207		1676		1784	
HIGHEST ANNUAL MEAN					2975	1993
LOWEST ANNUAL MEAN					669	1963
HIGHEST DAILY MEAN	15800	Apr 10	19200	Jan 25	26300	Mar 17 1982
LOWEST DAILY MEAN	95	Oct 28	86	Sep 2	48	Oct 6 1963
ANNUAL SEVEN-DAY MINIMUM	192	Sep 25	97	Sep 21	55	Oct 4 1963
INSTANTANEOUS PEAK FLOW			19300	Jan 25	26600	Mar 17 1982
INSTANTANEOUS PEAK STAGE			21.55	Jan 25	25.49	Mar 17 1982
ANNUAL RUNOFF (CFSM)	1.12		.85		.91	
ANNUAL RUNOFF (INCHES)	15.23		11.57		12.32	
10 PERCENT EXCEEDS	6610		5000		4830	
50 PERCENT EXCEEDS	1040		416		776	
90 PERCENT EXCEEDS	235		152		156	

e Estimated

05515000 KANKAKEE RIVER NEAR NORTH LIBERTY, IN

LOCATION.--Lat 41°33'50", long 86°29'50", in NW¼NE¼ sec.23, T.36 N., R.1 W., St. Joseph County, Hydrologic Unit 07120001, on left bank at downstream side of bridge on county highway named "New Road", 2.7 mi upstream from Little Kankakee River, 4 mi northwest of North Liberty, and at mile 126.9.

DRAINAGE AREA.--174 mi², of which 58.2 mi² does not contribute directly to surface runoff.

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

REVISED RECORDS.--WSP 1915: 1952, 1956-59. WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 680.04 ft above sea level (levels by State of Indiana, Department of Natural Resources). Prior to June 26, 1956, nonrecording gage at same site and datum.

REMARKS.--Records good except for estimated daily discharges and those above 300 ft³/s (backwater), which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	111	101	103	214	157	150	231	129	200	83	75
2	86	110	102	e104	212	156	148	220	131	240	79	71
3	90	109	102	e106	207	165	146	208	126	192	75	68
4	89	107	100	e104	198	166	151	200	124	171	76	67
5	89	107	99	e102	186	163	145	195	121	158	75	67
6	94	106	106	e100	185	181	146	194	116	149	68	67
7	118	105	149	e99	189	180	145	190	114	142	70	69
8	115	105	143	e98	198	174	143	184	111	137	73	64
9	107	105	133	e98	212	171	173	179	109	131	70	64
10	104	116	128	e97	204	168	197	173	108	127	69	64
11	102	140	121	e97	195	163	213	169	106	121	64	65
12	100	127	118	e96	196	160	211	167	109	115	63	64
13	99	123	116	e96	185	157	194	163	113	105	70	64
14	99	120	113	e95	178	158	182	160	114	98	75	63
15	98	117	112	e95.0	176	155	177	156	110	97	70	64
16	97	115	111	e96.0	175	156	215	154	106	97	69	64
17	99	112	110	e100	173	198	234	152	106	94	66	64
18	105	110	108	e104	169	247	217	153	102	94	63	64
19	104	111	110	e116	166	221	210	148	100	94	70	62
20	103	109	108	e130	162	205	199	144	100	90	75	62
21	104	108	112	e156	158	195	193	141	99	91	72	63
22	108	107	111	281	155	184	204	141	93	88	71	64
23	108	107	109	515	154	177	460	144	92	86	71	66
24	107	105	106	565	152	171	505	150	98	101	74	69
25	106	105	105	456	153	165	411	144	130	96	99	69
26	105	105	105	367	149	163	338	140	119	90	97	70
27	106	103	105	319	153	161	286	136	152	88	90	71
28	107	103	104	289	155	159	304	133	149	87	86	74
29	106	103	105	258	---	157	289	132	148	86	82	84
30	114	103	104	237	---	153	254	127	136	84	78	86
31	113	---	103	223	---	151	---	130	---	81	77	---
TOTAL	3167	3314	3459	5702.0	5009	5337	6840	5058	3471	3630	2320	2028
MEAN	102	110	112	184	179	172	228	163	116	117	74.8	67.6
MAX	118	140	149	565	214	247	505	231	152	240	99	86
MIN	85	103	99	95	149	151	143	127	92	81	63	62
CFSM	.59	.63	.64	1.06	1.03	.99	1.31	.94	.66	.67	.43	.39
IN.	.68	.71	.74	1.22	1.07	1.14	1.46	1.08	.74	.78	.50	.43

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1999, BY WATER YEAR (WY)

MEAN	136	157	169	170	178	224	215	180	158	128	108	106
MAX	333	303	341	367	298	471	310	335	410	390	273	222
(WY)	1994	1991	1991	1991	1991	1982	1985	1996	1996	1996	1995	1993
MIN	70.1	67.3	77.5	78.0	76.3	112	112	98.4	84.0	64.2	63.1	64.4
(WY)	1954	1965	1961	1961	1963	1957	1987	1958	1971	1971	1964	1953

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1951 - 1999	
ANNUAL TOTAL	58018		49335.0			
ANNUAL MEAN	159		135		160	
HIGHEST ANNUAL MEAN					245	1991
LOWEST ANNUAL MEAN					95.4	1964
HIGHEST DAILY MEAN	569	Jan 9	565	Jan 24	903	Mar 17 1982
LOWEST DAILY MEAN	74	Sep 19	62	Sep 19	44	Aug 4 1988
ANNUAL SEVEN-DAY MINIMUM	76	Sep 13	63	Sep 14	51	Sep 7 1964
INSTANTANEOUS PEAK FLOW			613	Jan 23	908	Mar 17 1982
INSTANTANEOUS PEAK STAGE			7.41	Jan 23	9.04	Jun 27 1968
ANNUAL RUNOFF (CFSM)	.91		.78		.92	
ANNUAL RUNOFF (INCHES)	12.40		10.55		12.53	
10 PERCENT EXCEEDS	253		204		260	
50 PERCENT EXCEEDS	141		111		140	
90 PERCENT EXCEEDS	87		71		83	

e Estimated

05515500 KANKAKEE RIVER AT DAVIS, IN

LOCATION.--Lat 41°24'00", long 86°42'04", in SE¼NE¼ sec.13, T.34 N., R.3 W., Starke County, Hydrologic Unit 07120001, on left bank at downstream side of bridge on U.S. Highway 30 at Davis, 0.5 mi downstream from Mill Creek, 4 mi east of Hanna, and at mile 110.9.

DRAINAGE AREA.--537 mi^2, of which 137 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--July 1905 to July 1906 and October 1924 to current year. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 1338: 1953. WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 664.68 ft above 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.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	306	341	336	331	771	529	472	995	438	574	311	246
2	304	338	336	e280	744	529	469	907	452	782	296	234
3	312	337	335	e275	724	551	467	837	454	692	279	225
4	314	335	332	e272	695	577	473	766	431	593	269	221
5	309	333	326	e270	661	565	495	725	422	528	263	219
6	311	333	330	e270	639	635	484	687	413	487	252	218
7	317	332	417	e269	633	678	473	669	399	457	245	223
8	365	331	459	e269	669	639	464	640	388	429	248	218
9	376	333	430	e268	712	611	539	615	378	408	243	219
10	359	351	407	e267	717	590	737	591	370	387	240	219
11	346	394	389	e266	692	566	779	571	361	365	234	218
12	336	400	377	e265	676	549	808	554	376	346	230	214
13	328	386	368	e263	654	540	742	552	437	332	248	217
14	324	374	360	e262	616	525	666	539	447	323	258	219
15	323	360	357	e260	594	520	622	526	423	314	251	219
16	323	352	356	e267	596	536	691	512	403	299	238	221
17	320	352	356	e270	592	636	825	504	388	303	229	219
18	316	344	350	e280	576	770	815	509	375	310	217	218
19	330	338	349	e290	560	762	772	501	365	305	236	216
20	331	337	349	e320	540	704	729	482	359	304	263	218
21	325	337	351	e400	524	658	706	470	351	302	252	216
22	325	332	357	686	507	614	814	467	340	289	245	218
23	329	332	e320	1130	500	581	1220	469	335	280	246	218
24	326	332	e315	1320	490	567	1440	512	346	295	258	223
25	324	330	e310	1310	488	541	1350	508	387	290	308	222
26	322	329	e305	1240	485	526	1250	484	388	277	324	220
27	322	327	e310	1160	495	515	1170	461	489	271	307	227
28	327	325	e320	1080	521	500	1200	448	537	269	288	237
29	326	323	341	988	---	494	1200	438	517	279	274	274
30	345	328	332	899	---	483	1100	427	470	269	265	280
31	349	---	327	831	---	472	---	428	---	273	251	---
TOTAL	10170	10296	10907	16558	17071	17963	23972	17794	12239	11632	8068	6756
MEAN	328	343	352	534	610	579	799	574	408	375	260	225
MAX	376	400	459	1320	771	770	1440	995	537	782	324	280
MIN	304	323	305	260	485	472	464	427	335	269	217	214
CFSM	.61	.64	.66	.99	1.14	1.08	1.49	1.07	.76	.70	.48	.42
IN.	.70	.71	.76	1.15	1.18	1.24	1.66	1.23	.85	.81	.56	.47

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 1999, BY WATER YEAR (WY)

MEAN	411	480	523	552	584	722	744	630	529	426	363	348
MAX	1162	988	1191	1275	990	1376	1218	1067	1076	983	804	718
(WY)	1955	1991	1928	1993	1991	1985	1982	1983	1996	1996	1996	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1926 - 1999	
ANNUAL TOTAL	203179		163426			
ANNUAL MEAN	557		448		526	
HIGHEST ANNUAL MEAN					823	1991
LOWEST ANNUAL MEAN					293	1964
HIGHEST DAILY MEAN	1480	Jan 9	1440	Apr 24	1920	Mar 20 1982
LOWEST DAILY MEAN	281	Sep 6	214	Sep 12	154	Aug 30 1941
ANNUAL SEVEN-DAY MINIMUM	294	Sep 3	218	Sep 17	156	Aug 28 1941
INSTANTANEOUS PEAK FLOW			1450	Apr 24	1920	Mar 20 1982
INSTANTANEOUS PEAK STAGE			12.17	Apr 24	13.79	Jul 19 1996
ANNUAL RUNOFF (CFSM)	1.04		.83		.98	
ANNUAL RUNOFF (INCHES)	14.07		11.32		13.30	
10 PERCENT EXCEEDS	995		724		895	
50 PERCENT EXCEEDS	453		359		452	
90 PERCENT EXCEEDS	312		245		279	

e Estimated

05516500 YELLOW RIVER AT PLYMOUTH, IN

LOCATION.--Lat 41°20'25", long 86°18'16", in SE¼NW¼ sec.13, T.33 N., R.2 E., Marshall County, Hydrologic Unit 07120001, on left bank 50 ft upstream from LaPorte Street footbridge in Plymouth, 1.1 mi downstream from Elmer Seltenright (formerly Baker) Ditch, 8.1 mi upstream from Wolf Creek, and at mile 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 fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	e65	73	48	348	418	179	848	245	322	234	41
2	44	e61	73	42	361	382	176	510	292	717	138	39
3	45	e55	65	35	414	550	173	404	339	430	92	37
4	44	e52	60	e36	363	598	259	348	230	254	78	36
5	42	e53	56	e36	301	403	350	309	188	196	71	35
6	52	e52	61	e36	284	612	283	285	165	167	66	55
7	74	e50	92	e36	290	729	239	263	150	149	65	47
8	73	e49	117	e36	364	493	215	237	138	136	65	41
9	60	e49	89	e36	602	388	592	219	129	131	61	39
10	52	e59	75	e35	567	355	1070	204	120	125	61	39
11	50	e78	68	e35	406	309	1140	191	113	119	57	38
12	46	e130	64	e35	377	285	1010	185	117	113	57	40
13	44	e110	61	e35	329	267	691	181	213	111	64	44
14	43	e90	58	e35	280	255	439	172	318	107	60	44
15	43	e80	57	e35	266	248	379	155	250	103	56	44
16	41	e70	56	e37	263	265	606	147	163	101	53	52
17	40	e64	56	e47	275	632	945	143	137	e98	52	50
18	50	e60	54	e58	266	935	949	154	120	e96	49	42
19	55	e57	60	e80	246	863	757	156	108	e94	68	40
20	50	55	61	e110	227	466	616	141	100	e97	63	38
21	48	52	66	e180	208	374	522	134	98	e99	54	37
22	51	51	67	589	193	323	863	133	95	e94	52	36
23	51	50	e60	1370	187	285	1650	151	93	e88	49	35
24	50	50	e55	2090	177	261	2290	427	98	e86	59	35
25	48	51	e52	2400	178	235	2570	381	173	e80	100	34
26	e50	51	e50	2140	171	218	2180	241	139	e74	96	34
27	e49	50	e50	1630	216	208	1570	189	148	e70	69	36
28	e54	48	56	1160	379	200	1210	165	162	e64	56	42
29	e64	48	56	753	---	194	1360	149	194	e70	49	59
30	e67	56	52	483	---	185	1280	140	176	78	44	45
31	e68	---	53	390	---	179	---	171	---	83	42	---
TOTAL	1594	1846	1973	14068	8538	12115	26563	7533	5011	4552	2180	1234
MEAN	51.4	61.5	63.6	454	305	391	885	243	167	147	70.3	41.1
MAX	74	130	117	2400	602	935	2570	848	339	717	234	59
MIN	40	48	50	35	171	179	173	133	93	64	42	34
CFSM	.17	.21	.22	1.54	1.04	1.33	3.01	.83	.57	.50	.24	.14
IN.	.20	.23	.25	1.78	1.08	1.53	3.36	.95	.63	.58	.28	.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1999, BY WATER YEAR (WY)

MEAN	149	194	274	318	373	535	505	299	255	174	110	92.3
MAX	1583	689	733	1244	1007	1586	1190	1098	850	711	494	536
(WY)	1955	1993	1983	1993	1959	1982	1950	1996	1996	1996	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1949 - 1999	
ANNUAL TOTAL	108307		87207			
ANNUAL MEAN	297		239		272	
HIGHEST ANNUAL MEAN					453	1993
LOWEST ANNUAL MEAN					119	1957
HIGHEST DAILY MEAN	2510	Jan 10	2570	Apr 25	5310	Oct 13 1954
LOWEST DAILY MEAN	40	Oct 17	34	Sep 25	13	Dec 3 1964
ANNUAL SEVEN-DAY MINIMUM	44	Oct 11	35	Jan 9	15	Dec 2 1964
INSTANTANEOUS PEAK FLOW			2620	Apr 25	5390	Oct 12 1954
INSTANTANEOUS PEAK STAGE			13.35	Apr 25	17.13	Oct 12 1954
ANNUAL RUNOFF (CFSM)	1.01		.81		.93	
ANNUAL RUNOFF (INCHES)	13.70		11.03		12.59	
10 PERCENT EXCEEDS	760		576		683	
50 PERCENT EXCEEDS	129		98		132	
90 PERCENT EXCEEDS	50		42		39	

e Estimated

05517000 YELLOW RIVER AT KNOX, IN

LOCATION.--Lat 41°18'10", long 86°37'14", in $SW^1/_4SW^1/_4$ sec.14, T.33 N., R.2 W., Starke County, Hydrologic Unit 07120001, on right bank 40 ft upstream from bridge on U.S. Highway 35 in Knox, 1.4 mi downstream from Eagle Creek, and at mile 11.6.

DRAINAGE AREA.--435 mi^2, of which 51 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--August 1905 to July 1906, August 1943 to current year.

REVISED RECORDS.--WSP 1278: 1952. WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 679.93 ft above sea level (levels by State of Indiana, Department of Natural Resources). August 1905 to July 1906, nonrecording gage at same site at different datum. August 1943 to July 17, 1952, nonrecording gage at same site and datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	156	166	143	648	597	345	1490	378	379	227	117
2	130	150	181	47	609	613	336	1160	456	616	312	111
3	135	143	178	71	623	625	329	844	519	771	221	104
4	138	137	168	e100	635	765	348	728	508	550	180	101
5	136	137	161	e100	573	749	462	662	415	402	159	98
6	148	136	163	e99	517	700	507	615	367	337	141	100
7	184	133	182	e99	510	852	446	583	333	294	140	99
8	196	130	208	e99	535	873	405	546	310	259	144	102
9	183	131	223	e99	631	714	521	514	293	234	133	99
10	166	152	201	e98	781	619	875	484	288	215	125	93
11	153	222	185	e98	725	569	1090	459	271	205	122	93
12	146	248	173	e98	616	522	1190	442	272	198	120	92
13	138	222	167	e97	578	492	1120	437	305	185	129	95
14	135	194	161	e97	519	467	891	426	416	179	137	92
15	136	180	157	e97	474	452	680	407	498	176	129	90
16	134	169	156	e100	461	448	716	385	404	166	118	90
17	130	162	156	e110	461	537	939	370	327	160	113	93
18	131	157	154	e130	464	811	1090	368	293	161	109	110
19	147	154	156	e160	447	962	1120	378	267	156	125	105
20	144	147	162	e200	421	944	983	366	246	158	146	101
21	138	146	167	e260	396	670	876	346	234	162	133	99
22	133	143	172	e400	371	570	866	336	223	157	123	98
23	135	141	e150	869	353	512	1280	335	214	145	115	94
24	135	138	e140	1310	343	468	1990	387	222	144	118	93
25	134	139	e135	1810	336	438	2490	637	226	139	175	91
26	131	142	e130	2250	334	409	2860	550	300	129	198	91
27	130	141	e130	2390	364	388	2660	436	293	121	186	91
28	140	143	152	1950	481	373	2110	383	300	120	162	95
29	154	138	150	1430	---	359	1600	351	290	137	142	134
30	155	145	149	1020	---	347	1490	331	330	195	128	160
31	159	---	142	752	---	337	---	334	---	158	121	---
TOTAL	4477	4676	5075	16583	14206	18182	32615	16090	9798	7408	4631	3031
MEAN	144	156	164	535	507	587	1087	519	327	239	149	101
MAX	196	248	223	2390	781	962	2860	1490	519	771	312	160
MIN	123	130	130	47	334	337	329	331	214	120	109	90
CFSM	.33	.36	.38	1.23	1.17	1.35	2.50	1.19	.75	.55	.34	.23
IN.	.38	.40	.43	1.42	1.21	1.55	2.79	1.38	.84	.63	.40	.26

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1999, BY WATER YEAR (WY)

MEAN	256	304	394	458	520	727	727	506	418	288	209	180
MAX	1939	883	1070	1580	1193	2127	1714	1154	1113	955	652	692
(WY)	1955	1973	1967	1993	1959	1982	1950	1996	1975	1996	1958	1972
MIN	77.5	83.3	91.6	71.3	107	194	243	169	146	115	93.6	75.9
(WY)	1965	1965	1964	1963	1963	1957	1958	1958	1988	1971	1964	1964

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1944 - 1999	
ANNUAL TOTAL	177181		136772			
ANNUAL MEAN	485		375		415	
HIGHEST ANNUAL MEAN					661	1950
LOWEST ANNUAL MEAN					180	1964
HIGHEST DAILY MEAN	2870	Jan 9	2860	Apr 26	5600	Oct 15 1954
LOWEST DAILY MEAN	123	Sep 29	47	Jan 2	47	Jan 2 1999
ANNUAL SEVEN-DAY MINIMUM	126	Sep 26	88	Jan 2	50	Jan 21 1963
INSTANTANEOUS PEAK FLOW			2910	Apr 26	5660	Oct 15 1954
INSTANTANEOUS PEAK STAGE			10.10	Apr 26	13.75	Oct 15 1954
ANNUAL RUNOFF (CFSM)	1.12		.86		.95	
ANNUAL RUNOFF (INCHES)	15.15		11.70		12.96	
10 PERCENT EXCEEDS	1000		775		892	
50 PERCENT EXCEEDS	337		198		270	
90 PERCENT EXCEEDS	138		101		114	

e Estimated

05517500 KANKAKEE RIVER AT DUNNS BRIDGE, IN

LOCATION.--Lat 41°13'10", long 86°58'07", in NE¼SE¼ sec.15, T.32 N., R.5 W., Porter County, Hydrologic Unit 07120001, on right bank at downstream side of county road 500E bridge at Dunns Bridge, 1.8 mi north of Tefft, 3.6 mi upstream from Davis Ditch, and at mile 90.8.

DRAINAGE AREA.--1,352 mi^2, of which 192 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--July 1948 to current year.

REVISED RECORDS.--WSP 1728: 1954(m). WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 649.65 ft above sea level (levels by State of Indiana, Department of Natural Resources). Prior to July 17, 1956, nonrecording gage at same datum. July 17, 1956 to Oct. 31, 1998, water-stage recorder at site 250 ft downstream at same datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	570	624	663	e615	2960	1570	1320	4010	1200	1330	642	462
2	575	612	691	e600	2680	1630	1330	3880	1310	1740	731	447
3	592	618	689	e595	2470	1680	1320	3670	1360	1920	702	426
4	609	607	695	e590	2320	1740	1330	3370	1380	1910	626	414
5	612	594	695	e583	2190	1840	1350	3050	1290	1650	598	409
6	630	593	700	e580	2090	1880	1430	2770	1200	1430	553	406
7	707	604	782	e578	2030	1980	1410	2550	1150	1270	514	398
8	761	599	894	e575	2020	2080	1350	2350	1080	1150	536	400
9	746	603	947	e573	2030	2080	1410	2170	1050	1050	525	396
10	725	631	913	e570	2080	1960	1700	2010	1020	983	498	390
11	690	714	867	e570	2140	1860	2040	1900	991	918	490	330
12	660	777	832	e570	2090	1770	2250	1810	1010	868	473	313
13	631	794	810	e575	2000	1690	2360	1760	1090	835	500	324
14	592	773	794	e570	1910	1640	2360	1720	1170	783	524	325
15	585	737	770	e585	1840	1580	2200	1650	1220	751	510	326
16	595	701	756	e595	1780	1570	2100	1590	1220	705	480	333
17	581	679	742	e610	1740	1640	2200	1530	1120	684	452	358
18	579	664	721	e640	1710	1850	2390	1490	1030	692	430	358
19	589	650	706	e690	1660	2050	2510	1460	978	689	455	359
20	605	646	716	e790	1610	2170	2520	1430	934	e700	509	364
21	591	644	718	e1000	1540	2150	2470	1390	895	707	e507	361
22	579	649	704	e1500	1470	1960	2520	1360	860	674	e480	e361
23	569	638	651	2170	1420	1820	2820	1340	831	637	e457	361
24	583	647	e700	2770	1380	1730	3180	1380	844	637	534	363
25	570	641	e680	3080	1370	1650	3410	1460	944	638	e534	357
26	591	633	e660	3260	1330	1570	3640	1560	962	606	e596	354
27	569	616	e655	3450	1380	1500	3860	1440	1070	571	e653	352
28	584	611	e660	3620	1470	1440	4070	1310	1210	552	e605	366
29	594	608	e665	3660	---	1390	4130	1240	1270	547	558	425
30	616	604	e650	3540	---	1360	4110	1190	1250	564	520	480
31	635	---	e630	3290	---	1320	---	1180	---	572	486	---
TOTAL	19115	19511	22756	43394	52710	54150	71090	61020	32939	28763	16678	11318
MEAN	617	650	734	1400	1882	1747	2370	1968	1098	928	538	377
MAX	761	794	947	3660	2960	2170	4130	4010	1380	1920	731	480
MIN	569	593	630	570	1330	1320	1320	1180	831	547	430	313
CFSM	.46	.48	.54	1.04	1.39	1.29	1.75	1.46	.81	.69	.40	.28
IN.	.53	.54	.63	1.19	1.45	1.49	1.96	1.68	.91	.79	.46	.31

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1999, BY WATER YEAR (WY)

MEAN	940	1153	1379	1504	1590	2089	2228	1771	1456	1103	853	740
MAX	3378	2562	2816	3845	2874	4229	4376	3231	3360	2622	2316	1924
(WY)	1955	1973	1983	1991	1968	1985	1950	1983	1996	1996	1990	1993
MIN	350	398	447	449	391	719	1082	767	657	419	371	360
(WY)	1964	1965	1964	1963	1963	1957	1958	1958	1988	1988	1964	1964

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1949 - 1999	
ANNUAL TOTAL	570458		433444			
ANNUAL MEAN	1563		1188		1399	
HIGHEST ANNUAL MEAN					2161	1991
LOWEST ANNUAL MEAN					618	1964
HIGHEST DAILY MEAN	4330	Jan 12	4130	Apr 29	5850	Mar 23 1982
LOWEST DAILY MEAN	468	Sep 20	313	Sep 12	280	Jan 25 1963
ANNUAL SEVEN-DAY MINIMUM	488	Sep 16	330	Sep 11	283	Jan 24 1963
INSTANTANEOUS PEAK FLOW			4140	Apr 29	5870	Mar 23 1982
INSTANTANEOUS PEAK STAGE			11.79	Apr 29	13.38	Mar 23 1982
ANNUAL RUNOFF (CFSM)	1.16		.88		1.03	
ANNUAL RUNOFF (INCHES)	15.70		11.93		14.06	
10 PERCENT EXCEEDS	3200		2220		2650	
50 PERCENT EXCEEDS	1260		790		1160	
90 PERCENT EXCEEDS	595		480		539	

e Estimated

05517530 KANKAKEE RIVER NEAR KOUTS, IN

LOCATION.--Lat 41°15'14", long 87°02'02", in SW¼NE¼ sec.6, T.32 N., R.5 W., Jasper County, Hydrologic Unit 07120001, on left bank, 20 ft downstream from bridge on State Highway 49, 0.7 mi upstream from Cook Ditch, 4.5 mi south of Kouts, and at mile 86.7.

DRAINAGE AREA.--1,376 mi^2, of which 194 mi^2 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.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	530	592	662	e605	2960	e1490	1250	4040	1180	1350	568	404
2	612	581	689	e600	2680	e1590	1280	3940	1280	1780	686	385
3	618	586	688	e596	2480	e1650	1280	3750	1350	1960	658	387
4	605	576	691	e590	2290	e1700	1250	3470	1370	1960	563	387
5	608	553	689	e584	2140	e1740	1280	3160	1270	1680	555	376
6	622	544	683	e580	2040	e1820	1350	2870	1180	1450	515	380
7	712	579	757	e576	2000	1900	1340	2650	1120	1270	482	356
8	731	581	872	e572	2020	2020	e1310	2430	1080	1160	498	346
9	725	583	927	e570	2010	e2010	e1380	2230	1040	1080	497	356
10	734	595	912	e562	2060	e2000	e1600	2050	990	985	478	343
11	681	661	880	e560	2140	e1880	e1900	1920	967	954	472	286
12	654	723	830	e562	2080	1720	e2200	1840	973	872	443	281
13	630	741	801	e562	1980	1640	e2300	1790	1070	821	470	295
14	598	733	794	e562	1880	1580	e2330	1760	1170	793	503	307
15	585	707	773	e580	1830	1530	e2240	1660	1230	734	496	328
16	595	675	736	e590	1770	1520	e2150	1600	1230	701	444	322
17	585	654	728	e610	1720	1620	e2110	1540	1120	693	400	320
18	579	637	719	e640	1690	1830	e2340	1490	1040	689	400	320
19	587	626	661	e700	e1620	1980	e2500	1470	997	657	434	332
20	601	620	665	e800	e1590	2100	e2510	1440	965	676	484	339
21	567	608	669	e1040	e1510	2120	e2500	1410	919	706	482	372
22	561	611	668	e1400	e1470	1940	e2500	1390	869	649	458	357
23	567	604	637	e2060	e1420	1790	e2700	1340	817	605	435	331
24	600	631	631	2820	e1380	1700	e3000	1380	833	586	445	329
25	565	611	e660	3080	e1350	1610	e3400	1430	931	587	505	318
26	588	615	e655	3230	e1320	1540	e3550	1510	935	557	573	318
27	573	595	e650	3390	e1360	1470	e3700	1430	1050	524	632	347
28	589	606	e655	3550	e1450	1370	e3900	1310	1190	516	568	359
29	594	589	e660	3590	---	1330	4160	1210	1230	502	514	425
30	602	611	e650	3490	---	1340	4130	1170	1210	510	480	485
31	599	---	e635	3270	---	1290	---	1150	---	526	448	---
TOTAL	18997	18628	22327	42921	52240	52820	69440	61830	32606	28533	15586	10491
MEAN	613	621	720	1385	1866	1704	2315	1995	1087	920	503	350
MAX	734	741	927	3590	2960	2120	4160	4040	1370	1960	686	485
MIN	530	544	631	560	1320	1290	1250	1150	817	502	400	281
CFSM	.45	.45	.52	1.01	1.36	1.24	1.68	1.45	.79	.67	.37	.25
IN.	.51	.50	.60	1.16	1.41	1.43	1.88	1.67	.88	.77	.42	.28

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1999, BY WATER YEAR (WY)

MEAN	1006	1296	1603	1596	1650	2374	2475	1911	1717	1222	971	838
MAX	2770	2392	2889	3787	2614	4613	4229	3255	3403	2642	2432	2014
(WY)	1991	1991	1991	1991	1991	1985	1985	1983	1996	1996	1990	1993
MIN	477	542	704	634	718	1089	1144	1113	619	411	398	350
(WY)	1979	1979	1979	1977	1978	1996	1987	1992	1988	1988	1988	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1975 - 1999	
ANNUAL TOTAL	576063		426419			
ANNUAL MEAN	1578		1168		1554	
HIGHEST ANNUAL MEAN					2160	1991
LOWEST ANNUAL MEAN					1131	1977
HIGHEST DAILY MEAN	4290	Jan 13	4160	Apr 29	6410	Mar 24 1982
LOWEST DAILY MEAN	479	Sep 20	281	Sep 12	281	Sep 12 1999
ANNUAL SEVEN-DAY MINIMUM	498	Sep 15	306	Sep 11	306	Sep 11 1999
INSTANTANEOUS PEAK FLOW			4180	Apr 29	6420	Mar 24 1982
INSTANTANEOUS PEAK STAGE			12.85	Apr 29	14.52	Mar 24 1982
ANNUAL RUNOFF (CFSM)	1.15		.85		1.13	
ANNUAL RUNOFF (INCHES)	15.57		11.53		15.34	
10 PERCENT EXCEEDS	3290		2230		2920	
50 PERCENT EXCEEDS	1260		793		1320	
90 PERCENT EXCEEDS	589		447		608	

e Estimated

05517890 COBB DITCH NEAR KOUTS, IN

LOCATION.--Lat 41°20'19", long 87°04'30", in NW¼SE¼ sec. 2, T.33 N., R.6 W., Porter County, Hydrologic Unit 07120001, on left bank 15 ft upstream from bridge on County Road 50 West, 1.6 mi upstream from mouth, and 3 mi northwest of Kouts.

DRAINAGE AREA.--30.3 mi².

PERIOD OF RECORD.--July 1968 to current year. Prior to October 1971, published as State Ditch near Kouts.

GAGE.--Water-stage recorder. Datum of gage is 652.00 ft above 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 fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	16	14	e12	40	23	21	50	27	42	13	11
2	15	16	14	e12	39	23	21	47	30	34	12	10
3	16	15	14	e12	40	28	20	42	28	28	12	9.0
4	16	15	14	e11	33	26	21	38	27	25	12	10
5	16	15	14	e11	32	24	20	34	27	24	12	11
6	16	15	17	e12	30	32	21	33	26	22	12	11
7	16	15	31	e11	31	32	21	32	25	21	11	11
8	16	15	23	e11	38	29	20	30	25	20	12	11
9	15	15	20	e12	48	28	23	29	25	19	12	9.6
10	15	21	20	e12	36	26	22	29	25	18	11	9.5
11	16	19	19	e11	33	24	25	28	25	17	9.9	10
12	15	17	18	e12	46	24	25	28	25	16	11	10
13	13	16	18	e12	35	23	23	28	31	14	13	10
14	14	16	17	e13	35	23	22	28	28	15	12	10
15	14	15	17	e14	34	23	23	27	25	16	12	10
16	14	15	17	e15	32	30	62	27	24	16	11	9.9
17	15	15	17	16	32	99	64	27	23	15	11	9.9
18	16	15	17	26	29	61	51	27	22	15	11	10
19	15	15	17	27	27	41	42	26	21	14	13	9.9
20	15	14	16	21	25	34	35	26	20	15	12	9.8
21	17	14	e15	21	24	29	38	26	19	20	12	9.9
22	16	14	e14	88	23	25	113	27	18	16	12	10
23	17	15	e13	270	23	24	479	27	17	15	11	10
24	15	14	e13	234	22	23	161	28	17	14	13	10
25	15	14	e13	110	22	22	89	27	17	13	15	11
26	16	14	e14	73	22	22	65	26	16	13	15	10
27	16	14	e14	62	22	22	65	25	19	13	14	10
28	16	14	e14	60	23	21	180	25	17	13	13	11
29	16	14	e14	48	---	21	81	25	17	12	12	12
30	16	14	e13	45	---	21	59	25	16	10	12	10
31	16	---	e13	41	---	21	---	26	---	12	12	---
TOTAL	480	456	504	1335	876	904	1912	923	682	557	375.9	306.5
MEAN	15.5	15.2	16.3	43.1	31.3	29.2	63.7	29.8	22.7	18.0	12.1	10.2
MAX	17	21	31	270	48	99	479	50	31	42	15	12
MIN	13	14	13	11	22	21	20	25	16	10	9.9	9.0
CFSM	.51	.50	.54	1.42	1.03	.96	2.10	.98	.75	.59	.40	.34
IN.	.59	.56	.62	1.64	1.08	1.11	2.35	1.13	.84	.68	.46	.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1999, BY WATER YEAR (WY)

MEAN	21.5	31.4	33.2	34.5	39.5	53.3	50.7	41.8	38.8	27.5	21.8	18.8
MAX	67.8	112	88.9	86.8	82.8	142	103	89.4	121	77.7	99.0	60.6
(WY)	1991	1986	1991	1993	1997	1982	1975	1974	1997	1996	1990	1993
MIN	11.5	11.0	14.4	11.0	10.6	17.9	20.8	14.9	14.6	12.0	10.8	10.2
(WY)	1981	1981	1990	1977	1978	1996	1986	1980	1988	1988	1988	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1969 - 1999	
ANNUAL TOTAL	13719		9311.4			
ANNUAL MEAN	37.6		25.5		34.4	
HIGHEST ANNUAL MEAN					53.1	1991
LOWEST ANNUAL MEAN					19.3	1977
HIGHEST DAILY MEAN	509	Mar 18	479	Apr 23	955	Nov 28 1990
LOWEST DAILY MEAN	13	Oct 13	9.0	Sep 3	8.9	Sep 11 1977
ANNUAL SEVEN-DAY MINIMUM	14	Dec 22	9.9	Sep 9	9.5	Feb 24 1978
INSTANTANEOUS PEAK FLOW			643	Apr 23	1160	Nov 28 1990
INSTANTANEOUS PEAK STAGE			13.72	Apr 23	17.95	Mar 29 1985
ANNUAL RUNOFF (CFSM)	1.24		.84		1.13	
ANNUAL RUNOFF (INCHES)	16.84		11.43		15.41	
10 PERCENT EXCEEDS	68		38		59	
50 PERCENT EXCEEDS	26		17		22	
90 PERCENT EXCEEDS	14		11		14	

e Estimated

05518000 KANKAKEE RIVER AT SHELBY, IN

LOCATION.--Lat 41°10'58", long 87°20'25", in SW¼NE¼ sec.33, T.32 N., R.8 W., Lake County, Hydrologic Unit 07120001, on right upstream corner of Highway 55 bridge, 1.0 mi south of Shelby, 7.8 mi upstream from Beaver Lake Ditch, and at mile 68.0.

DRAINAGE AREA.--1,779 mi^2, of which 201 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1922 to current year. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 1005: 1928(M). WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 628.13 ft above sea level. Prior to Dec. 19, 1934, nonrecording gage, Dec. 19, 1934, to Oct. 4, 1965, water-stage recorder on left bank 50 ft downstream, Oct. 5, 1965, to Sept. 21, 1966, nonrecording gage on right bank 200 ft downstream, and Sept. 21, 1966 to July 21, 1998, water-stage recorder on right bank 25 ft upstream from Monon railroad bridge and approximately 400 ft downstream, all at same datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	630	707	736	e730	3880	2010	1660	5010	1480	1730	624	483
2	658	710	775	e720	3660	2060	1650	4900	1580	2430	683	451
3	716	687	803	e700	3470	2120	1670	4750	1680	2550	719	429
4	706	671	802	e690	3260	2180	1650	4550	1700	2520	619	445
5	710	670	813	e680	3080	2250	1630	4290	1650	2320	564	436
6	733	648	819	e670	2940	2360	1680	4000	1540	2010	557	429
7	767	651	912	e660	2860	2420	1710	3740	1420	1700	509	419
8	850	669	1010	e650	2850	2520	1670	3500	1330	1470	525	390
9	848	670	1080	e640	2850	2590	1680	3240	1290	1330	523	383
10	847	708	1100	e630	2830	2540	1800	2990	1200	1190	502	387
11	824	758	1080	e620	2830	2450	2100	2790	1140	1100	489	e340
12	791	798	1030	e610	2870	2340	2390	2640	1220	1030	497	e330
13	757	828	990	e600	2800	2240	2540	2570	1510	910	531	e340
14	728	845	961	e600	2680	2160	2630	2510	1620	860	529	e350
15	691	835	978	e600	2580	2090	2650	2400	1570	775	544	e370
16	698	802	920	e610	2520	2060	2740	2260	1550	717	496	e365
17	710	780	895	e620	2440	2160	2910	2150	1470	704	443	e368
18	709	749	885	e650	2380	2330	2960	2050	1340	725	438	389
19	695	739	860	e800	2300	2430	3020	1960	1240	699	450	424
20	688	742	833	e1000	2220	2520	3070	1900	1160	680	509	405
21	691	717	844	e1400	2160	2600	3050	1840	1110	787	516	425
22	663	727	820	e1800	2060	2530	3280	1810	1030	728	494	426
23	668	726	830	e2400	1990	2380	3840	1770	962	650	500	415
24	682	730	e765	e3100	1910	2260	4280	1740	935	679	496	400
25	675	743	e745	e3700	1870	2160	4270	1770	1050	662	568	396
26	691	729	e725	3890	1820	2070	4280	1800	1060	636	600	372
27	682	736	e705	3930	1840	1970	4390	1800	1120	591	657	389
28	684	711	e700	4040	1950	1880	4850	1710	1300	556	660	415
29	688	732	e720	4110	---	1790	5140	1580	1410	539	591	474
30	701	709	e740	4120	---	1740	5090	1490	1410	506	561	546
31	701	---	e740	4040	---	1710	---	1450	---	532	530	---
TOTAL	22282	21927	26616	50010	72900	68920	86280	82960	40077	34316	16924	12191
MEAN	719	731	859	1613	2604	2223	2876	2676	1336	1107	546	406
MAX	850	845	1100	4120	3880	2600	5140	5010	1700	2550	719	546
MIN	630	648	700	600	1820	1710	1630	1450	935	506	438	330
CFSM	.40	.41	.48	.91	1.46	1.25	1.62	1.50	.75	.62	.31	.23
IN.	.47	.46	.56	1.05	1.52	1.44	1.80	1.73	.84	.72	.35	.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1999, BY WATER YEAR (WY)

MEAN	1075	1349	1633	1842	1972	2561	2789	2314	1821	1286	983	878
MAX	3529	3413	4502	4867	3658	5570	5365	4409	4347	3228	3058	2843
(WY)	1991	1973	1928	1991	1950	1985	1982	1943	1981	1996	1990	1993
MIN	455	519	540	460	462	848	1226	789	569	441	402	356
(WY)	1954	1954	1964	1940	1963	1934	1925	1934	1934	1988	1988	1941

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1924 - 1999	
ANNUAL TOTAL	768858		535403			
ANNUAL MEAN	2106		1467		1707	
HIGHEST ANNUAL MEAN					2767	1993
LOWEST ANNUAL MEAN					775	1964
HIGHEST DAILY MEAN	5210	Mar 23	5140	Apr 29	7650	Mar 26 1982
LOWEST DAILY MEAN	630	Oct 1	330	Sep 12	260	Jan 13 1954
ANNUAL SEVEN-DAY MINIMUM	667	Nov 3	352	Sep 11	298	Aug 2 1988
INSTANTANEOUS PEAK FLOW			5160	Apr 29	7650	Mar 26 1982
INSTANTANEOUS PEAK STAGE			11.78	Apr 29	12.98	Mar 24 1982
ANNUAL RUNOFF (CFSM)	1.18		.82		.96	
ANNUAL RUNOFF (INCHES)	16.08		11.20		13.03	
10 PERCENT EXCEEDS	4490		2950		3360	
50 PERCENT EXCEEDS	1810		920		1370	
90 PERCENT EXCEEDS	706		497		634	

e Estimated

05519000 SINGLETON DITCH AT SCHNEIDER, IN

LOCATION.--Lat 41°12'44", long 87°26'44", in SW¼NW¼ sec.22, T.32 N., R.9 W., Lake County, Hydrologic Unit 07120001, on left bank 15 ft upstream from bridge on Ackerman Avenue, 0.5 mi upstream from Bruce Ditch, 1.5 mi downstream from Cedar Creek, 1.6 mi north of Schneider, and at mile 10.1.

DRAINAGE AREA.--123 mi^2.

PERIOD OF RECORD.--July 1948 to current year.

REVISED RECORDS.--WSP 1915: 1956-59. WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 623.67 ft above sea level. Prior to Oct. 1, 1949, nonrecording gage at same site at datum 2.00 ft higher. Oct. 1, 1949, to Aug. 13, 1951, nonrecording gage at same site and datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	40	38	e37	225	128	68	340	153	165	54	25
2	43	41	38	e37	244	119	66	279	173	204	37	24
3	44	43	38	e36	261	145	64	217	133	134	32	24
4	43	45	38	e36	222	148	66	179	103	109	32	24
5	40	45	37	e35	191	132	62	174	89	92	31	24
6	41	48	40	e37	182	172	72	173	77	83	30	24
7	41	62	83	e36	178	178	65	167	70	75	29	24
8	39	43	72	e36	239	161	60	147	64	69	31	24
9	39	38	58	e37	285	154	71	132	57	65	29	23
10	38	57	52	e39	230	148	70	119	57	60	29	23
11	38	64	49	e40	206	139	87	108	58	54	23	24
12	37	46	47	e38	249	132	91	104	298	51	23	23
13	37	44	45	e37	203	129	78	108	419	50	31	24
14	36	44	44	e36	176	125	72	111	331	48	29	24
15	37	44	44	e37	165	127	76	99	203	45	29	24
16	37	49	44	e44	158	160	397	92	156	43	25	23
17	37	49	42	e60	154	324	437	89	126	43	24	23
18	40	47	41	e82	144	237	299	87	106	40	23	23
19	44	46	42	e90	137	181	234	79	94	38	25	24
20	e41	40	40	e78	132	157	195	73	85	39	27	24
21	e40	38	e39	131	125	141	177	70	77	57	25	25
22	e43	39	e39	310	119	127	370	73	70	42	26	25
23	e42	40	e38	1070	115	115	1360	72	68	36	27	26
24	e41	38	e38	1260	111	105	1010	76	65	39	28	24
25	40	39	e37	792	110	96	620	72	63	35	36	24
26	39	39	e39	509	107	90	419	65	59	33	37	24
27	39	38	e40	422	116	84	404	61	99	32	31	24
28	42	38	e41	449	134	80	1060	59	89	30	27	25
29	41	37	e42	334	---	77	709	56	73	29	26	30
30	43	38	e39	279	---	72	462	55	62	29	25	29
31	42	---	e38	245	---	69	---	55	---	37	25	---
TOTAL	1249	1319	1362	6709	4918	4252	9221	3591	3577	1906	906	731
MEAN	40.3	44.0	43.9	216	176	137	307	116	119	61.5	29.2	24.4
MAX	45	64	83	1260	285	324	1360	340	419	204	54	30
MIN	36	37	37	35	107	69	60	55	57	29	23	23
CFSM	.33	.36	.36	1.76	1.43	1.12	2.50	.94	.97	.50	.24	.20
IN.	.38	.40	.41	2.03	1.49	1.29	2.79	1.09	1.08	.58	.27	.22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1999, BY WATER YEAR (WY)

MEAN	60.0	87.1	114	130	151	211	214	147	123	72.4	49.8	46.1
MAX	295	471	457	475	486	634	477	421	481	321	237	308
(WY)	1994	1986	1991	1993	1959	1982	1950	1974	1997	1996	1990	1993
MIN	7.54	11.8	8.13	17.5	15.6	34.3	48.6	30.6	26.3	10.6	7.09	7.78
(WY)	1964	1957	1964	1977	1964	1957	1963	1958	1988	1988	1964	1964

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1949 - 1999	
ANNUAL TOTAL	55439		39741			
ANNUAL MEAN	152		109		117	
HIGHEST ANNUAL MEAN					227	1993
LOWEST ANNUAL MEAN					24.0	1964
HIGHEST DAILY MEAN	1570	Mar 19	1360	Apr 23	2990	Mar 5 1976
LOWEST DAILY MEAN	36	Oct 14	23	Aug 11	3.6	Sep 7 1964
ANNUAL SEVEN-DAY MINIMUM	37	Oct 11	23	Sep 12	3.8	Sep 4 1964
INSTANTANEOUS PEAK FLOW			1590	Apr 23	3550	Mar 5 1976
INSTANTANEOUS PEAK STAGE			10.17	Apr 23	12.54	Nov 28 1990
ANNUAL RUNOFF (CFSM)	1.23		.89		.95	
ANNUAL RUNOFF (INCHES)	16.77		12.02		12.91	
10 PERCENT EXCEEDS	322		227		257	
50 PERCENT EXCEEDS	92		54		62	
90 PERCENT EXCEEDS	40		26		19	

e Estimated

05521000 IROQUOIS RIVER AT ROSEBUD, IN

LOCATION.--Lat 41°02'00", long 87°10'49", in NW¼SW¼ sec.24, T.30 N., R.7 W., Jasper County, Hydrologic Unit 07120002, on right bank 100 ft downstream from bridge on county road, 0.5 mi north of Rosebud, 0.5 mi downstream from confluence of Swain and Dexter Ditches, 1.5 mi upstream from Davidson Ditch, 2 mi east of Parr, and at mile 93.5.

DRAINAGE AREA.--35.6 mi^2.

PERIOD OF RECORD.--July 1948 to current year.

REVISED RECORDS.--WSP 1338: 1950-53. WSP 1728: 1959-60(M). WSP 1915: 1949-60. WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 661.47 ft above 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	5.7	11	e4.8	53	63	25	44	20	82	8.3	3.9
2	5.7	6.1	7.9	e4.3	57	59	23	40	30	69	7.3	3.8
3	7.0	5.6	7.4	e4.0	52	87	24	38	27	43	7.0	3.7
4	6.5	5.4	6.8	e3.8	47	63	27	36	24	34	6.9	3.5
5	6.2	5.3	6.6	e3.6	42	56	26	34	23	29	6.6	3.2
6	7.4	5.2	7.7	e3.5	43	89	25	34	21	26	5.5	3.3
7	7.8	5.0	14	e3.4	46	62	23	31	19	23	8.2	3.5
8	6.3	5.2	11	e3.4	61	52	23	29	18	21	9.9	3.5
9	6.0	5.2	9.0	e3.3	73	48	31	27	21	19	7.2	3.1
10	5.6	9.6	8.3	e3.3	59	41	27	27	25	17	6.7	3.2
11	5.6	8.6	8.6	e3.3	54	38	38	27	22	15	6.3	3.4
12	5.7	7.4	7.8	e3.3	55	36	33	28	23	15	7.3	3.5
13	5.6	6.9	7.7	e3.2	47	36	30	35	35	14	7.9	3.6
14	5.6	6.6	7.0	e3.2	42	35	29	37	30	13	6.7	3.6
15	5.7	6.4	6.6	e3.2	41	36	44	32	25	12	5.9	7.0
16	5.8	6.2	6.7	e3.4	41	54	142	30	23	12	5.5	5.0
17	5.6	5.9	6.4	e4.0	41	72	130	29	20	12	5.2	5.8
18	6.5	5.8	6.1	e6.0	39	50	87	28	18	14	5.1	4.6
19	6.2	6.0	7.4	e9.0	37	41	66	25	17	12	6.8	4.3
20	5.4	5.6	7.5	e14	35	38	55	24	17	14	5.9	4.6
21	5.6	5.4	8.0	e25	33	37	52	24	16	14	5.2	4.1
22	5.7	5.0	12	e120	32	33	49	25	14	12	4.8	4.0
23	5.5	5.9	5.3	e240	32	31	65	27	14	12	4.8	3.8
24	5.8	5.3	5.2	214	31	30	56	30	30	16	4.7	3.8
25	5.5	5.5	5.1	142	30	28	47	26	32	12	4.5	3.5
26	5.2	5.3	5.4	107	30	27	42	24	24	11	4.5	3.4
27	5.2	5.1	6.1	101	84	26	47	22	36	11	4.3	4.1
28	8.2	5.0	6.2	89	86	26	101	21	30	10	4.9	4.2
29	6.4	5.0	7.4	69	---	25	69	20	22	9.9	21 4.4	7.4
30	6.4	8.2	e6.2	60	---	24	52	20	19	9.1	20 4.1	4.9
31	6.0	---	e5.4	55	---	24	---	20	---	8.8	4.0	---
TOTAL	187.4	179.4	233.8	1312.0	1323	1367	1488	894	695	621.8	186.4	123.3
MEAN	6.05	5.98	7.54	42.3	47.2	44.1	49.6	28.8	23.2	20.1	6.01	4.11
MAX	8.2	9.6	14	240	86	89	142	44	36	82	9.9	7.4
MIN	5.2	5.0	5.1	3.2	30	24	23	20	14	8.8	4.0	3.1
CFSM	.17	.17	.21	1.19	1.33	1.24	1.39	.81	.65	.56	.17	.12
IN.	.20	.19	.24	1.37	1.38	1.43	1.55	.93	.73	.65	.19	.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1999, BY WATER YEAR (WY)

MEAN	15.3	19.5	28.2	30.8	37.5	50.6	52.1	40.3	33.8	18.4	10.4	12.2
MAX	106	68.5	96.8	113	91.1	149	141	111	111	63.2	52.1	88.9
(WY)	1994	1993	1991	1950	1959	1982	1950	1974	1981	1996	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1949 - 1999	
ANNUAL TOTAL	14472.2		8611.1			
ANNUAL MEAN	39.6		23.6		29.0	
HIGHEST ANNUAL MEAN					61.7	1993
LOWEST ANNUAL MEAN					6.38	1964
HIGHEST DAILY MEAN	411	Mar 18	240	Jan 23	621	Dec 30 1990
LOWEST DAILY MEAN	4.6	Sep 14	3.1	Sep 9	.50	Oct 11 1964
ANNUAL SEVEN-DAY MINIMUM	5.0	Sep 13	3.3	Jan 9	.77	Oct 11 1964
INSTANTANEOUS PEAK FLOW			305	Jan 23	656	Dec 30 1990
INSTANTANEOUS PEAK STAGE			4.66	Jan 23	8.86	Feb 10 1959
ANNUAL RUNOFF (CFSM)	1.11		.66		.82	
ANNUAL RUNOFF (INCHES)	15.12		9.00		11.08	
10 PERCENT EXCEEDS	93		54		63	
50 PERCENT EXCEEDS	24		12		17	
90 PERCENT EXCEEDS	5.4		4.1		4.3	

e Estimated

05522500 IROQUOIS RIVER AT RENSSELAER, IN

LOCATION.--Lat 40°56'00", long 87°07'44", in NW¼SE¼ sec.29, T.29 N., R.6 W., Jasper County, Hydrologic Unit 07120002, on right bank 20 ft downstream from bridge on State Highway 114, 0.8 mi east of Rensselaer, 1.5 mi downstream from Ryan Ditch, 5.5 mi upstream from Slough Creek, and at mile 84.9.

DRAINAGE AREA.--203 mi^2.

PERIOD OF RECORD.--July 1948 to current year.

REVISED RECORDS.--WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 642.29 ft above 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 poor. Streamflow affected by irrigation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	33	50	e27	407	548	124	469	135	242	27	16
2	28	33	46	e25	409	437	122	355	206	433	25	18
3	36	33	43	e22	409	550	122	297	227	352	24	16
4	33	32	40	e22	357	530	141	260	170	208	24	14
5	28	31	38	e21	305	426	143	230	143	141	21	13
6	30	31	39	e21	283	582	137	212	121	109	20	12
7	42	30	55	e20	281	595	120	197	106	94	19	13
8	38	30	67	e20	413	482	117	174	97	70	29	13
9	32	30	56	e19	527	387	147	161	88	64	27	12
10	29	52	50	e19	479	342	155	149	176	59	26	11
11	27	80	47	e19	410	299	203	137	143	51	24	11
12	26	55	45	e19	377	261	220	154	142	46	25	11
13	26	47	43	e18	314	253	187	289	386	42	29	12
14	26	45	42	e18	280	245	166	362	314	36	26	11
15	26	45	40	e18	241	240	193	312	202	34	24	11
16	26	40	40	e19	245	331	609	241	152	33	22	12
17	26	38	39	e25	242	480	897	203	130	34	21	14
18	28	36	38	e40	219	438	825	178	110	39	20	14
19	30	37	42	e60	204	334	639	158	104	36	22	13
20	28	36	46	e90	178	272	486	138	92	40	23	12
21	28	33	47	e180	164	242	396	130	85	56	22	11
22	28	33	42	e500	147	207	368	134	82	43	22	11
23	27	33	e39	e1100	150	185	599	134	73	39	21	10
24	26	33	e37	1650	137	174	721	180	88	47	21	11
25	29	33	e34	1650	138	161	581	150	147	40	20	11
26	27	36	e33	1480	136	145	439	126	129	36	20	11
27	28	34	40	1240	432	138	375	113	174	34	19	11
28	34	33	43	1030	633	135	728	103	202	32	19	13
29	39	34	44	790	---	131	818	97	147	31	23	26
30	35	37	37	587	---	127	648	95	113	30	19	21
31	34	---	e33	464	---	122	---	139	---	28	17	---
TOTAL	924	1133	1335	11213	8517	9799	11426	6077	4484	2579	701	395
MEAN	29.8	37.8	43.1	362	304	316	381	196	149	83.2	22.6	13.2
MAX	42	80	67	1650	633	595	897	469	386	433	29	26
MIN	24	30	33	18	136	122	117	95	73	28	17	10
CFSM	.15	.19	.21	1.78	1.50	1.56	1.88	.97	.74	.41	.11	.06
IN.	.17	.21	.24	2.05	1.56	1.80	2.09	1.11	.82	.47	.13	.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1999, BY WATER YEAR (WY)

MEAN	88.2	123	182	211	250	339	347	248	212	107	54.2	66.7
MAX	921	561	559	774	660	935	886	766	863	613	238	641
(WY)	1994	1993	1991	1950	1997	1982	1950	1974	1958	1996	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1949 - 1999	
ANNUAL TOTAL	97403		58583			
ANNUAL MEAN	267		161		185	
HIGHEST ANNUAL MEAN					415	1993
LOWEST ANNUAL MEAN					29.7	1964
HIGHEST DAILY MEAN	1580	May 9	1650	Jan 24	2500	Jun 11 1958
LOWEST DAILY MEAN	23	Sep 14	10	Sep 23	2.2	Sep 9 1964
ANNUAL SEVEN-DAY MINIMUM	25	Sep 23	11	Sep 21	2.8	Sep 9 1964
INSTANTANEOUS PEAK FLOW			1680	Jan 24	2550	Jun 10 1958
INSTANTANEOUS PEAK STAGE			13.20	Jan 24	16.54	Jun 10 1958
ANNUAL RUNOFF (CFSM)	1.31		.79		.91	
ANNUAL RUNOFF (INCHES)	17.85		10.74		12.39	
10 PERCENT EXCEEDS	696		432		464	
50 PERCENT EXCEEDS	128		50		93	
90 PERCENT EXCEEDS	27		19		17	

e Estimated

05524500 IROQUOIS RIVER NEAR FORESMAN, IN

LOCATION.--Lat 40°52'14", long 87°18'24", in NE¼SE¼ sec.15, T.28 N., R.8 W., Newton County, Hydrologic Unit 07120002, on right bank at downstream side of bridge on State Highway 55, 0.2 mi north of intersection of State Highways 16 and 55, 0.5 mi downstream from Mosquito Creek, 0.6 mi west of Foresman, 3 mi east of Brook, and at mile 72.7.

DRAINAGE AREA.--449 mi^2.

PERIOD OF RECORD.--December 1948 to current year.

REVISED RECORDS.--WSP 1338: 1953. WSP 1438: 1955. WSP 1508: 1956. WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 624.00 ft above sea level. Prior to Sept. 7, 1955, nonrecording gage 2.5 mi upstream at datum 3.54 ft higher.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Stage may be affected by backwater.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	68	63	e40	1050	934	266	1050	250	318	44	25
2	51	67	71	e37	922	913	261	929	308	521	42	25
3	63	70	67	e32	844	944	257	794	409	514	37	28
4	67	82	65	e31	770	996	291	658	358	402	35	24
5	63	67	62	e30	667	957	333	541	306	277	35	21
6	66	62	61	e30	575	992	319	460	267	204	33	20
7	88	60	68	e29	522	1080	287	409	233	173	29	19
8	91	59	88	e29	616	1060	265	363	210	139	37	19
9	66	61	87	e28	824	983	285	330	192	111	42	20
10	53	79	78	e28	911	875	300	306	212	100	40	20
11	48	162	71	e28	894	756	318	289	249	89	37	20
12	45	151	67	e28	849	643	373	281	219	79	37	20
13	44	107	65	e27	779	560	354	376	334	71	77	20
14	45	91	64	e27	668	514	329	478	477	65	82	20
15	46	87	62	e27	571	487	334	497	475	54	54	20
16	47	80	60	e28	509	538	720	451	347	52	40	20
17	51	73	60	e40	486	765	1250	389	264	51	35	21
18	55	67	59	e70	462	849	1530	347	220	58	31	22
19	59	63	60	e130	427	808	1490	311	193	61	31	23
20	58	64	67	e250	387	710	1300	278	174	60	34	21
21	54	61	69	e540	351	611	1120	261	161	171	33	19
22	57	58	65	e1000	320	513	981	269	150	130	31	19
23	56	56	59	e2000	308	432	934	265	138	79	30	18
24	53	56	e56	e3000	298	389	970	287	139	79	31	17
25	53	55	e54	e3300	288	355	965	288	215	85	30	17
26	56	56	e52	3070	282	324	907	251	232	70	30	17
27	55	57	e50	2750	509	307	817	222	402	62	29	16
28	62	55	58	2410	858	297	917	204	455	58	28	16
29	72	53	63	2010	---	287	1090	194	352	58	30	36
30	74	55	61	1620	---	273	1120	185	262	54	30	45
31	72	---	e52	1280	---	264	---	209	---	48	27	---
TOTAL	1822	2182	1984	23949	16947	20416	20683	12172	8203	4293	1161	648
MEAN	58.8	72.7	64.0	773	605	659	689	393	273	138	37.5	21.6
MAX	91	162	88	3300	1050	1080	1530	1050	477	521	82	45
MIN	44	53	50	27	282	264	257	185	138	48	27	16
CFSM	.13	.16	.14	1.72	1.35	1.47	1.54	.87	.61	.31	.08	.05
IN.	.15	.18	.16	1.98	1.40	1.69	1.71	1.01	.68	.36	.10	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1999, BY WATER YEAR (WY)

MEAN	179	259	403	449	561	755	772	566	489	261	105	140
MAX	1792	1218	1274	1736	1490	2266	1672	1360	2314	1099	435	1387
(WY)	1994	1993	1968	1993	1968	1982	1950	1974	1958	1993	1990	1993
MIN	9.70	16.1	15.3	27.0	31.4	81.7	199	108	39.8	17.7	12.2	11.1
(WY)	1957	1965	1964	1963	1964	1957	1986	1958	1988	1988	1988	1964

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1950 - 1999	
ANNUAL TOTAL	204969		114460			
ANNUAL MEAN	562		314		410	
HIGHEST ANNUAL MEAN					891	1993
LOWEST ANNUAL MEAN					77.6	1964
HIGHEST DAILY MEAN	3470	May 9	3300	Jan 25	5930	Jun 14 1958
LOWEST DAILY MEAN	44	Oct 13	16	Sep 27	6.3	Sep 10 1964
ANNUAL SEVEN-DAY MINIMUM	47	Oct 11	17	Sep 22	8.0	Sep 5 1964
INSTANTANEOUS PEAK FLOW			3510	Jan 25	5930	Jun 14 1958
INSTANTANEOUS PEAK STAGE			19.81	Jan 25	24.42	Jun 14 1958
ANNUAL RUNOFF (CFSM)	1.25		.70		.91	
ANNUAL RUNOFF (INCHES)	16.98		9.48		12.42	
10 PERCENT EXCEEDS	1430		909		1090	
50 PERCENT EXCEEDS	272		88		198	
90 PERCENT EXCEEDS	55		28		29	

e Estimated

05536179 HART DITCH AT DYER, IN

LOCATION.--Lat 41°30'28", long 87°30'36", in NE¼NE¼ sec.12, T.35 N., R.10 W., Lake County, Hydrologic Unit 07120003, on right bank, 50 ft upstream from 213th Street in Dyer, and 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	8.3	4.6	e4.0	61	16	7.6	96	54	25	11	3.7
2	4.5	8.2	4.7	e3.8	83	14	7.6	60	222	34	6.7	e3.5
3	5.3	8.4	4.7	e3.7	100	21	7.5	44	94	21	5.7	e3.2
4	4.5	9.0	4.7	e3.6	62	24	9.2	36	43	14	5.2	e3.6
5	4.6	9.7	4.7	e3.5	43	19	9.3	31	27	11	5.1	e4.6
6	5.2	9.3	20	e3.6	36	29	9.4	28	20	9.3	5.1	e4.1
7	4.6	9.8	147	e3.6	33	36	8.5	27	14	8.2	5.1	e4.6
8	5.0	10	77	e3.8	32	31	8.1	23	10	7.2	5.0	e4.0
9	4.8	11	41	e3.9	30	26	133	19	8.6	7.0	5.2	e4.0
10	4.6	21	28	e4.0	27	24	90	16	76	6.5	5.3	e4.0
11	4.5	30	21	e4.1	25	23	69	14	37	6.0	4.0	e4.0
12	4.6	17	16	e4.0	24	23	43	28	34	5.7	4.5	e5.2
13	4.5	11	14	e4.2	21	24	30	144	81	5.6	3.9	e5.3
14	4.4	9.2	12	e4.3	16	23	23	89	126	5.3	3.5	e5.1
15	4.5	8.4	10	e4.4	15	27	29	48	47	5.3	3.4	e4.3
16	5.8	7.8	9.2	e5.1	15	52	312	34	28	5.5	3.2	e4.4
17	7.4	7.1	8.5	7.0	15	194	247	30	20	5.4	3.2	e4.8
18	8.2	7.2	7.8	11	14	135	124	25	15	5.1	3.4	e5.0
19	6.8	7.2	7.6	18	12	68	75	20	13	5.2	10	e5.0
20	6.4	5.5	7.2	27	11	42	49	16	11	5.5	4.0	e4.8
21	6.0	4.6	e7.3	28	9.6	32	38	15	10	5.9	3.6	e4.5
22	5.6	4.5	e6.0	216	8.7	26	160	16	9.3	7.3	3.5	e4.0
23	5.3	4.3	e5.4	706	8.2	21	707	21	9.0	5.7	3.6	e3.4
24	5.5	4.8	e4.8	907	7.7	18	331	31	19	5.7	13	e3.6
25	5.5	4.5	e4.4	404	7.5	15	175	22	21	5.7	11	e3.3
26	5.6	4.0	e4.6	247	7.8	13	115	17	15	5.9	6.1	e3.5
27	7.7	4.0	e4.9	215	10	11	185	13	13	5.8	4.8	e4.0
28	8.5	3.9	5.2	253	16	9.9	707	11	11	5.6	4.4	e9.1
29	9.0	4.1	5.2	153	---	9.2	271	8.9	18	5.6	4.0	e8.0
30	9.2	5.0	e4.8	103	---	8.4	151	8.0	22	6.4	3.7	e5.9
31	8.6	---	e4.2	76	---	8.0	---	10	---	8.2	3.6	---
TOTAL	180.8	258.8	506.5	3434.6	750.5	1022.5	4131.2	1000.9	1127.9	265.6	163.8	136.5
MEAN	5.83	8.63	16.3	111	26.8	33.0	138	32.3	37.6	8.57	5.28	4.55
MAX	9.2	30	147	907	100	194	707	144	222	34	13	9.1
MIN	4.1	3.9	4.2	3.5	7.5	8.0	7.5	8.0	8.6	5.1	3.2	3.2
CFSM	.16	.23	.43	2.95	.71	.88	3.66	.86	1.00	.23	.14	.12
IN.	.18	.26	.50	3.40	.74	1.01	4.09	.99	1.12	.26	.16	.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1999, BY WATER YEAR (WY)

MEAN	25.2	53.3	42.3	59.6	58.7	77.3	64.5	59.7	56.8	23.3	23.2	17.3
MAX	113	195	106	136	183	169	138	140	182	92.9	74.1	106
(WY)	1994	1991	1991	1993	1997	1991	1999	1996	1993	1996	1998	1993
MIN	2.77	7.97	4.92	17.7	9.89	21.0	19.3	7.48	4.21	4.46	4.65	2.41
(WY)	1996	1998	1990	1992	1993	1996	1997	1992	1992	1991	1992	1994

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1990 - 1999	
ANNUAL TOTAL	17707.5		12979.6			
ANNUAL MEAN	48.5		35.6		46.7	
HIGHEST ANNUAL MEAN					76.6	1993
LOWEST ANNUAL MEAN					34.4	1990
HIGHEST DAILY MEAN	770	May 8	907	Jan 24	2580	Nov 28 1990
LOWEST DAILY MEAN	3.6	Sep 22	3.2	Aug 16	.61	Oct 23 1995
ANNUAL SEVEN-DAY MINIMUM	3.8	Sep 21	3.6	Aug 12	.95	Sep 17 1994
INSTANTANEOUS PEAK FLOW			1080	Jan 24	3010	Nov 28 1990
INSTANTANEOUS PEAK STAGE			9.13	Jan 24	15.33	Nov 28 1990
ANNUAL RUNOFF (CFSM)	1.29		.95		1.24	
ANNUAL RUNOFF (INCHES)	17.52		12.84		16.86	
10 PERCENT EXCEEDS	117		76		118	
50 PERCENT EXCEEDS	14		9.0		14	
90 PERCENT EXCEEDS	4.6		4.0		4.1	

e Estimated

05536190 HART DITCH AT MUNSTER, IN

LOCATION.--Lat 41°33'40", long 87°28'50", in SE¼NW¼ sec.20, T.36 N., R.9 W., Lake County, Hydrologic Unit 07120003, on left bank, 0.2 mi downstream from Ridge Road, and 0.4 mi upstream from mouth.

DRAINAGE AREA.--70.7 mi^2.

PERIOD OF RECORD.--September 1942 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 591.27 ft above sea level (levels by State of Indiana, Department of Natural Resources).

REMARKS.--Records fair except for daily discharges above 100 ft^3/s due to possible backwater from Little Calumet River and estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	21	18	e14	117	51	34	241	554	82	22	12
2	20	19	17	e13	153	54	34	129	1170	62	14	12
3	23	18	18	e12	178	64	36	94	421	43	13	11
4	13	17	18	e12	117	63	58	80	150	34	18	11
5	12	19	17	e11	91	64	42	70	91	28	13	11
6	20	16	227	e12	79	89	44	80	70	24	11	10
7	17	16	469	e12	74	88	39	63	56	22	12	11
8	19	17	180	e13	70	75	e39	54	45	19	12	10
9	16	19	86	e13	67	66	e320	49	43	18	12	9.9
10	15	99	60	e14	61	64	299	46	107	15	12	10
11	14	55	47	e15	58	63	299	45	65	14	10	10
12	13	39	40	e14	66	64	128	71	64	13	31	14
13	12	31	36	e16	59	66	89	210	128	13	20	16
14	12	26	33	e17	52	65	70	129	187	13	15	11
15	12	23	30	e20	50	79	145	82	76	13	12	11
16	12	22	27	e25	48	126	977	65	47	14	13	11
17	27	21	26	34	47	414	754	86	37	19	12	12
18	46	19	24	75	45	283	307	61	32	16	13	12
19	22	19	23	53	42	135	163	48	28	15	69	12
20	18	18	21	57	39	97	110	40	25	20	19	12
21	16	17	e23	68	37	79	109	47	24	32	14	11
22	14	17	e20	1020	37	66	538	48	39	37	12	10
23	13	17	e19	2070	37	58	2110	73	28	21	14	8.6
24	12	17	e18	2320	37	53	1220	64	56	18	59	9.0
25	13	16	e16	1430	41	46	579	45	40	15	80	8.3
26	13	15	e17	883	39	45	306	40	60	14	35	8.8
27	31	15	e19	667	58	42	577	33	80	13	23	9.9
28	37	15	19	689	53	e40	1980	32	45	12	21	53
29	30	15	20	402	---	e37	1020	29	e34	12	16	41
30	36	24	e18	237	---	e36	477	26	e36	13	14	15
31	25	---	e15	151	---	e35	---	54	---	17	13	---
TOTAL	600	702	1621	10389	1852	2607	12903	2234	3838	701	654	403.5
MEAN	19.4	23.4	52.3	335	66.1	84.1	430	72.1	128	22.6	21.1	13.4
MAX	46	99	469	2320	178	414	2110	241	1170	82	80	53
MIN	12	15	15	11	37	35	34	26	24	12	10	8.3
CFSM	.27	.33	.74	4.74	.94	1.19	6.08	1.02	1.81	.32	.30	.19
IN.	.32	.37	.85	5.47	.97	1.37	6.79	1.18	2.02	.37	.34	.21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1999, BY WATER YEAR (WY)

MEAN	31.8	51.7	65.6	70.2	86.7	139	135	103	72.8	37.1	30.3	28.2
MAX	282	287	279	335	479	429	430	373	423	335	156	219
(WY)	1955	1986	1983	1999	1997	1979	1999	1996	1993	1996	1998	1993
MIN	3.95	3.54	3.07	3.77	6.32	19.1	19.2	11.9	8.78	6.11	4.73	3.91
(WY)	1965	1972	1964	1977	1963	1957	1946	1958	1965	1965	1964	1956

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1943 - 1999	
ANNUAL TOTAL	48452		38504.5			
ANNUAL MEAN	133		105		70.8	
HIGHEST ANNUAL MEAN					160	1993
LOWEST ANNUAL MEAN					19.2	1964
HIGHEST DAILY MEAN	2150	May 8	2320	Jan 24	2600	Nov 28 1990
LOWEST DAILY MEAN	10	Aug 2	8.3	Sep 25	1.6	Dec 24 1963
ANNUAL SEVEN-DAY MINIMUM	13	Sep 23	9.4	Sep 21	1.7	Sep 3 1964
INSTANTANEOUS PEAK FLOW			2470	Jan 24	3010	Nov 28 1990
INSTANTANEOUS PEAK STAGE			7.47	Jan 24	8.72	Nov 28 1990
ANNUAL RUNOFF (CFSM)	1.88		1.49		1.00	
ANNUAL RUNOFF (INCHES)	25.49		20.26		13.60	
10 PERCENT EXCEEDS	279		169		152	
50 PERCENT EXCEEDS	39		33		24	
90 PERCENT EXCEEDS	15		12		5.8	

e Estimated

05536195 LITTLE CALUMET RIVER AT MUNSTER, IN

LOCATION.--Lat 41°34'07", long 87°31'18", in SE¼NW¼ sec.13, T.36 N., R.10 W., Lake County, Hydrologic Unit 07120003, on left bank 200 ft upstream from Hohman 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 mi^2. During times of floods on Deep River, flow may enter basin from eastern portion of Little Calumet River Basin; or, during times of floods on Hart Ditch, flow may leave the basin and enter eastern portion of the Little Calumet River Basin.

PERIOD OF RECORD.--June 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 580.72 ft above 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	17	17	e12	91	32	22	152	175	46	17	11
2	15	16	13	e11	90	32	22	112	323	37	12	11
3	25	15	13	e11	96	41	22	83	199	27	10	11
4	14	15	13	e10	75	40	37	64	101	21	13	11
5	12	17	12	e10	63	40	26	54	69	17	12	11
6	16	16	60	e11	54	58	29	59	51	15	9.7	11
7	14	14	137	e11	50	56	25	52	39	15	10	11
8	13	16	90	e11	47	50	25	44	31	14	11	11
9	13	16	55	e12	45	47	139	40	34	13	10	10
10	12	81	38	e12	42	46	117	37	51	13	11	9.9
11	11	42	29	e13	41	45	129	35	40	12	9.4	9.9
12	11	31	23	e12	44	45	86	63	39	12	19	11
13	11	23	20	e13	40	46	64	92	67	11	20	14
14	11	19	18	e14	36	45	51	69	88	11	13	9.8
15	11	17	16	e14	35	50	64	49	52	11	11	8.4
16	11	16	15	e18	34	64	233	38	35	11	11	7.5
17	16	16	14	e31	34	123	249	45	28	13	10	6.7
18	37	16	13	e74	32	119	150	37	25	13	10	6.4
19	18	16	13	e50	31	83	112	31	23	12	49	5.9
20	15	15	12	e40	29	62	89	26	21	13	16	5.6
21	13	15	e12	e45	28	52	87	26	20	23	9.7	5.6
22	12	14	e12	253	26	44	148	35	30	38	8.9	5.3
23	12	14	e12	509	26	39	531	43	27	15	9.4	4.7
24	11	13	e12	693	25	35	456	43	38	16	24	4.5
25	12	14	e11	516	29	31	233	33	27	12	62	4.2
26	12	13	e12	291	26	30	158	28	28	11	27	4.1
27	16	12	e12	217	41	28	180	25	57	11	17	4.1
28	37	12	e13	205	32	27	535	22	30	11	15	32
29	21	11	e13	167	---	25	458	21	25	10	13	28
30	34	16	e12	131	---	24	228	20	27	10	12	11
31	20	---	e12	108	---	23	---	26	---	11	11	---
TOTAL	509	568	754	3525	1242	1482	4705	1504	1800	505	493.1	296.6
MEAN	16.4	18.9	24.3	114	44.4	47.8	157	48.5	60.0	16.3	15.9	9.89
MAX	37	81	137	693	96	123	535	152	323	46	62	32
MIN	11	11	11	10	25	23	22	20	20	10	8.9	4.1
CFSM	.18	.21	.27	1.26	.49	.53	1.74	.54	.67	.18	.18	.11
IN.	.21	.23	.31	1.46	.51	.61	1.94	.62	.74	.21	.20	.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1999, BY WATER YEAR (WY)

MEAN	35.2	60.2	76.0	66.2	84.6	131	132	96.5	71.6	40.7	37.8	40.2
MAX	151	212	301	199	252	386	268	266	222	185	141	217
(WY)	1994	1973	1983	1993	1959	1979	1973	1959	1993	1996	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1959 - 1999	
ANNUAL TOTAL	20801		17383.7			
ANNUAL MEAN	57.0		47.6		72.6	
HIGHEST ANNUAL MEAN					121	1973
LOWEST ANNUAL MEAN					23.5	1964
HIGHEST DAILY MEAN	708	May 8	693	Jan 24	1160	Apr 28 1959
LOWEST DAILY MEAN	10	Sep 23	4.1	Sep 26	1.9	Aug 16 1964
ANNUAL SEVEN-DAY MINIMUM	11	Sep 23	4.6	Sep 21	2.2	Sep 2 1964
INSTANTANEOUS PEAK FLOW			718	Jan 24	1510	Apr 28 1959
INSTANTANEOUS PEAK STAGE			13.68	Jan 24	17.03	Nov 28 1990
ANNUAL RUNOFF (CFSM)	.63		.53		.81	
ANNUAL RUNOFF (INCHES)	8.60		7.19		10.96	
10 PERCENT EXCEEDS	132		94		185	
50 PERCENT EXCEEDS	26		23		32	
90 PERCENT EXCEEDS	12		11		8.8	

e Estimated

05536357 GRAND CALUMET RIVER AT HOHMAN AVE AT HAMMOND, IN

LOCATION.--Lat 41°37'28", long 87°31'04", in NE¼NW¼ sec. 36, T37 N., R10 W., Lake County, Hydrologic Unit 07120003, on left bank, 20 feet upstream of Hohman Avenue, 1,000 feet east of Indiana-Illinois State line, 1,300 feet south of 173rd street, 1.0 mile north of U. S. Highway 41.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1991 to current year.

GAGE.--Water-stage recorder. Datum of gage is 575.00 ft above sea level.

REMARKS.--Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	e22	11	8.4	14	18	18	35	33	20	20	7.4
2	32	e20	9.6	14	16	18	18	33	57	16	17	6.6
3	41	e18	10	12	14	24	18	32	30	14	17	7.6
4	36	e18	11	9.6	14	19	24	31	22	15	16	8.2
5	33	21	12	9.6	14	20	20	29	19	15	16	7.5
6	41	17	22	9.5	14	33	20	34	17	16	15	9.5
7	31	15	21	8.7	14	23	18	28	16	16	15	8.6
8	36	15	13	9.5	13	20	19	26	15	16	15	6.7
9	31	15	12	9.3	14	20	41	25	20	17	15	7.2
10	27	26	11	8.7	13	21	25	25	17	18	14	6.9
11	28	16	12	9.5	14	21	27	25	15	17	15	6.2
12	27	14	11	9.4	17	22	25	45	16	16	16	6.8
13	27	14	11	13	15	22	22	30	25	17	15	7.9
14	27	13	11	10	14	22	22	26	16	16	16	6.6
15	27	13	10	8.8	14	21	29	25	15	16	11	6.4
16	23	12	11	8.4	15	22	44	23	14	16	9.4	7.1
17	23	14	12	9.5	15	24	40	27	14	17	9.2	7.3
18	e35	12	10	14	14	26	28	26	13	18	11	6.9
19	e30	12	10	8.8	15	21	26	23	12	17	25	7.2
20	e28	12	10	8.9	16	23	26	22	12	20	11	7.7
21	e25	11	11	10	16	23	29	23	12	e23	9.1	9.1
22	e24	9.8	9.7	32	15	20	47	26	22	e30	8.0	7.1
23	e24	10	8.8	82	15	19	104	29	15	e20	7.1	7.2
24	e22	10	9.0	55	15	19	52	25	18	e23	9.7	7.9
25	e21	11	8.2	40	16	19	39	22	14	e21	15	7.2
26	e21	12	9.1	17	15	19	33	19	14	e19	12	7.2
27	e27	10	9.0	16	21	19	49	18	17	e18	10	7.9
28	e35	11	9.5	20	19	19	87	18	15	18	10	14
29	e30	11	15	16	---	18	75	18	17	19	9.2	15
30	e32	12	9.9	15	---	18	39	15	13	19	10	10
31	e24	---	9.0	15	---	18	---	17	---	18	8.8	---
TOTAL	913	426.8	348.8	517.6	421	651	1064	800	555	561	407.5	238.9
MEAN	29.5	14.2	11.3	16.7	15.0	21.0	35.5	25.8	18.5	18.1	13.1	7.96
MAX	45	26	22	82	21	33	104	45	57	30	25	15
MIN	21	9.8	8.2	8.4	13	18	18	15	12	14	7.1	6.2

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1999, BY WATER YEAR (WY)

MEAN	41.7	40.6	35.6	35.1	38.9	42.3	50.2	52.3	54.2	55.4	48.0	43.9
MAX	80.4	63.7	65.2	66.8	95.9	81.5	90.8	85.9	98.8	102	93.9	88.9
(WY)	1998	1998	1998	1998	1997	1998	1998	1997	1993	1993	1997	1997
MIN	17.7	14.2	11.3	16.7	15.0	20.1	27.2	25.8	18.5	18.1	13.1	7.96
(WY)	1993	1999	1999	1999	1999	1995	1996	1999	1999	1999	1999	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1991 - 1999	
ANNUAL TOTAL	19316.6		6904.6			
ANNUAL MEAN	52.9		18.9		44.9	
HIGHEST ANNUAL MEAN					76.2	1997
LOWEST ANNUAL MEAN					18.9	1999
HIGHEST DAILY MEAN	276	May 8	104	Apr 23	464	Feb 21 1997
LOWEST DAILY MEAN	8.2	Dec 25	6.2	Sep 11	6.2	Sep 11 1999
ANNUAL SEVEN-DAY MINIMUM	9.0	Dec 22	6.8	Sep 10	6.8	Sep 10 1999
INSTANTANEOUS PEAK FLOW			160	Apr 23	701	Feb 21 1997
INSTANTANEOUS PEAK STAGE			b5.34	Jan 23	8.76	Jul 18 1996
10 PERCENT EXCEEDS	87		31		83	
50 PERCENT EXCEEDS	50		16		39	
90 PERCENT EXCEEDS	12		8.9		17	

e Estimated
b backwater

Special study and miscellaneous sites

Streamflow was measured at points other than continuous gaging stations from 12 sites in the Illinois River Basin. Data was collected in cooperation with the Illinois U.S. Geological Survey and the National Research Project

STREAMS TRIBUTARY TO UPPER MISSISSIPPI RIVER BASIN

Illinois River basin

Stream	Tributary to	Location	Measurement date	Discharge (ft^3/s)
Pitner Ditch	Kankakee River	Lat 41°19'02", long 86°50'55", La Porte County, Hydrologic Unit 07120001, at bridge on State Highway 8, near La Porte. USGS Station Number 05517120, Drainage area 44.5 mi^2.	10-05-1998	13.0
			11-16-1998	12.2
			01-19-1998	21.5
			01-23-1999	81.7
			01-25-1999	88.4
			01-26-1999	85.7
			03-08-1999	46.7
			04-26-1999	95.1
			04-28-1999	166
			05-03-1999	101
Iroquois River	Kankakee River	Lat 40°51'94"N, long 87°19'52"W, at Indiana State Highway 16, near Brook, Newton County, IN	06-25-1999	239
			09-13-1999	20.0
Iroquois River	Kankakee River	Lat 40°51'30"N, long 87°21'56"W, at county road south of Brook, Newton County, IN	06-25-1999	274
			09-14-1999	23.5
Iroquois River	Kankakee River	Lat 40°50'26"N, long 87°22'93"W, at South Meridian Road, south and west of Brook, Newton County, IN	06-26-1999	286
			09-14-1999	22.1
Iroquois River	Kankakee River	Lat 40°49'90"N, long 87°24'13"W, at County Road 100W, Newton County, IN	06-26-1999	258
			06-26-1999	256
			09-12-1999	22.6
			09-14-1999	21.8
Iroquois River	Kankakee River	Lat 40°49'28"N, long 87°26'21"W, at Indiana State Highway 41, north of Kentland, Newton County, IN	06-26-1999	252
			09-15-1999	22.7
			09-16-1999	22.3
Iroquois River	Kankakee River	Lat 40°48'95"N, long 87°27'79"W, near Newton County Fairgrounds, north and west of Kentland, Newton County, IN	06-21-1999	203
			06-26-1999	233
			09-15-1999	18.9
Sugar Creek	Iroquois River	Lat 40°41'91"N, long 87°24'05"W, at County Road 400W, near Earl Park Benton County, IN	06-22-1999	10.4
			09-13-1999	0.70
Sugar Creek	Iroquois River	Lat 40°40'89"N, long 87°26'32"W, at County Road 600W, near Earl Park, Benton County, IN	06-22-1999	14.8
			06-22-1999	12.9
			09-13-1999	1.02
Sugar Creek	Iroquois River	Lat 40°39'65"N, long 87°29'17"W, at Indiana State Highway 71, south of County Road 400N, Benton County, IN	06-23-1999	18.0
			09-12-1999	2.06
			09-13-1999	2.16
Sugar Creek	Iroquois River	Lat 40°39'03"N, long 87°31'59"W, at State Line Road, north of Indiana State Highway 18, Benton County, IN	06-21-1999	45.5
			06-23-1999	43.5
			09-12-1999	4.67
			09-14-1999	4.32
			09-14-1999	4.73
			09-17-1999	4.59
Mud Creek	Sugar Creek	Lat 40°38'44"N, long 87°29'04"W, at Indiana State Highway 71, south of County Road 300N, Benton County, IN	06-23-1999	22.0
			06-23-1999	23.3
			09-13-1999	1.54

DISCHARGE AT MISCELLANEOUS SITES--Continued

Special study and miscellaneous sites

Streamflow was measured at points other than continuous gaging stations from 4 sites in the Patoka River Basin on September 12, 1997. Three sites were unnamed tributaries to Augusta Lake. One site was the outflow (Mill Creek) from Augusta Lake. They were collected in cooperation with the Patoka South Fork Watershed Steering Committee.

STREAMS TRIBUTARY TO OHIO RIVER BASIN

Wabash River basin

Stream	Tributary to	Location	Measurement date	Discharge (ft^3/s)
Mill Creek	Patoka River	Lat 38°20'45"N, long 87°10'50"W, 300 ft below the outflow culvert from Augusta Lake, Northeast of Augusta, Marion Township, Pike County, IN.	9-12-97 9-12-97	0.66 0.64
Unnamed	Augusta Lake	Lat 38°20'28"N, long 87°10'27"W, an unnamed tributary to Augusta Lake, below rip-rap dam, Marion Township, Pike County, IN.	9-12-97 9-12-97	0.29 0.20
Unnamed	Augusta Lake	An unnamed tributary on the south side of Augusta Lake, 120 ft upstream of beaver dam Marion Township, Pike County, IN.	9-12-97 9-12-97	0.20 0.21
Unnamed	Augusta Lake	An unnamed tributary on the south side of Augusta Lake, 40 ft upstream of beaver dam Marion Township, Pike County, IN.	9-12-97 9-12-97	0.02 0.03

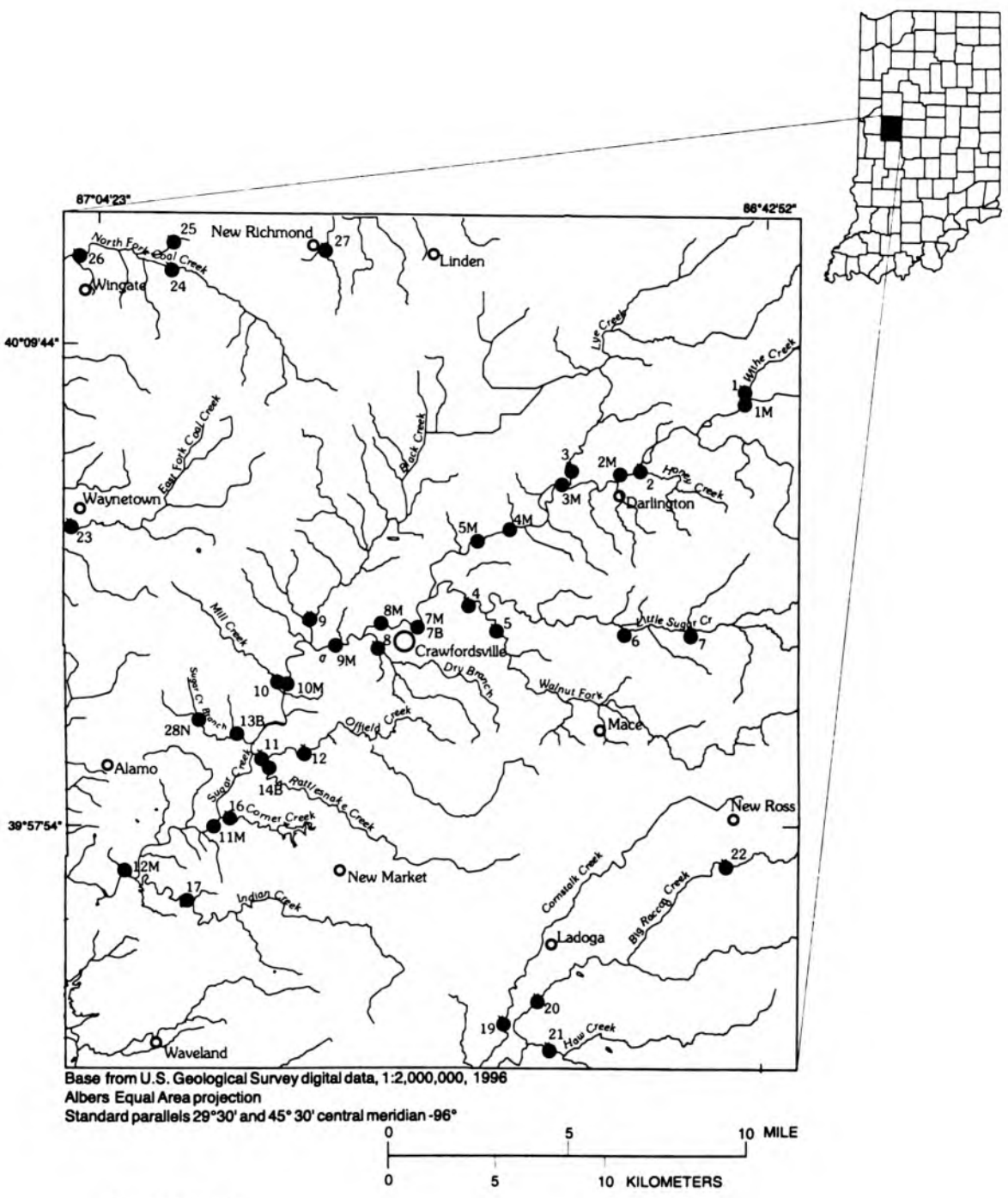


Figure 8.--Water-quality sampling sites for Sugar Creek and other sampling sites in Montgomery County, IN.

MISCELLANEOUS WATER-QUALITY STATION ANALYSES

MISCELLANEOUS STREAMS IN MONTGOMERY COUNTY

Analytical results for samples collected from Sugar Creek and other selected streams in Montgomery County, Indiana, September 1999.

Water-quality data listed below are from water samples collected at various sites on Sugar Creek and other streams in Montgomery County, Indiana. The sampling was conducted through a cooperative agreement between the Montgomery County Commissioners and the U.S. Geological Survey.

Note: Specific conductance, pH, water temperature, and dissolved oxygen measurements were determined in-stream using a multiple-parameter instrument.

STATION NUMBER	SITE NUNBER	DATE	TIME	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	PH WATER WHOLE LAB (STAND ARD UNITS) (00403)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N (00608)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO GEN, NO2+NO3 DIS-SOLVED ()MG/L AS N) (00631)
400824086432601	1M	09-08-99	0808	18.5	560	7.6	8.1	8.2	.029	<.010	.076
400628086473701	2M	09-08-99	1013	20.0	544	8.8	8.0	8.2	<.020	<.010	.106
400626086492501	3M	09-09-99	0803	18.0	550	7.2	8.0	8.0	<.020	<.010	<.050
400515086510801	4M	09-02-99	1112	23.0	499	10.1	8.0	8.3	<.020	<.010	.387
400459086521501	5M	09-02-99	1150	23.0	511	9.8	7.9	8.2	<.020	.011	.625
400251086540301	7M	09-01-99	0805	20.5	605	9.0	7.9	8.1	.058	<.010	.400
400300086552101	8M	09-01-99	0910	20.0	824	6.9	7.6	7.9	.127	.024	1.72
400227086564601	9M	09-01-99	1000	21.0	939	8.2	7.8	8.1	.039	.026	2.24
400131086581601	10M	09-01-99	1115	21.5	836	9.6	8.0	8.2	.026	.021	1.45
395757087004701	11M	09-09-99	0946	19.0	801	7.8	8.2	8.2	<.020	.019	1.18
395646087033001	12M	09-07-99	1130	21.5	792	10.8	8.3	8.4	<.020	.023	.837
400826086433001	1	09-08-99	0803	15.5	649	9.0	8.1	8.2	<.020	.013	4.13
400641086462901	2	09-08-99	0925	16.5	1040	7.1	7.6	8.0	.020	.016	4.51
400643086491201	3	09-08-99	1053	21.5	584	13.1	8.3	8.5	<.020	<.010	.088
400329086522801	4	09-02-99	1027	21.0	960	10.1	7.8	8.1	.023	.016	1.55
03339460	5	09-02-99	0940	20.0	1300	7.3	7.8	8.1	.020	<.010	.180
400251086472201	6	09-02-99	0847	18.5	768	6.8	7.8	8.1	<.020	.035	17.9
400247086443801	7	09-02-99	0750	21.0	540	5.9	7.5	7.9	<.020	<.010	<.050
400221086552501	8	09-01-99	1212	17.0	752	9.7	8.0	7.9	.024	<.010	2.45
400305086573301	9	09-01-99	1245	21.0	724	11.5	7.9	8.1	<.020	<.010	1.12
400129086583501	10	09-03-99	1145	18.5	668	9.0	8.0	8.2	<.020	<.010	.664
395947086575001	12	09-07-99	1220	20.5	523	11.2	8.2	8.3	.023	<.010	.332
400016087000201	13B	09-09-99	1115	14.0	662	9.9	7.5	8.0	<.020	<.010	2.02
395810087002301	16	09-09-99	0917	15.5	547	8.7	8.0	8.1	<.020	<.010	.278
395603087013901	17	09-07-99	1050	17.5	443	9.4	8.0	8.3	<.020	<.010	<.050
395222086513901	19	09-07-99	0904	18.5	493	6.4	7.8	8.0	.045	.029	1.36
395339086501101	20	09-07-99	0832	19.0	688	5.4	7.7	7.9	<.020	<.010	.197
395228086494701	21	09-07-99	0947	18.5	597	5.2	7.4	7.8	<.020	<.010	.054
400524087053001	23	09-03-99	1041	19.5	770	7.0	8.0	8.1	.071	.026	1.82
401137087020801	24	09-03-99	0840	22.0	440	3.0	7.6	7.8	<.020	<.010	<.050
401155087045801	26	09-03-99	0950	18.5	658	9.0	7.8	8.0	.020	.012	.587

MISCELLANEOUS WATER-QUALITY STATION ANALYSES--Continued

MISCELLANEOUS STREAMS IN MONTGOMERY COUNTY

STATION NUMBER	SITE NUNBER	DATE	TIME	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)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SULFATE DIS SOLVED (MG/l AS SO4) (00945)
400824086432601	1M	09-08-99	0808	49	26	23	2.4	36	35
400628086473701	2M	09-08-99	1013	45	27	24	2.4	38	38
400626086492501	3M	09-09-99	0803	50	27	22	2.3	35	42
400515086510801	4M	09-02-99	1112	45	27	18	2.2	28	41
400459086521501	5M	09-02-99	1150	47	27	17	2.3	28	43
400251086540301	7M	09-01-99	0805	63	30	22	2.8	42	64
400300086552101	8M	09-01-99	0910	72	31	48	4.4	83	74
400227086564601	9M	09-01-99	1000	78	32	66	5.0	110	76
400131086581601	10M	09-01-99	1115	78	31	49	4.0	87	71
395757087004701	11M	09-09-99	0946	76	32	42	3.2	78	68
395646087033001	12M	09-07-99	1130	71	32	44	3.7	78	66
400826086433001	1	09-08-99	0803	83	30	5.3	1.5	17	57
400641086462901	2	09-08-99	0925	95	30	68	4.6	110	52
400643086491201	3	09-08-99	1053	65	30	9.0	2.2	18	54
400329086522801	4	09-02-99	1027	89	39	53	3.4	97	140
03339460	5	09-02-99	0940	110	48	91	3.9	150	230
400251086472201	6	09-02-99	0847	88	37	12	2.7	25	60
400247086443801	7	09-02-99	0750	52	30	13	4.3	24	40
400221086552501	8	09-01-99	1212	90	33	23	2.6	51	58
400305086573301	9	09-01-99	1245	89	31	19	2.3	43	93
400129086583501	10	09-03-99	1145	86	32	6.4	1.7	14	49
395947086575001	12	09-07-99	1220	58	27	9.5	2.1	19	42
400016087000201	13B	09-09-99	1115	92	33	5.2	1.5	11	44
395810087002301	16	09-09-99	0917	70	26	7.9	1.9	16	34
395603087013901	17	09-07-99	1050	37	30	8.2	2.5	10	26
395222086513901	19	09-07-99	0904	52	27	7.7	1.8	15	54
395339086501101	20	09-07-99	0832	71	28	29	2.6	55	43
395228086494701	21	09-07-99	0947	76	27	8.7	2.3	16	31
400524087053001	23	09-03-99	1041	92	31	23	2.2	41	64
401137087020801	24	09-03-99	0840	37	28	8.8	1.6	18	41
401155087045801	26	09-03-99	0950	86	31	7.6	1.3	17	61

MISCELLANEOUS WATER-QUALITY STATION ANALYSES--Continued

MISCELLANEOUS STREAMS IN MONTGOMERY COUNTY

STATION NUMBER	SITE NUNBER	DATE	TIME	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	ALKA-LINITY WAT.DIS FET LAB CACO3 (MG/L) (29801)	SOLIDS RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM) (90095)
400824086432601	1M	09-08-99	0808	.33	3.5	25	6.8	210	313	556
400628086473701	2M	09-08-99	1013	.27	3.5	18	13	190	307	539
400626086492501	3M	09-09-99	0803	.24	3.7	24	15	200	311	553
400515086510801	4M	09-02-99	1112	.22	3.3	E9.7	6.8	180	285	504
400459086521501	5M	09-02-99	1150	.22	3.6	E9.9	7.8	190	294	518
400251086540301	7M	09-01-99	0805	.23	5.3	15	21	210	367	636
400300086552101	8M	09-01-99	0910	.32	6.4	90	37	230	475	823
400227086564601	9M	09-01-99	1000	.35	6.7	25	23	240	540	940
400131086581601	10M	09-01-99	1115	.29	6.4	E8.3	18	240	488	847
395757087004701	11M	09-09-99	0946	.23	6.2	E9.9	8.7	240	458	801
395646087033001	12M	09-07-99	1130	.26	5.8	E6.2	E2.7	230	458	789
400826086433001	1	09-08-99	0803	.17	11	<10	5.8	270	336	643
400641086462901	2	09-08-99	0925	.22	12	18	12	320	578	1020
400643086491201	3	09-08-99	1053	.28	11	E8.1	12	240	345	573
400329086522801	4	09-02-99	1027	.36	5.0	<10	8.2	230	587	936
03339460	5	09-02-99	0940	.68	5.5	<10	45	240	840	1300
400251086472201	6	09-02-99	0847	.17	8.2	<10	3.9	250	451	770
400247086443801	7	09-02-99	0750	.18	.30	35	60	220	310	544
400221086552501	8	09-01-99	1212	.13	9.3	11	5.9	270	402	751
400305086573301	9	09-01-99	1245	.17	9.3	14	8.3	240	426	732
400129086583501	10	09-03-99	1145	.14	15	E9.2	12	290	306	645
395947086575001	12	09-07-99	1220	.16	6.5	11	6.6	210	300	523
400016087000201	13B	09-09-99	1115	.15	16	<10	4.2	320	338	655
395810087002301	16	09-09-99	0917	.16	11	28	33	250	297	552
395603087013901	17	09-07-99	1050	.16	15	E9.7	5.3	200	254	444
395222086513901	19	09-07-99	0904	.18	6.1	13	29	190	291	502
395339086501101	20	09-07-99	0832	.27	4.7	23	38	250	393	700
395228086494701	21	09-07-99	0947	.29	9.8	38	160	280	335	605
400524087053001	23	09-03-99	1041	.18	14	13	44	290	462	762
401137087020801	24	09-03-99	0840	.20	2.3	58	119	160	244	432
401155087045801	26	09-03-99	0950	.22	12	25	149	280	368	656

MISCELLANEOUS STREAMS IN MONTGOMERY COUNTY

Analytical results for the quality-assurance samples collected from Sugar Creek and other selected streams in Montgomery County, Indiana, September 1999.

Water-quality data listed below are from water samples collected at various sites on Sugar Creek and other streams in Montgomery County, Indiana. The sampling was conducted through a cooperative agreement between the Montgomery County Commissioners and the U.S. Geological Survey.

Note: Specific conductance, pH, water temperature, and dissolved oxygen measurements were determined in-stream using a multiple-parameter instrument.

STATION NUMBER	SITE NUMBER	DATE	TIME	TEMPERATURE WATER (DEG C) (00010)	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	SPECIFIC CONDUCTANCE (US/CM) (00095)	OXYGEN, DISSOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	PH WATER WHOLE LAB (STAMDARD UNITS) (00403)
400227086564601	9M	09-01-99	1000	21.0	1028	80020	939	8.2	7.8	8.1
400826086433001	1	09-08-99	0803	15.5	1028	80020	649	9.0	8.1	8.2
401137087020801	24	09-03-99	0840	22.0	1028	80020	440	3.0	7.6	7.8

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)
09-01-99	.042	.027	2.25	78	32	66	5.1	110
09-08-99	<.020	.013	4.17	85	30	5.3	1.5	17
09-03-99	<.020	<.010	<.050	37	28	8.9	1.6	18

DATE	SULFATE DISSOLVED (MG/L AS SO4) (00945)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	ALKALINITY WAT.DIS FET LAB CACO3 (MG/L) (29801)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SPECIFIC CONDUCTANCE LAB (US/CM) (90095)
09-01-99	77	.35	6.7	25	23	230	542	942
09-08-99	57	.17	11	<10	6.5	270	365	643
09-03-99	41	.20	2.2	59	120	160	246	432

Base from U.S. Geological Survey digital data, 1:2,000,000, 1996
Albers Equal Area projection
Standard parallels 29°30' and 45° 30' central meridian -96°

EXPLANATION

11 Number of lakes in designated county

Figure 9.--Number of lakes by county having 1999 water-level records.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100030 ADAMS LAKE NEAR WOLCOTTVILLE, IN

LOCATION.--Lat 41°33'15", long 86°19'11", in NE¼NE¼NW¼ sec.25, T.36 N., R.10 E., Lagrange County, Hydrologic Unit 04050001 (WOLCOTTVILLE, IN quadrangle). The gage is on the east side of the lake on a dredged inlet, at the public access site, and 3.1 mi northeast of Wolcottville.

SURFACE AREA.--308 acres.

DRAINAGE AREA.--5.62 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	3.63	3.76	3.77	4.38	4.27	4.22	4.43	4.21	4.00	3.58	3.39
10	---	3.74	3.78	3.77	4.33	4.31	4.38	4.31	4.08	3.88	3.52	3.30
15	---	3.69	3.76	3.77	4.29	4.29	4.45	4.19	4.02	3.76	3.57	3.23
20	---	3.67	3.77	3.77	4.20	4.27	4.49	4.25	3.89	3.71	3.55	3.16
25	3.68	3.68	3.80	4.49	4.15	4.22	4.81	4.35	3.91	3.68	3.54	3.08
EOM	3.69	3.74	3.77	4.46	4.17	4.15	4.58	4.30	3.99	3.69	3.45	3.17

WTR YR 1999 MEAN 3.94 MAX 4.83 MIN 3.06

STREAMS TRIBUTARY TO LAKE ERIE

04177680 BALL LAKE NEAR HAMILTON, IN

LOCATION.--Lat 41°32'12", long 84°56'18", in SE¼SW¼NE¼ sec.32, T.36 N., R.14 E., Steuben County, Hydrologic Unit 04100003 (HAMILTON, IN quadrangle). The gage is on the northeastern shore of the lake, south of the bridge over the outlet, and 1.3 mi west of Hamilton.

SURFACE AREA.--87 acres.

DRAINAGE AREA.--11.6 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.85	4.84	4.86	4.85	4.87	4.93	4.89	4.85	4.79	4.77	4.73	4.73
10	4.86	4.96	4.86	4.85	4.89	4.88	5.01	4.83	4.77	4.74	4.73	4.69
15	4.85	4.86	4.86	4.85	4.88	4.88	4.95	4.82	4.76	4.72	4.75	4.71
20	4.84	4.86	4.85	4.85	4.87	4.91	4.90	4.81	4.76	4.73	4.73	4.73
25	4.84	4.85	4.85	4.85	4.87	4.91	5.07	4.80	4.74	4.74	4.74	4.71
EOM	4.84	4.86	4.85	4.98	4.95	4.90	4.87	4.94	4.75	4.73	4.71	4.75

WTR YR 1999 MEAN 4.84 MAX 5.65 MIN 4.69

ILLINOIS RIVER BASIN

05517200 BASS LAKE AT BASS LAKE, IN

LOCATION.--Lat 41°12'28", long 86°36'07", in NW¼NW¼SW¼ sec.24, T.32 N., R.2 W., Starke County, Hydrologic Unit 07120001 (BASS LAKE, IN quadrangle). The gage is on the southern shore of the lake, just north of the junction of U.S. Highway 35 and State Highway 10, at the town of Bass Lake.

SURFACE AREA.--1,400 acres.

DRAINAGE AREA.--5.18 mi^2.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.28	13.14	13.06	13.16	13.46	13.67	13.64	13.97	13.80	13.78	13.36	12.98
10	13.33	13.10	13.08	13.16	13.51	13.72	13.73	13.94	13.72	13.63	13.30	12.86
15	13.26	13.15	13.04	13.18	13.51	13.70	13.75	13.90	13.73	13.54	13.25	12.77
20	13.23	13.07	13.05	13.30	13.52	13.67	13.83	13.87	13.62	13.50	13.20	12.68
25	13.17	13.04	13.03	13.43	13.51	13.63	13.99	13.83	13.59	13.47	13.17	12.59
EOM	13.19	13.09	13.03	13.43	13.59	13.59	14.04	13.79	13.63	13.46	13.05	12.62

WTR YR 1999 MEAN 13.41 MAX 14.08 MIN 12.55

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100260 BEAR LAKE NEAR WOLFLAKE, IN

LOCATION.--Lat 41°19'07", long 85°30'49", in SW¼NW¼ sec.17, T.33 N., R.9 E., Noble County, Hydrologic Unit 04050001 (ORMAS, IN quadrangle). The gage is on the southern shore of the lake on a dredged channel, at the end of the gravel lane to the Merry Lea Nature Center, 1.1 mi southwest of the town of Wolflake.

SURFACE AREA.--136 acres.

DRAINAGE AREA.--6.98 mi^2.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--889.90 ft above 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, Oct. 22-24, 29-31, Nov. 1-3, 6, 7, 1966.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.70	3.83	4.08	4.22	4.39	4.52	4.32	4.48	4.42	4.07	3.72	3.41
10	3.87	3.97	4.15	4.22	4.35	4.47	4.52	4.35	4.25	3.99	3.68	3.31
15	3.84	3.98	4.10	4.20	4.31	4.30	4.53	4.27	4.25	3.89	3.66	3.25
20	3.82	3.98	4.11	4.19	4.30	4.37	4.58	4.62	4.17	3.81	3.60	3.18
25	3.81	4.00	4.13	4.80	4.22	4.33	4.95	4.57	4.13	3.72	3.57	3.08
EOM	3.83	4.06	4.11	4.50	4.41	4.20	4.70	4.44	4.09	3.78	3.51	3.31

WTR YR 1999 MEAN 4.08 MAX 5.01 MIN 3.07

WABASH RIVER BASIN

03331010 BIG CHAPMAN LAKE NEAR WARSAW, IN

LOCATION.--Lat 41°16'53", long 85°46'47", in NW¼SE¼SW¼ sec.25, T.33 N., R.6 E., Kosciusko County, Hydrologic Unit 05120106 (LEESBURG, IN quadrangle). The gage is on the southeastern shore of the lake, at the public access site, 4.9 mi northeast of Warsaw.

SURFACE AREA.--581 acres.

DRAINAGE AREA.--4.17 mi^2.

PERIOD OF RECORD.--1945-68, 1971, 1976 to current year.

DATUM OF GAGE.--820.00 ft above 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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.36	7.59	7.85	7.41	7.61	7.81	7.65	7.64	7.44	7.46	7.16	7.11
10	7.54	7.92	7.63	7.37	7.64	7.78	7.70	7.58	7.35	7.31	7.14	7.04
15	7.52	7.74	7.48	7.36	7.61	7.70	7.59	7.53	7.31	7.23	7.11	6.99
20	7.55	7.74	7.47	7.42	7.53	7.74	7.58	7.53	7.23	7.20	7.12	6.94
25	7.54	7.81	7.38	7.84	7.50	7.66	7.84	7.52	7.38	7.16	7.26	6.86
EOM	7.61	7.85	7.35	7.67	7.77	7.58	7.80	7.46	7.46	7.30	7.15	7.06

WTR YR 1999 MEAN 7.48 MAX 7.97 MIN 6.85

WABASH RIVER BASIN

03330040 BIG LAKE NEAR WOLFLAKE, IN

LOCATION.--Lat 41°16'33", long 85°30'43", in NW¼SE¼NW¼ sec.32, T.33 N., R.9 E., Noble County, Hydrologic Unit 05120106 (ORMAS, IN quadrangle). The gage is at the head of the outlet channel, approximately 20 feet north of the control structure and 4 mi southwest of the town of Wolflake.

SURFACE AREA.--228 acres.

DRAINAGE AREA.--8.89 mi^2.

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, 7.11 ft Sept. 26, 27, 1999.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.66	7.71	8.02	8.13	---	---	8.21	8.25	8.34	8.08	7.68	7.45
10	7.80	7.84	8.09	8.13	---	---	8.34	8.19	8.17	7.98	7.65	7.36
15	7.76	7.88	8.09	8.13	---	---	8.38	8.14	8.17	7.90	7.61	7.28
20	7.75	7.89	8.12	8.13	---	---	8.43	8.25	8.11	7.85	7.57	7.22
25	7.71	7.93	8.13	---	---	8.24	9.25	8.39	8.09	7.81	7.58	7.14
EOM	7.75	7.98	8.13	---	---	8.19	8.44	8.33	8.08	7.80	7.50	7.30

WTR YR 1999 MEAN 7.96 MAX 9.40 MIN 7.11

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099600 BIG LONG LAKE NEAR STROH, IN

LOCATION.--Lat 41°33'17", long 85°13'47", in $NE^{1}/_{4}NW^{1}/_{4}NW^{1}/_{4}$ 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 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.05	5.99	6.09	6.22	6.41	6.48	6.54	6.36	6.26	6.26	5.90	5.77
10	6.15	6.24	6.11	6.26	6.36	6.43	6.83	6.23	6.18	6.14	5.82	5.66
15	6.09	6.05	6.09	6.30	6.37	6.40	6.82	6.17	6.15	6.05	5.85	5.56
20	6.06	6.02	6.12	6.37	6.31	6.44	6.51	6.34	6.07	6.01	5.81	5.46
25	6.02	6.15	6.12	6.68	6.29	6.40	6.59	6.43	6.13	6.01	5.98	5.37
EOM	6.05	6.18	6.09	6.45	6.41	6.39	6.34	6.37	6.29	5.97	5.82	5.59

WTR YR 1999 MEAN 6.18 MAX 6.86 MIN 5.36

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100140 BIXLER LAKE AT KENDALLVILLE, IN

LOCATION.--Lat 41°26'13", long 85°15'10", in $NE^{1}/_{4}NE^{1}/_{4}NE^{1}/_{4}$ 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 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.23	3.47	3.80	3.90	4.12	3.77	3.23	3.07	3.72	3.32	2.75	2.45
10	3.57	3.66	3.85	3.90	3.52	3.96	3.47	2.91	3.63	3.18	2.68	2.31
15	3.52	3.68	3.84	3.90	3.32	3.96	4.17	2.82	3.57	3.06	2.77	2.18
20	3.51	3.66	3.85	3.91	3.11	3.96	3.91	2.99	3.44	3.01	2.69	2.09
25	3.49	3.71	3.86	5.15	2.98	3.67	4.62	3.60	3.34	2.92	2.70	1.99
EOM	3.52	3.79	3.83	4.77	3.13	3.24	3.77	3.68	3.35	2.87	2.55	2.35

WTR YR 1999 MEAN 3.42 MAX 5.42 MIN 1.91

03327600 BLUE LAKE NEAR CHURUBUSCO, IN

LOCATION.--Lat 41°14'30", long 85°21'04", in SW¼NE¼SE¼ sec.10, T.32 N., R.10 E., Whitley County, Hydrologic Unit 05120104 (CHURUBUSCO, IN quadrangle). Gage is located on a dredged channel at the extreme east end of the lake, approximately 2.0 mi west of Churubusco.

SURFACE AREA.--239 acres.

DRAINAGE AREA.--3.58 mi^2.

PERIOD OF RECORD.--1946-68, 1976 to current year.

DATUM OF GAGE.--840.00 ft above 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 Eel River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 15.80 ft Dec. 10, 1966; minimum stage, 7.64 ft Nov. 19, 20, 1952.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.52	9.59	9.72	9.75	10.17	10.24	9.66	9.93	9.91	9.53	9.02	8.63
10	9.71	9.67	9.76	9.71	10.08	10.15	9.77	9.80	9.80	9.39	9.01	8.50
15	9.68	9.70	9.75	9.70	9.96	9.95	9.98	9.77	9.80	9.20	9.05	8.36
20	9.64	9.68	9.75	9.81	9.86	9.93	10.18	9.73	9.69	9.16	8.98	8.26
25	9.59	9.66	9.75	10.98	9.76	9.81	10.55	9.86	9.60	9.05	9.18	8.11
EOM	9.60	9.70	9.72	10.49	10.02	9.67	10.19	9.89	9.57	9.28	8.86	8.97

WTR YR 1999 MEAN 9.62 MAX 10.98 MIN 8.06

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099250 BOWER LAKE NEAR PLEASANT LAKE, IN

LOCATION.--Lat 41°36'03", long 85°03'24", in SW¼SW¼SE¼ sec.5, T.36 N., R.13 E., Steuben County, Hydrologic Unit 04050001 (ASHLEY, IN quadrangle). The gage is located at the public access site on the northwestern edge of the lake, 3.9 mi southwest of Angola.

SURFACE AREA.--25 acres.

DRAINAGE AREA.--84.6 mi^2.

PERIOD OF RECORD.--1946-1970, 1977 to current year.

DATUM OF GAGE.--940.00 ft above 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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.35	8.31	8.63	8.38	10.47	10.07	9.20	9.70	9.71	8.57	8.31	8.11
10	8.83	8.63	8.78	8.43	10.12	9.60	9.88	9.29	9.05	8.41	8.25	8.06
15	8.50	8.72	8.59	8.40	9.83	9.28	10.32	9.03	8.99	8.35	8.28	8.04
20	8.40	8.52	8.53	9.10	9.44	10.60	10.63	9.88	8.73	8.31	8.24	8.04
25	8.37	8.48	8.55	13.34	9.14	9.65	12.45	10.30	8.60	8.48	8.37	8.03
EOM	8.36	8.59	8.45	11.81	9.29	9.12	10.77	9.67	8.70	8.33	8.16	8.32

WTR YR 1999 MEAN 9.09 MAX 13.40 MIN 8.02

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099810 CASS LAKE NEAR SHIPSHEWANA, IN

LOCATION.--Lat 41°41'42", long 85°38'18", in $SW^{1}/_{4}NW^{1}/_{4}NW^{1}/_{4}$ sec.5, T.37 N, R.8 E., Lagrange County, Hydrologic Unit 04050001 (MIDDLEBURY, IN quadrangle). The gage is on the northeast shore of the lake, at the beach area in the Foxwood Hills Addition, and 3.3 mi northwest of Shipshewana.

SURFACE AREA.--89 acres.

DRAINAGE AREA.--0.68 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.75	2.84	2.92	3.06	3.24	3.25	3.11	2.98	2.88	2.78	---	2.28
10	2.96	2.93	2.99	3.06	3.25	3.23	3.20	2.89	2.80	2.65	---	2.23
15	2.90	2.91	2.95	3.06	3.22	3.17	3.21	2.83	2.71	2.57	---	2.20
20	2.88	2.88	2.97	3.06	3.19	3.16	3.19	2.90	2.63	2.51	---	2.18
25	2.86	2.88	2.97	3.29	3.16	3.12	3.26	2.95	2.59	2.51	---	2.17
EOM	2.89	2.92	2.94	3.27	3.21	3.07	3.13	2.91	2.72	2.45	2.31	2.30

WTR YR 1999 MEAN 2.89 MAX 3.33 MIN 2.17

ILLINOIS RIVER BASIN

05518700 CEDAR LAKE AT CEDAR LAKE, IN

LOCATION.--Lat 41°21'58", long 87°25'36", in $NE^{1}/_{4}SW^{1}/_{4}SW^{1}/_{4}$ 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 mi^2.

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, Aug., Sept., Oct. 1988, and Sept. 1991.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.66	2.62	2.68	2.93	3.18	3.04	2.90	3.23	2.89	2.92	2.52	2.24
10	2.66	2.72	2.83	2.92	3.11	3.04	2.98	3.06	2.83	2.78	2.44	2.14
15	2.62	2.72	2.82	2.93	3.05	2.99	3.04	3.01	2.99	2.68	2.40	2.08
20	2.64	2.69	2.82	2.99	3.00	3.03	3.11	2.93	2.88	2.74	2.40	2.03
25	2.58	2.66	2.81	3.47	2.96	2.97	3.55	2.89	2.84	2.70	2.39	1.93
EOM	2.65	2.70	2.81	3.28	2.98	2.92	3.52	2.87	2.90	2.63	2.30	1.98

WTR YR 1999 MEAN 2.80 MAX 3.67 MIN 1.92

03331160 CENTER LAKE AT WARSAW, IN

LOCATION.--Lat 41°15'02", long 85°51'32", in NE$^1/_4$SW$^1/_4$SW$^1/_4$ 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 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.24	4.36	4.58	4.44	5.82	5.48	4.66	5.92	4.93	4.76	4.31	4.23
10	4.65	4.48	4.55	4.44	5.67	5.68	4.79	5.28	4.94	4.57	4.28	4.13
15	4.49	4.47	4.47	4.44	5.29	5.37	5.06	4.89	4.84	4.42	4.25	4.07
20	4.44	4.47	4.47	4.55	4.99	5.20	5.35	4.68	4.71	4.39	4.22	4.02
25	4.39	4.54	4.47	5.22	4.81	4.95	5.84	4.61	4.76	4.30	4.35	3.96
EOM	4.38	4.58	4.44	5.77	4.93	4.75	6.19	4.68	4.79	4.43	4.29	4.17

WTR YR 1999 MEAN 4.73 MAX 6.23 MIN 3.95

STREAMS TRIBUTARY TO LAKE ERIE

04177200 CLEAR LAKE AT CLEAR LAKE, IN

LOCATION.--Lat 41°44'52", long 84°50'25", in SW$^1/_4$SW$^1/_4$ 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 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.69	7.74	7.84	7.91	8.13	8.10	8.01	7.99	7.97	7.72	7.49	7.32
10	7.81	7.84	7.86	7.91	8.07	8.15	8.07	7.92	7.90	7.62	7.44	7.21
15	7.77	7.78	7.83	7.91	8.03	8.13	8.14	7.89	7.83	7.55	7.43	7.13
20	7.76	7.76	7.83	7.92	7.98	8.17	8.11	7.96	7.75	7.50	7.39	7.05
25	7.75	7.80	7.82	8.27	7.97	8.04	8.23	7.98	7.72	7.57	7.38	7.00
EOM	7.77	7.84	7.79	8.24	8.01	7.97	8.07	8.06	7.70	7.57	7.34	7.14

WTR YR 1999 MEAN 7.80 MAX 8.31 MIN 6.99

ILLINOIS RIVER BASIN

05515240 CLEAR LAKE AT LAPORTE, IN

LOCATION.--Lat 41°37'25", long 86°43'11", in NE¼SE¼SE¼ sec.26, T.37 N., R.3 W., LaPorte County, Hydrologic Unit 07120001 (LAPORTE EAST, IN quadrangle). The gage is on the northeast shore of the lake, 100 ft south of the entrance to Fox Memorial Park, in LaPorte.

SURFACE AREA.--106 acres.

DRAINAGE AREA.--0.65 mi^2.

PERIOD OF RECORD.--1942-49, 1952-75, 1979 to current year.

DATUM OF GAGE.--790.00 ft above 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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.02	7.90	7.83	7.95	8.49	8.60	8.44	8.98	8.63	8.59	8.17	7.92
10	8.05	8.13	7.95	7.97	8.46	8.60	8.63	8.86	8.53	8.41	8.03	7.78
15	7.98	7.93	7.90	7.99	8.51	8.59	8.71	8.78	8.55	8.32	8.13	7.65
20	7.95	7.88	7.92	8.15	8.45	8.57	8.67	8.73	8.43	8.25	8.13	7.55
25	7.90	7.85	7.88	8.48	8.43	8.48	9.09	8.72	8.39	8.20	8.16	7.43
EOM	7.92	7.87	7.87	8.45	8.46	8.43	9.03	8.68	8.43	8.31	8.05	7.44

WTR YR 1999 MEAN 8.26 MAX 9.18 MIN 7.39

STREAMS TRIBUTARY TO LAKE MICHIGAN

04097850 CROOKED LAKE AT CROOKED LAKE, IN

LOCATION.--Lat 41°40'14", long 85°02'04", in NE¼NW¼NE¼ sec.16, T.37 N., R.13 E., Steuben County, Hydrologic Unit 04050001 (ANGOLA WEST, IN quadrangle). The gage is on an inlet channel on the lower eastern shore of the lake, 3.1 mi northwest of Angola.

SURFACE AREA.--828 acres.

DRAINAGE AREA.--10.4 mi^2.

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, 10.30 ft May 19, 1996; minimum stage, 7.05 ft Nov. 13-15, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.86	8.91	8.79	8.85	9.16	9.01	9.02	9.10	9.27	9.06	8.81	8.49
10	9.00	9.00	8.78	8.90	9.14	9.02	9.04	9.06	9.16	8.96	8.75	8.42
15	8.97	8.87	8.73	8.93	9.06	8.98	9.10	9.03	9.22	8.87	8.70	8.35
20	8.96	8.82	8.73	8.96	9.00	8.98	9.11	9.24	9.09	8.83	8.67	8.30
25	8.95	8.84	8.72	9.20	8.97	8.93	9.33	9.38	9.05	8.86	8.64	8.23
EOM	8.99	8.86	8.72	9.20	9.02	8.91	9.22	9.33	9.09	8.85	8.55	8.37

WTR YR 1999 MEAN 8.93 MAX 9.42 MIN 8.19

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100470 DEWART LAKE NEAR LEESBURG, IN

LOCATION.--Lat 41°22'27", long 85°47'07", in NW¼SW¼NW¼ sec.25, T.34 N., R.6 E., Kosciusko County, Hydrologic Unit 04050001 (LEESBURG, IN quadrangle). The gage is on the west shore of the lake, 0.1 mi east of County Road 300 East at the public access site, and 4.5 mi northeast of Leesburg.

SURFACE AREA.--551 acres.

DRAINAGE AREA.--8.05 mi^2.

PERIOD OF RECORD.--1945 to current year.

DATUM OF GAGE.--859.897 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 867.597 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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.19	8.30	8.35	8.35	8.86	8.90	8.81	9.00	8.70	8.51	8.20	7.89
10	8.43	8.38	8.36	8.36	8.85	8.90	8.91	8.90	8.61	8.39	8.14	7.79
15	8.38	8.36	8.33	8.37	8.82	8.83	8.89	8.79	8.53	8.30	8.08	7.67
20	8.36	8.32	8.33	8.43	8.76	8.83	8.93	8.79	8.45	8.25	8.05	7.63
25	8.32	8.33	8.31	8.89	8.72	8.75	9.25	8.77	8.47	8.17	8.04	7.52
EOM	8.36	8.36	8.28	8.85	8.78	8.69	9.14	8.71	8.53	8.33	7.96	7.63

WTR YR 1999 MEAN 8.47 MAX 9.27 MIN 7.49

WABASH RIVER BASIN

03331320 DIAMOND LAKE NEAR SILVER LAKE, IN

LOCATION.--Lat 41°06'23", long 85°56'05", in SW¼NW¼SE¼ sec.26, T.31 N., R.5 E., Kosciusko County, Hydrologic Unit 05120106 (SILVER LAKE, IN quadrangle). The gage is on the inlet channel on the northern shore of the lake, 2.2 mi northwest of the town of Silver Lake.

SURFACE AREA.--79 acres.

DRAINAGE AREA.--3.92 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.42	10.50	10.67	10.80	10.87	11.15	10.68	10.89	10.75	10.54	10.27	10.10
10	10.53	10.68	10.64	10.80	10.89	10.99	10.85	10.77	10.63	10.43	10.27	10.03
15	10.47	10.54	10.65	10.80	10.85	10.82	10.91	10.71	10.58	10.38	10.25	9.98
20	10.46	10.49	10.71	10.84	10.70	10.84	10.98	10.76	10.51	10.36	10.23	9.93
25	10.45	10.56	10.73	11.63	10.66	10.78	11.48	10.72	10.58	10.34	10.21	9.88
EOM	10.51	10.56	10.73	11.06	11.17	10.75	11.14	10.69	10.59	10.36	10.15	10.03

WTR YR 1999 MEAN 10.63 MAX 11.83 MIN 9.87

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100350 DIAMOND LAKE NEAR WAWAKA, IN

LOCATION.--Lat 41°26'15", long 85°31'05", in $NE^{1}/_{4}NW^{1}/_{4}NW^{1}/_{4}$, 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 access site, 2.5 mi southwest of the town of Wawaka.

SURFACE AREA.--105 acres.

DRAINAGE AREA.--4.80 mi^2.

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--870.00 ft above 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.--Willets Ditch enters at the southwestern tip of the lake from Eagle Lake, 0.6 mi upstream. One unnamed ditch enters the lake from the south. The outlet flows from the lake at the southeastern edge and joins the South Branch of the Elkhart River 0.8 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.83 ft Mar. 20, 1982; minimum stage, 2.29 ft Oct. 17, 1946.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.49	4.67	4.84	4.76	5.43	5.13	5.07	5.47	5.09	4.99	4.51	4.43
10	4.66	4.89	4.84	4.73	5.29	5.10	5.34	5.20	4.93	4.86	4.49	4.32
15	4.60	4.84	4.80	4.73	5.20	4.84	5.39	5.00	4.91	4.71	4.47	4.25
20	4.64	4.80	4.80	4.77	5.04	4.85	5.41	4.89	4.84	4.63	4.52	4.19
25	4.61	4.85	4.76	5.55	4.90	4.83	5.96	5.04	4.87	4.58	4.51	4.11
EOM	4.69	4.87	4.70	5.66	4.95	4.88	5.88	5.12	4.98	4.67	4.45	4.34

WTR YR 1999 MEAN 4.87 MAX 5.97 MIN 4.10

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100370 ENGLE LAKE NEAR LIGONIER, IN

LOCATION.--Lat 41°26'08", long 85°34'30", in $SE^{1}/_{4}NW^{1}/_{4}NW^{1}/_{4}$ 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 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.47	8.49	8.59	8.57	8.84	8.83	---	---	---	8.76	8.40	8.17
10	8.59	8.69	8.58	8.45	8.84	8.83	---	---	8.71	8.65	8.34	8.10
15	8.51	8.60	8.53	8.40	8.78	8.76	---	---	8.98	8.53	8.33	8.06
20	8.55	8.54	8.55	8.49	8.70	8.80	---	---	8.77	8.50	8.32	8.03
25	8.51	8.57	8.51	9.21	8.66	---	---	---	8.71	8.43	8.31	8.00
EOM	8.54	8.61	8.48	8.91	8.75	---	---	---	8.86	8.52	8.23	8.19

WTR YR 1999 MEAN 8.56 MAX 9.28 MIN 8.00

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099670 FISH LAKE NEAR PLATO, IN

LOCATION.--Lat 41°37'27", long 85°19'56", in SW¼NE¼NE¼ sec.35, T.37 N., R.10 E., Lagrange County, Hydrologic Unit 04050001 (WOLCOTTVILLE, IN quadrangle). The gage is on the northeast bank of the outlet channel, approximately 15 ft downstream of the lake on the northwest side, and 1.2 mi south of Plato.

SURFACE AREA.--100 acres.

DRAINAGE AREA.--10.6 mi^2.

PERIOD OF RECORD.--1945 to current year.

DATUM OF GAGE.--930.75 ft above 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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.47	6.53	6.75	6.44	7.11	7.05	6.97	7.03	6.80	7.09	6.50	6.39
10	6.67	6.74	6.73	6.35	7.08	6.97	7.28	6.91	6.67	6.77	6.45	6.31
15	6.59	6.75	6.67	6.35	7.01	6.86	7.25	6.83	6.69	6.63	6.44	6.29
20	6.55	6.69	6.68	6.65	6.91	7.10	7.29	6.89	6.59	6.56	6.43	6.26
25	6.53	6.70	6.64	7.99	6.81	6.93	7.94	7.07	6.80	6.55	6.53	6.23
EOM	6.57	6.74	6.56	7.31	6.89	6.80	7.30	6.91	7.24	6.51	6.44	6.34

WTR YR 1999 MEAN 6.77 MAX 8.05 MIN 6.23

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099760 FISH LAKE NEAR SCOTT, IN

LOCATION.--Lat 41°45'25", long 85°38'54", in NW¼NW¼SE¼ sec.7, T.38 N.,R.8 E., Lagrange County, Hydrologic Unit 04050001 (MIDDLEBURY, IN quadrangle). The gage is on the northwest shore of the lake, on the north side of the outlet channel, 4.8 mi northwest of Scott.

SURFACE AREA.--139 acres.

DRAINAGE AREA.--6.21 mi^2.

PERIOD OF RECORD.--1954-69, 1978 to current year.

DATUM OF GAGE.--809.84 ft above 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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.06	4.06	4.04	4.06	4.64	4.65	4.64	4.66	4.68	4.64	---	3.45
10	4.09	4.06	4.07	4.06	4.65	4.64	4.66	4.63	4.68	4.49	---	3.31
15	4.08	4.06	4.07	4.06	4.64	4.61	4.66	4.59	4.67	---	---	3.21
20	4.08	4.04	4.07	4.06	4.62	4.64	4.67	4.66	4.66	---	---	3.10
25	4.08	4.02	4.06	4.62	4.60	4.62	4.69	4.68	4.64	---	---	3.01
EOM	4.08	4.04	4.06	4.56	4.63	4.56	4.67	4.68	4.67	---	3.56	3.04

WTR YR 1999 MEAN 4.28 MAX 4.69 MIN 2.98

ILLINOIS RIVER BASIN

05517700 FLINT LAKE NEAR VALPARAISO, IN

LOCATION.--Lat 41°30'41", long 87°02'23", in NE¼SW¼ sec.6, T.35 N., R.5 W., Porter County, Hydrologic Unit 07120001 (CHESTERTON, IN quadrangle). The gage is on the southeast shore of the lake, at the outlet and the Valparaiso Water Works, 3.2 mi northeast of Valparaiso.

SURFACE AREA.--86 acres.

DRAINAGE AREA.--3.80 mi^2, 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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.14	19.09	19.11	19.29	19.77	19.72	19.57	19.75	19.38	19.20	18.77	18.65
10	19.14	19.19	19.26	19.30	19.76	19.77	19.61	19.59	19.29	19.08	18.70	18.56
15	19.10	19.17	19.23	19.30	19.74	19.76	19.62	19.49	19.28	18.96	18.67	18.48
20	19.11	19.14	19.23	19.41	19.69	19.79	19.66	19.45	19.20	18.92	18.69	18.40
25	19.08	19.11	19.21	19.93	19.64	19.70	20.03	19.44	19.14	18.97	18.74	18.32
EOM	19.12	19.12	19.21	19.82	19.66	19.60	20.04	19.38	19.12	18.89	18.72	18.39

WTR YR 1999 MEAN 19.27 MAX 20.18 MIN 18.29

WABASH RIVER BASIN

03330160 GILBERT LAKE NEAR WASHINGTON CENTER, IN

LOCATION.--Lat 41°19'50", long 85°35'48", in NE¼NE¼SE¼ sec.9, T.33 N., R.8 E., Noble County, Hydrologic Unit 05120106 (ORMAS, IN quadrangle). The gage is at the extreme west end of the lake on the east side of County Road 925 West, approximately 400 ft south of Gilbert Lake Road, and 0.4 mi north of Washington Center.

SURFACE AREA.--28 acres.

DRAINAGE AREA.--0.37 mi^2.

PERIOD OF RECORD.--1954-59, 1961 to current year.

DATUM OF GAGE.--884.85 ft 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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.82	5.58	4.20	4.04	4.09	4.18	4.22	4.48	4.67	4.59	4.21	4.28
10	5.16	5.73	4.10	4.04	4.10	4.13	4.36	4.46	4.60	4.47	4.21	4.22
15	5.24	5.68	3.98	4.04	4.07	4.08	4.36	4.50	4.60	4.37	4.26	4.17
20	5.34	5.69	3.98	4.07	4.03	4.11	4.38	4.58	4.55	4.31	4.28	4.14
25	5.41	4.90	3.93	4.36	4.03	4.11	4.43	4.61	4.67	4.25	4.32	4.08
EOM	5.55	4.35	3.91	4.12	4.18	4.20	4.44	4.74	4.60	4.27	4.30	4.31

WTR YR 1999 MEAN 4.45 MAX 5.73 MIN 3.91

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100110 HACKENBURG LAKE NEAR WOLCOTTVILLE, IN

LOCATION.--Lat 41°33'25", long 85°26'17", in NE¼SW¼SW¼ sec.24, T.36 N., R.9 E., Lagrange County, Hydrologic Unit 04050001 (OLIVER LAKE, IN quadrangle). The gage is on the north shore of the outlet channel at the bridge on County Road 75 West, and 4.2 mi northwest of Wolcottville.

SURFACE AREA.--42 acres.

DRAINAGE AREA.--55.4 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.17	7.30	7.50	7.30	8.87	8.24	8.04	8.82	7.95	7.71	7.38	7.42
10	7.54	7.34	7.50	7.27	8.62	8.32	8.35	8.37	7.68	7.55	7.36	7.37
15	7.56	7.47	7.41	7.25	8.42	8.16	8.64	7.98	7.68	7.48	7.49	7.35
20	7.54	7.41	7.36	7.36	8.18	8.29	8.86	7.91	7.44	7.47	7.49	7.32
25	7.53	7.38	7.32	8.86	7.94	8.22	9.51	8.14	7.46	7.45	7.50	7.32
EOM	7.48	7.43	7.21	9.17	7.95	7.98	9.31	8.10	7.69	7.47	7.45	7.46

WTR YR 1999 MEAN 7.80 MAX 9.52 MIN 7.17

STREAMS TRIBUTARY TO LAKE ERIE

04177700 HAMILTON LAKE AT HAMILTON, IN

LOCATION.--Lat 41°32'10", long 84°54'45", in SW¼SW¼NW¼ sec.34, T.36 N., R.14 E., Steuben County, Hydrologic Unit 04100003 (HAMILTON, IN quadrangle). The gage is on the eastern shore of the southern lobe at the outlet, in the town of Hamilton.

SURFACE AREA.--802 acres.

DRAINAGE AREA.--16.5 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.42	8.49	8.56	8.52	8.66	8.77	8.63	8.61	8.59	8.54	8.41	8.36
10	8.57	8.62	8.55	8.52	8.67	8.66	8.81	8.58	8.53	8.45	8.38	8.27
15	8.52	8.55	8.53	8.52	8.62	8.60	8.82	8.56	8.60	8.40	8.46	8.22
20	8.52	8.52	8.54	8.52	8.58	8.77	8.77	8.56	8.54	8.35	8.44	8.18
25	8.51	8.56	8.52	8.53	8.57	8.63	9.02	8.62	8.51	8.42	8.43	8.12
EOM	8.52	8.58	8.52	8.73	8.66	8.57	8.69	8.69	8.55	8.41	8.38	8.24

WTR YR 1999 MEAN 8.55 MAX 9.22 MIN 8.10

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099860 HEATON LAKE NEAR ELKHART, IN

LOCATION.--Lat 41°44'14", long 85°54'42", in NW$^1/_4$NE$^1/_4$NE$^1/_4$ 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 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.88	7.66	7.61	7.76	---	8.30	8.28	8.27	8.08	8.06	6.66	5.92
10	7.92	7.67	7.72	7.76	---	8.27	8.38	8.23	7.96	7.87	6.60	5.80
15	7.86	7.70	7.72	7.76	---	8.29	8.35	8.17	8.22	7.59	6.50	5.76
20	7.76	7.68	7.72	7.76	---	8.30	8.36	8.15	8.09	7.34	6.42	5.75
25	7.70	7.64	7.76	7.76	---	8.22	8.59	8.14	8.00	7.17	6.43	5.74
EOM	7.67	7.61	7.76	---	---	8.16	8.33	8.10	8.03	6.94	6.22	5.78

WTR YR 1999 MEAN 7.61 MAX 8.64 MIN 5.74

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100258 HIGH LAKE NEAR WOLFLAKE, IN

LOCATION.--Lat 41°18'51", long 85°31'49", in SW$^1/_4$NE$^1/_4$SW$^1/_4$ 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 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.35	6.53	6.62	6.59	6.84	6.99	6.81	6.87	6.78	6.61	6.35	5.96
10	6.44	6.67	6.64	6.59	6.88	6.91	6.95	6.81	6.69	6.53	6.30	5.82
15	6.44	6.66	6.59	6.59	6.85	6.81	6.92	6.76	6.71	6.47	6.28	5.62
20	6.52	6.61	6.61	6.59	6.77	6.89	6.93	6.96	6.66	6.41	6.28	5.52
25	6.50	6.62	6.61	6.59	6.71	6.81	7.18	6.88	6.62	6.35	6.32	5.39
EOM	6.54	6.63	6.59	6.93	6.94	6.85	7.05	6.82	6.61	6.45	6.13	6.12

WTR YR 1999 MEAN 6.59 MAX 7.18 MIN 5.31

WABASH RIVER BASIN

03331300 HILL LAKE NEAR SILVER LAKE, IN

LOCATION.--Lat 41°06'16", long 85°54'35", in $SE^1/_4NE^1/_4SE^1/_4$ 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 mi^2.

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 Koscuisko 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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.96	11.05	11.23	11.29	11.41	11.72	11.40	11.43	11.40	11.28	10.97	10.80
10	11.08	11.15	11.26	11.29	11.43	11.70	11.50	11.40	11.34	11.19	10.96	10.72
15	11.05	11.15	11.26	11.29	11.40	11.60	11.54	11.35	11.34	11.12	10.93	10.66
20	11.05	11.14	11.29	11.28	11.39	11.65	11.56	11.36	11.27	11.07	10.91	10.60
25	11.04	11.16	11.31	11.74	11.45	11.56	11.69	11.45	11.29	11.01	10.88	10.49
EOM	11.07	11.21	11.29	11.47	11.67	11.46	11.60	11.38	11.31	11.05	10.83	10.67

WTR YR 1999 MEAN 11.25 MAX 11.79 MIN 10.48

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099500 HOGBACK LAKE NEAR ANGOLA, IN

LOCATION.--Lat 41°37'39", long 85°04'59", in $SE^1/_4SE^1/_4SE^1/_4$ 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 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.78	8.77	9.07	8.94	10.30	9.23	9.47	---	---	8.96	8.68	8.54
10	9.21	8.89	9.16	8.94	9.40	---	9.89	---	---	8.81	8.66	8.49
15	8.98	9.12	9.04	8.94	9.14	---	10.53	---	---	8.74	8.68	8.47
20	8.86	8.98	8.98	8.95	8.51	---	10.83	---	9.09	8.70	8.64	8.45
25	8.84	8.94	9.00	14.62	8.02	9.95	12.30	---	8.99	8.85	8.64	8.44
EOM	8.81	9.02	8.90	12.75	7.97	9.48	---	---	9.04	8.73	8.61	8.63

WTR YR 1999 MEAN 9.20 MAX 15.07 MIN 7.97

05514741 HUDSON LAKE AT HUDSON LAKE, IN

LOCATION.--Lat 41°42'42", long 86°32'13", in SE¼SW¼ sec.28, T.38 N., R.1 W., LaPorte County, Hydrologic Unit 07120001 (NEW CARLISLE, IN quadrangle). The gage is on the southeast shore of lake, and 0.7 mi west of the the town line of New Carlisle.

SURFACE AREA.--432 acres.

DRAINAGE AREA.--7.92 mi^2.

PERIOD OF RECORD.--1946-76, 1978 to 1995.

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 1996 TO SEPTEMBER 1997

DAILY OBSERVATION AT 2400 HOURS

(NO DATA COLLECTED DUE TO CONSTRUCTION)

STREAMS TRIBUTARY TO LAKE MICHIGAN

04097680 JIMMERSON LAKE AT NEVADA MILLS, IN

LOCATION.--Lat 41°43'31", long 85°04'55", in SW¼NW¼ sec.30, T.38 N., R.13 E., Steuben County, Hydrologic Unit 04050001 (ANGOLA WEST, IN quadrangle). The gage is at the extreme west end of the lake on the abutment of the concrete spillway structure and dam in the town of Nevada Mills, 4.6 mi east of Orland.

SURFACE AREA.--434 acres.

DRAINAGE AREA.--51.6 mi^2.

PERIOD OF RECORD.--1937-44, 1946 to current year. (Lake level readings were made once a week by employees of Northern Indiana Public Service Company from 1937 to 1944.)

DATUM OF GAGE.--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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.84	4.86	5.01	4.95	5.43	5.28	5.27	5.30	5.21	4.88	4.63	4.63
10	4.99	4.90	4.99	4.96	5.37	5.24	5.33	5.19	5.07	4.76	4.59	4.57
15	4.95	4.94	4.95	4.97	5.31	5.17	5.37	5.05	5.15	4.70	4.61	4.53
20	4.90	4.89	4.97	5.07	5.22	5.22	5.35	5.28	5.03	4.70	4.60	4.50
25	4.89	4.94	4.95	5.57	5.14	5.16	5.58	5.31	4.99	4.87	4.61	4.51
EOM	4.91	4.96	4.91	5.53	5.15	5.09	5.41	5.30	4.96	4.84	4.62	4.61

WTR YR 1999 MEAN 5.01 MAX 5.61 MIN 4.49

03331438 KING LAKE NEAR DELONG, IN

LOCATION.--Lat 41°07'48", long 86°25'23", in NW¼SW¼SE¼ sec.16, T.31 N., R.1 E., Fulton County, Hydrologic Unit 05120106 (CULVER, IN quadrangle). The gage is located on the northern shore of the lake, on the lake access road, 0.6 mi southwest of Delong.

SURFACE AREA.--18 acres.

DRAINAGE AREA.--1.98 mi^2.

PERIOD OF RECORD.--1970-72, 1975 to current year.

DATUM OF GAGE.--730.00 ft above 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, Nov. 1, 2, 1974.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.30	---	---	---	---	7.10	6.04	6.01	6.08	5.66	5.08	4.87
10	6.40	---	---	---	6.69	7.04	6.48	5.95	5.99	5.54	5.04	4.76
15	6.35	---	---	---	6.86	6.98	6.57	5.87	5.89	5.41	5.00	4.70
20	6.35	---	---	---	6.85	7.05	6.38	5.95	5.78	5.34	4.98	4.61
25	6.31	---	---	---	6.84	7.11	6.63	5.99	5.72	5.25	4.99	4.56
EOM	---	---	---	---	6.97	5.95	6.26	6.01	5.65	5.17	4.93	4.64

WTR YR 1999 MEAN 5.91 MAX 7.75 MIN 4.54

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100390 KNAPP LAKE NEAR WASHINGTON CENTER, IN

LOCATION.--Lat. 41°20'36", long 85°36'17", in SW¼NE¼SW¼ sec.4, T.33 N., R.8 E., Noble County, Hydrologic Unit 04050001 (ORMAS, IN quadrangle). The gage is at a public access site on the east side of the lake, and 5.8 mi west of the town of Wolflake.

SURFACE AREA.--88 acres.

DRAINAGE AREA.--6.02 mi^2.

PERIOD OF RECORD.--1946-74, 1976 to current year.

DATUM OF GAGE.--870.00 ft above 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, 6.14 ft Mar. 26, 1994.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.08	7.14	7.12	7.03	7.58	7.80	7.33	7.73	7.65	7.46	6.99	6.80
10	7.24	7.24	7.08	6.98	7.52	7.66	7.84	7.55	7.53	7.30	6.96	6.81
15	7.32	7.18	7.03	6.97	7.44	7.46	7.73	7.50	7.52	7.19	6.96	6.82
20	7.43	7.11	7.04	7.14	7.31	7.66	7.91	7.56	7.43	7.14	6.92	6.84
25	7.23	7.12	7.03	8.73	7.24	---	8.69	7.59	7.45	7.07	6.91	6.85
EOM	7.08	7.12	7.00	7.90	7.51	---	8.13	7.61	7.55	7.09	6.81	7.11

WTR YR 1999 MEAN 7.33 MAX 8.85 MIN 6.79

ILLINOIS RIVER BASIN

05515600 KOONTZ LAKE AT KOONTZ LAKE, IN

LOCATION.--Lat 41°24'42", long 86°29'18", in SW¼SE¼NE¼ sec.11, T.34 N., R.1 W., Starke County, Hydrologic Unit 07120001 (WALKERTON, IN quadrangle). The gage is on the western tip of the lake, at the control dam on State Highway 23, at the town of Koontz Lake.

SURFACE AREA.--346 acres.

DRAINAGE AREA.--6.25 mi^2.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--710.12 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 Rose 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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.43	4.45	4.52	4.50	4.58	4.65	4.56	4.59	4.54	4.54	4.41	4.36
10	4.49	4.53	4.53	4.50	4.60	4.61	4.69	4.56	4.49	4.44	4.36	4.28
15	4.45	4.51	4.49	4.50	4.57	4.56	4.65	4.54	4.49	4.39	4.35	4.21
20	4.46	4.48	4.51	4.50	4.55	4.58	4.65	4.54	4.44	4.39	4.37	4.15
25	4.45	4.48	4.49	4.75	4.54	4.54	4.80	4.59	4.45	4.40	4.42	4.09
EOM	4.49	4.54	4.50	4.70	4.57	4.53	4.68	4.57	4.54	4.49	4.40	4.15

WTR YR 1999 MEAN 4.50 MAX 4.95 MIN 4.07

ILLINOIS RIVER BASIN

05517800 LAKE ELIZA NEAR BEATRICE, IN

LOCATION.--Lat 41°25'55", long 87°10'33", in SW¼NE¼NW¼ sec.1, T.34 N., R.7 W., Porter County, Hydrologic Unit 07120001 (PALMER, IN quadrangle). The gage is on the east bank of a boat channel off the northernmost end of the lake, south of the bridge over the channel, and at the town of Lake Eliza.

SURFACE AREA.--45 acres.

DRAINAGE AREA.--1.70 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.85	3.75	3.80	4.10	4.30	4.22	4.21	4.20	4.20	3.98	3.49	3.40
10	3.84	3.85	4.02	4.11	4.66	4.20	4.35	4.30	4.10	3.83	3.42	3.29
15	3.79	3.82	4.00	4.11	4.40	4.17	4.60	4.28	4.09	3.73	3.37	3.22
20	3.79	3.78	4.00	4.23	4.20	4.28	4.39	4.22	3.98	3.69	3.37	3.16
25	3.75	3.77	4.00	5.02	4.27	4.36	4.73	4.24	3.95	3.64	3.53	3.08
EOM	3.78	3.79	4.01	4.36	4.21	4.17	4.65	4.19	3.91	3.60	3.46	3.10

WTR YR 1999 MEAN 3.99 MAX 5.62 MIN 3.06

STREAMS TRIBUTARY TO LAKE MICHIGAN

04097950 LAKE GAGE AT PANAMA, IN

LOCATION.--Lat 41°42'32", long 85°06'53", in $SE^{1}/_{4}SE^{1}/_{4}NW^{1}/_{4}$ 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 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.30	4.46	4.38	4.40	4.68	4.46	4.56	4.68	4.52	4.64	4.54	4.37
10	4.42	4.56	4.31	4.39	4.68	4.47	4.49	4.50	4.53	4.54	4.48	4.31
15	4.38	4.39	4.23	4.32	4.64	4.43	4.55	4.31	4.62	4.47	4.46	4.27
20	4.38	4.29	4.27	4.41	4.54	4.39	4.63	4.50	4.59	4.44	4.45	4.23
25	4.38	4.32	4.26	4.65	4.44	4.43	4.83	4.71	4.58	4.51	4.44	4.18
EOM	4.47	4.48	4.27	4.67	4.48	4.35	4.77	4.64	4.62	4.51	4.39	4.29

WTR YR 1999 MEAN 4.47 MAX 4.87 MIN 4.17

STREAMS TRIBUTARY TO LAKE MICHIGAN

04092990 LAKE GEORGE AT HOBART, IN

LOCATION.--Lat 41°32'07", long 87°15'30", in $NW^{1}/_{4}NW^{1}/_{4}NW^{1}/_{4}$ 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 mi^2.

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, below .08 ft Aug. 2, 1997 (while the lake was being drained).

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.05	2.05	2.05	2.05	2.47	2.37	2.20	1.90	2.27	2.12	2.04	1.97
10	2.05	2.35	2.30	2.05	2.47	2.43	2.08	2.22	2.08	2.02	1.99	1.95
15	2.00	2.10	2.12	2.06	2.31	2.40	2.19	2.20	2.24	1.99	2.01	1.97
20	2.07	2.04	2.11	2.36	2.23	2.61	2.25	2.13	2.08	2.02	2.14	1.95
25	2.02	2.06	2.06	3.50	2.19	2.29	3.29	2.20	2.07	2.00	2.25	1.97
EOM	2.14	2.04	2.05	2.62	2.28	2.16	2.71	2.20	2.14	1.98	2.01	2.10

WTR YR 1999 MEAN 2.21 MAX 4.52 MIN 1.85

STREAMS TRIBUTARY TO LAKE MICHIGAN

04097550 LAKE GEORGE AT JAMESTOWN, IN

LOCATION.--Lat 41°44'58", long 85°01'01", in $SE^{1}/_{4}NW^{1}/_{4}SE^{1}/_{4}$ 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 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.70	5.71	5.77	5.70	5.92	5.87	5.87	5.86	5.81	5.74	5.59	5.56
10	5.78	5.79	5.76	5.70	5.90	5.86	5.88	5.81	5.77	5.65	5.58	5.49
15	5.74	5.75	5.74	5.70	5.88	5.83	5.89	5.74	5.86	5.61	5.61	5.44
20	5.72	5.73	5.75	5.71	5.84	5.82	5.86	5.80	5.76	5.63	5.61	5.39
25	5.70	5.75	5.71	5.94	5.83	5.78	6.01	5.85	5.74	5.72	5.63	5.34
EOM	5.75	5.80	5.70	5.94	5.85	5.76	5.88	5.86	5.75	5.68	5.58	5.41

WTR YR 1999 MEAN 5.75 MAX 6.08 MIN 5.32

WABASH RIVER BASIN

03331380 LAKE MANITOU AT ROCHESTER, IN

LOCATION.--Lat 41°03'00", long 86°10'06", $NW^{1}/_{4}SW^{1}/_{4}NW^{1}/_{4}$ sec.14, T.30 N., R.3 E., Fulton County, Hydrologic Unit 05120106 (ROCHESTER, IN quadrangle). The gage is located at the public access site on the eastern side of the lake, and 2.6 mi southeast of the courthouse in Rochester.

SURFACE AREA.--1,158 acres.

DRAINAGE AREA.--44.2 mi^2.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--770.00 ft above 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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.35	9.32	9.35	9.39	9.60	9.84	9.55	9.63	9.54	9.39	9.24	9.22
10	9.44	9.52	9.37	9.36	9.66	9.71	9.64	9.57	9.45	9.32	9.26	9.10
15	9.34	9.41	9.35	9.36	9.58	9.60	9.71	9.55	9.50	9.29	9.27	9.04
20	9.34	9.35	9.34	9.50	9.52	9.70	9.85	9.55	9.42	9.31	9.27	8.98
25	9.32	9.36	9.34	10.25	9.50	9.56	10.05	9.56	9.42	9.29	9.32	8.92
EOM	9.34	9.38	9.34	9.69	9.93	9.52	9.75	9.61	9.43	9.26	9.27	9.20

WTR YR 1999 MEAN 9.46 MAX 10.35 MIN 8.91

WABASH RIVER BASIN

03331440 LAKE MAXINKUCKEE AT CULVER, IN

LOCATION.--Lat 41°11'48", long 86°25'00", in NE¼SE¼NW¼ sec.28, T.32 N., R.1 E., Marshall County, Hydrologic Unit 05120106 (CULVER, IN quadrangle). The gage is on the lower west side of the lake, at the public access site, 1.4 mi south of the center of Culver.

SURFACE AREA.--1,864 acres.

DRAINAGE AREA.--13.7 mi^2.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--730.00 ft above 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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.00	3.05	3.23	3.32	3.60	3.68	3.54	3.92	3.50	3.27	2.87	2.65
10	3.07	3.20	3.30	3.33	3.63	3.74	3.65	3.81	3.43	3.21	2.82	2.57
15	3.05	3.16	3.29	3.34	3.59	3.67	3.68	3.71	3.35	3.06	2.81	2.49
20	3.05	3.15	3.32	3.37	3.55	3.62	3.79	3.63	3.22	3.03	2.77	2.41
25	3.01	3.14	3.28	3.65	3.50	3.55	4.05	3.55	3.21	3.00	2.75	---
EOM	3.08	3.23	3.21	3.62	3.59	3.47	4.05	3.50	3.21	2.99	2.70	---

WTR YR 1999 MEAN 3.30 MAX 4.10 MIN 2.39

ILLINOIS RIVER BASIN

05516200 LAKE OF THE WOODS NEAR BREMEN, IN

LOCATION.--Lat 41025'04", long 86013'44", in SW¼NW¼NW¼ sec.7, T.34 N., R.3 E., Marshall County, Hydrologic Unit 07120001 (BREMEN, IN quadrangle). The gage is on the southwest shore of the lake, at the public fishing site, and 4.7 mi southwest of Bremen.

SURFACE AREA.--416 acres.

DRAINAGE AREA.--9.45 mi^2.

PERIOD OF RECORD.--1945 to current year.

DATUM OF GAGE.--800.00 ft above 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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.01	2.97	3.12	3.12	3.51	3.44	3.35	3.55	3.91	4.01	3.72	3.65
10	3.10	3.22	3.17	3.08	3.52	3.50	3.61	3.40	3.88	3.87	3.68	3.56
15	2.98	3.06	3.09	3.09	3.42	3.38	3.58	3.32	4.02	3.79	3.65	3.49
20	3.05	3.01	3.08	3.21	3.34	3.50	3.69	3.42	3.92	3.77	3.66	3.18
25	2.98	2.99	3.06	3.94	3.26	3.38	4.22	3.73	3.90	3.73	3.75	2.99
EOM	3.07	3.18	3.03	3.66	3.34	3.27	3.86	3.84	3.95	3.79	3.70	3.06

WTR YR 1999 MEAN 3.45 MAX 4.34 MIN 2.95

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099580 LAKE OF THE WOODS NEAR HELMER, IN

LOCATION.--Lat 41°32'30", long 85°11'42", in $SE^1/_4SE^1/_4SE^1/_4$ 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 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.16	11.34	11.45	11.37	11.68	11.78	11.62	11.64	11.47	11.39	11.12	11.09
10	11.38	11.45	11.43	11.37	11.66	11.70	11.82	11.55	11.38	11.28	11.05	11.00
15	11.36	11.51	11.38	11.37	11.65	11.60	11.84	11.47	11.39	11.22	11.11	10.93
20	11.35	11.52	11.38	11.37	11.59	11.73	11.82	11.61	11.33	11.17	11.08	10.87
25	11.35	11.57	11.40	11.38	11.58	11.59	12.20	11.78	11.29	11.19	11.21	10.79
EOM	11.37	11.55	11.38	11.91	11.62	11.51	11.77	11.57	11.42	11.19	11.14	10.98

WTR YR 1999 MEAN 11.43 MAX 12.32 MIN 10.78

STREAMS TRIBUTARY TO LAKE MICHIGAN

04097520 LAKE PLEASANT NEAR NEVADA MILLS, IN

LOCATION.--Lat 41°45'18", long 85°06'10", in $NW^1/_4SW^1/_4NW^1/_4$ 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 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.01	1.07	1.22	1.20	1.44	1.39	1.38	1.39	1.21	1.04	.79	.56
10	1.11	1.15	1.21	1.21	1.42	1.39	1.42	1.31	1.14	.94	.75	.48
15	1.09	1.14	1.18	1.21	1.38	1.34	1.44	1.23	1.07	.85	.74	.41
20	1.07	1.13	1.18	1.21	1.33	1.34	1.42	1.24	1.00	.82	.70	.35
25	1.07	1.15	1.17	1.57	1.30	1.30	1.58	1.28	.97	.91	.69	.29
EOM	1.10	1.22	1.20	1.46	1.35	1.25	1.44	1.26	.98	.88	.61	.34

WTR YR 1999 MEAN 1.11 MAX 1.62 MIN .27

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100160 LITTLE LONG LAKE AT KENDALLVILLE, IN

LOCATION.--Lat 41°27'49", long 85°15'27", in $SE^{1}/_{4}NW^{1}/_{4}NE^{1}/_{4}$ sec.28, T.35 N., R.11 E., Noble County, Hydrologic Unit 04050001 (KENDALLVILLE, IN quadrangle). The gage is on the south side of the lake at the bridge over the dredged channel in Wakeville Village, 1.6 mi northeast of City Hall in Kendallville.

SURFACE AREA.--71 acres.

DRAINAGE AREA.--4.55 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.37	4.53	4.80	4.78	4.84	4.98	4.78	4.77	4.73	4.62	4.30	4.20
10	4.61	4.70	4.83	4.78	4.86	4.85	4.97	4.72	4.66	4.52	4.24	4.10
15	4.57	4.71	4.79	4.78	4.80	4.79	5.01	4.68	4.65	4.44	4.32	4.02
20	4.56	4.68	4.81	4.78	4.75	4.90	4.96	4.78	4.58	4.44	4.30	3.96
25	4.54	4.74	4.84	5.51	4.75	4.78	5.28	4.97	4.54	4.39	4.32	3.89
EOM	4.56	4.80	4.78	4.88	4.85	4.74	4.86	4.79	4.62	4.41	4.25	4.14

WTR YR 1999 MEAN 4.65 MAX 5.64 MIN 3.86

WABASH RIVER BASIN

03328100 LONG LAKE AT LAKETON, IN

LOCATION.--Lat 40°59'08", long 85°50'20", in $NE^{1}/_{4}NW^{1}/_{4}NE^{1}/_{4}$ sec.10, T.29 N., R.6 E., Wabash County, Hydrologic Unit 05120104 (NORTH MANCHESTER SOUTH, IN quadrangle). The gage is located on the north shore of the lake, 0.3 mi west of Crill Road, and 0.8 mi north of Laketon.

SURFACE AREA.--48 acres.

DRAINAGE AREA.--0.55 mi^2.

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 Eel River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.66 ft Mar. 22, 1982; minimum stage, 8.68 ft Dec. 1-3, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.46	11.35	11.27	11.12	11.83	12.02	11.81	12.24	11.92	11.56	11.06	10.71
10	11.57	11.45	11.27	11.12	11.87	12.09	11.82	12.10	11.80	11.45	11.01	10.60
15	11.49	11.39	11.20	11.13	11.85	12.04	11.92	12.02	11.94	11.35	11.01	10.50
20	11.46	11.33	11.19	11.13	11.81	12.03	11.99	11.98	11.78	11.32	10.97	10.41
25	11.41	11.32	11.17	11.12	11.75	11.94	12.34	11.99	11.67	11.23	10.92	10.31
EOM	11.41	11.31	11.12	11.91	11.95	11.84	12.34	11.89	11.63	11.15	10.81	10.48

WTR YR 1999 MEAN 11.49 MAX 12.37 MIN 10.27

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099200 LONG LAKE AT MOONLIGHT, IN

LOCATION.--Lat 41°35'01", long 85°01'43", in NE¼NE¼NE¼ sec.16, T.36 N., R.13 E., Steuben County, Hydrologic Unit 04050001 (ASHLEY, IN quadrangle). The gage is located on the northern shore, 0.4 mi east of the lake outlet and 2.5 mi north of Steubenville.

SURFACE AREA.--92 acres.

DRAINAGE AREA.--67.9 mi^2.

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--940.10 ft above 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, 8.58 ft Sept. 22 and 23, 1994.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.12	9.04	9.25	8.99	10.96	10.65	9.79	10.08	10.13	9.10	8.99	8.84
10	9.36	9.34	9.39	9.05	10.78	10.08	10.64	9.68	9.44	9.02	8.94	8.82
15	9.08	9.33	9.19	9.03	10.33	9.75	10.75	9.46	9.42	8.98	8.94	8.81
20	9.08	9.15	9.17	9.78	9.90	11.27	11.07	10.40	9.20	8.96	8.93	8.81
25	9.08	9.16	9.19	14.25	9.60	10.08	13.15	10.88	9.13	9.06	8.92	8.80
EOM	9.07	9.24	9.08	12.20	9.87	9.57	11.10	10.52	9.20	8.97	8.85	9.03

WTR YR 1999 MEAN 9.69 MAX 14.25 MIN 8.79

WABASH RIVER BASIN

03331460 LOST LAKE AT CULVER, IN

LOCATION.--Lat 41°12'01", long 86°25'19", in NE¼NW¼NW¼ sec.28, T.32 N., R.1 E., Marshall County, Hydrologic Unit 05120106 (CULVER, IN quadrangle). The gage is on the northern shore of the lake at the east end of West 19th Road (lake access road), 1.1 mi south of the center of Culver.

SURFACE AREA.--40 acres.

DRAINAGE AREA.--14.2 mi^2.

PERIOD OF RECORD.--1954-64, 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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.74	11.72	11.68	11.99	12.17	12.22	12.13	12.33	12.12	11.95	11.71	11.22
10	11.76	11.80	11.68	11.98	12.18	12.24	12.22	12.29	12.07	11.88	11.61	11.12
15	11.72	11.73	11.61	11.97	12.15	12.20	12.27	12.24	11.98	11.76	11.55	11.04
20	11.72	11.70	11.89	12.04	12.15	12.17	12.27	12.19	11.89	11.74	11.49	10.94
25	11.69	11.68	11.91	12.17	12.10	12.13	12.36	12.17	11.87	11.75	11.44	10.85
EOM	11.75	11.71	11.91	12.17	12.15	12.10	12.37	12.11	11.88	11.78	11.33	10.98

WTR YR 1999 MEAN 11.87 MAX 12.44 MIN 10.80

03328400 LUKENS LAKE NEAR DISKO, IN

LOCATION.--Lat 40°58'09", long 85°56'06", in SW¼NW¼NE¼ sec.14, T.29 N., R.5 E., Wabash County, Hydrologic Unit 05120104 (ROANN, IN quadrangle). The gage is 25 ft north of the outlet on the southwest side of the lake, 4.1 mi north of Roann.

SURFACE AREA.--46 acres.

DRAINAGE AREA.--1.76 mi^2.

PERIOD OF RECORD.--1948-49, 1959 to current year.

DATUM OF GAGE.--760.00 ft above 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 Eel River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.10 ft May 16, 1968; minimum stage, 2.32 ft Oct. 12, 1983.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.74	3.78	4.17	3.81	4.12	4.11	4.05	4.05	3.84	3.71	3.29	3.17
10	3.86	3.93	4.12	3.80	4.19	4.09	4.05	4.08	3.83	3.62	3.30	3.08
15	3.82	4.02	4.08	3.77	4.19	4.01	4.14	3.92	3.81	3.52	3.31	3.01
20	3.83	4.05	3.99	3.87	4.00	3.97	4.13	3.96	3.71	3.46	3.31	2.96
25	3.80	4.12	3.82	4.26	3.90	4.04	4.22	3.90	3.70	3.40	3.28	2.94
EOM	3.83	4.18	3.77	4.14	4.12	4.06	4.05	3.86	3.71	3.35	3.22	3.10

WTR YR 1999 MEAN 3.80 MAX 4.36 MIN 2.93

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100280 MUNCIE LAKE NEAR BURR OAK, IN

LOCATION.--Lat 41°19'37", long 85°27'28", in NE¼SW¼SW¼ sec.11, T.33 N., R.9 E., Noble County, Hydrologic Unit 04050001 (MERRIAM, IN quadrangle). The gage is on the southwest shore of the lake, just north of the gravel road on the Addis farm, and 1.3 mi northwest of Burr Oak.

SURFACE AREA.--47 acres.

DRAINAGE AREA.--42.8 mi^2.

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. Forker Creek flows into the lake from the east, Brown Ditch from the southeast, and Carrol Creek from the west. The outlet flows from the northwest shore into Williams Lake, then into the South Branch of the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.47 ft Mar. 24, 25, 1978, Feb. 25, 26, 1985; minimum stage, 1.88 ft Aug. 8, 1988.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.78	2.88	3.00	2.99	4.28	5.28	3.31	4.14	3.65	2.90	2.73	2.76
10	2.94	3.10	3.07	2.99	4.17	4.68	4.03	3.49	3.25	2.81	2.78	2.70
15	2.90	3.11	3.00	2.99	3.83	3.81	4.40	3.29	3.34	2.73	2.81	2.69
20	2.87	3.02	3.01	2.99	3.43	4.49	5.09	4.28	3.08	2.71	2.82	2.68
25	2.85	3.05	3.03	7.68	3.25	3.73	7.21	4.42	2.98	2.65	2.88	2.66
EOM	2.92	3.03	2.98	5.34	4.28	3.26	5.47	3.71	2.94	2.88	2.81	2.89

WTR YR 1999 MEAN 3.47 MAX 7.70 MIN 2.65

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099700 NORTH TWIN LAKE NEAR HOWE, IN

LOCATION.--Lat 41°43'45", long 85°27'49", in SE¼SW¼SW¼ sec.23, T.38 N., R.9 E., Lagrange County, Hydrologic Unit 04050001 (LAGRANGE, IN quadrangle). The gage is in the channel between North and South Twin Lakes, 100 ft upstream from the county road bridge, and 2.2 mi northwest of Howe.

SURFACE AREA.--135 acres.

DRAINAGE AREA.--1.54 mi^2.

PERIOD OF RECORD.--1953 to current year.

DATUM OF GAGE.--840.00 ft above 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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.47	3.48	3.56	3.50	3.58	3.60	---	---	---	3.48	3.41	3.44
10	3.60	3.59	3.56	---	3.58	---	---	---	---	3.48	3.42	---
15	3.41	3.61	3.50	3.54	3.58	3.60	---	---	---	3.41	3.44	3.34
20	3.50	3.59	3.52	3.58	3.58	3.64	---	---	---	3.42	3.52	3.30
25	3.49	3.57	3.50	3.64	3.56	3.60	---	---	---	3.46	3.48	3.30
EOM	3.52	3.61	3.48	3.60	3.56	3.62	---	---	---	3.42	3.45	3.44

WTR YR 1999 MEAN 3.51 MAX 3.68 MIN 3.27

WABASH RIVER BASIN

03331400 NYONA LAKE NEAR GREENOAK, IN

LOCATION.--Lat 40°57'40", long 86°11'20", in SE¼SE¼NE¼ sec.16, T.29 N., R.3 E., Fulton County, Hydrologic Unit 05120106 (MACY, IN quadrangle). The gage is on the northwest shore of the southern lobe of the lake, at the public access site, and 2.4 mi south of Greenoak.

SURFACE AREA.--104 acres.

DRAINAGE AREA.--7.59 mi^2.

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--790.00 ft above 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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.78	3.78	3.81	3.75	3.94	4.16	3.82	3.88	3.77	3.68	3.62	3.62
10	3.85	4.03	3.82	3.73	4.03	4.01	3.89	3.82	3.73	3.63	3.66	3.59
15	3.79	3.87	3.78	3.72	3.94	3.92	3.98	3.83	3.71	3.64	3.64	3.59
20	3.81	3.80	3.78	3.95	3.86	4.00	4.06	3.82	3.68	3.65	3.64	3.58
25	3.78	3.85	3.76	4.47	3.82	3.86	4.20	3.84	3.75	3.63	3.78	3.58
EOM	3.81	3.84	3.75	4.03	4.48	3.82	3.99	3.79	3.70	3.63	3.63	3.77

WTR YR 1999 MEAN 3.83 MAX 5.09 MIN 3.57

WABASH RIVER BASIN

03371700 OGLE LAKE NEAR NASHVILLE, IN

LOCATION.--Lat 39°09'35", long 86°14'54", in NE¼SE¼NE¼ sec.1, T.8 N., R.2 E., Brown County, Hydrologic Unit 05120208 (NASHVILLE, IN quadrangle). The gage is on the dam, near the concrete intake structure on the west side of the lake, 3.3 mi south of Nashville.

SURFACE AREA.--20 acres.

DRAINAGE AREA.--1.03 mi^2.

PERIOD OF RECORD.--1954 to current year.

DATUM OF GAGE.--710.00 ft above 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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.67	2.34	2.13	2.35	4.59	4.61	4.58	4.59	4.56	4.31	3.73	2.94
10	2.73	2.32	2.13	2.47	4.60	4.65	4.56	4.54	4.52	4.44	3.57	2.79
15	2.61	2.30	2.10	3.29	4.60	4.60	4.54	4.60	4.45	4.33	3.43	2.66
20	2.51	2.22	1.72	4.04	4.57	4.58	4.57	4.59	4.34	4.23	3.30	2.53
25	2.41	2.21	2.14	4.57	4.55	4.55	4.56	4.56	4.31	4.10	3.23	2.41
EOM	2.33	2.19	2.16	4.66	4.68	4.55	4.58	4.51	4.30	3.93	3.07	2.38

WTR YR 1999 MEAN 3.62 MAX 5.42 MIN 1.72

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100100 OLIVER LAKE NEAR VALENTINE, IN

LOCATION.--Lat 41°34'37", long 85°24'44", in SE¼SW¼NE¼ sec.18, T.36 N., R.10 E., Lagrange County, Hydrologic Unit 04050001 (OLIVER LAKE, IN quadrangle). The gage is at the public access site on the northwest side of the lake, and 1.6 mi southwest of Valentine.

SURFACE AREA.--362 acres.

DRAINAGE AREA.--11.1 mi^2.

PERIOD OF RECORD.--1945 to current year.

DATUM OF GAGE.--889.78 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 auxillary 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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.46	9.50	9.55	9.52	9.63	9.70	9.65	9.61	9.49	9.50	9.31	9.33
10	9.60	9.68	9.52	9.50	9.64	9.62	9.77	9.55	9.43	9.39	9.28	9.26
15	9.53	9.61	9.49	9.50	9.60	9.57	9.75	9.49	9.48	9.34	9.35	9.22
20	9.50	9.55	9.51	9.57	9.55	9.65	9.70	9.54	9.41	9.34	9.37	9.18
25	9.49	9.58	9.48	10.20	9.54	9.57	10.19	9.62	9.45	9.37	9.39	9.14
EOM	9.55	9.61	9.45	9.72	9.62	9.54	9.77	9.55	9.51	9.40	9.35	9.28

WTR YR 1999 MEAN 9.53 MAX 10.31 MIN 9.13

WABASH RIVER BASIN

03331180 PALESTINE LAKE AT PALESTINE, IN

LOCATION.--Lat 41°10'48", long 85°56'54", in NE$^1/_4$NE$^1/_4$SW$^1/_4$ 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 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.81	1.81	1.79	1.76	1.95	2.16	1.86	2.01	1.86	1.77	1.71	1.61
10	1.80	1.94	1.80	1.76	2.01	2.01	2.00	1.92	1.86	1.71	1.71	1.56
15	1.81	1.81	1.79	1.76	1.95	1.95	2.04	1.86	1.83	1.71	1.70	1.50
20	1.83	1.78	1.80	1.76	1.89	1.99	2.08	1.86	1.80	1.73	1.71	1.46
25	1.81	1.82	1.78	2.44	1.87	1.91	2.48	1.97	1.82	1.67	1.71	1.43
EOM	1.83	1.79	1.76	2.01	2.30	1.86	2.19	1.89	1.80	1.79	1.65	1.65

WTR YR 1999 MEAN 1.85 MAX 3.05 MIN 1.42

WABASH RIVER BASIN

03331040 PIKE LAKE AT WARSAW, IN

LOCATION.--Lat 41°15'44", long 85°51'00", in NE$^1/_4$NW$^1/_4$NE$^1/_4$ 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 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.73	4.81	4.79	4.85	6.27	6.10	5.17	6.57	5.99	5.85	5.71	5.66
10	5.78	4.93	5.01	4.85	6.03	6.25	5.72	5.88	5.89	5.78	5.71	5.62
15	5.72	4.84	4.89	4.85	5.75	5.91	5.80	5.94	5.88	5.72	5.71	5.62
20	5.71	4.83	4.85	5.02	5.47	5.90	6.19	6.05	5.81	5.76	5.72	5.63
25	5.70	4.84	4.85	7.03	5.21	5.59	7.80	6.18	5.93	5.71	5.81	5.62
EOM	5.72	4.82	4.81	6.57	5.89	5.30	7.64	6.00	5.84	5.84	5.67	5.78

WTR YR 1999 MEAN 5.68 MAX 8.01 MIN 4.77

ILLINOIS RIVER BASIN

05515220 PINE LAKE AT LAPORTE, IN

LOCATION.--Lat 41°37'01", long 86°44'58", in NE¼SE¼NW¼ sec.34, T.37 N., R.3 W., LaPorte County, Hydrologic Unit 07120001 (LAPORTE EAST, IN quadrangle). The gage is at the highway bridge over the channel connecting Pine and Stone Lakes, on Waverly Beach Road, in LaPorte.

SURFACE AREA.--564 acres.

DRAINAGE AREA.--10.7 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.70	18.54	18.48	18.62	18.95	19.08	---	---	19.10	19.04	18.52	18.35
10	18.72	18.62	18.58	18.63	18.99	---	---	---	19.01	18.89	18.45	18.23
15	18.66	18.58	18.54	18.64	19.03	---	---	19.26	19.01	18.77	18.46	18.13
20	18.64	18.53	18.54	18.73	19.02	---	---	19.22	18.90	18.71	18.46	18.04
25	18.58	18.49	18.50	18.94	18.99	---	---	19.19	18.85	18.67	18.54	17.95
EOM	18.60	18.50	18.50	18.93	19.01	---	19.44	19.13	18.91	18.67	18.43	17.95

WTR YR 1999 MEAN 18.72 MAX 19.47 MIN 17.93

ILLINOIS RIVER BASIN

05516600 PRETTY LAKE NEAR PLYMOUTH

LOCATION.--Lat 4119°39", long 86°22'15", in NW¼SE¼NE¼ 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 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.59	---	---	---	---	---	---	---	9.09	9.20	8.74	8.54
10	8.66	---	---	---	---	---	---	---	9.03	9.09	8.66	8.44
15	8.60	---	---	---	---	---	---	---	9.16	9.00	8.60	8.33
20	8.58	---	---	---	---	---	---	---	9.07	8.91	8.58	8.26
25	8.54	---	---	---	---	---	---	---	9.06	8.88	8.67	8.16
EOM	8.54	---	---	---	---	---	---	9.09	9.05	8.77	8.59	8.20

WTR YR 1999 MEAN 8.74 MAX 9.22 MIN 8.11

ILLINOIS RIVER BASIN

05515800 RIDDLES LAKE NEAR LAKEVILLE, IN

LOCATION.--Lat 41°30'19", long 86°15'31", in NW¼NE¼ sec.11, T.35 N., R.2 E., St. Joseph County, Hydrologic Unit 07120001 (LAKEVILLE, IN quadrangle). The gage is on the east side of the lake, about 1.4 mi southeast of Lakeville.

SURFACE AREA.--77 acres.

DRAINAGE AREA.--11.7 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.92	7.03	7.12	7.13	7.14	7.19	7.15	7.15	7.07	7.08	6.87	6.78
10	7.01	7.14	7.17	7.12	7.20	7.14	7.49	7.11	7.02	7.00	6.81	6.71
15	6.98	7.10	7.12	7.11	7.13	7.14	7.25	7.09	7.06	6.93	6.79	6.66
20	6.99	7.08	7.14	7.20	7.14	7.21	7.25	7.08	7.00	6.90	6.81	6.60
25	7.00	7.08	7.12	7.36	7.10	7.11	7.41	7.10	7.00	6.85	6.91	6.52
EOM	7.04	7.14	7.11	7.18	7.17	7.08	7.24	7.08	7.06	6.93	6.84	6.56

WTR YR 1999 MEAN 7.05 MAX 7.72 MIN 6.50

WABASH RIVER BASIN

03330300 RIDINGER LAKE NEAR PIERCETON, IN

LOCATION.--Lat 41°15'07", long 85°39'34", in SW¼SW¼SE¼ sec.1, T.32 N., R.7 E., 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 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.60	2.63	2.68	3.09	3.55	3.25	2.78	2.84	2.75	2.53	2.47	2.47
10	2.63	2.63	2.70	3.17	3.61	2.99	3.15	2.77	2.62	2.49	2.48	2.45
15	2.62	2.63	2.79	3.24	3.63	2.83	3.07	2.71	2.69	2.49	2.47	2.47
20	2.63	2.63	2.85	3.31	3.70	3.01	3.10	2.84	2.60	2.50	2.49	2.49
25	2.62	2.62	2.92	3.39	3.77	2.79	4.12	3.16	2.59	2.49	2.49	2.50
EOM	2.63	2.67	3.02	3.47	3.82	2.72	3.16	2.78	2.55	2.56	2.46	2.57

WTR YR 1999 MEAN 2.86 MAX 5.99 MIN 2.45

WABASH RIVER BASIN

03330460 SAWMILL LAKE NEAR NORTH WEBSTER, IN

LOCATION.--Lat 41°17'22", long 85°42'52", in NE¼SW¼NE¼ sec.28, T.33 N., R.7 E., Kosciusko County, Hydrologic Unit 05120106 (NORTH WEBSTER, IN quadrangle). The gage is near the southeastern corner of the county road bridge over the channel between Big Barbee Lake and Little Barbee Lake, 2.6 mi southwest of North Webster.

SURFACE AREA.--36 acres.

DRAINAGE AREA.--51.8 mi².

PERIOD OF RECORD.--1945-1970, 1972 to current year.

DATUM OF GAGE.--830.00 ft above 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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.84	6.84	6.81	---	---	8.01	7.31	8.09	7.59	7.06	6.95	7.04
10	6.89	6.86	6.80	---	---	7.81	7.58	7.59	7.33	6.92	6.98	7.00
15	6.86	6.92	6.79	---	---	7.50	7.73	7.37	7.23	6.86	7.01	6.96
20	6.86	6.87	6.79	---	---	7.69	7.85	7.46	7.10	6.82	7.03	6.90
25	6.84	6.84	6.80	---	---	7.43	9.15	7.80	7.12	6.83	7.10	6.88
EOM	6.84	6.83	6.82	---	---	7.28	8.72	7.56	7.09	6.97	7.07	7.09

WTR YR 1999 MEAN 7.19 MAX 9.15 MIN 6.79

WABASH RIVER BASIN

03331120 SHERBURN LAKE NEAR PIERCETON, IN

LOCATION.--Lat 41°09'40", long 85°44'43", in SE¼SE¼SE¼ sec.4, T.31 N., R.7 E., Kosciusko County, Hydrologic Unit 05120106 (PIERCETON, IN quadrangle). The gage is at the extreme northern end of the lake on the outlet channel just south of County Road 500 South, 3.4 mi southwest of Pierceton.

SURFACE AREA.--15 acres.

DRAINAGE AREA.--5.51 mi².

PERIOD OF RECORD.--1954 to current year. (Formerly published as Johnson Lake near Pierceton.)

DATUM OF GAGE.--870.00 ft above 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, 8.60 ft Sept. 27, 1999.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.98	9.15	9.16	9.10	9.76	10.53	9.31	9.59	9.27	8.93	8.80	8.78
10	9.10	9.33	9.17	9.09	10.04	10.07	10.05	9.27	9.05	8.83	8.81	8.75
15	9.05	9.20	9.08	9.09	9.69	9.58	10.14	9.22	9.13	8.79	8.82	8.72
20	9.09	9.14	9.12	9.36	9.38	9.99	10.35	9.56	8.98	8.81	8.83	8.70
25	9.12	9.16	9.17	11.94	9.26	9.45	11.34	10.36	8.95	8.79	8.87	8.66
EOM	9.19	9.17	9.17	10.09	10.57	9.29	10.69	9.31	9.02	8.87	8.81	8.88

WTR YR 1999 MEAN 9.36 MAX 12.62 MIN 8.64

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099740 SHIPSHEWANA LAKE NEAR SHIPSHEWANA, IN

LOCATION.--Lat 41°40'53", long 85°36'03", in SE¼NE¼NE¼ sec.9, T.37 N., R.8 E., Lagrange County, Hydrologic Unit 04050001 (SHIPSHEWANA, IN quadrangle). The gage is on the south shore of the lake at the public access site, 1.1 mi northwest of Shipshewana.

SURFACE AREA.--202 acres.

DRAINAGE AREA.--6.74 mi^2.

PERIOD OF RECORD.--1951 to current year.

DATUM OF GAGE.--850.00 ft above 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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.29	2.35	2.45	2.41	2.63	2.60	2.52	2.50	2.37	2.42	2.12	2.17
10	2.47	2.47	2.45	2.40	2.62	2.56	2.61	2.43	2.26	2.27	2.11	2.11
15	2.36	2.38	2.39	2.39	2.58	2.49	2.62	2.36	2.18	2.21	2.12	2.08
20	2.34	2.35	2.37	2.47	2.52	2.51	2.73	2.40	2.16	2.19	2.17	2.06
25	2.33	2.36	2.36	2.98	2.47	2.45	2.90	2.46	2.18	2.21	2.24	2.04
EOM	2.37	2.50	2.34	2.69	2.56	2.47	2.64	2.41	2.34	2.18	2.20	2.18

WTR YR 1999 MEAN 2.39 MAX 3.00 MIN 2.03

WABASH RIVER BASIN

03330380 SHOE LAKE NEAR OSWEGO, IN

LOCATION.--Lat 41°18'32", long 85°45'10", in SE¼SW¼SE¼ sec.18, T.33 N., R.7 E., Kosciusko County, Hydrologic Unit 05120106 (LEESBURG, IN quadrangle). The gage is on the extreme western end of the lake on County Road 475 East, 2.0 mi southeast of Oswego.

SURFACE AREA.--40 acres.

DRAINAGE AREA.--0.34 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.19	12.05	11.99	11.91	12.22	12.47	12.55	12.84	12.71	12.35	11.82	11.38
10	12.28	12.14	11.97	11.90	12.27	12.51	12.61	12.79	12.62	12.22	11.74	11.26
15	12.21	12.08	11.92	11.86	12.29	12.50	12.64	12.73	12.58	12.10	11.68	11.16
20	12.18	12.02	11.91	11.91	12.28	12.50	12.67	12.74	12.48	12.01	11.64	11.07
25	12.12	12.02	11.88	12.13	12.27	12.47	12.83	12.75	12.46	11.93	11.59	10.98
EOM	12.12	12.02	11.84	12.17	12.37	12.45	12.85	12.73	12.40	11.96	11.46	11.06

WTR YR 1999 MEAN 12.16 MAX 12.88 MIN 10.95

WABASH RIVER BASIN

03327650 SHRINER LAKE AT TRI-LAKES, IN

LOCATION.--Lat 41°14'37", long 85°26'24", in $SE^{1}/_{4}SW^{1}/_{4}NW^{1}/_{4}$ 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 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.20	6.21	6.28	6.24	---	7.53	6.83	6.90	6.83	6.53	6.12	5.91
10	6.31	6.41	6.30	6.24	---	7.50	6.88	6.80	6.76	6.42	6.09	5.81
15	6.27	6.38	6.25	6.24	---	7.16	6.96	6.73	6.74	6.33	6.05	5.72
20	6.26	6.34	6.26	6.25	---	7.01	7.05	6.73	6.65	6.27	6.02	5.64
25	6.23	6.31	6.26	---	---	6.95	7.33	6.95	6.60	6.23	6.05	5.56
EOM	6.24	6.31	6.24	---	---	6.83	7.09	6.83	6.56	6.24	5.97	5.75

WTR YR 1999 MEAN 6.45 MAX 7.53 MIN 5.55

WABASH RIVER BASIN

03328350 SILVER LAKE AT SILVER LAKE, IN

LOCATION.--Lat 41°04'49", long 85°54'29", in $SE^{1}/_{4}SE^{1}/_{4}NE^{1}/_{4}$ sec.1, T.30 N., R.5 E., Kosciusko County, Hydrologic Unit 05120104 (SILVER LAKE, IN quadrangle). The gage is located at the outlet channel on the east side of the lake, on the upstream side of the control structure and 1.1 mi northwest of the town of Silver Lake.

SURFACE AREA.--102 acres.

DRAINAGE AREA.--6.31 mi^2.

PERIOD OF RECORD.--1947 to current year.

DATUM OF GAGE.--859.85 ft above 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 Eel River 12 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 3.80 ft Dec. 10, 1966; minimum stage, -0.20 ft Sept. 21, 1959.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.28	1.39	1.42	1.44	1.61	1.78	1.56	1.61	1.58	1.43	1.10	.92
10	1.42	1.53	1.45	1.44	1.65	1.65	1.70	1.59	1.50	1.36	1.07	.82
15	1.39	1.45	1.43	1.44	1.61	1.61	1.72	1.58	1.51	1.29	1.05	.75
20	1.39	1.40	1.45	1.45	1.56	1.65	1.71	1.62	1.46	1.25	1.03	.68
25	1.38	1.45	1.45	2.06	1.54	1.57	1.84	1.65	1.47	1.19	1.00	.60
EOM	1.42	1.44	1.44	1.64	1.85	1.54	1.71	1.57	1.44	1.19	.98	.86

WTR YR 1999 MEAN 1.42 MAX 2.45 MIN .58

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099880 SIMONTON LAKE NEAR ELKHART, IN

LOCATION.--Lat 41°45'05", long 85°57'28", in NE$^1/_4$NE$^1/_4$NW$^1/_4$ sec.16, T.38 N., R.5 E., Elkhart County, Hydrologic Unit 04050001 (ELKHART, IN quadrangle). The gage is on the southern shore between the two large lobes of the lake, at the public access site, 4.5 mi north of the main Post Office in Elkhart.

SURFACE AREA.--303 acres.

DRAINAGE AREA.--7.44 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.45	2.45	2.50	2.58	2.89	2.90	2.78	2.90	2.65	2.65	2.10	1.91
10	2.50	2.57	2.58	2.58	2.90	2.90	2.88	2.85	2.56	2.51	2.09	1.81
15	2.45	2.50	2.56	2.58	2.89	2.85	2.94	2.80	2.70	2.40	2.05	1.75
20	2.43	2.49	2.58	2.61	2.86	2.82	2.94	2.78	2.62	2.33	2.03	1.69
25	2.42	2.48	2.57	2.86	2.84	2.78	3.05	2.76	2.58	2.28	2.05	1.62
EOM	2.49	2.51	2.55	2.86	2.86	2.72	2.96	2.70	2.64	2.23	1.98	1.74

WTR YR 1999 MEAN 2.54 MAX 3.10 MIN 1.61

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100300 SKINNER LAKE NEAR ALBION, IN

LOCATION.--Lat 4124°12", long 85°22'37", in SE$^1/_4$SE$^1/_4$NW$^1/_4$ 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 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.56	7.69	7.73	7.73	7.91	8.11	7.87	7.89	7.85	7.73	7.60	7.62
10	7.71	7.83	7.74	7.73	7.99	7.97	8.03	7.84	7.77	7.71	7.57	7.54
15	7.69	7.73	7.72	7.73	7.90	7.89	8.02	7.81	7.82	7.69	7.69	7.49
20	7.69	7.71	7.73	7.82	7.85	8.03	8.06	8.03	7.75	7.68	7.69	7.44
25	7.69	7.75	7.76	9.00	7.81	7.90	8.56	8.11	7.78	7.65	7.72	7.38
EOM	7.72	7.75	7.73	7.98	8.10	7.86	7.97	7.87	7.76	7.67	7.66	7.68

WTR YR 1999 MEAN 7.82 MAX 10.12 MIN 7.37

03330140 SMALLEY LAKE NEAR WASHINGTON CENTER, IN

LOCATION.--Lat 41°18'52", long 85°35'04", in SW¼NW¼SE¼ sec.15, T.33 N., R.8 E., Noble County, Hydrologic Unit 05120106 (ORMAS, IN quadrangle). The gage is located on the north side of the outlet channel, 300 ft upstream from the first bridge over the outlet, and 0.9 mi southeast of Washington Center.

SURFACE AREA.--69 acres.

DRAINAGE AREA.--27.1 mi^2.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--880.00 ft above 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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.61	1.86	1.72	1.74	2.56	3.50	2.24	2.61	2.61	1.99	1.80	1.79
10	1.70	2.00	1.72	1.72	2.65	2.95	2.80	2.22	2.06	1.79	1.80	1.77
15	1.65	1.89	1.64	1.69	2.41	2.26	2.90	2.02	2.23	1.74	1.83	1.81
20	1.72	1.81	1.64	2.00	2.07	2.67	3.38	2.43	1.94	1.75	1.82	1.86
25	1.72	1.91	1.72	5.20	1.92	2.24	5.23	2.75	2.03	1.76	1.85	1.93
EOM	1.78	1.78	1.64	3.25	2.82	2.07	3.73	2.51	1.98	1.87	1.79	2.17

WTR YR 1999 MEAN 2.20 MAX 5.23 MIN 1.61

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099780 STONE LAKE NEAR SCOTT, IN

LOCATION.--Lat 41°44'32", long 85°39'03", in SE¼SE¼SW¼ sec.18, T.38 N., R.8 E., Lagrange County, Hydrologic Unit 04050001 (MIDDLEBURY, IN quadrangle). The gage is on the southeast shore of the lake approximately 200 ft west of the intersection of County Road 1150 West and the lake access road, and 5.4 mi northeast of Middlebury.

SURFACE AREA.--152 acres.

DRAINAGE AREA.--1.51 mi^2.

PERIOD OF RECORD.--1954-71, 1975-76, 1978 to current year.

DATUM OF GAGE.--810.00 ft above 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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.41	8.35	8.29	8.43	8.77	8.83	8.79	8.80	8.77	8.74	8.34	8.06
10	8.51	8.54	8.42	8.43	8.84	8.85	8.83	8.78	8.69	8.63	8.29	7.98
15	8.46	8.35	8.37	8.44	8.85	8.82	8.93	8.73	8.73	8.54	8.24	7.90
20	8.43	8.29	8.36	8.59	8.83	8.80	8.85	8.80	8.64	8.48	8.22	7.82
25	8.40	8.27	8.38	8.73	8.78	8.72	8.94	8.85	8.59	8.51	8.22	7.78
EOM	8.41	8.34	8.32	8.73	8.84	8.68	8.85	8.80	8.68	8.44	8.14	7.89

WTR YR 1999 MEAN 8.54 MAX 9.04 MIN 7.71

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100180 SYLVAN LAKE AT ROME CITY, IN

LOCATION.--Lat 41°29'53", long 85°22'38", in $SE^1/_4SE^1/_4SW^1/_4$ sec.9, T.35 N., R.10 E., Noble County, Hydrologic Unit 04050001 (ALBION, IN quadrangle). The gage is on the lake 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 mi^2.

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, 11.14 ft Aug. 22 and 23, 1996; minimum stage, below -.30 ft Oct. 3-9, and 16-18, 1994.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.07	9.10	9.18	9.18	9.64	9.67	9.44	9.62	9.42	9.17	9.01	9.01
10	9.19	9.24	9.16	9.16	9.59	9.56	9.67	9.42	9.27	9.08	9.00	8.95
15	9.12	9.20	9.14	9.15	9.48	9.43	9.83	9.32	9.29	9.04	9.10	8.93
20	9.11	9.16	9.14	9.28	9.38	9.57	9.91	9.56	9.17	9.10	9.09	8.93
25	9.10	9.17	9.13	10.35	9.31	9.47	10.42	9.80	9.12	9.06	9.12	8.92
EOM	9.14	9.19	9.11	9.85	9.42	9.37	9.90	9.53	9.20	9.09	9.04	9.13

WTR YR 1999 MEAN 9.31 MAX 10.44 MIN 8.91

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100460 SYRACUSE LAKE AT SYRACUSE, IN

LOCATION.--Lat 41°25'26", long 85°44'59", in $SW^1/_4SW^1/_4$ 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 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.52	8.65	8.87	8.92	8.74	8.84	8.77	9.05	8.96	9.02	8.70	8.52
10	8.68	8.75	8.89	8.92	8.58	8.90	8.83	8.98	8.94	8.93	8.64	8.40
15	8.67	8.74	8.88	8.92	8.68	8.90	8.84	8.87	8.90	8.86	8.62	8.32
20	8.65	8.74	8.92	8.93	8.68	8.88	8.89	8.89	8.83	8.83	8.60	8.24
25	8.63	8.77	8.92	9.08	8.65	8.79	9.13	8.86	8.93	8.76	8.63	8.18
EOM	8.68	8.81	8.92	8.93	8.68	8.69	9.06	8.94	9.01	8.80	8.56	8.28

WTR YR 1999 MEAN 8.78 MAX 9.13 MIN 8.16

03330480 TIPPECANOE LAKE AT OSWEGO, IN

LOCATION.--Lat 41°19'15", long 85°47'20", in NW¼NE¼NE¼ sec.14, T.33 N., R.6 E., Kosciusko County, Hydrologic Unit 05120106 (LEESBURG, IN quadrangle). The gage is on the south side of the dam at the extreme southwest end of the lake, in the outlet channel, at Oswego.

SURFACE AREA.--768 acres.

DRAINAGE AREA.--113 mi^2.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--830.00 ft above 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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.63	6.47	5.68	5.74	7.34	6.83	6.60	7.39	6.62	6.64	6.43	6.45
10	6.57	6.49	5.66	5.74	6.94	7.19	6.64	6.72	6.60	6.56	6.36	6.33
15	6.55	6.55	5.70	5.74	6.73	6.75	6.87	6.55	6.60	6.54	6.36	6.27
20	6.53	6.08	5.77	5.77	6.36	6.55	7.14	6.61	6.64	6.54	6.41	6.24
25	6.58	5.80	5.73	6.82	5.90	6.41	7.78	6.72	6.55	6.47	6.43	6.20
EOM	6.61	5.75	5.74	7.67	5.96	5.90	7.93	6.64	6.60	6.53	6.45	6.32

WTR YR 1999 MEAN 6.48 MAX 7.99 MIN 5.64

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100320 UPPER LONG LAKE NEAR WOLFLAKE, IN

LOCATION.--Lat 41°21'33", long 85°29'09", in NE¼NE¼SE¼ sec.33, T.34 N., R.9 E., Noble County, Hydrologic Unit 04050001 (MERRIAM, IN quadrangle). The gage is on the northeast shore of the lake, at the northernmost boat slip, and 1.8 mi north-northeast of the town of Wolflake.

SURFACE AREA.--86 acres.

DRAINAGE AREA.--2.08 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.42	11.61	11.59	11.47	11.57	11.77	11.56	11.58	11.56	11.40	11.28	11.24
10	11.57	11.74	11.56	11.47	11.59	11.68	11.72	11.52	11.46	11.32	11.24	11.18
15	11.56	11.72	11.51	11.47	11.55	11.58	11.69	11.49	11.46	11.28	11.29	11.13
20	11.57	11.70	11.51	11.47	11.49	11.62	11.69	11.79	11.40	11.26	11.29	11.09
25	11.57	11.70	11.49	12.04	11.47	11.53	12.00	11.69	11.39	11.25	11.31	11.04
EOM	11.62	11.66	11.47	11.64	11.66	11.50	11.68	11.61	11.37	11.35	11.27	11.20

WTR YR 1999 MEAN 11.51 MAX 12.22 MIN 11.04

LAUGHERY CREEK BASIN

03276800 VERSAILLES LAKE NEAR VERSAILLES, IN

LOCATION.--Lat 39°04'50", long 85°14'02", in NE¼NE¼SW¼ sec.6, T.7 N., R.12 E., Ripley County, Hydrologic Unit 05090203 (MILAN, IN quadrangle). The gage is on the eastern side of the lake, on the downstream side of the bridge over Falling Timber Creek in Versailles State Park.

SURFACE AREA.--232 acres.

DRAINAGE AREA.--168 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.06	29.24	29.13	29.24	29.43	29.41	29.50	29.26	29.20	29.18	28.97	29.00
10	29.18	29.21	29.16	29.25	29.52	29.56	29.59	29.23	29.15	29.14	29.00	28.92
15	29.13	29.16	29.14	29.69	29.49	29.50	29.43	29.24	29.33	29.11	28.97	28.81
20	29.13	29.14	29.14	29.75	29.37	29.49	29.44	29.23	29.13	29.06	28.92	28.72
25	29.14	29.17	29.26	29.58	29.33	29.35	29.39	29.29	29.38	29.09	29.00	28.63
EOM	29.16	29.17	29.22	29.77	30.36	29.30	29.32	29.20	29.26	29.08	29.07	28.66

WTR YR 1999 MEAN 29.29 MAX 32.72 MIN 28.59

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100220 WALDRON LAKE NEAR COSPERVILLE, IN

LOCATION.--Lat 41°29'34", long 85°26'55", in SE¼NW¼NE¼ sec.14, T.35 N., R.9 E., Noble County, Hydrologic Unit 04050001 (ALBION, IN quadrangle). The gage is on a dredged channel at the public access site west of County Road 125 West at Dukes Bridge, and 6.8 mi northwest of Albion.

SURFACE AREA.--216 acres.

DRAINAGE AREA.--134 mi^2.

PERIOD OF RECORD.--1948 to current year.

DATUM OF GAGE.--880.00 ft above 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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.09	5.13	5.40	5.28	7.57	6.66	6.09	7.52	6.54	6.00	5.34	5.38
10	5.37	5.25	5.40	5.31	7.25	6.75	6.51	6.91	6.11	5.63	5.44	5.43
15	5.20	5.45	5.28	5.34	6.96	6.49	7.04	6.32	6.26	5.42	5.52	5.42
20	5.08	5.35	5.27	5.46	6.56	6.71	7.46	6.42	5.89	5.37	5.49	5.42
25	4.99	5.28	5.27	7.72	6.16	6.51	8.64	6.94	5.72	5.30	5.52	5.41
EOM	5.09	5.35	5.12	7.94	6.23	6.11	8.21	6.70	5.90	5.45	5.46	5.56

WTR YR 1999 MEAN 5.99 MAX 8.64 MIN 4.97

05517600 WAUHOB LAKE NEAR VALPARAISO, IN

LOCATION.--Lat 41°32'02", long 87°02'42", in NW¼NW¼NW¼ sec.31, T.36 N., R.5 W., Porter County, Hydrologic Unit 07120001 (CHESTERTON, IN quadrangle). The gage is on the northwest shore of the lake, 4.7 mi north of Valparaiso.

SURFACE AREA.--21 acres.

DRAINAGE AREA.--0.40 mi^2.

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--790.00 ft above 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, 11.40 Mar. 22, 23, 1998; minimum stage, 6.58 ft Sept. 17, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.96	9.90	9.94	10.09	10.56	10.42	10.37	10.68	10.22	10.02	9.58	9.34
10	9.97	10.00	10.07	10.11	10.55	10.54	10.38	10.57	10.13	9.91	9.49	9.23
15	9.93	9.99	10.05	10.13	10.51	10.54	10.34	10.48	10.10	9.80	9.44	9.16
20	9.92	9.97	10.04	10.22	10.47	10.58	10.41	10.41	10.00	9.73	9.43	9.08
25	9.89	9.94	10.04	10.68	10.41	10.48	10.86	10.36	9.95	9.73	9.41	9.00
EOM	9.93	9.93	10.01	10.60	10.41	10.40	10.86	10.22	9.97	9.66	9.42	9.02

WTR YR 1999 MEAN 10.06 MAX 10.90 MIN 8.96

WABASH RIVER BASIN

03330240 WEBSTER LAKE AT NORTH WEBSTER, IN

LOCATION.--Lat 41°19'09", long 85°41'20", in NE¼SW¼NW¼ sec.14, T.33 N., R.7 E., Kosciusko County, Hydrologic Unit 05120106 (NORTH WEBSTER, IN quadrangle). The gage is on the southwest side of the lake at the outlet, 0.3 mi northeast of the intersection of State Road 13 and County Road 550 North and approximately 0.6 mi southeast of the center of North Webster.

SURFACE AREA.--774 acres.

DRAINAGE AREA.--49.2 mi^2.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--839.93 ft above 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 auxillary 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 gate.

INLET AND OUTLET.--The Tippecanoe River flows through Webster Lake, entering at the southeast end and leaving at the southwest side. The Tippecanoe River enters James Lake, 2.1 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 15.15 ft Feb. 11, 1984; minimum stage, 9.79 ft (during repair of the dam) Oct. 5, 1962.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.14	12.98	12.61	12.55	12.67	12.87	12.65	12.27	---	13.22	13.01	12.81
10	13.20	13.08	12.56	12.55	12.59	12.89	12.79	12.41	13.22	13.14	13.00	12.74
15	13.04	12.81	12.55	12.54	12.45	12.50	12.85	---	13.20	13.09	13.00	12.70
20	12.91	12.66	12.59	12.54	12.32	12.68	12.85	---	13.24	13.07	12.99	12.67
25	12.87	12.66	12.56	12.56	12.44	12.53	13.21	---	13.32	13.03	13.01	12.65
EOM	12.97	12.62	12.55	13.22	12.65	12.71	12.70	---	13.18	13.08	12.89	12.83

WTR YR 1999 MEAN 12.82 MAX 13.44 MIN 12.23

ILLINOIS RIVER BASIN

05514770 WHARTON LAKE NEAR SOUTH BEND, IN

LOCATION.--Lat 41°36'11", long 86°18'36", in NW¼SW¼NW¼ sec.4, T.36 N., R.2 E., St. Joseph County, Hydrologic Unit 07120001 (LAKEVILLE, IN quadrangle). The gage is on the east side of the lake, in a channel west of a storage shed at the Calvert Rod and Gun Club property, and 5.7 mi northwest of Lakeville.

SURFACE AREA.--18 acres (measured on U.S. Geological Survey topographic map, scale 1:24000).

DRAINAGE AREA.--1.85 mi^2.

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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.23	5.44	5.79	6.22	6.65	6.76	6.71	6.74	6.28	6.25	5.39	5.26
10	5.34	5.65	6.11	6.22	6.73	6.72	7.00	6.67	6.07	5.99	5.34	5.25
15	5.28	5.68	6.15	6.22	6.69	6.72	6.93	6.56	6.10	5.72	5.31	5.24
20	5.32	5.67	6.21	6.58	6.65	6.74	6.87	6.42	5.94	5.59	5.30	5.23
25	5.34	5.68	6.27	6.93	6.58	6.68	7.04	6.43	6.09	5.77	5.32	5.22
EOM	5.44	5.77	6.22	6.64	6.70	6.63	6.90	6.30	6.12	5.59	5.29	5.23

WTR YR 1999 MEAN 6.07 MAX 7.40 MIN 5.21

WABASH RIVER BASIN

03331140 WINONA LAKE AT WARSAW, IN

LOCATION.--Lat 41°13'34", long 85°50'46", in NW¼NE¼SE¼ sec.17, T.32 N., R.6 E., Kosciusko County, Hydrologic Unit 05120106 (WARSAW, IN quadrangle). The gage is on the western side of the lake, 20 ft east of the dam on the northern side of the outlet channel, 1.0 mi south of Warsaw.

SURFACE AREA.--562 acres.

DRAINAGE AREA.--32.1 mi^2.

PERIOD OF RECORD.--1943-78, 1980 to current year.

DATUM OF GAGE.--800.10 ft above 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 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.87	9.85	9.74	9.75	10.02	10.31	9.90	11.12	11.04	10.98	10.93	10.87
10	10.97	9.86	9.75	9.75	10.06	10.14	10.11	11.05	11.02	10.88	10.90	10.81
15	10.94	9.77	9.72	9.75	10.00	10.00	10.18	11.03	10.99	10.84	10.89	10.78
20	10.92	9.72	9.73	9.83	9.92	10.09	10.26	11.03	10.95	10.93	10.91	10.77
25	10.90	9.77	9.71	10.88	9.87	9.96	11.17	11.10	11.05	10.88	11.02	10.74
EOM	10.76	9.76	9.71	10.13	10.24	9.90	10.70	11.07	10.95	11.03	10.91	10.91

WTR YR 1999 MEAN 10.47 MAX 11.24 MIN 9.71

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	Baugher Lake near Washington Center	Noble	31.0	32	878.52	390	+	1945-51
03330220	Wilmot Pond at Wilmot[1]	Noble	35.2	10	-------	------	-	1945-51
03330240	Webster Lake at North Webster	Kosciusko	49.2	774	852.75	7,170	+	1943-
03330243	James Lake at Oswego	Kosciusko	55.9	282	836.40	7,580	+	1943-
03330260	Robinson Lake near Pierceton	Kosciusko	7.15	59	851.09	1,170	+	1946-51
03330280	Troy Cedar Lake near Lorane	Whitley	5.33	93	905.41	2,540	+	1945-52
03330300	Ridinger Lake near Pierceton	Kosciusko	34.6	136	843.12	2,900	+	1943-
03330320	Kuhn Lake near North Webster	Kosciusko	3.85	137	837.50	1,290	+	1945-
03330340	Big Barbee Lake near North Webster	Kosciusko	44.7	304	837.50	5,640	+	1945-
03330360	Little Barbee Lake nr North Webster	Kosciusko	49.0	74	837.50	960	+	1945-
03330380	Shoe Lake near Oswego	Kosciusko	.34	40	841.57	------	-	1946-53, 1972,74, 1976-
03330400	Banning Lake near North Webster	Kosciusko	.48	12	837.50	110	+	1945-
03330420	Irish Lake near North Webster	Kosciusko	50.9	182	837.50	2,330	+	1945-
03330440	Sechrist Lake near North Webster	Kosciusko	.58	105	837.50	2,490	+	1945-
03330460	Sawmill Lake near North Webster	Kosciusko	51.8	36	837.50	370	+	1945-
03330480	Tippecanoe Lake at Oswego	Kosciusko	113	768	836.40	28,380	+	1943-
03330495	Oswego Lake at Oswego	Kosciusko	113	83	836.40	780	+	1943-
03331010	Big Chapman Lake near Warsaw[2]	Kosciusko	4.17	581	827.75	6,080	+	1945-72, 1976-
03331020	Little Chapman Lake near Warsaw	Kosciusko	7.13	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, 1963-71
03371700	Ogle Lake near Nashville	Brown	1.03	20	-------	250	+	1954-

Lakes in the St. Lawrence River basin for which records are available

			STREAMS TRIBUTARY TO LAKE MICHIGAN					
04092500	Wolf Lake at Hammond[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].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

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 (acre-feet)	Contour map available	Records available
	STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued							
04099740	Shipshewana Lake near Shipshewana	Lagrange	[a]6.74	202	852.04	1,350	+	1951-
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-
04099880	Simonton Lake near Elkhart	Elkhart	7.44	303	772.19	1,560	+	1946-
04099950	Indiana Lake near Bristol	Elkhart	.62	122	759.73	3,400	+	1946-53
04100010	Cree Lake near Kendallville	Noble	4.85	58	945.23	910	+	1949-66
04100020	Blackman Lake near Wolcottville	Lagrange	.98	67	974.20	1,210	+	1953-59
04100030	Adams Lake near Wolcottville	Lagrange	5.62	308	953.59	7,690	+	1946-
04100040	Atwood Lake near Wolcottville	Lagrange	1.23	170	899.99	1,560	+	1948-53
04100050	Witmer Laker near Wolcottville	Lagrange	36.1	204	897.36	7,040	+	1945-
04100060	Westler Lake near Wolcottville	Lagrange	37.8	88	897.36	1,770	+	1945-
04100070	Dallas Lake near Wolcottville	Lagrange	39.8	283	897.36	9,970	+	1945-
04100080	Martin Lake near Valentine	Lagrange	4.93	26	899.45	890	+	1945-
04100090	Olin Lake neaqr Valentine	Lagrange	5.81	103	899.45	9,180	+	1945-
04100100	Oliver Lake near Valentine	Lagrange	11.1	362	899.45	15,358	+	1945-
04100110	Hackenburg Lake near Wolcottville	Lagrange	55.4	42	897.36	510	+	1945-
04100120	Messick Lake near Wolcottville	Lagrange	56.4	68	897.36	1,450	+	1945-
04100130	Jones Lake near Cosperville	Noble	70.3	114	885.55	960	+	1948-
04100140	Bixler Lake at Kendallville	Noble	5.28	120	963.65	2,090	+	1945-
04100150	Round Lake at Kendallville	Noble	3.47	99	954.50	2,140	+	1954-
04100160	Little Long Lake at Kendallville	Noble	4.55	71	954.50	1,750	+	1954-
04100170	Latta Lake near Rome City	Noble	2.52	42	918.71	900	+	1954-66
04100180	Sylvan Lake at Rome City	Noble	33.8	669	916.20	5,986	+	1943-
04100190	Sacarider Lake near Kendallville	Noble	1.43	33	--------	740	+	1954-63
04100200	Tamarack Lake near Cosperville	Noble	15.9	50	885.55	880	+	1948-
04100210	Steinbarger Lake near Cosperville	Noble	24.3	73	885.55	1,590	+	1948-
04100220	Waldron Lake near Cosperville	Noble	134	216	885.55	3,120	+	1948-
04100230	Long Lake near Burr Oak	Noble	12.0	40	895.82	630	+	1954-71
04100240	Sand Lake near Burr Oak	Noble	14.9	47	893.56	1,270	+	1946-51
04100250	Rivir Lake near Burr Oak	Noble	18.6	24	--------	380	+	1954-65
04100258	High Lake near Wolflake	Noble	4.43	123	896.35	1,240	+	1961-
04100260	Bear Lake near Wolflake	Noble	6.98	136	894.60	3,030	+	1943-
04100280	Muncie Lake near Burr Oak	Noble	42.8	47	--------	580	+	1954-
04100290	Silver Lake near Wolflake	Noble	.28	34	--------	220	+	1953-63
04100300	Skinner Lake near Albion	Noble	14.0	125	927.74	1,750	+	1945-72, 1977-
04100310	Pleasant Lake near Wolflake	Noble	.29	20	--------	540	+	1952-53
04100320	Upper Long Lake near Wolflake	Noble	2.08	86	891.19	1,900	+	1956-
04100330	Lower Long Lake near Albion	Noble	4.35	66	889.81	1,560	+	1946-52
04100340	Eagle Lake near Kimmel	Noble	3.22	81	--------	1,050	+	1946-48
04100350	Diamond Lake near Wawaka	Noble	4.80	105	--------	2,580	+	1946-
04100360	Sparta Lake at Kimmel	Noble	.69	31	888.50	170	+	1946-51
04100370	Engle Lake near Ligonier	Noble	[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[8]	Noble	11.2	21	876.68	180	+	1953-66
04100440	Village Lake near Cromwell	Noble	12.0	12	876.68	160	+	1953-66
04100446	Flatbelly Lake near Syracuse	Kosciusko	4.66	326	--------	------	-	1964-69
04100448	Papakeechie Lake near Syracuse	Kosciusko	5.52	300	--------	------	-	1964-69
04100450	Wawasee Lake at Wawasee	Kosciusko	36.9	3,060	858.89	67,210	+	1943-66
04100460	Syracuse Lake at Syracuse	Kosciusko	38.2	414	858.87	5,360	+	1943-
04100470	Dewart Lake near Leesburg	Kosciusko	[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	+	1957
04179300	Cedar lake near Waterloo	DeKalb	23.4	28	896.76	230	+	1943-56

Lakes in the Upper Mississippi River basin for which records are available--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 Druley 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

Base from U.S. Geological Survey digital data, 1:2,000,000, 1996
Albers Equal Area projection
Standard parallels 29°30' and 45° 30' central meridian -96°

EXPLANATION

2 Number of ground-water wells in designated county.

Figure 10.--Number of ground-water wells by county having 1999 water-level records.

410426084495201. Local number, AL 5.
LOCATION.--Lat 41°04'26", long 84°49'52", in NW¼NE¼SE¼ sec.9, T.30 N., R.15 E., Allen County, Hydrologic Unit 04100005, 1.3 mi west of Edgerton.
Owner: Noel Gerig.

AQUIFER.--Limestone of Salina Formation of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 4 in., depth 97 ft, cased to 40 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 760 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 0.00 ft above land-surface datum.

REMARKS.--Well affected quarry operations until 1980. Quarry operations resumed in 1997.

PERIOD OF RECORD.--July 1962 to December 1971, January 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.04 ft below land-surface datum, July 8, 9, 1962; lowest, 38.41 ft below land-surface datum, May 4, 1967.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

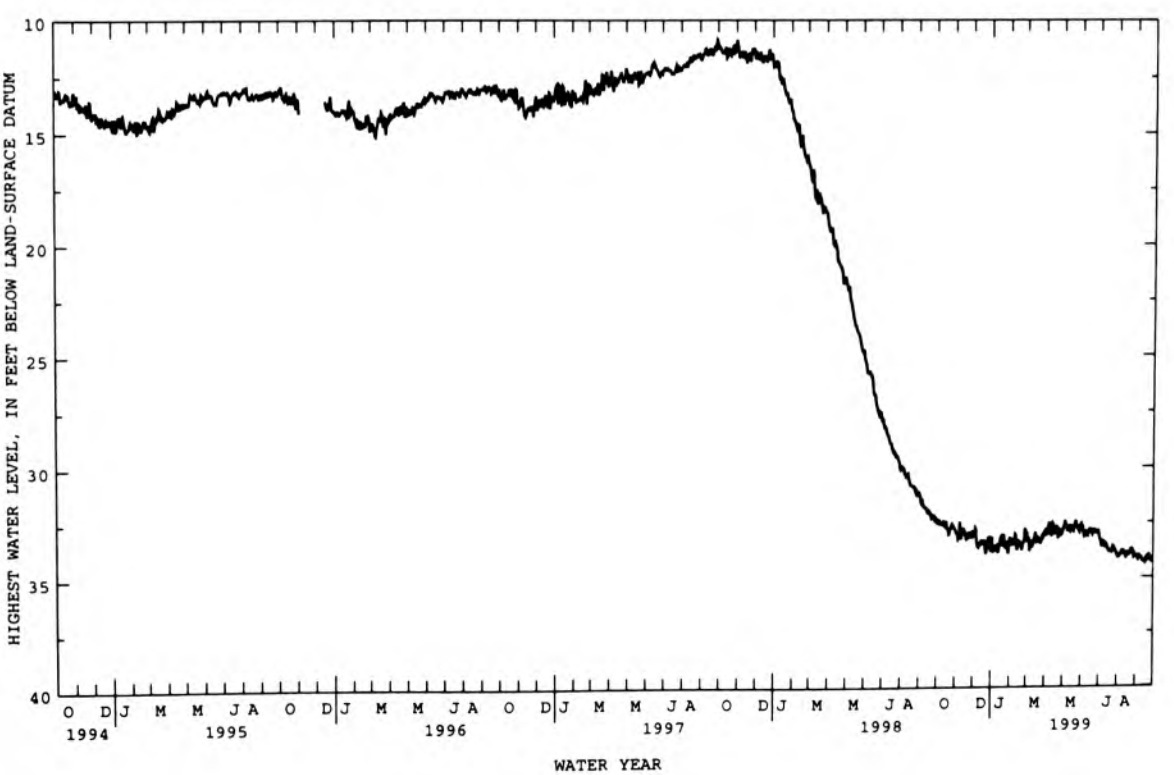
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	32.50	32.99	32.97	33.88	33.57	33.31	33.13	32.57	32.80	33.42	33.99	34.19
10	32.59	32.46	33.62	33.71	33.55	33.44	33.04	32.91	32.97	33.47	33.74	34.10
15	32.65	32.89	33.48	33.60	33.55	33.36	32.54	32.91	32.89	33.59	34.07	34.28
20	32.79	33.12	33.51	33.51	33.49	33.20	32.96	32.90	32.94	33.80	33.95	34.09
25	32.81	32.93	33.66	33.62	33.45	33.45	33.02	32.66	32.91	33.54	33.73	34.13
EOM	32.75	32.96	33.66	33.79	32.83	32.99	33.09	32.77	32.97	33.98	33.97	34.13

WTR YR 1999 HIGH 32.31 OCT 1

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	32.95	33.49	33.34	34.44	34.28	33.90	33.69	32.70	33.45	34.36	34.49	34.61
10	33.03	33.26	34.09	34.16	33.95	33.84	33.54	33.30	33.52	34.15	34.33	34.44
15	33.13	33.38	34.04	34.03	34.13	33.92	33.25	33.35	33.07	34.25	34.53	34.36
20	33.23	33.54	34.17	33.94	34.00	33.90	33.54	33.36	33.59	34.27	34.13	34.47
25	33.41	33.56	34.30	34.25	33.90	33.85	33.66	33.10	33.50	34.48	34.13	34.49
EOM	33.26	33.37	34.16	34.43	33.36	33.75	33.61	33.39	33.53	34.52	34.11	34.51

WTR YR 1999 LOW 34.93 SEP 28



ALLEN COUNTY

410932084561101. Local number, AL 6.
LOCATION.--Lat 41°09'32", long 84°56'11", in SW¼SW¼NE¼ sec.10, T.31 N., R.14 E., Allen County, Hydrologic Unit 04100005, at the intersection of Ehle and Thimler Roads, 10 mi northeast of New Haven.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 84 ft, cased to 81.5 ft, screened to 83.5 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 760 ft above 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, 7.86 ft below land-surface datum, Jan. 9, 1998; lowest, 15.10 ft below land-surface datum, Nov. 26, 1994.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

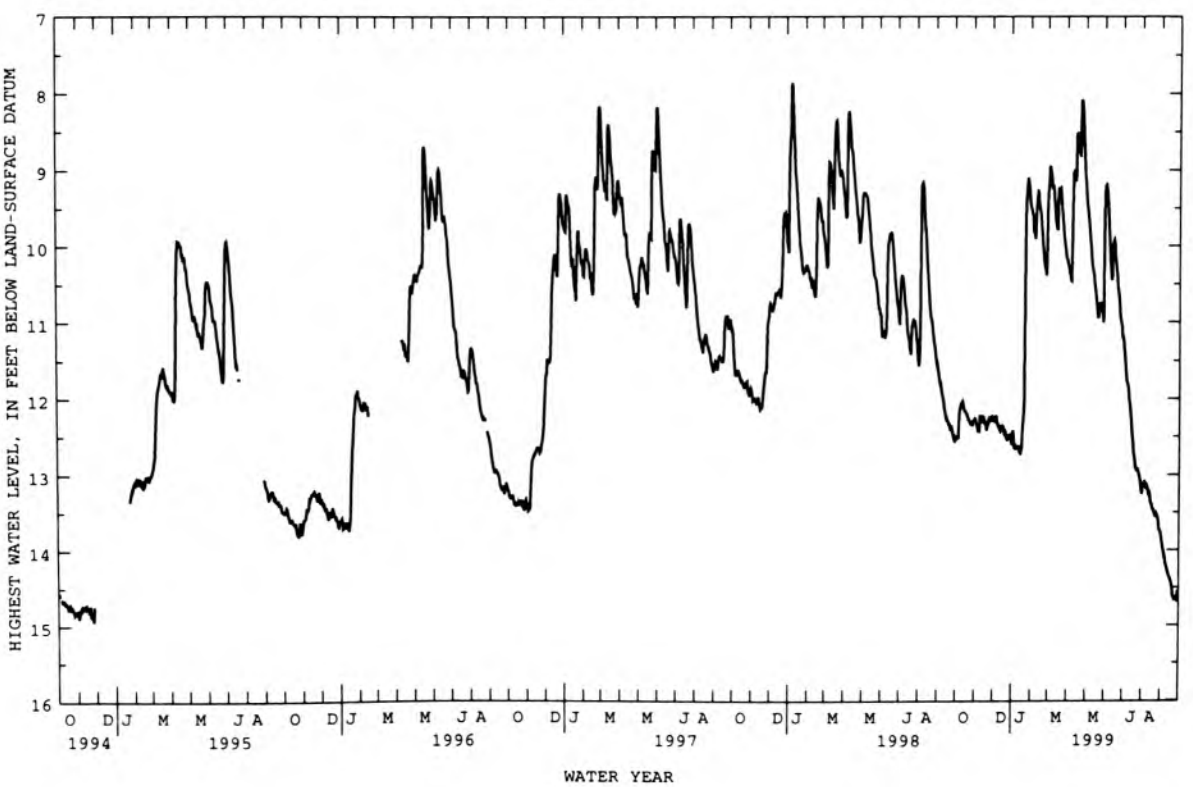
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.51	12.35	12.26	12.66	9.81	9.03	10.37	9.59	9.31	11.54	13.10	14.01
10	12.08	12.22	12.35	12.64	9.50	9.27	9.34	10.09	10.20	11.89	13.17	14.21
15	12.13	12.27	12.40	12.72	9.47	9.77	9.12	10.46	9.94	12.37	13.37	14.35
20	12.22	12.35	12.49	12.20	9.95	9.27	8.66	10.88	10.30	12.79	13.47	14.50
25	12.31	12.25	12.51	9.30	10.29	9.70	8.12	10.74	10.76	12.93	13.52	14.63
EOM	12.29	12.22	12.56	9.44	9.49	10.16	9.06	9.89	11.19	13.22	13.75	14.55

WTR YR 1999 HIGH 8.08 APR 24

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.61	12.50	12.44	12.76	9.97	9.16	10.48	9.70	9.46	11.73	13.24	14.11
10	12.25	12.42	12.46	12.75	9.67	9.45	9.77	10.24	10.39	12.05	13.28	14.31
15	12.24	12.39	12.53	12.84	9.65	9.95	9.22	10.62	10.07	12.53	13.53	14.49
20	12.35	12.48	12.64	12.33	10.13	9.43	8.75	11.08	10.39	12.93	13.59	14.70
25	12.40	12.34	12.65	9.46	10.45	9.96	8.26	10.82	10.95	13.05	13.62	14.75
EOM	12.42	12.33	12.71	9.58	10.01	10.23	9.18	11.03	11.29	13.34	13.84	14.61

WTR YR 1999 LOW 14.85 SEP 28



410335085190701. Local number, AL 8.
LOCATION.--Lat 41°03'35", long 85°19'07", in SE¼SW¼SW¼ sec. 8, T.30 N., R.11 E., Allen County, Hydrologic Unit 05120101, on Covington Rd about 5 mi west of I-69 on the northeast corner of the United Telephone Co. 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.

REMARKS.--Water level data is affected by nearby pumpage. Daily fluctuations greater than 3 ft are common.

PERIOD OF RECORD.--July 1988 to current year. Records for WY1988, WY1989, WY1990 published as AL 7.

REVISED RECORDS.--WDR IN 94-1: 1993.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 55.70 ft below land-surface datum, Apr. 26, 1989; lowest, unknown, but greater than 76.48 ft below land-surface datum, July 10, 12, 15, 16, 18, 19, 31, Aug. 1, 2, 3, 1999. Recorder was unable to record below this water level, which occured on numerous occasions between Aug. 3, and Sept. 24, 1999.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

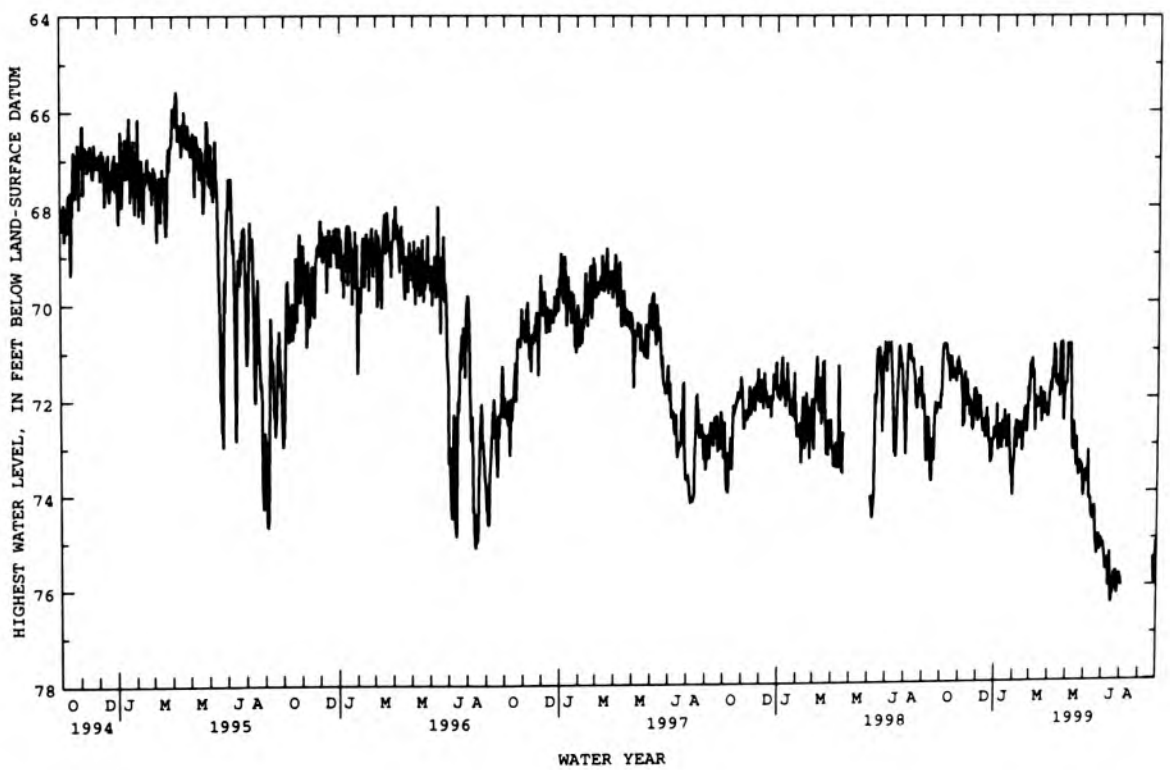
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	70.92	71.82	71.98	73.10	73.06	71.59	71.86	70.87	73.73	75.50	---	---
10	70.88	71.63	72.71	72.81	72.86	72.06	71.22	73.11	74.12	75.44	---	---
15	71.33	71.82	72.71	72.66	73.04	72.18	71.53	73.15	74.52	76.14	---	---
20	71.32	72.18	72.92	72.90	72.17	72.31	70.85	73.65	75.15	75.90	---	---
25	71.43	72.36	73.30	73.24	71.76	72.34	72.48	73.40	75.02	76.06	---	75.40
EOM	71.23	71.89	72.60	73.38	71.26	72.20	71.73	73.63	75.14	75.89	---	75.06

WTR YR 1999 HIGH 70.84 APR 22

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	71.58	72.78	72.82	73.86	73.98	72.36	72.76	71.62	74.25	76.00	---	---
10	71.88	72.79	73.62	73.67	73.67	72.91	72.28	73.58	74.78	76.48	---	---
15	72.65	72.86	73.54	73.31	73.86	72.92	72.38	73.90	75.06	76.48	---	---
20	72.21	72.99	73.54	73.59	73.02	72.73	71.55	74.34	75.71	76.32	---	---
25	72.61	73.11	73.82	74.03	72.47	73.17	73.08	73.86	75.55	76.26	---	76.13
EOM	72.25	72.84	73.39	74.31	72.18	72.90	72.82	74.20	75.57	76.48	---	75.92

WTR YR 1999 LOW 76.48 JUL 10



BARTHOLOMEW COUNTY

391627085534401. Local number, BA 4.
LOCATION.--Lat 39°16'27", long 85°53'44", in NE¼NE¼NE¼ sec.31, T.10 N., R.6 E., Bartholomew County, Hydrologic Unit 05120205, by a cemetery on the north side of Bakalar AFB at the northern city limits of Columbus.
Owner: Bartholomew County.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 93 ft, cased to 85 ft, screened to 90 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 654.04 ft above sea level. Measuring point: Top of floor of shelter, 2.60 ft above land-surface datum.

REMARKS.--Water level affected by agricultural withdrawals during May - August growing season.

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

REVISED RECORDS.--WDR IN-80-1: 1979.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.58 ft below land-surface datum, June 21, 22, 23, 24, 1996; lowest, 21.18 ft below land-surface datum, July 2, 1992.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

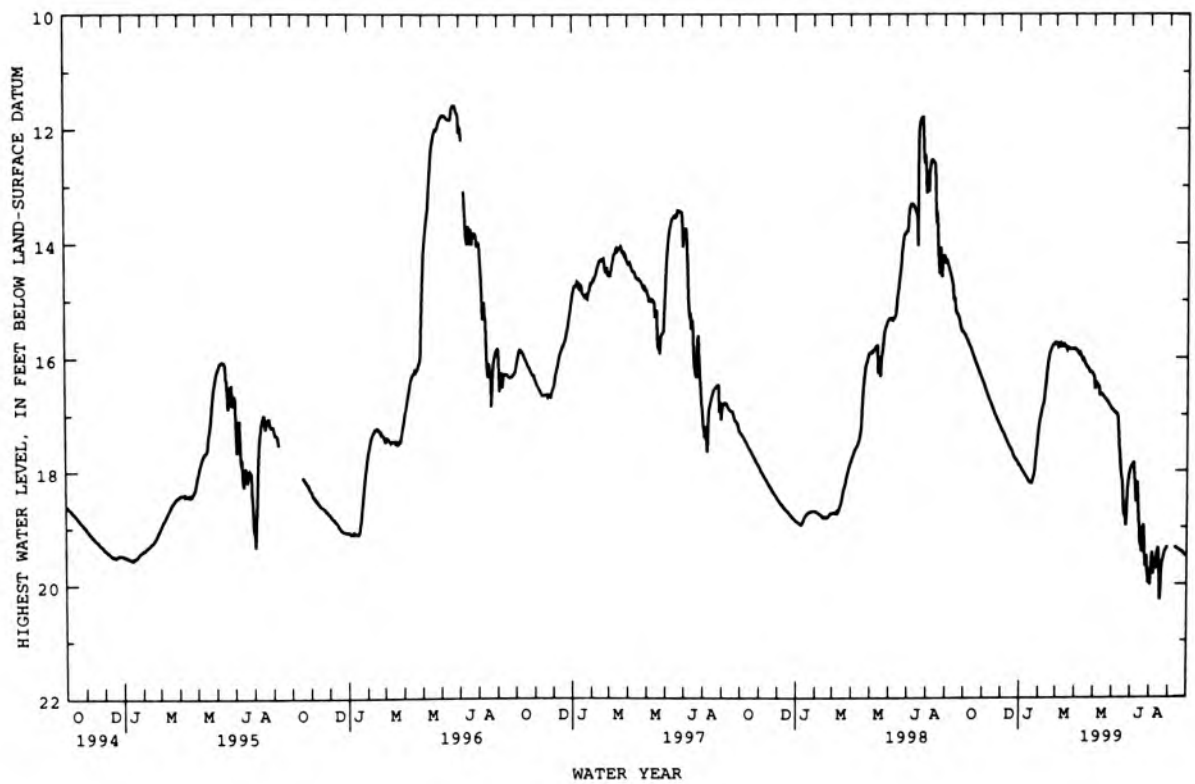
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.63	16.51	17.31	17.98	16.95	15.76	15.90	16.47	16.95	17.86	19.43	---
10	15.75	16.65	17.44	18.07	16.69	15.77	15.97	16.51	17.03	18.34	19.74	---
15	15.88	16.79	17.56	18.17	16.16	15.79	16.03	16.65	18.03	18.93	19.35	19.37
20	16.04	16.93	17.67	18.21	15.87	15.83	16.15	16.72	18.80	19.32	19.79	19.41
25	16.19	17.07	17.79	17.98	15.77	15.85	16.25	16.79	18.43	19.69	19.45	19.46
EOM	16.36	17.19	17.89	17.30	15.73	15.84	16.29	16.90	17.97	19.76	---	19.51

WTR YR 1999 HIGH 15.55 OCT 1

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.65	16.53	17.33	17.99	17.02	15.79	15.91	16.49	16.97	17.89	19.56	---
10	15.77	16.68	17.46	18.09	16.78	15.79	15.98	16.80	17.33	18.54	20.13	---
15	15.92	16.82	17.57	18.18	16.26	15.82	16.06	16.66	18.36	19.31	19.53	19.38
20	16.07	16.97	17.69	18.22	15.90	15.87	16.17	16.73	18.99	19.68	20.07	19.42
25	16.21	17.09	17.79	18.05	15.77	15.86	16.25	16.81	18.71	19.90	19.50	19.47
EOM	16.39	17.23	17.91	17.41	15.75	15.85	16.31	16.91	18.02	20.05	---	19.52

WTR YR 1999 LOW 20.52 AUG 19



390950085553501. Local number, BA 8.
LOCATION.--Lat 39°09'50", long 85°55'35", in NE$^{1}/_{4}$NW$^{1}/_{4}$SW$^{1}/_{4}$ 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.

REMARKS.--Water levels may be affected by nearby water-supply well fields.

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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

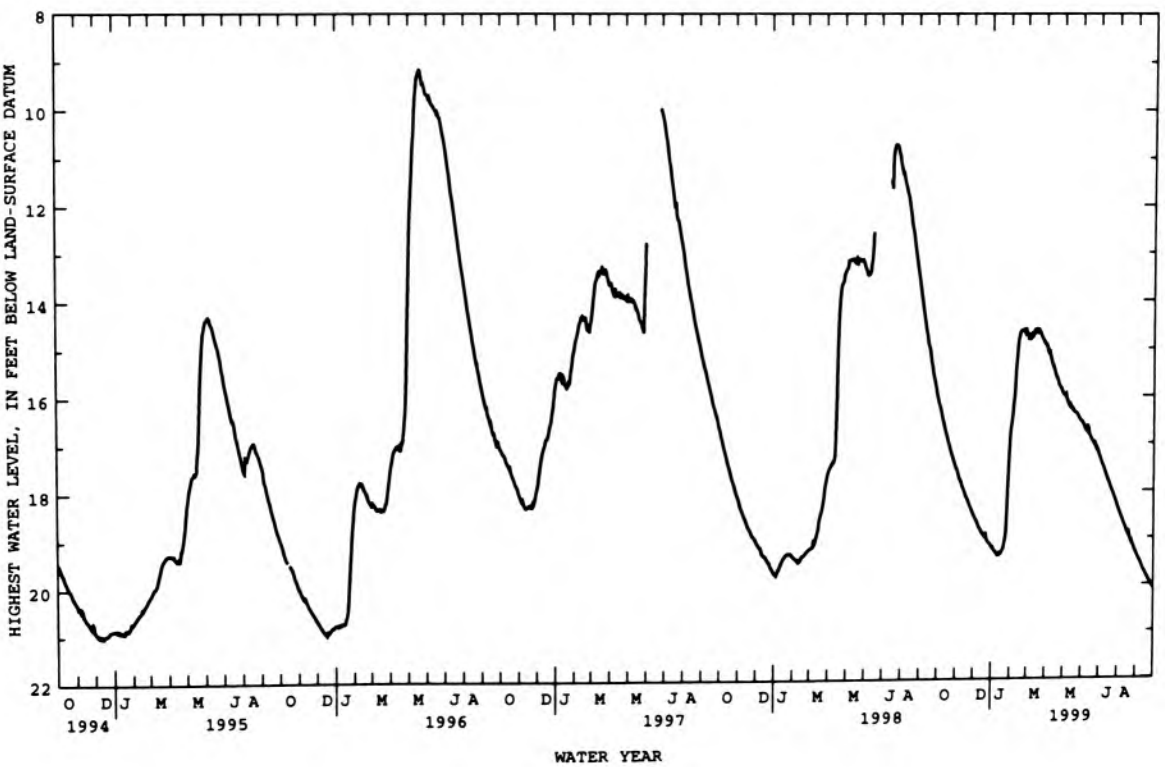
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.15	17.60	18.59	19.26	16.43	14.77	15.03	15.98	16.60	17.39	18.47	19.43
10	16.39	17.77	18.75	19.35	15.69	14.74	15.20	16.16	16.74	17.55	18.64	19.57
15	16.68	17.96	18.87	19.34	14.86	14.65	15.36	16.25	16.83	17.74	18.80	19.71
20	16.94	18.13	18.98	19.22	14.62	14.61	15.60	16.34	16.95	17.91	18.85	19.84
25	17.16	18.30	19.06	18.84	14.63	14.72	15.79	16.38	17.05	18.07	19.08	19.96
EOM	17.42	18.45	19.17	17.09	14.59	14.87	15.91	16.52	17.20	18.29	19.29	20.08

WTR YR 1999 HIGH 14.59 FEB 27

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.19	17.65	18.61	19.28	16.54	14.81	15.06	16.03	16.65	17.42	18.51	19.46
10	16.46	17.81	18.82	19.36	15.91	14.77	15.22	16.19	16.76	17.59	18.67	19.61
15	16.74	18.01	18.96	19.36	14.99	14.73	15.41	16.27	16.85	17.77	18.85	19.74
20	16.98	18.17	19.01	19.26	14.63	14.69	15.64	16.35	16.98	17.94	18.97	19.86
25	17.21	18.32	19.08	18.96	14.68	14.75	15.80	16.40	17.10	18.11	19.13	19.99
EOM	17.46	18.48	19.19	17.33	14.67	14.89	15.94	16.53	17.24	18.33	19.32	20.11

WTR YR 1999 LOW 20.11 SEP 30



391035085560401. Local number, BA 9.
LOCATION.--Lat 39°10'35", long 85°56'04", in SW¼NE¼SW¼ sec.35, T.9 N., R.5 E., Bartholomew County, Hydrologic Unit 05120206, at the Bartholomew County Home on the 4-H Fairgrounds, 3.0 mi south of Columbus.
Owner: City of Columbus.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 115 ft, cased to 106 ft, screened to 111 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 621.58 ft above 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

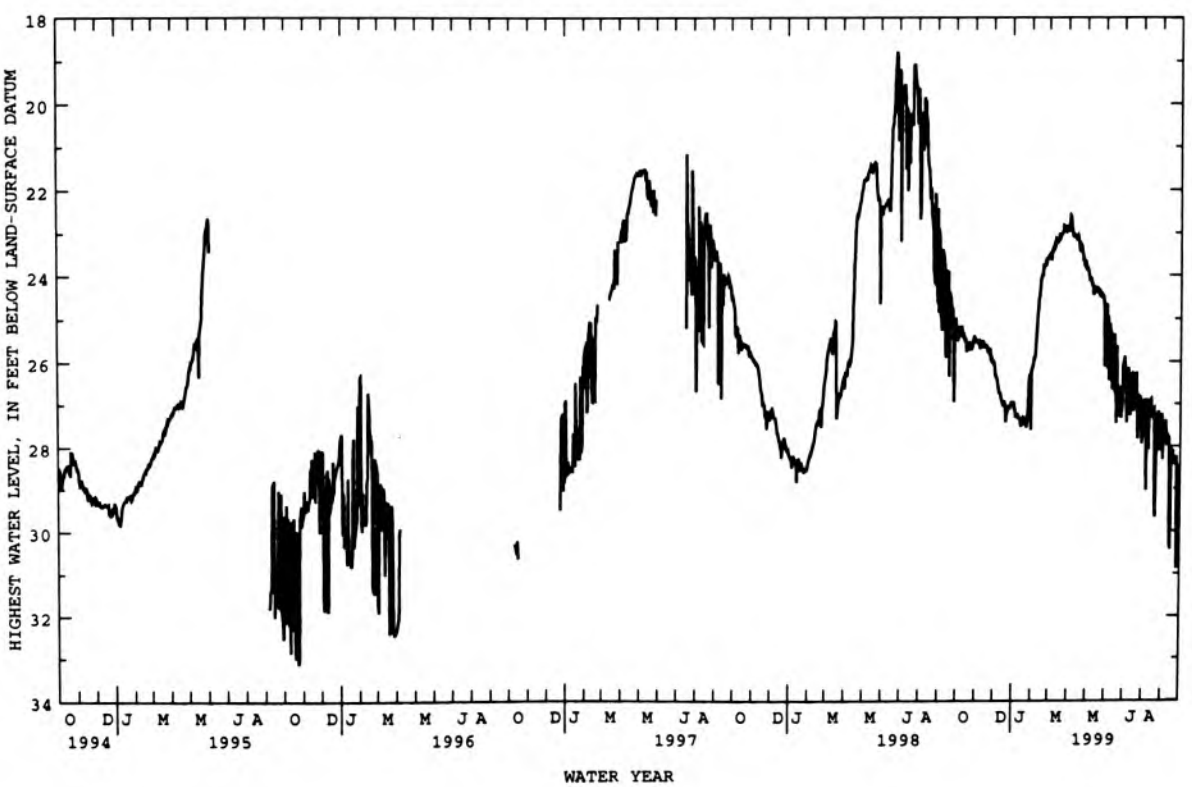
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	25.32	25.48	26.36	27.32	25.94	23.44	22.61	24.09	24.95	27.44	27.22	27.53
10	25.19	25.54	26.72	27.33	24.89	23.30	23.08	24.19	25.29	27.00	28.08	27.88
15	25.48	25.65	27.02	27.39	24.12	23.20	23.07	24.34	25.36	26.26	27.16	30.43
20	25.58	25.65	27.43	27.31	23.81	23.05	23.33	24.39	26.88	26.54	29.22	28.38
25	25.65	25.70	27.03	27.17	23.61	22.84	23.67	24.49	26.59	26.81	27.27	28.24
EOM	25.52	25.97	26.94	26.15	23.53	22.90	23.88	24.75	26.05	27.48	27.31	28.47

WTR YR 1999 HIGH 22.59 APR 4

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	27.36	26.92	27.88	29.03	27.28	24.68	23.94	25.50	26.44	27.52	30.18	29.81
10	27.35	26.86	28.49	29.10	26.47	24.40	24.22	25.66	26.66	27.28	28.29	30.26
15	27.65	26.98	28.94	28.56	25.55	24.37	24.20	25.79	26.76	29.55	28.30	30.52
20	27.78	27.08	29.15	29.34	25.23	24.21	24.53	25.79	27.10	27.74	29.67	30.70
25	27.70	26.94	28.24	29.08	25.08	24.09	25.19	25.96	27.38	29.90	28.38	30.88
EOM	27.57	27.24	28.18	27.61	24.99	24.09	25.28	26.26	27.39	30.05	29.29	31.06

WTR YR 1999 LOW 31.13 SEP 28



390317085523701. Local number, BA 10.
LOCATION.--Lat 39°03'17", long 85°52'08", in NE$^1/_4$NW$^1/_4$NW$^1/_4$ sec.16, T.17 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.

REMARKS.--Hourly record indicates water level is affected by domestic pumpage. Not significant in monthly-annual report.

PERIOD OF RECORD.--October 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.66 ft below land-surface datum, Nov. 17, 1993; lowest, 12.65 ft below land-surface datum, Oct. 29, Nov. 2, 1988.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

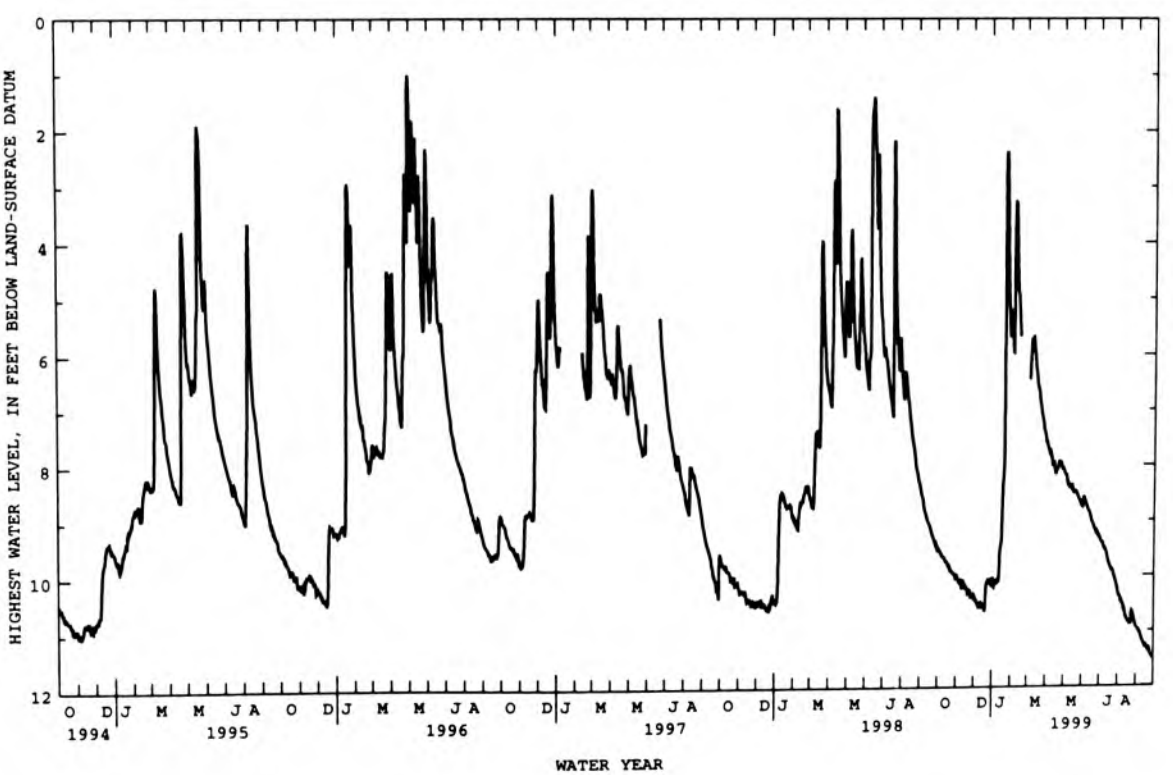
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.54	10.05	10.42	10.10	5.95	6.45	7.69	8.18	8.58	9.40	10.41	10.98
10	9.65	10.05	10.50	10.11	3.32	5.71	7.88	8.36	8.75	9.53	10.52	11.12
15	9.74	10.18	10.53	9.48	5.14	6.21	7.93	8.35	8.90	9.71	10.77	11.25
20	9.82	10.23	10.64	8.21	---	6.60	8.09	8.47	9.06	9.87	10.86	11.33
25	9.92	10.25	10.07	2.39	---	7.07	7.94	8.56	9.23	9.99	10.65	11.42
EOM	10.02	10.36	10.13	5.69	---	7.42	8.05	8.71	9.28	10.24	10.88	11.52

WTR YR 1999 HIGH 2.39 JAN 24

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.69	10.21	10.55	10.28	6.03	6.54	7.80	8.34	8.69	9.46	10.50	11.12
10	9.71	10.25	10.57	10.22	3.91	5.82	7.99	8.47	8.93	9.70	10.70	11.24
15	9.85	10.30	10.65	9.69	5.48	6.42	8.17	8.54	9.04	9.83	10.83	11.30
20	9.93	10.42	10.78	8.46	---	6.72	8.22	8.54	9.14	9.94	10.94	11.43
25	9.98	10.41	10.17	3.01	---	7.18	8.06	8.67	9.35	10.13	10.80	11.55
EOM	10.15	10.55	10.35	5.90	---	7.55	8.21	8.85	9.42	10.33	10.94	11.62

WTR YR 1999 LOW 11.62 SEP 30



390658085572201. Local number, BA 13.
LOCATION.--Lat 39°06'58", long 85°57'22", in SW¼NW¼SE¼ sec.22, T.8 N., R.5 E., Bartholomew County, Hydrologic Unit 05120206, at the end of farm access road, 0.3 mi north of County Road 600 South at its intersection with Interstate 65.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian 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, 19.26 ft below land-surface datum, Apr. 30, 1997; lowest, 24.17 ft below land-surface datum, Feb. 16, 1989.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

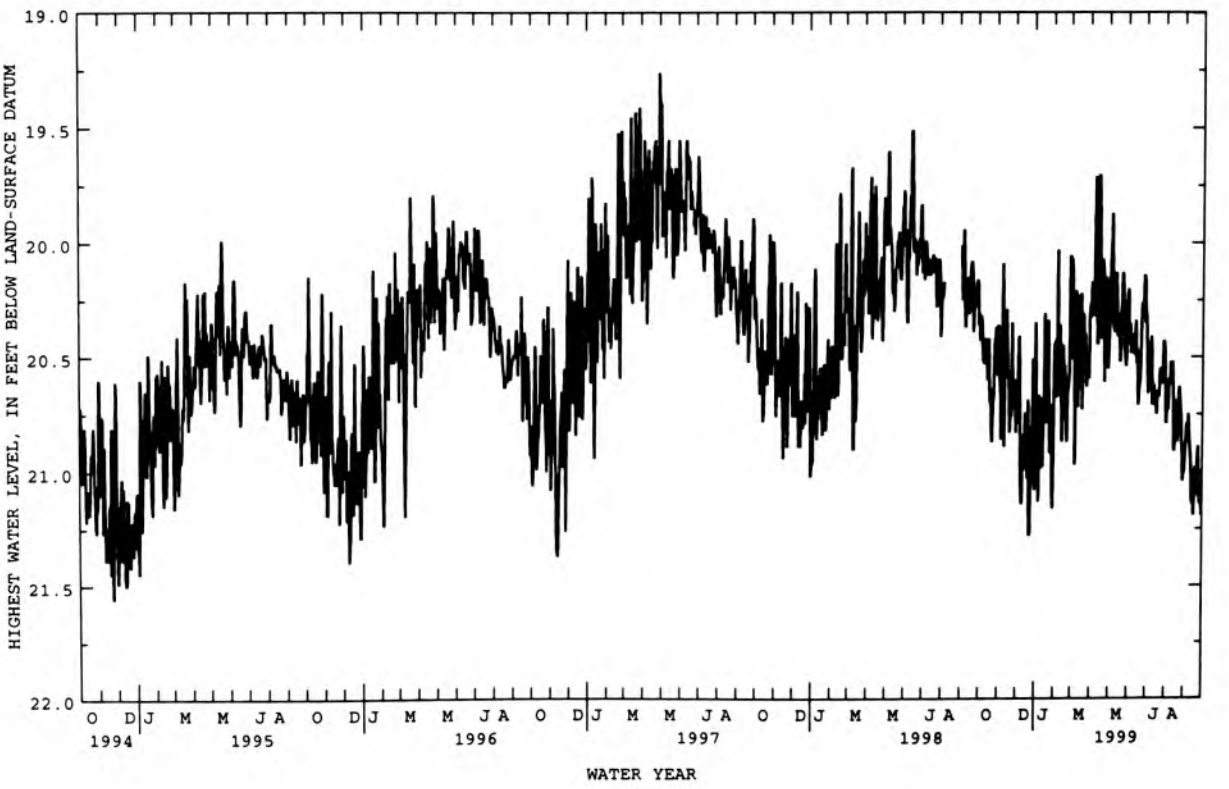
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.38	20.60	20.59	21.03	20.68	20.33	20.28	20.01	20.36	20.60	20.67	20.79
10	20.51	20.09	21.13	20.99	20.67	20.41	20.05	20.39	20.41	20.47	20.52	20.88
15	20.48	20.44	20.98	20.73	20.65	20.34	19.70	20.41	20.53	20.68	20.90	21.07
20	20.70	20.63	21.03	20.69	20.69	20.40	20.27	20.50	20.62	20.65	20.79	21.00
25	20.69	20.35	21.08	20.92	20.62	20.57	20.39	20.23	20.31	20.58	20.67	20.99
EOM	20.54	20.60	20.93	20.96	20.06	20.30	20.55	20.31	20.35	20.46	21.00	21.19

WTR YR 1999 HIGH 19.70 APR 15

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.48	20.66	20.68	21.32	21.11	20.64	20.51	20.11	20.49	20.72	20.73	20.92
10	20.58	20.47	21.22	21.14	20.87	20.65	20.31	20.49	20.53	20.71	20.65	20.96
15	20.63	20.66	21.17	21.02	20.87	20.54	20.18	20.52	20.61	20.74	20.98	21.20
20	20.81	20.83	21.15	20.82	20.83	20.76	20.43	20.62	20.70	20.71	20.92	21.10
25	20.79	20.76	21.34	21.27	20.77	20.66	20.64	20.30	20.40	20.65	20.73	21.09
EOM	20.65	20.83	21.14	21.16	20.24	20.59	20.65	20.49	20.42	20.57	21.12	21.29

WTR YR 1999 LOW 21.45 DEC 22



402851087213501. Local number, BE 4.
LOCATION.--Lat 40°28'51", long 87°21'35", in SE$^1/_4$NE$^1/_4$SE$^1/_4$ 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

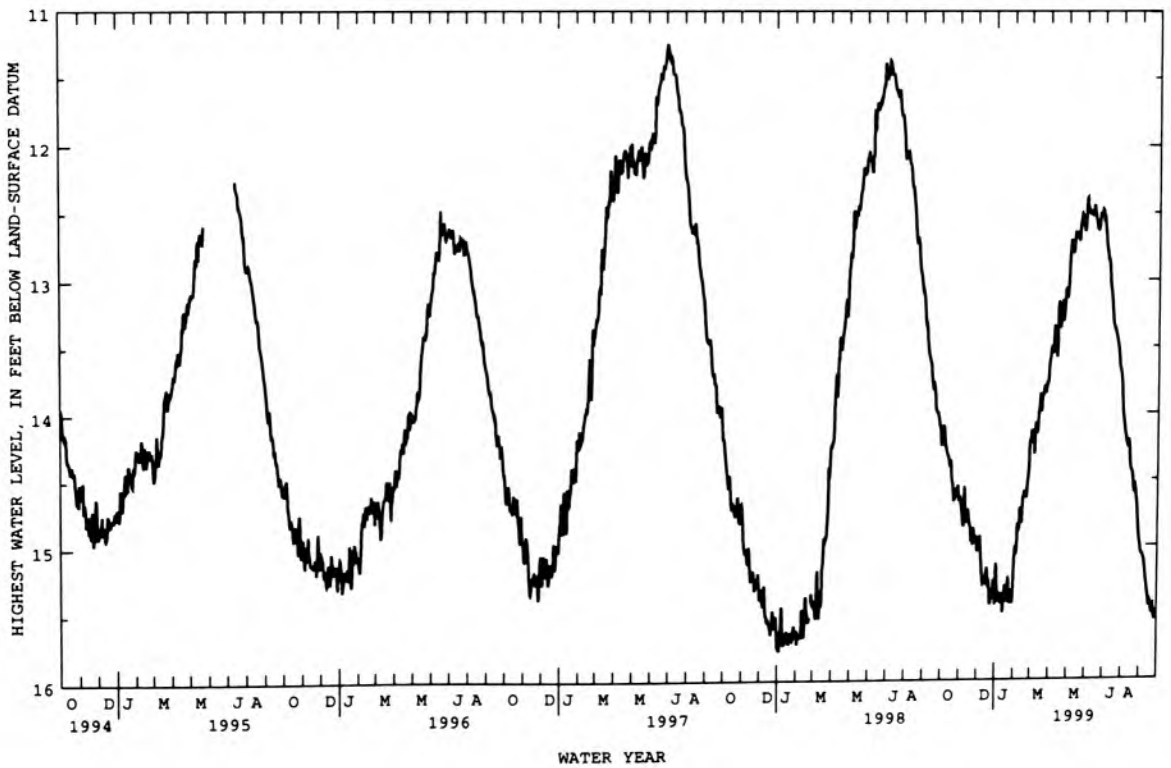
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.13	14.73	14.99	15.37	15.06	14.14	13.52	12.76	12.48	12.76	14.08	15.06
10	14.26	14.55	15.25	15.43	14.86	14.09	13.42	12.79	12.49	12.89	14.22	15.17
15	14.35	14.76	15.29	15.43	14.71	13.99	13.21	12.69	12.50	13.20	14.36	15.37
20	14.51	14.87	15.31	15.42	14.60	13.88	13.31	12.71	12.63	13.37	14.49	15.43
25	14.63	14.86	15.40	15.43	14.48	13.83	13.27	12.52	12.51	13.49	14.58	15.51
EOM	14.61	14.93	15.37	15.33	14.20	13.65	13.14	12.54	12.57	13.73	14.95	15.54

WTR YR 1999 HIGH 12.39 JUN 2

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.27	14.76	15.03	15.44	15.18	14.25	13.61	12.84	12.50	12.78	14.13	15.09
10	14.28	14.72	15.28	15.49	14.93	14.14	13.48	12.82	12.53	13.01	14.26	15.22
15	14.40	14.81	15.32	15.51	14.82	14.01	13.49	12.73	12.56	13.28	14.42	15.41
20	14.55	14.94	15.33	15.44	14.63	14.01	13.37	12.74	12.63	13.40	14.56	15.48
25	14.65	14.99	15.47	15.54	14.51	13.87	13.35	12.55	12.55	13.54	14.64	15.54
EOM	14.67	15.03	15.44	15.44	14.24	13.76	13.19	12.61	12.61	13.79	14.98	15.56

WTR YR 1999 LOW 15.60 SEP 28



BOONE COUNTY

400532086183901. Local number, BO 17.
LOCATION.--Lat 40°05'32", long 86°18'39", in SW$^1/_4$SE$^1/_4$NW$^1/_4$ 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.

REMARKS.--Well may be affected by pumpage.

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

REVISED RECORDS.--WDR IN-94-1: 1993.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 45.87 ft below land-surface datum, July 11-13, 1986; lowest, 55.63 ft below land-surface datum, Sept. 27, 1999.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

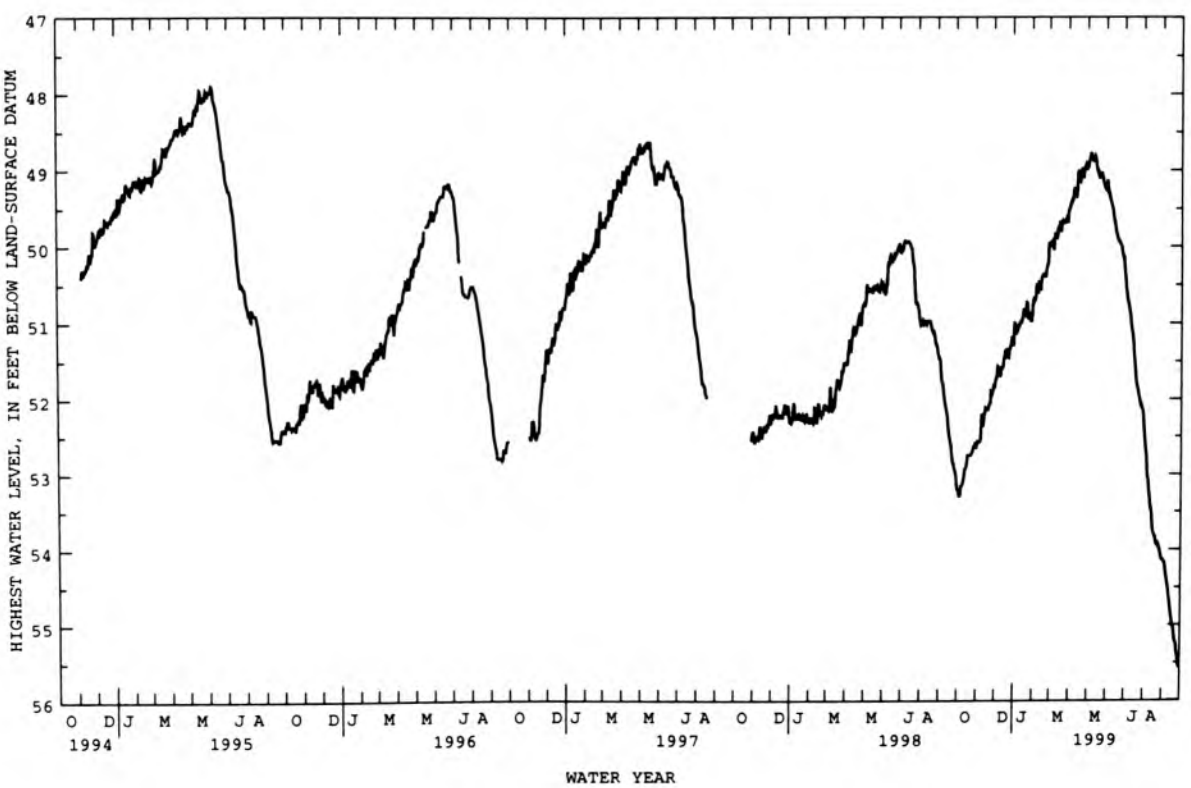
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	53.29	52.57	51.67	51.12	50.69	49.95	49.44	48.81	49.28	50.69	52.73	54.20
10	53.12	52.20	51.69	51.06	50.58	49.84	49.30	48.88	49.47	50.90	53.26	54.49
15	52.92	52.20	51.56	50.94	50.45	49.76	49.04	48.94	49.74	51.24	53.67	54.82
20	52.75	52.12	51.46	50.91	50.36	49.70	49.08	49.11	49.91	51.80	53.83	55.06
25	52.71	51.90	51.36	50.94	50.23	49.69	49.05	49.08	50.00	52.01	53.92	55.33
EOM	52.61	51.80	51.25	50.91	49.95	49.53	49.00	49.19	50.28	52.20	54.13	55.57

WTR YR 1999 HIGH 48.77 MAY 6

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	53.30	52.58	51.74	51.20	50.82	50.05	49.53	48.91	49.36	50.72	52.88	54.27
10	53.15	52.38	51.73	51.11	50.63	49.90	49.37	48.90	49.53	51.01	53.33	54.54
15	52.94	52.24	51.63	51.01	50.54	49.80	49.27	48.99	49.81	51.46	53.75	54.89
20	52.75	52.13	51.50	50.95	50.40	49.81	49.15	49.13	49.97	51.86	53.90	55.14
25	52.74	52.05	51.46	51.05	50.28	49.73	49.13	49.12	50.07	52.09	54.06	55.39
EOM	52.66	51.87	51.30	50.98	50.01	49.65	49.04	49.25	50.35	52.35	54.15	55.61

WTR YR 1999 LOW 55.63 SEP 27



CASS COUNTY

403407086175701. Local number, CS 3.
LOCATION.--Lat 40°34'07", long 86°17'57", in NE$^1/_4$NE$^1/_4$SE$^1/_4$ 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 78 ft, 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, 10.68 ft below land-surface datum, Jan. 30, 1996.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

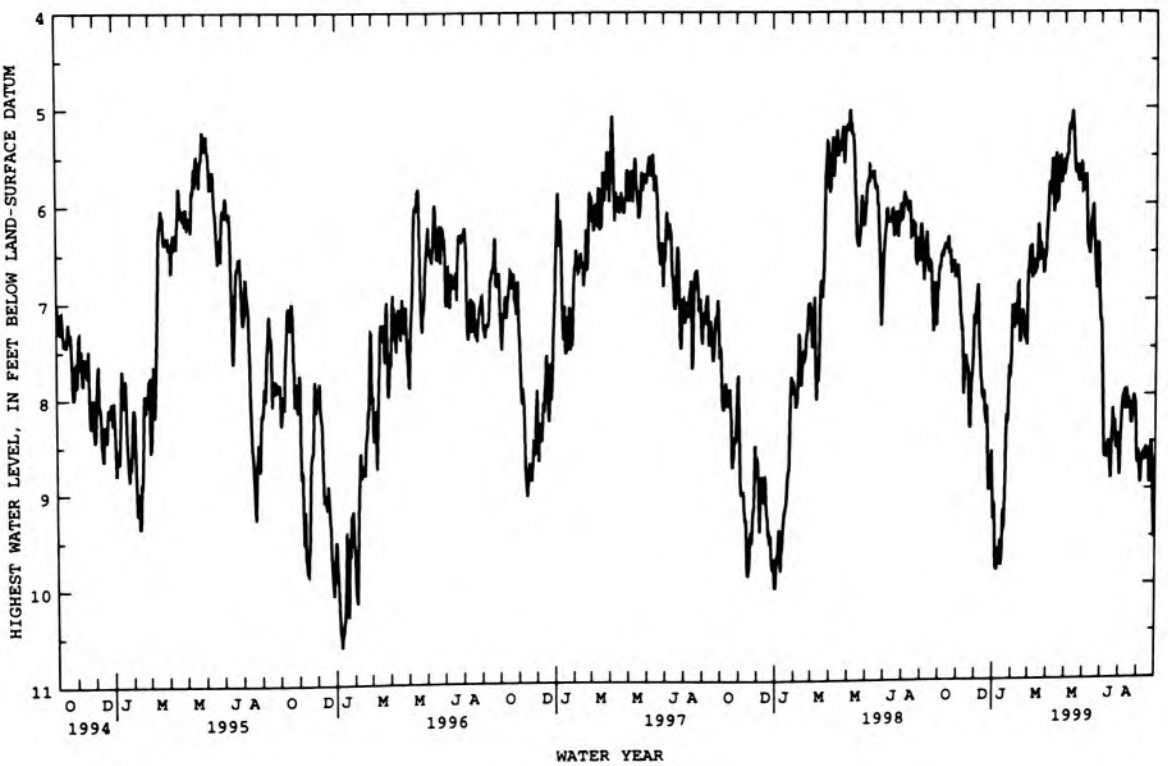
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.61	6.87	6.91	9.83	7.29	6.48	5.89	5.49	5.69	8.36	8.16	8.94
10	6.49	7.27	7.63	9.67	7.10	6.70	5.81	5.17	6.48	8.67	7.94	8.62
15	6.43	7.70	8.02	9.76	7.43	6.62	5.52	5.26	6.15	8.65	8.09	8.55
20	6.50	7.73	8.29	9.11	7.16	6.46	5.77	5.68	6.51	8.34	8.28	8.94
25	6.68	7.90	8.99	8.26	7.35	6.57	5.78	5.65	6.40	8.35	8.03	8.65
EOM	6.68	7.15	9.09	7.58	6.69	6.29	5.69	5.85	7.22	8.72	8.73	9.22

WTR YR 1999 HIGH 5.03 MAY 13

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.78	7.06	7.06	9.90	7.48	6.72	6.04	5.72	6.03	8.72	8.35	9.05
10	6.54	7.47	7.81	9.90	7.26	6.81	5.93	5.26	6.63	8.86	8.09	8.75
15	6.55	7.80	8.10	9.96	7.55	6.76	5.79	5.48	6.32	8.85	8.15	8.67
20	6.59	8.02	8.40	9.44	7.26	6.66	5.95	5.76	6.71	8.56	8.43	9.13
25	6.74	8.13	9.08	8.42	7.52	6.78	5.86	5.77	6.55	8.63	8.15	8.79
EOM	6.78	7.38	9.37	7.72	6.90	6.48	5.82	6.01	7.38	8.96	8.84	9.52

WTR YR 1999 LOW 9.96 JAN 14



CLAY COUNTY

392653087120501. Local number, CY 6.
LOCATION.--Lat 39026'53", long 87012'05", in SE$^1/_4$SE$^1/_4$SE$^1/_4$ 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.

REMARKS.--Well affected by pumpage.

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

REVISED RECORDS.--WDR IN94-1: 1993.

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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

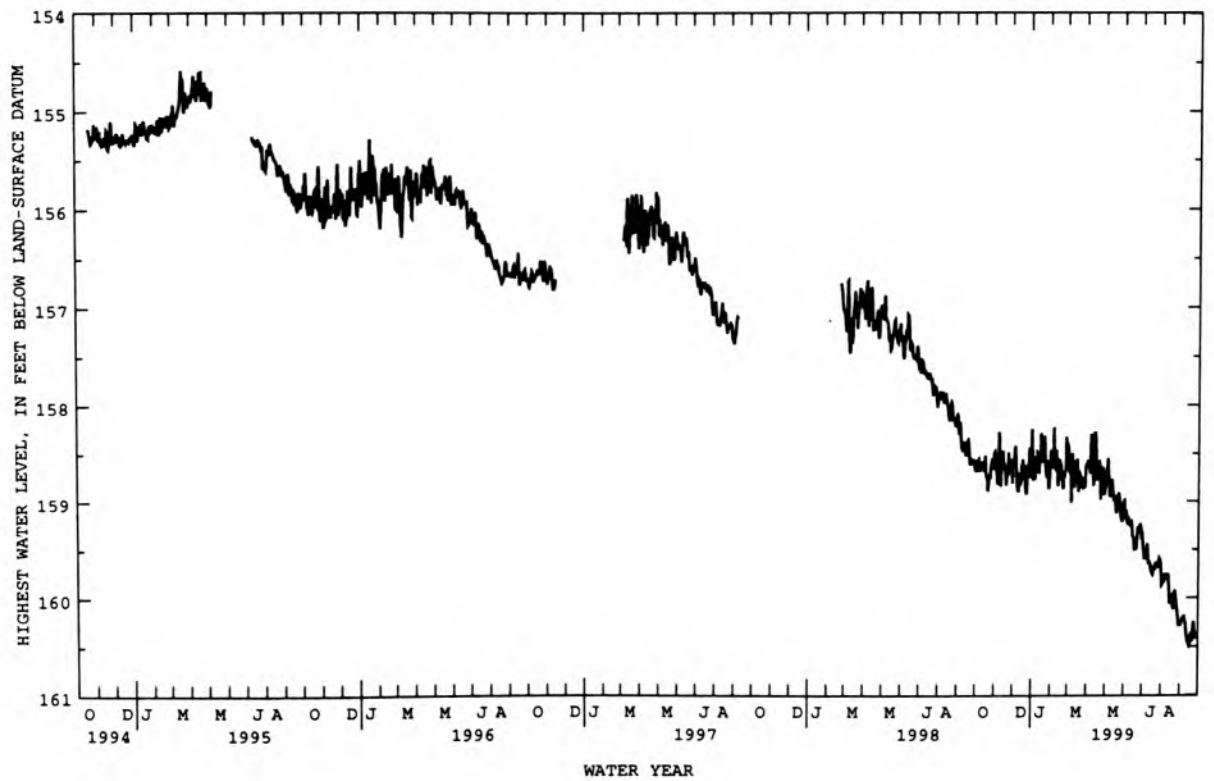
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	158.63	158.65	158.51	158.68	158.65	158.56	158.61	158.63	159.10	159.59	159.81	160.21
10	158.66	158.28	158.89	158.69	158.68	158.69	158.57	158.94	159.21	159.49	159.75	160.25
15	158.66	158.62	158.78	158.55	158.60	158.70	158.28	158.96	159.36	159.71	160.05	160.46
20	158.75	158.70	158.77	158.56	158.73	158.69	158.66	159.12	159.48	159.68	160.05	160.37
25	158.74	158.49	158.77	158.72	158.69	158.85	158.85	158.99	159.32	159.67	159.97	160.33
EOM	158.66	158.57	158.69	158.74	158.39	158.62	158.93	159.07	159.39	159.63	160.27	160.41

WTR YR 1999 HIGH 158.23 FEB 7

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	158.82	158.85	158.74	159.01	159.00	158.81	158.81	158.76	159.26	159.70	159.94	160.36
10	158.80	158.57	159.00	158.86	158.82	158.88	158.71	159.06	159.41	159.77	159.93	160.41
15	158.81	158.77	159.00	158.87	158.91	158.86	158.69	159.20	159.54	159.87	160.15	160.54
20	158.88	158.90	158.98	158.74	158.89	158.98	158.86	159.20	159.56	159.74	160.20	160.51
25	158.88	158.77	159.01	159.04	158.93	159.00	159.06	159.12	159.49	159.85	160.17	160.48
EOM	158.83	158.91	158.98	159.02	158.64	158.91	159.15	159.25	159.57	159.77	160.40	160.58

WTR YR 1999 LOW 160.64 SEP 17



CLAY COUNTY

391124087134701. Local number, CY 7.
LOCATION.--Lat 39°11'24", long 87°13'47", in SW$^{1}/_{4}$NW$^{1}/_{4}$SE$^{1}/_{4}$ 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 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

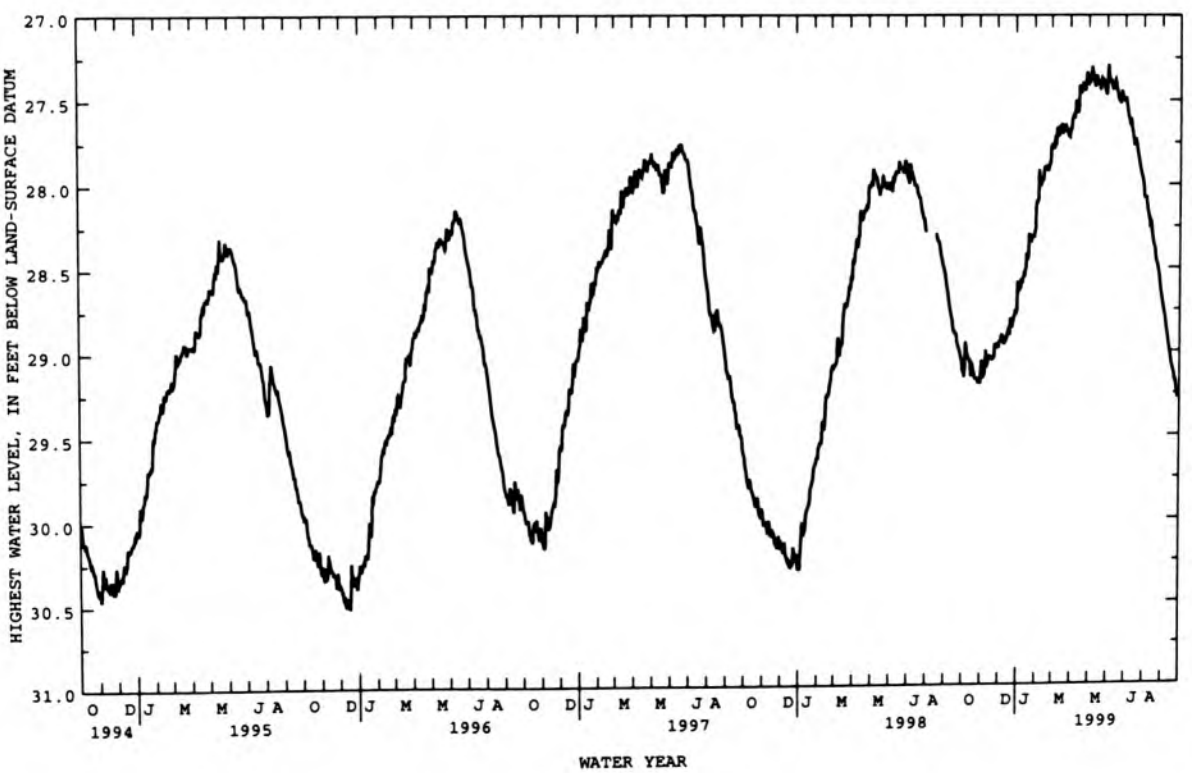
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.15	29.10	28.93	28.63	28.10	27.75	27.61	27.33	27.38	27.58	28.07	28.77
10	29.01	28.99	28.95	28.59	28.01	27.68	27.54	27.40	27.44	27.61	28.20	28.90
15	29.05	29.04	28.92	28.51	27.93	27.67	27.42	27.40	27.40	27.74	28.28	29.02
20	29.11	29.03	28.90	28.43	27.90	27.67	27.43	27.44	27.50	27.76	28.38	29.11
25	29.16	28.96	28.83	28.34	27.87	27.68	27.44	27.38	27.45	27.88	28.49	29.20
EOM	29.18	28.95	28.77	28.28	27.77	27.68	27.39	27.45	27.51	27.99	28.66	29.27

WTR YR 1999 HIGH 27.29 JUN 2

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.15	29.12	28.95	28.67	28.14	27.79	27.63	27.37	27.38	27.60	28.11	28.79
10	29.02	29.07	28.96	28.61	28.03	27.71	27.54	27.42	27.46	27.64	28.20	28.92
15	29.14	29.05	28.94	28.56	27.97	27.68	27.54	27.42	27.44	27.77	28.31	29.04
20	29.13	29.05	28.92	28.45	27.90	27.70	27.45	27.45	27.50	27.79	28.43	29.13
25	29.17	29.04	28.86	28.36	27.89	27.70	27.46	27.39	27.47	27.91	28.51	29.23
EOM	29.20	28.98	28.80	28.31	27.79	27.71	27.41	27.48	27.54	28.02	28.68	29.28

WTR YR 1999 LOW 29.29 SEP 28



DECATUR COUNTY

392022085371801. Local number, DC 2.
LOCATION.--Lat 39°20'22", long 85°37'18", in SE$^1/_4$NE$^1/_4$SW$^1/_4$ 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

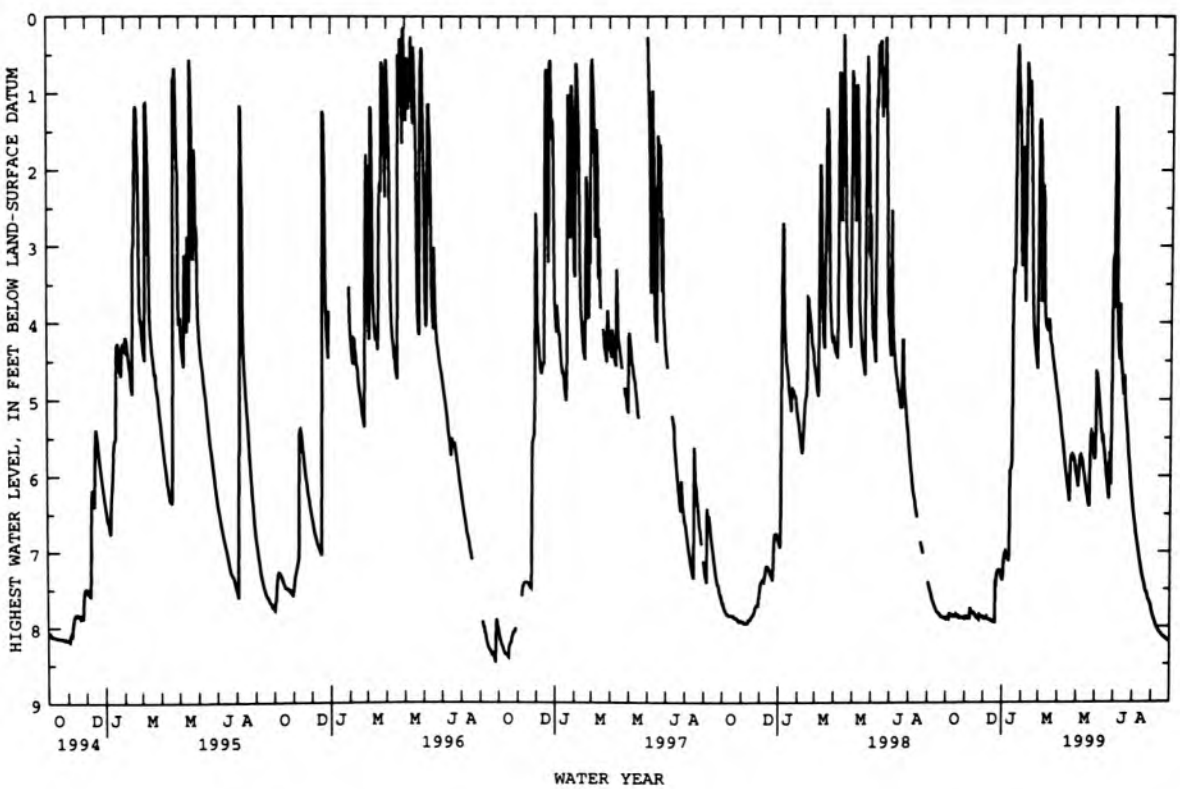
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.88	7.87	7.89	7.02	3.26	3.73	5.30	5.93	4.84	3.45	6.69	7.90
10	7.84	7.74	7.90	7.09	1.12	3.84	5.66	5.77	5.36	3.75	6.96	8.01
15	7.86	7.81	7.92	5.90	1.81	4.11	6.01	6.06	5.66	4.82	7.24	8.08
20	7.84	7.86	7.94	3.22	4.06	4.27	6.33	6.33	6.08	5.17	7.42	8.13
25	7.88	7.84	7.25	.89	4.50	4.60	5.72	5.42	6.00	5.72	7.57	8.16
EOM	7.88	7.86	7.34	3.26	1.34	4.94	5.94	5.78	3.81	6.32	7.71	8.19

WTR YR 1999 HIGH .36 JAN 23

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.90	7.89	7.90	7.06	3.73	3.91	5.36	6.24	4.96	3.97	6.75	7.93
10	7.85	7.90	7.92	7.13	1.41	4.00	5.72	5.83	5.45	4.59	7.02	8.02
15	7.88	7.83	7.93	5.92	2.36	4.29	6.08	6.12	5.74	4.93	7.28	8.09
20	7.86	7.89	7.96	3.77	4.20	4.30	6.38	6.38	6.16	5.27	7.47	8.15
25	7.88	7.92	7.26	1.12	4.60	4.65	5.74	5.46	6.11	5.83	7.61	8.18
EOM	7.90	7.90	7.38	3.90	1.40	4.99	5.98	5.82	4.22	6.40	7.78	8.20

WTR YR 1999 LOW 8.21 SEP 29



DELAWARE COUNTY

400541085213701. Local number, DW 4.
LOCATION.--Lat 40°05'36", long 85°21'38", in NW¼SE¼SW¼ sec.14, 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

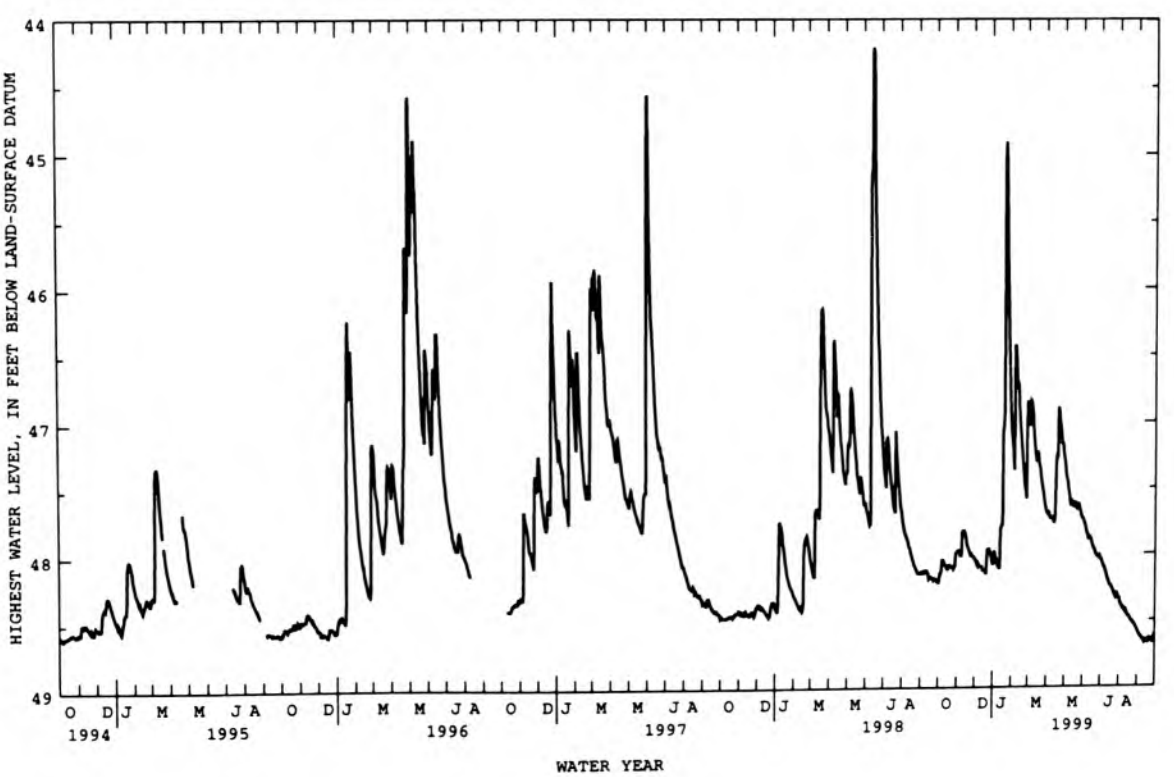
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.13	47.98	48.08	48.03	47.31	47.03	47.70	47.42	47.78	48.09	48.39	48.62
10	48.05	47.83	48.09	48.10	46.62	47.03	47.72	47.59	47.88	48.15	48.43	48.65
15	48.10	47.83	48.12	47.78	46.95	47.30	47.72	47.62	47.90	48.22	48.46	48.67
20	48.08	47.95	48.15	46.94	47.29	47.33	47.27	47.62	47.96	48.26	48.49	48.66
25	48.10	48.01	47.96	45.53	47.52	47.50	47.04	47.62	48.02	48.32	48.52	48.66
EOM	47.99	48.02	48.07	46.94	46.85	47.67	47.23	47.73	48.04	48.33	48.57	48.61

WTR YR 1999 HIGH 44.91 JAN 23

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.16	47.98	48.09	48.04	47.36	47.09	47.72	47.46	47.82	48.16	48.40	48.62
10	48.07	48.01	48.10	48.13	46.75	47.12	47.75	47.63	47.90	48.16	48.43	48.66
15	48.12	47.86	48.13	47.80	47.03	47.34	47.78	47.63	47.92	48.24	48.48	48.68
20	48.09	47.96	48.15	47.07	47.35	47.34	47.29	47.67	47.98	48.27	48.50	48.66
25	48.15	48.03	47.97	45.90	47.58	47.52	47.10	47.63	48.02	48.33	48.58	48.68
EOM	48.01	48.04	48.08	47.05	47.02	47.68	47.27	47.73	48.06	48.34	48.58	48.63

WTR YR 1999 LOW 48.71 SEP 11



ELKHART COUNTY

413121085481301. Local number, EH 4.
LOCATION.--Lat 41°31'21", long 85°48'13", in $SW^1/_4SE^1/_4SW^1/_4$ 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

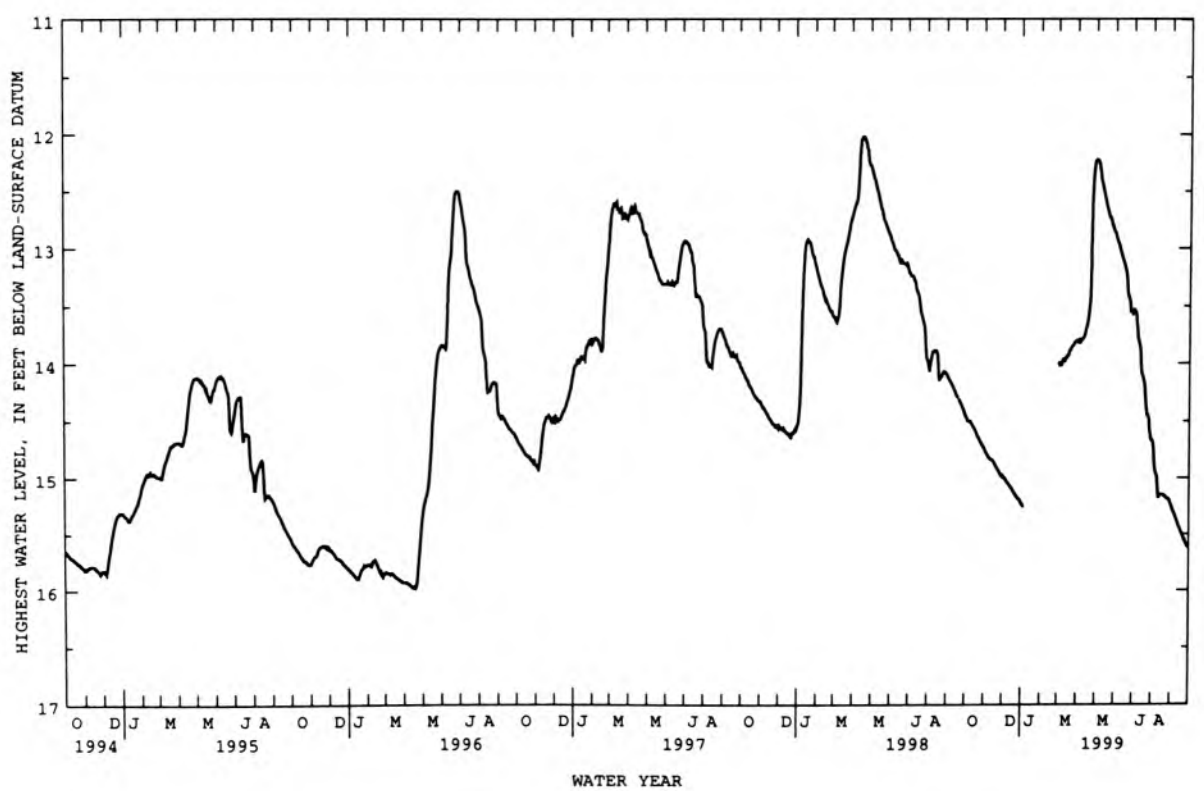
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.48	14.78	15.00	---	---	14.00	13.79	12.24	12.93	13.55	14.89	15.29
10	14.50	14.82	15.05	---	---	13.98	13.79	12.42	13.02	13.79	15.06	15.36
15	14.55	14.84	15.08	---	---	13.95	13.71	12.55	13.12	14.09	15.15	15.44
20	14.60	14.89	15.13	---	---	13.89	13.57	12.67	13.22	14.18	15.15	15.50
25	14.66	14.94	15.17	---	---	13.85	12.58	12.74	13.44	14.45	15.18	15.57
EOM	14.72	14.98	15.22	---	---	13.80	12.23	12.85	13.56	14.66	15.22	15.61

WTR YR 1999 HIGH 12.22 MAY 1

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.50	14.79	15.01	---	---	14.02	13.81	12.27	12.95	13.56	14.95	15.31
10	14.51	14.83	15.05	---	---	13.98	13.82	12.45	13.04	13.82	15.14	15.38
15	14.56	14.65	15.09	---	---	13.96	13.74	12.57	13.13	14.12	15.15	15.45
20	14.62	14.90	15.14	---	---	13.92	13.61	12.69	13.29	14.26	15.16	15.52
25	14.68	14.95	15.18	---	---	13.85	12.88	12.76	13.47	14.46	15.18	15.58
EOM	14.73	14.99	15.23	---	---	13.81	12.25	12.86	13.57	14.67	15.23	15.62

WTR YR 1999 LOW 15.62 SEP 28



414419085544601. Local number, EH 5.
LOCATION.--Lat 41°44'19", long 85°54'46", in NW¼NE¼NE¼ sec.23, T.38 N., R.5 E., Elkhart County, Hydrologic Unit 04050001, on the inlet to Heaton Lake, and 3.5 mi east of Elkhart.
Owner: State of Indiana.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 1.5 in., depth 13 ft, cased to 11 ft, screened to 13 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 770 ft above 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 September 1999 (discontinued).

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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

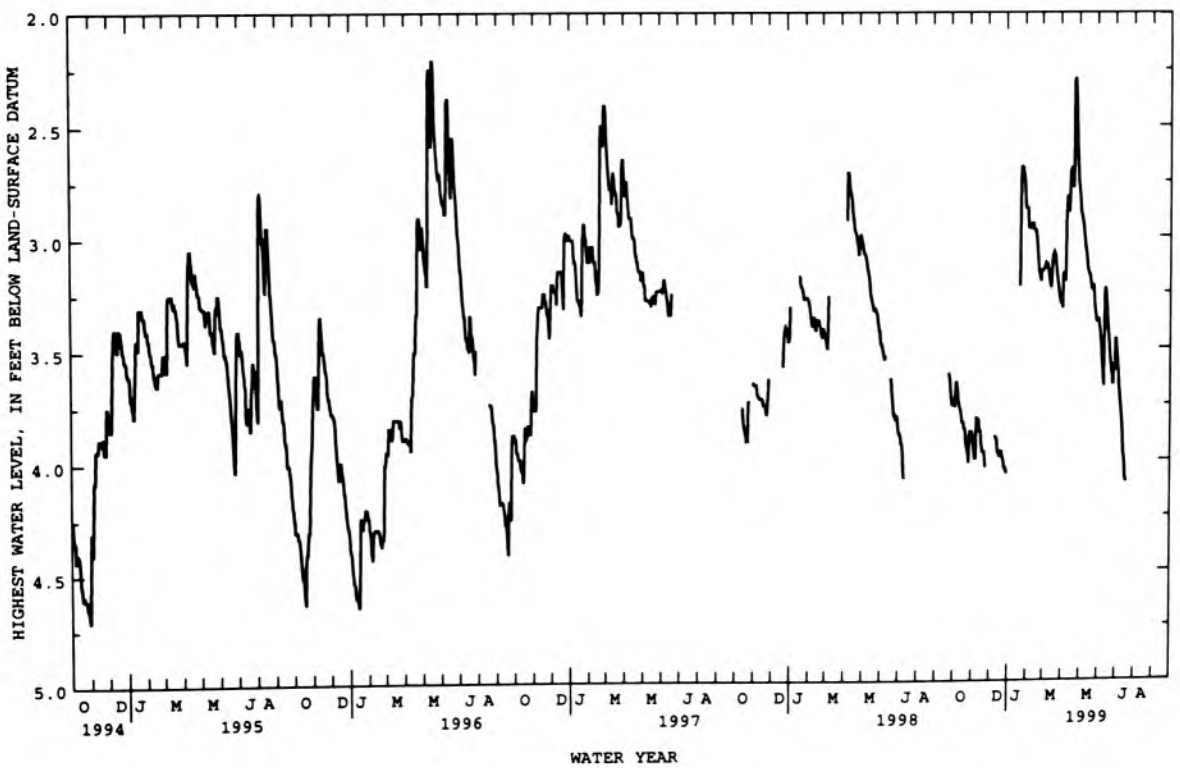
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.76	3.94	---	---	2.95	3.13	3.16	2.90	3.42	3.58	---	---
10	3.68	3.81	---	---	2.96	3.14	2.87	3.01	3.62	3.76	---	---
15	3.78	3.87	3.96	---	2.97	3.23	2.82	3.14	3.25	3.98	---	---
20	3.85	3.96	3.98	---	3.05	3.07	2.75	3.20	3.46	---	---	---
25	3.94	4.03	4.00	2.68	3.18	3.18	2.30	3.22	3.61	---	---	---
EOM	3.87	---	---	2.84	3.15	3.30	2.74	3.38	3.60	---	---	---

WTR YR 1999 HIGH 2.29 APR 24

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.77	3.96	---	---	2.97	3.16	3.18	2.93	3.47	3.62	---	---
10	3.73	3.99	---	---	2.97	3.17	2.95	3.05	3.67	3.80	---	---
15	3.81	3.87	3.97	---	2.98	3.25	2.91	3.16	3.29	4.01	---	---
20	3.86	3.96	3.98	---	3.10	3.09	2.80	3.22	3.52	---	---	---
25	3.96	4.03	4.03	2.70	3.20	3.20	2.38	3.26	3.66	---	---	---
EOM	3.87	---	---	2.87	3.15	3.31	2.79	3.40	3.64	---	---	---

WTR YR 1999 LOW 4.11 JUL 19



ELKHART COUNTY

414351085540401. Local number, EH 6.
LOCATION.--Lat 41°43'51", long 85°54'04", in NW¼NE¼SW¼ sec.24, T.38 N., R.5 E., Elkhart County, Hydrologic Unit 04050001, on the southeast shore of Heaton Lake, and 4.0 mi east of Elkhart.
Owner: State of Indiana.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 1.5 in., depth 22 ft, cased to 20 ft, screened to 22 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 770 ft above 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 September 1999 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.10 ft below land-surface datum, June 16-19, 1981; lowest, 10.82 ft below land-surface datum, Sept. 26, 27, 28, 30, 1999.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

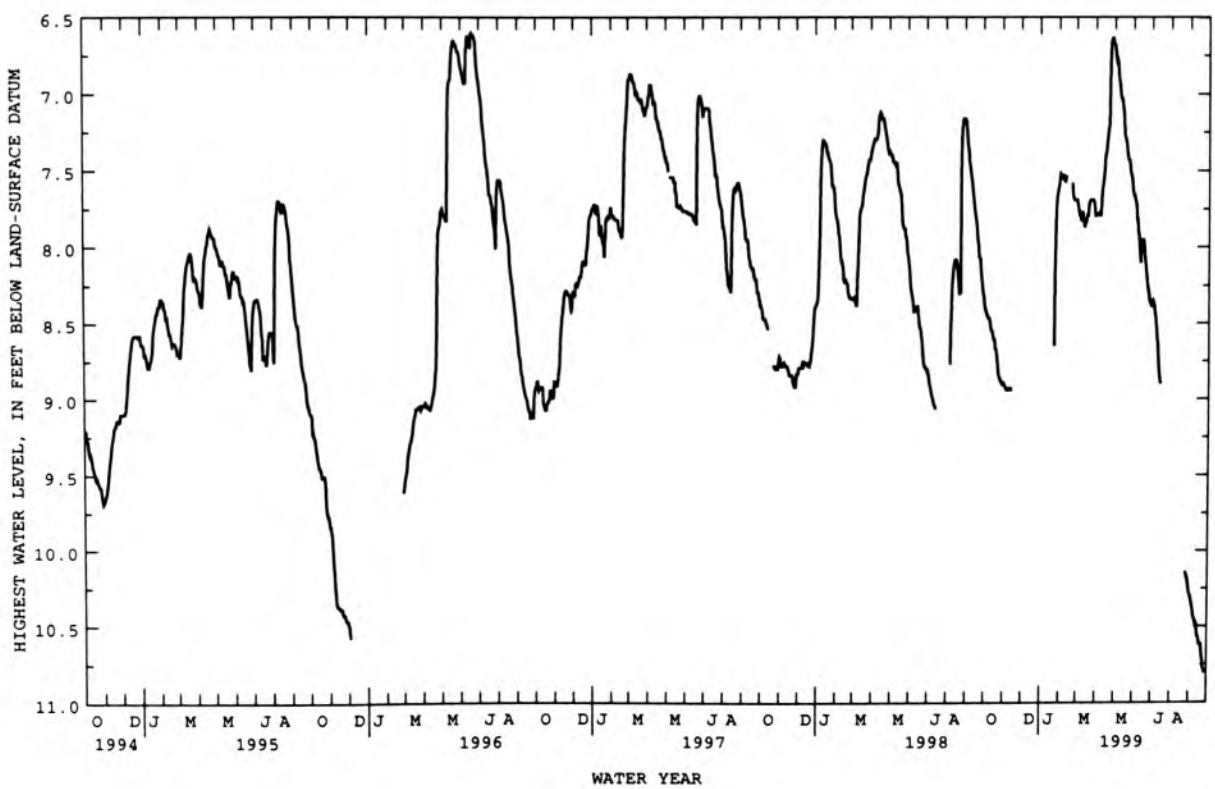
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.44	8.93	---	---	7.55	7.79	7.79	6.78	7.71	8.42	---	10.34
10	8.47	8.93	---	---	7.57	7.77	7.65	7.00	7.99	8.64	---	10.45
15	8.57	8.93	---	---	---	7.84	7.43	7.11	7.95	8.90	---	10.56
20	8.67	---	---	---	---	7.72	7.26	7.32	8.11	---	---	10.62
25	8.85	---	---	7.95	7.69	7.69	6.66	7.44	8.28	---	---	10.77
EOM	8.89	---	---	7.58	7.69	7.80	6.67	7.65	8.39	---	10.25	10.79

WTR YR 1999 HIGH 6.63 APR 27

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.45	8.94	---	---	7.58	7.81	7.83	6.82	7.85	8.45	---	10.40
10	8.51	8.94	---	---	7.61	7.83	7.73	7.05	8.05	8.74	---	10.48
15	8.61	8.95	---	---	---	7.87	7.51	7.22	7.97	8.95	---	10.59
20	8.70	---	---	---	---	7.79	7.30	7.39	8.16	---	---	10.64
25	8.87	---	---	8.20	7.71	7.69	6.74	7.50	8.36	---	---	10.80
EOM	8.90	---	---	7.61	7.69	7.83	6.71	7.67	8.43	---	10.29	10.82

WTR YR 1999 LOW 10.82 SEP 26



414514085505001. Local number, EH 7.
LOCATION.--Lat 41°45'14", long 85°50'50", in SW$^{1}/_{4}$SE$^{1}/_{4}$SW$^{1}/_{4}$ 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 artesian 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

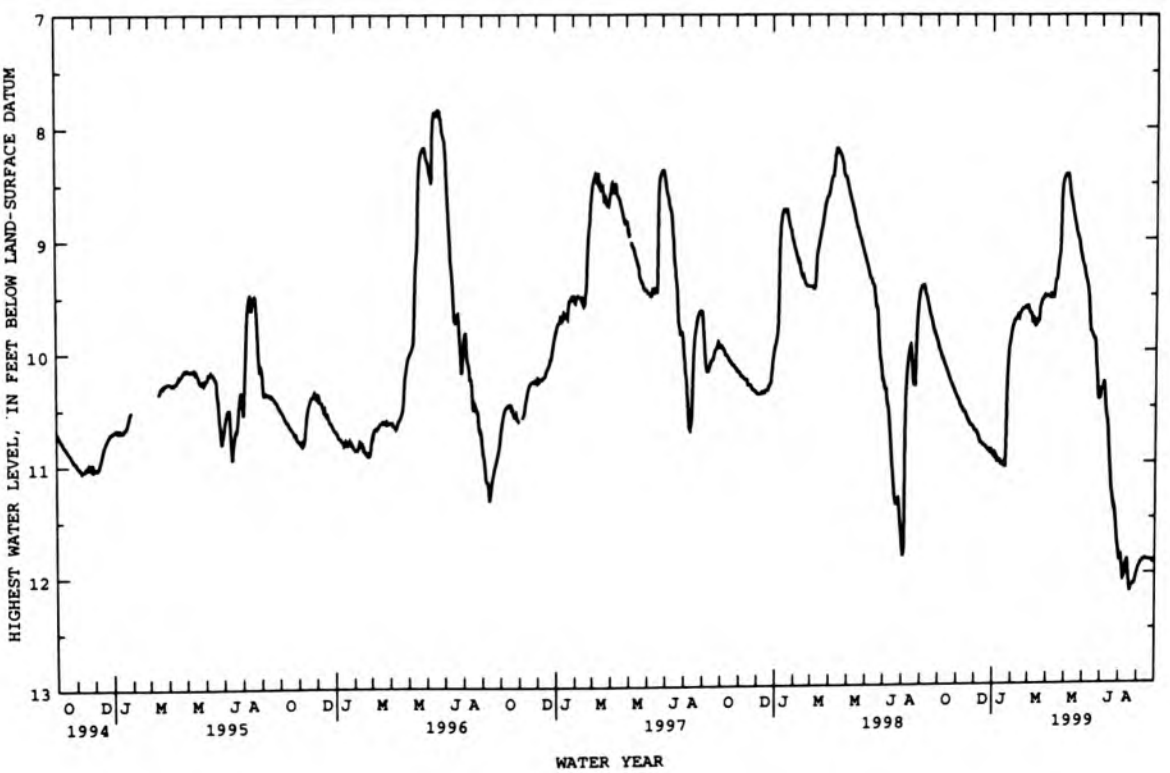
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.00	10.44	10.72	10.95	9.73	9.66	9.51	8.41	9.34	10.30	11.87	11.93
10	10.08	10.50	10.81	10.97	9.70	9.73	9.51	8.62	9.51	10.57	12.02	11.89
15	10.15	10.54	10.83	11.01	9.66	9.75	9.38	8.78	9.84	10.90	11.87	11.87
20	10.23	10.61	10.86	11.03	9.62	9.61	9.20	8.93	9.89	11.27	12.17	11.88
25	10.30	10.66	10.89	10.20	9.60	9.53	8.63	9.04	10.30	11.45	12.10	11.89
EOM	10.38	10.70	10.92	9.85	9.59	9.50	8.43	9.22	10.40	11.81	12.01	11.90

WTR YR 1999 HIGH 8.41 MAY 3

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.02	10.46	10.74	10.96	9.78	9.67	9.55	8.44	9.37	10.33	11.94	11.94
10	10.10	10.53	10.81	10.99	9.72	9.76	9.55	8.65	9.64	10.60	12.04	11.90
15	10.17	10.56	10.84	11.01	9.67	9.77	9.43	8.81	9.85	10.99	11.89	11.88
20	10.25	10.62	10.87	11.03	9.62	9.69	9.25	8.95	9.91	11.34	12.19	11.88
25	10.32	10.66	10.89	10.39	9.62	9.54	8.83	9.08	10.41	11.52	12.11	11.91
EOM	10.40	10.70	10.93	9.89	9.61	9.51	8.45	9.23	10.42	11.87	12.03	11.90

WTR YR 1999 LOW 12.19 AUG 20



ELKHART COUNTY

414419085595801. Local number, EH 9.
LOCATION.--Lat 41°44'19", long 85°59'58", in NE¼NW¼NW¼ 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, 22.53 ft below land-surface datum, Sept. 28, 1999.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

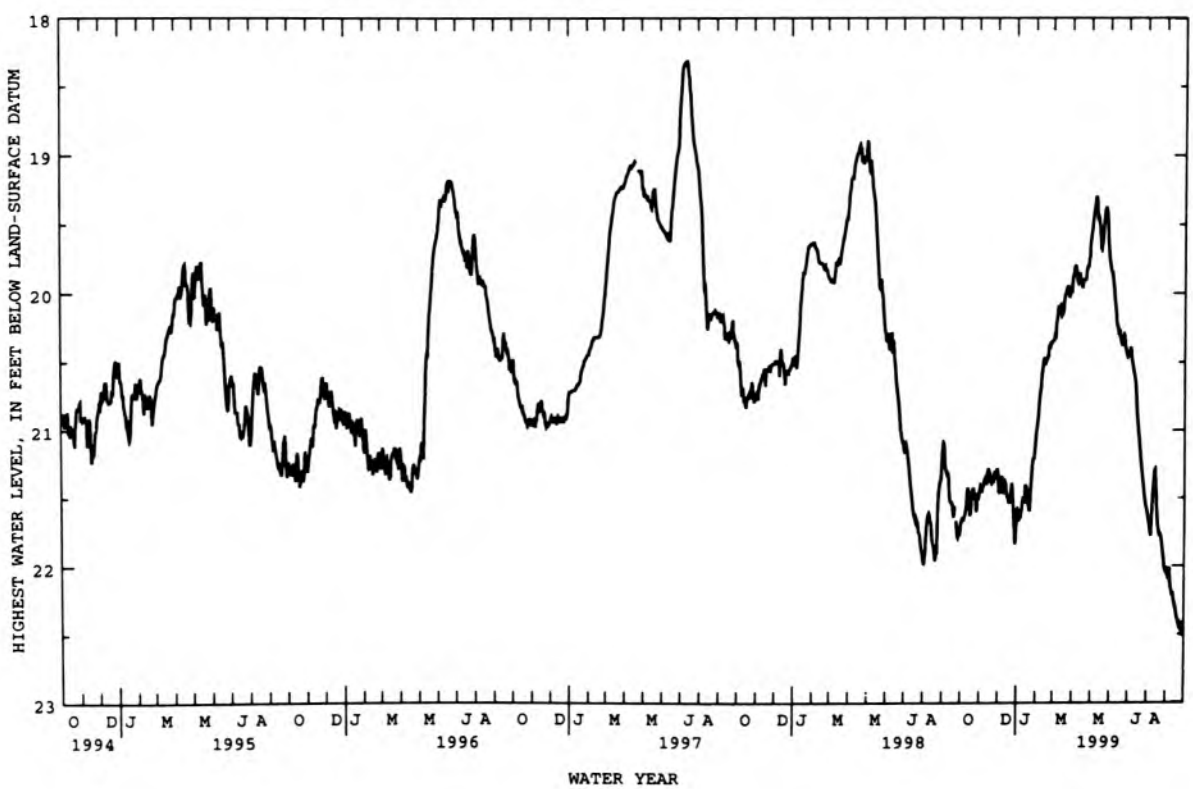
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.65	21.43	21.44	21.62	20.89	20.33	19.80	19.43	19.85	20.39	21.72	22.10
10	21.59	21.36	21.47	21.53	20.64	20.09	19.92	19.30	20.08	20.57	21.47	22.18
15	21.51	21.30	21.45	21.41	20.49	20.16	19.92	19.51	20.30	20.82	21.41	22.27
20	21.46	21.38	21.52	21.56	20.46	20.01	19.90	19.62	20.36	21.12	21.75	22.39
25	21.50	21.37	21.43	21.34	20.38	19.95	19.81	19.38	20.31	21.37	21.82	22.43
EOM	21.51	21.29	21.70	21.11	20.35	19.99	19.63	19.74	20.46	21.58	22.04	22.41

WTR YR 1999 HIGH 19.30 MAY 9

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.68	21.44	21.47	21.68	20.93	20.40	19.88	19.50	19.91	20.43	21.76	22.12
10	21.63	21.39	21.52	21.59	20.70	20.19	20.03	19.39	20.15	20.58	21.58	22.22
15	21.59	21.37	21.49	21.49	20.57	20.19	19.99	19.58	20.33	20.90	21.48	22.30
20	21.56	21.41	21.58	21.63	20.53	20.06	19.98	19.66	20.38	21.17	21.78	22.42
25	21.53	21.42	21.58	21.41	20.45	19.99	19.88	19.41	20.38	21.41	21.87	22.48
EOM	21.55	21.33	21.80	21.16	20.41	20.03	19.77	19.78	20.47	21.61	22.07	22.44

WTR YR 1999 LOW 22.53 SEP 28



401200087121701. Local number, FO 3.
LOCATION.--Lat 40°12'00", long 87°12'17", in $NW^{1}/_{4}NW^{1}/_{4}NW^{1}/_{4}$ 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 artesian 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

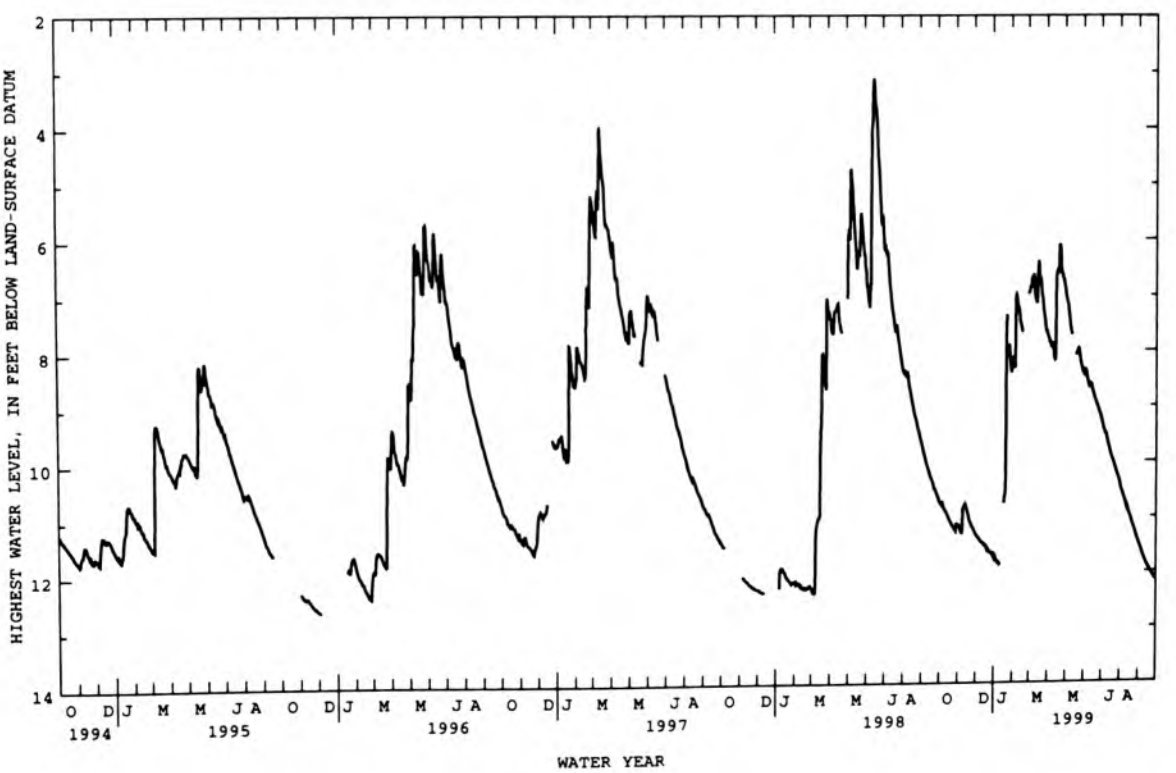
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.77	11.20	11.36	11.79	8.29	6.84	7.84	7.12	8.36	9.44	10.56	11.58
10	10.84	10.85	11.44	11.85	7.18	6.83	7.96	7.60	8.65	9.58	10.74	11.74
15	10.94	10.80	11.50	---	7.48	7.13	7.68	---	8.70	9.81	10.90	11.87
20	11.07	11.00	11.58	10.54	---	6.68	6.60	8.08	8.88	9.98	11.06	11.97
25	11.17	11.15	11.63	---	---	7.20	6.60	8.06	9.04	10.16	11.23	12.07
EOM	11.11	11.26	11.71	8.39	6.97	7.65	6.80	8.39	9.23	10.36	11.43	12.15

WTR YR 1999 HIGH 6.10 APR 21

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.79	11.22	11.37	11.81	8.39	6.93	7.94	7.21	8.46	9.46	10.60	11.62
10	10.86	11.25	11.45	11.87	7.23	6.98	8.05	7.66	8.70	9.65	10.78	11.76
15	10.97	10.84	11.51	---	7.53	7.22	8.14	---	8.73	9.86	10.93	11.89
20	11.09	11.05	11.58	10.62	---	6.74	6.68	8.11	8.91	10.01	11.10	12.00
25	11.18	11.17	11.64	---	---	7.31	6.64	8.14	9.08	10.20	11.26	12.09
EOM	11.11	11.31	11.74	8.45	7.08	7.67	6.88	8.42	9.25	10.41	11.47	12.16

WTR YR 1999 LOW 12.16 SEP 30



392416085004301. Local number, FR 5.
LOCATION.--Lat 39°24'16", long 85°00'43", in SE¼NE¼NW¼ sec.32, T.9 N., R.2 W., Franklin County, Hydrologic Unit 05080003, adjacent to property of Franklin County Conservation Club, 1.0 mi south of Brookville.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 61 ft, cased to 57 ft, screened to 59 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 621.79 ft above 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

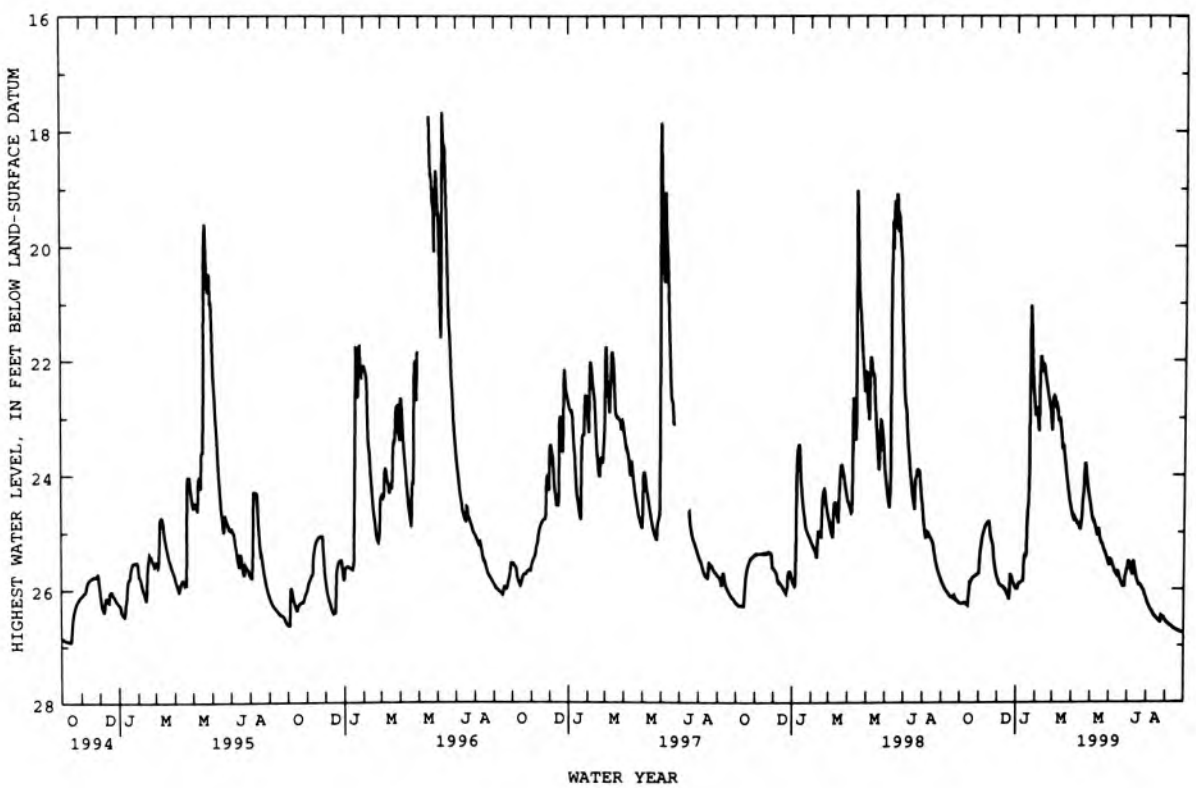
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	26.25	25.17	25.91	25.90	23.16	22.80	24.71	24.79	25.50	25.57	26.30	26.61
10	26.24	24.92	25.95	25.85	22.15	23.06	24.83	24.94	25.69	25.51	26.39	26.65
15	26.15	24.82	26.02	25.42	22.18	23.34	24.94	24.96	25.68	25.77	26.48	26.70
20	25.83	25.07	26.18	24.50	22.56	23.69	24.30	25.19	25.86	25.92	26.54	26.73
25	25.77	25.43	25.80	21.72	22.91	24.19	24.04	25.34	25.94	25.99	26.47	26.76
EOM	25.72	25.76	25.98	22.96	22.76	24.61	24.44	25.55	25.66	26.15	26.54	26.77

WTR YR 1999 HIGH 21.03 JAN 23

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	26.25	25.25	25.92	25.91	23.23	23.02	24.76	24.85	25.56	25.62	26.32	26.61
10	26.25	24.96	25.96	25.86	22.23	23.18	24.85	24.99	25.72	25.79	26.42	26.66
15	26.29	24.83	26.06	25.42	22.27	23.55	24.99	25.06	25.71	25.82	26.49	26.70
20	25.85	25.12	26.21	24.64	22.63	23.80	24.36	25.22	25.90	25.94	26.55	26.74
25	25.77	25.53	25.85	22.07	23.13	24.28	24.14	25.37	25.95	26.00	26.58	26.76
EOM	25.73	25.80	26.00	23.08	23.22	24.66	24.51	25.58	25.73	26.19	26.56	26.77

WTR YR 1999 LOW 26.78 SEP 29



FULTON COUNTY

405829086175801. Local number, FU 7.
LOCATION.--Lat 40°58'29", long 86°17'58", in NW¼NW¼SW¼ sec.10, T.29 N., R.2 E., Fulton County, Hydrologic Unit 05120106, 2.5 mi northwest of Fulton.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 102 ft, cased to 96 ft, screened to 102 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 776.45 ft above 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

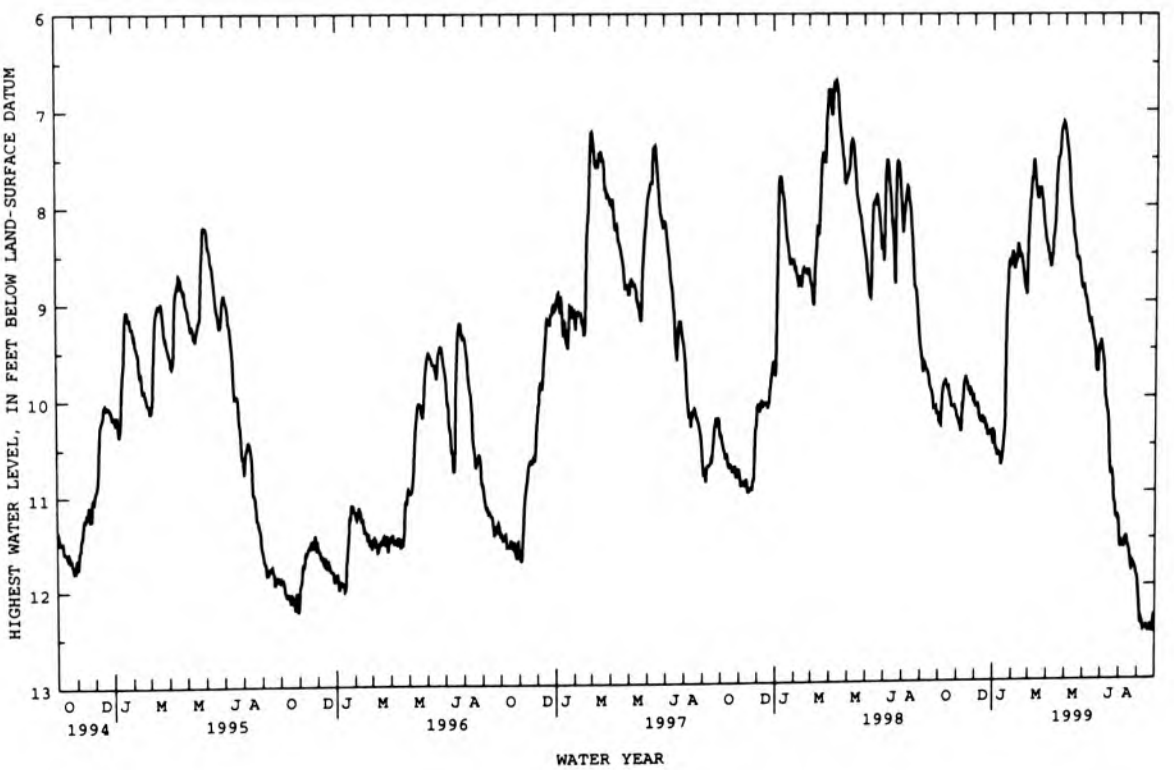
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.28	10.28	10.09	10.55	8.65	7.79	8.58	7.44	8.95	9.59	11.54	12.33
10	9.85	10.08	10.23	10.61	8.49	7.55	8.51	7.95	9.16	10.04	11.53	12.45
15	9.86	9.83	10.25	10.68	8.50	7.89	8.01	8.27	9.26	10.46	11.56	12.45
20	9.98	9.88	10.33	10.34	8.67	7.81	7.49	8.53	9.43	10.77	11.74	12.45
25	10.09	9.91	10.37	8.88	8.87	8.05	7.18	8.60	9.73	11.13	11.76	12.47
EOM	10.15	9.99	10.45	8.60	8.35	8.39	7.17	8.85	9.48	11.28	11.90	12.34

WTR YR 1999 HIGH 7.12 APR 28

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.29	10.29	10.11	10.59	8.70	7.91	8.61	7.51	8.99	9.63	11.60	12.42
10	9.88	10.29	10.24	10.65	8.56	7.66	8.57	8.02	9.20	10.11	11.58	12.48
15	9.89	9.85	10.28	10.73	8.54	7.96	8.18	8.32	9.30	10.65	11.59	12.46
20	10.00	9.92	10.35	10.43	8.74	7.87	7.53	8.56	9.48	10.80	11.81	12.49
25	10.09	9.99	10.40	9.01	8.94	8.14	7.22	8.66	9.75	11.26	11.78	12.54
EOM	10.20	10.07	10.49	8.63	8.59	8.41	7.22	8.87	9.49	11.41	11.93	12.36

WTR YR 1999 LOW 12.54 SEP 25



402322085481901. Local number, GT 8.
LOCATION.--Lat 40°23'22", long 85°48'19", in NW$^{1}/_{4}$SW$^{1}/_{4}$NW$^{1}/_{4}$ 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

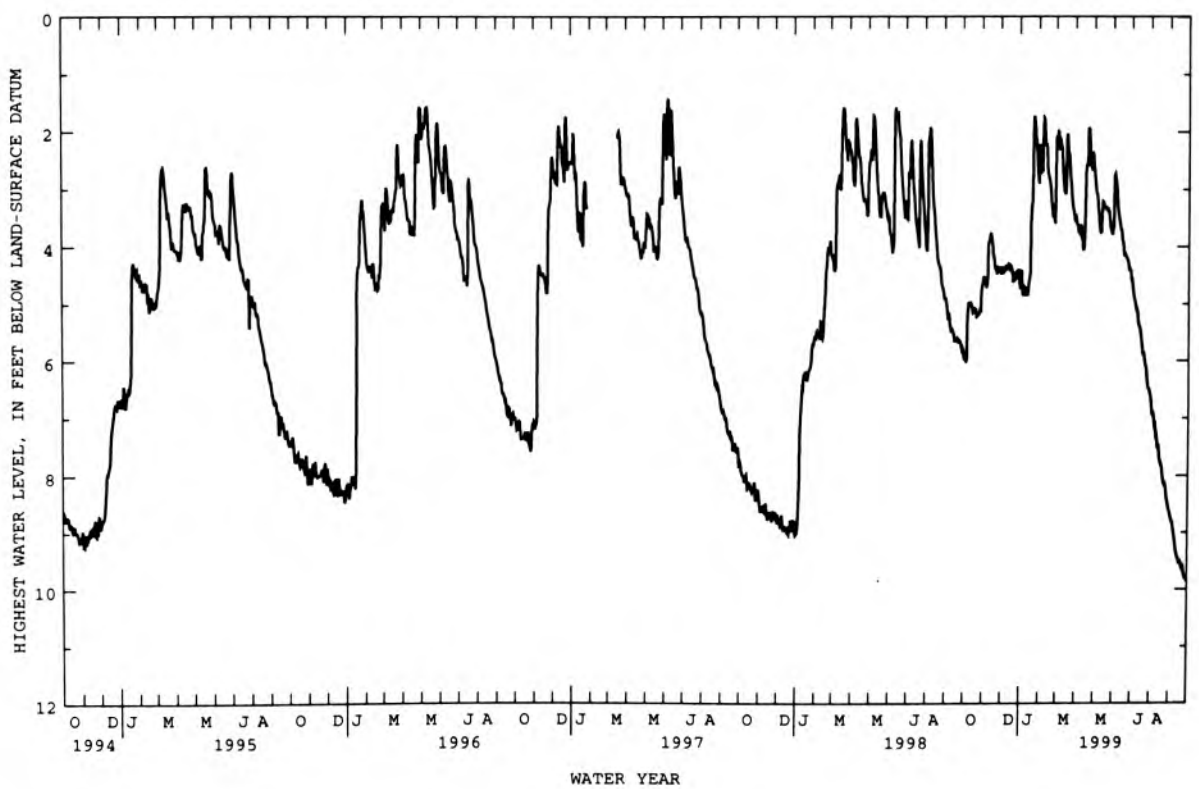
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.00	4.55	4.44	4.85	2.68	2.31	3.74	3.08	2.86	4.91	6.92	8.80
10	4.98	3.94	4.35	4.86	2.02	2.50	3.85	3.71	3.49	5.14	7.29	9.13
15	5.07	3.80	4.39	4.60	2.72	3.08	3.79	3.21	3.88	5.51	7.69	9.43
20	5.14	4.23	4.62	3.21	3.17	2.40	2.59	3.34	4.13	5.86	7.96	9.53
25	5.16	4.33	4.45	1.88	3.49	3.11	2.54	3.47	4.28	6.25	8.16	9.70
EOM	4.70	4.37	4.66	2.89	2.10	3.50	2.57	3.69	4.58	6.61	8.60	9.86

WTR YR 1999 HIGH 1.72 JAN 23

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.24	4.77	4.49	4.92	2.79	2.37	3.83	3.22	3.03	5.22	7.32	9.07
10	5.15	4.57	4.40	5.00	2.24	2.80	3.91	3.74	3.58	5.41	7.47	9.38
15	5.17	4.17	4.49	4.72	2.78	3.26	3.97	3.26	3.93	5.85	8.01	9.77
20	5.24	4.49	4.65	3.34	3.30	2.44	2.69	3.38	4.29	6.20	8.16	9.67
25	5.31	4.63	4.59	2.16	3.63	3.26	2.64	3.57	4.46	6.59	8.43	10.01
EOM	4.81	4.48	4.73	2.96	2.82	3.58	2.70	3.79	4.81	6.84	8.83	10.02

WTR YR 1999 LOW 10.03 SEP 28



GRANT COUNTY

403836085374401. Local number, GT 10.
LOCATION.--Lat 40°38'36", long 85°37'44", in NE$^{1}/_{4}$SE$^{1}/_{4}$SW$^{1}/_{4}$ 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, 3.20 ft above land-surface datum.

REMARKS.--Well affected by pumpage from water-supply well field.

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, 123.60 ft below land-surface datum, Mar. 7, 1999.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

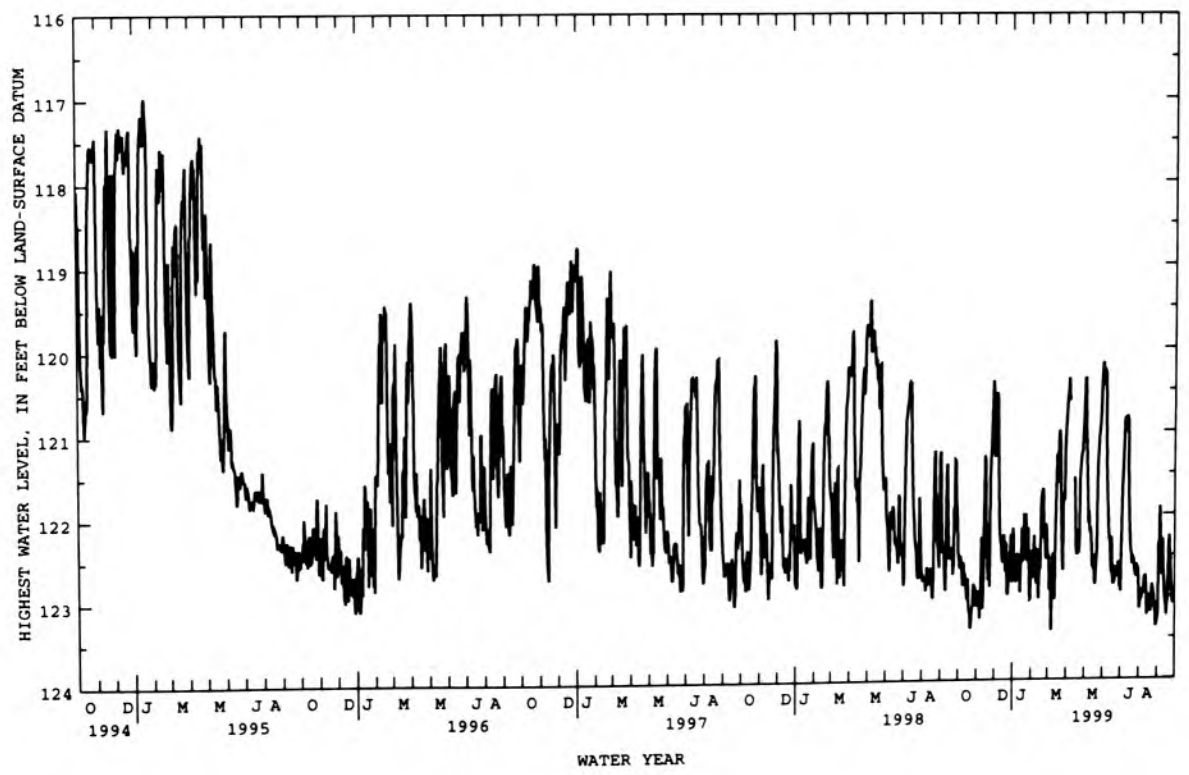
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	122.57	122.96	120.57	122.70	122.77	122.90	120.53	120.99	120.25	121.68	123.02	122.50
10	122.84	122.27	122.04	122.77	122.84	122.47	---	121.96	121.74	120.89	122.86	122.75
15	122.86	121.77	122.58	122.66	122.74	122.03	---	122.63	122.60	120.87	123.23	123.07
20	123.18	122.52	122.69	122.54	121.74	121.13	122.48	122.85	122.84	122.47	123.09	122.73
25	123.14	121.58	122.85	122.26	122.31	122.28	121.54	121.34	122.69	122.64	122.90	122.82
EOM	123.00	120.38	122.63	123.02	122.18	121.16	121.07	120.42	122.88	122.66	123.33	123.06

WTR YR 1999 HIGH 120.17 JUN 2

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	122.70	123.03	121.15	123.00	123.25	123.10	120.87	121.27	120.35	122.10	123.08	122.75
10	122.94	122.75	122.23	122.99	123.06	123.07	---	122.38	121.96	121.11	123.01	122.83
15	123.04	122.27	122.73	122.96	123.02	122.42	---	122.70	122.72	121.75	123.32	123.15
20	123.27	122.76	122.83	122.69	121.81	121.62	122.65	122.98	122.91	122.65	123.20	123.10
25	123.25	122.88	123.10	122.80	122.65	122.58	122.28	121.65	122.81	122.75	122.98	122.94
EOM	123.16	120.64	122.82	123.20	122.42	122.05	121.25	120.70	122.95	122.82	123.44	123.20

WTR YR 1999 LOW 123.60 MAR 7



HAMILTON COUNTY

400000086023001. Local number, HA 5.
LOCATION.--Lat 40°00'00", long 86°02'30", in NE¼NE¼NW¼ sec.23, T.18 N., R.4 E., Hamilton County, Hydrologic Unit 05120201, on south side of 146th Street, 1.0 mi west of White River, 1.2 mi west of Allisonville Road, and 3.5 mi southwest of Noblesville. Owner: Earlham College.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 86 ft, cased to 82 ft, screened to 86 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 757.69 ft above sea level. Measuring point: Top of floor of shelter, 2.76 ft above land-surface datum.

REMARKS.--Well affected by pumpage

PERIOD OF RECORD.--July 1965 to September 1971, July 1974 to September 1999 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.39 ft below land-surface datum, Dec. 31, 1991; lowest, 13.66 ft below land-surface datum, Jan. 4-6, 1998.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

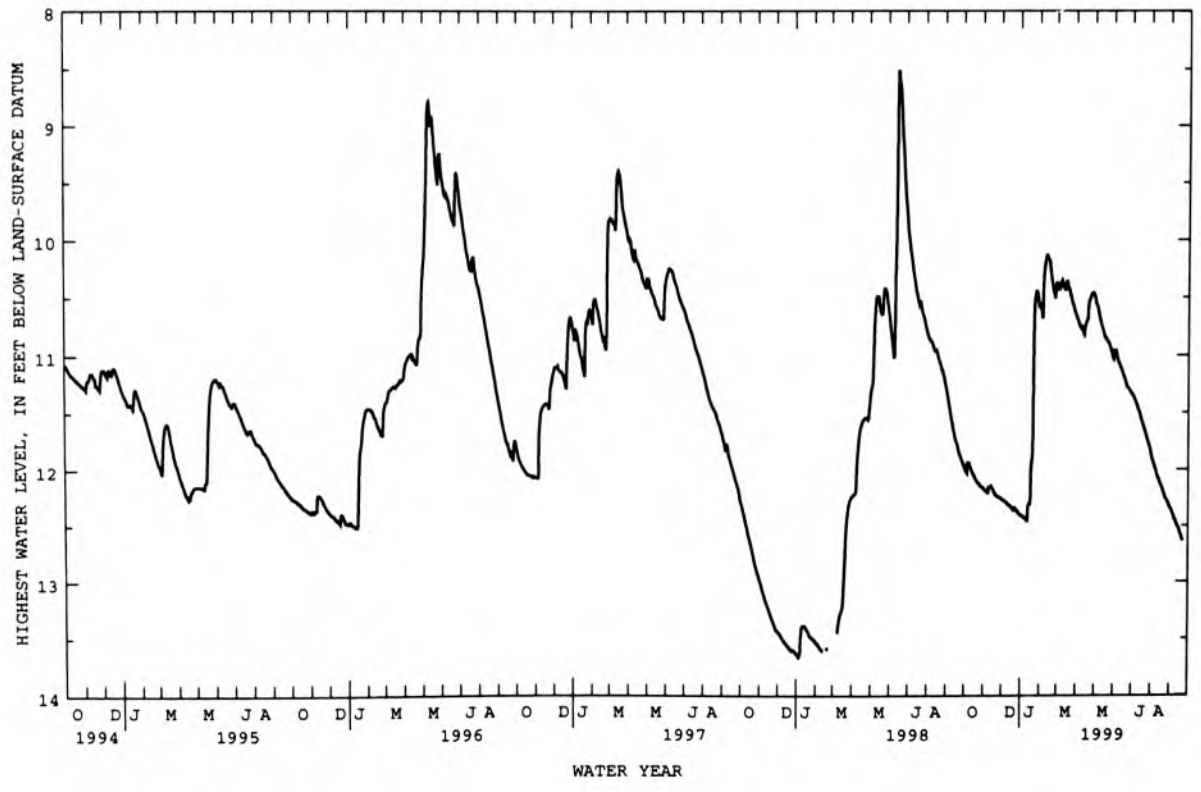
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.02	12.19	12.28	12.43	10.67	10.44	10.72	10.57	10.96	11.38	11.94	12.39
10	11.95	12.16	12.30	12.45	10.19	10.37	10.75	10.69	11.07	11.45	12.03	12.45
15	12.03	12.16	12.33	12.31	10.17	10.44	10.77	10.79	11.14	11.53	12.11	12.52
20	12.09	12.21	12.36	11.91	10.33	10.43	10.69	10.85	11.21	11.62	12.18	12.60
25	12.13	12.24	12.37	10.49	10.48	10.53	10.49	10.91	11.28	11.71	12.26	---
EOM	12.16	12.26	12.41	10.58	10.37	10.64	10.47	11.02	11.33	11.82	12.33	---

WTR YR 1999 HIGH 10.13 FEB 12

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.03	12.19	12.28	12.43	10.69	10.45	10.73	10.59	10.99	11.39	11.96	12.40
10	11.97	12.21	12.31	12.47	10.22	10.38	10.77	10.72	11.08	11.47	12.05	12.47
15	12.05	12.17	12.33	12.31	10.17	10.46	10.82	10.81	11.15	11.55	12.13	12.53
20	12.10	12.23	12.36	11.94	10.37	10.44	10.69	10.87	11.24	11.63	12.20	12.62
25	12.13	12.25	12.37	10.53	10.51	10.55	10.51	10.92	11.29	11.73	12.27	---
EOM	12.17	12.27	12.41	10.60	10.43	10.65	10.49	11.03	11.35	11.85	12.34	---

WTR YR 1999 LOW 12.64 SEP 23



382323086044501. Local number, HR 8.
LOCATION.--Lat 38°23'23", long 86°04'45", in NW¼NW¼NE¼ sec.33, T.1 S., R.4 E., Harrison County, Hydrologic Unit 05140104, on Harrison County right-of-way, 2.0 mi southeast of Palmyra.
Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Mississippian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 93 ft, cased to 54 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 827 ft above 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, and Apr. 29, 1996; lowest, 20.29 ft below land-surface datum, Dec. 17, 1992.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

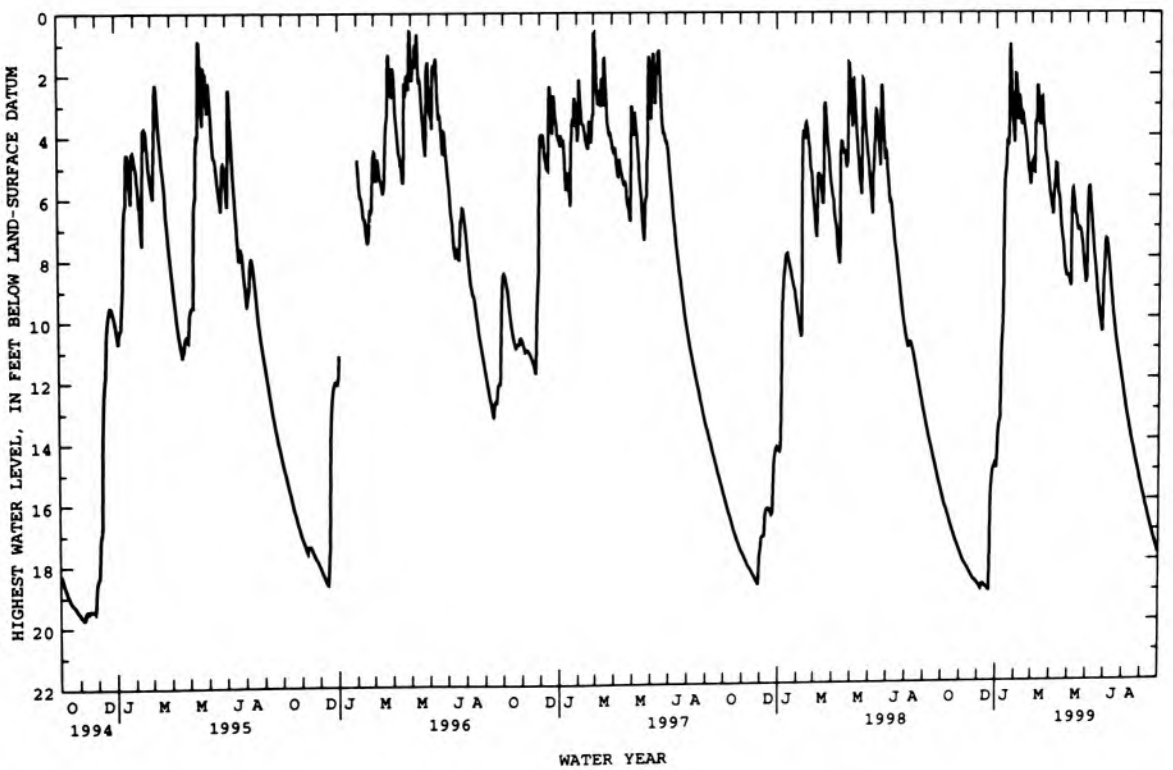
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.05	17.91	18.88	13.50	3.44	5.20	6.60	8.98	5.65	7.51	12.80	15.87
10	16.36	18.11	18.77	10.75	3.44	2.39	5.00	6.09	7.02	8.56	13.39	16.30
15	16.70	18.28	18.88	5.19	3.56	3.62	5.96	6.87	8.28	9.74	13.93	16.70
20	17.03	18.48	19.01	4.32	4.53	3.79	7.19	7.05	9.39	10.65	14.41	17.09
25	17.32	18.64	15.08	2.45	5.41	4.79	8.29	7.73	10.26	11.35	14.88	17.45
EOM	17.65	18.73	14.88	3.29	4.90	5.98	8.60	8.74	8.48	12.14	15.44	17.80

WTR YR 1999 HIGH 1.01 JAN 23

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.13	17.95	18.92	13.70	3.55	5.33	6.70	9.11	5.98	7.67	12.93	15.95
10	16.42	18.15	18.78	11.28	3.67	2.75	5.09	6.32	7.29	8.84	13.49	16.37
15	16.77	18.33	18.89	5.67	3.76	4.13	6.13	7.00	8.50	9.95	14.04	16.78
20	17.08	18.51	19.03	4.50	4.78	3.89	7.39	7.11	9.61	10.79	14.52	17.17
25	17.38	18.67	15.30	3.09	5.62	4.99	8.43	7.97	10.43	11.48	14.98	17.53
EOM	17.70	18.77	14.94	4.50	5.32	6.05	8.62	9.06	8.69	12.28	15.53	17.87

WTR YR 1999 LOW 19.03 DEC 20



HENDRICKS COUNTY

394025086400801. Local number, HD 4.
LOCATION.--Lat 39°40'25", long 86°40'08", in NW¼NW¼NW¼ sec.8, T.14 N., R.2 W., Hendricks County, Hydrologic Unit 05120203, at the intersection of State Highway 75 and County Road 600 South on county right-of-way, and 1.0 mi south of Coatesville. Owner: U.S. Geological Survey.

AQUIFER.--Sandstone of Mississippian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 85 ft, cased to 70 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 860 ft above 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

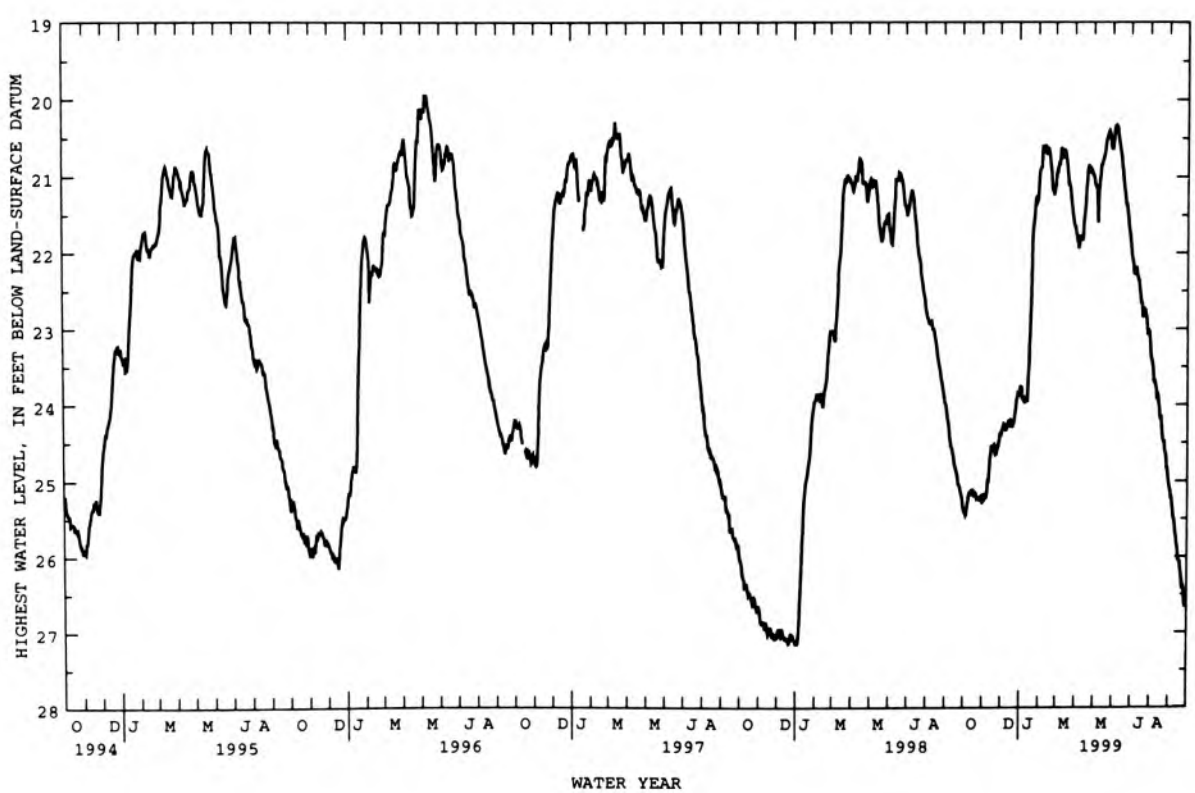
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	25.45	25.19	24.29	23.93	20.89	20.86	21.85	21.13	20.34	22.19	23.48	25.22
10	25.18	24.98	24.33	23.96	20.66	20.66	21.83	21.11	20.47	22.18	23.75	25.55
15	25.11	24.64	24.27	23.61	20.66	20.65	21.57	20.80	20.76	22.47	23.98	25.88
20	25.17	24.53	24.30	22.58	20.82	20.93	21.09	20.61	21.17	22.85	24.30	26.17
25	25.22	24.57	24.08	21.55	21.19	21.24	20.93	20.41	21.45	22.80	24.61	26.39
EOM	25.25	24.37	23.83	21.30	21.14	21.64	20.97	20.63	21.83	23.05	24.98	26.65

WTR YR 1999 HIGH 20.33 JUN 6

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	25.50	25.26	24.33	23.98	20.96	20.94	21.90	21.18	20.40	22.36	23.55	25.38
10	25.27	25.12	24.38	23.99	20.69	20.73	21.91	21.28	20.60	22.32	23.85	25.73
15	25.22	24.71	24.31	23.80	20.73	20.69	21.77	20.86	20.87	22.58	24.05	26.14
20	25.22	24.65	24.38	22.84	20.93	21.14	21.20	20.72	21.21	23.15	24.46	26.25
25	25.27	24.68	24.13	21.61	21.26	21.34	20.98	20.47	21.54	23.01	24.66	26.53
EOM	25.32	24.48	23.92	21.41	21.22	21.74	21.04	20.69	22.03	23.21	25.17	26.78

WTR YR 1999 LOW 26.78 SEP 30



404858085284301. Local number, HU 2.
LOCATION.--Lat 40°48'58", long 85°28'43", in SW¼SW¼SE¼ sec.2, T.27 N., R.9 E., 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. Owner: U.S. Geoligical Survey.

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.

REMARKS.--Well affected by pumpage from water-supply well field.

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, 73.78 ft below land-surface datum, Sept. 3, 1994.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

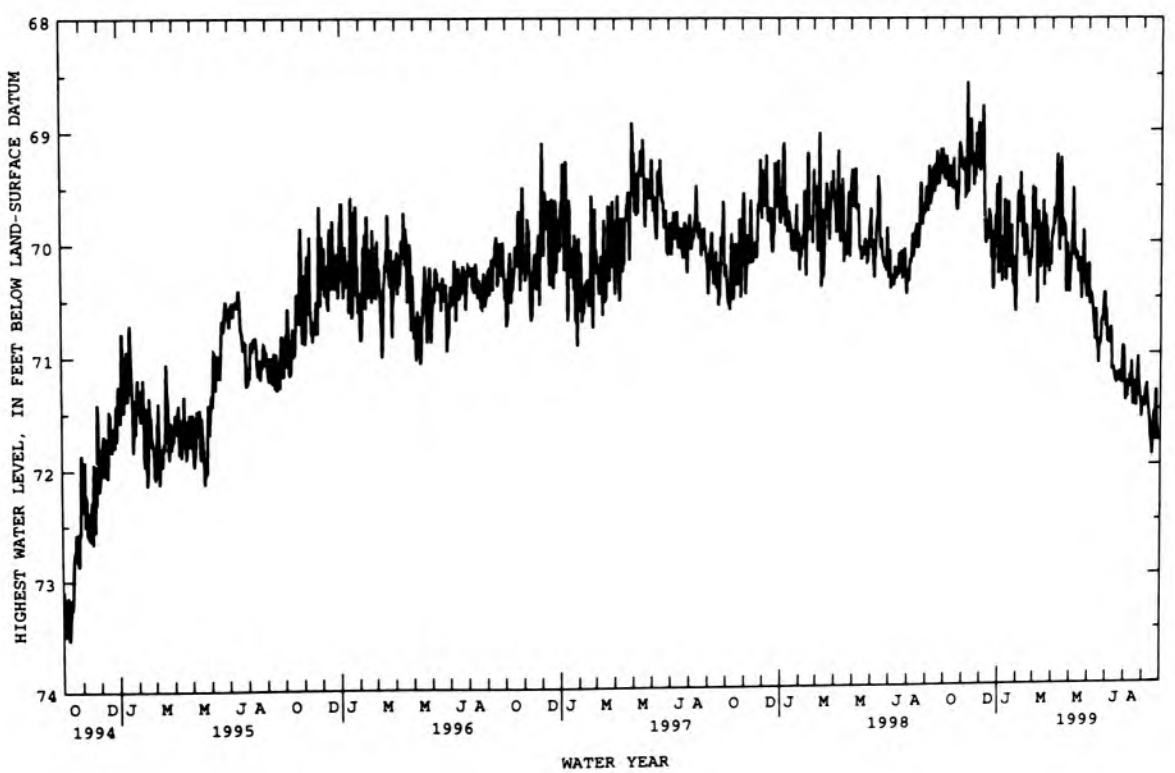
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	69.32	69.34	69.05	70.15	69.82	69.88	69.84	69.74	70.46	70.89	71.31	71.36
10	69.49	68.56	69.98	70.16	69.96	69.96	69.72	70.09	70.71	70.85	71.19	71.44
15	69.38	69.05	69.95	70.07	69.98	69.92	69.32	70.27	70.88	71.19	71.47	71.79
20	69.49	69.37	70.14	70.23	70.13	69.89	69.85	70.51	70.87	71.22	71.45	71.53
25	69.65	69.02	70.01	70.35	70.13	70.23	70.03	70.14	70.71	71.24	71.19	71.64
EOM	69.31	68.94	70.05	70.26	69.53	69.97	70.45	70.21	70.76	70.96	71.46	71.76

WTR YR 1999 HIGH 68.56 NOV 10

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	69.47	69.50	69.36	70.48	70.42	70.25	70.16	69.94	70.60	71.04	71.40	71.52
10	69.65	69.09	70.11	70.40	70.30	70.20	70.09	70.20	70.82	71.19	71.34	71.52
15	69.52	69.31	70.17	70.35	70.10	70.14	69.81	70.43	71.01	71.28	71.60	71.87
20	69.57	69.50	70.41	70.28	70.31	70.44	70.01	70.63	71.06	71.33	71.54	71.79
25	69.73	69.42	70.46	70.69	70.22	70.35	70.45	70.32	70.83	71.30	71.28	71.73
EOM	69.51	69.36	70.28	70.63	69.70	70.21	70.56	70.46	70.83	71.11	71.60	71.92

WTR YR 1999 LOW 72.06 SEP 17



JASPER COUNTY

410249087011201. Local number, JP 4.
LOCATION.--Lat 41°02'49", long 87°01'12", in SW¼NE¼SW¼ sec.17, T.30 N., R.5 W., Jasper County, Hydrologic Unit 07120002, on property of William Gehring, Inc., 0.9 mi east of Newland.
Owner: William Gehring, Inc.

AQUIFER.--Limestone of Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 16 in., depth 300 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 676.93 ft above sea level. Measuring point: Top of floor of shelter, 0.00 ft above land-surface datum.

REMARKS.--Water level affected by irrigation pumpage.

PERIOD OF RECORD.--July 1956 to current year.

REVISED RECORDS.--WDR IN-94-1: 1993.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.95 ft below land-surface datum, Apr. 9, 1962; lowest, 40.17 ft below land-surface datum, July 25, 1980.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

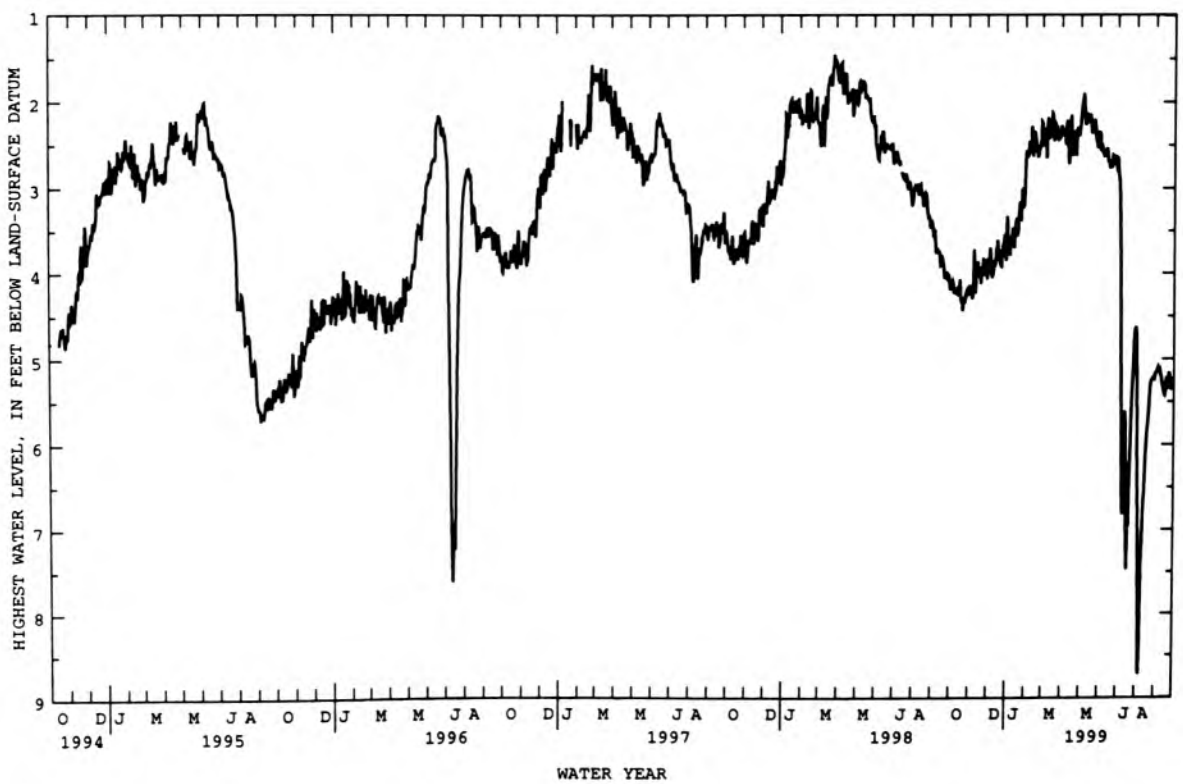
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.11	4.19	3.82	3.68	2.62	2.36	2.39	1.97	2.50	3.37	7.51	5.10
10	4.22	3.72	4.02	3.64	2.55	2.31	2.51	2.24	2.57	6.82	7.32	5.20
15	4.24	4.02	3.82	3.53	2.35	2.26	2.21	2.21	2.70	6.05	6.39	5.41
20	4.34	4.01	3.84	3.49	2.57	2.23	2.48	2.35	2.73	6.91	5.72	5.25
25	4.31	3.82	3.76	3.36	2.50	2.42	2.42	2.29	2.70	5.36	5.26	5.26
EOM	4.24	3.84	3.76	3.00	2.24	2.27	2.33	2.35	2.81	4.63	5.18	5.23

WTR YR 1999 HIGH 1.90 MAY 6

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.28	4.35	4.00	3.94	2.98	2.59	2.60	2.08	2.60	3.78	8.14	5.25
10	4.31	3.98	4.11	3.78	2.68	2.45	2.63	2.35	2.75	7.20	7.78	5.33
15	4.35	4.13	4.02	3.77	2.61	2.36	2.59	2.41	2.87	6.91	6.62	5.47
20	4.43	4.17	4.03	3.66	2.68	2.51	2.63	2.44	2.80	7.20	5.84	5.39
25	4.40	4.04	3.96	3.57	2.69	2.57	2.63	2.42	2.84	5.57	5.42	5.42
EOM	4.37	4.16	3.94	3.29	2.47	2.50	2.53	2.52	2.95	4.74	5.32	5.42

WTR YR 1999 LOW 9.00 AUG 7



410809087580801. Local number, JP 7.
LOCATION.--Lat 41°08'10", long 86°58'08", in SE¼SE¼NE¼ sec.15, T.31 N., R.5 W., Jasper County, Hydrologic Unit 07120002, in northwest corner of intersection of County Roads 850 North and 400 East, 4.0 mi south of Tefft.
Owner: U.S. Geological Survey.

AQUIFER.--Dolomite of Middle Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 130 ft, cased to 94 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 699.38 ft above 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

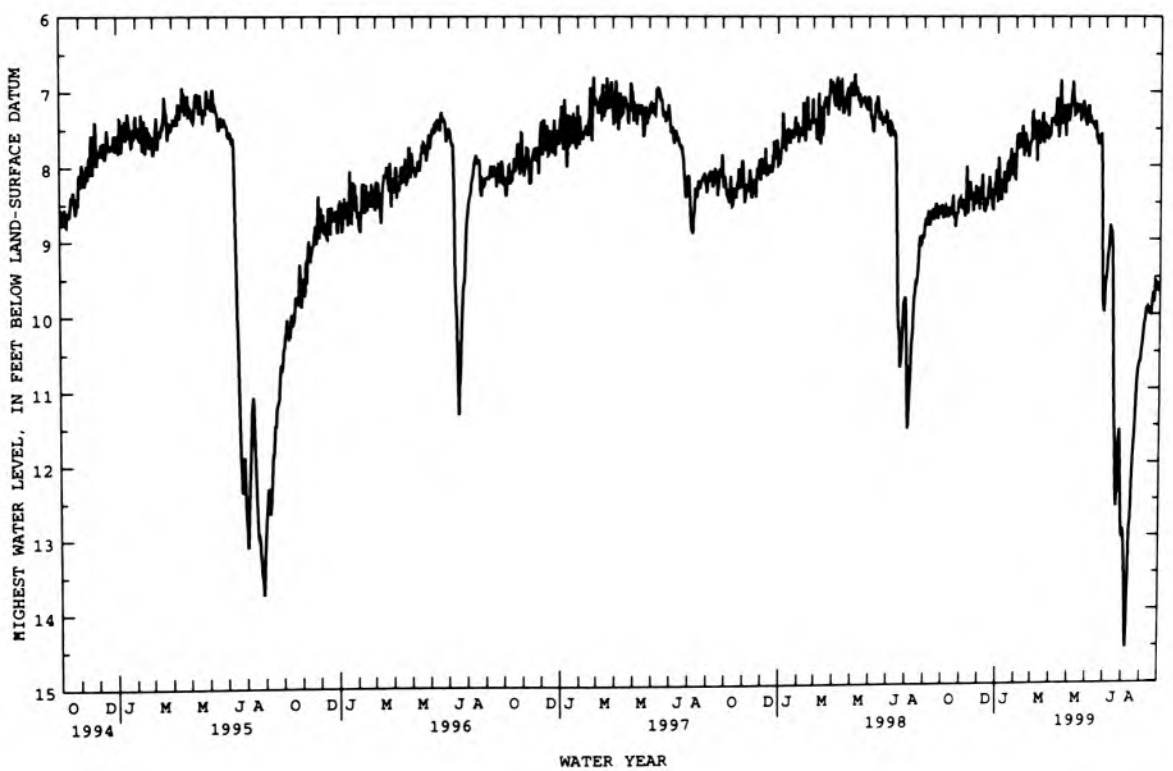
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.57	8.53	8.27	8.31	7.74	7.51	7.39	6.97	7.33	9.23	13.59	10.09
10	8.65	8.00	8.61	8.27	7.75	7.55	7.38	7.30	7.42	8.85	13.80	9.90
15	8.62	8.42	8.42	8.18	7.58	7.49	6.96	7.24	7.60	10.28	12.58	9.98
20	8.70	8.46	8.44	8.15	7.79	7.42	7.34	7.36	7.67	12.46	11.62	9.75
25	8.64	8.26	8.37	8.12	7.66	7.62	7.41	7.20	8.45	11.66	10.80	9.60
EOM	8.54	8.29	8.34	8.01	7.27	7.36	7.39	7.25	9.84	13.03	10.48	9.58

WTR YR 1999 HIGH 6.84 APR 16

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.79	8.71	8.50	8.62	8.15	7.75	7.64	7.10	7.45	9.43	13.98	10.27
10	8.76	8.33	8.69	8.45	7.89	7.72	7.54	7.43	7.63	9.09	14.21	10.05
15	8.75	8.54	8.65	8.47	7.89	7.61	7.44	7.47	7.78	10.90	12.82	10.06
20	8.80	8.66	8.67	8.33	7.91	7.75	7.52	7.46	7.74	12.81	11.78	9.88
25	8.77	8.54	8.63	8.42	7.88	7.78	7.62	7.35	9.18	11.88	10.98	9.77
EOM	8.68	8.66	8.57	8.31	7.53	7.65	7.59	7.43	10.05	13.17	10.67	9.78

WTR YR 1999 LOW 14.84 AUG 8



JASPER COUNTY

410535087035801. Local number, JP 8.
LOCATION.--Lat 41°05'35", long 87°03'58", in NE$^1/_4$NE$^1/_4$SE$^1/_4$ sec.35, T.31 N., R.6 W., Jasper County, Hydrologic Unit 07120002, 1.7 mi north of Gifford.
Owner: William Gehring, Inc.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 12 in., depth 310 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 686 ft above 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 September 1999 (discontinued). Record prior to October 1, 1978 available in District files.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.51 ft below land-surface datum, Oct. 20, 1993; lowest, 25.11 ft below land-surface datum, July 26, 1980.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

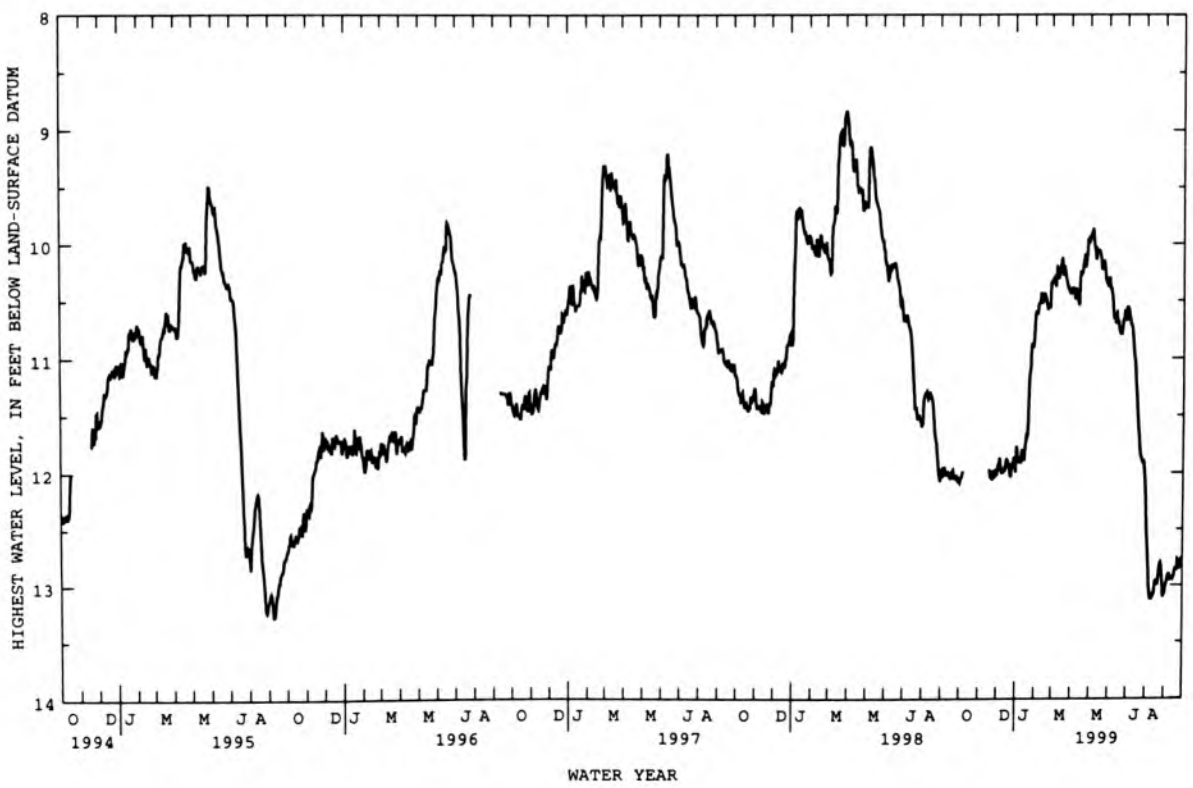
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.04	---	11.94	11.90	10.61	10.31	10.43	9.89	10.39	10.64	12.75	12.97
10	---	---	12.00	11.89	10.52	10.25	10.44	10.07	10.62	10.79	13.11	12.92
15	---	---	11.96	11.89	10.45	10.22	10.34	10.07	10.69	11.11	13.08	12.94
20	---	12.00	11.96	11.67	10.51	10.20	10.22	10.20	10.79	11.62	12.98	12.85
25	---	11.98	11.97	11.10	10.53	10.34	10.18	10.17	10.67	11.87	12.81	12.80
EOM	---	11.97	11.94	10.82	10.33	10.40	9.95	10.34	10.68	12.06	13.08	12.75

WTR YR 1999 HIGH 9.86 MAY 6

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.09	---	12.00	11.95	10.73	10.41	10.50	9.96	10.43	10.68	12.87	12.99
10	---	---	12.07	11.92	10.57	10.33	10.51	10.22	10.68	10.86	13.14	12.95
15	---	---	12.04	11.89	10.54	10.29	10.54	10.11	10.69	11.23	13.10	12.95
20	---	12.07	12.01	11.74	10.58	10.32	10.26	10.24	10.79	11.66	13.01	12.87
25	---	12.08	12.05	11.15	10.63	10.45	10.22	10.24	10.68	11.90	12.83	12.85
EOM	---	12.08	12.04	10.95	10.39	10.49	10.01	10.36	10.71	12.16	13.13	12.77

WTR YR 1999 LOW 13.19 AUG 9



410713087063201. Local number, JP 9.
LOCATION.--Lat 41°07'13", long 87°06'32", in NE$^{1}/_{4}$NW$^{1}/_{4}$SE$^{1}/_{4}$ 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 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, 3.99 ft below land-surface datum, Apr. 1, 1998; lowest, 32.05 ft below land-surface datum, Aug. 5, 1988.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

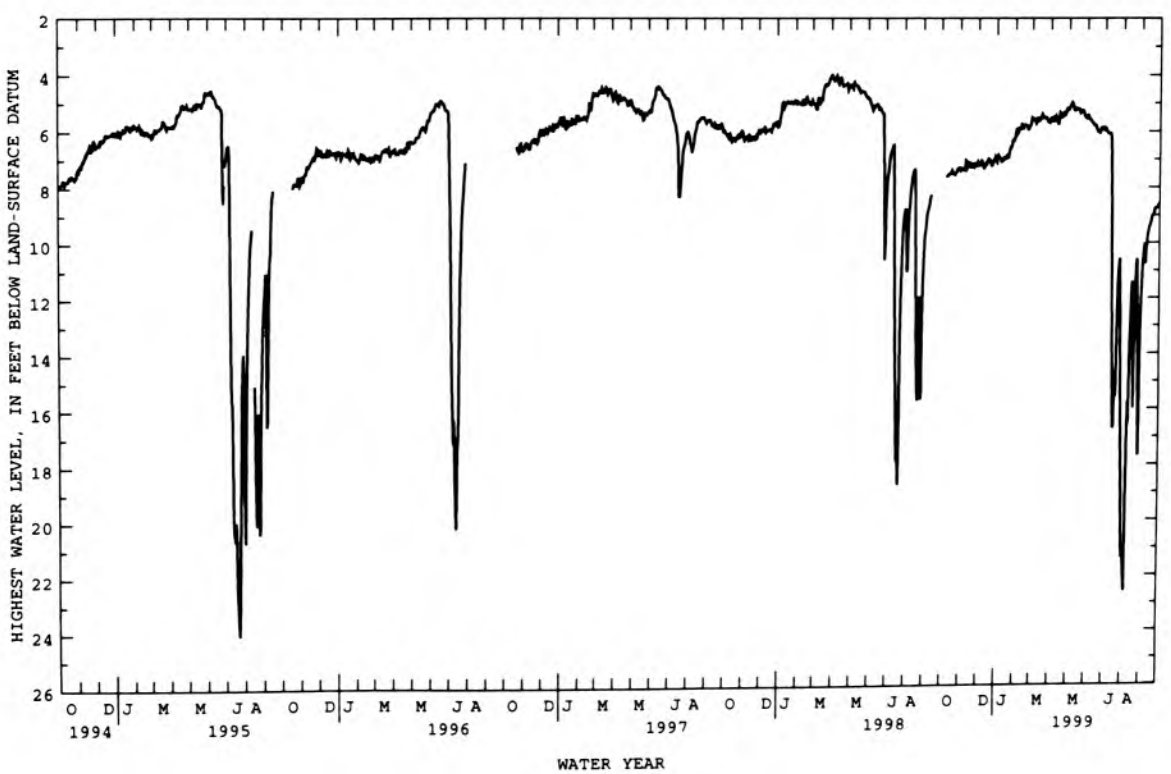
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	7.34	7.14	6.91	6.05	5.61	5.60	5.03	5.58	6.06	21.78	10.28
10	7.58	7.03	7.30	7.07	5.90	5.52	5.56	5.25	5.70	6.07	15.74	9.99
15	7.50	7.16	7.15	6.98	5.79	5.53	5.44	5.20	5.78	14.96	12.20	9.37
20	7.49	7.22	7.11	6.96	5.79	5.53	5.50	5.34	6.02	15.60	14.07	8.99
25	7.44	7.15	7.12	6.58	5.82	5.56	5.42	5.27	5.87	11.04	10.58	8.76
EOM	7.32	7.10	7.06	6.24	5.53	5.57	5.24	5.50	5.99	18.85	12.88	8.60

WTR YR 1999 HIGH 4.97 MAY 6

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	7.38	7.18	6.95	6.09	5.68	5.67	5.06	5.58	6.06	22.26	10.59
10	7.61	7.23	7.31	7.07	5.92	5.58	5.64	5.26	5.72	6.12	16.75	10.31
15	7.50	7.20	7.20	7.03	5.92	5.53	5.71	5.23	5.89	16.99	12.94	9.42
20	7.52	7.25	7.14	6.97	5.87	5.63	5.52	5.37	6.03	17.52	16.09	9.01
25	7.48	7.26	7.21	6.62	5.86	5.63	5.48	5.33	5.90	11.48	12.18	8.77
EOM	7.38	7.18	7.10	6.34	5.62	5.66	5.27	5.56	6.04	20.36	14.15	8.66

WTR YR 1999 LOW 23.15 AUG 7



JASPER COUNTY

410322087163101. Local number, JP 11.
LOCATION.--Lat 41°03'22", long 87°16'31", in NW¼NW¼NW¼ sec.18, T.30 N., R.7 W., Jasper County, Hydrologic Unit 07120002, on Prudential Life Insurance Company of America property, 3.2 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 697.50 ft above sea level. Measuring point: Top of floor of shelter, 3.50 ft above land-surface datum.

REMARKS.--Water level 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

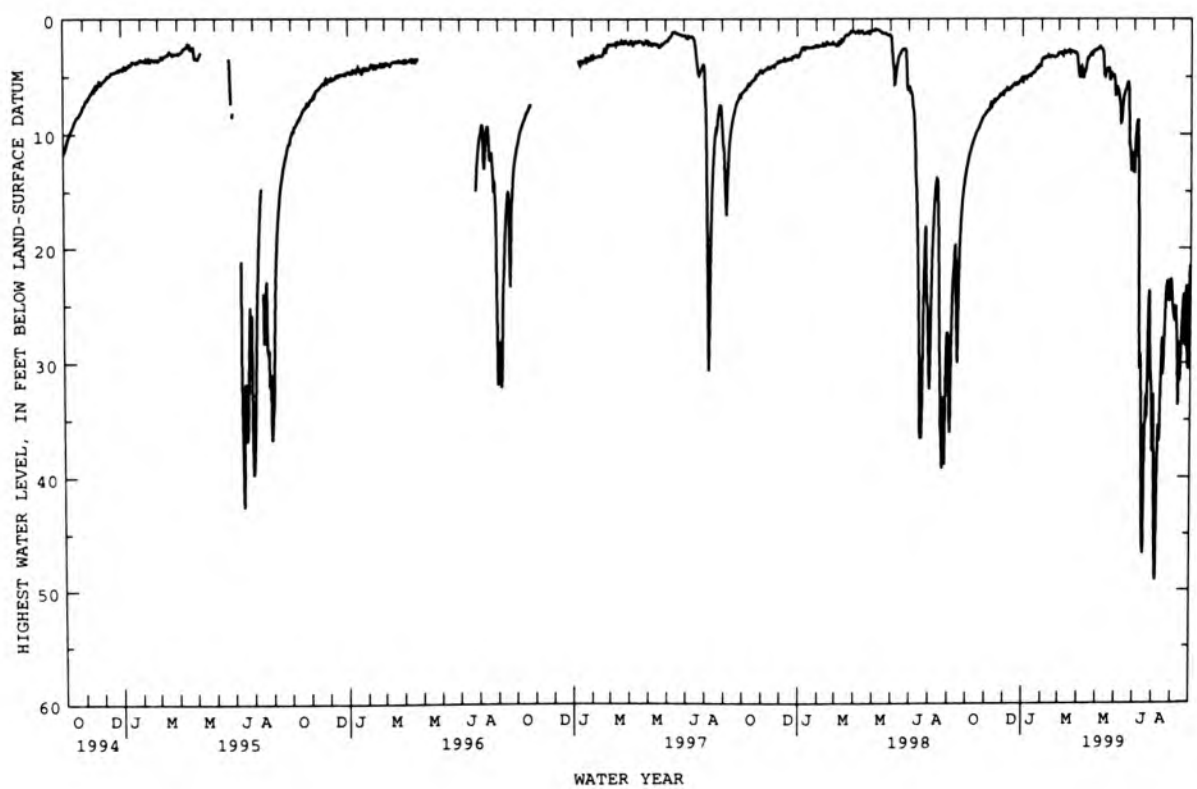
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.10	7.92	6.10	5.12	3.42	2.88	4.21	2.43	6.24	9.02	46.72	26.35
10	11.04	7.28	6.11	4.96	3.28	2.81	4.74	2.65	8.94	30.53	35.43	31.34
15	10.21	7.15	5.82	4.78	3.21	2.81	3.50	4.72	6.38	44.13	28.62	29.98
20	9.58	6.94	5.67	4.61	3.26	2.77	3.10	4.24	5.46	35.09	26.68	23.95
25	8.94	6.55	5.48	4.28	3.21	2.89	2.87	4.70	12.21	24.37	22.77	27.61
EOM	8.35	6.33	5.35	3.64	2.91	3.83	2.70	6.69	11.86	37.76	22.95	21.48

WTR YR 1999 HIGH 2.36 MAY 6

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.40	8.05	6.24	5.27	3.59	2.99	4.70	2.47	6.67	9.62	49.15	27.47
10	11.25	7.49	6.15	5.04	3.37	2.91	5.13	2.76	9.79	35.30	37.29	34.94
15	10.34	7.24	5.93	4.92	3.34	2.86	3.95	4.96	6.61	46.22	30.88	34.17
20	9.71	7.00	5.77	4.67	3.32	2.91	3.22	4.33	5.62	37.80	28.20	28.40
25	9.08	6.72	5.64	4.38	3.30	2.98	3.02	4.84	13.24	26.87	24.24	30.02
EOM	8.41	6.48	5.43	4.11	2.96	4.34	2.77	6.92	16.43	41.27	24.09	23.56

WTR YR 1999 LOW 51.73 AUG 7



410145087130401. Local number, JP 12.
LOCATION.--Lat 41°01'45", long 87°13'04", in NW¼SW¼SW¼ sec.22, T.30 N., R.7 W., Jasper County, Hydrologic Unit 07120002, in Old Union Township school yard, 200 ft east of County Road 900 West, 750 ft north of State Highway 14, and in Parr. Owner: Prudential Insurance Company of America.

AQUIFER.--Limestone/dolomite of Silurian/Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 5 in., depth 150 ft, cased to 103 ft, open end.

INSTRUMENTATION.--Water-level recorder, data-collection platform, and incremental encoder.

DATUM.--Elevation of land-surface datum is 692.9 ft above sea level. Measuring point: Top of well casing, 2.6 ft above land-surface datum.

REMARKS.--Water level 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

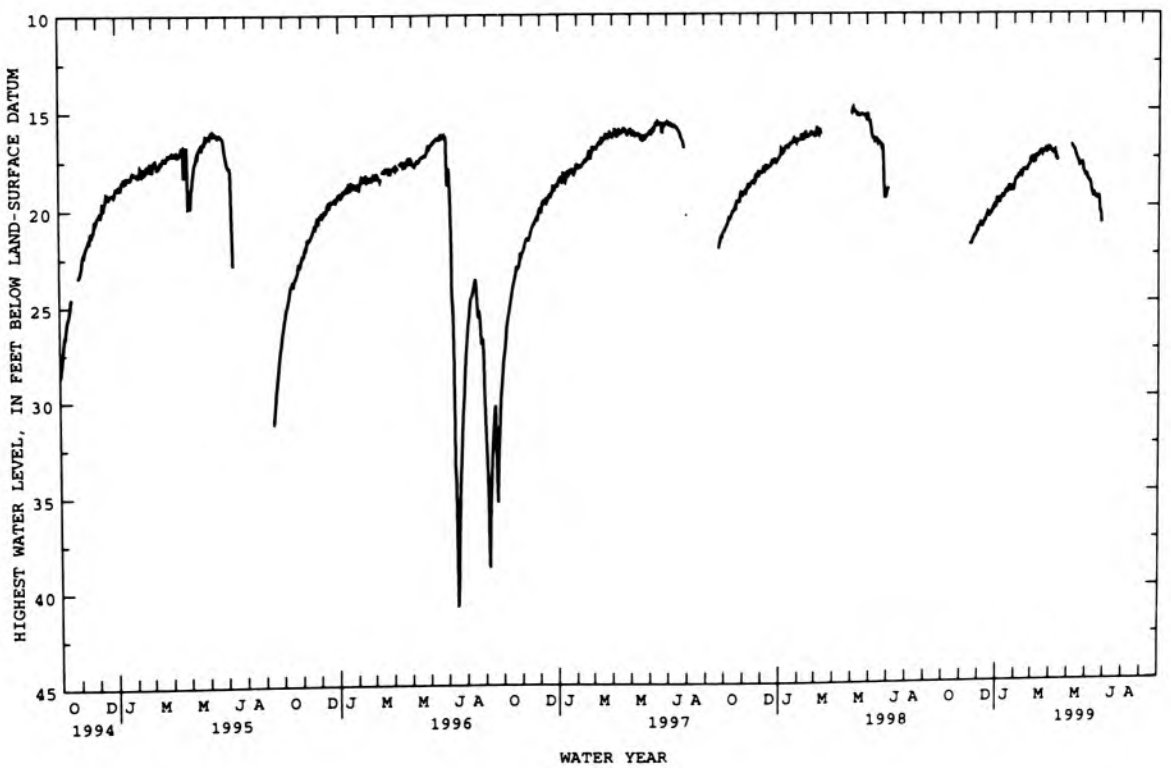
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	20.90	19.74	18.55	17.49	17.21	---	18.64	---	---	---
10	---	---	20.91	19.57	18.38	17.41	17.40	17.00	19.21	---	---	---
15	---	---	20.58	19.34	18.09	17.23	---	17.44	19.42	---	---	---
20	---	21.91	20.40	19.24	18.11	17.11	---	17.86	19.51	---	---	---
25	---	21.44	20.19	19.13	17.83	17.15	---	17.73	20.30	---	---	---
EOM	---	21.20	19.96	18.95	17.51	16.94	---	18.32	---	---	---	---

WTR YR 1999 HIGH 16.80 MAY 6

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	21.09	20.19	18.91	17.95	17.54	---	19.05	---	---	---
10	---	---	21.09	19.86	18.80	17.63	17.87	17.45	19.70	---	---	---
15	---	---	20.87	19.62	18.43	17.66	---	17.83	19.76	---	---	---
20	---	22.13	20.83	19.50	18.26	17.41	---	18.13	19.85	---	---	---
25	---	21.88	20.55	19.46	18.22	17.41	---	18.23	20.51	---	---	---
EOM	---	21.80	20.28	19.51	17.85	17.25	---	18.81	---	---	---	---

WTR YR 1999 LOW 22.25 NOV 18



JASPER COUNTY

405902087141501. Local number, JP 13.
LOCATION.--Lat 40°59'02", long 87°14'15", in NW¼NW¼NW¼ sec.9, T.29 N., R.7 W., Jasper County, Hydrologic Unit 07120002, at southwest corner of North Newton school, and 4.6 mi northwest of Rensselaer.
Owner: Prudential Insurance Company of America.

AQUIFER.--Dolomite of Silurian/Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 5 in., depth 150 ft, cased to 106 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 700 ft above sea level, from topographic map. Measuring point: Top of well casing, 3.4 ft above land-surface datum.

REMARKS.--Water level 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

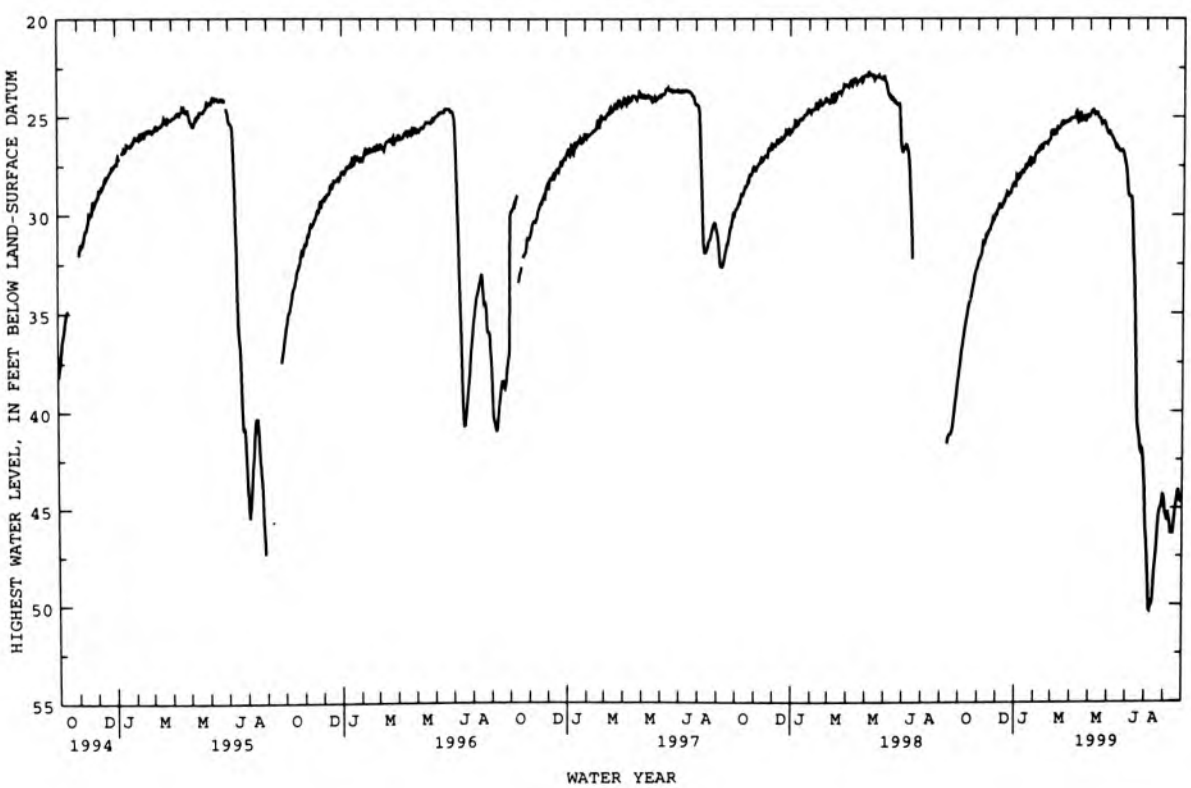
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	37.17	32.13	29.58	28.13	26.83	25.70	25.04	24.66	25.93	29.04	47.83	45.51
10	36.06	31.26	29.55	27.94	26.64	25.60	25.00	24.81	26.30	30.19	49.91	45.70
15	35.10	31.11	29.16	27.67	26.36	25.47	24.81	25.02	26.59	34.75	49.14	46.17
20	34.32	30.76	28.97	27.49	26.34	25.24	25.07	25.33	26.75	40.87	46.99	44.96
25	33.54	30.21	28.67	27.44	26.16	25.27	25.10	25.28	26.88	42.04	45.07	44.09
EOM	32.73	29.89	28.45	27.20	25.71	25.08	25.00	25.73	27.82	43.82	44.32	44.37

WTR YR 1999 HIGH 24.63 MAY 6

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	37.49	32.33	29.75	28.38	27.15	25.86	25.14	24.74	26.05	29.14	48.52	45.77
10	36.29	31.54	29.63	28.07	26.80	25.67	25.11	24.91	26.45	31.18	50.31	45.92
15	35.27	31.21	29.35	27.90	26.59	25.52	25.17	25.16	26.73	36.31	49.67	46.28
20	34.51	30.86	29.15	27.62	26.40	25.46	25.22	25.39	26.79	41.07	47.38	45.23
25	33.70	30.45	28.88	27.63	26.22	25.36	25.27	25.39	27.04	42.14	45.25	44.30
EOM	32.84	30.13	28.57	27.37	25.86	25.19	25.14	25.85	28.19	45.08	44.52	44.70

WTR YR 1999 LOW 50.61 AUG 8



405550087092301. Local number, JP 15.
LOCATION.--Lat 40°55'50", long 87°09'23",in SE¼NW¼SW¼ sec.30, T.29 N., R.6 W., Jasper County, Hydrologic Unit 07120002, at the Peerless Superior Cleaners in the shopping center on the west side of State Highway 231 in Rensselaer.
Owner: Department of Natural Resources

AQUIFER.--Limestone/Dolomite of Silurian/Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 8 in., depth 210 ft, cased to 25 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 665 ft above sea level (revised), from topographic map. Measuring point: Top of shelf, 2.00 ft above land-surface datum.

REMARKS.--Well affected by pumpage.

PERIOD OF RECORD.--Sept. 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 101.88 ft below land-surface datum, Sept. 9, 1996; lowest, 115.10 ft below land-surface datum, Mar. 11, 1998.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

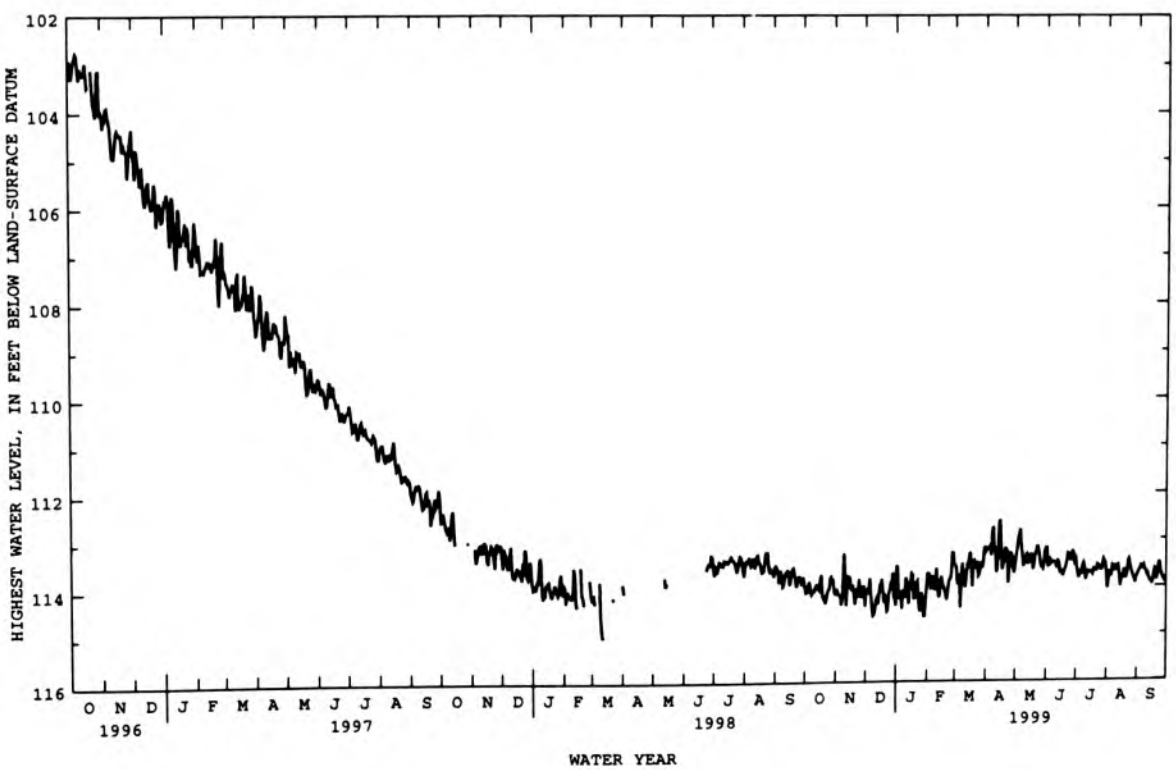
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	113.93	114.16	114.01	114.19	114.02	113.76	113.20	112.92	113.41	113.71	113.76	113.58
10	114.08	113.28	114.58	114.16	114.04	113.73	113.24	113.53	113.49	113.60	113.55	113.69
15	114.02	113.96	114.16	113.97	113.89	113.60	112.64	113.49	113.72	113.70	114.01	113.92
20	114.22	114.19	114.32	114.24	114.15	113.48	113.44	113.53	113.64	113.66	113.82	113.67
25	114.04	113.82	114.12	114.52	113.83	113.77	113.54	113.29	113.42	113.62	113.56	113.70
EOM	114.08	113.96	114.26	114.33	113.28	113.18	113.71	113.24	113.55	113.49	113.82	113.81

WTR YR 1999 HIGH 112.58 APR 16

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	114.07	114.22	114.16	114.60	114.56	114.05	113.63	113.01	113.53	113.87	113.80	113.69
10	114.16	113.74	114.68	114.40	114.36	113.96	113.54	113.66	113.61	113.93	113.68	113.78
15	114.13	114.18	114.42	114.36	114.16	113.70	113.27	113.65	113.82	113.79	114.12	114.01
20	114.32	114.36	114.54	114.39	114.28	114.00	113.68	113.70	113.72	113.74	113.90	113.88
25	114.11	114.20	114.49	114.90	114.03	113.88	113.93	113.44	113.54	113.68	113.66	113.80
EOM	114.22	114.41	114.39	114.63	113.53	113.50	113.85	113.51	113.66	113.74	113.97	114.00

WTR YR 1999 LOW 114.90 JAN 25



384949085251901. Local number, JF 5.
LOCATION.--Lat 38°49'49", long 85°25'19", in SE¼NW¼SW¼ sec.33, T.5 N., R.10 E., Jefferson County, Hydrologic Unit 05120207, on Jefferson Proving Ground, 500 ft north of Airfield Road, 1,000 ft southwest of the water tower, and 2.2 mi west of main gate. Owner: U.S. Army.

AQUIFER.--Limestone, dolomite, and shale of Silurian and Ordovician age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 5 in., depth 200 ft, cased to 33 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 855 ft above 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, 9.63 below land-surface datum, Sept. 28, 1999.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

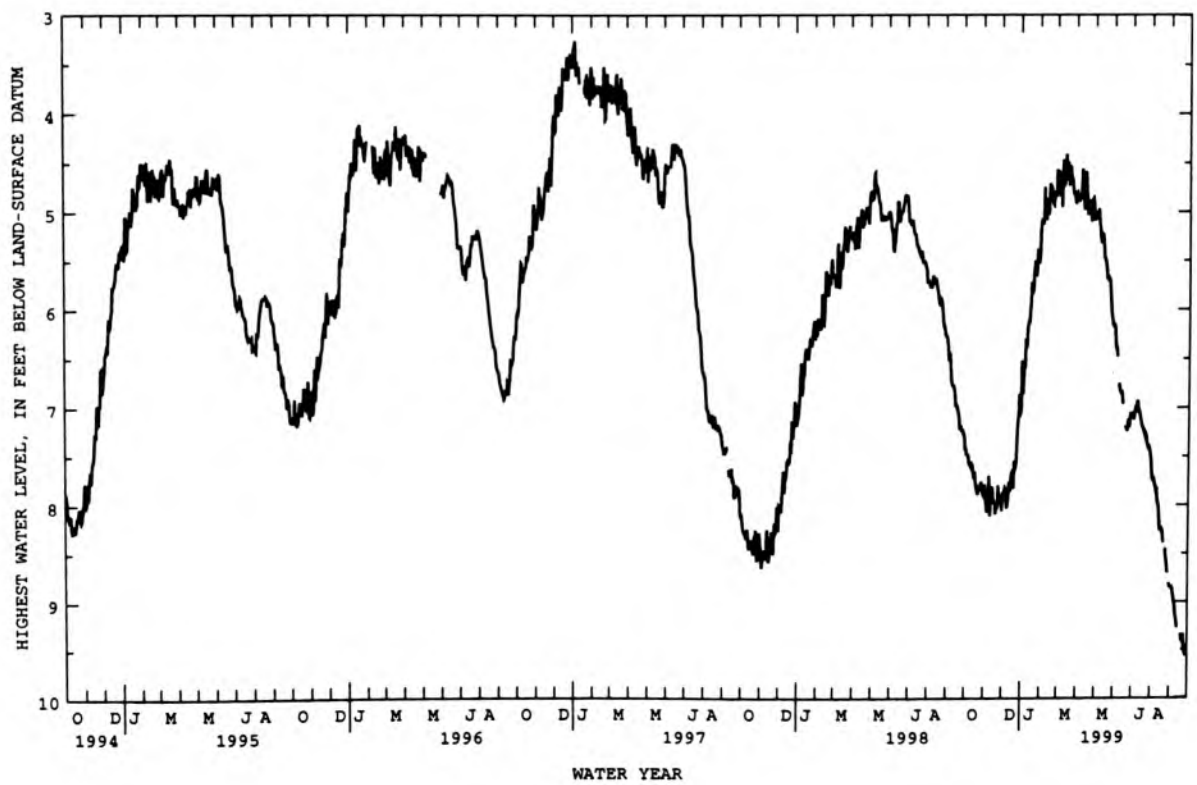
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.48	7.96	7.87	6.70	5.13	4.70	4.87	5.01	6.37	7.02	7.72	8.85
10	7.58	7.70	8.00	6.38	5.07	4.59	4.83	5.31	6.78	6.95	7.85	9.06
15	7.66	7.90	7.84	6.03	4.81	4.55	4.59	5.47	6.96	7.12	8.20	---
20	7.81	7.97	7.83	5.78	4.84	4.56	4.96	5.70	7.20	7.23	8.27	9.34
25	7.84	7.80	7.40	5.66	4.79	4.77	4.99	5.79	7.18	7.36	8.45	9.45
EOM	7.89	7.89	7.04	5.40	4.58	4.82	5.09	6.15	7.09	7.49	8.81	9.54

WTR YR 1999 HIGH 4.41 MAR 14

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.57	8.02	8.00	6.95	5.38	4.91	4.99	5.09	6.48	7.13	7.81	8.99
10	7.64	7.91	8.08	6.51	5.13	4.77	4.88	5.35	6.94	7.13	7.99	9.16
15	7.75	7.99	7.98	6.22	5.02	4.70	4.85	5.59	7.12	7.25	8.27	---
20	7.85	8.09	7.92	5.90	4.93	4.75	5.05	5.74	7.23	7.29	8.38	9.43
25	7.88	8.03	7.57	5.79	4.95	4.87	5.12	5.91	7.31	7.46	8.60	9.56
EOM	7.96	8.06	7.09	5.57	4.77	4.96	5.20	6.23	7.24	7.59	8.88	9.62

WTR YR 1999 LOW 9.63 SEP 28



385601085365701. Local number, JN 3.
LOCATION.--Lat 38°56'01", long 85°36'57", in SE¼SW¼NE¼ sec.27, T.6 N., R.8 E., Jennings County, Hydrologic Unit 05120207, 200 ft west of State Highway 3, 1.6 mi south of Crosley Fish and Game Office and 3.0 mi south of Vernon.
Owner: U.S. Geological Survey.

AQUIFER.--Limestones and dolomites of Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 180 ft, cased to 45 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 718 ft above 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

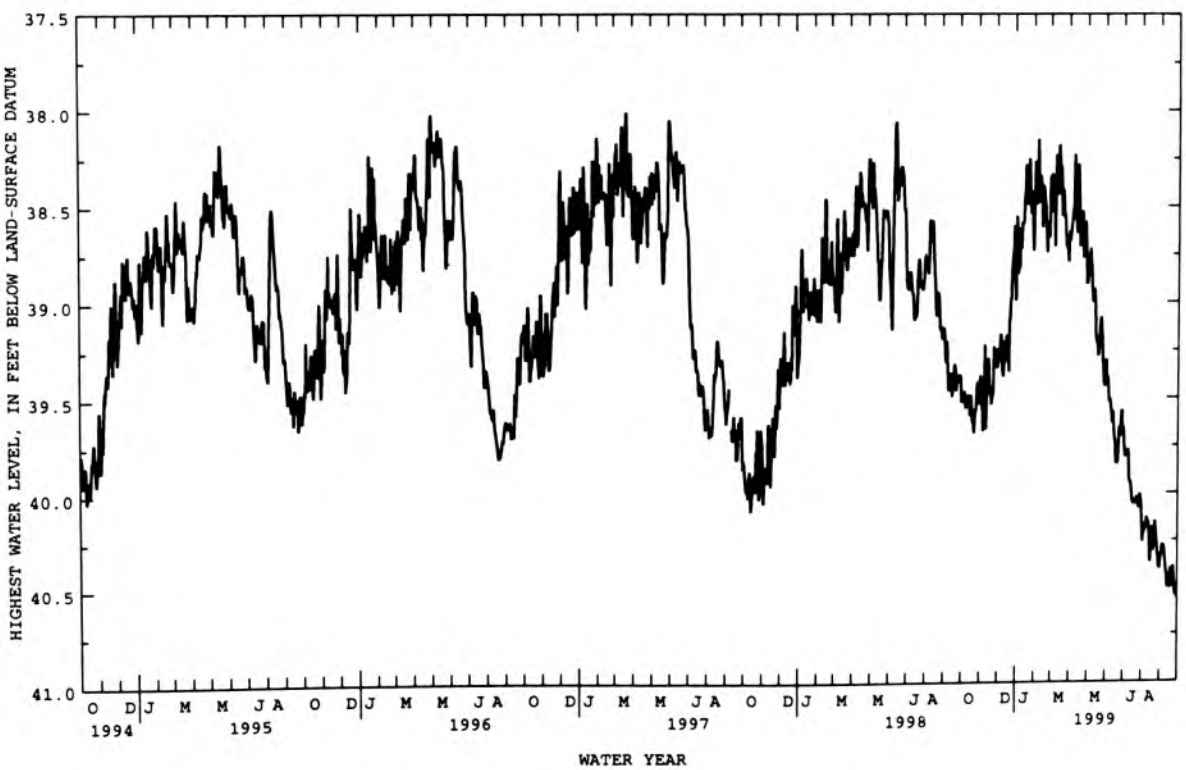
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	39.51	39.54	39.24	38.85	38.49	38.51	38.58	38.77	39.39	39.80	40.18	40.28
10	39.54	39.22	39.38	38.72	38.48	38.30	38.42	38.99	39.55	39.79	40.13	40.36
15	39.51	39.34	39.31	38.46	38.49	38.25	38.28	39.17	39.67	39.99	40.34	40.47
20	39.62	39.46	39.36	38.49	38.56	38.45	38.66	39.26	39.84	40.04	40.22	40.40
25	39.56	39.23	38.84	38.49	38.62	38.63	38.72	39.12	39.67	40.04	40.18	40.44
EOM	39.49	39.24	38.88	38.64	38.34	38.66	38.90	39.36	39.68	40.04	40.40	40.56

WTR YR 1999 HIGH 38.15 FEB 7

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	39.55	39.56	39.29	38.98	38.64	38.66	38.69	38.82	39.47	39.85	40.21	40.34
10	39.56	39.45	39.43	38.80	38.54	38.43	38.51	39.03	39.60	39.93	40.19	40.40
15	39.59	39.45	39.39	38.59	38.61	38.42	38.52	39.22	39.74	40.05	40.40	40.52
20	39.66	39.53	39.40	38.51	38.67	38.61	38.71	39.30	39.86	40.07	40.31	40.47
25	39.61	39.48	38.98	38.67	38.71	38.72	38.83	39.17	39.73	40.08	40.22	40.50
EOM	39.55	39.34	38.99	38.74	38.40	38.79	38.96	39.45	39.71	40.09	40.44	40.60

WTR YR 1999 LOW 40.60 SEP 30



KNOX COUNTY

383247087361001. Local number, KN 7.
LOCATION.--Lat 38°32'47", long 87°36'10", in $SE^1/_4SE^1/_4NW^1/_4$ 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

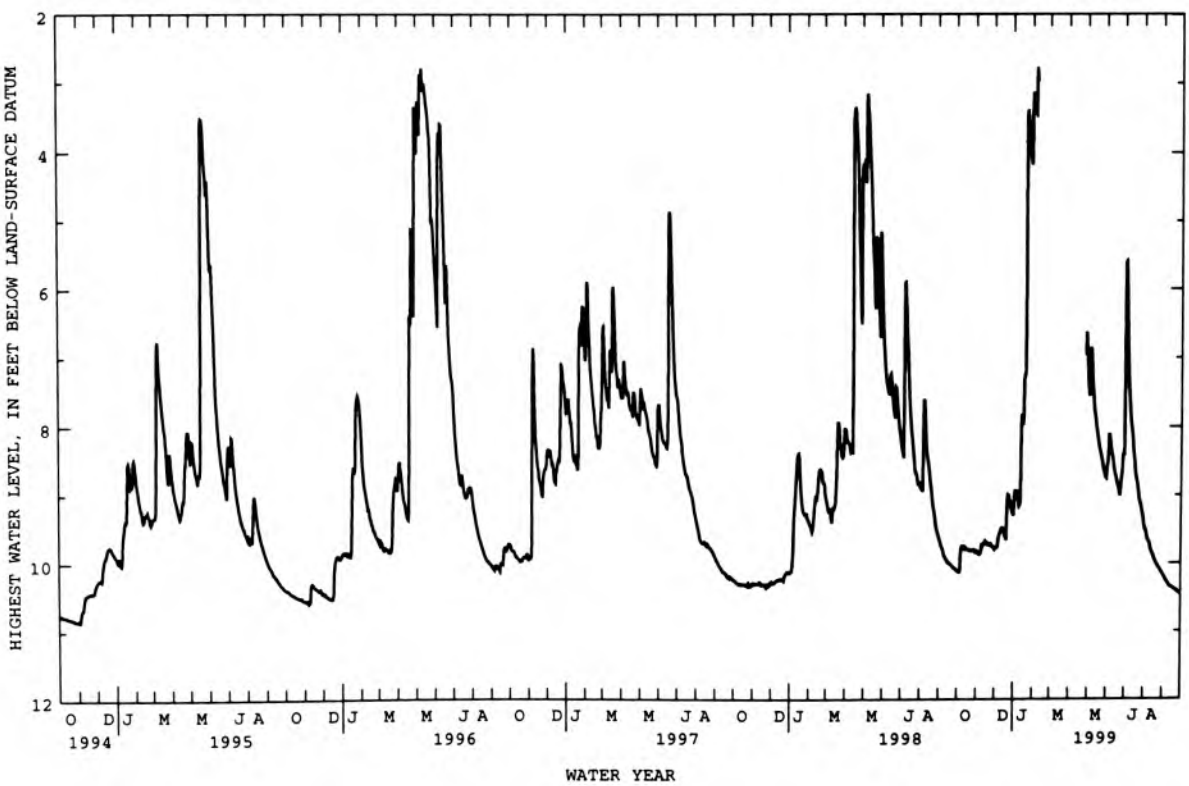
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.13	9.86	9.77	8.94	3.44	---	---	7.44	8.12	6.61	9.53	10.23
10	9.75	9.75	9.55	9.16	---	---	---	7.48	8.40	7.81	9.69	10.30
15	9.77	9.70	9.50	7.84	---	---	---	7.97	8.69	8.33	9.86	10.35
20	9.80	9.71	9.66	7.23	---	---	---	8.28	8.87	8.75	9.97	10.38
25	9.81	9.70	9.07	3.63	---	---	---	8.49	8.77	9.07	10.06	10.42
EOM	9.84	9.76	9.28	3.36	---	---	6.78	8.74	8.39	9.32	10.14	10.46

WTR YR 1999 HIGH 2.77 FEB 7

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.14	9.86	9.79	8.97	3.61	---	---	7.66	8.44	6.99	9.62	10.24
10	9.75	9.83	9.58	9.20	---	---	---	7.62	8.44	7.93	9.72	10.31
15	9.80	9.72	9.52	7.97	---	---	---	8.03	8.72	8.41	9.87	10.35
20	9.81	9.73	9.67	7.27	---	---	---	8.33	8.91	8.80	9.99	10.39
25	9.82	9.74	9.09	3.90	---	---	---	8.55	8.88	9.11	10.07	10.42
EOM	9.85	9.79	9.33	4.18	---	---	7.10	8.75	8.43	9.42	10.16	10.46

WTR YR 1999 LOW 10.46 SEP 29



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, 11.86 ft below land-surface datum, Jan. 28, 1994; lowest, 15.32 ft below land-surface datum, Oct. 19, 1991.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

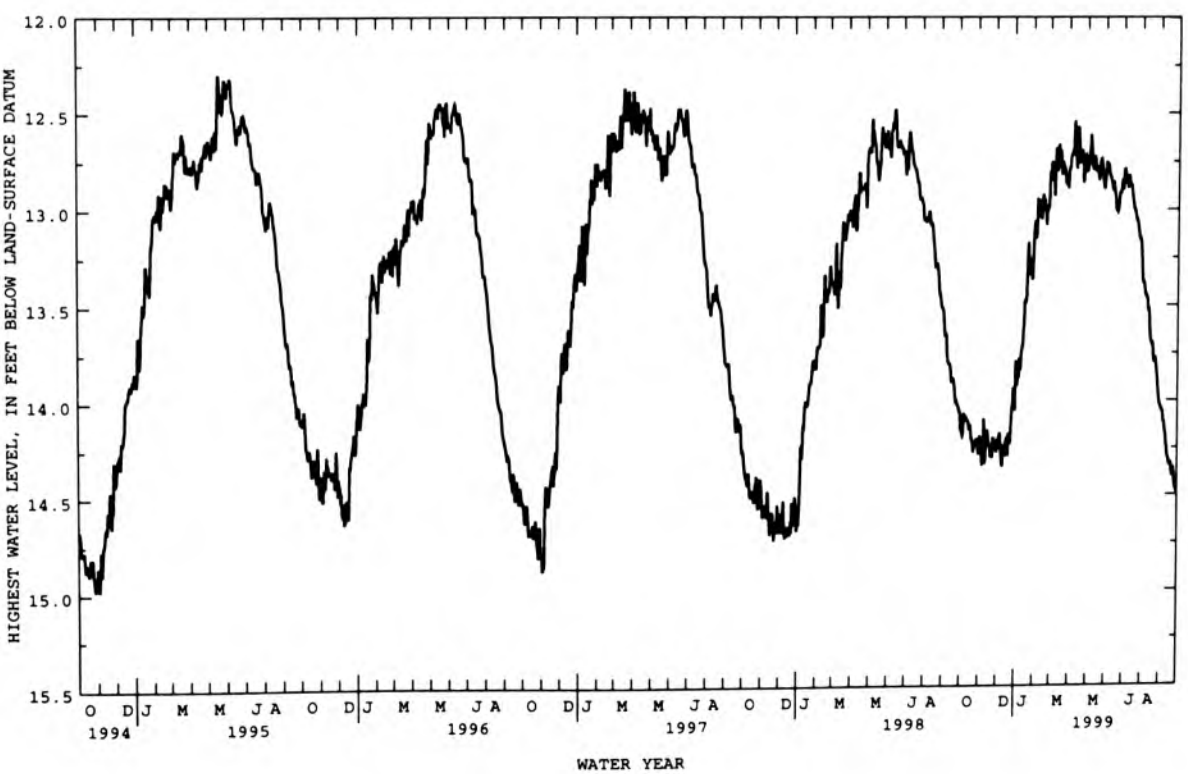
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.18	14.26	14.19	13.90	13.15	12.82	12.72	12.67	12.76	12.86	13.38	14.05
10	14.08	14.09	14.34	13.84	13.04	12.73	12.65	12.79	12.85	12.82	13.45	14.17
15	14.11	14.18	14.29	13.63	12.97	12.70	12.57	12.80	12.89	12.91	13.64	14.30
20	14.20	14.25	14.29	13.45	12.98	12.77	12.75	12.85	13.00	13.00	13.71	14.33
25	14.23	14.19	14.14	13.33	12.98	12.83	12.85	12.76	12.91	13.07	13.79	14.38
EOM	14.26	14.20	14.03	13.28	12.80	12.80	12.80	12.84	12.90	13.18	14.01	14.49

WTR YR 1999 HIGH 12.54 APR 9

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.21	14.30	14.24	14.01	13.25	12.90	12.77	12.71	12.79	12.87	13.42	14.09
10	14.11	14.23	14.37	13.89	13.07	12.79	12.69	12.81	12.89	12.87	13.48	14.20
15	14.15	14.23	14.34	13.73	13.06	12.76	12.72	12.84	12.94	12.95	13.68	14.33
20	14.23	14.29	14.33	13.50	13.03	12.86	12.79	12.86	13.01	13.02	13.77	14.37
25	14.26	14.30	14.22	13.42	13.03	12.88	12.90	12.79	12.96	13.11	13.83	14.42
EOM	14.30	14.27	14.09	13.37	12.83	12.89	12.85	12.89	12.93	13.23	14.03	14.53

WTR YR 1999 LOW 14.53 SEP 30



KOSCIUSKO COUNTY

412556085513401. Local number, KO 9.
LOCATION.--Lat 41°25'56", long 85°51'34", in SW¼NE¼NW¼ sec.5, T.34 N., R.6 E., Kosciusko County, Hydrologic Unit 04050001, on the north edge of property owned by the Dome Pipeline Corporation, on County Road 50 West, 1.5 mi northwest of Milford. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 4 in., depth 102 ft, cased to 99 ft, screened to 102 ft.

INSTRUMENTATION.--Water-stage recorder.

DATUM.--Elevation of land-surface datum is 830.90 ft above 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

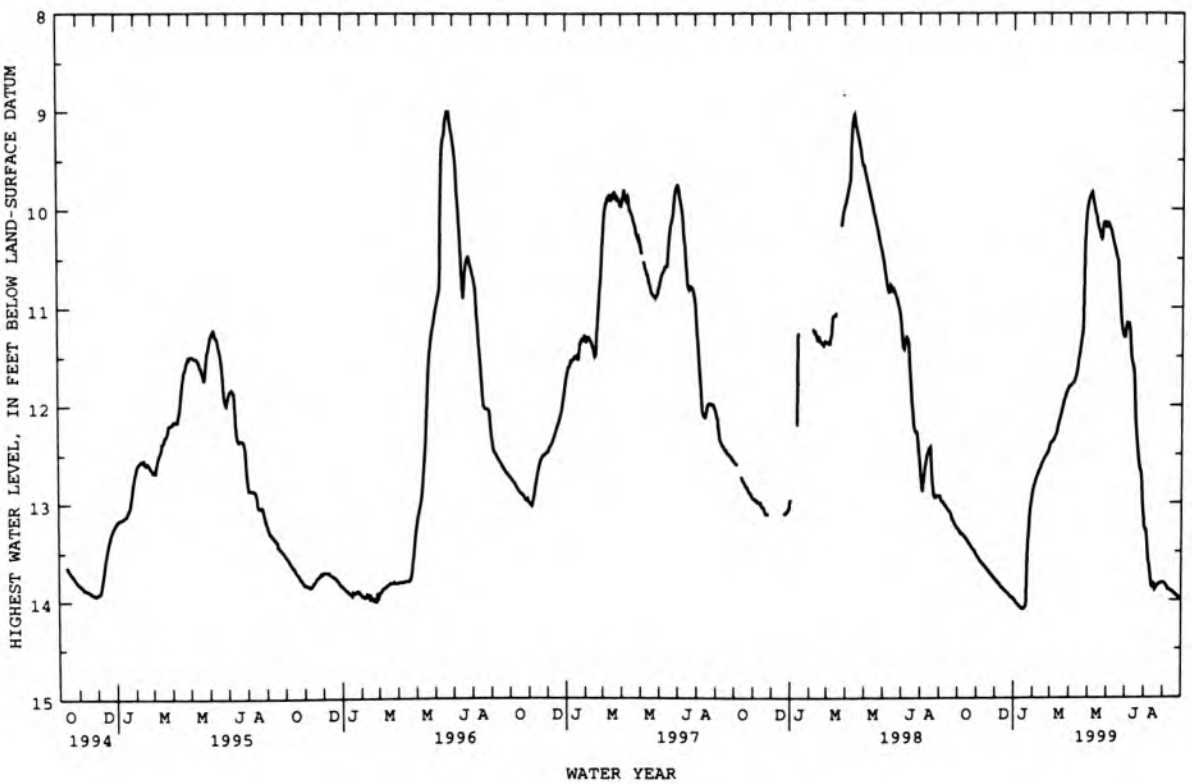
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.29	13.57	13.81	14.02	12.77	12.36	11.78	9.84	10.19	11.16	13.34	13.84
10	13.32	13.61	13.85	14.06	12.68	12.30	11.72	9.97	10.32	11.48	13.67	13.89
15	13.36	13.65	13.88	14.09	12.60	12.17	11.54	10.14	10.47	11.66	13.85	13.91
20	13.41	13.69	13.91	14.06	12.53	12.04	11.34	10.27	10.78	12.35	13.88	13.94
25	13.46	13.73	13.95	13.29	12.48	11.91	10.38	10.14	11.22	12.64	13.84	13.96
EOM	13.52	13.77	13.98	12.90	12.42	11.81	9.94	10.16	11.30	13.15	13.82	14.00

WTR YR 1999 HIGH 9.83 MAY 6

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.31	13.58	13.81	14.03	12.80	12.37	11.80	9.86	10.21	11.17	13.41	13.85
10	13.33	13.63	13.86	14.07	12.70	12.31	11.77	10.02	10.35	11.53	13.73	13.90
15	13.37	13.66	13.89	14.09	12.62	12.19	11.60	10.16	10.49	11.79	13.86	13.91
20	13.42	13.70	13.92	14.07	12.54	12.07	11.38	10.29	10.87	12.41	13.89	13.94
25	13.47	13.74	13.95	13.39	12.48	11.93	10.70	10.18	11.25	12.67	13.84	13.97
EOM	13.53	13.78	13.99	12.94	12.43	11.82	9.98	10.18	11.31	13.25	13.82	14.00

WTR YR 1999 LOW 14.10 JAN 16



414318085200601. Local number, LG 2.
LOCATION.--Lat 41°43'18", long 85°20'06", in SW$^{1}/_{4}$SE$^{1}/_{4}$NE$^{1}/_{4}$ 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

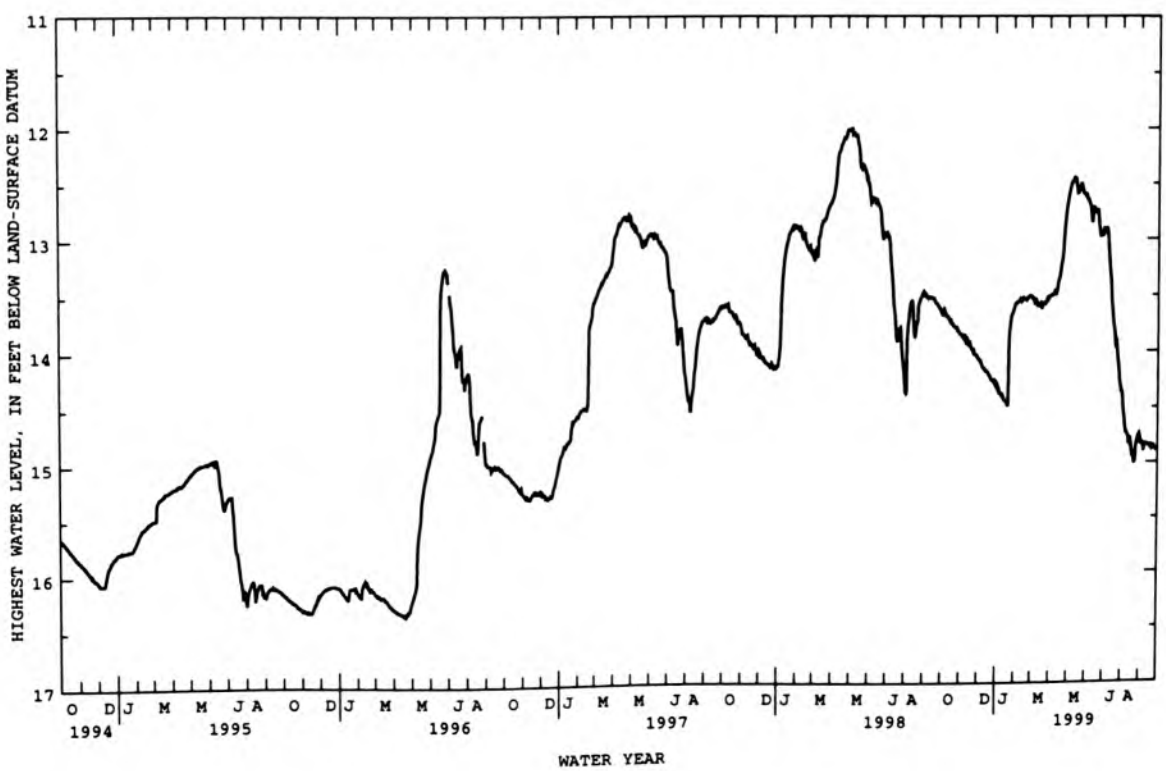
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.67	13.85	14.08	14.35	13.56	13.53	13.50	12.54	12.64	12.90	14.58	14.83
10	13.66	13.84	14.14	14.39	13.55	13.55	13.48	12.47	12.80	13.15	14.74	14.84
15	13.70	13.92	14.17	14.44	13.53	13.58	13.39	12.49	12.74	13.57	14.77	14.84
20	13.75	13.96	14.21	14.48	13.53	13.58	13.25	12.55	12.74	13.82	14.93	14.84
25	13.78	13.99	14.25	13.76	13.51	13.57	12.99	12.52	12.97	14.06	14.87	14.87
EOM	13.82	14.03	14.30	13.62	13.50	13.51	12.70	12.59	12.97	14.37	14.74	14.89

WTR YR 1999 HIGH 12.44 MAY 12

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.68	13.86	14.09	14.36	13.61	13.55	13.52	12.57	12.67	12.92	14.66	14.86
10	13.68	13.87	14.15	14.40	13.56	13.58	13.50	12.49	12.85	13.23	14.76	14.85
15	13.72	13.93	14.18	14.44	13.54	13.60	13.43	12.52	12.75	13.62	14.79	14.84
20	13.76	13.97	14.22	14.48	13.54	13.62	13.29	12.57	12.76	13.94	14.95	14.87
25	13.78	14.01	14.26	13.81	13.53	13.58	13.09	12.55	12.99	14.13	14.99	14.88
EOM	13.83	14.05	14.31	13.65	13.51	13.53	12.74	12.60	12.97	14.39	14.77	14.90

WTR YR 1999 LOW 15.05 AUG 22



LAGRANGE COUNTY

414158085253401. Local number, LG 3.
LOCATION.--Lat 41°41'58", long 85°25'34", in $SE^{1}/_{4}SE^{1}/_{4}SE^{1}/_{4}$ 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

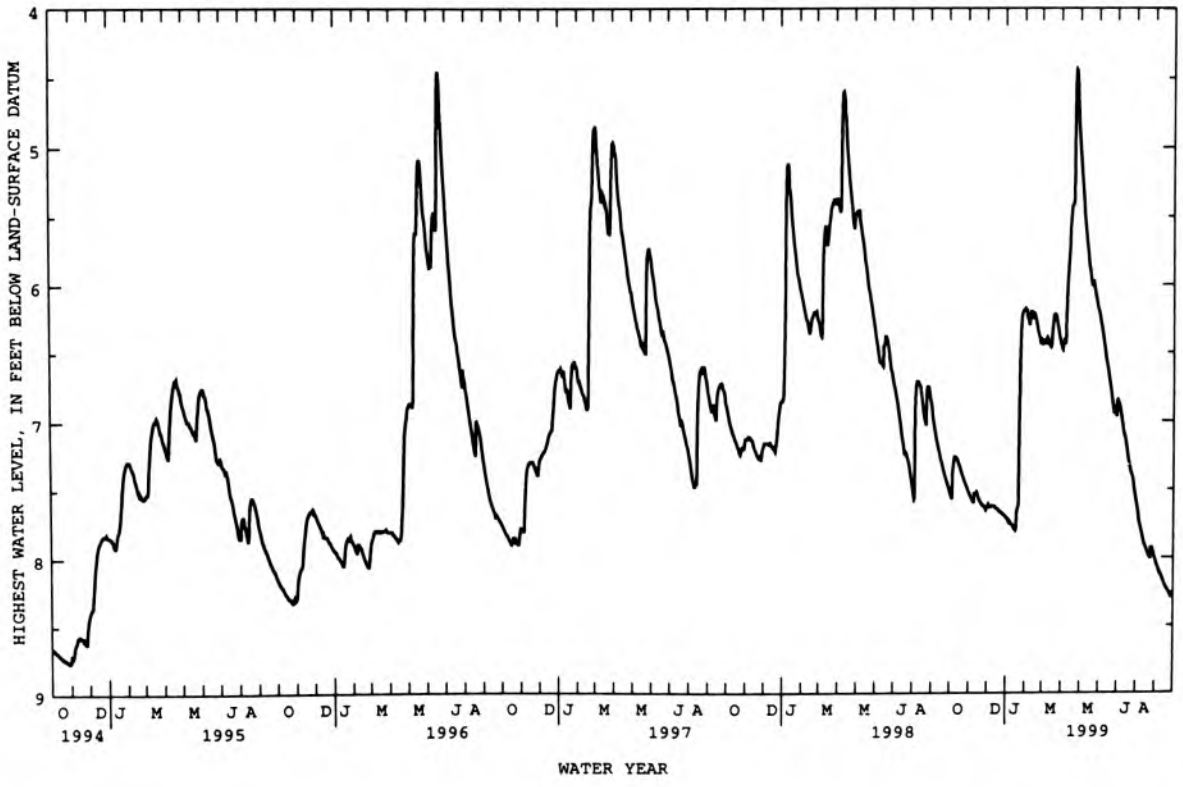
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.57	7.56	7.63	7.74	6.24	6.41	6.42	5.23	6.29	6.89	7.72	8.07
10	7.26	7.53	7.62	7.76	6.23	6.40	6.14	5.55	6.44	7.03	7.82	8.12
15	7.30	7.53	7.64	7.79	6.21	6.46	5.72	5.79	6.60	7.14	7.91	8.18
20	7.37	7.59	7.66	7.63	6.29	6.23	5.42	5.98	6.75	7.30	7.97	8.23
25	7.44	7.62	7.68	6.41	6.39	6.27	4.44	6.02	6.92	7.39	7.93	8.26
EOM	7.51	7.64	7.70	6.19	6.42	6.43	4.87	6.18	6.97	7.56	8.00	8.26

WTR YR 1999 HIGH 4.44 APR 25

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.59	7.57	7.63	7.74	6.27	6.43	6.45	5.29	6.32	6.91	7.74	8.08
10	7.26	7.61	7.62	7.76	6.28	6.42	6.23	5.60	6.48	7.06	7.84	8.13
15	7.31	7.55	7.64	7.80	6.23	6.47	5.80	5.84	6.63	7.17	7.92	8.19
20	7.38	7.60	7.66	7.65	6.32	6.27	5.43	6.01	6.78	7.33	7.98	8.23
25	7.45	7.63	7.68	6.59	6.43	6.30	4.49	6.05	6.95	7.41	8.01	8.28
EOM	7.52	7.65	7.71	6.20	6.44	6.44	4.95	6.19	6.99	7.59	8.01	8.26

WTR YR 1999 LOW 8.30 SEP 28



411038087284701. Local number, LK 12.
LOCATION.--Lat 41°10'38", long 87°28'47", in SW$^{1}/_{4}$NE$^{1}/_{4}$SW$^{1}/_{4}$ 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

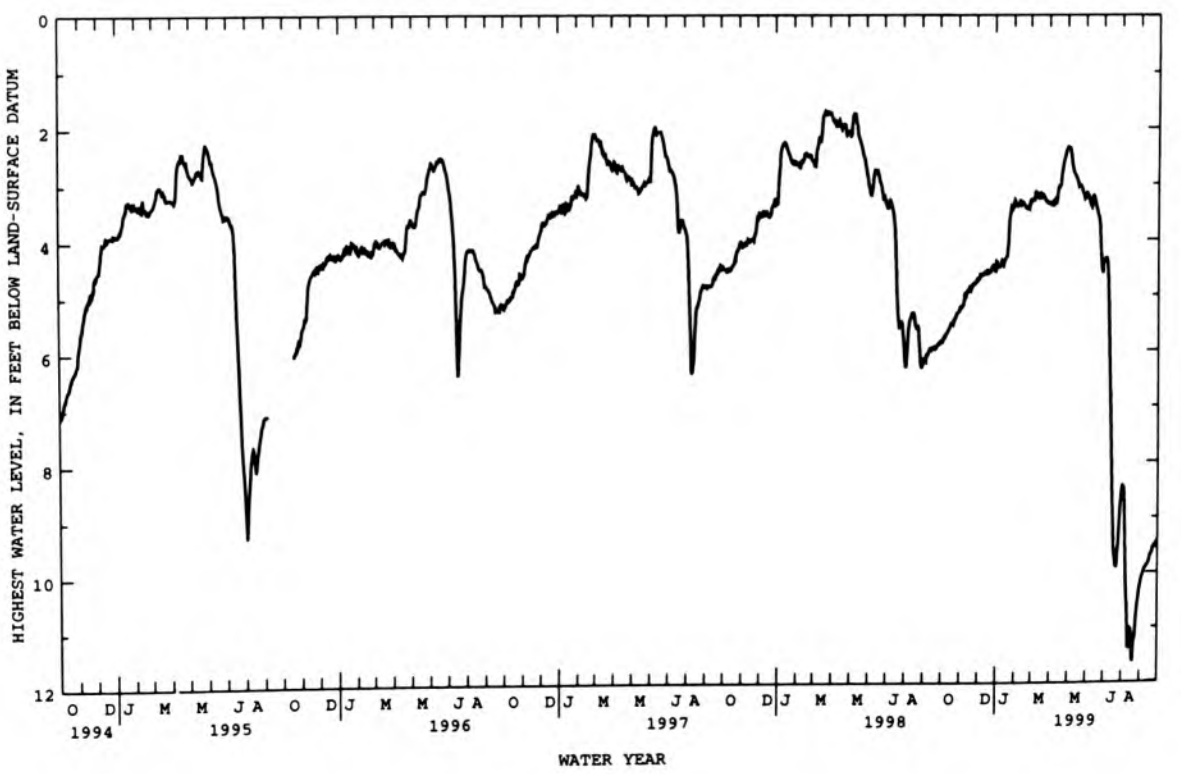
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.77	5.21	4.69	4.47	3.39	3.27	3.36	2.36	3.19	4.33	8.58	10.06
10	5.70	4.94	4.62	4.43	3.34	3.17	3.33	2.70	3.39	5.12	10.58	9.91
15	5.59	4.94	4.60	4.40	3.34	3.24	3.14	2.87	3.23	8.15	11.16	9.84
20	5.50	4.85	4.56	4.29	3.41	3.18	3.03	3.04	3.46	9.74	11.64	9.67
25	5.40	4.78	4.49	3.56	3.42	3.29	2.58	3.07	3.78	9.62	10.99	9.51
EOM	5.29	4.72	4.54	3.38	3.31	3.33	2.38	3.24	4.60	8.58	10.32	9.42

WTR YR 1999 HIGH 2.34 MAY 2

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.83	5.37	4.86	4.58	3.64	3.49	3.45	2.41	3.25	4.41	9.01	10.13
10	5.88	5.16	4.67	4.65	3.40	3.23	3.40	2.77	3.47	5.74	10.93	10.04
15	5.66	5.13	4.74	4.47	3.52	3.42	3.29	2.97	3.30	8.71	11.36	9.99
20	5.67	4.90	4.65	4.46	3.46	3.27	3.10	3.06	3.55	9.89	11.76	9.82
25	5.45	4.97	4.72	3.63	3.67	3.50	2.66	3.17	4.09	9.78	11.26	9.57
EOM	5.34	4.79	4.77	3.45	3.37	3.54	2.44	3.31	4.65	8.72	10.50	9.48

WTR YR 1999 LOW 11.76 AUG 20



LAKE COUNTY

413559087270301. Local number, LK 13.
LOCATION.--Lat 41°35'59", long 87°27'03", in SW¼NW¼SW¼ sec.3, 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, 3.33 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, Feb. 27, 1997: lowest, 5.23 ft below land-surface datum, Sept. 26, 27, 1999.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

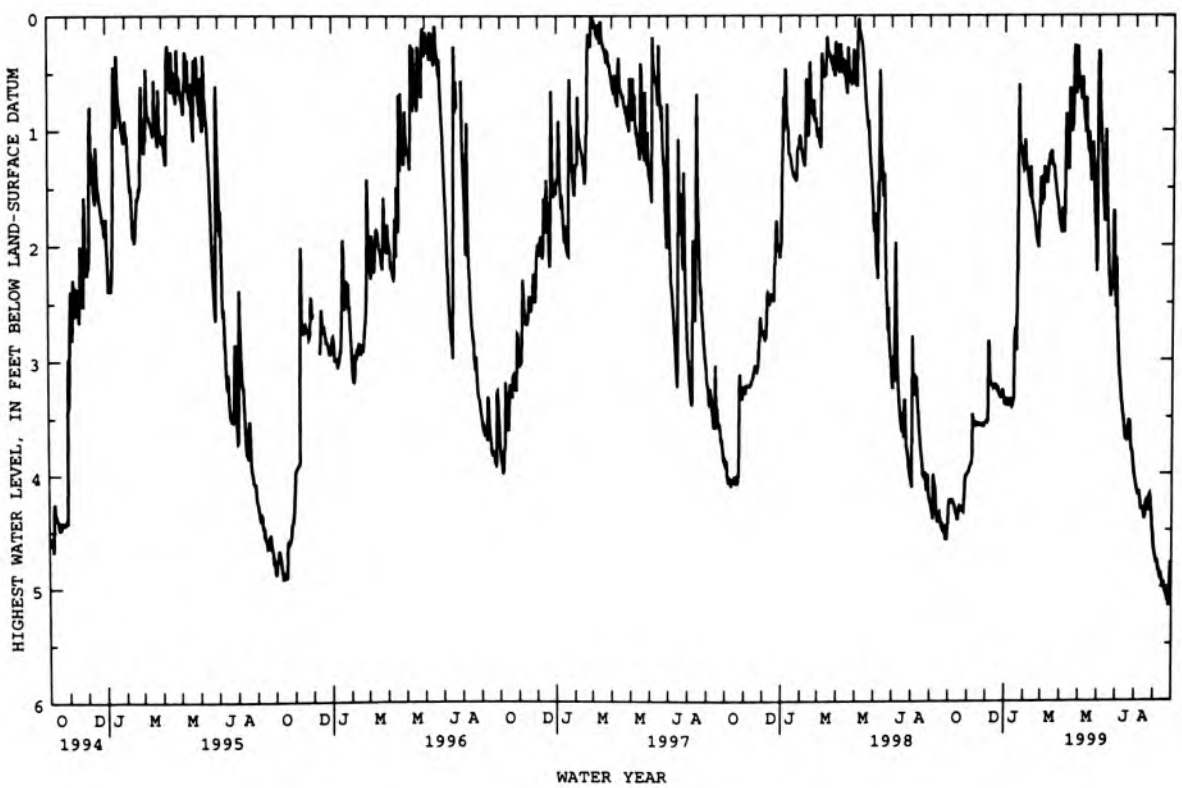
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.26	3.94	3.53	3.37	1.32	1.31	1.76	.72	.96	2.96	4.16	4.77
10	4.25	3.47	3.20	3.37	1.58	1.46	1.19	.94	1.67	3.36	4.25	4.85
15	4.35	3.56	3.23	3.34	1.68	1.21	.64	1.15	1.57	3.62	4.33	4.95
20	4.31	3.57	3.26	2.92	1.89	1.31	.95	1.44	2.36	3.68	4.24	5.03
25	4.32	3.55	3.32	1.16	1.84	1.55	.66	1.43	2.36	3.72	4.19	5.06
EOM	4.01	3.55	3.34	1.34	1.55	1.81	.54	.63	2.54	4.01	4.52	4.79

WTR YR 1999 HIGH .25 APR 23

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.28	3.97	3.54	3.42	1.48	1.68	1.82	.83	1.12	3.27	4.32	4.92
10	4.32	3.87	3.22	3.41	1.60	1.50	1.25	1.03	1.91	3.52	4.44	5.01
15	4.41	3.57	3.25	3.39	1.72	1.33	1.36	1.21	1.81	3.86	4.50	5.07
20	4.33	3.57	3.29	2.94	1.94	1.34	1.09	1.59	2.60	3.78	4.32	5.12
25	4.33	3.58	3.34	1.28	2.04	1.58	.68	1.66	2.77	3.97	4.28	5.20
EOM	4.01	3.57	3.39	1.38	1.65	1.83	.58	2.36	2.86	4.18	4.71	4.91

WTR YR 1999 LOW 5.23 SEP 26



LAKE COUNTY

411146087204101. Local number, LK 14.
LOCATION.--Lat 41°11'46", long 87°20'41", in SE¼SE¼NW¼ 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, 4.70 ft below land-surface datum, May 11, 12, 1998; lowest, 22.86 ft below land-surface datum, July 28, 1991.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

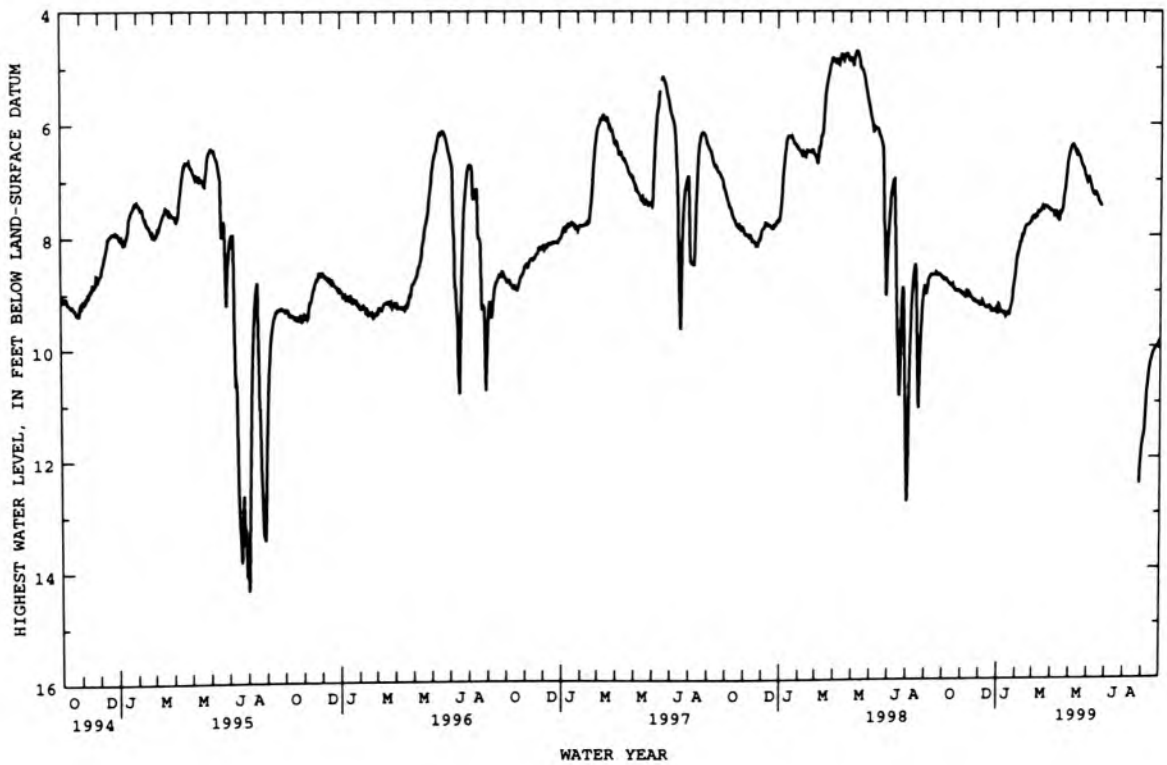
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.76	9.05	9.22	9.34	8.24	7.62	7.61	6.37	7.06	---	---	11.40
10	8.82	8.96	9.26	9.38	8.06	7.57	7.64	6.46	7.25	---	---	10.63
15	8.88	9.06	9.27	9.42	7.88	7.52	7.60	6.53	7.25	---	---	10.26
20	8.94	9.12	9.31	9.41	7.80	7.47	7.47	6.68	7.40	---	---	10.08
25	8.99	9.15	9.34	9.15	7.74	7.48	6.97	6.82	7.45	---	---	10.00
EOM	9.00	9.18	9.37	8.58	7.65	7.53	6.55	6.98	---	---	11.82	9.91

WTR YR 1999 HIGH 6.36 MAY 6

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.79	9.07	9.24	9.36	8.33	7.67	7.63	6.39	7.12	---	---	11.57
10	8.83	9.04	9.27	9.41	8.10	7.58	7.66	6.51	7.31	---	---	10.75
15	8.89	9.08	9.29	9.45	7.94	7.53	7.73	6.56	7.29	---	---	10.31
20	8.96	9.15	9.32	9.42	7.80	7.51	7.52	6.71	7.41	---	---	10.09
25	8.99	9.19	9.36	9.21	7.76	7.50	7.09	6.87	7.52	---	---	10.02
EOM	9.03	9.22	9.40	8.68	7.67	7.56	6.60	7.03	---	---	11.95	9.93

WTR YR 1999 LOW 12.74 AUG 27



LA PORTE COUNTY

413700086445401. Local number, LP 8.
LOCATION.--Lat 41°37'00", long 86°44'54", in NE$^1/_4$SE$^1/_4$NW$^1/_4$ 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 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 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 September 1999 (discontinued). Records from October 1999, to December 1999 are unpublished and available in files of the U. S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.37 ft below land-surface datum, Jan. 28, 1994; lowest, 7.04 ft below land-surface datum, Mar. 8-11, 1978.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

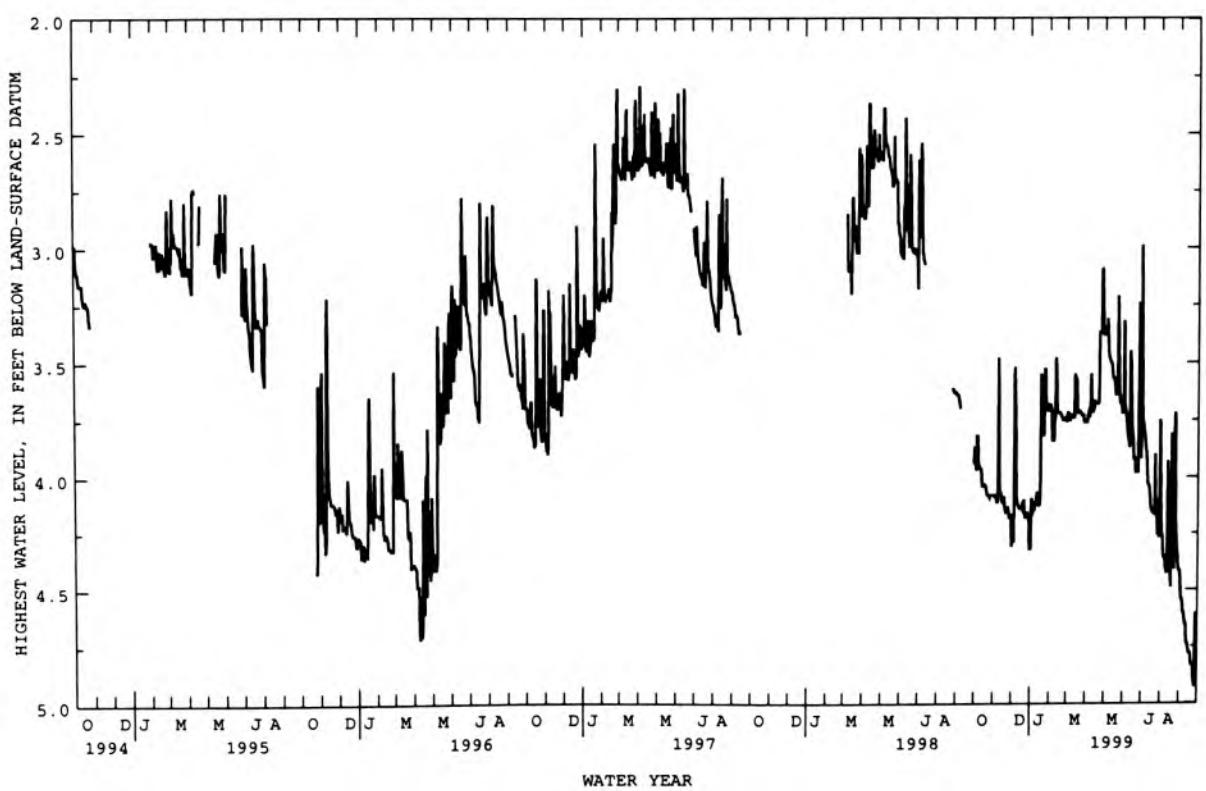
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.97	4.09	4.29	4.13	3.84	3.75	3.73	3.38	3.71	3.80	4.34	4.55
10	3.96	3.48	4.11	4.12	3.74	3.73	3.65	3.49	3.84	3.96	4.41	4.65
15	4.04	4.11	4.14	4.12	3.72	3.57	3.67	3.57	3.78	4.09	4.35	4.74
20	4.04	4.14	4.16	3.70	3.73	3.72	3.68	3.64	3.92	4.16	4.25	4.79
25	4.08	4.13	4.16	3.53	3.75	3.73	3.37	3.59	3.98	4.16	3.72	4.89
EOM	4.08	4.17	4.32	3.71	3.74	3.76	3.38	3.72	3.92	3.75	4.41	4.82

WTR YR 1999 HIGH 2.99 JUL 1

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.97	4.09	4.30	4.17	3.95	3.75	3.74	3.45	3.75	3.81	4.36	4.55
10	3.96	4.03	4.12	4.14	3.75	3.74	3.69	3.50	3.87	4.03	4.43	4.65
15	4.04	4.11	4.15	4.13	3.72	3.58	3.70	3.57	3.81	4.15	4.40	4.76
20	4.07	4.15	4.16	3.70	3.74	3.72	3.68	3.64	3.99	4.17	4.37	4.84
25	4.09	4.16	4.18	3.69	3.75	3.73	3.37	3.66	3.99	4.19	4.20	4.91
EOM	4.09	4.32	4.32	3.71	3.76	3.76	3.38	3.72	3.92	4.35	4.42	4.83

WTR YR 1999 LOW 4.95 SEP 27



412350086512801. Local number, LP 9.
LOCATION.--Lat 41°23'50", long 86°51'28", in SE¼SW¼NE¼ sec.15, T.34 N., R.4 W., La Porte County, Hydrologic Unit 07120001, at the intersection of County Roads 1450 South and 825 West, 3.0 mi southeast of Wanatah.
Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table 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, 8.35 ft below land-surface datum, Jan. 16, 17, 18, 1999.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

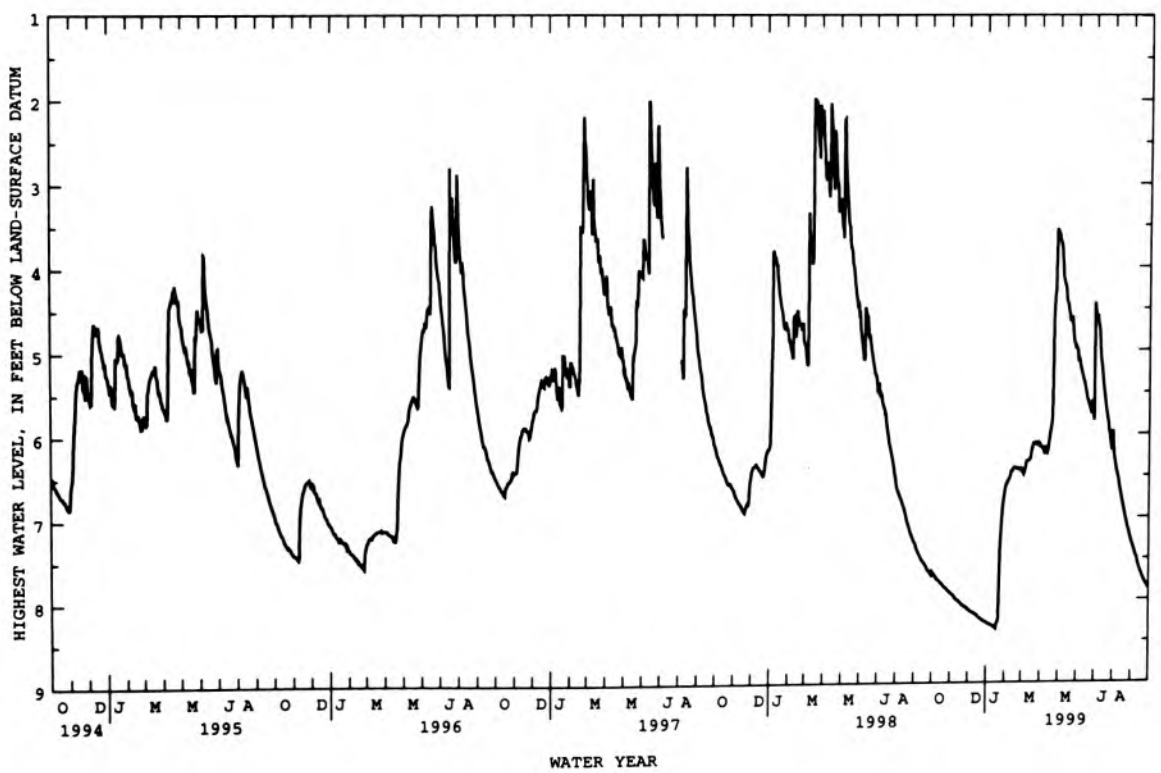
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.69	7.93	8.13	8.29	6.56	6.46	6.18	3.72	5.10	4.59	6.36	7.38
10	7.74	7.98	8.15	8.31	6.47	6.32	6.24	4.16	5.28	4.92	6.53	7.49
15	7.78	8.01	8.18	8.34	6.40	6.30	6.10	4.41	5.44	5.37	6.74	7.62
20	7.82	8.05	8.22	8.27	6.41	6.11	5.87	4.63	5.61	5.68	6.92	7.72
25	7.85	8.08	8.25	7.18	6.42	6.12	4.35	4.73	5.74	5.94	7.08	7.80
EOM	7.90	8.11	8.27	6.70	6.41	6.12	3.58	4.96	5.84	5.97	7.26	7.86

WTR YR 1999 HIGH 3.54 APR 28

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.70	7.94	8.14	8.29	6.61	6.48	6.23	3.83	5.16	4.60	6.40	7.40
10	7.75	7.99	8.16	8.32	6.51	6.33	6.28	4.22	5.33	5.07	6.57	7.50
15	7.79	8.02	8.19	8.34	6.42	6.31	6.17	4.45	5.48	5.43	6.78	7.64
20	7.83	8.06	8.22	8.28	6.42	6.15	5.92	4.66	5.63	5.73	6.94	7.73
25	7.86	8.08	8.25	7.34	6.44	6.13	4.49	4.80	5.76	5.99	7.13	7.81
EOM	7.91	8.11	8.27	6.74	6.45	6.14	3.61	4.99	5.86	6.28	7.29	7.87

WTR YR 1999 LOW 8.35 JAN 16



LA PORTE COUNTY

413139086341401. Local number, LP 10.
LOCATION.--Lat 41°31'40", long 86°34'10", in SE¼SW¼NE¼ sec.31, T.36 N., R.1 W., La Porte County, Hydrologic Unit 07120001, 200 ft north of the manager's residence at the Mixsawbah Fish Hatchery and 2.6 mi southeast of Stillwell.
Owner: State of Indiana.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 104 ft, cased to 102 ft, screened to 104 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 695 ft above 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, 9.67 ft below land-surface datum, Sept. 30, 1999.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

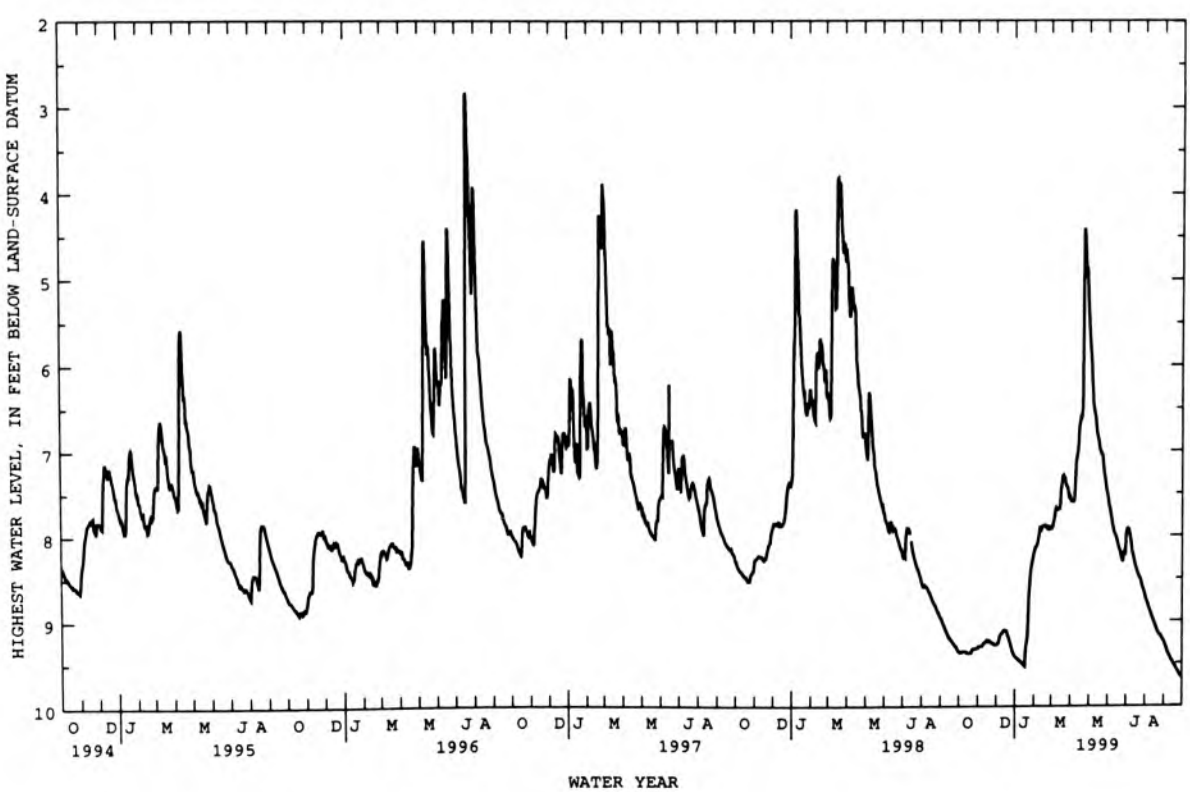
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.37	9.30	9.26	9.45	8.12	7.84	7.59	5.86	7.67	7.93	8.79	9.32
10	9.36	9.27	9.15	9.48	7.95	7.70	7.28	6.51	7.90	8.10	8.90	9.41
15	9.38	9.24	9.11	9.52	7.89	7.69	6.89	6.81	8.02	8.30	9.00	9.48
20	9.38	9.23	9.17	9.25	7.89	7.30	6.61	7.00	8.15	8.43	9.10	9.54
25	9.33	9.26	9.29	8.57	7.91	7.39	4.52	7.14	8.29	8.51	9.17	9.61
EOM	9.32	9.28	9.41	8.24	7.90	7.53	5.16	7.48	8.23	8.67	9.23	9.66

WTR YR 1999 HIGH 4.42 APR 23

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.37	9.30	9.27	9.45	8.17	7.88	7.66	6.00	7.73	7.93	8.81	9.35
10	9.36	9.29	9.16	9.49	8.00	7.71	7.45	6.55	7.93	8.17	8.92	9.43
15	9.38	9.24	9.11	9.52	7.91	7.71	6.99	6.83	8.05	8.34	9.02	9.50
20	9.38	9.24	9.19	9.30	7.90	7.38	6.66	7.01	8.18	8.45	9.12	9.56
25	9.34	9.26	9.31	8.69	7.95	7.42	4.72	7.21	8.31	8.55	9.17	9.62
EOM	9.32	9.29	9.42	8.28	7.92	7.55	5.35	7.50	8.26	8.70	9.25	9.67

WTR YR 1999 LOW 9.67 SEP 30



LA PORTE COUNTY

412839086533101. Local number, LP 11.
LOCATION.--Lat 41°28'39", long 86°53'31", in $SW^{1}/_{4}SW^{1}/_{4}SW^{1}/_{4}$ 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

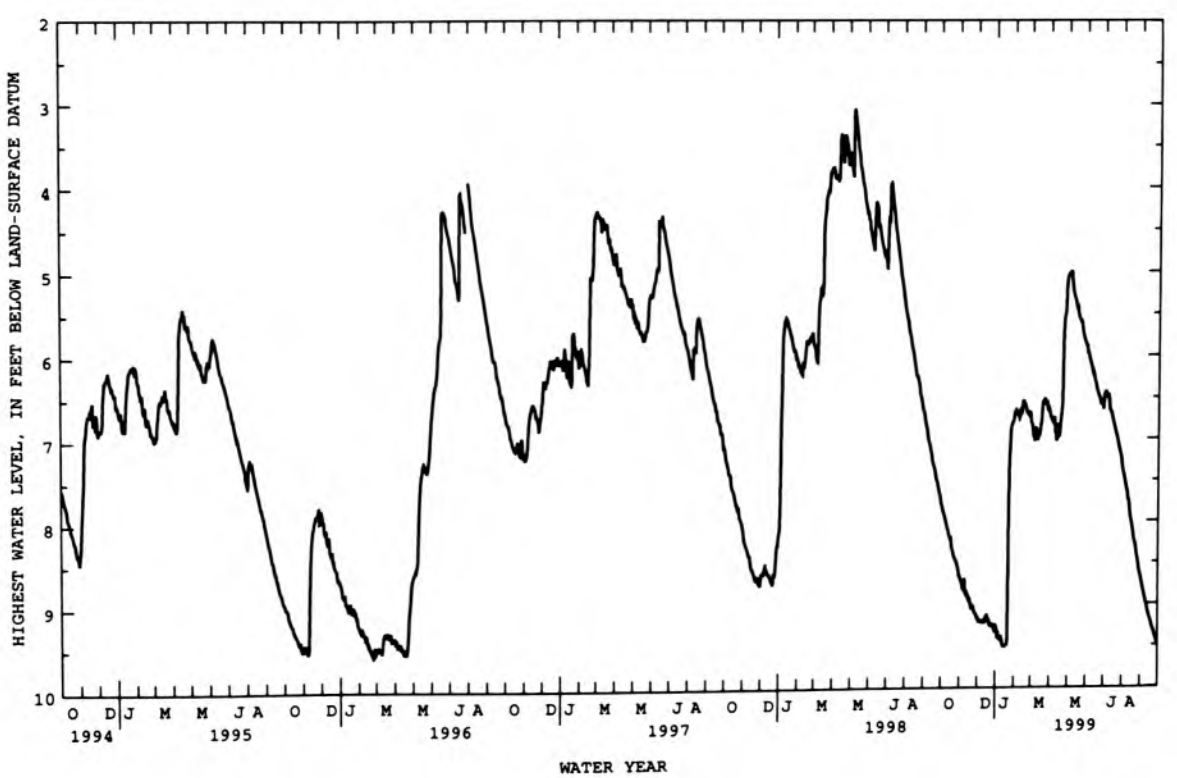
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.88	8.74	9.21	9.37	6.69	6.93	6.75	5.01	5.98	6.45	7.47	8.79
10	8.02	8.69	9.22	9.43	6.72	6.98	6.89	5.26	6.14	6.56	7.65	8.96
15	8.17	8.92	9.17	9.51	6.54	6.97	6.87	5.42	6.30	6.73	7.95	9.12
20	8.34	9.00	9.20	9.49	6.62	6.56	6.74	5.56	6.43	6.89	8.16	9.24
25	8.46	9.02	9.24	7.07	6.69	6.58	5.55	5.68	6.57	7.05	8.36	9.36
EOM	8.63	9.13	9.33	6.74	6.70	6.64	5.06	5.85	6.65	7.25	8.63	9.47

WTR YR 1999 HIGH 4.99 MAY 6

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.91	8.76	9.22	9.41	6.85	6.98	6.87	5.06	6.04	6.48	7.52	8.83
10	8.06	8.82	9.24	9.47	6.81	7.02	6.98	5.31	6.19	6.65	7.74	8.99
15	8.21	8.94	9.21	9.52	6.60	7.00	6.99	5.45	6.32	6.77	7.98	9.14
20	8.36	9.03	9.23	9.50	6.66	6.70	6.82	5.58	6.46	6.93	8.21	9.28
25	8.48	9.08	9.27	7.23	6.78	6.61	5.65	5.73	6.60	7.08	8.41	9.38
EOM	8.66	9.18	9.33	6.79	6.80	6.68	5.11	5.88	6.68	7.32	8.65	9.49

WTR YR 1999 LOW 9.55 JAN 16



LA PORTE COUNTY

413434086434701. Local number, LP 12.
LOCATION.--Lat 41°34'34", long 86°43'47", in NE$^1/_4$NE$^1/_4$NW$^1/_4$ 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

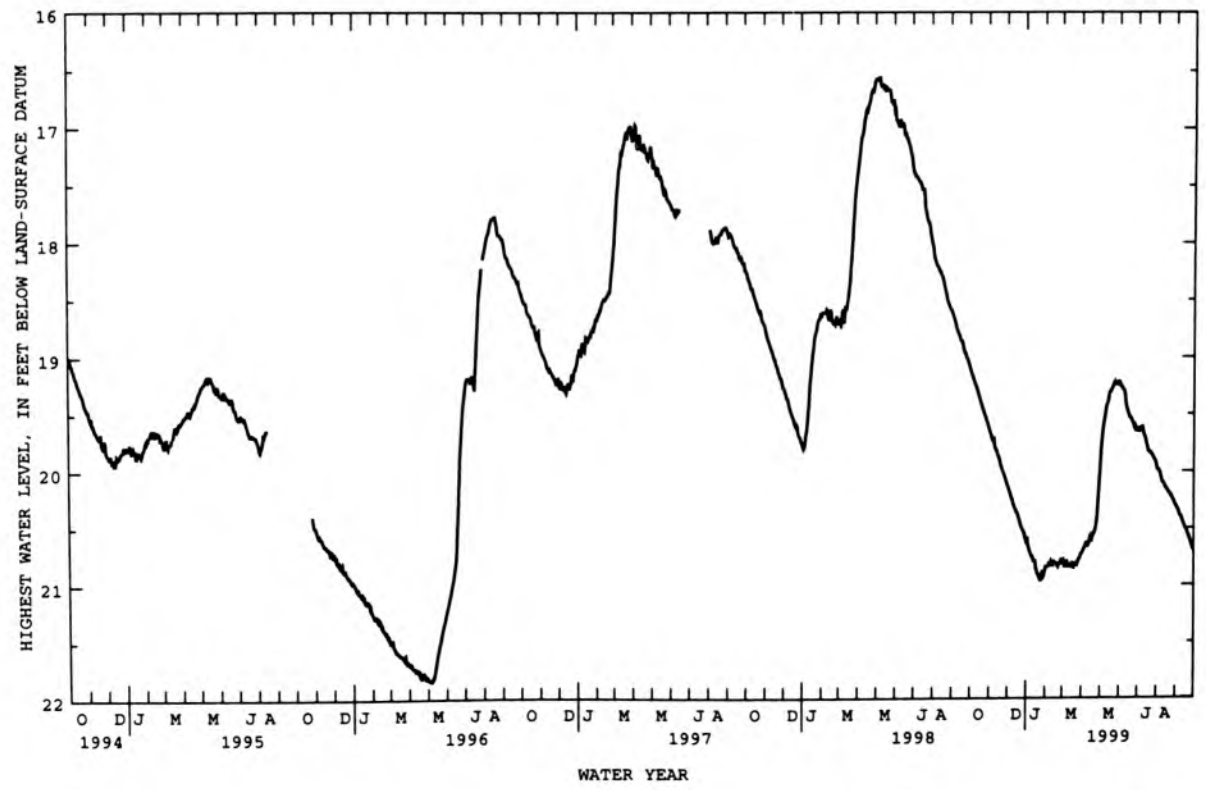
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.15	19.68	20.17	20.66	20.84	20.81	20.68	19.68	19.25	19.63	19.99	20.34
10	19.23	19.70	20.26	20.75	20.82	20.81	20.63	19.49	19.30	19.63	20.09	20.40
15	19.31	19.84	20.34	20.79	20.81	20.83	20.58	19.36	19.48	19.74	20.14	20.47
20	19.40	19.93	20.41	20.91	20.82	20.84	20.57	19.28	19.53	19.83	20.18	20.53
25	19.49	20.01	20.50	20.96	20.81	20.82	20.47	19.22	19.60	19.86	20.21	20.61
EOM	19.58	20.09	20.59	20.89	20.78	20.73	20.10	19.22	19.65	19.92	20.29	20.69

WTR YR 1999 HIGH 19.07 OCT 1

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.16	19.69	20.19	20.69	20.88	20.83	20.71	19.75	19.27	19.65	20.00	20.35
10	19.24	19.77	20.29	20.77	20.84	20.83	20.67	19.53	19.35	19.67	20.10	20.42
15	19.33	19.85	20.36	20.79	20.83	20.83	20.62	19.39	19.49	19.76	20.15	20.49
20	19.42	19.95	20.43	20.92	20.83	20.86	20.58	19.30	19.54	19.83	20.19	20.55
25	19.50	20.02	20.51	20.97	20.82	20.82	20.51	19.24	19.62	19.87	20.23	20.62
EOM	19.61	20.12	20.61	20.92	20.79	20.76	20.19	19.23	19.66	19.95	20.30	20.69

WTR YR 1999 LOW 20.97 JAN 24



393855086120701. Local number, MA 34.
LOCATION.--Lat 39°38'55", long 86°12'07", in NE¼NW¼NE¼ sec.21, T.14 N., R.3 E., Marion County, Hydrologic Unit 05120201, about 0.5 mi northwest of Glenns Valley.
Owner: U.S. Geological Survey.

AQUIFER.--Coarse sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 66 ft, cased to 61 ft, screened to 66 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 670.73 ft above sea level. Measuring point: Top of casing, 3.70 ft above land-surface datum.

REMARKS.--Well affected by pumpage from water-supply well field.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.55 ft below land-surface datum, Nov. 17, 1993; lowest, 10.82 ft below land-surface datum, Sept. 30, 1999. An artificially created extreme of the lowest water level, 17.32 ft below land-surface datum, June 6-8, 9, 1998 was recorded during underground drainage construction in the vicinity immediately surrounding the well.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

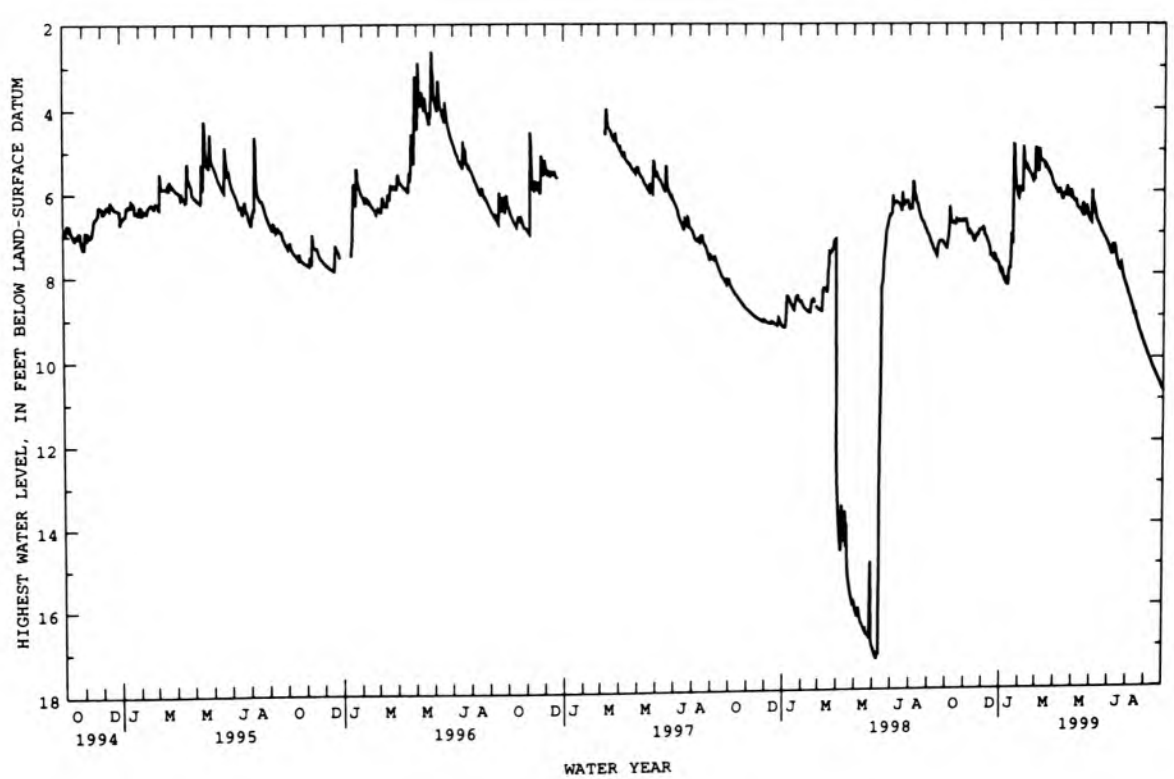
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.05	6.83	7.04	8.11	5.96	5.48	6.01	6.24	6.30	7.54	8.58	9.94
10	6.71	6.95	7.22	8.22	5.43	5.26	6.04	6.40	6.68	7.32	8.81	10.12
15	6.76	7.14	7.54	7.84	5.49	5.37	6.09	6.50	6.86	7.73	9.06	10.30
20	6.69	7.05	7.64	7.22	5.61	5.44	6.11	6.48	7.02	7.78	9.30	10.46
25	6.70	6.92	7.67	5.76	5.70	5.63	6.08	6.41	7.15	8.09	9.51	10.63
EOM	6.70	6.88	7.93	6.04	4.95	5.87	6.10	6.72	7.34	8.35	9.75	10.80

WTR YR 1999 HIGH 4.87 JAN 22

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.10	6.91	7.09	8.14	6.12	5.55	6.07	6.31	6.38	7.57	8.64	9.98
10	6.74	7.05	7.28	8.29	5.48	5.40	6.08	6.45	6.73	7.37	8.89	10.16
15	6.80	7.19	7.62	7.86	5.52	5.42	6.22	6.53	6.90	7.78	9.11	10.33
20	6.72	7.09	7.67	7.31	5.65	5.49	6.17	6.54	7.06	7.98	9.35	10.50
25	6.72	7.00	7.70	5.94	5.76	5.68	6.12	6.53	7.20	8.14	9.55	10.66
EOM	6.74	6.95	7.98	6.14	5.32	5.90	6.18	6.75	7.39	8.41	9.79	10.82

WTR YR 1999 LOW 10.82 SEP 30



394632086092701. Local number, MA 35.
LOCATION.--Lat 39°46'32", long 86°09'27", in NW¼SW¼NW¼ 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.

REMARKS.--Water levels are affected by pumpage.

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, unknown, but greater than 37.55 ft below land-surface datum. Recorder unable to record below this water level, which occurred on numerous occasions between Aug. 14 and Sept. 2, 1995.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

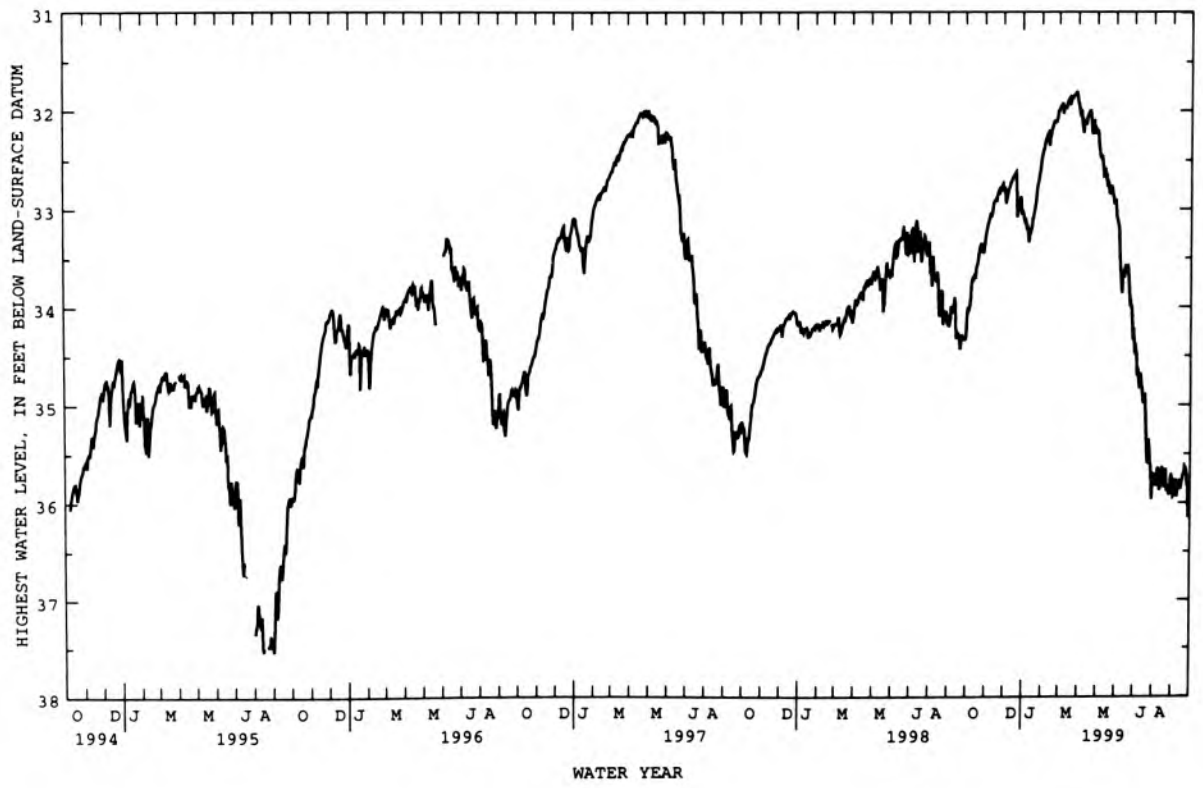
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	34.00	33.17	32.94	33.13	32.34	31.94	32.04	32.40	33.15	34.47	35.79	35.82
10	33.80	33.04	32.78	33.24	32.23	31.96	32.11	32.51	33.77	34.83	35.71	35.86
15	33.67	32.93	32.69	33.20	32.25	31.89	32.06	32.65	33.70	34.89	35.68	35.86
20	33.56	32.90	32.63	33.01	32.11	31.88	32.00	32.74	33.58	35.09	35.79	35.70
25	33.37	32.82	33.00	32.75	32.09	31.84	32.12	32.76	33.95	35.35	35.84	35.71
EOM	33.40	32.74	33.01	32.50	32.00	31.91	32.20	32.91	34.22	35.78	35.72	35.83

WTR YR 1999 HIGH 31.81 MAR 28

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	34.28	33.21	33.05	33.21	32.40	31.96	32.10	32.67	33.38	34.70	36.09	36.00
10	33.90	33.21	32.83	33.34	32.35	32.02	32.25	32.78	33.88	35.08	36.08	36.16
15	33.93	32.97	32.71	33.24	32.31	31.91	32.17	32.85	33.96	35.26	35.77	36.16
20	33.64	32.95	32.65	33.06	32.14	31.92	32.11	33.04	33.75	35.47	36.09	36.08
25	33.50	32.85	33.01	32.87	32.14	31.85	32.21	32.98	34.26	35.68	36.12	35.98
EOM	33.56	33.05	33.02	32.56	32.13	32.14	32.47	33.00	34.50	36.03	36.02	36.14

WTR YR 1999 LOW 36.29 SEP 28



394626086100201. Local number, MA 36.
LOCATION.--Lat 39°46'26", long 86°10'02", in SW¼SW¼NE¼ sec.2, T.15 N., R.3 E., Marion County, Hydrologic Unit 05120201, in the southwest corner of the intersection of West and Michigan Streets in Indianapolis.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 70.6 ft, cased to 65.1 ft, screened to 70.6 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 710.06 ft above 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, 33.41 ft below land-surface datum, Sept. 3-5, 1995.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

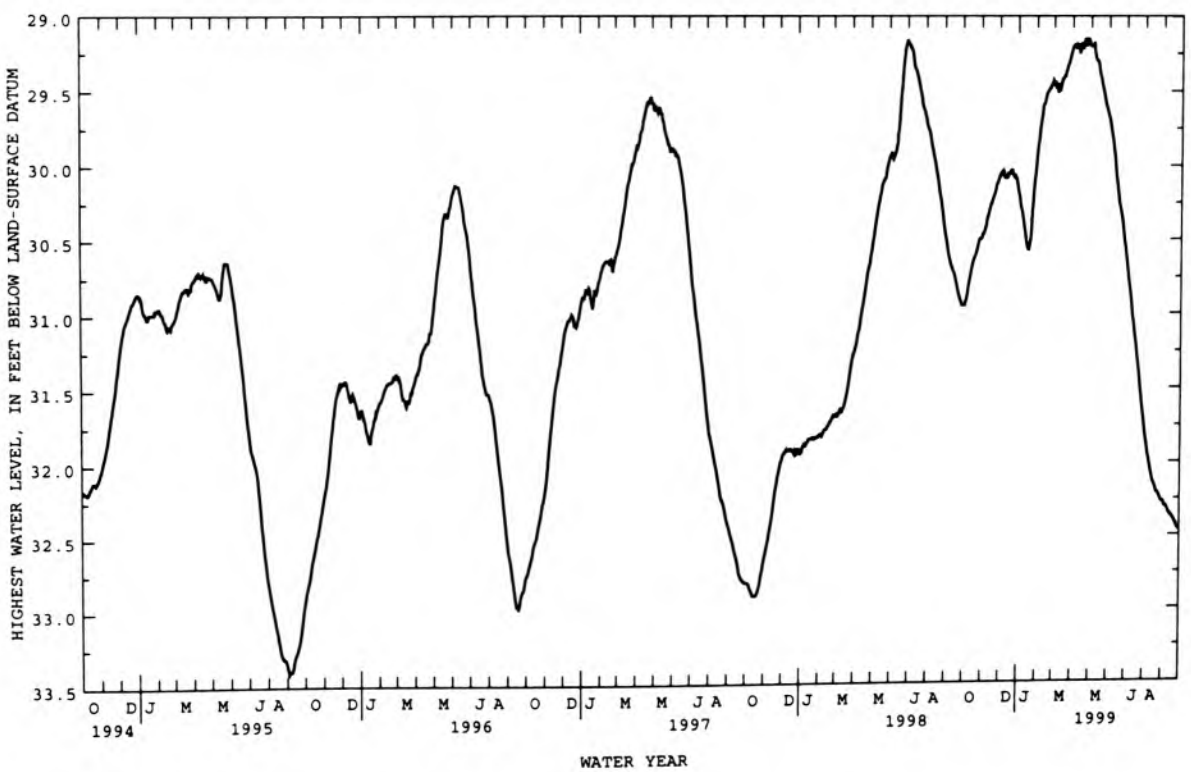
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.91	30.44	30.04	30.28	29.77	29.46	29.20	29.19	29.76	30.76	31.88	32.30
10	30.79	30.34	30.08	30.40	29.62	29.47	29.22	29.29	29.91	30.93	32.01	32.32
15	30.68	30.27	30.06	30.54	29.54	29.42	29.18	29.36	30.12	31.12	32.11	32.36
20	30.61	30.21	30.05	30.51	29.49	29.37	29.16	29.46	30.28	31.30	32.17	32.39
25	30.54	30.13	30.06	30.24	29.45	29.31	29.17	29.56	30.40	31.50	32.21	32.42
EOM	30.49	30.07	30.15	29.97	29.44	29.21	29.19	29.66	30.57	31.72	32.27	32.47

WTR YR 1999 HIGH 29.15 APR 21

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.92	30.45	30.04	30.29	29.82	29.48	29.22	29.21	29.80	30.79	31.91	32.30
10	30.81	30.36	30.09	30.43	29.66	29.48	29.24	29.30	29.95	30.98	32.02	32.33
15	30.70	30.28	30.08	30.56	29.56	29.43	29.20	29.38	30.16	31.15	32.13	32.36
20	30.62	30.22	30.07	30.54	29.49	29.40	29.18	29.48	30.30	31.33	32.18	32.39
25	30.56	30.15	30.08	30.29	29.46	29.32	29.20	29.58	30.44	31.54	32.22	32.44
EOM	30.49	30.08	30.18	30.01	29.45	29.23	29.20	29.67	30.61	31.76	32.27	32.48

WTR YR 1999 LOW 32.48 SEP 30



MARION COUNTY

394732086115501. Local number, MA 37.
LOCATION.--Lat 39°47'32", long 86°11'55", in SE$^1/_4$NE$^1/_4$NE$^1/_4$ sec. 33, T.16N., R.3E., 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.

REMARKS.--Water level may be affected by pumpage.

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, 16.70 ft below land-surface datum, Sept. 11, 1996.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

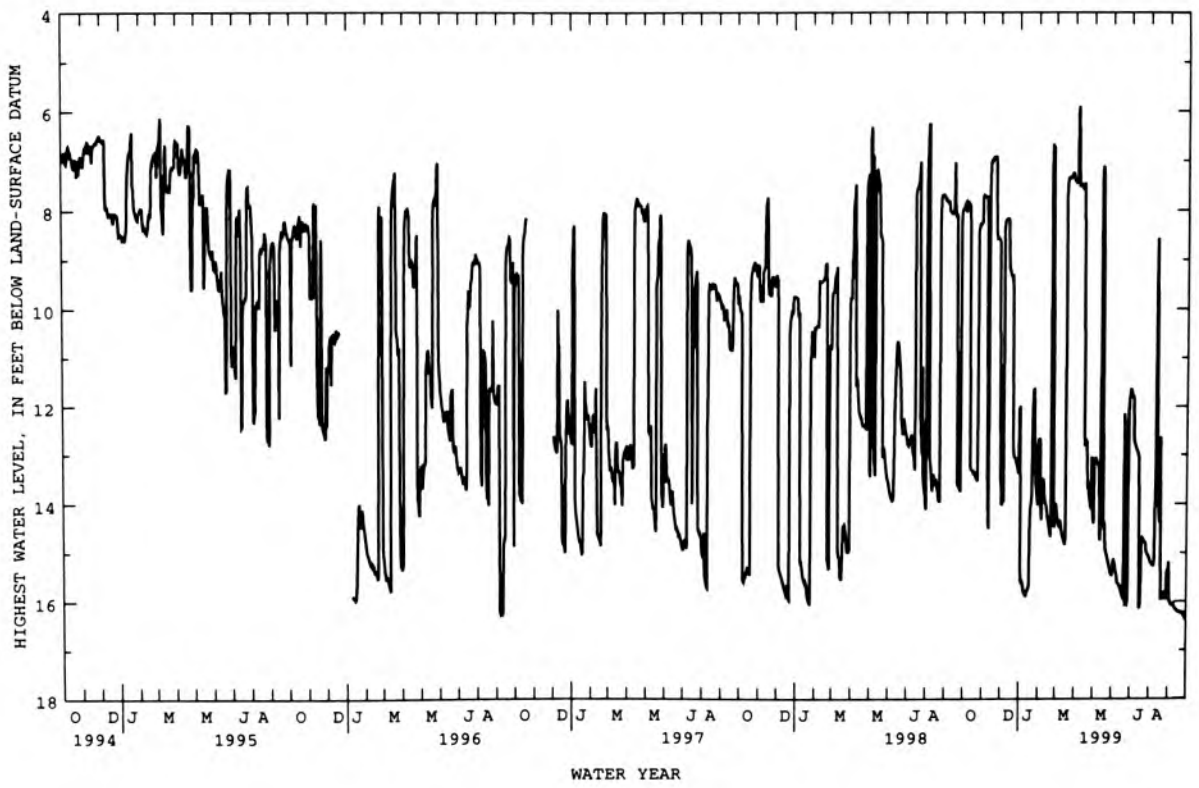
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.84	7.72	13.93	15.57	14.11	14.39	6.07	13.07	15.19	11.79	15.24	16.04
10	7.87	13.32	8.19	15.85	13.56	14.49	7.50	13.24	15.62	12.86	14.03	16.03
15	13.30	7.01	9.15	15.77	14.16	14.76	7.49	7.17	15.75	13.04	13.99	16.18
20	13.40	6.94	9.38	14.00	14.61	7.36	12.76	14.42	15.94	14.73	15.97	16.21
25	13.53	8.57	13.06	11.65	6.80	7.32	13.87	15.13	16.01	14.78	15.94	16.25
EOM	8.26	8.63	13.38	14.03	14.21	7.42	14.07	15.45	11.80	15.08	15.36	16.22

WTR YR 1999 HIGH 5.90 APR 6

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.06	7.76	13.97	15.78	14.33	14.47	7.61	13.14	15.27	11.83	15.25	16.07
10	7.88	14.38	8.21	15.90	13.83	14.58	7.56	13.32	15.68	12.89	15.27	16.12
15	13.33	7.11	9.31	15.81	14.29	14.84	7.61	7.45	15.78	16.15	14.01	16.20
20	13.51	7.08	9.39	14.11	14.67	7.45	12.87	14.89	15.96	14.87	15.99	16.24
25	13.56	8.67	13.09	12.67	14.29	7.39	13.98	15.18	16.05	14.82	15.97	16.27
EOM	8.29	13.54	13.44	14.12	14.48	7.45	14.31	15.46	11.87	15.12	15.41	16.27

WTR YR 1999 LOW 16.34 SEP 28



393950086124701. Local number, MA 38.
LOCATION.--Lat 39°39'30", long 86°12'47", in SE$^1/_4$SW$^1/_4$SW$^1/_4$ sec. 9, T.14N., R.3E., Marion County, Hydrologic Unit 05120201, on Southport Road, west of Highway 37 0.7 mi.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene Epoch.

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 675 ft above sea level, from topographic map. Measuring point: Top of casing, 3.50 ft above land-surface datum.

REMARKS.--Well affected by pumpage from water-supply well field.

PERIOD OF RECORD.--December 1997 to September 30, 1998.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.43 ft below land-surface datum, June 16, 1998; lowest, 16.00 ft below land-surface datum, Aug. 18, 1997.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

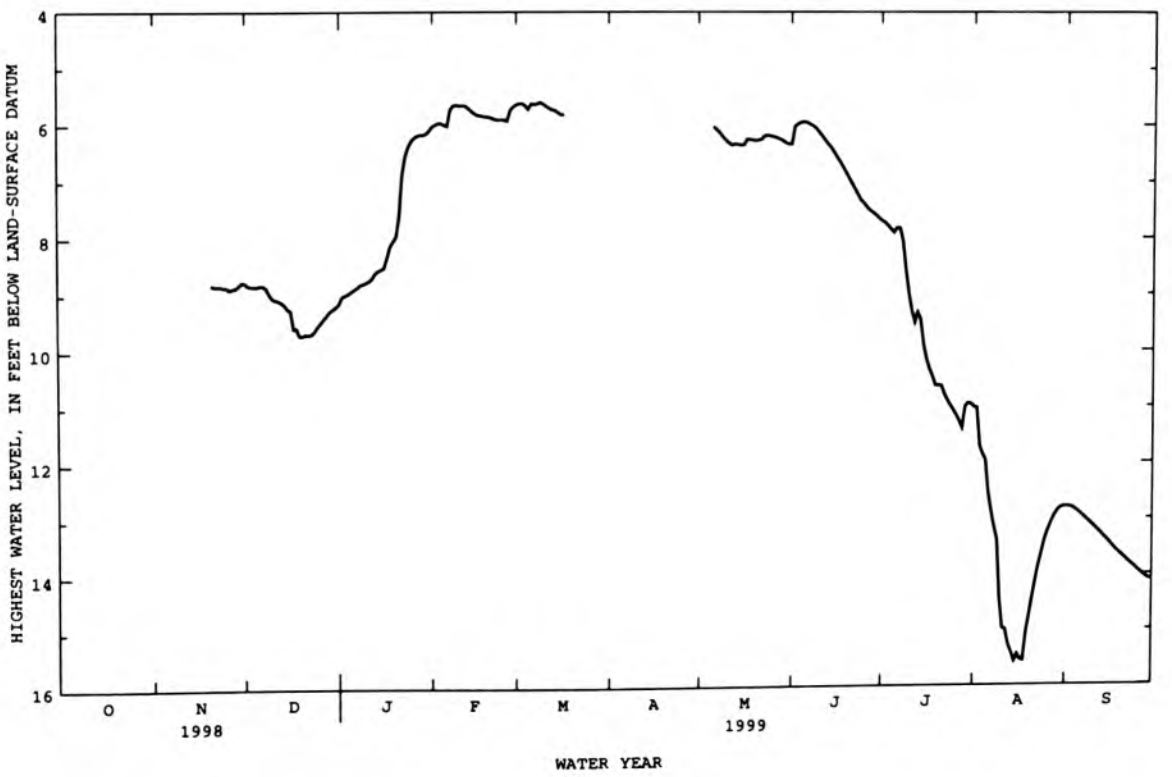
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	8.84	8.94	6.00	5.72	---	---	5.94	7.89	11.96	12.88
10	---	---	9.04	8.78	5.66	5.63	---	6.26	6.12	8.97	14.45	13.12
15	---	---	9.23	8.55	5.79	5.78	---	6.35	6.47	9.88	15.58	13.39
20	---	8.81	9.71	7.97	5.86	---	---	6.27	6.93	10.62	14.76	13.67
25	---	8.85	9.54	6.29	5.91	---	---	6.19	7.37	11.06	13.40	13.91
EOM	---	8.76	9.20	6.10	5.68	---	---	6.33	7.63	10.95	12.80	14.10

WTR YR 1999 HIGH 5.60 MAR 9

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	8.86	8.98	6.02	5.75	---	---	5.96	7.96	12.55	12.92
10	---	---	9.07	8.80	5.68	5.67	---	6.31	6.18	9.28	15.14	13.17
15	---	---	9.26	8.57	5.83	5.82	---	6.36	6.56	10.14	15.63	13.45
20	---	8.83	9.73	8.05	5.88	---	---	6.28	7.03	10.81	15.07	13.72
25	---	8.91	9.62	6.39	5.93	---	---	6.20	7.45	11.15	13.63	13.96
EOM	---	8.82	9.24	6.16	5.74	---	---	6.34	7.68	11.10	12.83	14.14

WTR YR 1999 LOW 16.00 AUG 18



MARTIN COUNTY

383659086545901. Local number, MT 5.
LOCATION.--Lat 38°36'59", long 86°54'59", in SE$^1/_4$NE$^1/_4$SW$^1/_4$ 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 casing, 2.80 ft above land-surface datum.

PERIOD OF RECORD.--May 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 22.80 ft below land-surface datum, July 2, 1997; lowest, 34.10 ft below land-surface datum, Jan. 1, 5, 22, 23, 1960, and Dec. 18, 19, 1964.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

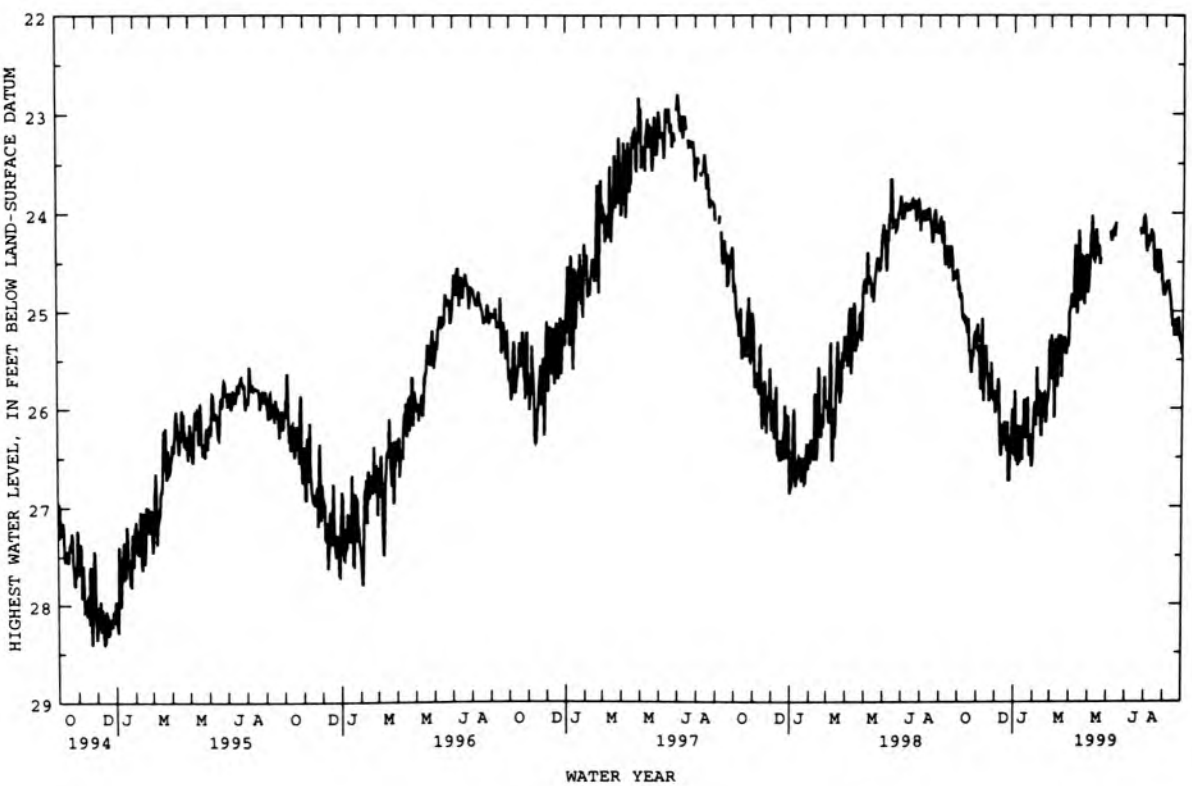
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	24.84	25.48	25.84	26.53	26.17	25.42	24.89	24.18	24.18	---	24.28	24.69
10	25.07	25.07	26.48	26.55	26.07	25.54	24.58	24.48	24.17	---	24.16	24.84
15	25.09	25.48	26.37	26.27	26.03	25.36	24.17	24.43	---	---	24.54	25.10
20	25.42	25.75	26.43	26.21	25.99	25.34	24.62	24.45	---	---	24.48	25.10
25	25.46	25.52	26.54	26.48	25.85	25.38	24.70	---	---	24.19	24.44	25.13
EOM	25.37	25.81	26.39	26.46	25.32	25.00	24.81	---	---	24.05	24.83	25.44

WTR YR 1999 HIGH 24.02 MAY 6

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	24.91	25.56	25.92	26.80	26.57	25.76	25.10	24.25	24.29	---	24.33	24.77
10	25.14	25.45	26.53	26.68	26.26	25.76	24.82	24.57	24.27	---	24.26	24.93
15	25.22	25.69	26.53	26.58	26.28	25.56	24.64	24.54	---	---	24.64	25.21
20	25.53	25.92	26.53	26.33	26.13	25.68	24.83	24.58	---	---	24.64	25.20
25	25.55	25.88	26.80	26.81	25.98	25.48	24.96	---	---	24.26	24.50	25.25
EOM	25.48	26.04	26.62	26.57	25.52	25.32	24.92	---	---	24.16	24.92	25.54

WTR YR 1999 LOW 26.88 DEC 22



400247086482101. Local number, MY 7.
LOCATION.--Lat 40°02'47", long 86°48'21", in NE$^{1}/_{4}$NW$^{1}/_{4}$SW$^{1}/_{4}$ 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 Crawfordsville.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 111 ft, cased to 107 ft, screened to 109 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 801 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 2.38 ft above land-surface datum.

REMARKS.--Well affected by pumpage from water-supply well field.

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, 40.58 ft below land-surface datum, Sept. 26, 1999.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

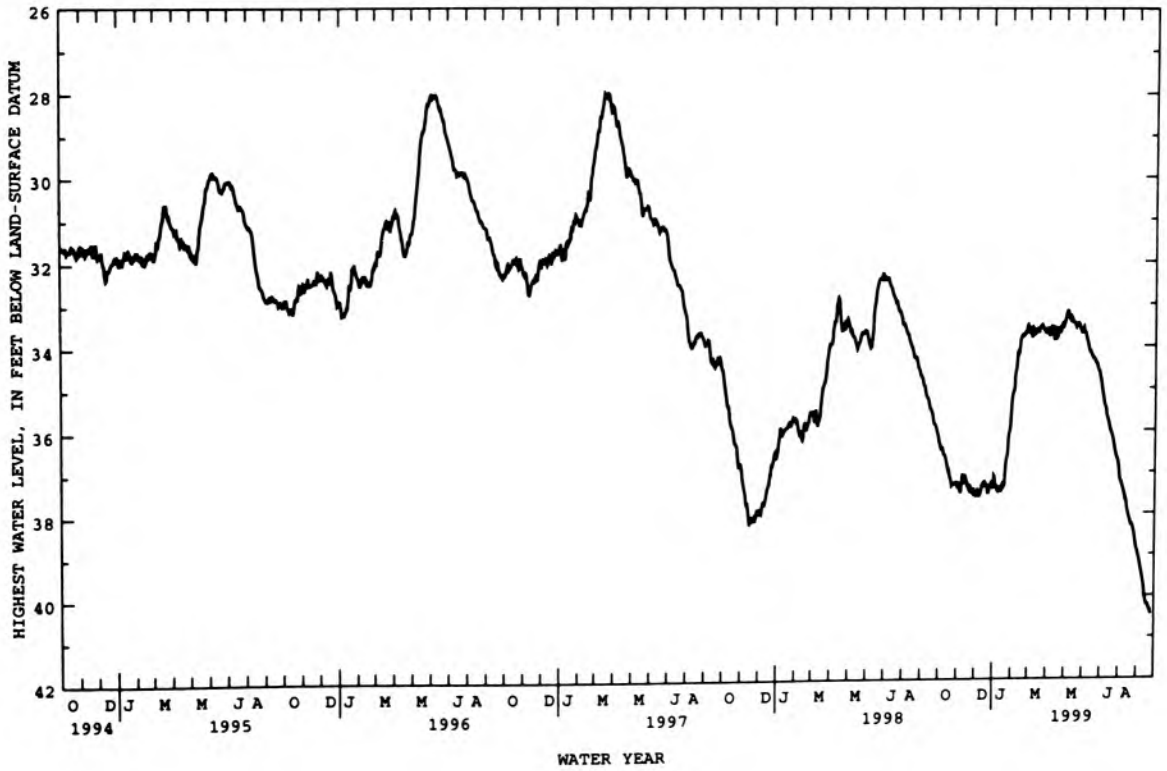
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	36.44	37.40	37.52	37.37	35.07	33.67	33.77	33.19	33.68	35.17	37.24	39.12
10	36.56	37.04	37.55	37.44	34.37	33.59	33.60	33.38	34.00	35.49	37.50	39.50
15	36.80	37.17	37.33	37.43	33.96	33.66	33.57	33.42	34.20	35.84	37.89	40.04
20	37.11	37.33	37.37	37.30	33.74	33.58	33.73	33.54	34.31	36.09	38.16	40.21
25	37.28	37.38	37.44	36.59	33.65	33.54	33.62	33.47	34.45	36.46	38.33	40.46
EOM	37.29	37.45	37.34	35.66	33.50	33.63	33.51	33.62	34.75	36.81	38.85	---

WTR YR 1999 HIGH 33.14 MAY 6

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	36.48	37.45	37.57	37.42	35.22	33.76	33.84	33.24	33.76	35.23	37.31	39.17
10	36.58	37.25	37.60	37.50	34.53	33.68	33.65	33.41	34.08	35.62	37.58	39.58
15	36.91	37.21	37.39	37.53	34.12	33.72	33.84	33.46	34.26	35.92	37.96	40.10
20	37.17	37.41	37.39	37.39	33.76	33.71	33.79	33.56	34.33	36.15	38.24	40.25
25	37.32	37.51	37.53	36.63	33.73	33.60	33.71	33.52	34.54	36.54	38.40	40.55
EOM	37.35	37.54	37.42	35.88	33.55	33.72	33.55	33.70	34.81	36.92	38.88	---

WTR YR 1999 LOW 40.58 SEP 26



MORGAN COUNTY

393423086161001. Local number, MG 4.
LOCATION.--Lat 39°34'23", long 86°16'10", in NW¼NW¼NW¼ sec.13, T.13 N., R.2 E., Morgan County, Hydrologic Unit 05120201, on east side of County Road 850 East, 0.4 mi north of County Road 950 North, and 1.1 mi north of Waverly.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 64 ft, cased to 60 ft, screened to 64 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

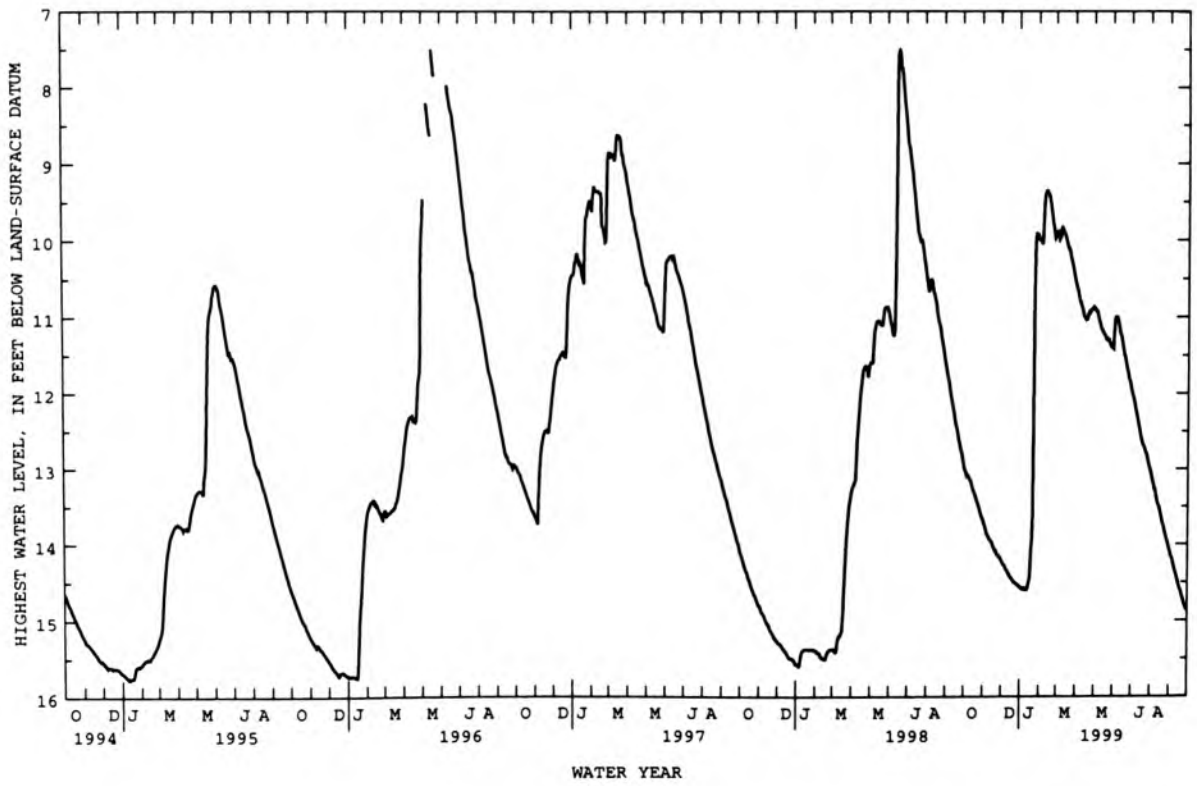
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.05	13.78	14.27	14.59	10.04	9.99	10.69	10.92	11.00	12.10	13.19	14.18
10	13.13	13.90	14.34	14.60	9.40	9.84	10.86	11.07	11.10	12.31	13.37	14.34
15	13.24	13.96	14.42	14.51	9.39	9.94	11.00	11.21	11.31	12.53	13.51	14.48
20	13.36	14.06	14.48	13.93	9.61	10.11	11.01	11.29	11.52	12.69	13.70	14.61
25	13.50	14.14	14.51	10.16	9.91	10.27	10.91	11.32	11.73	12.79	13.85	14.76
EOM	13.66	14.18	14.55	9.98	9.93	10.51	10.87	11.40	11.93	13.01	14.04	14.86

WTR YR 1999 HIGH 9.35 FEB 12

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.12	13.83	14.27	14.59	10.06	10.03	10.74	10.97	11.02	12.13	13.22	14.20
10	13.15	13.91	14.36	14.60	9.44	9.87	10.88	11.12	11.16	12.34	13.41	14.38
15	13.28	13.97	14.43	14.55	9.40	9.99	11.02	11.21	11.36	12.58	13.54	14.53
20	13.40	14.08	14.49	14.07	9.67	10.11	11.04	11.31	11.57	12.71	13.75	14.66
25	13.51	14.17	14.52	10.75	9.97	10.32	10.94	11.36	11.79	12.82	13.89	14.79
EOM	13.67	14.22	14.57	10.00	9.95	10.55	10.91	11.41	11.98	13.03	14.09	14.90

WTR YR 1999 LOW 14.90 SEP 30



405105087173301. Local number, NE 6.
LOCATION.--Lat 40°51'05", long 87°17'33", in SE¼SW¼SE¼ sec.23, T.28 N., R.8 W., Newton County, Hydrologic Unit 07120002, on the right-of-way of County Road 1000 South, 1.0 mi south of Foresman.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 80 ft, cased to 76 ft, screened to 78 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 654.10 ft above sea level. Measuring point: Top of floor of shelter, 2.15 ft above land-surface datum.

REMARKS.--Well affected by pumpage.

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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

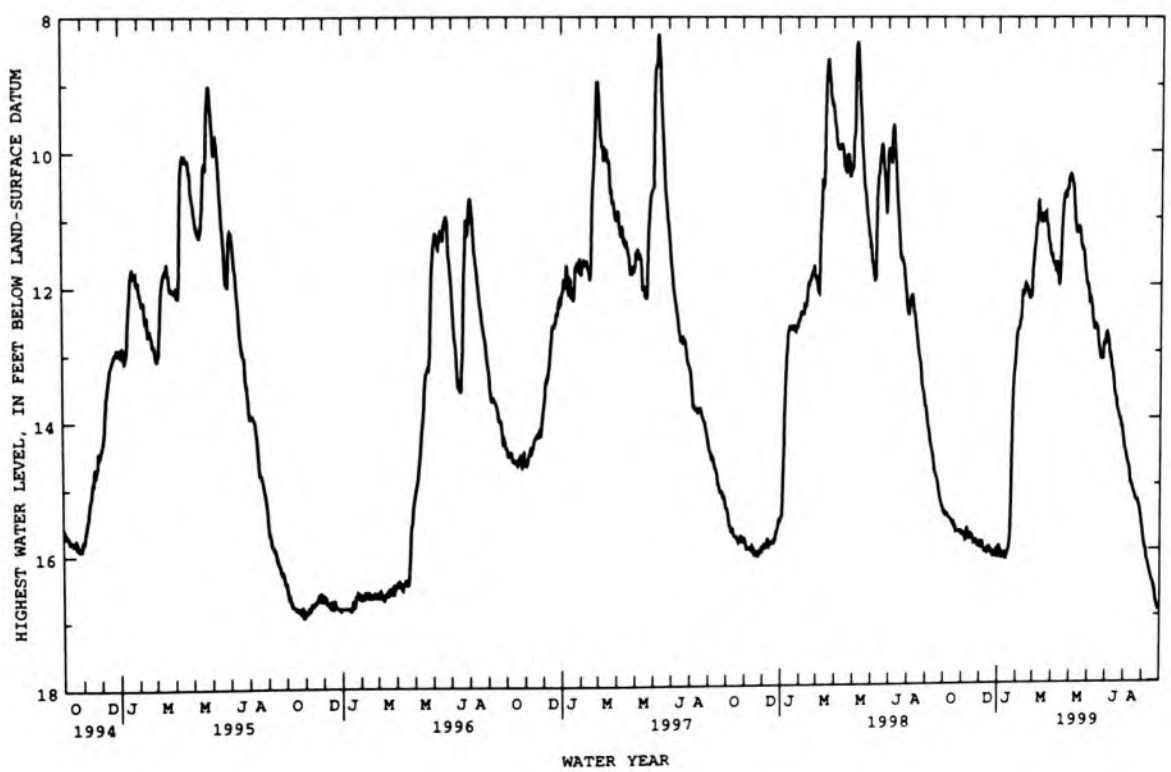
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.41	15.77	15.90	16.05	12.64	11.15	11.72	10.48	12.18	12.81	14.56	15.96
10	15.48	15.63	16.01	16.06	12.24	10.86	11.84	11.10	12.55	13.13	14.74	16.19
15	15.54	15.77	16.00	16.09	11.99	11.08	11.72	11.14	12.63	13.48	15.04	16.39
20	15.64	15.82	16.04	15.89	12.08	10.93	10.71	11.41	12.95	13.82	15.21	16.54
25	15.70	15.81	16.03	14.23	12.15	11.24	10.61	11.58	13.11	14.00	15.28	16.82
EOM	15.74	15.87	16.06	13.00	11.71	11.54	10.36	11.99	12.87	14.29	15.62	16.93

WTR YR 1999 HIGH 10.34 MAY 1

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.46	15.81	15.95	16.13	12.84	11.33	11.82	10.61	12.28	12.85	14.62	16.01
10	15.50	15.75	16.05	16.16	12.44	10.98	11.91	11.22	12.67	13.25	14.89	16.23
15	15.58	15.81	16.05	16.15	12.07	11.15	11.93	11.18	12.66	13.61	15.08	16.43
20	15.68	15.89	16.09	15.97	12.15	11.05	10.82	11.49	13.05	13.94	15.26	16.62
25	15.72	15.88	16.09	14.68	12.30	11.38	10.71	11.70	13.18	14.07	15.34	16.86
EOM	15.79	15.99	16.13	13.14	11.83	11.59	10.41	12.05	12.94	14.37	15.69	16.95

WTR YR 1999 LOW 16.95 SEP 28



NEWTON COUNTY

405959087282901. Local number, NE 7.
LOCATION.--Lat 40°59'59", long 87°28'29", in SE¼SW¼SE¼ sec.32, T.30 N., R.9 W., Newton County, Hydrologic Unit 07120002, in the Willow Slough Game Preserve, 2.0 mi southwest of Enos.
Owner: State of Indiana.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 150 ft, cased to 136 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 680.83 ft above sea level. Measuring point: Top of floor of shelter, 2.03 ft above land-surface datum.

REMARKS.--Well affected by pumpage.

PERIOD OF RECORD.--February 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 34.65 ft below land-surface datum, Apr. 14, 1980; lowest, 97.33 ft below land-surface datum, Aug. 29, 30, 1988.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

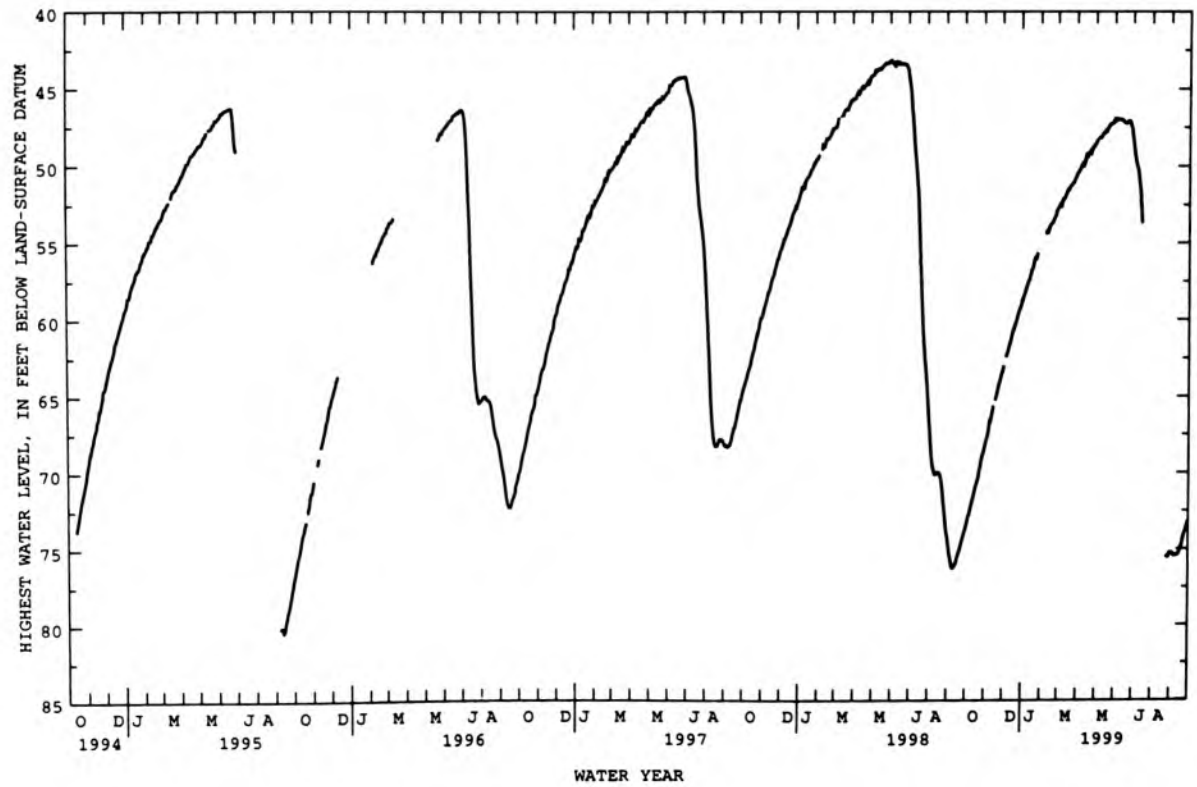
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	73.07	67.81	---	58.45	---	52.45	50.24	---	46.95	49.55	---	75.31
10	72.32	66.67	62.06	57.82	54.41	52.16	49.88	48.13	46.97	50.45	---	75.42
15	71.50	65.95	61.27	57.14	53.96	51.75	49.36	47.83	47.14	52.91	---	75.31
20	70.68	65.16	60.57	56.52	53.67	51.37	49.18	47.64	47.22	---	---	74.74
25	69.77	64.24	59.86	56.05	53.26	51.15	48.95	47.28	47.09	---	---	73.93
EOM	68.70	63.47	59.17	---	52.80	50.59	48.65	47.02	48.03	---	75.31	73.21

WTR YR 1999 HIGH 46.91 JUN 2

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	73.29	68.03	---	58.65	---	52.63	50.40	---	47.00	49.76	---	75.40
10	72.50	66.94	62.22	57.98	54.55	52.18	50.00	48.19	47.05	50.81	---	75.45
15	71.64	66.11	61.49	57.36	54.13	51.84	49.65	47.94	47.23	53.70	---	75.40
20	70.86	65.29	60.74	56.66	53.71	51.56	49.29	47.72	47.24	---	---	74.81
25	69.97	64.48	60.09	56.09	53.31	51.18	49.09	47.33	47.18	---	---	74.09
EOM	68.80	63.64	59.27	---	52.88	50.76	48.75	47.14	48.33	---	75.44	73.43

WTR YR 1999 LOW 75.60 AUG 27



410428087231501. Local number, NE 8.
LOCATION.--Lat 41°04'28", long 87°25'44", in NW¼SW¼SW¼ sec.2, T.30 N., R.9 W., Newton County, Hydrologic Unit 07120001, in the Beaver Lake Prairie Chicken Refuge, 3.0 mi north of Enos.
Owner: State of Indiana.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 150 ft, cased to 97 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 663.34 ft above sea level. Measuring point: Top of floor of shelter, 2.83 ft above land-surface datum.

REMARKS.--Water level 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

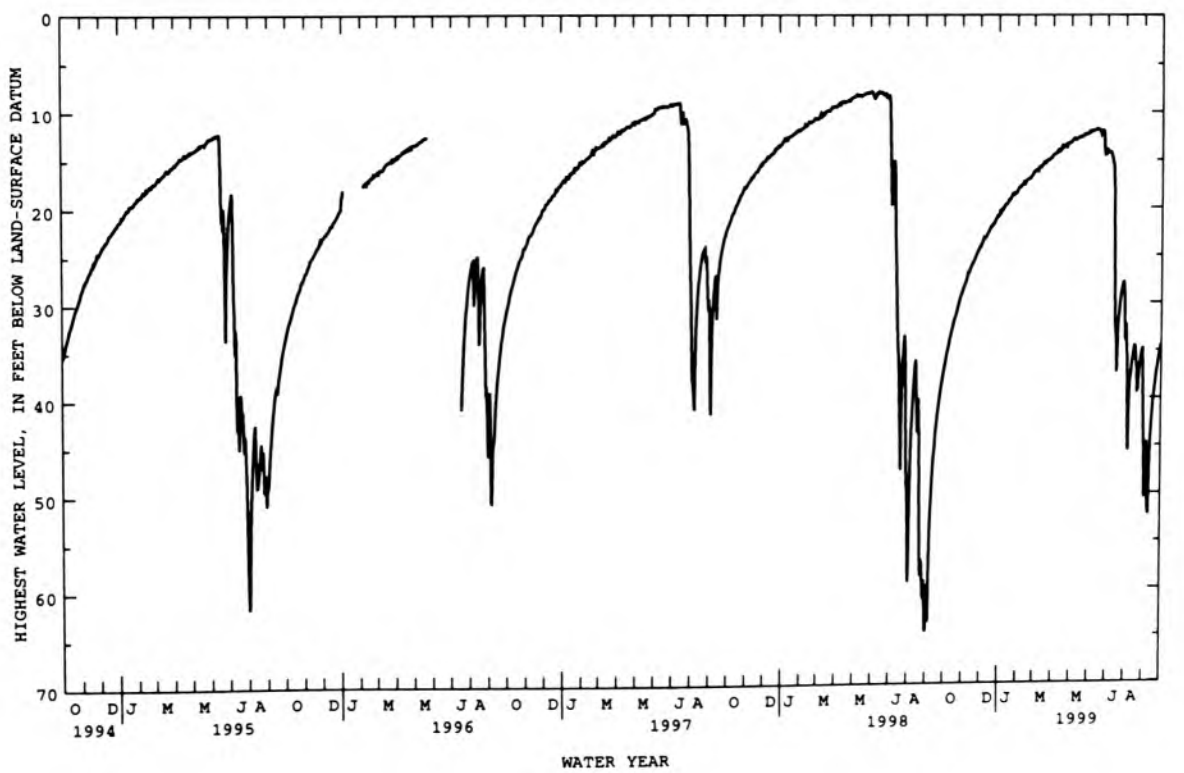
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	35.53	27.96	23.42	20.25	17.84	15.99	14.30	12.88	12.01	14.18	35.85	49.07
10	33.95	26.81	23.05	19.87	17.52	15.75	14.04	12.85	11.92	15.06	37.89	51.90
15	32.58	26.21	22.42	19.44	17.14	15.45	13.62	12.67	11.85	32.01	35.28	43.03
20	31.36	25.54	21.92	19.05	16.99	15.16	13.59	12.59	12.30	32.79	36.36	38.99
25	30.18	24.71	21.36	18.69	16.63	15.02	13.43	12.31	12.14	29.11	37.10	36.40
EOM	28.93	24.04	20.85	18.29	16.21	14.57	13.25	12.11	14.25	29.45	34.85	34.44

WTR YR 1999 HIGH 11.77 JUN 13

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	35.90	28.17	23.62	20.47	18.10	16.15	14.46	12.92	12.04	14.25	41.78	54.69
10	34.28	27.08	23.16	20.01	17.66	15.80	14.17	12.92	11.99	15.38	38.73	52.27
15	32.82	26.33	22.60	19.64	17.32	15.52	13.95	12.78	11.94	34.19	35.80	44.26
20	31.61	25.66	22.08	19.17	17.02	15.36	13.68	12.64	12.69	35.08	36.98	39.54
25	30.42	24.94	21.59	18.82	16.68	15.05	13.57	12.36	13.90	29.64	37.96	36.87
EOM	29.09	24.18	20.95	18.48	16.28	14.74	13.34	12.24	14.31	33.92	39.13	34.86

WTR YR 1999 LOW 54.69 SEP 5



NEWTON COUNTY

405959087282902. Local number, NE 9.
LOCATION.--Lat 40°59'59", long 87°28'29", in SE¼SW¼SE¼ sec.32, T.30 N., R.9 W., Newton County, Hydrologic Unit 07120002, in the Willow Slough Game Preserve, 2.0 mi southwest of Enos.
Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 2 in., depth 45 ft, cased to 42 ft, screened to 45 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 681 ft above 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

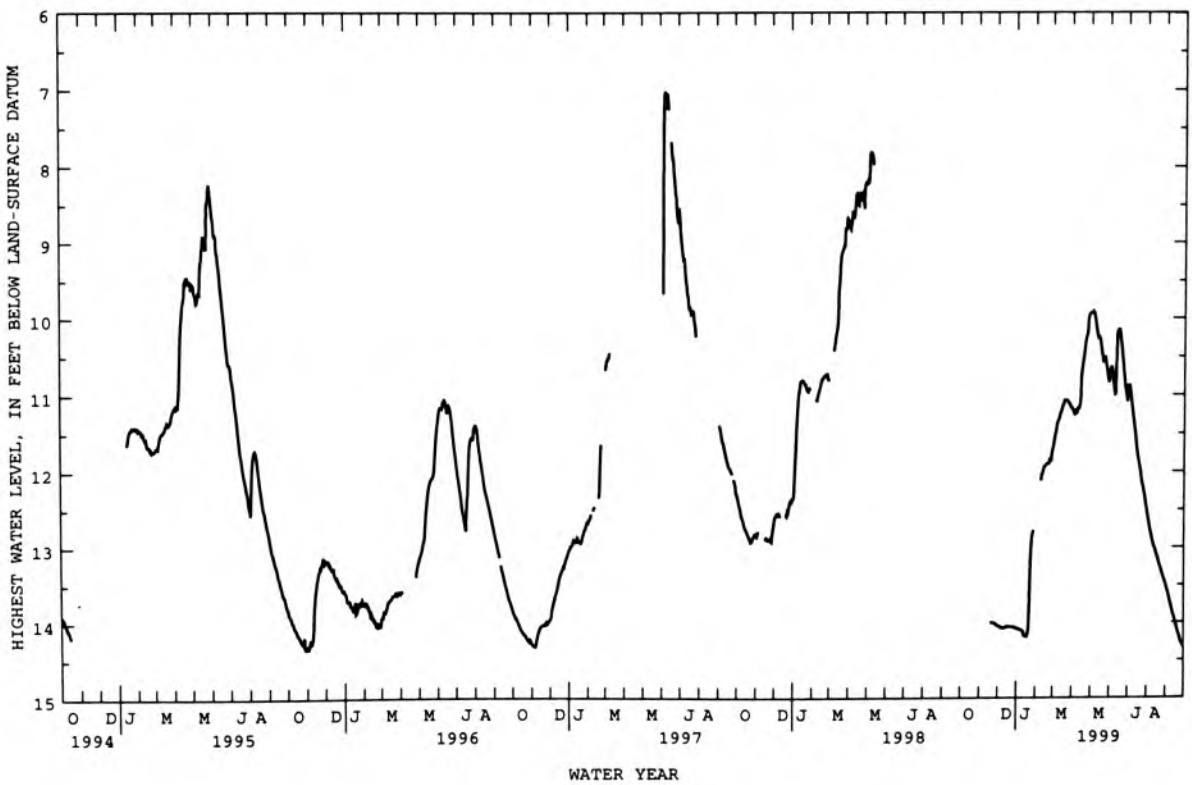
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	14.05	14.09	---	11.51	11.25	9.91	10.64	10.94	12.69	13.60
10	---	---	14.08	14.10	12.12	11.33	11.18	10.11	10.99	11.29	12.90	13.77
15	---	---	14.06	14.18	11.94	11.20	11.04	10.25	10.15	11.64	13.03	13.92
20	---	14.00	14.06	14.12	11.90	11.07	10.51	10.48	10.34	11.92	13.16	14.07
25	---	14.01	14.06	13.02	11.84	11.08	10.22	10.51	10.76	12.17	13.30	14.23
EOM	---	14.03	14.07	---	11.74	11.16	9.94	10.84	11.09	12.46	13.46	14.32

WTR YR 1999 HIGH 9.91 MAY 5

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	14.06	14.09	---	11.56	11.28	9.94	10.71	11.02	12.74	13.63
10	---	---	14.08	14.11	12.13	11.35	11.24	10.17	11.03	11.35	12.92	13.80
15	---	---	14.07	14.18	11.96	11.23	11.12	10.26	10.17	11.71	13.05	13.96
20	---	14.00	14.06	14.17	11.90	11.11	10.57	10.54	10.42	11.95	13.20	14.11
25	---	14.01	14.07	13.20	11.87	11.09	10.25	10.56	10.85	12.21	13.33	14.25
EOM	---	14.04	14.08	---	11.79	11.17	9.95	10.84	11.16	12.50	13.48	14.32

WTR YR 1999 LOW 14.32 SEP 29



NEWTON COUNTY

410428087231502. Local number, NE 10.
LOCATION.--Lat 41°04'28", long 87°25'44", in NW¼SW¼SW¼ sec.2, T.30 N., R.9 W., Newton County, Hydrologic Unit 07120001, in the Beaver Lake Prairie Chicken Refuge, 3.0 mi north of Enos.
Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 2 in., depth 45 ft, cased to 41 ft, screened to 44 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 662.60 ft above sea level. Measuring point: Bottom lip 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, 6.71 ft below land-surface datum, Nov. 28, 29, Dec. 1, 2, 1998.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

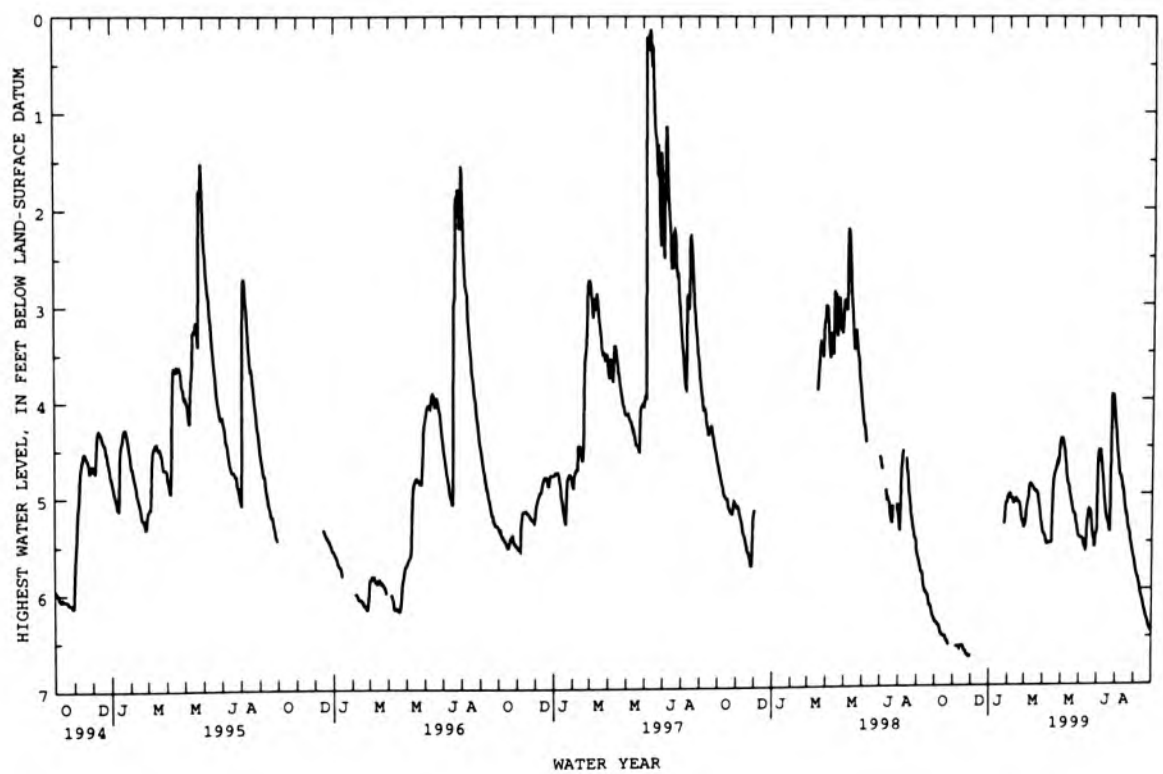
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.34	6.59	---	---	5.03	5.10	5.49	4.50	5.46	4.54	4.66	5.84
10	6.41	6.59	---	---	5.10	4.89	5.51	4.79	5.56	4.81	4.84	5.96
15	6.48	6.58	---	---	5.04	4.93	5.51	4.98	5.22	5.20	5.06	6.11
20	6.51	6.63	---	---	5.09	4.97	4.78	5.15	5.19	5.35	5.25	6.26
25	6.57	6.68	---	5.31	5.29	5.12	4.65	5.23	5.46	3.95	5.42	6.36
EOM	---	6.69	---	5.02	5.33	5.40	4.42	5.45	5.40	4.29	5.66	6.45

WTR YR 1999 HIGH 3.95 JUL 24

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.36	6.59	---	---	5.03	5.13	5.50	4.52	5.47	4.55	4.74	5.87
10	6.44	6.61	---	---	5.11	4.90	5.53	4.85	5.60	4.90	4.89	6.00
15	6.49	6.58	---	---	5.07	4.96	5.52	5.00	5.28	5.24	5.12	6.14
20	6.53	6.64	---	---	5.14	4.98	4.82	5.19	5.29	5.38	5.32	6.28
25	6.58	6.68	---	5.49	5.30	5.16	4.67	5.30	5.56	3.96	5.50	6.40
EOM	---	6.70	---	5.08	5.35	5.42	4.46	5.46	5.41	4.35	5.70	6.48

WTR YR 1999 LOW 6.71 NOV 28



NEWTON COUNTY

410235087305901. Local number, NE 11.
LOCATION.--Lat 41°02'35", long 87°30'59", in $SW^{1}/_{4}SW^{1}/_{4}SE^{1}/_{4}$ 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.

REMARKS.--Water level affected by pumpage.

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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

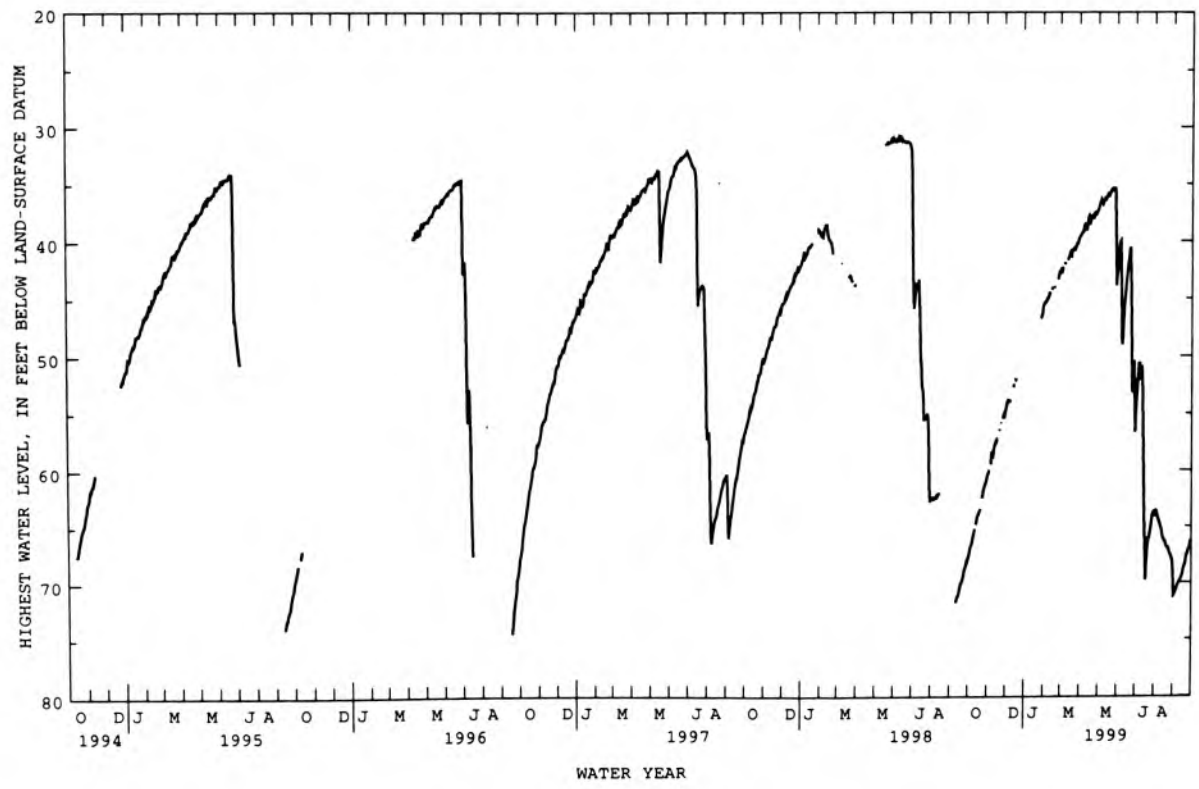
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	67.00	60.06	54.10	---	45.32	42.29	39.23	36.57	40.52	52.19	63.67	70.79
10	65.99	58.35	53.81	---	44.79	---	38.76	36.54	48.98	51.66	64.63	70.08
15	64.82	57.78	52.74	---	44.20	41.38	37.95	36.16	44.27	60.72	66.00	69.53
20	63.77	---	52.01	---	43.99	40.79	37.99	35.90	41.56	67.69	66.61	68.52
25	62.50	55.83	---	---	43.32	40.66	37.74	35.40	49.23	65.65	67.14	67.28
EOM	61.18	55.04	---	46.17	42.59	39.71	37.47	43.87	53.45	63.74	68.01	66.24

WTR YR 1999 HIGH 35.37 MAY 28

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	67.32	60.31	54.41	---	45.92	42.60	39.66	36.69	40.99	53.17	63.95	70.98
10	66.25	58.83	53.97	---	45.13	---	39.10	36.73	50.61	52.15	64.96	70.29
15	65.01	58.06	53.09	---	44.53	41.51	38.50	36.36	44.96	64.09	66.16	69.69
20	64.02	---	52.36	---	44.04	41.25	38.25	36.07	42.03	68.59	66.80	68.62
25	62.79	56.25	---	---	43.43	40.72	38.06	35.51	53.20	66.10	67.34	67.59
EOM	61.33	55.39	---	46.51	42.75	40.06	37.64	45.05	57.09	63.85	69.27	66.64

WTR YR 1999 LOW 71.35 SEP 1



410917087285801. Local number, NE 14.
LOCATION.--Lat 41°09'17", long 87°28'58", in NE$^1/_4$SW$^1/_4$NW$^1/_4$ 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 above sea level. Measuring point: Top of casing, 3.30 ft above land-surface datum.

REMARKS.--Water level 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

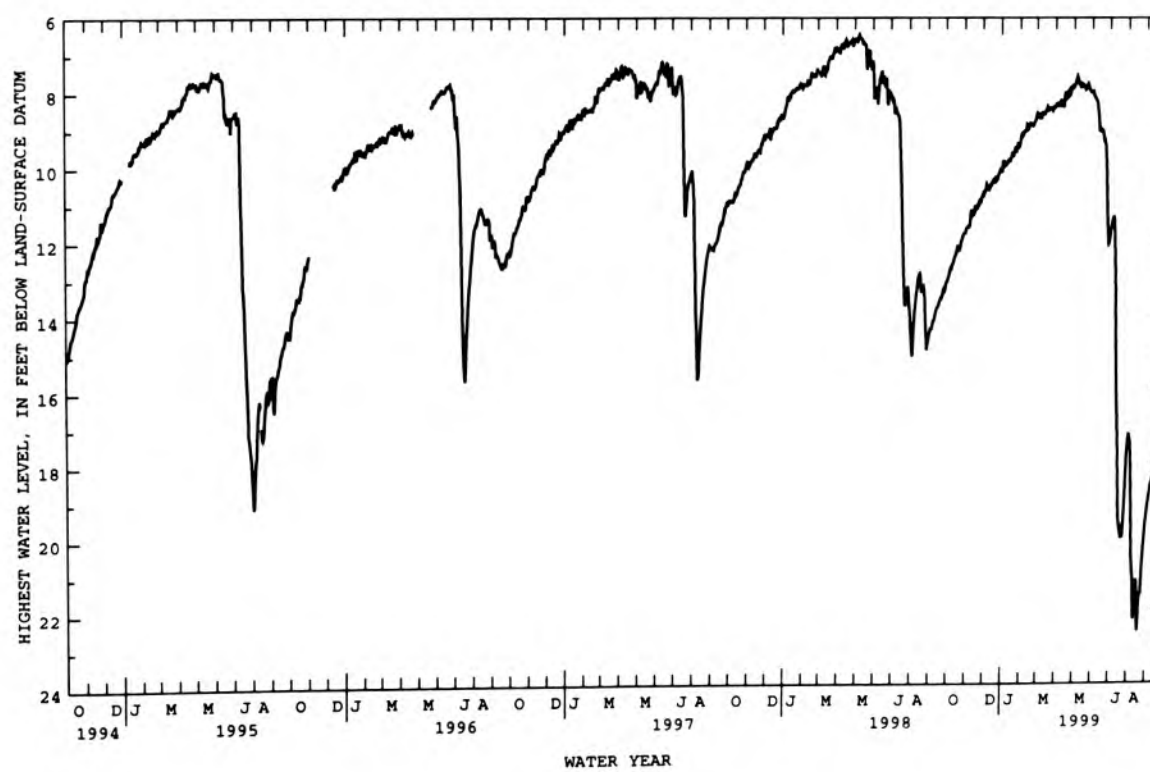
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.83	11.60	10.59	9.96	9.15	8.59	8.38	7.63	8.11	11.41	17.75	18.95
10	12.61	11.15	10.62	9.90	9.03	8.57	8.29	7.79	8.46	13.20	21.11	18.51
15	12.37	11.27	10.46	9.78	8.88	8.49	8.09	7.87	9.03	18.54	21.39	18.22
20	12.23	11.07	10.37	9.70	8.87	8.44	8.13	7.92	9.32	20.04	22.31	17.80
25	11.98	10.88	10.23	9.55	8.75	8.46	8.05	7.80	10.64	19.49	21.18	17.51
EOM	11.77	10.73	10.11	9.36	8.56	8.36	7.88	7.98	11.92	17.43	19.63	17.33

WTR YR 1999 HIGH 7.57 MAY 6

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.94	11.70	10.67	10.05	9.25	8.70	8.68	7.68	8.21	11.59	18.69	19.09
10	12.68	11.34	10.64	9.98	9.08	8.64	8.38	7.87	8.65	14.87	21.79	18.59
15	12.42	11.36	10.53	9.90	8.98	8.54	8.43	7.95	9.42	19.66	21.85	18.28
20	12.31	11.13	10.43	10.01	8.92	8.59	8.19	8.05	9.60	20.23	22.60	17.85
25	12.05	10.98	10.36	9.64	8.81	8.54	8.11	7.92	11.39	19.83	21.57	17.86
EOM	11.95	10.82	10.15	9.45	8.63	8.43	7.92	8.14	12.22	17.65	19.87	17.53

WTR YR 1999 LOW 22.68 AUG 19



NOBLE COUNTY

411922085221801. Local number, NO 8.
LOCATION.--Lat 41°19'22", long 85°22'18", in SE¼SW¼SE¼ sec.9, T.33 N., R.10 E., Noble County, Hydrologic Unit 04050001, near the east edge of Chain O'Lakes State Park, and 5.0 mi south of Albion.
Owner: U.S.Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

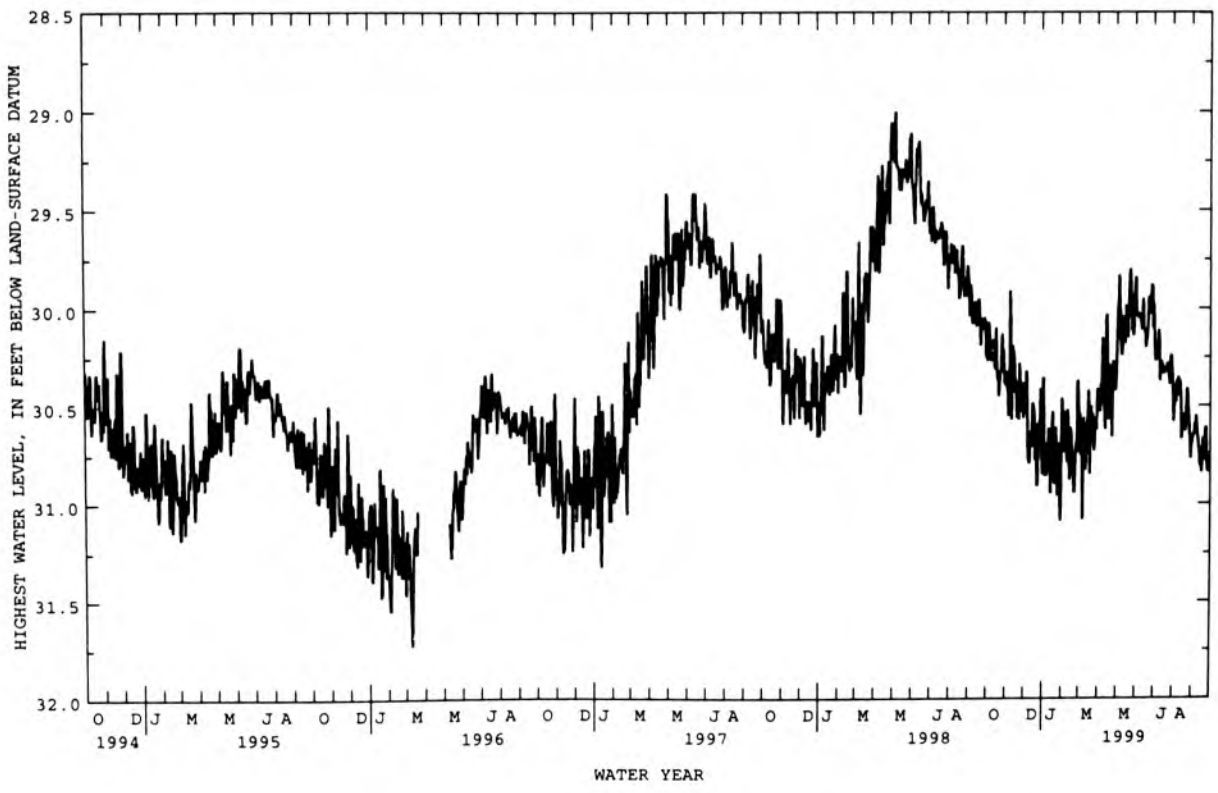
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.20	30.41	30.46	30.86	30.74	30.72	30.53	29.95	30.02	30.25	30.43	30.63
10	30.26	29.91	30.79	30.78	30.79	30.65	30.48	30.24	30.06	30.16	30.35	30.65
15	30.25	30.25	30.63	30.76	30.71	30.61	30.06	30.18	30.11	30.29	30.67	30.81
20	30.36	30.46	30.78	30.90	30.85	30.57	30.49	30.15	30.15	30.32	30.57	30.67
25	30.33	30.28	30.71	30.96	30.69	30.69	30.43	29.89	29.97	30.33	30.43	30.76
EOM	30.31	30.38	30.78	30.93	30.37	30.45	30.42	29.95	30.10	30.34	30.70	30.78

WTR YR 1999 HIGH 29.80 MAY 24

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.29	30.44	30.57	31.02	31.03	30.91	30.69	30.01	30.06	30.33	30.48	30.69
10	30.29	30.32	30.87	30.92	30.93	30.80	30.61	30.30	30.14	30.38	30.45	30.68
15	30.34	30.42	30.78	30.95	30.88	30.68	30.45	30.26	30.20	30.34	30.73	30.83
20	30.40	30.56	30.88	30.95	30.94	30.86	30.59	30.23	30.18	30.37	30.65	30.78
25	30.35	30.57	30.90	31.17	30.84	30.77	30.66	29.98	30.07	30.39	30.51	30.82
EOM	30.41	30.56	30.85	31.11	30.49	30.63	30.51	30.11	30.14	30.41	30.77	30.86

WTR YR 1999 LOW 31.21 MAR 7



NOBLE COUNTY

413106085232701. Local number, NO 9.
LOCATION.--Lat 41°31'06", long 85°23'27", in NW¼NE¼SE¼ sec.5, T.35 N., R.10 E., Noble County, Hydrologic Unit 04050001, at the intersection of County Roads 175 East and 1150 North, and 2.0 mi west of Wolcottville.
Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in,. depth 44 ft, cased to 39 ft, screened to 42 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 930 ft above 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, 17.67 ft below land-surface datum, Nov. 22, 23, 26, 30, Dec. 1, 1995.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

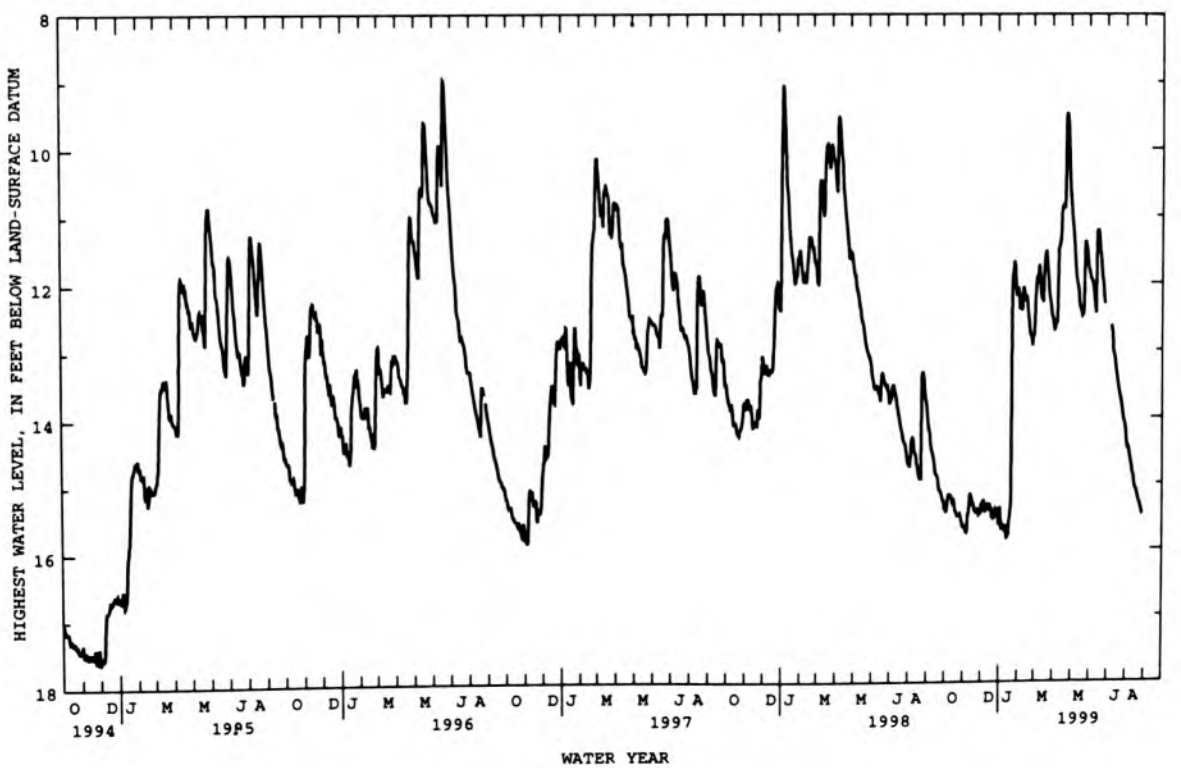
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.43	15.69	15.31	15.71	12.39	11.95	12.68	11.20	11.95	---	14.44	---
10	15.17	15.48	15.41	15.73	12.27	11.78	11.80	11.89	12.26	12.74	14.72	---
15	15.26	15.17	15.37	15.78	12.19	12.21	11.28	12.25	11.22	13.20	15.02	---
20	15.42	15.33	15.53	15.40	12.53	11.56	10.84	12.48	11.60	13.55	15.17	---
25	15.48	15.39	15.44	11.83	12.82	11.98	9.48	11.39	12.11	13.80	15.32	---
EOM	15.59	15.43	15.60	12.19	12.77	12.49	10.56	11.79	---	14.13	---	---

WTR YR 1999 HIGH 9.48 APR 24

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.45	15.69	15.37	15.77	12.52	12.11	12.76	11.30	11.97	---	14.50	---
10	15.17	15.71	15.46	15.77	12.41	12.01	12.34	11.95	12.36	12.96	14.74	---
15	15.33	15.27	15.42	15.85	12.26	12.32	11.39	12.33	11.24	13.29	15.07	---
20	15.45	15.40	15.57	15.52	12.64	11.69	10.90	12.49	11.71	13.62	15.22	---
25	15.49	15.51	15.52	11.94	12.93	12.14	9.55	11.58	12.23	13.89	15.37	---
EOM	15.64	15.47	15.61	12.20	12.81	12.51	10.72	11.81	---	14.22	---	---

WTR YR 1999 LOW 15.91 JAN 14



NOBLE COUNTY

412405085154501. Local number, NO 11.
LOCATION.--Lat 41°24'05", long 85°15'45", in NW¼NE¼SW¼ sec.16, T.34 N., R.11 E., Noble County, Hydrologic Unit 04100003, on the property of Ron Karst on the south side of County Road 350 North, 0.6 mi west of State Highway 3 and about 22 mi north of Fort Wayne.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artsian 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, 115.48 ft below land-surface datum, Mar. 8, 1999.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

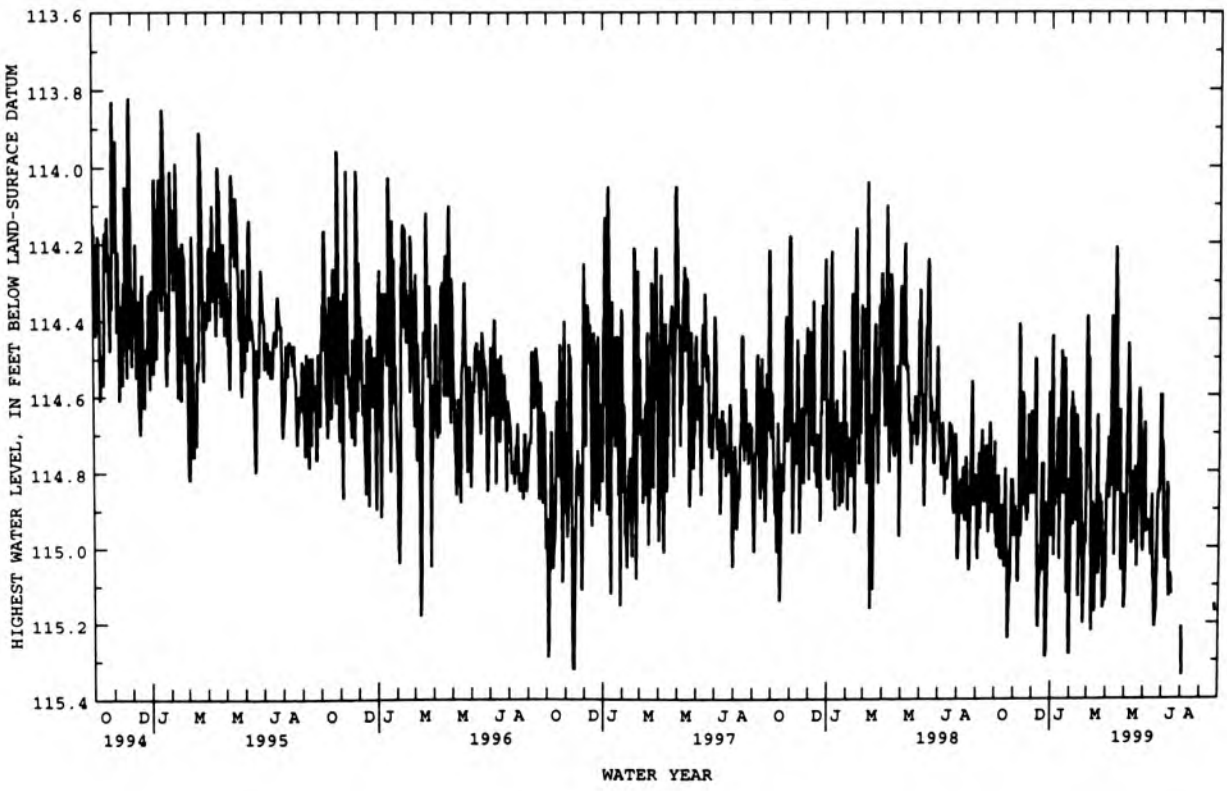
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	114.99	114.94	114.70	115.02	114.94	114.85	114.87	114.60	114.94	115.03	---	---
10	115.02	114.41	115.18	114.87	114.93	114.89	114.62	114.93	114.94	114.85	---	---
15	114.92	114.65	115.05	114.83	114.92	114.94	114.33	114.98	114.99	115.08	---	---
20	115.03	114.80	115.06	114.86	114.95	114.98	114.85	115.05	115.18	---	---	---
25	115.10	114.65	115.13	114.93	114.94	114.99	115.06	114.61	114.86	115.17	---	115.15
EOM	114.87	114.64	114.90	115.28	114.39	114.92	115.16	114.84	114.83	115.17	---	---

WTR YR 1999 HIGH 114.21 APR 16

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	115.05	114.99	114.85	115.11	115.14	114.97	115.00	114.73	114.96	115.09	---	---
10	115.04	114.93	115.21	114.98	115.04	115.06	114.81	115.00	115.00	115.08	---	---
15	115.05	114.79	115.20	115.03	115.13	115.00	114.86	115.04	115.11	115.14	---	---
20	115.07	114.89	115.16	114.88	115.08	115.22	114.92	115.11	115.21	---	---	---
25	115.17	115.00	115.29	115.19	115.04	115.17	115.21	114.68	114.91	115.22	---	115.30
EOM	114.99	114.77	114.97	115.43	114.50	115.14	115.23	115.01	114.88	115.21	---	---

WTR YR 1999 LOW 115.48 MAR 8



NOBLE COUNTY

412405085154504. Local number, NO 14.
LOCATION.--Lat 41°24'05", long 85°15'45", in NW¼NE¼SW¼ sec.16, T.34 N., R.11 E., Noble County, Hydrologic Unit 04100003, on the property of Ron Karst on the south side of County Road 350 North, 0.6 mi west of State Highway 3 and about 22 mi north of Fort Wayne.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 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, 114.55 ft below land-surface datum, Mar. 7, 1999.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

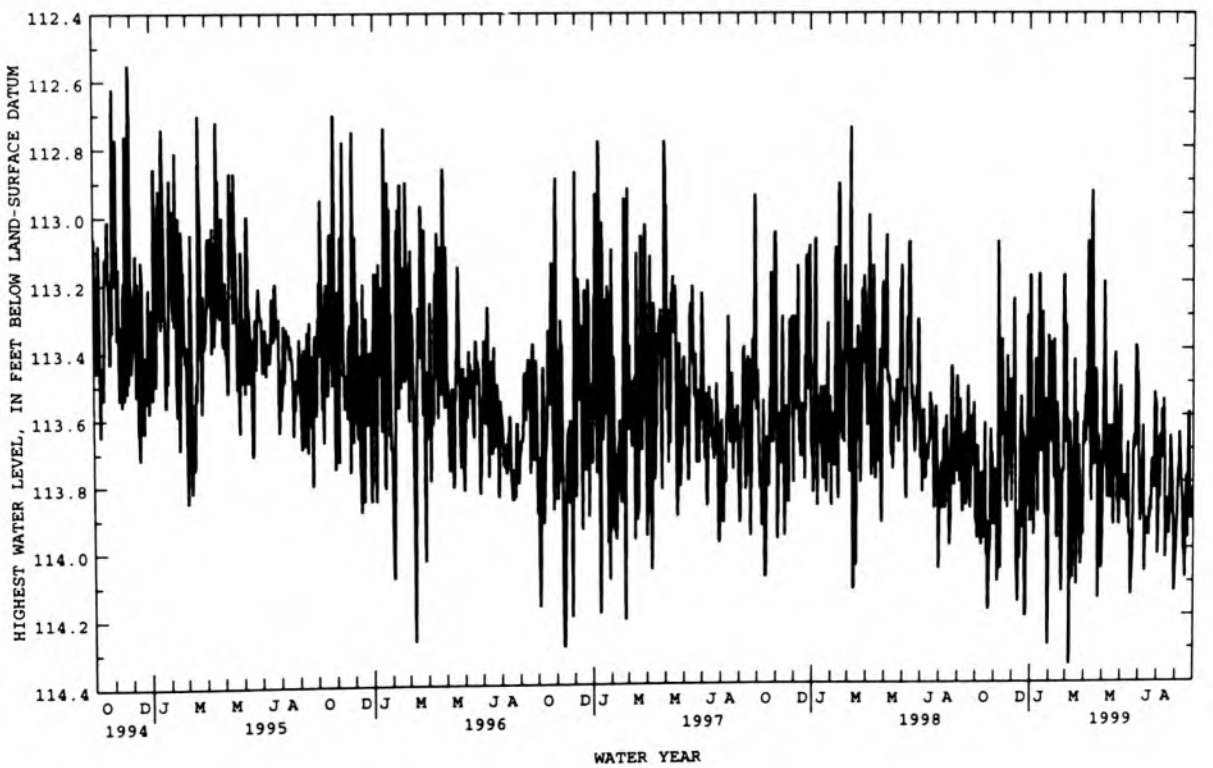
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	113.86	113.84	113.54	113.83	113.68	113.68	113.68	113.42	113.79	113.85	113.80	113.80
10	113.95	113.08	114.10	113.70	113.79	113.79	113.54	113.85	113.82	113.72	113.58	113.75
15	113.89	113.56	113.86	113.58	113.72	113.78	113.00	113.85	113.96	113.94	114.03	114.01
20	114.02	113.72	113.94	113.71	113.90	113.71	113.71	113.93	114.05	113.91	113.94	113.78
25	114.01	113.42	113.89	113.85	113.76	113.95	113.85	113.50	113.70	113.78	113.70	113.83
EOM	113.82	113.49	113.83	114.11	113.18	113.67	114.06	113.67	113.69	113.56	114.07	113.82

WTR YR 1999 HIGH 112.93 APR 16

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	114.01	113.91	113.75	114.17	114.19	113.95	114.00	113.55	113.88	114.01	113.87	113.93
10	114.03	113.68	114.21	113.96	114.05	114.04	113.81	113.96	113.94	114.08	113.73	113.83
15	114.05	113.78	114.11	113.90	113.97	113.90	113.61	114.00	114.08	114.02	114.13	114.09
20	114.09	113.86	114.15	113.85	114.08	114.16	113.87	114.07	114.13	114.02	114.02	113.97
25	114.08	113.88	114.24	114.28	114.00	114.10	114.16	113.66	113.80	113.84	113.76	113.92
EOM	113.97	113.86	113.92	114.39	113.32	113.97	114.19	113.90	113.77	113.73	114.20	113.98

WTR YR 1999 LOW 114.55 MAR 7



PARKE COUNTY

393619087043001. Local number, PA 6.
LOCATION.--Lat 39°36'19", long 87°04'30", in SE$^1/_4$SW$^1/_4$SE$^1/_4$ 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 703.24 ft above sea level. 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

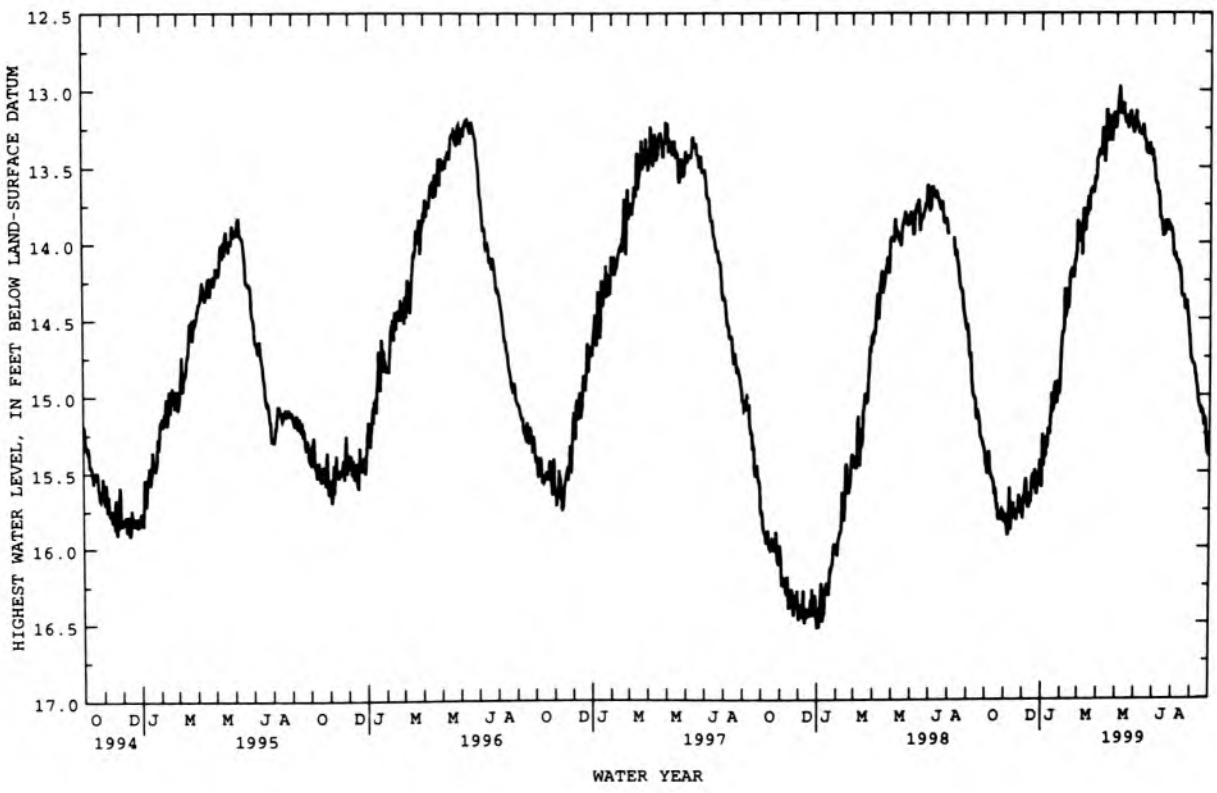
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.46	15.85	15.60	15.38	14.58	13.90	13.41	13.03	13.21	13.61	14.07	14.80
10	15.51	15.60	15.73	15.34	14.44	13.85	13.35	13.15	13.28	13.72	14.12	14.94
15	15.57	15.78	15.64	15.15	14.24	13.82	13.13	13.19	13.31	13.91	14.33	15.08
20	15.72	15.79	15.60	15.06	14.20	13.66	13.24	13.25	13.40	13.85	14.38	15.11
25	15.81	15.65	15.56	15.05	14.08	13.67	13.26	13.17	13.37	13.88	14.44	15.24
EOM	15.82	15.70	15.55	14.83	13.87	13.44	13.25	13.21	13.47	13.94	14.76	15.40

WTR YR 1999 HIGH 12.97 MAY 6

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.55	15.90	15.68	15.53	14.77	14.02	13.49	13.07	13.27	13.64	14.13	14.85
10	15.54	15.75	15.76	15.41	14.53	13.92	13.41	13.19	13.35	13.84	14.18	14.98
15	15.65	15.84	15.75	15.29	14.37	13.86	13.34	13.27	13.37	13.98	14.37	15.10
20	15.75	15.85	15.68	15.13	14.24	13.80	13.32	13.27	13.42	13.95	14.45	15.18
25	15.84	15.78	15.66	15.16	14.15	13.70	13.34	13.20	13.44	13.94	14.51	15.31
EOM	15.87	15.83	15.66	14.98	13.96	13.56	13.32	13.28	13.53	13.99	14.79	15.44

WTR YR 1999 LOW 15.98 NOV 7



380758087551001. Local number, PY 3.
LOCATION.--Lat 38°07'58", long 87°55'10", in NW$^1/_4$NW$^1/_4$SW$^1/_4$ 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 380.55 (revised) ft above sea level. 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

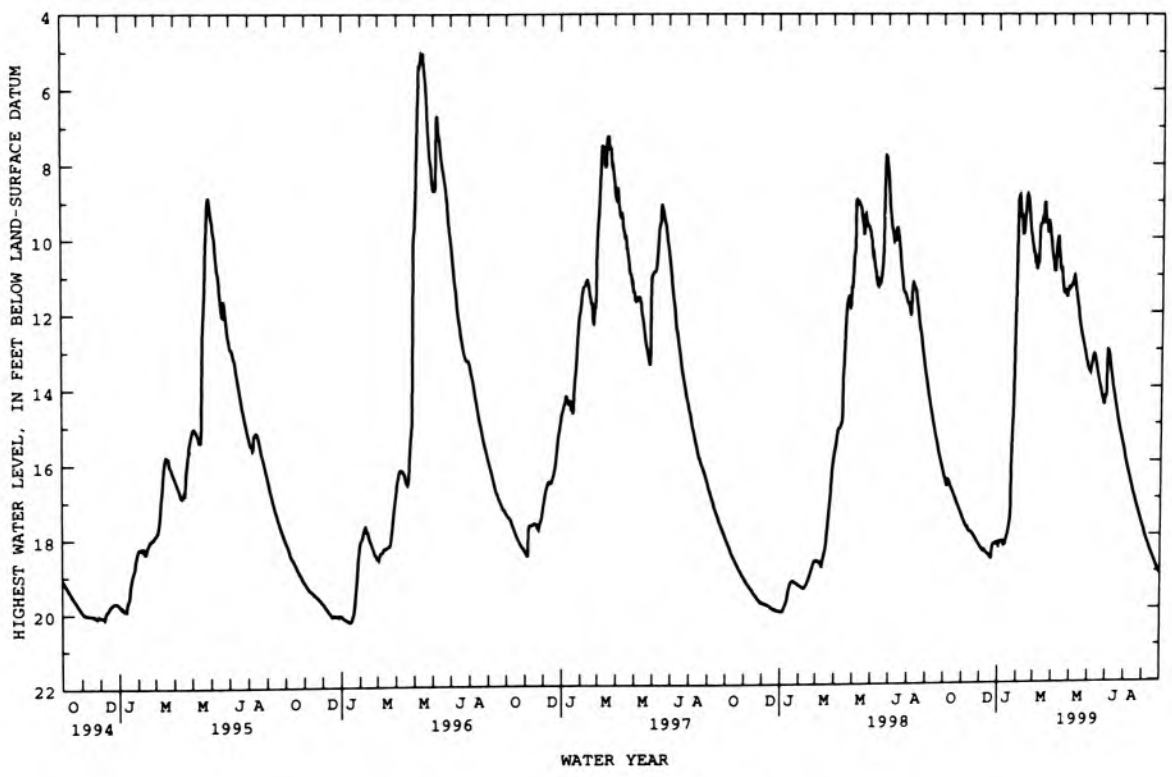
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.59	17.64	18.38	18.14	9.37	10.74	10.54	11.04	13.41	13.15	16.12	18.03
10	16.52	17.76	18.43	18.25	9.87	9.62	10.34	11.52	13.12	13.80	16.45	18.24
15	16.74	17.88	18.52	18.01	8.84	9.60	10.77	12.20	13.61	14.34	16.81	18.47
20	16.97	17.98	18.64	17.54	9.40	9.57	11.44	12.67	14.01	14.83	17.10	18.68
25	17.18	18.11	18.20	14.67	10.13	9.64	11.45	13.04	14.39	15.24	17.39	18.88
EOM	17.43	18.25	18.24	9.58	10.43	10.54	11.32	13.51	14.27	15.69	17.73	19.07

WTR YR 1999 HIGH 8.81 FEB 16

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.65	17.68	18.40	18.15	9.47	10.90	10.87	11.35	13.54	13.27	16.19	18.06
10	16.58	17.81	18.44	18.28	10.03	9.67	10.44	11.65	13.17	13.95	16.52	18.29
15	16.80	17.90	18.54	18.08	9.01	9.68	11.10	12.29	13.68	14.44	16.87	18.52
20	17.01	18.01	18.66	17.67	9.67	9.62	11.60	12.74	14.09	14.92	17.17	18.72
25	17.22	18.14	18.23	15.15	10.38	9.80	11.60	13.14	14.47	15.31	17.44	18.93
EOM	17.48	18.29	18.29	10.48	10.59	10.64	11.41	13.55	14.32	15.80	17.78	19.10

WTR YR 1999 LOW 19.10 SEP 30



POSEY COUNTY

380546087474301. Local number, PY 5.
LOCATION.--Lat 38°05'46", long 87°47'43", in NE$^1/_4$NW$^1/_4$NE$^1/_4$ 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 Cemetary.
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.

REMARKS.--Well record may be affected by pumpage.

PERIOD OF RECORD.--September 1988 to current year.

REVISED RECORDS.--WDR IN 94-1: 1993.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 132.83 ft below land-surface datum, Mar. 27, 1991; lowest, 151.99 ft below land-surface datum, Sept. 18, 1999.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

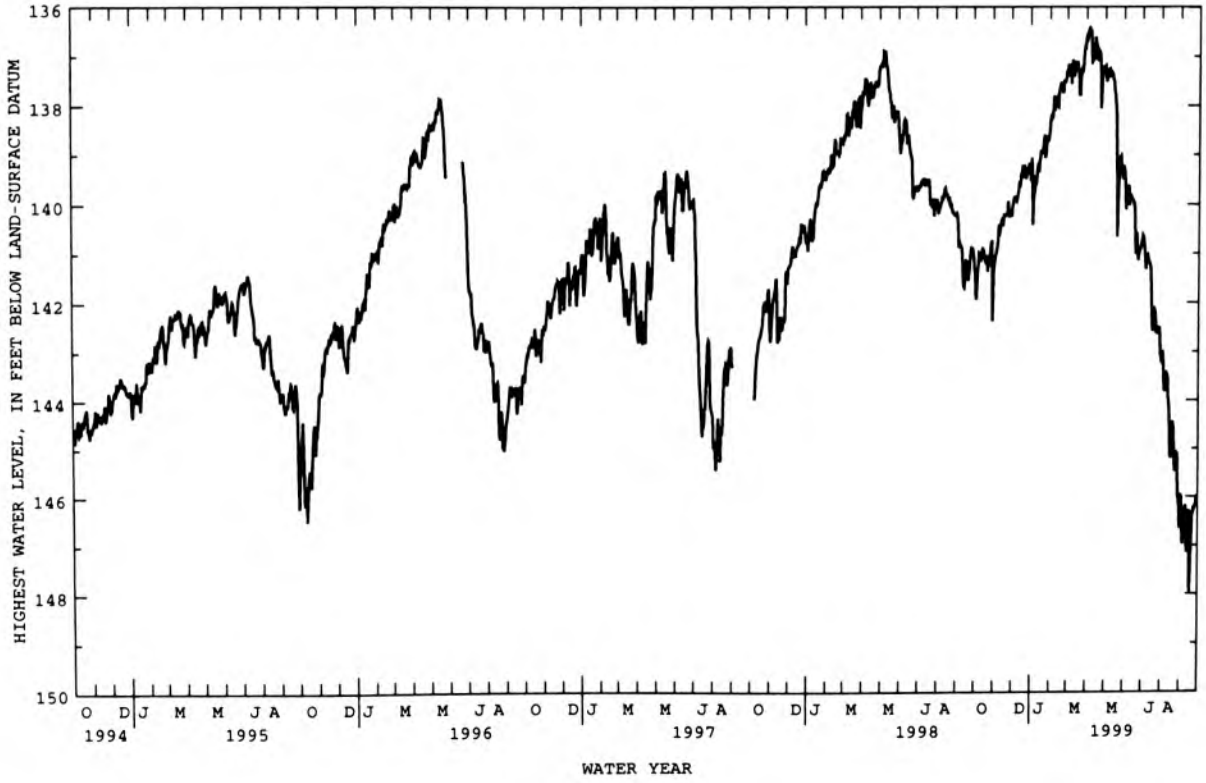
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	141.90	141.02	139.86	139.96	138.21	137.22	136.48	137.37	139.87	140.92	143.23	146.64
10	141.02	140.41	139.85	139.51	137.93	137.33	137.00	137.36	140.02	141.04	143.56	146.22
15	140.90	140.43	139.57	139.11	137.72	137.28	136.60	137.51	139.90	141.28	144.38	146.47
20	141.12	140.21	139.43	138.90	137.54	137.77	137.05	139.02	141.01	142.11	144.44	147.11
25	141.20	139.94	139.37	138.97	137.52	137.29	137.74	139.11	141.01	142.59	145.16	146.24
EOM	142.37	140.16	139.38	138.55	137.28	136.62	137.24	139.22	140.78	143.09	146.19	145.97

WTR YR 1999 HIGH 136.44 APR 6

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	142.21	141.25	140.12	140.54	138.59	137.48	136.68	137.74	140.36	141.32	144.27	147.07
10	141.10	140.68	140.06	139.72	138.28	137.54	137.22	137.59	140.62	141.26	143.84	146.59
15	141.07	140.62	139.88	139.57	138.59	137.48	136.89	137.69	140.13	142.16	147.03	146.79
20	141.24	140.46	139.55	139.22	137.72	138.57	137.22	140.92	143.43	142.36	144.69	147.74
25	141.44	140.26	139.59	139.16	137.94	137.61	138.06	139.42	141.38	142.88	145.66	146.45
EOM	144.03	140.46	140.43	138.88	137.69	136.83	137.45	139.55	141.14	144.11	146.65	146.20

WTR YR 1999 LOW 151.99 SEP 18



405916086530701. Local number, PU 6.
LOCATION.--Lat 40°59'16", long 86°53'07", in NW$^{1}/_{4}$SE$^{1}/_{4}$SW$^{1}/_{4}$ 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 water-table 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 casing, 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, 27.91 ft below land-surface datum, Apr. 5, 1996.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

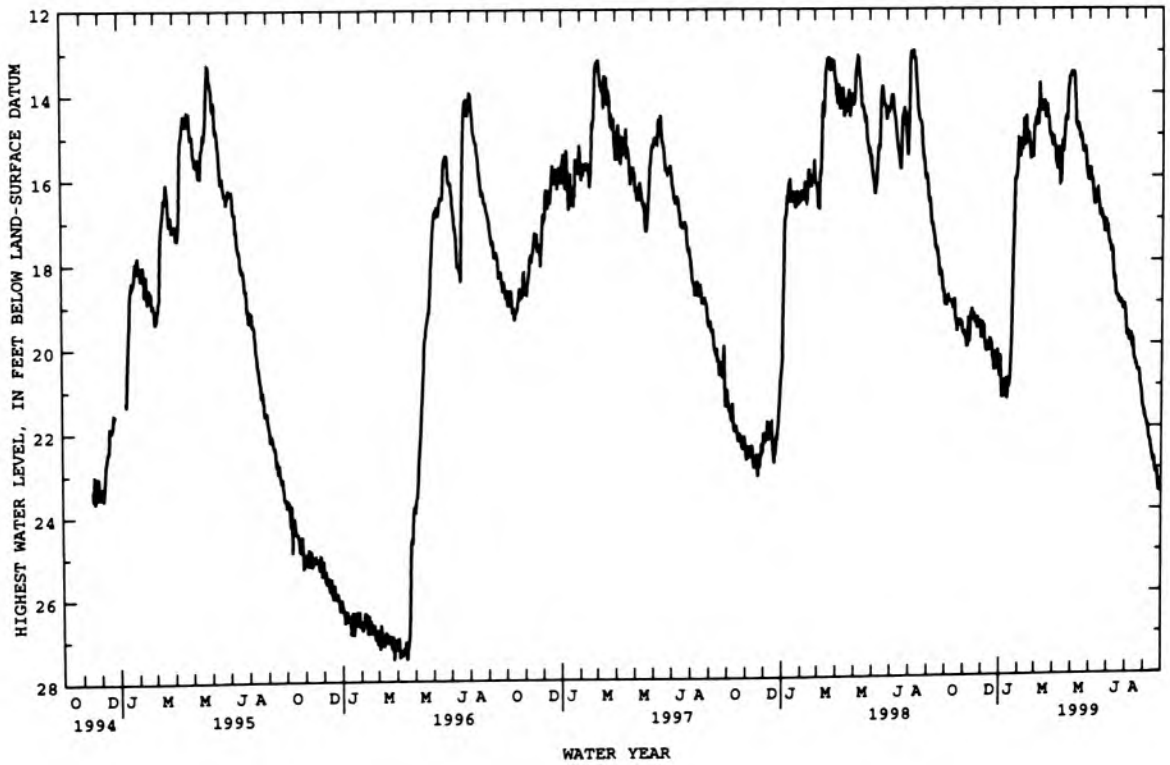
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.98	19.80	19.51	21.28	15.52	14.54	15.68	13.52	16.04	17.58	19.69	21.85
10	18.93	19.33	20.14	20.91	15.07	14.08	15.83	14.77	16.51	17.99	19.74	22.30
15	19.06	19.30	20.06	21.05	14.53	14.40	15.41	15.05	16.52	18.77	20.32	22.70
20	19.43	19.33	20.31	20.27	15.18	14.38	14.88	15.32	16.79	18.99	20.58	23.02
25	19.51	19.32	20.41	17.30	15.36	14.86	14.21	15.42	17.16	19.04	20.78	23.32
EOM	19.66	19.42	20.60	15.77	14.74	15.09	13.57	15.85	17.31	19.18	21.53	23.40

WTR YR 1999 HIGH 13.52 MAY 1

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.23	20.15	19.94	21.93	16.25	15.00	15.98	14.00	16.61	17.96	20.19	22.14
10	19.17	19.92	20.42	21.37	15.48	14.52	16.13	15.31	16.77	18.64	20.29	22.88
15	19.25	19.61	20.45	21.50	16.74	14.79	16.21	15.56	17.01	19.26	20.72	23.07
20	20.13	19.69	20.72	20.75	15.63	14.85	15.26	15.77	17.12	19.37	20.94	23.44
25	19.72	19.81	20.89	17.79	15.89	15.32	14.71	15.86	17.85	19.37	21.25	24.02
EOM	20.01	20.10	21.07	16.27	15.23	15.76	13.93	16.23	17.63	19.68	21.86	23.84

WTR YR 1999 LOW 24.02 SEP 25



PULASKI COUNTY

410739086365201. Local number, PU 7.
LOCATION.--Lat 41°07'39", long 86°36'52", in NE$^1/_4$NE$^1/_4$NW$^1/_4$ 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

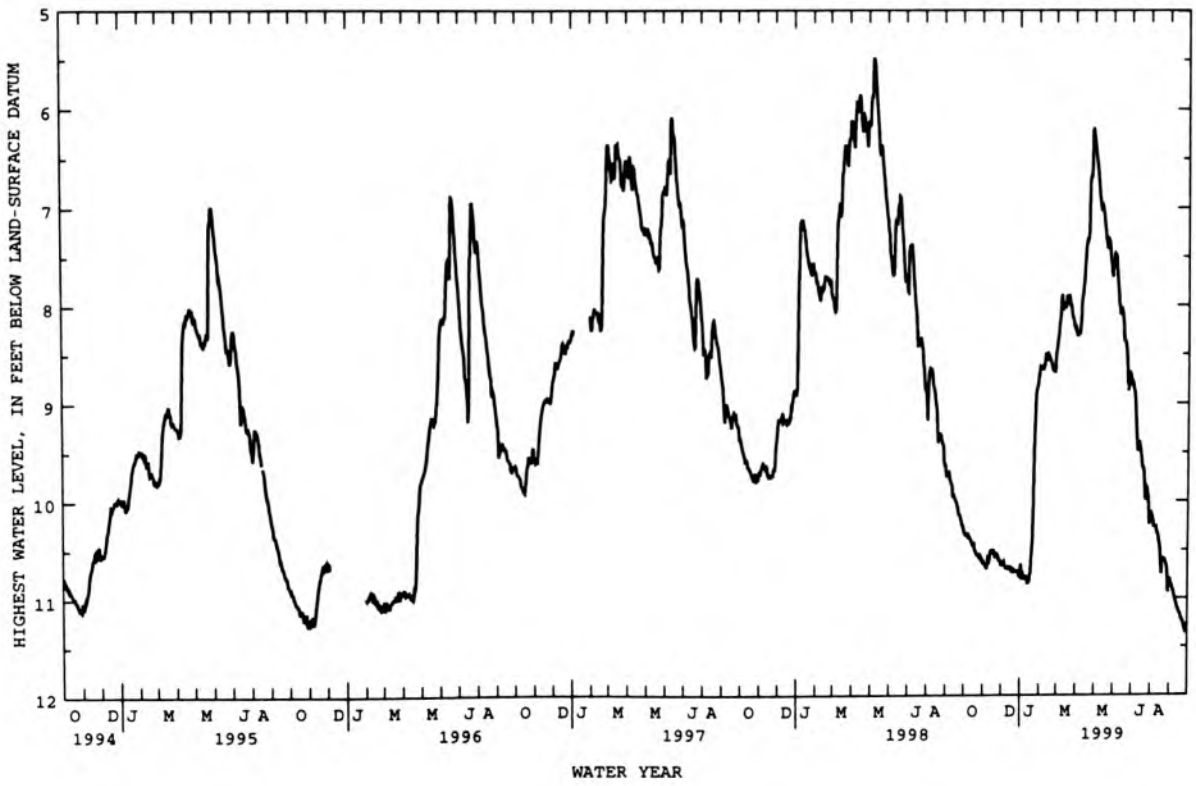
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.36	10.65	10.65	10.77	8.65	8.19	8.29	6.55	7.49	8.87	10.20	10.87
10	10.37	10.56	10.68	10.81	8.55	7.97	7.98	6.92	7.99	9.43	10.26	10.99
15	10.45	10.54	10.68	10.84	8.50	8.03	7.64	7.03	8.07	9.45	10.43	11.11
20	10.52	10.53	10.72	10.52	8.59	7.90	7.34	7.34	8.37	9.66	10.60	11.19
25	10.57	10.54	10.72	9.15	8.66	8.08	6.68	7.34	8.87	9.85	10.61	11.28
EOM	10.62	10.62	10.77	8.72	8.48	8.22	6.25	7.61	8.82	10.12	10.80	11.33

WTR YR 1999 HIGH 6.19 APR 29

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.37	10.67	10.68	10.82	8.76	8.29	8.37	6.62	7.61	8.91	10.26	10.90
10	10.38	10.65	10.70	10.85	8.61	8.01	8.18	6.98	8.04	9.49	10.32	11.02
15	10.47	10.56	10.71	10.86	8.54	8.05	7.76	7.07	8.12	9.50	10.45	11.12
20	10.53	10.56	10.76	10.62	8.63	7.96	7.37	7.39	8.40	9.68	10.75	11.23
25	10.58	10.58	10.74	9.36	8.73	8.13	6.71	7.42	8.93	9.88	10.63	11.31
EOM	10.64	10.69	10.79	8.79	8.53	8.25	6.31	7.71	8.89	10.31	10.94	11.34

WTR YR 1999 LOW 11.35 SEP 28



401532085085301. Local number, RA 3.
LOCATION.--Lat 40°15'32", long 85°08'53", in NE¼NE¼SE¼ sec.23, T.21 N., R.12 E., Randolph County, Hydrologic Unit 05120103, at the east edge of Purdue University Agriculture Experiment Station, about 5.5 mi north of Farmland.
Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 54 ft, cased to 33 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 969.67 ft above sea level. 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

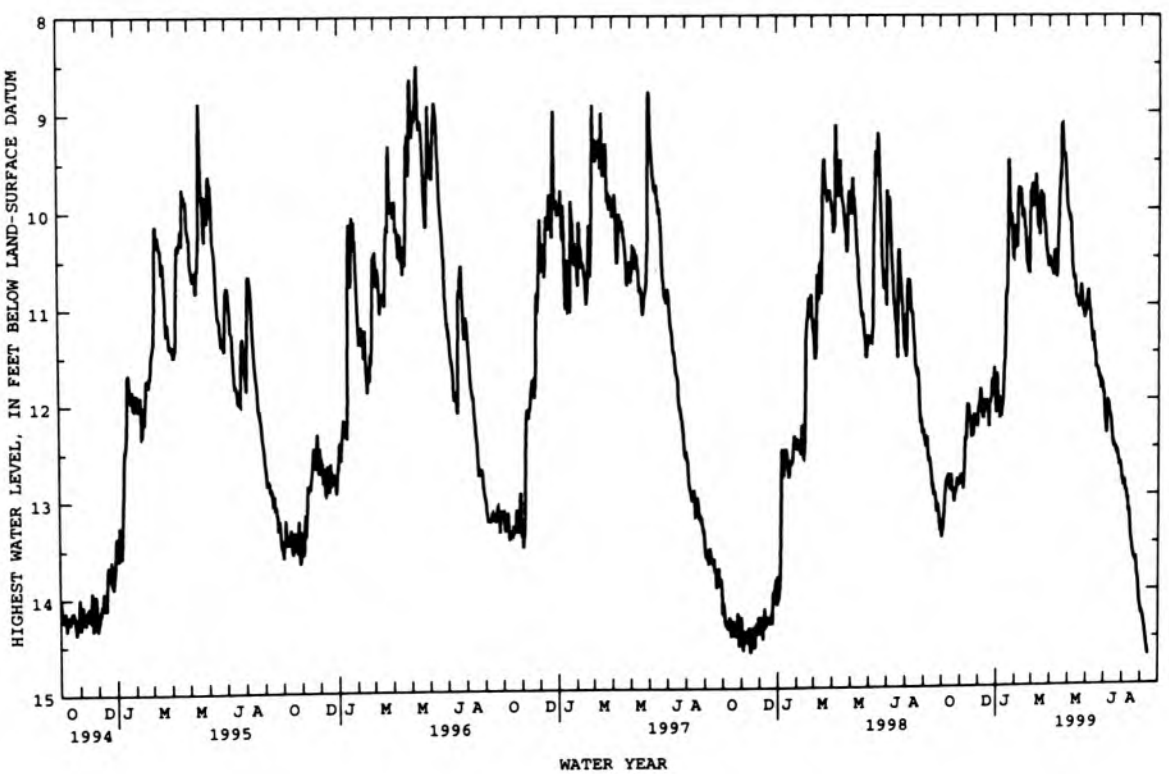
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.23	12.77	11.97	12.10	10.40	9.90	10.64	10.08	10.84	12.36	12.87	14.28
10	12.83	12.40	12.18	12.17	9.90	9.80	10.53	10.66	11.22	12.08	13.03	14.52
15	12.88	12.07	12.08	11.63	10.02	10.27	10.27	10.90	11.45	12.35	13.42	---
20	12.95	12.28	12.28	10.80	10.32	9.87	9.69	11.03	11.66	12.49	13.64	---
25	12.96	12.14	11.79	10.12	10.61	10.30	9.44	10.87	11.78	12.62	13.74	---
EOM	12.87	12.15	11.99	10.51	9.81	10.51	9.93	11.08	11.94	12.81	14.16	---

WTR YR 1999 HIGH 9.12 APR 22

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.34	12.87	12.07	12.29	10.65	10.10	10.81	10.23	10.97	12.39	12.97	14.36
10	12.88	12.65	12.23	12.30	10.03	10.09	10.73	10.74	11.37	12.23	13.16	14.60
15	12.97	12.25	12.23	11.78	10.10	10.43	10.62	10.99	11.51	12.44	13.49	---
20	13.01	12.39	12.35	10.94	10.47	10.04	9.78	11.07	11.68	12.54	13.71	---
25	12.98	12.37	11.96	10.34	10.78	10.42	9.54	10.94	11.91	12.67	14.05	---
EOM	12.94	12.36	12.13	10.55	10.15	10.60	10.00	11.18	11.99	12.89	14.33	---

WTR YR 1999 LOW 14.75 SEP 14



413120086055601. Local number, SJ 31.
LOCATION.--Lat 41°31'20", long 86°05'56", in $SW^1/_4SW^1/_4SW^1/_4$ 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 artesian 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, 13.29 ft below land-surface datum, Sept. 28, 1999.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

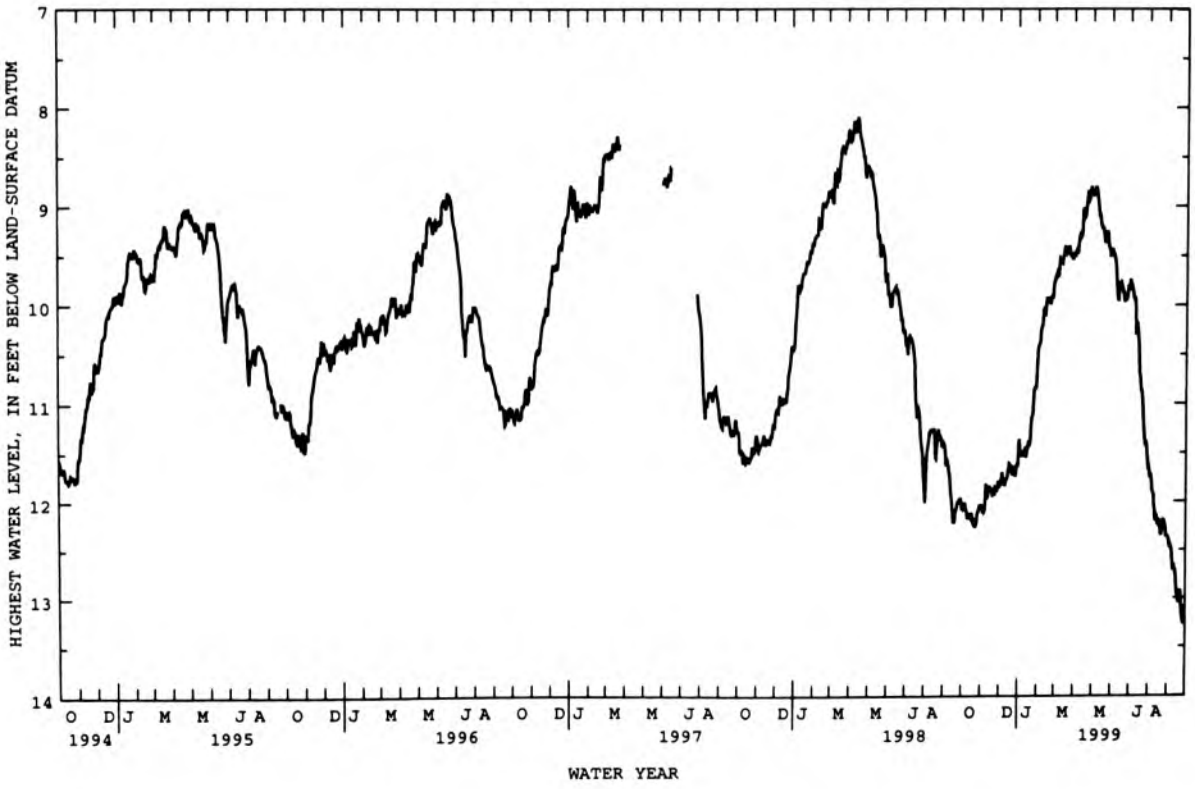
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.07	12.12	11.81	11.54	10.39	9.65	9.47	8.82	9.49	9.85	11.73	12.48
10	12.11	11.82	11.83	11.52	10.16	9.54	9.31	8.99	9.87	10.00	12.04	12.68
15	12.15	11.90	11.74	11.51	10.00	9.50	9.07	9.19	9.78	10.31	12.19	12.78
20	12.21	11.89	11.70	11.41	9.94	9.46	9.07	9.33	9.86	10.87	12.24	13.05
25	12.25	11.86	11.67	11.09	9.90	9.46	8.94	9.26	9.95	11.32	12.19	13.16
EOM	12.07	11.79	11.61	10.77	9.76	9.49	8.89	9.45	9.85	11.64	12.35	13.08

WTR YR 1999 HIGH 8.80 APR 28

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.11	12.18	11.85	11.58	10.50	9.75	9.51	8.87	9.53	9.88	11.81	12.53
10	12.22	11.99	11.85	11.56	10.22	9.57	9.39	9.09	9.99	10.31	12.08	12.74
15	12.19	11.93	11.79	11.57	10.09	9.52	9.25	9.25	9.81	10.45	12.26	12.89
20	12.23	11.93	11.72	11.45	9.97	9.52	9.10	9.44	9.98	10.91	12.34	13.09
25	12.31	11.94	11.74	11.13	9.96	9.51	8.99	9.34	10.03	11.51	12.21	13.20
EOM	12.11	11.86	11.65	10.85	9.81	9.55	8.91	9.52	9.88	11.75	12.37	13.16

WTR YR 1999 LOW 13.29 SEP 28



SHELBY COUNTY

393943085490901. Local number, SH 2.
LOCATION.--Lat 39°39'43", long 85°49'09", in $SW^1/_4SW^1/_4NW^1/_4$ 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, 22.80 ft below land-surface datum, Sept. 27, 1999.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

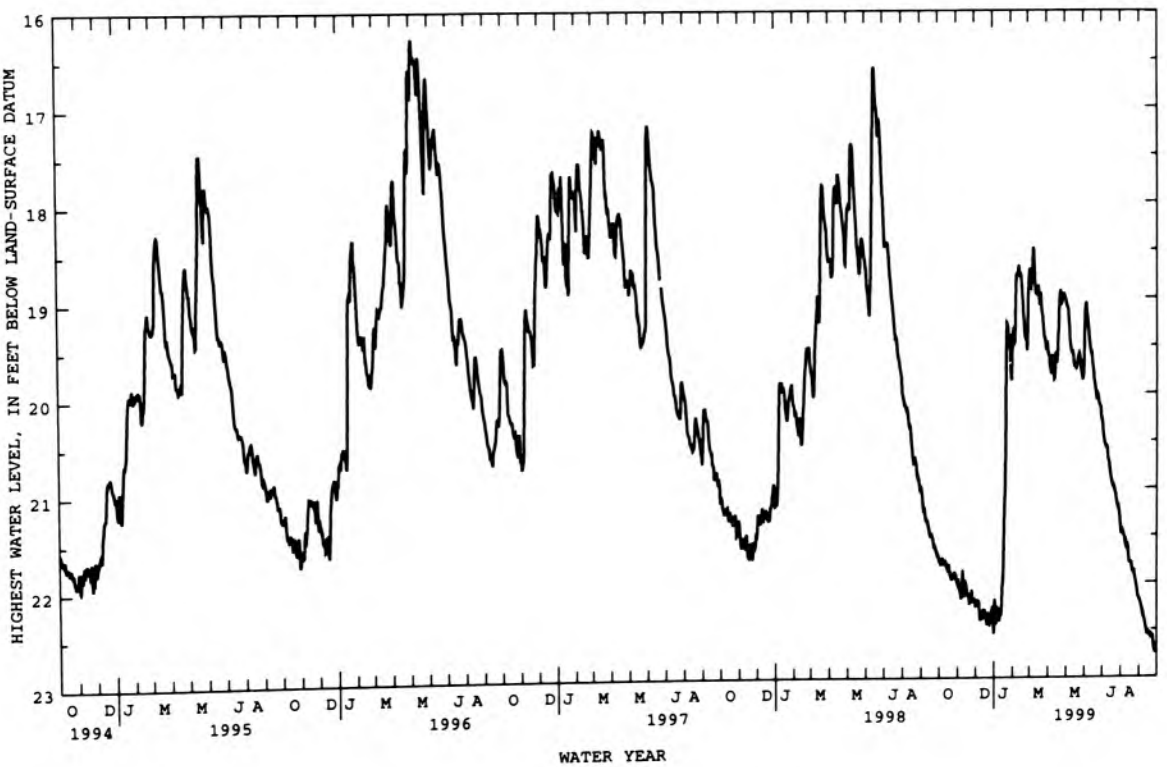
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.78	22.08	22.20	22.40	19.48	18.90	19.73	19.10	19.05	20.51	21.45	22.27
10	21.78	21.86	22.38	22.41	18.78	18.58	19.74	19.52	19.41	20.57	21.57	22.40
15	21.84	22.02	22.36	22.05	18.74	18.98	19.57	19.68	19.66	20.84	21.76	22.52
20	21.91	22.13	22.45	20.98	19.17	18.98	19.33	19.73	19.93	20.96	21.83	22.55
25	21.92	22.07	22.36	19.32	19.44	19.28	19.06	19.60	20.03	21.12	21.94	22.65
EOM	21.99	22.17	22.44	19.86	18.98	19.50	18.99	19.81	20.26	21.32	22.16	22.68

WTR YR 1999 HIGH 18.48 MAR 9

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.83	22.15	22.25	22.53	19.60	18.97	19.79	19.18	19.16	20.56	21.51	22.34
10	21.81	22.01	22.43	22.47	18.82	18.80	19.80	19.60	19.50	20.70	21.64	22.45
15	21.91	22.12	22.44	22.24	18.80	19.08	19.76	19.75	19.74	20.91	21.83	22.55
20	21.94	22.23	22.51	21.20	19.29	19.10	19.41	19.77	20.00	21.01	21.91	22.60
25	21.94	22.21	22.45	19.49	19.57	19.38	19.13	19.66	20.11	21.18	22.00	22.71
EOM	22.05	22.26	22.55	19.90	19.34	19.57	19.04	19.88	20.34	21.43	22.18	22.71

WTR YR 1999 LOW 22.80 SEP 27



STARKE COUNTY

411342086365601. Local number, SK 2.
LOCATION.--Lat 41°13'42", long 86°36'56", in NW¼NE¼NW¼ sec.14, T.32 N., R.2 W., Starke County, Hydrologic Unit 07120001, on private property in the southeast angle of intersection of U.S. Highway 35 and County Road 500 South, and 5.0 mi south of Knox. Owner: Samuel A. Craigmile.

AQUIFER.--Gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 85 ft, cased to 77 ft, screened to 85 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 712.97 ft above 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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

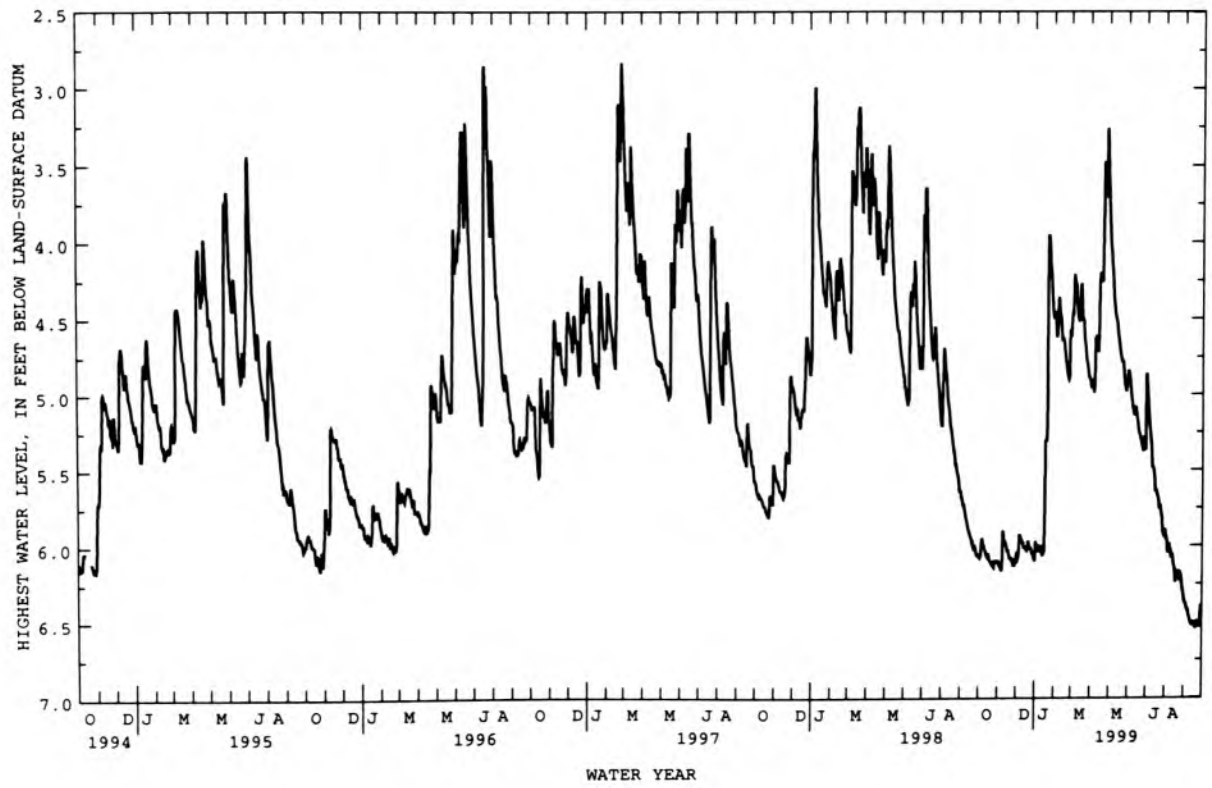
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.06	6.13	6.08	6.00	4.62	4.36	4.92	4.07	4.91	5.11	6.04	6.40
10	6.00	5.90	5.96	6.04	4.43	4.38	4.63	4.41	5.10	5.36	6.03	6.47
15	6.07	6.00	6.01	6.05	4.64	4.47	4.57	4.56	5.12	5.56	6.12	6.52
20	6.10	6.06	6.02	5.31	4.76	4.51	4.25	4.73	5.26	5.68	6.17	6.54
25	6.13	6.08	6.02	4.04	4.90	4.74	3.60	4.81	5.35	5.76	6.17	6.53
EOM	6.11	6.10	6.08	4.48	4.57	4.89	3.55	4.91	5.37	5.91	6.30	6.42

WTR YR 1999 HIGH 3.26 APR 28

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.08	6.14	6.10	6.04	4.68	4.53	4.96	4.14	4.98	5.17	6.08	6.42
10	6.02	6.11	5.97	6.07	4.47	4.45	4.64	4.45	5.14	5.49	6.08	6.49
15	6.08	6.02	6.02	6.07	4.66	4.56	4.74	4.60	5.16	5.64	6.14	6.52
20	6.10	6.08	6.04	5.32	4.80	4.53	4.30	4.75	5.28	5.69	6.20	6.55
25	6.14	6.11	6.03	4.16	4.93	4.78	3.71	4.87	5.38	5.81	6.18	6.54
EOM	6.12	6.14	6.10	4.50	4.62	4.90	3.70	4.96	5.39	6.06	6.35	6.43

WTR YR 1999 LOW 6.55 SEP 20



414204085054002. Local number, SB 6.
LOCATION.--Lat 41°42'04", long 85°05'40", in $SE^{1}/_{4}SE^{1}/_{4}SW^{1}/_{4}$ 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 artesian 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, 19.30 ft below land-surface datum, Mar. 1, 2, 1995.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

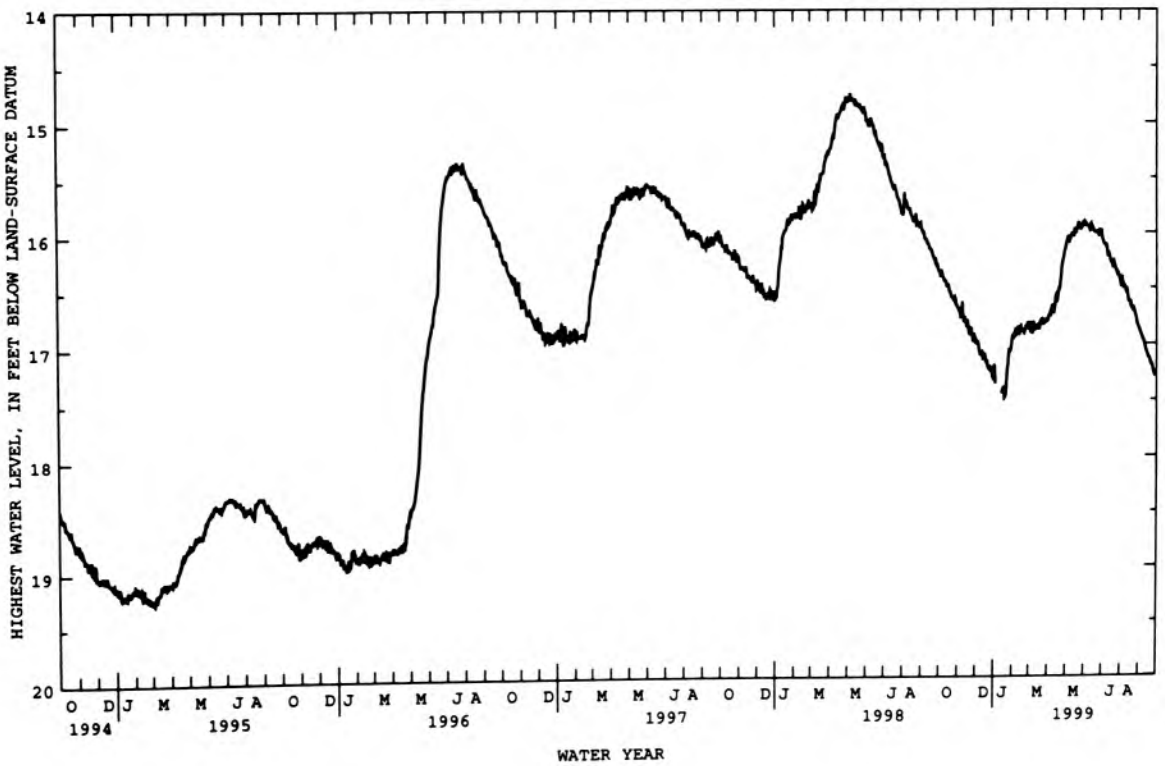
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.36	16.70	16.98	---	16.90	16.83	16.74	16.05	15.91	16.10	16.45	16.92
10	16.41	16.62	17.07	---	16.89	16.86	16.71	16.05	15.95	16.14	16.50	16.98
15	16.48	16.81	17.11	17.43	16.85	16.85	16.57	16.03	15.96	16.23	16.62	17.08
20	16.53	16.86	17.17	17.47	16.89	16.80	16.53	15.99	15.99	16.32	16.67	17.14
25	16.59	16.85	17.20	17.19	16.84	16.83	16.33	15.93	16.01	16.34	16.71	17.23
EOM	16.65	16.93	17.28	17.00	16.81	16.78	16.17	15.91	16.03	16.42	16.84	17.29

WTR YR 1999 HIGH 15.90 JUN 2

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.39	16.73	17.03	---	17.03	16.91	16.82	16.09	15.95	16.12	16.49	16.95
10	16.43	16.75	17.10	---	16.95	16.91	16.79	16.08	16.02	16.21	16.55	17.03
15	16.50	16.85	17.14	17.45	16.89	16.89	16.66	16.07	16.00	16.30	16.64	17.11
20	16.56	16.92	17.22	17.50	16.92	16.87	16.58	16.02	16.02	16.33	16.69	17.19
25	16.61	16.92	17.24	17.23	16.91	16.86	16.41	15.97	16.05	16.38	16.75	17.27
EOM	16.69	17.02	17.33	17.06	16.88	16.82	16.23	15.96	16.07	16.44	16.86	17.32

WTR YR 1999 LOW 17.51 JAN 16



402734087033401. Local number, TC 17.
LOCATION.--Lat 40°27'34", long 87°03'34", NW¼NE¼NE¼ 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, 109.69 ft below land-surface datum, Nov. 10, 1998; lowest, 121.28 ft below land-surface datum, Aug. 18, 1989.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

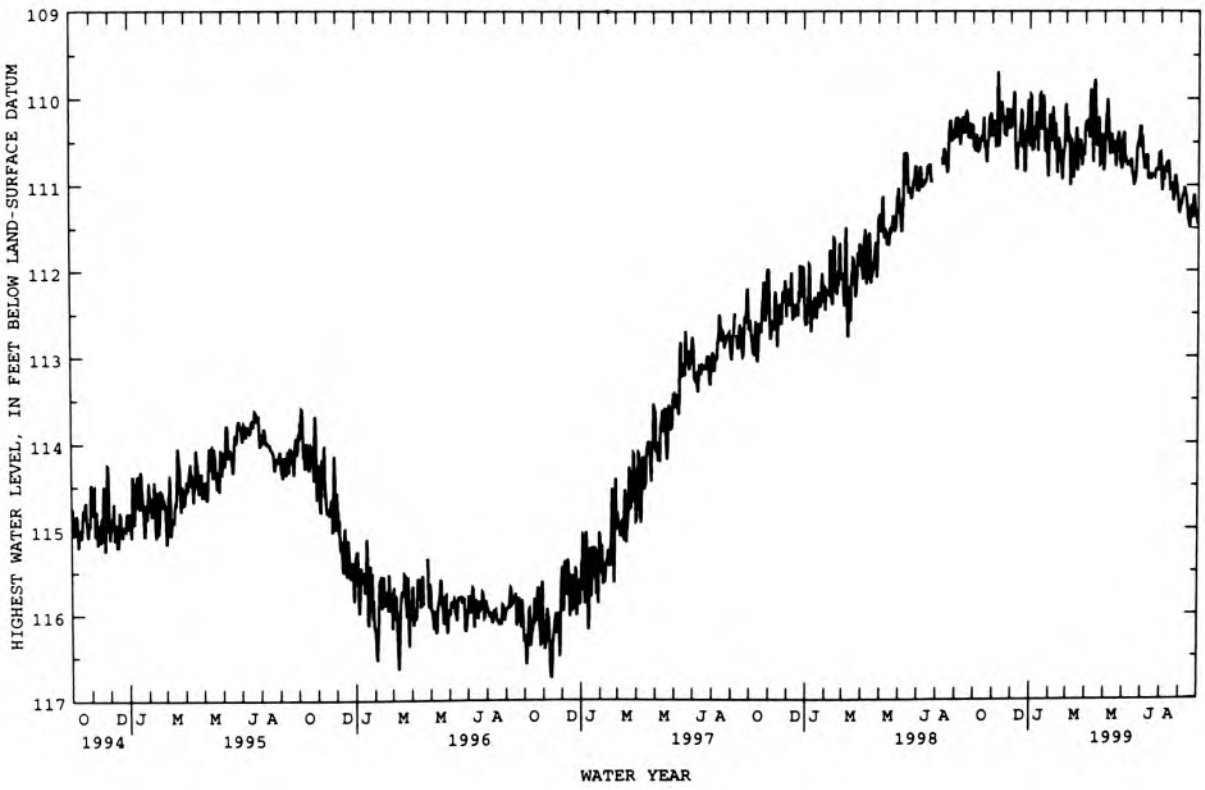
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	110.48	110.40	110.10	110.60	110.49	110.45	110.37	110.15	110.69	110.81	110.91	111.12
10	110.58	109.69	110.80	110.46	110.59	110.54	110.24	110.64	110.73	110.66	110.73	111.11
15	110.44	110.10	110.52	110.31	110.60	110.58	109.85	110.63	110.84	110.87	110.94	111.42
20	110.56	110.31	110.57	110.36	110.70	110.62	110.48	110.78	110.94	110.87	111.05	111.23
25	110.49	110.11	110.59	110.59	110.58	110.64	110.74	110.44	110.54	110.81	110.90	111.21
EOM	110.29	110.12	110.42	110.74	110.06	110.35	110.83	110.55	110.56	110.62	111.31	111.46

WTR YR 1999 HIGH 109.69 NOV 10

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	110.61	110.43	110.26	110.81	110.78	110.65	110.59	110.23	110.75	110.84	110.95	111.18
10	110.62	110.15	110.81	110.60	110.75	110.80	110.40	110.69	110.79	110.91	110.85	111.15
15	110.51	110.31	110.70	110.60	110.86	110.69	110.45	110.71	110.95	110.96	111.08	111.45
20	110.64	110.42	110.66	110.43	110.83	110.96	110.61	110.86	110.98	110.89	111.18	111.38
25	110.59	110.48	110.87	110.89	110.70	110.78	110.91	110.51	110.64	110.86	110.97	111.32
EOM	110.45	110.34	110.55	110.92	110.22	110.65	110.92	110.77	110.60	110.71	111.38	111.53

WTR YR 1999 LOW 111.57 SEP 17



402734087033402. Local number, TC 18.
LOCATION.--Lat 40°27'34", long 87°03'34", NW$^{1}/_{4}$NE$^{1}/_{4}$NE$^{1}/_{4}$ 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, 22.54 ft below land-surface datum, Jan. 15, 1996.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

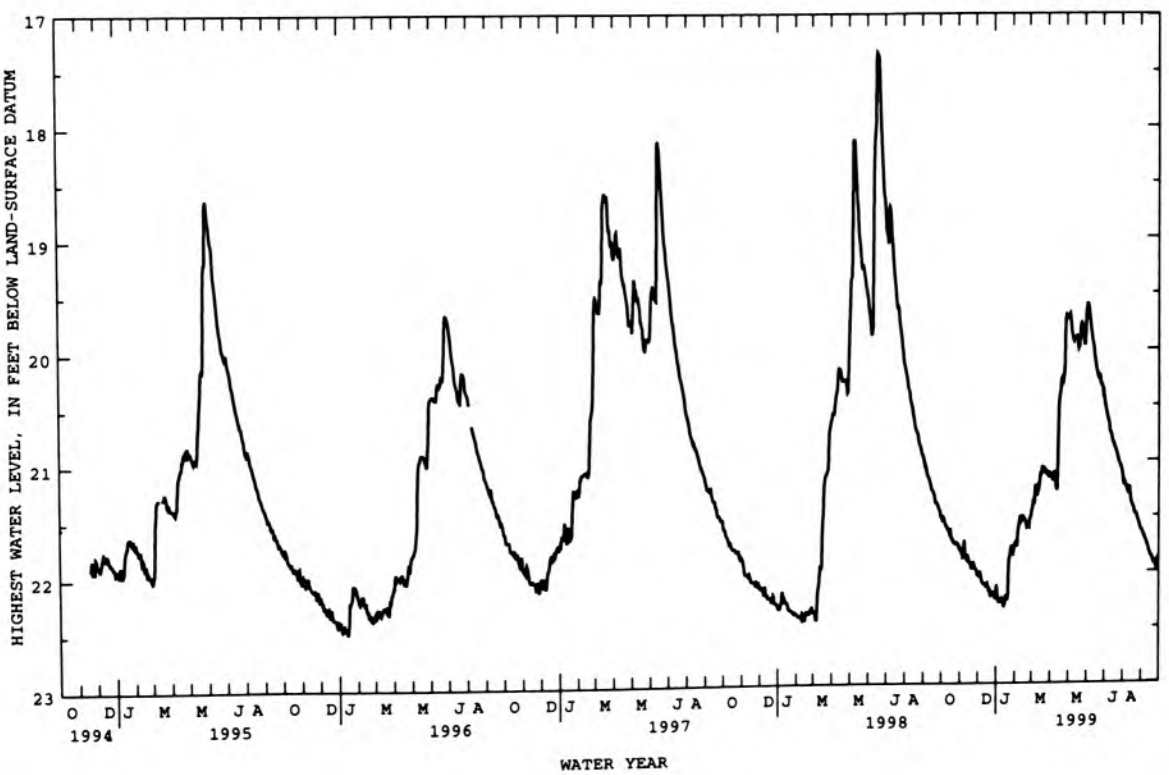
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.52	21.82	22.02	22.26	21.77	21.36	21.15	19.70	19.60	20.55	21.20	21.67
10	21.59	21.72	22.11	22.28	21.55	21.26	21.18	19.89	19.81	20.67	21.28	21.74
15	21.63	21.88	22.13	22.30	21.50	21.24	21.06	19.90	20.02	20.81	21.36	21.83
20	21.71	21.94	22.18	22.25	21.55	21.06	20.39	20.00	20.20	20.89	21.44	21.88
25	21.75	21.91	22.20	21.86	21.59	21.11	20.26	19.77	20.25	20.99	21.50	21.95
EOM	21.78	21.99	22.23	21.82	21.51	21.11	19.70	19.96	20.40	21.09	21.62	21.96

WTR YR 1999 HIGH 19.60 JUN 4

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.54	21.84	22.03	22.27	21.83	21.43	21.19	19.72	19.63	20.57	21.22	21.68
10	21.59	21.81	22.11	22.30	21.59	21.29	21.21	19.92	19.86	20.74	21.30	21.75
15	21.66	21.90	22.14	22.32	21.54	21.26	21.25	19.92	20.07	20.83	21.38	21.84
20	21.71	21.96	22.19	22.26	21.57	21.12	20.42	20.02	20.23	20.91	21.47	21.91
25	21.75	21.98	22.22	21.88	21.63	21.13	20.32	19.78	20.31	21.01	21.52	21.96
EOM	21.79	22.04	22.25	21.85	21.52	21.14	19.74	19.98	20.42	21.12	21.63	21.98

WTR YR 1999 LOW 22.33 JAN 16



380608087395901. Local number, VA 6.
LOCATION.--Lat 38°06'08", long 87°39'59", in SE$^1/_4$SW$^1/_4$NW$^1/_4$ 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.

REMARKS.--Well may be affected by pumpage.

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, 35.87 ft below land-surface datum, Nov. 14, 1994.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

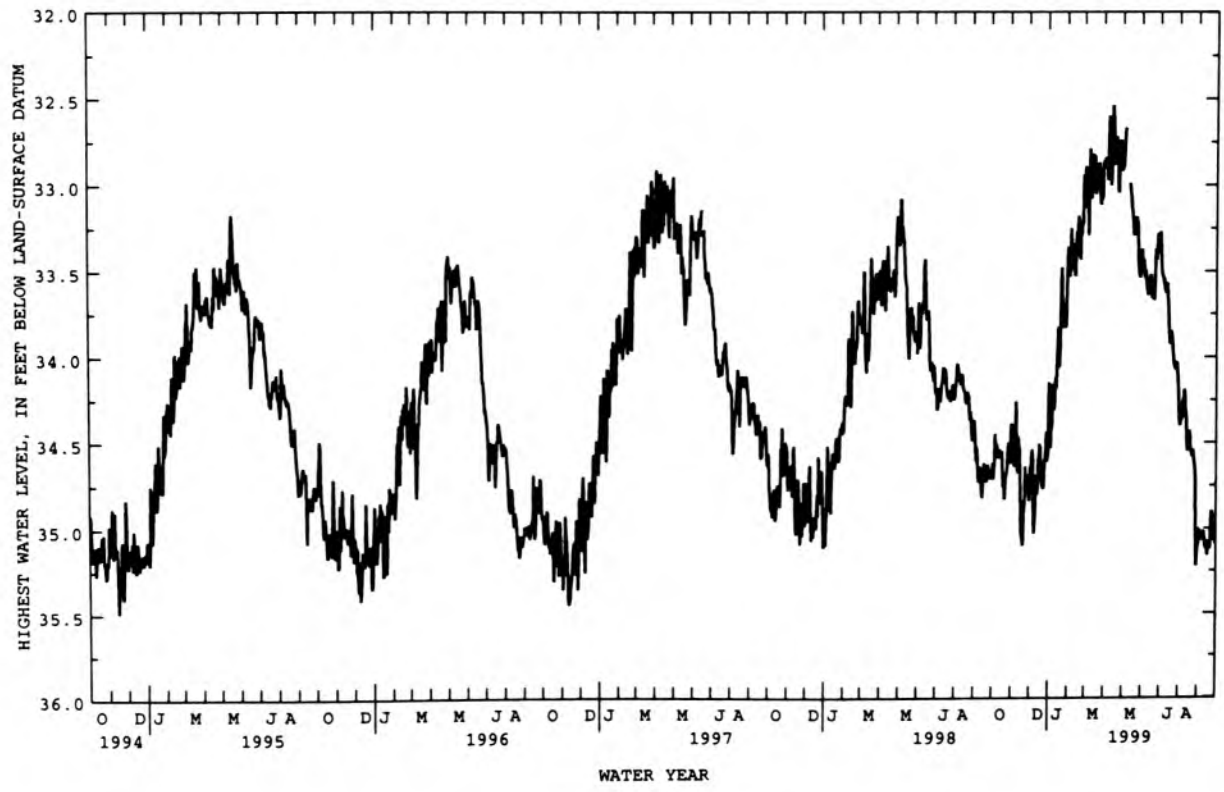
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	34.67	34.54	34.59	34.53	33.53	32.98	32.90	32.69	33.43	33.52	34.36	35.03
10	34.51	34.26	34.96	34.31	33.49	32.97	32.74	---	33.60	33.60	34.19	35.02
15	34.57	34.53	34.78	34.05	33.37	32.95	32.54	33.07	33.56	33.72	34.54	35.08
20	34.76	35.06	34.69	33.95	33.28	32.94	32.80	33.29	33.64	33.85	34.54	35.11
25	34.69	34.64	34.73	33.83	33.23	32.95	33.04	33.21	33.41	34.05	34.58	34.92
EOM	34.60	34.69	34.58	33.65	32.95	32.86	32.91	33.45	33.29	34.17	35.14	35.09

WTR YR 1999 HIGH 32.54 APR 15

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	34.81	34.64	34.76	34.66	33.71	33.19	33.10	32.88	33.53	33.58	34.40	35.12
10	34.59	34.51	35.05	34.42	33.60	33.09	32.79	---	33.75	33.71	34.32	35.14
15	34.66	34.59	34.92	34.26	33.56	33.07	32.78	33.24	33.68	33.86	34.61	35.19
20	34.84	35.25	34.79	34.13	33.42	33.13	32.89	33.35	33.68	33.93	34.60	35.22
25	34.76	34.88	34.88	34.01	33.35	33.13	33.13	33.29	33.52	34.16	34.69	35.09
EOM	34.64	34.88	34.78	33.89	33.13	33.11	33.01	33.61	33.39	34.37	35.26	35.18

WTR YR 1999 LOW 35.35 AUG 29



380626087344401. Local number, VA 7.
LOCATION.--Lat 38°06'26", long 87°34'44", in NE¼NW¼NW¼ sec.7, T.5 S., R.10 W., Vanderburgh County, Hydrologic Unit 05120113, 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, 19.27 ft below land-surface datum, June 19, 1997; lowest, 25.06 ft below land-surface datum, Oct. 29, 1988.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

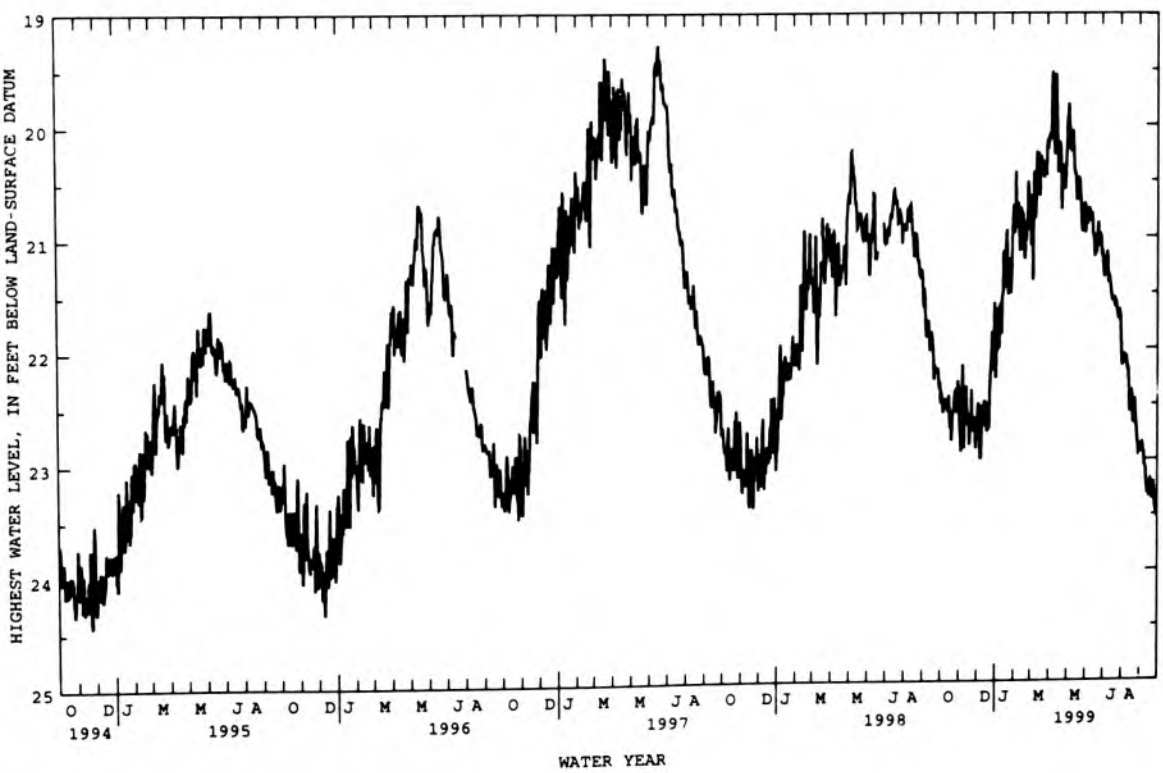
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.43	22.73	22.56	22.08	20.97	20.76	20.11	19.91	20.84	21.29	22.05	22.85
10	22.50	22.15	22.98	22.00	20.92	20.71	19.79	20.23	20.76	21.20	22.07	23.06
15	22.49	22.47	22.70	21.54	20.87	20.45	19.54	20.40	20.98	21.46	22.54	23.21
20	22.72	22.70	22.75	21.35	21.02	20.36	20.25	20.64	21.14	21.55	22.52	23.21
25	22.56	22.37	22.40	21.52	20.95	20.42	20.57	20.58	20.98	21.63	22.58	23.28
EOM	22.58	22.62	22.20	21.28	20.56	20.17	20.58	20.77	21.17	21.71	22.93	23.52

WTR YR 1999 HIGH 19.52 APR 9

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.52	22.80	22.66	22.46	21.37	21.10	20.36	20.03	20.92	21.42	22.12	22.97
10	22.63	22.59	23.06	22.14	21.14	20.84	19.98	20.36	20.96	21.42	22.24	23.17
15	22.58	22.70	22.92	21.92	21.12	20.69	19.87	20.50	21.10	21.54	22.70	23.34
20	22.82	22.88	22.88	21.52	21.20	20.68	20.50	20.80	21.22	21.62	22.70	23.34
25	22.68	22.68	22.71	21.79	21.11	20.58	20.82	20.74	21.21	21.75	22.66	23.39
EOM	22.72	22.90	22.42	21.44	20.85	20.43	20.69	20.94	21.25	21.91	23.07	23.65

WTR YR 1999 LOW 23.65 SEP 29



VIGO COUNTY

392820087242601. Local number, VI 7.
LOCATION.--Lat 39°28'20", long 87°24'26", in $SE^{1}/_{4}SE^{1}/_{4}NE^{1}/_{4}$ 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, 38.35 ft below land-surface datum, Dec. 13, 1993; lowest, 51.90 ft below land-surface datum, Sept. 29 to Oct. 1, 1972.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

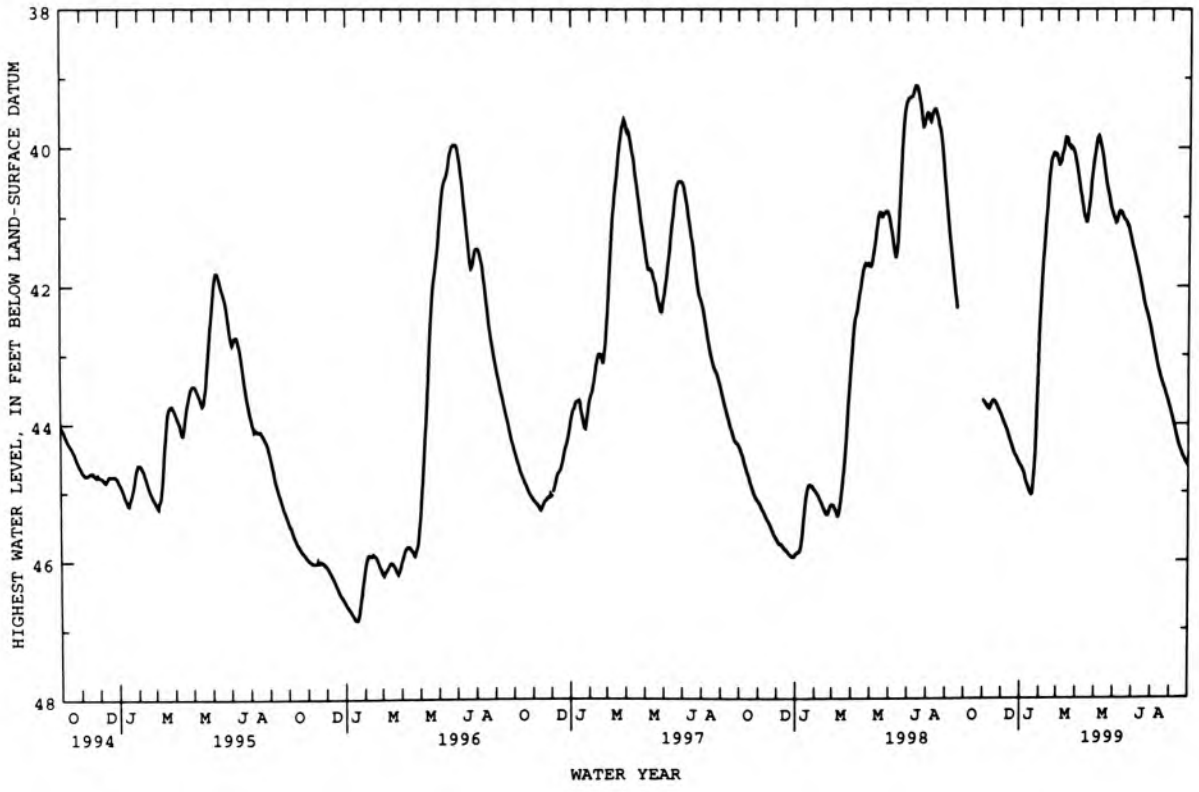
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	43.69	43.96	44.67	41.90	40.21	40.50	39.84	41.07	41.54	42.82	43.90
10	---	43.74	44.07	44.83	41.21	40.05	40.78	39.97	40.91	41.73	43.05	44.10
15	---	43.71	44.22	44.96	40.54	39.87	41.01	40.25	40.98	41.95	43.25	44.29
20	---	43.65	44.36	45.02	40.14	39.97	40.95	40.54	41.05	42.19	43.41	44.42
25	---	43.73	44.47	44.46	40.08	40.01	40.49	40.76	41.15	42.36	43.54	44.52
EOM	---	43.83	44.58	42.96	40.10	40.20	40.11	40.97	41.36	42.58	43.73	44.61

WTR YR 1999 HIGH 39.83 MAY 6

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	43.70	43.98	44.68	42.08	40.26	40.55	39.87	41.08	41.57	42.87	43.95
10	---	43.76	44.10	44.86	41.35	40.08	40.82	40.01	40.93	41.77	43.09	44.14
15	---	43.73	44.24	44.98	40.67	39.88	41.03	40.30	41.00	41.99	43.29	44.32
20	---	43.67	44.39	45.03	40.18	39.99	41.02	40.59	41.06	42.23	43.43	44.44
25	---	43.76	44.48	44.62	40.11	40.02	40.61	40.81	41.19	42.39	43.57	44.54
EOM	---	43.86	44.60	43.25	40.15	40.24	40.18	41.00	41.40	42.62	43.76	44.63

WTR YR 1999 LOW 45.03 JAN 18



WABASH COUNTY

404424085422801. Local number, WB 3.
LOCATION.--Lat 40°44'24", long 85°42'28", in SE¼SE¼SW¼ sec.35, T.27 N., R.7 E., Wabash County, Hydrologic Unit 05120101, on State Highway 124, 3.5 mi west of the county line and in the southwest corner of United Telephone Company property. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled 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.

REVISED RECORDS.--WDR IN-94-1: 1993.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 43.85 ft below land-surface datum, Mar. 27, 1991 and Apr. 1, 1993; lowest, 49.66 ft below land-surface datum, Mar. 10, 1996.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

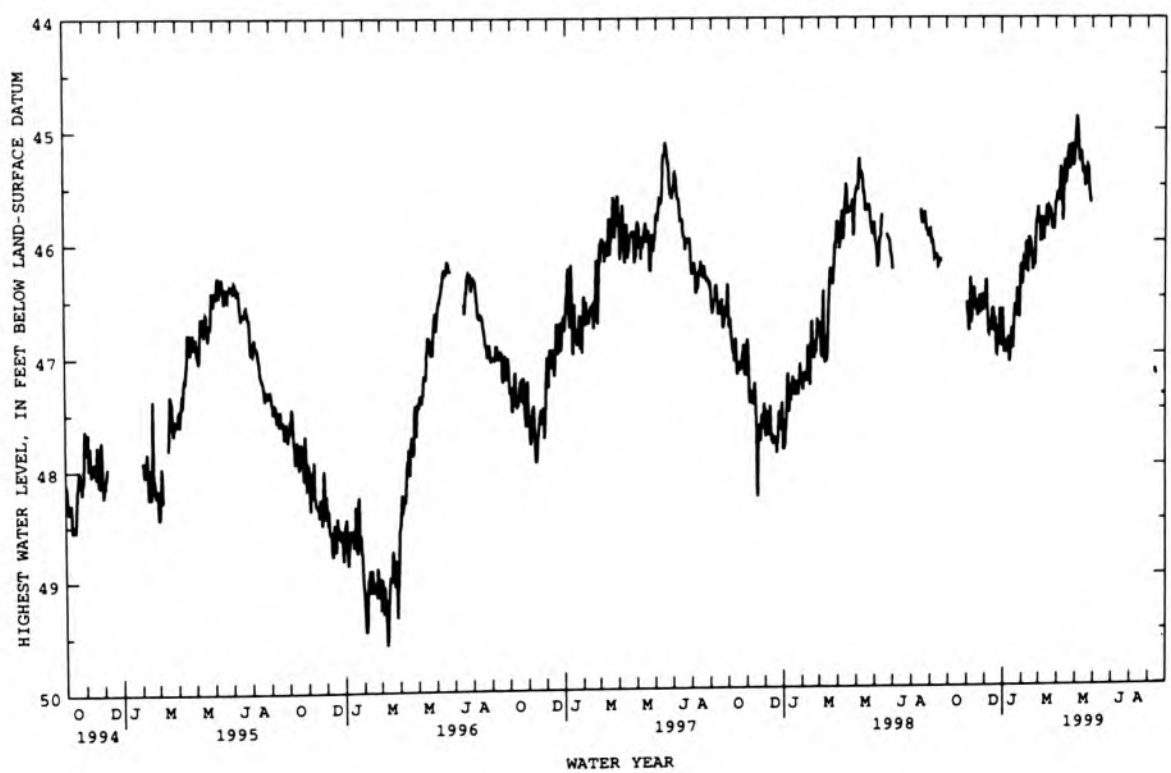
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	46.63	46.48	47.00	46.39	45.84	45.62	44.97	---	---	---	---
10	---	46.32	46.82	47.00	46.26	45.79	45.50	45.26	---	---	---	---
15	---	46.46	46.80	47.04	46.09	45.83	45.37	45.32	---	---	---	47.18
20	---	46.55	46.81	46.96	46.05	45.77	45.40	45.51	---	---	---	---
25	---	46.49	46.95	46.67	46.15	45.77	45.36	45.33	---	---	---	---
EOM	---	46.47	46.84	46.67	45.81	45.77	45.31	---	---	---	---	---

WTR YR 1999 HIGH 44.88 MAY 6

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	46.65	46.55	47.04	46.47	45.91	45.68	45.07	---	---	---	---
10	---	46.66	46.83	47.03	46.28	45.90	45.63	45.29	---	---	---	---
15	---	46.55	46.85	47.08	46.28	45.88	45.75	45.39	---	---	---	47.20
20	---	46.62	46.81	46.96	46.14	45.95	45.46	45.57	---	---	---	---
25	---	46.69	47.03	46.76	46.23	45.87	45.43	45.36	---	---	---	---
EOM	---	46.60	46.94	46.74	45.91	45.93	45.36	---	---	---	---	---

WTR YR 1999 LOW 47.44 SEP 28



403948085414601. Local number, WB 4.
LOCATION.--Lat 40°39'48", long 85°41'46", in NE$^1/_4$SE$^1/_4$NE$^1/_4$ sec. 35, T.26N., R.7E., Wabash County, Hydrologic Unit 05120103, on America Road, 1.3 mi southeast of La Fountaine.
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 above sea level. Measuring point: Top of casing, 3.30 ft above land-surface datum.

REMARKS.--Well affected by pumpage.

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, 46.90 ft below land-surface datum, Feb. 4, 1996.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

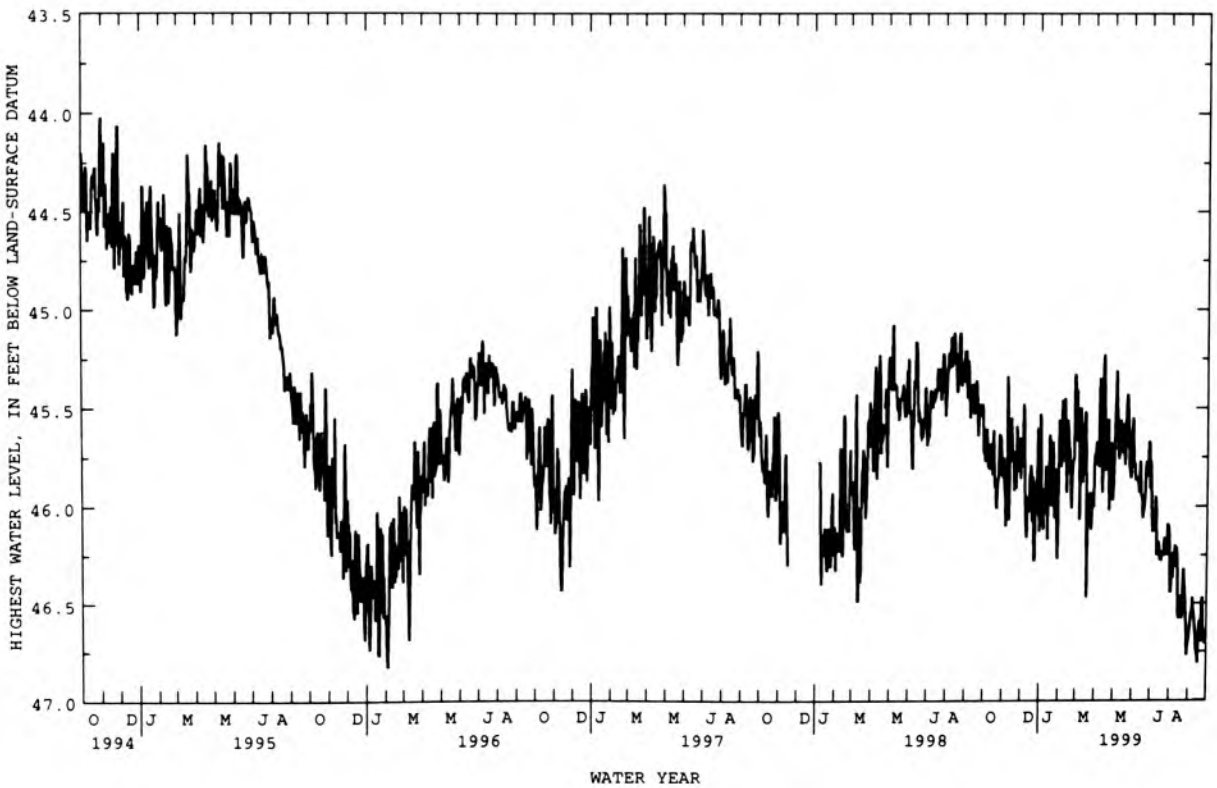
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	45.71	45.91	45.67	46.08	45.80	45.61	45.79	45.44	45.78	46.12	46.32	46.56
10	45.79	45.34	46.13	46.04	45.77	45.60	45.66	45.76	45.86	46.01	46.20	46.56
15	45.76	45.64	46.00	45.93	45.71	45.62	45.28	45.73	45.94	46.21	46.55	46.75
20	45.90	45.81	46.08	46.00	45.81	46.11	45.76	45.79	46.01	46.23	46.52	46.59
25	45.87	45.59	46.06	46.06	45.77	46.07	45.86	45.52	45.80	46.19	46.38	46.61
EOM	45.74	45.65	46.00	46.10	45.33	45.77	45.97	45.68	45.91	46.12	46.72	46.69

WTR YR 1999 HIGH 45.23 APR 16

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	45.80	45.96	45.82	46.30	46.13	45.84	45.98	45.54	45.86	46.20	46.38	46.63
10	45.85	45.77	46.19	46.18	45.97	45.82	45.84	45.83	45.92	46.25	46.33	46.61
15	45.86	45.82	46.16	46.17	45.93	45.72	45.73	45.83	46.03	46.29	46.63	46.80
20	45.96	45.92	46.19	46.08	45.95	46.52	45.88	45.87	46.05	46.29	46.61	46.70
25	45.92	45.91	46.31	46.34	45.91	46.18	46.07	45.62	45.88	46.25	46.43	46.67
EOM	45.86	45.86	46.13	46.29	45.44	46.00	46.06	45.85	45.93	46.22	46.80	46.79

WTR YR 1999 LOW 46.89 SEP 17



380624087164801. Local number, WK 4.
LOCATION.--Lat 38°06'24", long 87°16'48", in SE¼SW¼SW¼ 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, 6.85 ft below land-surface datum, June 17, 1997; lowest, 18.20 ft below land-surface datum, Oct. 30, 1988.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

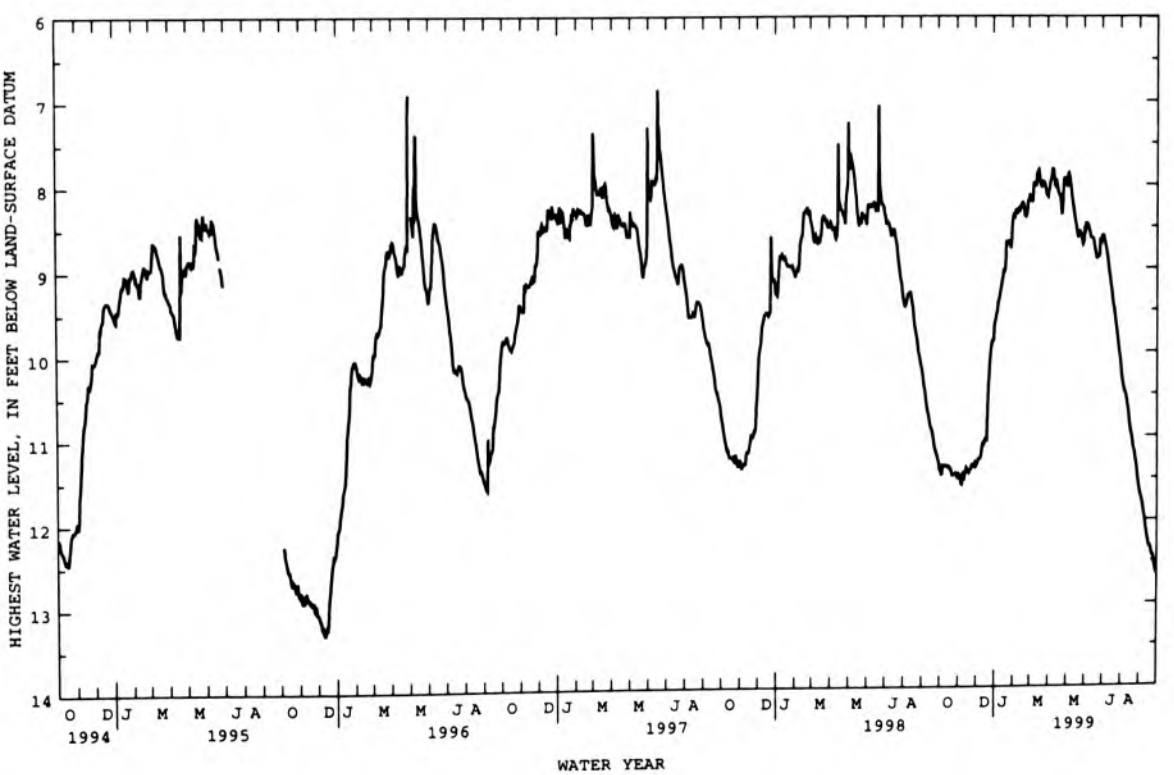
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.46	11.50	11.30	9.57	8.40	8.18	7.99	7.87	8.46	8.66	10.39	11.77
10	11.35	11.43	11.24	9.37	8.35	7.98	7.82	8.05	8.54	8.85	10.53	11.99
15	11.35	11.42	11.11	9.15	8.27	7.87	7.97	8.32	8.64	9.14	10.79	12.23
20	11.40	11.40	11.07	9.01	8.25	7.99	8.11	8.56	8.80	9.44	11.02	12.34
25	11.46	11.33	10.16	8.68	8.37	7.96	8.36	8.56	8.86	9.70	11.24	12.47
EOM	11.48	11.33	9.86	8.65	8.18	8.13	7.92	8.69	8.69	10.06	11.59	12.65

WTR YR 1999 HIGH 7.80 APR 9

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.48	11.52	11.33	9.63	8.43	8.25	8.05	8.05	8.50	8.69	10.43	11.80
10	11.37	11.51	11.27	9.41	8.36	7.99	7.84	8.11	8.58	8.92	10.56	12.03
15	11.37	11.44	11.14	9.21	8.30	7.90	8.02	8.37	8.66	9.20	10.86	12.27
20	11.42	11.43	11.07	9.04	8.30	7.99	8.15	8.60	8.84	9.48	11.09	12.38
25	11.47	11.39	10.30	8.73	8.39	7.97	8.39	8.57	8.87	9.78	11.29	12.50
EOM	11.51	11.37	9.89	8.77	8.21	8.16	7.94	8.71	8.71	10.13	11.64	12.68

WTR YR 1999 LOW 12.68 SEP 30



383012086124501. Local number, WA 2.
LOCATION.--Lat 38°30'12", long 86°12'45", IN NE$^{1}/_{4}$SW$^{1}/_{4}$SW$^{1}/_{4}$ 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., depth 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.

REVISED RECORDS.--WDR IN-94-1: 1993.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 61.14 ft below land-surface datum, Apr. 30, 1996; lowest, 75.76 ft below land-surface datum, Sept. 14, 1998.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

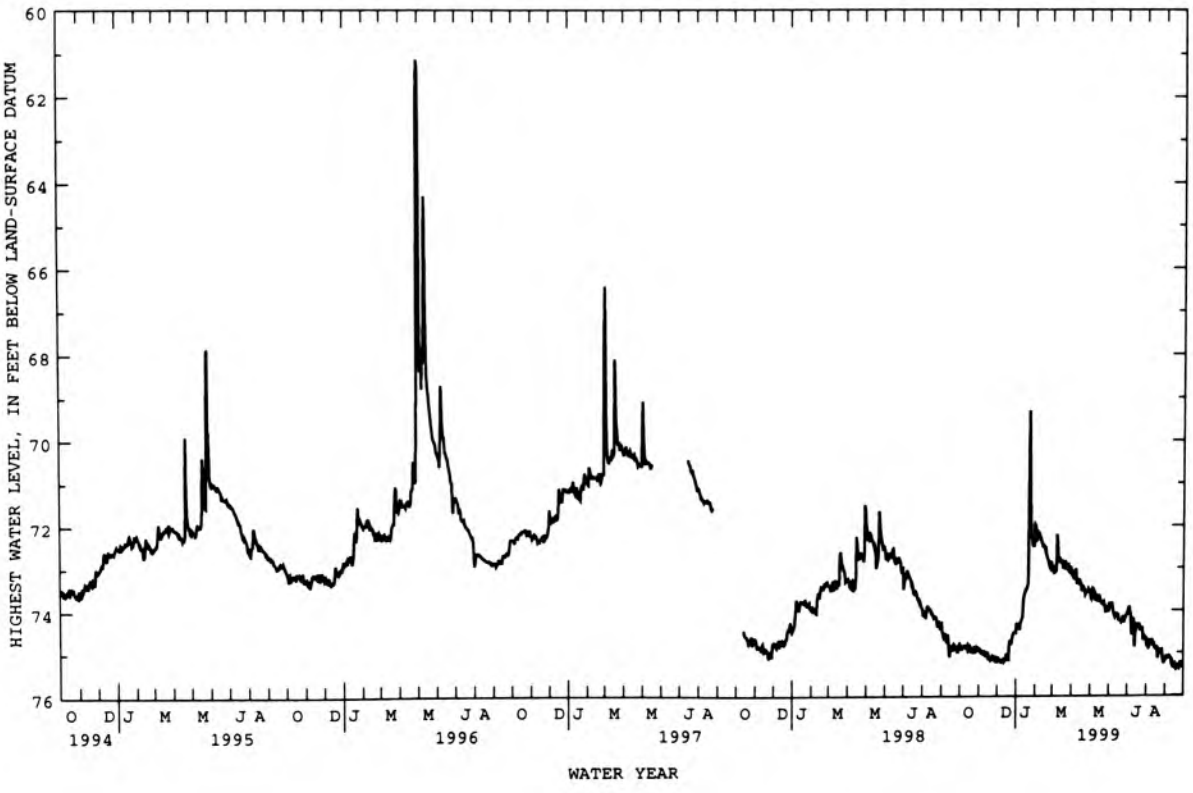
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	74.85	74.97	75.16	74.41	72.31	73.11	73.19	73.67	73.93	73.93	74.88	75.11
10	74.83	74.94	75.19	74.23	72.32	72.43	73.31	73.78	74.11	74.22	74.75	75.14
15	74.94	75.06	75.17	73.63	72.44	72.86	73.27	73.74	74.12	74.48	74.89	75.30
20	74.99	75.09	75.19	73.42	72.71	72.89	73.44	73.83	74.25	74.34	75.13	75.33
25	74.97	75.06	74.75	71.89	72.98	72.99	73.61	73.88	74.25	74.45	74.92	75.27
EOM	74.96	75.08	74.52	72.47	72.87	73.05	73.55	73.92	74.10	74.66	75.21	75.31

WTR YR 1999 HIGH 69.31 JAN 23

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	75.04	75.11	75.33	74.50	72.52	73.32	73.37	73.77	74.05	74.35	75.11	75.25
10	74.95	75.13	75.34	74.38	72.45	72.84	73.38	74.06	74.26	74.38	74.98	75.42
15	75.01	75.18	75.33	73.72	72.67	73.01	73.48	73.83	74.24	74.66	75.08	75.54
20	75.13	75.21	75.33	73.65	72.77	73.02	73.55	73.93	74.36	74.44	75.51	75.49
25	75.14	75.22	74.86	72.34	73.19	73.20	73.72	74.01	74.35	74.65	75.12	75.47
EOM	75.04	75.35	74.67	72.64	73.09	73.12	73.71	74.22	74.18	74.83	75.37	75.45

WTR YR 1999 LOW 75.69 SEP 23



394426085080601. Local number, WE 6.
LOCATION.--Lat 39°44'26", long 85°08'06", in $SE^{1}/_{4}NW^{1}/_{4}NE^{1}/_{4}$ sec.24, T.15 N., R.12 E., Wayne County, Hydrologic Unit 05080003, on county right-of-way, 750 ft east of State Highway 1, and 4.0 mi south of East Germantown.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 49 ft, cased to 47 ft, screened to 49 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 888 ft above 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, 7.09 ft below land-surface datum, May 8 and 9, 1996; lowest, 21.68 ft below land-surface datum, Feb. 1, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

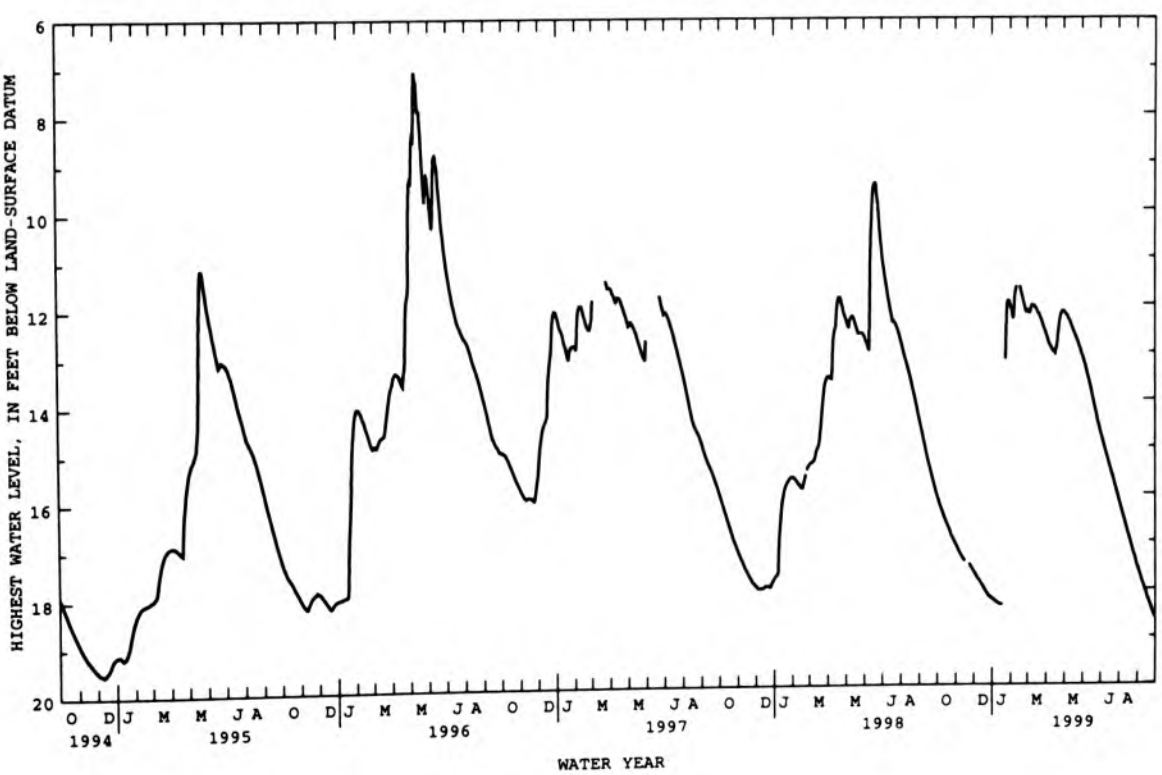
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.19	17.16	17.70	18.23	12.26	12.18	12.76	12.21	13.23	14.85	16.31	17.69
10	16.36	17.28	17.80	18.28	11.69	12.03	12.91	12.32	13.46	15.08	16.53	17.89
15	16.54	17.38	17.91	18.31	---	12.07	12.99	12.47	13.73	15.33	16.77	18.07
20	16.69	---	18.02	---	11.78	12.20	12.88	12.63	14.03	15.56	17.00	18.26
25	16.87	17.48	18.13	12.52	12.05	12.33	12.31	12.78	14.33	15.79	17.22	18.44
EOM	17.03	17.60	18.18	11.95	12.16	12.55	12.15	13.03	14.61	16.07	17.49	18.60

WTR YR 1999 HIGH 11.62 FEB 11

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.22	17.18	17.74	18.24	12.30	12.19	12.78	12.25	13.27	14.89	16.36	17.73
10	16.41	17.31	17.82	18.29	11.76	12.03	12.92	12.33	13.52	15.13	16.59	17.92
15	16.57	17.41	17.93	18.32	---	12.09	12.99	12.51	13.79	15.37	16.82	18.09
20	16.73	---	18.03	---	11.83	12.20	12.91	12.66	14.09	15.59	17.04	18.29
25	16.89	17.52	18.13	13.14	12.10	12.37	12.39	12.82	14.39	15.84	17.27	18.47
EOM	17.05	17.63	18.19	12.02	12.17	12.58	12.15	13.06	14.66	16.11	17.55	18.63

WTR YR 1999 LOW 18.63 SEP 30



WELLS COUNTY

404331085064701. Local number, WL 4.
LOCATION.--Lat 40°43'31", long 85°06'47", in SE$^1/_4$NW$^1/_4$NE$^1/_4$ sec.12, T.26 N., R.12 E., Wells County, Hydrologic Unit 05120101, 3.5 mi southeast of Bluffton on Hwy 316 to entrance of Quabache State Park.
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, 25.64 ft below land-surface datum, Sept. 28, 1999.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

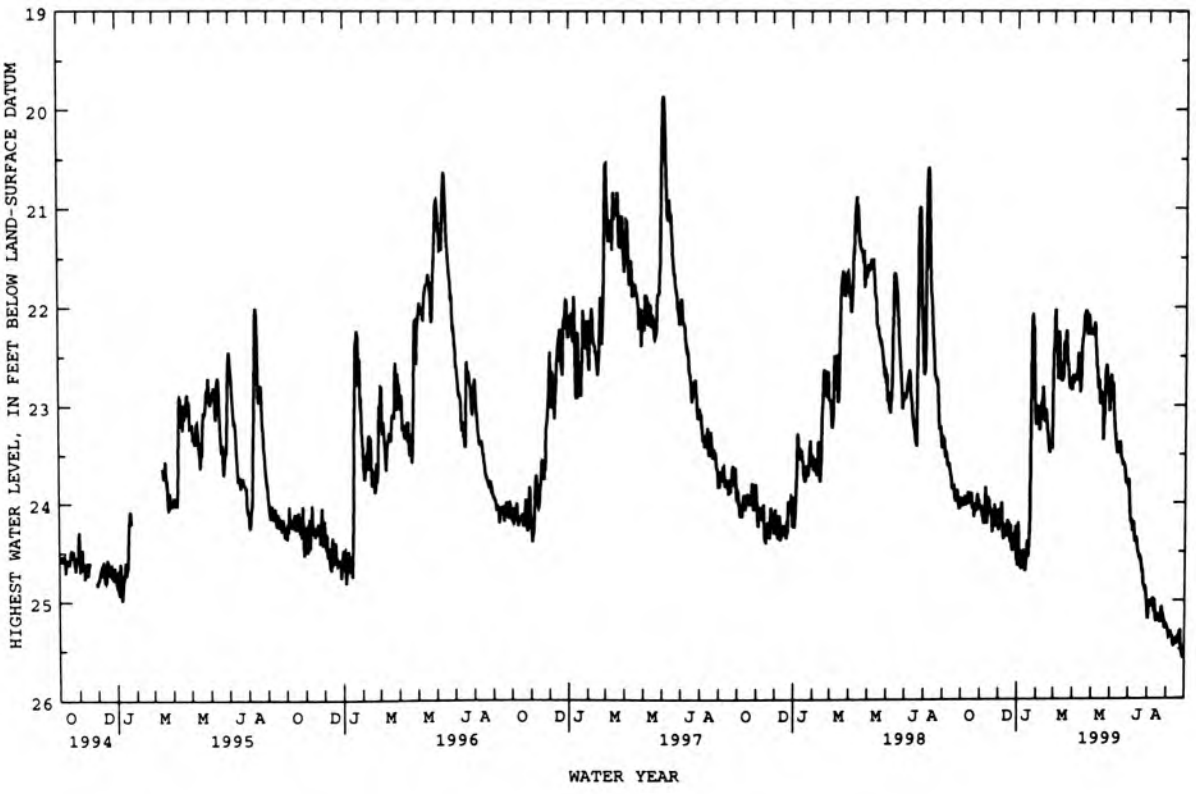
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.96	24.13	24.10	24.57	23.23	22.46	22.74	22.18	22.77	24.18	25.02	25.37
10	23.97	23.83	24.31	24.60	22.93	22.48	22.65	22.62	23.37	24.28	24.97	25.36
15	23.99	24.06	24.25	24.61	23.05	22.73	22.39	22.96	23.44	24.45	25.22	25.42
20	24.04	24.16	24.40	24.37	23.36	22.27	22.12	23.35	23.55	24.56	25.17	25.37
25	24.07	24.01	24.36	22.06	23.40	22.76	22.11	22.58	23.66	24.83	25.09	25.47
EOM	24.04	24.09	24.53	23.19	22.45	22.70	22.25	22.83	23.84	25.05	25.24	25.46

WTR YR 1999 HIGH 22.02 MAR 3

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	24.05	24.20	24.22	24.76	23.59	22.60	22.99	22.31	23.04	24.26	25.14	25.43
10	24.00	24.21	24.38	24.74	23.10	22.71	22.89	22.88	23.52	24.46	25.14	25.45
15	24.07	24.22	24.38	24.73	23.16	22.87	22.70	23.14	23.55	24.55	25.27	25.46
20	24.13	24.32	24.53	24.55	23.45	22.49	22.26	23.77	23.64	24.66	25.25	25.49
25	24.18	24.23	24.52	22.31	23.58	22.88	22.29	22.66	23.86	24.95	25.19	25.56
EOM	24.15	24.32	24.65	23.25	22.73	22.85	22.39	23.09	23.92	25.21	25.28	25.57

WTR YR 1999 LOW 25.64 SEP 28



WHITE COUNTY

404914086403001. Local number, WT 4.
LOCATION.--Lat 40°49'14", long 86°40'30", in NW¼SW¼NW¼ sec.5, T.27 N., R.2 E., White County, Hydrologic Unit 05120106, 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.

REMARKS.--Well may be affected by pumpage.

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.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

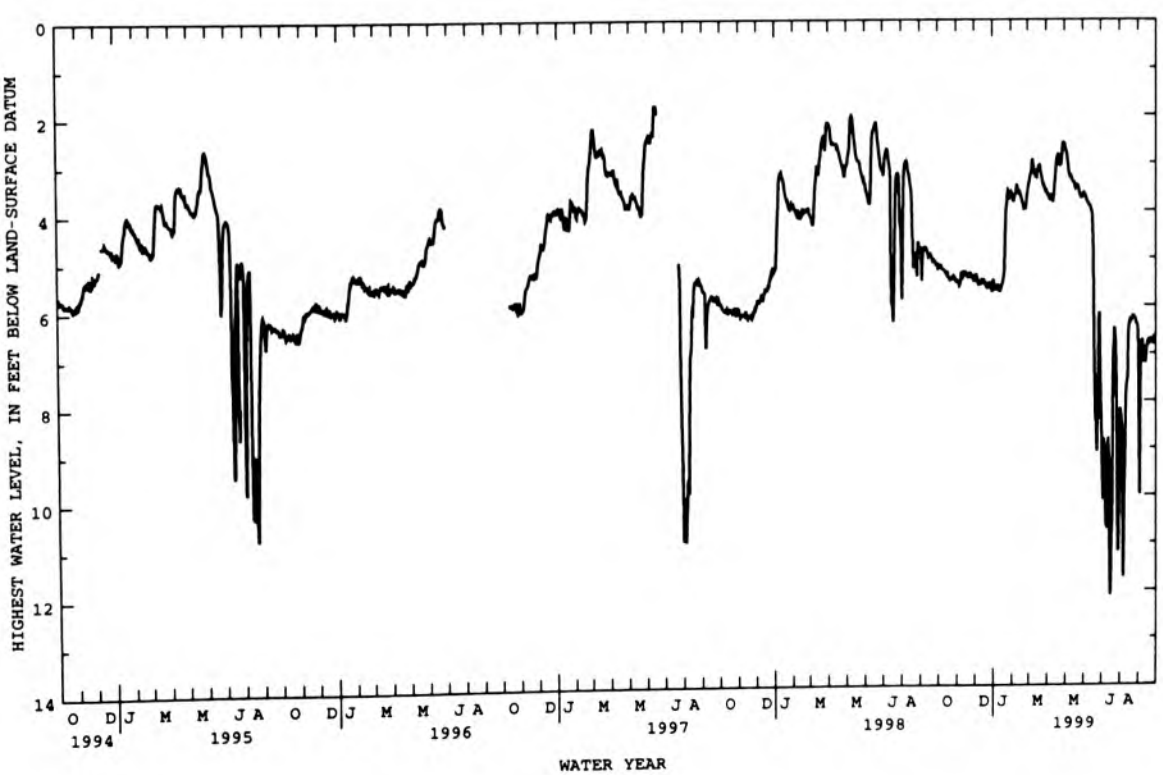
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.18	5.51	5.43	5.64	3.81	3.28	3.74	2.79	3.67	10.01	8.53	7.72
10	5.23	5.29	5.55	5.64	3.56	3.02	3.81	3.26	3.84	10.56	9.44	6.95
15	5.31	5.32	5.51	5.66	3.60	3.31	3.50	3.39	3.99	10.92	7.52	7.05
20	5.41	5.37	5.58	5.37	3.82	3.07	2.87	3.54	6.77	10.09	6.34	6.73
25	5.42	5.30	5.55	3.87	3.93	3.35	3.06	3.53	8.40	6.56	6.22	6.76
EOM	5.46	5.39	5.66	3.74	3.68	3.56	2.59	3.69	7.07	9.97	6.40	6.64

WTR YR 1999 HIGH 2.59 APR 30

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.22	5.55	5.47	5.74	3.92	3.41	3.80	2.88	3.73	10.51	9.78	9.99
10	5.25	5.45	5.58	5.71	3.64	3.15	3.86	3.32	3.89	10.76	9.80	7.47
15	5.35	5.36	5.56	5.73	3.65	3.37	3.69	3.43	4.05	12.11	7.58	7.47
20	5.44	5.42	5.63	5.47	3.88	3.15	2.91	3.55	8.03	10.82	6.35	6.78
25	5.43	5.42	5.63	3.99	4.02	3.45	3.10	3.59	9.52	6.79	6.26	6.79
EOM	5.51	5.50	5.72	3.79	3.81	3.60	2.62	3.74	8.01	11.16	6.43	6.68

WTR YR 1999 LOW 12.52 JUL 17



410337085264201. Local number, WY 3.
LOCATION.--Lat 41°03'37", long 85°26'42", in NW¼SE¼NW¼ sec.18, T.30 N., R.10 E., Whitley County, Hydrologic Unit 05120104, on the county right-of-way of Evergreen Road, and 0.75 mi north of Laud.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 191 ft, cased to 187 ft, screened to 191 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 870 ft above 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, 53.71 ft below land-surface datum, Mar. 10, 1996.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

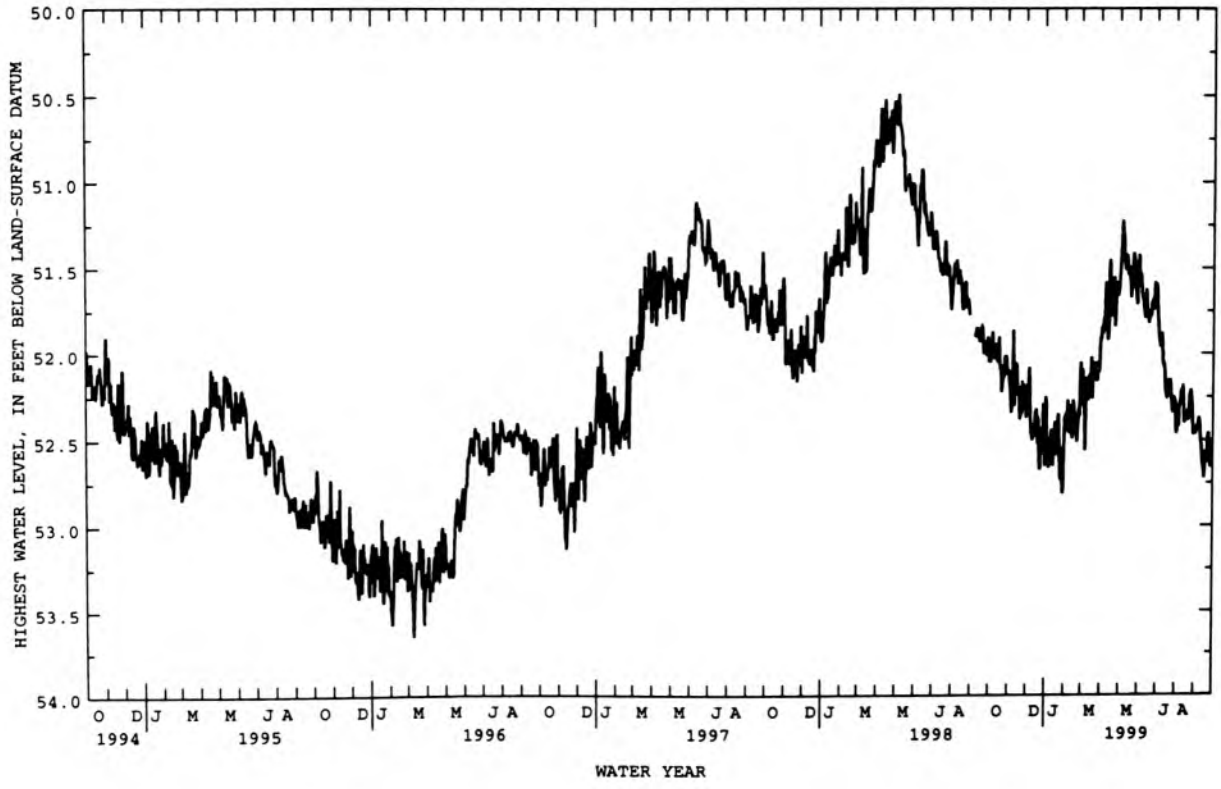
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	52.00	52.20	52.22	52.62	52.45	52.31	51.88	51.31	51.53	51.91	52.39	52.42
10	52.01	51.86	52.47	52.53	52.46	52.22	51.78	51.47	51.73	51.93	52.21	52.43
15	52.03	52.15	52.44	52.56	52.34	52.14	51.50	51.52	51.77	52.17	52.40	52.65
20	52.09	52.27	52.52	52.58	52.42	52.09	51.73	51.67	51.78	52.19	52.35	52.57
25	52.13	52.16	52.53	52.67	52.32	52.13	51.77	51.44	51.71	52.24	52.23	52.55
EOM	52.09	52.18	52.51	52.74	52.05	51.96	51.64	51.52	51.70	52.27	52.45	52.52

WTR YR 1999 HIGH 51.22 MAY 6

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	52.14	52.31	52.36	52.79	52.71	52.46	52.07	51.42	51.61	51.99	52.46	52.53
10	52.04	52.18	52.54	52.70	52.56	52.30	51.91	51.59	51.86	52.10	52.33	52.58
15	52.13	52.26	52.58	52.72	52.54	52.29	51.85	51.62	51.85	52.29	52.46	52.70
20	52.15	52.40	52.65	52.67	52.55	52.31	51.83	51.74	51.82	52.26	52.41	52.68
25	52.21	52.36	52.70	52.92	52.51	52.24	51.89	51.58	51.79	52.36	52.34	52.68
EOM	52.19	52.41	52.68	52.92	52.18	52.15	51.77	51.73	51.79	52.38	52.57	52.64

WTR YR 1999 LOW 52.92 JAN 25



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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
	Length	
inch (in.)	2.54×10^{1}	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^{0}	kilometer
	Area	
acre	4.047×10^{3}	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi^2)	2.590×10^{0}	square kilometer
	Volume	
gallon (gal)	3.785×10^{0}	liter
	3.785×10^{0}	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^{3}	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft^3)	2.832×10^{1}	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft^3/s) d]	2.447×10^{3}	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^{3}	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
	Flow	
cubic foot per second (ft^3/s)	2.832×10^{1}	liter per second
	2.832×10^{1}	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^{1}	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
	Mass	
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.