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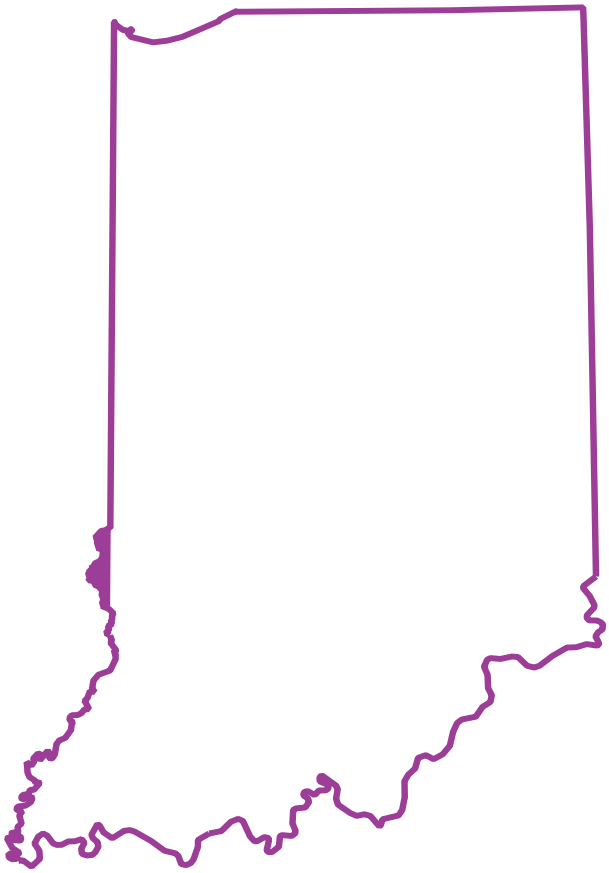
Water Resources Data
Indiana
Water Year 2004



Water-Data Report IN-04-1

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

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

Calendar for Water Year 2004

2003

October

S	M	T	W	T	F	S
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2004

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August

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29	30	31				

September

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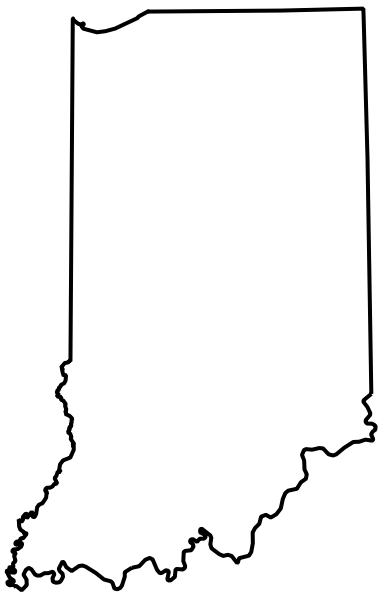
26	27	28	29	30		

Water Resources Data
Indiana
Water Year 2004

By Scott E. Morlock, Hieu T. Nguyen and Deborah K. Majors



Prepared by the Indiana District Office, Indianapolis, IN., in cooperation with the
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Water-Data Report IN-04-1

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U.S. Geological Survey

U.S. Department of the Interior
Gale A. Norton, Secretary

U.S. Geological Survey
Charles G. Groat, Director

U.S. Geological Survey, Reston, Virginia: 2004

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U.S. Geological Survey, WRD
5957 Lakeside Boulevard
Indianapolis, IN 46278

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 U.S. Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

D.V. Arvin
P. R. Baker
B.L. Benedict
P. M. Buszka
D.A. Cohen
J. R. Davis
R.F. Duwelius
J. W. Frey
M.S. Hopkins
L. M. Jankovic
R.G. Knapp
T. R. Lathrop
J. T. Majors
C.D. Menke
L. V. Myers
J. H. Poehler
M.S. Rehmel
B.T. Reinking
C.A. Silcox
L. R. Watson

The following individuals contributed significantly to the typing, drafting, and assembling of the report:

P. H. Long D.C. Lampe T.C. Willoughby

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

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13. ABSTRACT *(Maximum 200 words)*

Water-resources data for the 2004 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 127 stream-gaging stations, stage for 16 stream stations, stage and contents for 1 reservoir, water quality for 7 streams, water temperature at 17 sites, sediment analysis for 1 stream, water levels for 9 lakes and 37 observation wells. Also included are records of miscellaneous discharge measurements, miscellaneous levels and miscellaneous water quality, not part of the systematic data-collection program. Data contained in this report represent that part of the National Water Information 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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STREAM AND RESERVOIR GAGING STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

(d-discharge, e-gage heights, c-chemical, h-hydrograph, n-nutrients, p-pesticide, s-sediment, t-temperature, v-contents)

STREAM AND RESERVOIR GAGING STATIONS, IN DOWNSTREAM ORDER FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME--Continued

STREAM AND RESERVOIR GAGING STATIONS, IN DOWNSTREAM ORDER FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME--Continued

STREAM AND RESERVOIR GAGING STATIONS, IN DOWNSTREAM ORDER FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME--Continued

STREAM AND RESERVOIR GAGING STATIONS, IN DOWNSTREAM ORDER FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME--Continued

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

(e - gage heights)

GROUND-WATER WELLS, IN ALPHANUMERIC ORDER BY COUNTY, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME--Continued

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

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

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

Station name	Station number	Drainage area (mi^2)	Period of record
OHIO RIVER BASIN			
Whitewater River near Hagerstown	03274750	58.7	1970-2003
Little Williams Creek at Connersville	03274950	9.16	1968-1991
East Fork Whitewater River at Richmond	03275500	121	1949-1978
South Hogan Creek near Dillsboro	03276700	38.1	1961-1993
Laughery Creek near Farmers Retreat (a)	03277000	248	1941-1973
Little Indian Creek near Galena	03302300	16.1	1968-2003
Indian Creek near Corydon	03302500	129	1943-1993
Friday Branch tributary near Saint Meinrad (b)	03303276	.096	1981
Crooked Creek near Santa Claus	03303400	7.86	1969-2003
Little Pigeon Creek near Tennyson	03304000	150	1944-1947
Pigeon Creek near Fort Branch	03322011	35.4	1986-2001
Pigeon Creek at Evansville	03322100	323	1960-1985
WABASH RIVER BASIN			
Wabash River near New Corydon	03322500	262	1951-1988
Wabash River at Bluffton	03323000	532	1930-1971, 1987-1992 (d)
Salamonie River at Portland	03324200	85.6	1959-1993
Little Mississinewa River at Union City	03325311	9.67	1982-1997
Mississinewa River near Eaton (b)	03326000	310	1952-1971
Big Lick Creek near Hartford City	03326070	29.2	1971-2003
Pipe Creek near Bunker Hill	03327520	159)	1968-2003
Weesau Creek near Deedsville	03328430	8.87	1970-2001
Rattlesnake Creek near Patton	03329400	6.83	1968-1993
Wabash River at Delphi	03329500	4,072	1940-1971
Tippecanoe River near Warsaw	03331000	126	1943-1949
Walnut Creek at Warsaw	03331110	19.6	1969-2003
Tippecanoe River at Pulaski	03332000	1,089	1928-1931
Little Indian Creek near Royal Center (a)	03332300	35.0	1959-1973
Tippecanoe River at Buffalo (e)	03332345	1,285	1986-1992
Big Monon Creek near Francesville (a)	03332400	152	1959-1973
Tippecanoe River near Monticello (c)	03332500	1,732	1932-1981
Wildcat Creek at Greentown	03333500	168	1945-1961
Marshall Ditch near Montmorenci	03335677	1.58	1990-1994
Indian Creek near Montmorenci	03335678	27.8	1990-1994
Little Pine Creek at Green Hill	03335679	42.3	1990-1994
Mud Pine Creek near Oxford	03335690	39.4	1971-2003
Big Pine Creek near Williamsport	03335700	323	1955-1987
East Fork Coal Creek near Hillsboro	03339108	33.4	1968-1991
Coal Creek at Coal Creek	03339120	214	1965-1972
Little Vermilion River near Newport	03339150	237	1965-1972
Sugar Creek tributary near Deer Mill (b)	03339855	.45	1981
Sugar Creek near Byron (b)	03340000	670	1941-1971
Big Raccoon Creek at Mansfield (d)	03341000	248	1939-1958
Little Raccoon Creek near Catlin (d,g)	03341200	134	1957-1971
Big Raccoon Creek near Mecca	03341315	473	1988-1992
Brouilletts Creek near Universal (b)	03341420	321	1966-1971
North Coal Creek near Terre Haute	03341470	1.91	1974-1976
Honey Creek near Riley (b)	03341570	5.79	1981
Busseron Creek near Hymera	03342100	16.7	1966-2003

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

Station name	Station number	Drainage area (mi^2)	Period of record
WABASH RIVER BASIN--Continued			
West Fork Busseron Creek near Hymera	03342150	14.4	1966-1986
Mud Creek near Cass	03342244	9.16	1981-1991
Mud Creek near Dugger	03342250	11.9	1966-1981
Busseron Creek near Sullivan	03342300	138	1966-1986
Buttermilk Creek near Paxton	03342350	16.5	1966-1973
Buttermilk Creek near Sullivan	03342360	17.6	1975-1978
Busseron Creek near Carlisle	03342500	228	1943-2003
Buck Creek near Muncie	03342750	35.5	1954-2003
South Fork Smalls Creek at Bruceville (b,g)	03342800	4.94	1972-1975
Killbuck Creek near Gaston	03348020	25.5	1968-1991
Killbuck Creek near Anderson	03348100	97.8	1964-1968
Pipe Creek at Frankton	03348350	113	1968-2003
White River near Noblesville	03348500	828	1915-1926, 1929-1974 (b)
Cicero Creek near Arcadia (a)	03349500	131	1955-1976
Little Cicero Creek near Arcadia (a)	03349700	40.4	1956-1976
Cicero Creek near Cicero	03350000	196	1946-1954
Hinkle Creek near Cicero (a)	03350100	18.5	1956-1976
Cicero Creek at Noblesville	03350500	216	1950-1980, 1986-1992
Sugar Creek near Middletown	03351400	5.80	1969-1989
Lawrence Creek at Fort Benjamin Harrison	03352000	2.74	1952-1956, 1958-1969
Mud Creek at Indianapolis (a)	03352200	42.4	1958-1976
Fall Creek at 16th St. at Indianapolis	03352875	317	1986-1991
Pleasant Run at Brookville Road at Indianapolis	03353160	10.1	1960-1981
Bean Creek at Indianapolis	03353180	4.4	1970-1993
Little Eagle Creek at 52nd St. at Indianapolis	03353551	6.28	1989-2000
Guion Creek abv 52nd St. at Indianapolis	03353560	4.10	1989-2001
Falcon Creek at 30th St. at Indianapolis	03353583	4.15	1989-2001
Little Buck Creek near Southport	03353630	5.75	1989-2000
Derbyshire Creek at Southport	03353635	1.76	1989-2001
Little Buck Creek at Southport	03353636	10.8	1989-2001
White River at Waverly	03353660	2,026	1986-1988
West Fork Whitelick Creek at Danville	03353700	28.8	1958-2003
Beanblossom Creek at Beanblossom	03354500	14.6	1952-1993
Bear Creek near Trevlac (a)	03355000	6.94	1952-1973
Beanblossom Creek at Dolan	03356000	100	1946-1978
Beanblossom Creek near Bloomington	03356500	112	1931-1933
Big Walnut Creek at Greencastle	03357420	216	1975-1982
Deer Creek near Putnamville	03359500	59.0	1955-1965, 1968-1972
Jordan Creek near Jordan (b)	03359980	25.9	1981
Kessinger Ditch near Monroe City	03360895	56.2	1992-1998
Driftwood River near Edinburgh	03363000	1,060	1940-1991
Haw Creek near Clifford	03364200	47.5	1967-1991
Sand Creek near Brewersville	03365000	155	1948-1986
Von Fange Ditch at Seymour	03365575	4.17	1994-1997
Graham Creek near Vernon	03366000	77.2	1955-1973
Harberts Creek near Madison	03366200	9.31	1968-2003
Muscatatuck River near Austin	03367000	359	1932-1943, 1944-1971 (f)
Stucker Creek near Austin	03367500	127	1932-1933
Vernon Fork Muscatatuck River near Butlerville	03369000	85.9	1942-2001
Vernon Fork near Crothersville	03370000	391	1932-1933

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

Station name	Station number	Drainage area (mi^2)	Period of record
WABASH RIVER BASIN--Continued			
Muscatatuck River near Tampico	03370500	960	1939
Muscatatuck River near Vallonia	03371000	1,134	1932-1933
Back Creek near Leesville	03371520	24.1	1970-2003
South Fork Salt Creek at Kurtz	03371600	38.2	1961-1971, 1972-1975 (e)
North Fork Salt Creek at Nashville (a)	03371650	76.1	1962-1976
North Fork Salt Creek near Belmont	03372000	120	1946-1971
Stephens Creek near Bloomington	03372300	10.9	1970-1991
Clear Creek near Harrodsburg	03372700	55.2	1960-1971
Salt Creek near Peerless	03373000	573	1939-1950, 1957-1971, 1971-1984 (d)
Indian Creek near Springville (a)	03373200	60.7	1961-1973
Lost River near Leipsic	03373530	34.8	1992-2001
Lost River near West Baden Springs	03373700	287	1964-1993
White River at Hazelton (h)	03374100	11,305	1928-1938
Patoka River near Hardinsburg	03374455	12.8	1968-2003
Hall Creek at St. Anthony	03375800	21.8	1970-2001
Patoka River near Jasper (g)	03376000	348	1944-1947
Flat Creek near Otwell	03376260	21.3	1965-1982
Little Flat Creek near Otwell (b)	03376279	6.56	1981
STREAMS TRIBUTARY TO LAKE MICHIGAN			
Little Calumet at Gary	04093200	5.82	1958-1971 1984-2002(e)
Burns Ditch at Gary (g)	04093500	160	1943-1991
Salt Creek near McCool	04094500	74.6	1945-1991
Dunes Creek at Porter	04095050	3.40	1979-1982
Derby Ditch at Beverly Shores	04095100	4.64	1980
Trail Creek at Michigan City	04095300	54.1	1969-1994
Galena River near LaPorte	04096100	17.2	1969-2003
Lime Lake outlet at Panama	04097970	17.5	1969-1986
Fawn River at Orland	04098000	86.4	1943-1947
Pigeon Creek and Hogback Lake near Angola	04099500	103	1946-1974
Pretty Lake Inlet near Stroh	04099610	1.96	1963-1980
Little Elkhart River at Middlebury	04099808	97.6	1979-2003
Pine Creek near Elkhart	04099850	31.0	1979-2003
Christiana Creek at Elkhart	04100000	127	1947-1952
North Branch Elkhart River near Cosperville	04100220	134	1951-1971
Rimmel Branch near Albion	04100295	10.7	1979-2001
Forker Creek near Burr Oak	04100252	19.2	1969-2003
Solomon Creek near Syracuse	04100377	36.1	1987-2003
Turkey Creek at Syracuse	04100465	43.8	1969-1987
STREAMS TRIBUTARY TO LAKE ERIE			
St. Joseph River at Hursh	04178500	734	1950-1954
St. Joseph River at Cedarville	04179000	763	1931-1932, 1956-1981
Cedar Creek near Auburn (a)	04179500	87.3	1943-1973
Harber Ditch at Fort Wayne	04182590	21.9	1960-1964 (g), 1961-1964 (e), 1964-1991
St. Marys River at Fort Wayne	04182700	810	1905-1906
Spy Run Creek at Fort Wayne	04182810	14.0	1983-2001

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

Station name	Station number	Drainage area (mi^2)	Period of record
UPPER MISSISSIPPI RIVER BASIN			
Kankakee River near North Liberty	05515000	174	1951-2003
Kingsbury Creek near LaPorte	05515400	7.08	1970-1986
Yellow River near Bremen (a)	05516000	135	1955-1973
Cobb Ditch near Kouts	05517890	30.3	1968-2003
Singleton Ditch near Hebron	05518500	34.2	1949-1951
Singleton Ditch near Schneider	05519000	123	1948-2001
West Creek near Schneider	05519500	54.7	1948-1952, 1954-1972
Singleton Ditch at Illinoi, IL	05520000	220	1945-1977
Iroquois River at Rosebud	05521000	35.6	1948-2003
Oliver Ditch near Aix	05521500	79.6	1948-1951
Iroquois River near North Marion	05522000	144	1948-1993
Bice Ditch at South Marion	05523000	21.8	1948-1993
Slough Creek near Collegeville	05523500	83.7	1948-1952, 1953-1982
Carpenter Creek at Egypt	05524000	44.8	1948-1952, 1953-1982

a Continued as a crest-stage and low-flow partial-record station through 1984.
b Some quality of water data available.
c Records of daily discharges furnished by Northern Indiana Public Service Company.
d Continued as a stage only station.
e Stage only station.
f High-water records only.
g Some record fragmentary.
h Some quality of water data available after station discontinued for stream-gaging records.

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

The following stations were discontinued as surface-water-quality stations. Records of temperature (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	1987-1994, 1999-2000
				1968-1979
East Fork Whitewater River at Abington	03275600	198	C	1969-1976,
			T	1970-1971,
			T	1973-1976
East Fork Whitewater at Brookville	03276000	380	C,T	1974-1975
Whitewater River at Brookville	03276500	1224	T	1974-1981,
			C	1974-1986
South Hogan Creek near Dillsboro	03276700	38.1	C,T,S	1961-1993
Trib to Friday Branch at St. Meinard	03303276	.096	C,T,S	1980-1981
WABASH RIVER BASIN				
Wabash River near New Corydon	03322500	262	C	1969-1973
Wabash River at Huntington	03323500	710	T	1963-1977
Salamonie Creek at Warren	03324288	402	T	1980-1981
Mississinewa River at Marion	03326500	682	C,T	1975-1976,
			C,T	1979
Eel River near Logansport	03328500	789	S,T	1969-1980
Wildcat Creek near Lafayette	03335000	794	C	1970-1979,
			T	1970-1974
Wabash River at Lafayette	03335500	7247	T	1954-1964,
			T	1967-1975,
			S	1978-1980
Big Pine Creek at Williamsport	03335700	323	C	1970-1976,
			T	1970-1975,
			C,T,S	1980-1981
Big Raccoon Creek near Fincastle	03340800	132	T	1965-1977,
			C	1975-1977
Honey Creek at Riley	03341570	5.79	C,T,S	1980-1981
Wabash River near Sullivan	03341805	12,600	C,T	1963-1964
Wabash River at Riverton	03342000	13,100	T	1954-1961,
			T	1962-1965,
			T	1967-1978
South Fork Smalls Creek at Bruceville	03342800	4.94	C	1973-1975
White River at Noblesville	03348500	814	T	1952-1976
White River near Nora	03351000	1200	T	1954-1960,
			T	1962-1972
White River near Centerton	03354000	2,444	C,S	1986-1995
			T	1953-1956
				1966-1967
				1970-1972
				1977-1980
				1982-1985
			S	1965-1977
Big Walnut Creek at Greencastle	03357420	216	C,T	1973-1977
Mill Creek at Cataract	03358000	245	C,T	1978-1982
Jordan Creek at Jordan	03359980	25.9	C,T	1980-1981
Big Blue River at Carthage	03361000	184	T	1974-1977,
			C,T	1979-1982,
			S	1977-1981,
			C	1973-1977
Flatrock River at St. Paul	03363500	303	C,T	1976-1979
Clifty Creek at Hartsville	03364500	91.4	C,T	1970-1975
East Fork White River at Seymour	03365500	2333	S	1966-1980,
			T	1954-1979
North Fork Salt Creek near Nashville	03371650	761	C,T	1974-1976
Salt Creek near Harrodsburg	03372500	441	T	1966-1976

DISCONTINUED SURFACE-WATER-QUALITY STATIONS--Continued

Station name	Station number	Drainage area (mi^2)	Type of Record	Period of record
WABASH RIVER BASIN--Continued				
White River at Petersburg	03374000	11125	T	1964-1977
White River near Hazelton	03374100	11305	T	1973-1981,
			S	1973-1983,
			C	1973-1986
Patoka River near English	03374470	308	T	1970-1976,
			C	1969-1976
Little Flat Creek near Otwell	03376279	6.36	C,T,S	1980-1981
South Fork Patoka River near Spurgeon	03376350	42.8	C,S	1999-2002
Wabash River at New Harmony	03378500	29234	T	1974-1980
			C	1974-1986
			S	1974-1983
STREAM TRIBUTARY TO LAKE MICHIGAN				
Trail Creek near Michigan City	04095300	54.1	C,T	1977-1981
			S	1990-1994
STREAMS TRIBUTARY TO LAKE ERIE				
St. Joseph River near Newville	04178100	615	C	1996-1999,
				1969-1973
St. Marys River at Wilshire	04181050	435	C	1969-1973
St. Marys River near Ft Wayne	04182000	762	S	1953-1967,
			T	1964-1967
UPPER MISSISSIPPI RIVER BASIN				
Yellow Creek near Plymouth	05516500	29.4	S,T	1979-1981

WATER RESOURCES DATA—INDIANA, 2004

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 2004 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 127 gaging stations, stage at 16 gaging stations, stage and contents at 1 reservoir, water quality at 7 stream sites, water temperature at 17 sites, sediment data at 1 site, water levels at 9 lakes, and 37 observation wells. Also included are streamflow records for discharge at miscellaneous sites, and observation well water levels from special studies done in Lake county. Locations of the streamflow and water-quality sites are shown on figures 6 and 7. The locations of lakes and ground-water observation wells having 2004 water-level records are shown on figures 8, 9, 10 and 11. 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 the present format, 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 through1974 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-04-1." 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 2000" U.S. Geological Survey Circular 1268, were provided by the Indiana Department of Natural Resources, Division of Water. The data indicated that in 2000 over 10.1 billion gallons per day were withdrawn from the surface- and ground-water resources of Indiana to meet the needs of its citizens. Approximately 94 percent of this withdrawal was from surface-water sources. Nearly 6.7 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, Kyle Hupfer, Director, through the Bureau of Resource and Regulation, Paul Ehret, Deputy Director, Regulatory team.

State of Indiana, Department of Environmental Management, Thomas W. Easterly, Commissioner, Mary Ellen Gray, Deputy Assistant Commissioner, Office of Water Quality

State of Indiana, Department of Transportation, Thomas Sharp, Commissioner

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

The following organizations aided in collecting records: The cities of Anderson, Carmel, Elkhart, Fort Wayne, and Indianapolis; Hoosier Energy; Indianapolis Water Co.; AES Energy; CINERGY; Jefferson Smurfit Corp.; Eli Lilly and Co.; Northern Indiana Public Service Co.; Kankakee River Basin Commission; Maumee River Basin Commission.

SUMMARY OF HYDROLOGIC CONDITIONS

Descriptions of precipitation and flooding during the Water Year 2004 in the summary of Hydrologic Conditions are based on information from the National Weather Service, Monthly Reports of River Flood Conditions, October 2003 through September 2004, by the National Weather Service office in Indianapolis, Indiana; North Webster, Indiana; and Paducah, Kentucky.

Precipitation

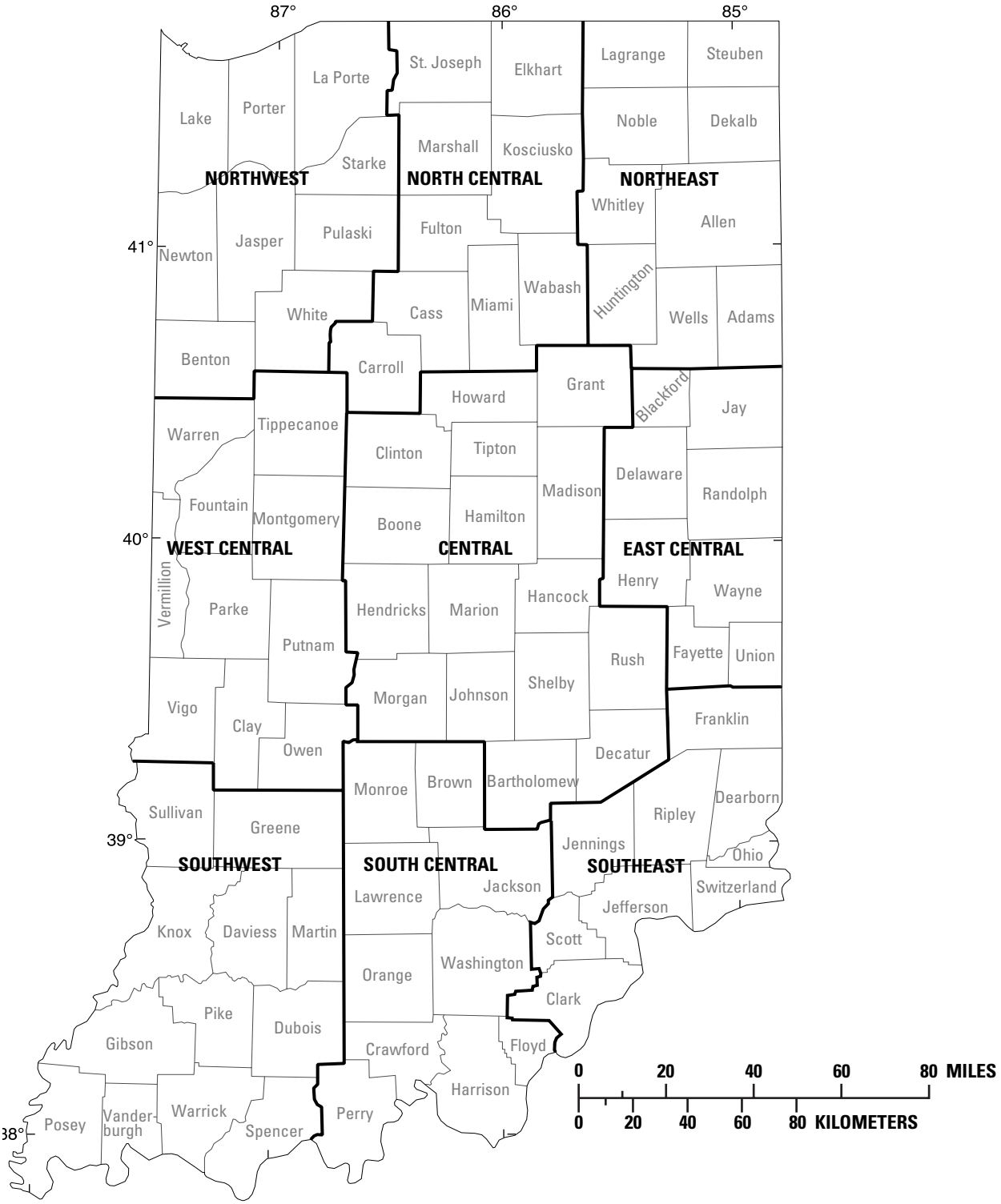
The climate of Indiana is continental, influenced mainly by eastward-moving cold polar and warm gulf air masses. The low-pressure centers formed by the interaction of these air masses are the major sources of Indiana precipitation. Spring and early summer are normally the wettest periods of the year as storm systems tap moisture from the Gulf of Mexico 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. The average annual precipitation ranges geographically from 37 inches in northern Indiana to 46 inches in southern Indiana (fig. 2). Snowfall accounts for 2 to 7 inches of the average annual precipitation, with the greatest amount of snowfall in northern Indiana (Clark, 1980).

An "overall picture" of precipitation patterns in Indiana during Water Year 2004 is presented in table 1. Table 1 shows monthly precipitation by Indiana climate division (fig. 1) during Water Year 2004, expressed as percentage of the mean monthly precipitation for 1971–2000 (mean monthly precipitation for 1971–2000 was obtained from the Midwest Climate Center, *http://mcc.sws.uiuc.edu*). For purposes of this discussion, mean precipitation for 1971–2000 is termed "normal." Table 1 can be viewed as a record by month and by geographic area of precipitation departures from normal.

Water Year 2004 began with dry conditions across Indiana. Precipitation was below normal across Indiana through October into early November. November was wetter than normal across most of Indiana because of several storms that produced heavy rains in the second half of the month.

December precipitation was about normal or below normal across Indiana until the last week of the month when heavy rains fell. Heavy rains continued across Indiana central and southern climate divisions during the first week in January; several winter storms left up to 8 inches of snow in Indiana central climate divisions by the end of the month. February was drier than normal across all Indiana climate divisions.

March was drier than normal across the Indiana southern climate divisions, nearly normal in the east central and northeast climate divisions; and above normal in the central, west central, north central, and northwest climate divisions. April was drier than normal across Indiana, with the exception of the southeast climate division where a storm system that stalled over the Ohio Valley in the latter half of April produced heavy rains. May was wetter than normal across Indiana, with widespread heavy storms in the last week of the month; Evansville received more than 5 inches of rain between May 25 and 31.



Base from U.S. Geological Survey digital data, 1:2,000,000 1996
Albers Equal-Area Conic 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.)

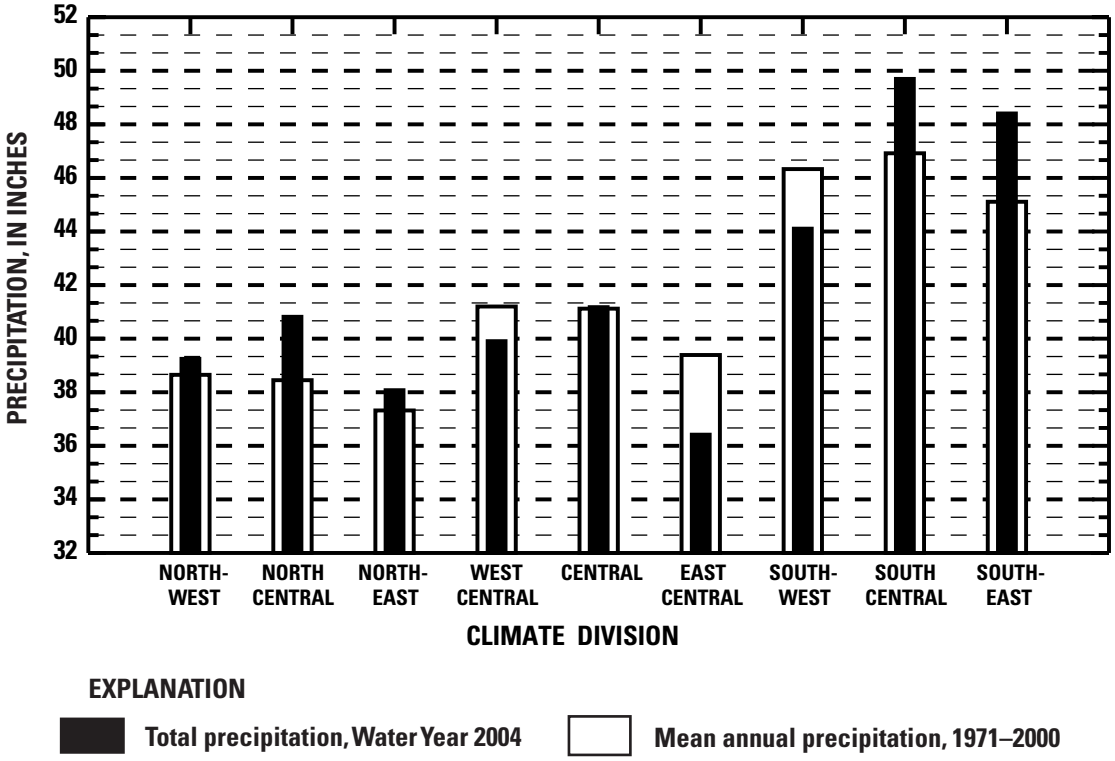


Figure 2.--Indiana precipitation during Water Year 2004, and mean annual precipitation for 1971-2000.

Table 1.--Monthly precipitation during Water Year 2004, as a percentage of mean monthly precipitation, 1971–2000.

Climate division	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Northwest	85	119	87	50	30	131	27	151	109	106	219	28
North Central	73	133	95	86	44	117	21	181	126	121	176	36
Northeast	75	91	101	113	28	97	22	180	146	134	134	37
West Central	63	120	111	159	27	132	36	148	129	98	95	14
Central	79	118	97	185	36	115	40	137	127	112	110	27
East Central	97	126	76	134	33	87	38	124	139	93	110	14
Southwest	77	131	61	146	37	85	55	176	61	146	99	24
South Central	104	147	82	156	62	84	76	182	79	142	111	10
Southeast	90	139	73	173	62	74	102	183	93	144	93	25

The wet pattern persisted across northern and central Indiana in June; northern Indiana in particular was affected with 1 week of persistent heavy rainfall that began June 9. July was wetter than normal across Indiana northern and southern climate divisions, with frequent thunderstorms; parts of southwestern Indiana received an estimated 8 to 10 inches of rain during a 12-hour period on July 16 and 17. August precipitation was near normal across most of central and southern Indiana, while northern Indiana was wetter than normal because of three significant storms during the month. Water Year 2004 concluded with drier than normal conditions across Indiana through September. Many areas across central and southern Indiana had received less than 1 inch of rain for the entire month of September. For parts of southwestern Indiana, this was the driest September on record.

Surface Water

The Ohio River, Upper Mississippi River, Lake Michigan, and Lake Erie Basins are the major drainage basins in Indiana. Most of Indiana (24,000 square miles) is drained by the Wabash River.

The sources of flow in Indiana streams and rivers are ground water and direct runoff from precipitation. The majority of streamflow during normal and low-flow periods is from ground water; during high-flow periods, a significant amount of streamflow is runoff. Of the 38 inches of average annual precipitation in Indiana, it is estimated that about 26 inches are lost to evapotranspiration (Clark, 1980). The remaining 12 inches are considered the total-average annual runoff for Indiana. Of the 12-inch total-average annual runoff, about 9 inches are direct-surface runoff to streams and lakes, while the remaining 3 inches recharge ground water (Clark, 1980).

A predominant characteristic of streamflow across Indiana is variability. Streamflow is ultimately reflective of the runoff resulting from precipitation, which is highly variable depending on geography and time (Clark, 1980). Thus low-flow periods resulting from droughts or floods resulting from storms have occurred in every month. The variability of flows in Indiana streams and rivers was evident during Water Year 2004.

Figure 3 illustrates discharges during Water Year 2004, as compared to medians of monthly and yearly discharges during 1971–2000 for three USGS Indiana streamflow-gaging stations: Mississinewa River at Marion (03326500); East Fork White River at Shoals (03373500); and Wabash River at Mount Carmel, Illinois (03377500). Median monthly and yearly discharges for 1971–2000 are considered to be normal streamflows in this discussion because the period includes 30 years of record (this allows the Water Year 2004 streamflows to be quantified relative to normal streamflows).

The Wabash River at Mount Carmel station drains more than 95 percent of Indiana and is influenced by climate factors across the entire State. Mean streamflows for Water Year 2004 at this station were above normal October through January, reflecting the above-normal precipitation amounts across much of the State in September of Water Year 2003 and November and January of Water Year 2004 (fig. 3). Streamflows at this station were below normal February through May in response to much drier than normal conditions in

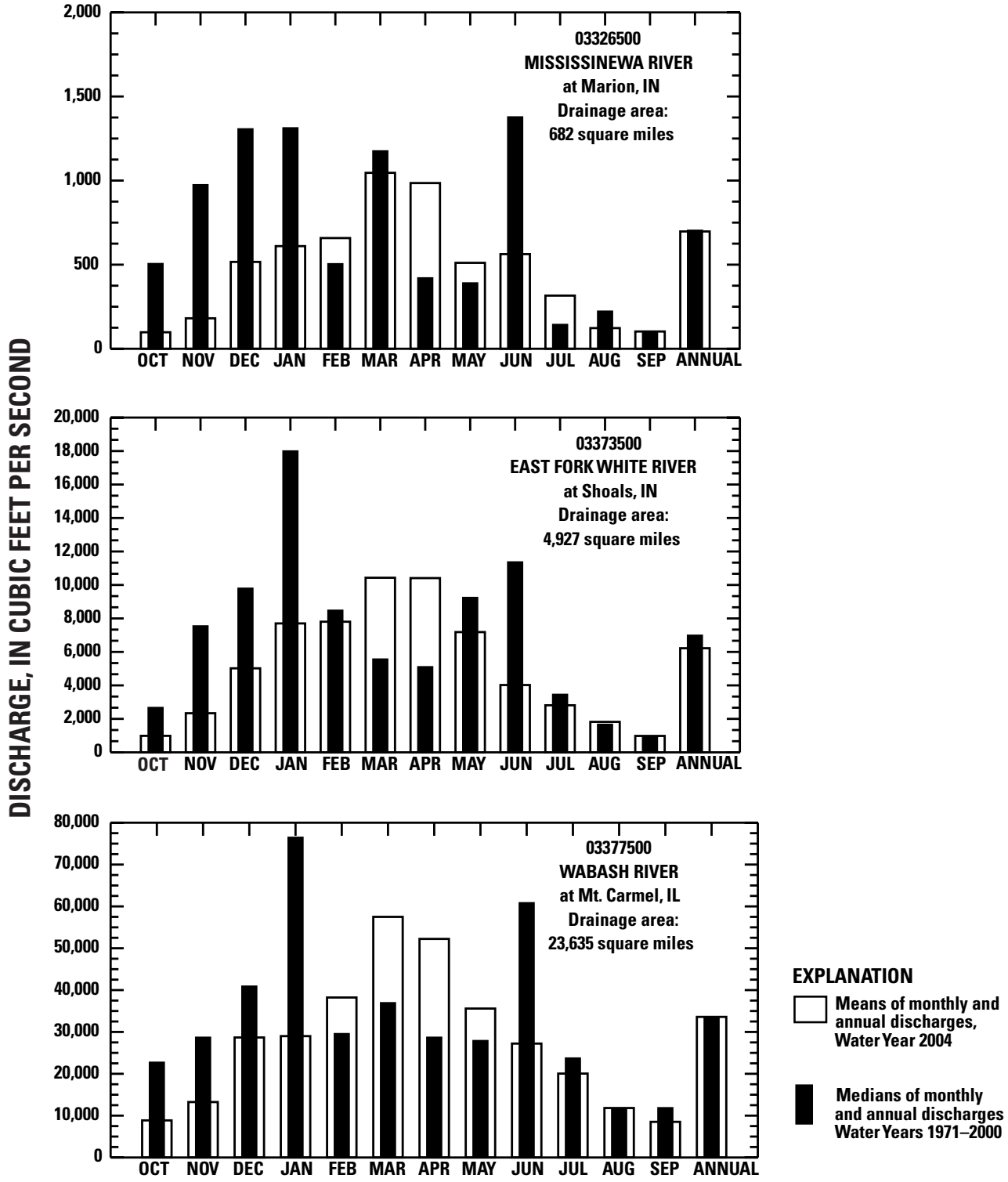


Figure 3.--Mean discharges at three Indiana streamflow-gaging stations during Water Year 2004 and median discharges for Water Years 1971-2000.

February and April. Mean streamflows at the Mount Carmel station were near normal July through September. The above normal and below normal streamflow months balanced one another to produce a normal annual mean streamflow for Water Year 2004 at the Mount Carmel Station.

There were no drought conditions in Indiana in Water Year 2004, but there was flooding. While there was some minor lowland flooding in southern Indiana during October through December, there was no major flooding.

In January, heavy rains caused extensive flooding in southern Indiana. Rivers affected included the East Fork White, White, Muskatatuck, and Wabash. The Muskatatuck and White Rivers reached their highest levels since 1996 in Bartholomew, Jackson, and Washington Counties, resulting in evacuations and two fatalities. There was no major flooding in February, March, or April.

In May, heavy rains in southern Indiana caused extensive flooding in southern Indiana along the Lost, White, and Wabash Rivers. Flash flooding took place along many small streams in the region, and evacuations took place in Posey County.

The wet May pattern continued into June, causing extensive flooding across much of Indiana. Heavy rain on June 16 produced flash flooding that resulted in water rescues in and near Indianapolis and Martinsville. Widespread lowland flooding that caused significant crop damage occurred along the White, East Fork White, and Wabash Rivers in central and southern Indiana. In northern Indiana, flash flooding affected numerous counties from June 10 to 12. The Kankakee, Yellow, Maumee, St. Marys, Little and Eel Rivers flooded. Sandbagging was necessary in South Whitley to protect property along the headwaters of the Eel River.

The heavy rainfall July 16 and 17 in southwestern Indiana caused flash flooding in the Evansville area. Southwestern Indiana again was affected by flooding in August when flash floods caused road closures in Gibson and Posey Counties. August flooding affected lowlands along the Tippecanoe and Wabash Rivers in north-central Indiana, and heavy rain August 27 to 30 caused damaging flash floods in Allen County.

Heavy rain from September 2 to 4 caused flash flooding in Allen and White Counties in northern Indiana, damaging residences and businesses in Monon and closing roads in Fort Wayne. Because of the drier than normal September in central and southern Indiana, there was no flooding in those parts of the State.

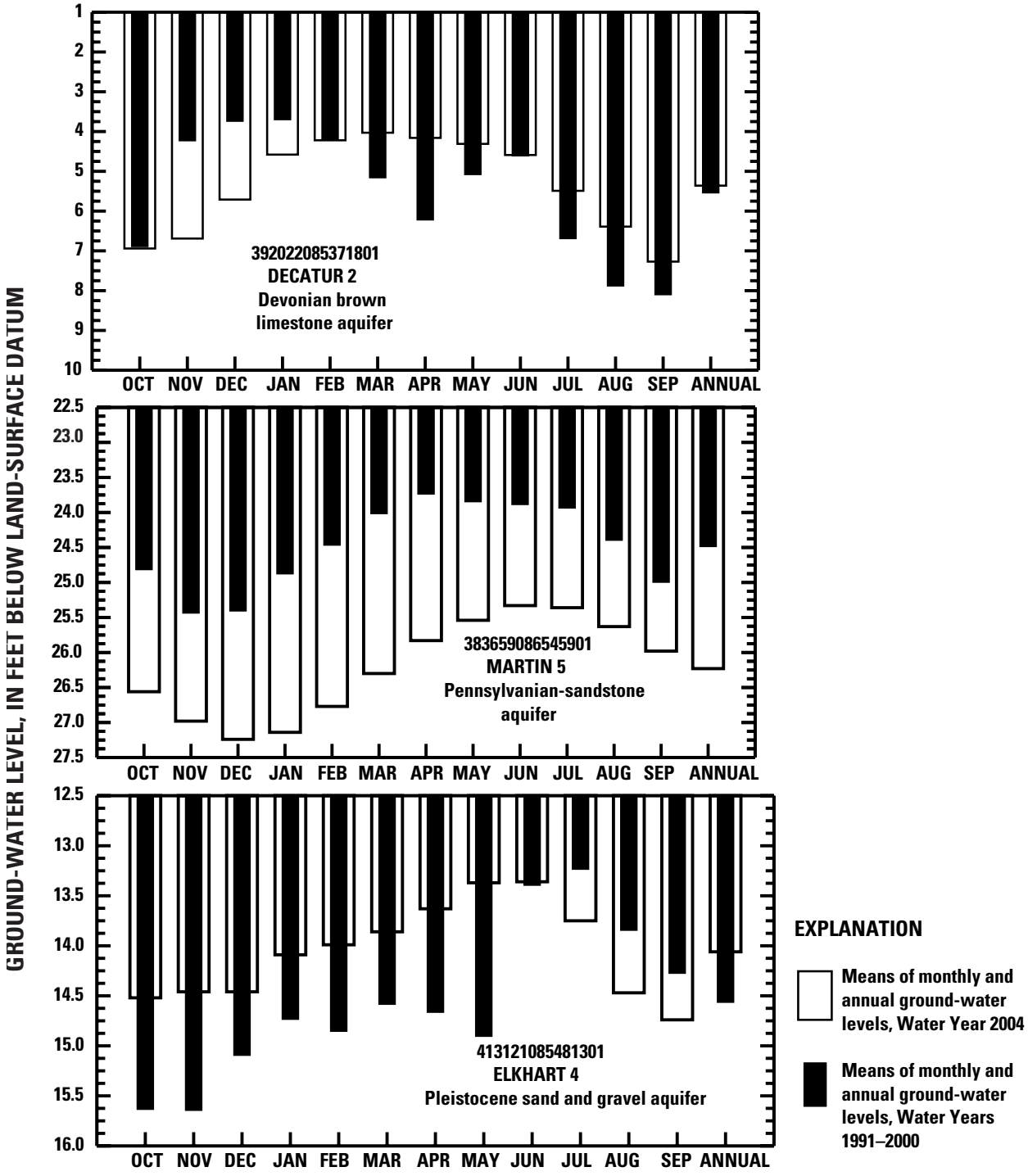


Figure 4.--Monthly and annual mean of daily minimum ground-water levels at three Indiana ground-water observation wells during Water Year 2004 and mean of monthly and annual minimum ground-water levels for Water Years 1991-2000.

Ground Water

Ground water in Indiana occurs in a variety of unconsolidated- and bedrock-aquifer systems. Changes in ground-water levels are produced by natural influences such as precipitation and by man-made causes such as ground-water withdrawals. Normal annual ground-water-level changes are typically in the range of 3 to 7 feet in most aquifers. Statewide, ground-water levels have shown no long-term rising or declining trends (Clark, 1980).

Generally in Indiana, ground-water levels follow a 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 reduction in evapotranspiration (Clark, 1980).

This seasonal pattern is seen in plots of mean ground-water levels for 1991 to 2000 for three USGS index ground-water-observation wells in Indiana: Decatur 2, Martin 5, and Elkhart 4 (fig. 4). Mean ground-water levels for this period are considered to be normal for purposes of this discussion. Figure 4 compares Water Year 2004 ground-water levels with normal ground-water levels for the three wells. In this discussion, the term "ground-water level(s)" refers to a height above an arbitrary datum; however, ground-water-level data normally are quantified in terms of distance lower than a land-surface datum.

The observation well Decatur 2 is in a Devonian brown limestone aquifer in central Indiana. For Decatur 2, ground-water levels were near normal in October, February, and June; lower than normal for March, April, May, July, August and September and were above normal for November, December, and January (fig. 4). The mean ground-water level for the 2004 water year was near normal.

Martin 5 is in a Pennsylvanian-sandstone aquifer in southwestern Indiana. Ground-water levels for Martin 5 were higher than normal for Water Year 2004 (fig. 4).

The index observation well Elkhart 4 is in north-central Indiana in a Pleistocene sand and gravel aquifer. Ground-water levels were lower than normal October through May; near normal for June; and above normal for July, August, and September (fig. 4). The mean ground-water level for Water Year 2004 was below normal.

Of 37 USGS ground-water-observation wells in Indiana, 3 wells: Allen 6, Decatur 2, and Harrison 8, had record-high water levels and one well, Hamilton 7 had a record-low water level at some time during Water Year 2004.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, hydrologic-station records in USGS reports have been listed in order of downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary entering between two main-stream stations is listed between those stations. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is located with respect to the stream to which it is immediately tributary is indicated by an indention in that list of stations in the front of this report. Each indentation represents one rank. This downstream order and system of indentation indicates which stations are on tributaries between any two stations and the rank of the tributary on which each station is located.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These station numbers are in the same downstream order used in this report. In assigning a station number, 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 composed of both types of stations. Gaps are consecutive. The complete 8-digit (or 10-digit) number for each station such as 03335500, which appears just to the left of the station name, includes a 2-digit part number "03" plus the 6-digit (or 8-digit) downstream order number "335500." In areas of high station density, an additional two digits may be added to the station identification number to yield a 10-digit number. The stations are numbered in downstream order as described above between stations of consecutive 8-digit numbers.

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The USGS well and miscellaneous site-numbering system is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, and the next 7 digits denote degrees, minutes, and seconds of longitude; the last 2 digits are a sequential number for wells within a 1-second grid. In the event that the latitude-longitude coordinates for a well and miscellaneous site are the same, a sequential number such as "01," "02," and so forth, would be assigned as one would for wells (see fig. 5). The 8-digit, downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

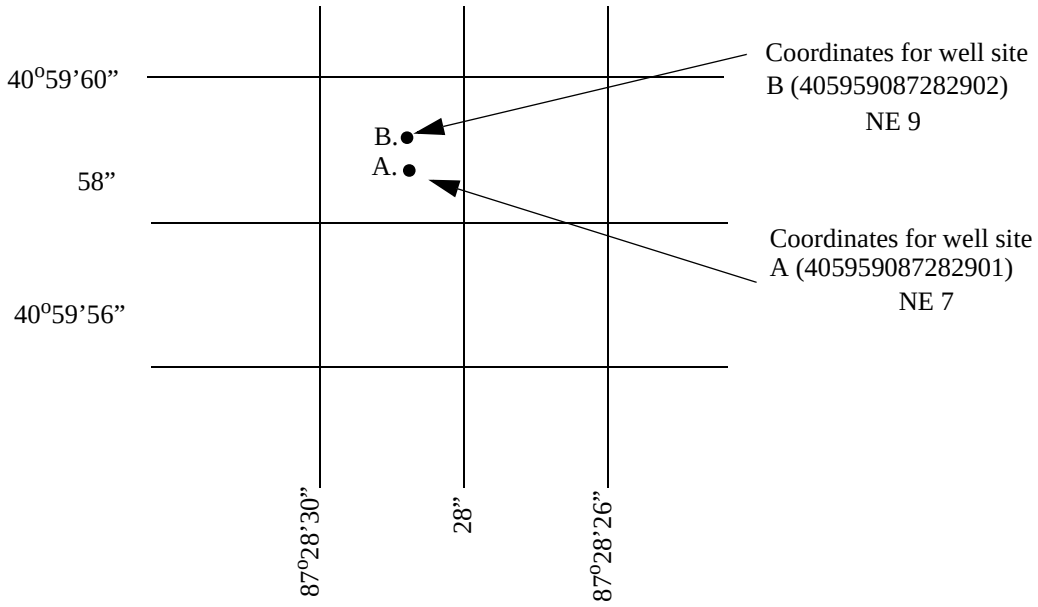


Figure 5.--System for numbering wells and miscellaneous sites (latitude and longitude).

In addition to the well number that is based on latitude and longitude, given for each well, 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.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark Network is a network of 61 sites in small drainage basins in 39 States that was established in 1963 to provide consistent streamflow data representative of undeveloped watersheds nationwide, and from which data could be analyzed on a continuing basis for use in comparison and contrast with conditions observed in basins more obviously affected by human activities. At selected sites, water-quality information is being gathered on major ions and nutrients, primarily to assess the effects of acid deposition on stream chemistry. Additional information on the Hydrologic Benchmark Program may be accessed from *http://water.usgs.gov/hbn/*.

National Stream-Quality Accounting Network (NASQAN) is a network of sites used to monitor the water quality of large rivers within the Nation's largest river basins. From 1995 through 1999, a network of approximately 40 stations was operated in the Mississippi, Columbia, Colorado, and Rio Grande River basins. For the period 2000 through 2004, sampling was reduced to a few index stations on the Colorado and Columbia Rivers so that a network of 5 stations could be implemented on the Yukon River. 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 (NAWQA) Program; (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. Additional information about the NASQAN Program may be accessed from *http://water.usgs.gov/nasqan/*.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) is a network of monitoring sites that provides continuous measurement and assessment of the chemical constituents in precipitation throughout the United States. As the lead Federal agency, the USGS works together with over 100 organizations to provide a long-term, spatial and temporal record of atmospheric deposition generated from this network of 250 precipitation-chemistry monitoring sites. The USGS supports 74 of these 250 sites. This long-term, nationally consistent monitoring program, coupled with ecosystem research, provides critical information toward a national scorecard to evaluate the effectiveness of ongoing and future regulations intended to reduce atmospheric emissions and subsequent impacts to the Nation's land and water resources. Reports and other information on the NADP/NTN Program, as well as data from the individual sites, may be accessed from *http://bqs.usgs.gov/acidrain/*.

The USGS National Water-Quality Assessment (NAWQA) Program 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; to provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and to provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 42 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 is 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 water-resources managers to use in making decisions 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 semi-annually 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 may be accessed from *http://water.usgs.gov/nawqa/*.

The USGS National Streamflow Information Program (NSIP) is a long-term program with goals to provide framework streamflow data across the Nation. Included in the program are creation of a permanent Federally funded streamflow network, research on the nature of streamflow, regional assessments of streamflow data and databases, and upgrades in the streamflow information delivery systems. Additional information about NSIP may be accessed from *http://water.usgs.gov/nsip/*.

EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS

Data Collection and Computation

The base data collected at gaging stations (figs. 6 and 7) consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and volume of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from a water-stage recorder that is either downloaded electronically in the field to a laptop computer or similar device or is transmitted using telemetry such as GOES satellite, land-line or cellular-phone modems, or by radio transmission. Measurements of discharge are made with mechanical or hydroacoustic current meters, using the general methods adopted by the USGS. These methods are described in standard textbooks, USGS Water-Supply Paper 2175, and the Techniques of Water-Resources Investigations of the United States Geological Survey (TWRIs), Book 3, Chapters 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). USGS guidelines, policies, and reports regarding hydroacoustic current meters may be accessed from *http://hydroacoustics.usgs.gov*.

For stream-gaging stations, discharge-rating tables for any stage are prepared from stage-discharge curves. If extensions to the rating curves are necessary to express discharge greater than measured, the extensions are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, or computation of flow over dams and weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharges are computed from the daily values. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features of the stream channel, the daily mean discharge is computed by the shifting-control method in which correction factors based on individual discharge measurements and notes by engineers and observers are used when applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the controlling section, the daily mean discharge is computed by the shifting-control method.

The stage-discharge relation at some stream-gaging stations is affected by backwater from reservoirs, tributary streams, or other sources. Such an occurrence 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 at some distance from the base gage.

An index velocity is measured using fixed hydroacoustic current meters at some stream-gaging stations and this index velocity is used to calculate an average velocity for the flow in the stream. This average velocity along with a stage-area relation is then used to calculate average discharge.

At some stations, the stage-discharge relation is affected by changing stage. At these stations, the rate of change in stage is used as a factor in computing discharge.

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

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

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

For some stream-gaging stations, periods of time occur when no gage-height record is obtained or the recorded gage height is faulty and cannot be used to compute daily discharge or contents. Such a situation can happen when the recorder stops or otherwise fails to operate properly, the intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records from other stations in the same or nearby basins. Likewise, lake or reservoir volumes may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

Data Presentation

The records published for each continuous-record surface-water discharge station (stream-gaging station) consist of five parts: (1) the station manuscript or description; (2) the data table of daily mean values of discharge for the current water year with summary data; (3) a tabular statistical summary of monthly mean flow data for a designated period, by water year; (4) a summary statistics table that includes statistical data of annual, daily, and instantaneous flows as well as data pertaining to annual runoff, 7-day low-flow minimums, and flow duration; and (5) a hydrograph of discharge.

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 follow that clarify information presented under the various headings of the station description.

LOCATION.—Location information is obtained from the most accurate maps available. The location of the gaging station 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, given for only a few stations, 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. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

PERIOD OF RECORD.—This term indicates the time period for which records have been published 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 its flow reasonably can be considered equivalent to flow at the present station.

REVISED RECORDS.—If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

GAGE.—The type of gage in current use, the datum of the current gage referred to a standard datum, 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 either will be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily discharge table. (See section titled Identifying Estimated Daily Discharge.) Information is presented relative to the accuracy of the records, to special methods of computation, and to conditions that affect natural flow at the station. In addition, information may be presented pertaining to average discharge data for the period of record; to extremes data for the period of record and the current year; and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, the outlet works and spillway, and the purpose and use of the reservoir.

COOPERATION.—Records provided by a cooperating organization or obtained for the USGS by a cooperating organization are identified here.

EXTREMES OUTSIDE PERIOD OF RECORD.—Information here documents 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 USGS.

REVISIONS.—Records are revised if errors in published records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based National data system, NWISWeb *(http://water.usgs.gov/nwis*). Users are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent data updates. Updates to NWISWeb are made on an annual basis.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because no current or, possibly, future station manuscript would be published for these stations 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 District Office (address given on the back of the title page of this report) to determine if the published records were revised after the station was discontinued. If, however, the data for a discontinued station were obtained by computer retrieval, the data would be current. 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 stage-capacity table when daily volumes are given.

Peak Discharge Greater than Base Discharge

Tables of peak discharge above base discharge are included for some stations where secondary instantaneous peak discharge data are used in flood-frequency studies of highway and bridge design, flood-control structures, and other flood-related projects. The base discharge value is selected so an average of three peaks a year will be reported. This base discharge value has a recurrence interval of approximately 1.1 years or a 91-percent chance of exceedence in any 1 year.

Data Table of Daily Mean Values

The daily table of discharge records 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 arithmetic average flow in cubic feet per second for the month; and the lines headed MAX and MIN give the maximum and minimum daily mean discharges, respectively, for each month. Discharge for the month is 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). Values for cubic feet per second per square mile and runoff in inches or in acre-feet may be omitted if extensive regulation or diversion is in effect 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 volumes are given. These values are identified by a symbol and a corresponding footnote.

Statistics of Monthly Mean Data

A tabular summary of the mean (line headed MEAN), maximum (MAX), and minimum (MIN) of monthly mean flows for each month for a designated period is provided below the mean values table. The water years of the first occurrence of the maximum and minimum monthly flows are provided immediately below those values. 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. The designated period will consist of all of the station record within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station. The water years for which the statistics are computed are 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 records within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station. The water years for which the statistics are computed are consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (see line headings below), except for the ANNUAL 7-DAY MINIMUM statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

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

The following summary statistics data are provided with each continuous record of discharge. Comments that 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.

ANNUAL MEAN.—The arithmetic mean for the individual daily mean discharges for the year noted or for the designated period.

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

MAXIMUM PEAK FLOW.—The maximum instantaneous peak discharge occurring for the water year or designated period. Occasionally the maximum flow for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak flow is given in the table and the maximum flow may be reported in a footnote or in the REMARKS paragraph in the manuscript.

MAXIMUM PEAK STAGE.—The maximum instantaneous peak stage occurring for the water year or designated period. Occasionally the maximum stage for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak stage is given in the table and the maximum stage may be reported in the REMARKS paragraph in the manuscript or in a footnote. If the dates of occurrence of the maximum peak stage and maximum peak flow are different, 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 square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming the runoff is distributed uniformly in time and area.
>
> Inches (INCHES) indicate 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.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first table lists annual maximum stage and discharge at crest-stage stations, and the second table lists discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are often made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for a special reason are called measurements at miscellaneous sites.

Hydrographs

Hydrographs are a graphic display of streamflow fluctuations over a period of time. In this report, current water year and, when appropriate, period-of-record hydrographs are shown. Hydrographs that display recorder data show a solid line representing the mean water level recorded for each day.

Identifying Estimated Daily Discharge

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

Accuracy of Field Data and Computed Results

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

The degree of accuracy of the records is stated in the REMARKS in the station description. "Excellent" indicates that about 95 percent of the daily discharges are within 5 percent of the true value; "good" within 10 percent; and "fair," within 15 percent. "Poor" indicates that daily discharges have less than "fair" accuracy. Different accuracies may be attributed to different parts of a given record.

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

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, values of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions for changes in contents

of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Data Records Available

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

Information on the availability of unpublished data or statistical analyses may be obtained from the District office (see address that is shown on the back of the title page of this report).

EXPLANATION OF PRECIPITATION RECORDS

Data Collection and Computation

Rainfall data generally are collected using electronic data loggers that measure the rainfall in 0.01-inch increments every 15 minutes using either a tipping-bucket rain gage or a collection well gage. Twenty-four hour rainfall totals are tabulated and presented. A 24-hour period extends from just past midnight of the previous day to midnight of the current day. Snowfall-affected data can result during cold weather when snow fills the rain-gage funnel and then melts as temperatures rise. Snowfall-affected data are subject to errors. Missing values are indicated by this symbol "---" in the table.

Data Presentation

Precipitation records collected at surface-water gaging stations are identified with the same station number and name as the stream-gaging station. Where a surface-water daily-record station is not available, the precipitation record is published with its own name and latitude-longitude identification number.

Information pertinent to the history of a precipitation station is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, period of record, and general remarks.

The following information is provided with each precipitation station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.—See Data Presentation in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

PERIOD OF RECORD.—See Data Presentation in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

INSTRUMENTATION.—Information on the type of rainfall collection system is given.

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

EXPLANATION OF WATER-QUALITY RECORDS

Collection and Examination of Data

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

The descriptive heading for water-quality records gives the period of record for all water-quality data; the period of daily record for parameters that are measured on a daily basis (specific conductance, water temperature, sediment discharge, and so forth); extremes for the current year; and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, sampling date, or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water Analysis

Most of the methods used for collecting and analyzing water samples are described in the TWRIs. A list of TWRIs is provided in this report.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross-section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled at several verticals to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum and minimum values (and sometimes mean or median values) for each constituent measured, and are based on 15-minute or 1-hour intervals of recorded data beginning at 0000 hours and ending at 2400 hours for the day of record.

SURFACE-WATER-QUALITY RECORDS

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because discharge data are useful in the interpretation of surface-water quality. Records of surface-water quality in this report involve a variety of types of data and measurement frequencies.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A *continuous-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 is usually less than quarterly. A *miscellaneous sampling site* is a location other than a continuous- or partial-record station, where 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 *continuous records* as used in this report and *continuous recordings* that refer to a continuous graph or a series of discrete values recorded at short intervals. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figures 6 and 7.

Accuracy of the Records

One of four accuracy classifications is applied for measured physical properties at continuous-record stations on a scale ranging from poor to excellent. The accuracy rating is based on data values recorded before any shifts or corrections are made. Additional consideration also is given to the amount of publishable record and to the amount of data that have been corrected or shifted.

Rating classifications for continuous water-quality records

[≤, less than or equal to; ±, plus or minus value shown; °C, degree Celsius; >, greater than; %, percent; mg/L, milligram per liter; pH unit, standard pH unit]

Measured physical property	Rating			
	Excellent	Good	Fair	Poor
Water temperature	≤ ±0.2 °C	> ±0.2 to 0.5 °C	> ±0.5 to 0.8 °C	> ±0.8 °C
Specific conductance	≤ ±3%	> ±3 to 10%	> ±10 to 15%	> ±15%
Dissolved oxygen	≤ ±0.3 mg/L	> ±0.3 to 0.5 mg/L	> ±0.5 to 0.8 mg/L	> ±0.8 mg/L
pH	≤ ±0.2 unit	> ±0.2 to 0.5 unit	> ±0.5 to 0.8 unit	> ±0.8 unit
Turbidity	≤ ±5%	> ±5 to 10%	> ±10 to 15%	> ±15%

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. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

On-Site Measurements and Sample Collection

In obtaining water-quality data, a major concern is assuring that the data obtained represent the naturally occurring quality of the water. To ensure this, certain measurements, such as water temperature, pH, and dissolved oxygen, must be made on site when the samples are taken. To assure that measurements made in the laboratory also represent the naturally occurring water, carefully prescribed procedures must be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for on-site measurements and for collecting, treating, and shipping samples are given in TWRIs Book 1, Chapter D2; Book 3, Chapters A1, A3, and A4; and Book 9, Chapters A1-A9. Most of the methods used for collecting and analyzing water samples are described in the TWRIs, which may be accessed from *http://water.usgs.gov/pubs/twri/.* Also, detailed information on collecting, treating, and shipping samples can be obtained from the USGS District office (see address that is shown on the back of title page in this report).

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at the time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the District office.

Sediment

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

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

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

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

Laboratory Measurements

Samples for biochemical oxygen demand (BOD) and indicator bacteria are analyzed locally. All other samples are analyzed in the USGS laboratory in Lakewood, Colorado, unless otherwise noted. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chapter

C1. Methods used by the USGS laboratories are given in the TWRIs, Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. 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, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

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 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 information in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

DRAINAGE AREA.—See Data Presentation information in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

PERIOD OF RECORD.—This indicates the time periods for which published water-quality records for the station are available. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.—Information on instrumentation is given only if a water-quality monitor temperature record, sediment pumping sampler, or other sampling device is in operation at a station.

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

COOPERATION.—Records provided by a cooperating organization or obtained for the USGS by a cooperating organization are identified here.

EXTREMES.—Maximums and minimums are given only for parameters measured daily or more frequently. For parameters measured weekly or less frequently, true maximums or minimums may not have been obtained. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.—Records are revised if errors in published water-quality records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based National data system, NWISWeb (*http://waterdata.usgs.gov/nwis*). Users of USGS water-quality data are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent updates. Updates to the NWISWeb are made on an annual basis.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

Remark Codes

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

Printed Output	Remark
E	Value is estimated.
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
M	Presence of material verified, but not quantified.
N	Presumptive evidence of presence of material.
U	Material specifically analyzed for, but not detected.
A	Value is an average.
V	Analyte was detected in both the environmental sample and the associated blanks.

Water-Quality Control Data

The USGS National Water Quality Laboratory collects quality-control data on a continuing basis to evaluate selected analytical methods to determine long-term method detection levels (LT-MDLs) and laboratory reporting levels (LRLs). These values are re-evaluated each year on the basis of the most recent quality-control data and, consequently, may change from year to year.

This reporting procedure limits the occurrence of false positive error. Falsely reporting a concentration greater than the LT-MDL for a sample in which the analyte is not present is 1 percent or less. Application of the LRL limits the occurrence of false negative error. The chance of falsely reporting a non-detection for a sample in which the analyte is present at a concentration equal to or greater than the LRL is 1 percent or less.

Accordingly, concentrations are reported as less than LRL for samples in which the analyte was either not detected or did not pass identification. Analytes detected at concentrations between the LT-MDL and the LRL and that pass identification criteria are estimated. Estimated concentrations will be noted with a remark code of "E." These data should be used with the understanding that their uncertainty is greater than that of data reported without the E remark code.

Data generated from quality-control (QC) samples are a requisite for evaluating the quality of the sampling and processing techniques as well as data from the actual samples themselves. Without QC data, environmental sample data cannot be adequately interpreted because the errors associated with the sample data are unknown. The various types of QC samples collected by this District office are described in the following section. Procedures have been established for the storage of water-quality-control data within the USGS. These procedures allow for storage of all derived QC data and are identified so that they can be related to corresponding environmental samples. These data are not presented in this report but are available from the District office.

Blank Samples

Blank samples are collected and analyzed to ensure that environmental samples have not been contaminated in the overall data-collection process. The blank solution used to develop specific types of blank samples is a solution that is free of the analytes of interest. Any measured value signal in a blank sample for an analyte (a specific component measured in a chemical analysis) that was absent in the blank solution is believed to be due to contamination. Many types of blank samples are possible; each is designed to segregate a different part of the overall data-collection process. The types of blank samples collected in this district are:

Field blank—A blank solution that is subjected to all aspects of sample collection, field processing preservation, transportation, and laboratory handling as an environmental sample.

Trip blank—A blank solution that is put in the same type of bottle used for an environmental sample and kept with the set of sample bottles before and after sample collection.

Equipment blank—A blank solution that is processed through all equipment used for collecting and processing an environmental sample (similar to a field blank but normally done in the more controlled conditions of the office).

Sampler blank—A blank solution that is poured or pumped through the same field sampler used for collecting an environmental sample.

Filter blank—A blank solution that is filtered in the same manner and through the same filter apparatus used for an environmental sample.

Splitter blank—A blank solution that is mixed and separated using a field splitter in the same manner and through the same apparatus used for an environmental sample.

Preservation blank—A blank solution that is treated with the sampler preservatives used for an environmental sample.

Reference Samples

Reference material is a solution or material prepared by a laboratory. The reference material composition is certified for one or more properties so that it can be used to assess a measurement method. Samples of reference material are submitted for analysis to ensure that an analytical method is accurate for the known properties of the reference material. Generally, the selected reference material properties are similar to the environmental sample properties.

Replicate Samples

Replicate samples are a set of environmental samples collected in a manner such that the samples are thought to be essentially identical in composition. Replicate is the general case for which a duplicate is the special case consisting of two samples. Replicate samples are collected and analyzed to establish the amount of variability in the data contributed by some part of the collection and analytical process. Many types of replicate samples are possible, each of which may yield slightly different results in a dynamic hydrologic setting, such as a flowing stream. The types of replicate samples collected in this district are:

Concurrent samples—A type of replicate sample in which the samples are collected simultaneously with two or more samplers or by using one sampler and alternating the collection of samples into two or more compositing containers.

Sequential samples—A type of replicate sample in which the samples are collected one after the other, typically over a short time.

Split sample—A type of replicate sample in which a sample is split into subsamples, each subsample contemporaneous in time and space.

Spike Samples

Spike samples are samples to which known quantities of a solution with one or more well-established analyte concentrations have been added. These samples are analyzed to determine the extent of matrix interference or degradation on the analyte concentration during sample processing and analysis.

EXPLANATION OF LAKE-LEVEL RECORDS

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. Locations of lakes having current water-level records are shown on figure 8.

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 three 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, a hydrograph following the data table. Comments that follow clarify information presented under the various headings.

LOCATION.--See Data Presentation information in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

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

DRAINAGE AREA.--See Data Presentation information in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

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.

Water-Level Tables

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.

Hydrographs

Hydrographs are a graphic display of water-level fluctuations over a period of time. In this report, one water year hydrograph is shown. Hydrographs that display recorder data show a solid line representing the mean water level recorded for each day. Missing data are indicated by a blank space or break in a hydrograph. Missing data may occur as a result of recorder malfunctions, battery failures, or mechanical problems related to the response of the recorder's float mechanism to water-level fluctuations in a well.

EXPLANATION OF GROUND-WATER-LEVEL RECORDS

Generally, only ground-water-level data from selected wells with continuous recorders from a basic network of observation wells are published in this report. This basic network contains observation wells located so that the most significant data are obtained from the fewest wells in the most important aquifers.

Site Identification Numbers

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is produced for local needs. See NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES in this report for a detailed explanation.

Data Collection and Computation

Measurements are made in many types of wells, under varying conditions of access and at different temperatures; hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Most methods for collecting and analyzing water samples are described in the TWRIs referred to in the On-site Measurements and Sample Collection and the Laboratory Measurements sections in this report. In addition, TWRI Book 1, Chapter D2, describes guidelines for the collection and field analysis of groundwater samples for selected unstable constituents. Procedures for on-site measurements and for collecting, treating, and shipping samples are given in TWRIs Book 1, Chapter D2; Book 3, Chapters A1, A3, and A4; and Book 9, Chapters A1 through A9. The values in this report represent water-quality conditions at the time of sampling, as much as possible, and that are consistent with available sampling techniques and methods of analysis. These methods are consistent with ASTM standards and generally follow ISO standards. Trained personnel collected all samples. The wells sampled were pumped long enough to ensure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

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 above sea level is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (EOM).

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 of water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

Data Presentation

Water-level data are presented in alphabetical order by county. The primary identification number for a given well is the 15-digit site identification number that appears in the upper left corner of the table. The secondary identification number is the local or county well number. Well locations are shown in figures 9, 10 and 11; each well is identified on the map by its local well or county well number.

Each well record consists of three parts: the well description, the data table of water levels observed during the water year, and, for most wells, a hydrograph following the data table. Well descriptions are presented in the headings preceding the tabular data.

The following comments clarify information presented in these various headings.

LOCATION.—This paragraph follows the well-identification number and reports the hydrologic-unit number and a geographic point of reference. Latitudes and longitudes used in this report are reported as North American Datum of 1927 unless otherwise specified.

AQUIFER.—This entry designates by name and geologic age the aquifer that the well taps.

WELL CHARACTERISTICS.—This entry describes the well in terms of depth, casing diameter and depth or screened interval, method of construction, use, and 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 continuous, monthly, or some other frequency of measurement.

DATUM.—This entry describes both the measuring point and the land-surface elevation at the well. The altitude of the land-surface datum is described in feet above the altitude datum; it is reported with a precision depending on the method of determination. The measuring point is described physically (such as top of casing, top of instrument shelf, 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 National Geodetic Vertical Datum of 1929 (NGVD 29); 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, when various methods of measurement were begun, and the network (climatic, terrane, local, or areal effects) or the special project to which the well belongs.

PERIOD OF RECORD.—This entry indicates the time period for which records are published for the well, the month and year at the start of publication of water-level records by the USGS, and the words “to current year” if the records are to be continued into the following year. Time periods for which water-level records are available, but are not published by the USGS, may be noted.

EXTREMES FOR PERIOD OF RECORD.—This entry contains the highest and lowest instantaneously recorded or measured water levels of the period of published record, with respect to land-surface datum or sea level, and the dates of occurrence.

Water-Level Tables

A table of water levels follows the well description for each well. Water-level measurements in this report are given in feet with reference to either sea level or land-surface datum (lsd). Missing records are indicated by dashes in place of the water-level value.

For wells not equipped with recorders, water-level measurements were obtained periodically by steel or electric tape. Tables of periodic water-level measurements in these wells show the date of measurement and the measured water-level value.

Hydrographs

Hydrographs are a graphic display of water-level fluctuations over a period of time. In this report, five water years and, when appropriate, period-of-record hydrographs are shown. Hydrographs that display periodic water-level measurements show points that may be connected with a dashed line from one measurement to the next. Hydrographs that display recorder data show a solid line representing the mean water level recorded for each day. Missing data are indicated by a blank space or break in a hydrograph. Missing data may occur as a result of recorder malfunctions, battery failures, or mechanical problems related to the response of the recorder's float mechanism to water-level fluctuations in a well.

GROUND-WATER-QUALITY DATA

Data Collection and Computation

The ground-water-quality data in this report were obtained as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some wells within a county but not for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality Statewide.

Most methods for collecting and analyzing water samples are described in the TWRIs. Procedures for on-site measurements and for collecting, treating, and shipping samples are given in TWRI, Book 1, Chapter D2; Book 5, Chapters A1, A3, and A4 and Book 9, Chapters A1-A6. Also, detailed information on collecting, treating, and shipping samples may be obtained from the USGS District office (see address shown on back of title page in this report).

Laboratory Measurements

Analysis for sulfide and measurement of alkalinity, pH, water temperature, specific conductance, and dissolved oxygen are performed on site. All other sample analyses are performed at the USGS laboratory in Lakewood, Colorado, unless otherwise noted. Methods used by the USGS laboratory are given in TWRI, Book 1, Chapter D2; and Book 5, Chapters A1, A3, and A4.

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 and historic daily mean and peak-flow discharge data for most current or discontinued gaging stations through the World Wide Web (WWW). These data may be accessed from *http://water.usgs.gov*.

Water-quality data and ground-water data also are available through the WWW. In addition, data can be provided in various machine-readable formats on various media. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each Water Discipline District Office (See address that is shown on the back of the title page of this report.)

DEFINITION OF TERMS

Specialized technical terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. Terms such as algae, water level, and precipitation are used in their common everyday meanings, definitions of which are given in standard dictionaries. Not all terms defined in this alphabetical list apply to every State. See also table for converting English units to International System (SI) Units. Other glossaries that also define water-related terms are accessible from *http://water.usgs.gov/glossaries.html*.

Acid neutralizing capacity (ANC) is the equivalent sum of all bases or base-producing materials, solutes plus particulates, in an aqueous system that can be titrated with acid to an equivalence point. This term designates titration of an "unfiltered" sample (formerly reported as alkalinity).

Acre-foot (AC-FT, acre-ft) is a unit of volume, commonly used to measure quantities of water used or stored, equivalent to the volume of water required to cover 1 acre to a depth of 1 foot and equivalent to 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters. (See also "Annual runoff")

Adenosine triphosphate (ATP) is an organic, phosphate-rich compound important in the transfer of energy in organisms. Its central role in living cells makes ATP an excellent indicator of the presence of living material in water. A measurement of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter.

Adjusted discharge is discharge data that have been mathematically adjusted (for example, to remove the effects of a daily tide cycle or reservoir storage).

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample. (See also "Biomass" and "Dry weight")

Alkalinity is the capacity of solutes in an aqueous system to neutralize acid. This term designates titration of a "filtered" sample.

Annual runoff is the total quantity of water that is discharged ("runs off") from a drainage basin in a year. Data reports may present annual runoff data as volumes in acre-feet, as discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches.

Annual 7-day minimum is the lowest mean value for any 7-consecutive-day period in a year. Annual 7-day minimum values are reported herein for the calendar year and the water year (October 1 through September 30). Most low-flow frequency analyses use a climatic year (April 1-March 31), which tends to prevent the low-flow period from being artificially split between adjacent years. 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.)

Aroclor is the registered trademark for a group of polychlorinated biphenyls that were manufactured by the Monsanto Company prior to 1976. Aroclors are assigned specific 4-digit reference numbers dependent upon molecular type and degree of substitution of the biphenyl ring hydrogen atoms by chlorine atoms. The first two digits of a numbered aroclor represent the molecular type, and the last two digits represent the percentage weight of the hydrogen-substituted chlorine.

Artificial substrate is a device that purposely is placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is collected. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection. (See also "Substrate")

Ash mass is the mass or amount of residue present after the residue from a dry-mass determination has been ashed in a muffle furnace at a temperature of 500 °C for 1 hour. Ash mass of zooplankton and phytoplankton is expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2). (See also "Biomass" and "Dry mass")

Aspect is the direction toward which a slope faces with respect to the compass.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, whereas 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.

Bankfull stage, as used in this report, is the stage at which a stream first overflows its natural banks formed by floods with 1- to 3-year recurrence intervals.

Base discharge (for peak discharge) is a discharge value, determined for selected stations, above which peak discharge data are published. The base discharge at each station is selected so that an average of about three peak flows per year will be published. (See also "Peak flow")

Base flow is sustained flow of a stream in the absence of direct runoff. It includes natural and human-induced streamflows. Natural base flow is sustained largely by ground-water discharge.

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed. (See also "Bedload" and "Sediment")

Bedload is material in transport that primarily is supported by the streambed. In this report, bedload is considered to consist of particles in transit from the bed to the top of the bedload sampler nozzle (an elevation ranging from 0.25 to 0.5 foot). These particles are retained in the bedload sampler. A sample collected with a pressure-differential bedload sampler also may contain a component of the suspended load.

Bedload discharge (tons per day) is the rate of sediment moving as bedload, reported as dry weight, that passes through a cross section in a given time. NOTE: Bedload discharge values in this report may include a component of the suspended-sediment discharge. A correction may be necessary when computing the total sediment discharge by summing the bedload discharge and the suspended-sediment discharge. (See also "Bedload," "Dry weight," "Sediment," and "Suspended-sediment discharge")

Benthic organisms are the group of organisms inhabiting the bottom of an aquatic environment. They include a number of types of organisms, such as bacteria, fungi, insect larvae and nymphs, snails, clams, and crayfish. They are useful as indicators of water quality.

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

Biomass is the amount of living matter present at any given time, expressed as mass per unit area or volume of habitat.

Biomass pigment ratio is an indicator of the total proportion of periphyton that are autotrophic (plants). This also is called the Autotrophic Index.

Blue-green algae (*Cyanophyta*) are a group of phytoplankton and periphyton organisms with a blue pigment in addition to a green pigment called chlorophyll. Blue-green algae can cause nuisance water-quality conditions in lakes and slow-flowing rivers; however, they are found commonly in streams throughout the year. The abundance of blue-green algae in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter (μm^3/mL). The abundance of blue-green algae in periphyton samples is given in cells per square centimeter (cells/cm^2) or biovolume per square centimeter ($\mu m^3/cm^2$). (See also "Phytoplankton"and "Periphyton")

Bottom material (See "Bed material")

Bulk electrical conductivity is the combined electrical conductivity of all material within a doughnut-shaped volume surrounding an induction probe. Bulk conductivity is affected by different physical and chemical properties of the material including the dissolved-solids content of the pore water, and the lithology and porosity of the rock.

Canadian Geodetic Vertical Datum 1928 is a geodetic datum derived from a general adjustment of Canada's first order level network in 1928.

Cell volume (biovolume) determination is one of several common methods used to estimate biomass of algae in aquatic systems. Cell members of algae are used frequently in aquatic surveys as an indicator of algal production. However, cell numbers alone cannot represent true biomass because of considerable cell-size variation among the algal species. Cell volume (μm^3) is determined by obtaining critical cell measurements or cell dimensions (for example, length, width, height, or radius) for 20 to 50 cells of each important species to obtain an average biovolume per cell. Cells are categorized according to the correspondence of their cellular shape to the nearest geometric solid or combinations of simple solids (for example, spheres, cones, or cylinders). Representative formulae used to compute biovolume are as follows:

$$\text{sphere } 4/3\ \pi r^3 \quad \text{cone } 1/3\ \pi r^2 h \quad \text{cylinder } \pi r^2 h.$$

pi (π) is the ratio of the circumference to the diameter of a circle; pi = 3.14159….

From cell volume, total algal biomass expressed as biovolume (μm^3/mL) is thus determined by multiplying the number of cells of a given species by its average cell volume and then summing these volumes for all species.

Cells/volume refers to the number of cells of any organism that is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample volume, and generally are reported as cells or units per milliliter (mL) or liter (L).

Cfs-day (See "Cubic foot per second-day")

Channel bars, as used in this report, are the lowest prominent geomorphic features higher than the channel bed.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with BOD or with carbonaceous organic pollution from sewage or industrial wastes. [See also "Biochemical oxygen demand (BOD)"]

Clostridium perfringens (*C. perfringens*) is a spore-forming bacterium that is common in the feces of human and other warmblooded animals. Clostridial spores are being used experimentally as an indicator of past fecal contamination and the presence of microorganisms that are resistant to disinfection and environmental stresses. (See also "Bacteria")

Coliphages are viruses that infect and replicate in coliform bacteria. They are indicative of sewage contamination of water and of the survival and transport of viruses in the environment.

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

Confined aquifer is a term used to describe an aquifer containing water between two relatively impermeable boundaries. The water level in a well tapping a confined aquifer stands above the top of the confined aquifer and can be higher or lower than the water table that may be present in the material above it. In some cases, the water level can rise above the ground surface, yielding a flowing well.

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.

Continuous-record station is a site where data are collected with sufficient frequency to define daily mean values and variations within a day.

Control designates a feature in the channel that physically affects the water-surface elevation and thereby determines the stage-discharge relation at the gage. This feature may be a constriction of the channel, a bedrock outcrop, a gravel bar, 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 or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of saltwater.

Cubic foot per second (CFS, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point in 1 second. It is equivalent to approximately 7.48 gallons per second or approximately 449 gallons per minute, or 0.02832 cubic meters per second. The term "second-foot" sometimes is used synonymously with "cubic foot per second" but is now obsolete.

Cubic foot per second-day (CFS-DAY, Cfs-day, [$(ft^3/s)/d$]) is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.98347 acre-feet, 646,317 gallons, or 2,446.6 cubic meters. The daily mean discharges reported in the daily value data tables numerically are equal to the daily volumes in cfs-days, and the totals also represent volumes in cfs-days.

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

Daily mean suspended-sediment concentration is the time-weighted mean concentration of suspended sediment passing a stream cross section during a 24-hour day. (See also "Sediment" and "Suspended-sediment concentration")

Daily record station is a site where data are collected with sufficient frequency to develop a record of one or more data values per day. The frequency of data collection can range from continuous recording to data collection on a daily or near-daily basis.

Data collection platform (DCP) is an electronic instrument that collects, processes, and stores data from various sensors, and transmits the data by satellite data relay, line-of-sight radio, and/or landline telemetry.

Data logger is a microprocessor-based data acquisition system designed specifically to acquire, process, and store data. Data usually are downloaded from onsite data loggers for entry into office data systems.

Datum is a surface or point relative to which measurements of height and/or horizontal position are reported. A vertical datum is a horizontal surface used as the zero point for measurements of gage height, stage, or elevation; a horizontal datum is a reference for positions given in terms of latitude-longitude, State Plane coordinates, or Universal Transverse Mercator (UTM) coordinates. (See also "Gage datum," "Land-surface datum," "National Geodetic Vertical Datum of 1929," and "North American Vertical Datum of 1988")

Diatoms (*Bacillariophyta*) are unicellular or colonial algae with a siliceous cell wall. The abundance of diatoms in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter (μm^3/mL). The abundance of diatoms in periphyton samples is given in cells per square centimeter (cells/cm^2) or biovolume per square centimeter ($\mu m^3/cm^2$). (See also "Phytoplankton" and "Periphyton")

Diel is of or pertaining to a 24-hour period of time; a regular daily cycle.

Discharge, or **flow**, is the rate that matter passes through a cross section of a stream channel or other water body per unit of time. The term commonly refers to the volume of water (including, unless otherwise stated, any sediment or other constituents suspended or dissolved in the water) that passes a cross section in a stream channel, canal, pipeline, and so forth, within a given period of time (cubic feet per second). Discharge also can apply to the rate at which constituents, such as suspended sediment, bedload, and dissolved or suspended chemicals, pass through a cross section, in which cases the quantity is expressed as the mass of constituent that passes the cross section in a given period of time (tons per day).

Dissolved refers to that material in a representative water sample that passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal and State agencies that collect water-quality data. Determinations of "dissolved" constituent concentrations are made on sample water that has been filtered.

Dissolved oxygen (DO) is the molecular oxygen (oxygen gas) dissolved in water. The concentration in water is a function of atmospheric pressure, temperature, and dissolved-solids concentration of the water. The ability of water to retain oxygen decreases with increasing temperature or dissolved-solids concentration. Photosynthesis and respiration by plants commonly cause diurnal variations in dissolved-oxygen concentration in water from some streams.

Dissolved-solids concentration in water is the quantity of dissolved material in a sample of water. It 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, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. In the mathematical calculation, the bicarbonate value, in milligrams per liter, is multiplied by 0.4917 to convert it to carbonate. Alternatively, alkalinity concentration (as mg/L $CaCO_3$) can be converted to carbonate concentration by multiplying by 0.60.

Diversity index (H) (Shannon index) is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = -\sum_{i \approx 1}^{s} \frac{n_i}{n} \log_2 \frac{n_i}{n},$$

where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specific location is that area upstream from the location, measured in a horizontal plane, that has a common outlet at the site for its surface runoff from precipitation that normally drains by gravity into a stream. Drainage areas given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

Drainage basin is a part of the Earth's surface that contains a drainage system with a common outlet for its surface runoff. (See "Drainage area")

Dry mass refers to the mass of residue present after drying in an oven at 105 °C, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass. (See also "Ash mass," "Biomass," and "Wet mass")

Dry weight refers to the weight of animal tissue after it has been dried in an oven at 65 °C until a constant weight is achieved. Dry weight represents total organic and inorganic matter in the tissue. (See also "Wet weight")

Embeddedness is the degree to which gravel-sized and larger particles are surrounded or enclosed by finer-sized particles. (See also "Substrate embeddedness class")

Enterococcus bacteria commonly are found in the feces of humans and other warmblooded animals. Although some strains are ubiquitous and not related to fecal pollution, the presence of enterococci in water is an indication of fecal pollution and the possible presence of enteric pathogens. Enterococcus bacteria are those bacteria that produce pink to red colonies with black or reddish-brown precipitate after incubation at 41 °C on mE agar (nutrient medium for bacterial growth) and subsequent transfer to EIA medium. Enterococci include *Streptococcus feacalis*, *Streptococcus feacium*, *Streptococcus avium*, and their variants. (See also "Bacteria")

EPT Index is the total number of distinct taxa within the insect orders Ephemeroptera, Plecoptera, and Trichoptera. This index summarizes the taxa richness within the aquatic insects that generally are considered pollution sensitive; the index usually decreases with pollution.

Escherichia coli (*E. coli*) are bacteria present in the intestine and feces of warmblooded animals. *E. coli* are a member species of the fecal coliform group of indicator bacteria. In the laboratory, they are defined as those bacteria that produce yellow or yellow-brown colonies on a filter pad saturated with urea substrate broth after primary culturing for 22 to 24 hours at 44.5 °C on mTEC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also "Bacteria")

Estimated (E) value of a concentration is reported when an analyte is detected and all criteria for a positive result are met. If the concentration is less than the method detection limit (MDL), an E code will be reported with the value. If the analyte is identified qualitatively as present, but the quantitative determination is substantially more uncertain, the National Water Quality Laboratory will identify the result with an E code even though the measured value is greater than the MDL. A value reported with an E code should be used with caution. When no analyte is detected in a sample, the default reporting value is the MDL preceded by a less than sign (<). For bacteriological data, concentrations are reported as estimated when results are based on non-ideal colony counts.

Euglenoids (*Euglenophyta*) are a group of algae that usually are free-swimming and rarely creeping. They have the ability to grow either photosynthetically in the light or heterotrophically in the dark. (See also "Phytoplankton")

Extractable organic halides (EOX) are organic compounds that contain halogen atoms such as chlorine. These organic compounds are semivolatile and extractable by ethyl acetate from air-dried streambed sediment. The ethyl acetate extract is combusted, and the concentration is determined by microcoulometric determination of the halides formed. The concentration is reported as micrograms of chlorine per gram of the dry weight of the streambed sediment.

Fecal coliform bacteria are present in the intestines or feces of warmblooded animals. They often are used as indicators of the sanitary quality of the water. In the laboratory, they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5 °C plus or minus 0.2 °C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also "Bacteria")

Fecal streptococcal bacteria are present in the intestines of warmblooded animals and are ubiquitous in the environment. They are characterized as gram-positive, cocci bacteria that are capable of growth in brain-heart infusion broth. In the laboratory, they are defined as all the organisms that produce red or pink colonies within 48 hours at 35 °C plus or minus 1.0 °C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also "Bacteria")

Filtered pertains to constituents in a water sample passed through a filter of specified pore diameter, most commonly 0.45 micrometer or less for inorganic analytes and 0.7 micrometer for organic analytes.

Filtered, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that has passed through a filter has been extracted. Complete recovery is not achieved by the extraction procedure and thus the analytical determination represents something less than 95 percent of the total constituent concentration in the sample. To achieve comparability of analytical data, equivalent extraction procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results.

Fire algae (*Pyrrhophyta*) are free-swimming unicells characterized by a red pigment spot. (See also "Phytoplankton")

Flow-duration percentiles are values on a scale of 100 that indicate the percentage of time for which a flow is not exceeded. For example, the 90th percentile of river flow is

greater than or equal to 90 percent of all recorded flow rates.

Gage datum is a horizontal surface used as a zero point for measurement of stage or gage height. This surface usually is located slightly below the lowest point of the stream bottom such that the gage height is usually slightly greater than the maximum depth of water. Because the gage datum is not an actual physical object, the datum is usually defined by specifying the elevations of permanent reference marks such as bridge abutments and survey monuments, and the gage is set to agree with the reference marks. Gage datum is a local datum that is maintained independently of any national geodetic datum. However, if the elevation of the gage datum relative to the national datum (North American Vertical Datum of 1988 or National Geodetic Vertical Datum of 1929) has been determined, then the gage readings can be converted to elevations above the national datum by adding the elevation of the gage datum to the gage reading.

Gage height (G.H.) is the water-surface elevation, in feet above the gage datum. If the water surface is below the gage datum, the gage height is negative. Gage height often is used interchangeably with the more general term "stage," although gage height is more appropriate when used in reference to a reading on a gage.

Gage values are values that are recorded, transmitted, and/or computed from a gaging station. Gage values typically are collected at 5-, 15-, or 30-minute intervals.

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

Gas chromatography/flame ionization detector (GC/FID) is a laboratory analytical method used as a screening technique for semivolatile organic compounds that are extractable from water in methylene chloride.

Geomorphic channel units, as used in this report, are fluvial geomorphic descriptors of channel shape and stream velocity. Pools, riffles, and runs are types of geomorphic channel units considered for National Water-Quality Assessment (NAWQA) Program habitat sampling.

Green algae (*Chlorophyta*) are unicellular or colonial algae with chlorophyll pigments similar to those in terrestrial green plants. Some forms of green algae produce mats or floating "moss" in lakes. The abundance of green algae in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter (μm^3/mL). The abundance of green algae in periphyton samples is given in cells per square centimeter (cells/cm^2) or biovolume per square centimeter (mm3/cm2). (See also "Phytoplankton" and "Periphyton")

Habitat, as used in this report, includes all nonliving (physical) aspects of the aquatic ecosystem, although living components like aquatic macrophytes and riparian vegetation also are usually included. Measurements of habitat typically are made over a wider geographic scale than are measurements of species distribution.

Habitat quality index is the qualitative description (level 1) of instream habitat and riparian conditions surrounding the reach sampled. Scores range from 0 to 100 percent with higher scores indicative of desirable habitat conditions for aquatic life. Index only applicable to wadable streams.

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 (primarily calcium and magnesium) and is expressed as the equivalent concentration of calcium carbonate ($CaCO_3$).

High tide is the maximum height reached by each rising tide. The high-high and low-high tides are the higher and lower of the two high tides, respectively, of each tidal day. *See NOAA Web site: http://www.csc.noaa.gov/text/glossary.html (see "High Water")*

Hilsenhoff's Biotic Index (HBI) is an indicator of organic pollution that uses tolerance values to weight taxa abundances; usually increases with pollution. It is calculated as follows:

$$HBI = sum\frac{(n)(a)}{N},$$

where n is the number of individuals of each taxon, a is the tolerance value of each taxon, and N is the total number of organisms in the sample.

Horizontal datum (See "Datum")

Hydrologic index stations referred to in this report are continuous-record gaging stations that have been selected as representative of streamflow patterns for their respective regions. Station locations are shown on index maps.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as defined by the former Office of Water Data Coordination and delineated on the State Hydrologic Unit Maps by the

USGS. Each hydrologic unit is identified by an 8-digit number.

Inch (IN., in.), in reference to streamflow, as used in this report, refers to the depth to which the drainage area would be covered with water if all of the runoff for a given time period were distributed uniformly on it. (See also "Annual runoff")

Instantaneous discharge is the discharge at a particular instant of time. (See also "Discharge")

International Boundary Commission Survey Datum refers to a geodetic datum established at numerous monuments along the United States-Canada boundary by the International Boundary Commission.

Island, as used in this report, is a mid-channel bar that has permanent woody vegetation, is flooded once a year, on average, and remains stable except during large flood events.

Laboratory reporting level (LRL) generally is equal to twice the yearly determined long-term method detection level (LT-MDL). The LRL controls false negative error. The probability of falsely reporting a nondetection for a sample that contained an analyte at a concentration equal to or greater than the LRL is predicted to be less than or equal to 1 percent. The value of the LRL will be reported with a "less than" (<) remark code for samples in which the analyte was not detected. The National Water Quality Laboratory (NWQL) collects quality-control data from selected analytical methods on a continuing basis to determine LT-MDLs and to establish LRLs. These values are reevaluated annually on the basis of the most current quality-control data and, therefore, may change. The LRL replaces the term 'non-detection value' (NDV).

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

Latent heat flux (often used interchangeably with latent heat-flux density) is the amount of heat energy that converts water from liquid to vapor (evaporation) or from vapor to liquid (condensation) across a specified cross-sectional area per unit time. Usually expressed in watts per square meter.

Light-attenuation coefficient, also known as the extinction coefficient, is a measure of water clarity. Light is attenuated according to the Lambert-Beer equation:

$$I = I_o e^{-\lambda L},$$

where I_o is the source light intensity, I is the light intensity at length L (in meters) from the source, λ is the light-attenuation coefficient, and e is the base of the natural logarithm. The light-attenuation coefficient is defined as

$$\lambda = -\frac{1}{L}\log_e \frac{I}{I_o}.$$

Lipid is any one of a family of compounds that are insoluble in water and that make up one of the principal components of living cells. Lipids include fats, oils, waxes, and steroids. Many environmental contaminants such as organochlorine pesticides are lipophilic.

Long-term method detection level (LT-MDL) is a detection level derived by determining the standard deviation of a minimum of 24 method detection limit (MDL) spike-sample measurements over an extended period of time. LT-MDL data are collected on a continuous basis to assess year-to-year variations in the LT-MDL. The LT-MDL controls false positive error. The chance of falsely reporting a concentration at or greater than the LT-MDL for a sample that did not contain the analyte is predicted to be less than or equal to 1 percent.

Low tide is the minimum height reached by each falling tide. The high-low and low-low tides are the higher and lower of the two low tides, respectively, of each tidal day. *See NOAA Web site: http://www.csc.noaa.gov/text/glossary.html (See"Low Water")*

Macrophytes are the macroscopic plants in the aquatic environment. The most common macrophytes are the rooted vascular plants that usually are arranged in zones in aquatic ecosystems and restricted in the area by the extent of illumination through the water and sediment deposition along the shoreline.

Mean concentration of suspended sediment (Daily mean suspended-sediment concentration) is the time-weighted concentration of suspended sediment passing a stream cross section during a given time period. (See also "Daily mean suspended-sediment concentration" and "Suspended-sediment concentration")

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

Mean high or **low tide** is the average of all high or low tides, respectively, over a specific period.

Mean sea level is a local tidal datum. It is the arithmetic mean of hourly heights observed over the National Tidal

Datum Epoch. Shorter series are specified in the name; for example, monthly mean sea level and yearly mean sea level. In order that they may be recovered when needed, such datums are referenced to fixed points known as benchmarks. (See also "Datum")

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

Megahertz is a unit of frequency. One megahertz equals one million cycles per second.

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

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Method code is a one-character code that identifies the analytical or field method used to determine a value stored in the National Water Information System (NWIS).

Method detection limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99-percent confidence that the analyte concentration is greater than zero. It is determined from the analysis of a sample in a given matrix containing the analyte. At the MDL concentration, the risk of a false positive is predicted to be less than or equal to 1 percent.

Method of Cubatures is a method of computing discharge in tidal estuaries based on the conservation of mass equation.

Methylene blue active substances (MBAS) indicate the presence of detergents (anionic surfactants). The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram (UG/G, µg/g) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per kilogram (UG/KG, µg/kg) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the constituent per unit mass (kilogram) of the material analyzed. One microgram per kilogram is equivalent to 1 part per billion.

Micrograms per liter (UG/L, µg/L) is a unit expressing the concentration of chemical constituents in water as mass (micrograms) of constituent per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter. One microgram per liter is equivalent to 1 part per billion.

Microsiemens per centimeter (US/CM, µS/cm) is a unit expressing the amount of electrical conductivity of a solution as measured between opposite faces of a centimeter cube of solution at a specified temperature. Siemens is the International System of Units nomenclature. It is synonymous with mhos and is the reciprocal of resistance in ohms.

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

Minimum reporting level (MRL) is the smallest measured concentration of a constituent that may be reliably reported by using a given analytical method.

Miscellaneous site, miscellaneous station, or miscellaneous sampling site is a site where streamflow, sediment, and/or water-quality data or water-quality or sediment samples are collected once, or more often on a random or discontinuous basis to provide better areal coverage for defining hydrologic and water-quality conditions over a broad area in a river basin.

Most probable number (MPN) is an index of the number of coliform bacteria that, more probably than any other number, would give the results shown by the laboratory examination; it is not an actual enumeration. MPN is determined from the distribution of gas-positive cultures among multiple inoculated tubes.

Multiple-plate samplers are artificial substrates of known surface area used for obtaining benthic invertebrate samples. They consist of a series of spaced, hardboard plates on an eyebolt.

Nanograms per liter (NG/L, ng/L) is a unit expressing the concentration of chemical constituents in solution as mass

(nanograms) of solute per unit volume (liter) of water. One million nanograms per liter is equivalent to 1 milligram per liter.

National Geodetic Vertical Datum of 1929 (NGVD 29) is a fixed reference adopted as a standard geodetic datum for elevations determined by leveling. It formerly was called "Sea Level Datum of 1929" or "mean sea level." Although the datum was derived from the mean sea level at 26 tide stations, it does not necessarily represent local mean sea level at any particular place. *See NOAA Web site: http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88* (See "North American Vertical Datum of 1988")

Natural substrate refers to any naturally occurring immersed or submersed solid surface, such as a rock or tree, upon which an organism lives. (See also "Substrate")

Nekton are the consumers in the aquatic environment and consist of large, free-swimming organisms that are capable of sustained, directed mobility.

Nonfilterable refers to the portion of the total residue retained by a filter.

North American Datum of 1927 (NAD 27) is the horizontal control datum for the United States that was defined by a location and azimuth on the Clarke spheroid of 1866.

North American Datum of 1983 (NAD 83) is the horizontal control datum for the United States, Canada, Mexico, and Central America that is based on the adjustment of 250,000 points including 600 satellite Doppler stations that constrain the system to a geocentric origin. NAD 83 has been officially adopted as the legal horizontal datum for the United States by the Federal government.

North American Vertical Datum of 1988 (NAVD 88) is a fixed reference adopted as the official civilian vertical datum for elevations determined by Federal surveying and mapping activities in the United States. This datum was established in 1991 by minimum-constraint adjustment of the Canadian, Mexican, and United States first-order terrestrial leveling networks.

Open or **screened interval** is the length of unscreened opening or of well screen through which water enters a well, in feet below land surface.

Organic carbon (OC) is a measure of organic matter present in aqueous solution, suspension, or bottom sediment. May be reported as dissolved organic carbon (DOC), particulate organic carbon (POC), or total organic carbon (TOC).

Organic mass or **volatile mass** of a living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. Organic mass is expressed in the same units as for ash mass and dry mass. (See also "Ash mass," "Biomass," and "Dry mass")

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter (m^2), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

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

Organochlorine compounds are any chemicals that contain carbon and chlorine. Organochlorine compounds that are important in investigations of water, sediment, and biological quality include certain pesticides and industrial compounds.

Parameter code is a 5-digit number used in the USGS computerized data system, National Water Information System (NWIS), to uniquely identify a specific constituent or property.

Partial-record station is a site where discrete measurements of one or more hydrologic parameters are obtained over a period of time without continuous data being recorded or computed. A common example is a crest-stage gage partial-record station at which only peak stages and flows are recorded.

Particle size is the diameter, in millimeters (mm), of a particle determined by sieve or sedimentation methods. The sedimentation method uses the principle of Stokes Law to calculate sediment particle sizes. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube, sedigraph) 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, as 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	>0.004 - 0.062	Sedimentation

Classification	Size (mm)	Method of analysis
Sand	>0.062 - 2.0	Sedimentation/sieve
Gravel	>2.0 - 64.0	Sieve
Cobble	>64 - 256	Manual measurement
Boulder	>256	Manual measurement

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. For the sedimentation method, 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.

Peak flow (peak stage) is an instantaneous local maximum value in the continuous time series of streamflows or stages, preceded by a period of increasing values and followed by a period of decreasing values. Several peak values ordinarily occur in a year. The maximum peak value in a year is called the annual peak; peaks lower than the annual peak are called secondary peaks. Occasionally, the annual peak may not be the maximum value for the year; in such cases, the maximum value occurs at midnight at the beginning or end of the year, on the recession from or rise toward a higher peak in the adjoining year. If values are recorded at a discrete series of times, the peak recorded value may be taken as an approximation of the true peak, which may occur between the recording instants. If the values are recorded with finite precision, a sequence of equal recorded values may occur at the peak; in this case, the first value is taken as the peak.

Percent composition or **percent of total** is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, weight, mass, or volume.

Percent shading is a measure of the amount of sunlight potentially reaching the stream. A clinometer is used to measure left and right bank canopy angles. These values are added together, divided by 180, and multiplied by 100 to compute percentage of shade.

Periodic-record station is a site where stage, discharge, sediment, chemical, physical, or other hydrologic measurements are made one or more times during a year but at a frequency insufficient to develop a daily record.

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. Although primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton are useful indicators of water quality.

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

pH of water is the negative logarithm of the hydrogen-ion activity. Solutions with pH less than 7.0 standard units are termed "acidic," and solutions with a pH greater than 7.0 are termed "basic." Solutions with a pH of 7.0 are neutral. The presence and concentration of many dissolved chemical constituents found in water are affected, in part, by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of the water to organisms also are affected, in part, by the hydrogen-ion activity of water.

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

Picocurie (PC, pCi) is one-trillionth (1×10^{-12}) of the amount of radioactive nuclide represented by a curie (Ci). A curie is the quantity of radioactive nuclide that yields 3.7×10^{10} radioactive disintegrations per second (dps). A picocurie yields 0.037 dps, or 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers. Concentrations are expressed as a number of cells per milliliter (cells/mL) of sample.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Polychlorinated naphthalenes (PCNs) are industrial chemicals that are mixtures of chlorinated naphthalene compounds. They have properties and applications similar to polychlorinated biphenyls (PCBs) and have been identified in commercial PCB preparations.

Pool, as used in this report, is a small part of a stream reach with little velocity, commonly with water deeper than surrounding areas.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated (carbon method) by the plants.

Primary productivity (carbon method) is expressed as milligrams of carbon per area per unit time [mg C/(m^2/time)] for periphyton and macrophytes or per volume [mg C/(m^3/time)] for phytoplankton. The carbon method defines the amount of carbon dioxide consumed as measured by radioactive carbon (carbon-14). The carbon-14 method is of greater sensitivity than the oxygen light- and dark-bottle method and is preferred for use with unenriched water samples. Unit time may be either the hour or day, depending on the incubation period. (See also "Primary productivity")

Primary productivity (oxygen method) is expressed as milligrams of oxygen per area per unit time [mg O/(m^2/time)] for periphyton and macrophytes or per volume [mg O/(m^3/time)] for phytoplankton. The oxygen method defines production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light- and dark-bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period. (See also "Primary productivity")

Radioisotopes are isotopic forms of elements that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus; for example, ordinary chlorine is a mixture of isotopes having atomic weights of 35 and 37, and the natural mixture has an atomic weight of about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron. There are 275 isotopes of the 81 stable elements, in addition to more than 800 radioactive isotopes.

Reach, as used in this report, is a length of stream that is chosen to represent a uniform set of physical, chemical, and biological conditions within a segment. It is the principal sampling unit for collecting physical, chemical, and biological data.

Recoverable is the amount of a given constituent that is in solution after a representative water sample has been extracted or digested. Complete recovery is not achieved by the extraction or digestion and thus the determination represents something less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results. (See also "Bed material")

Recurrence interval, also referred to as return period, is the average time, usually expressed in years, between occurrences of hydrologic events of a specified type (such as exceedances of a specified high flow or nonexceedance of a specified low flow). The terms "return period" and "recurrence interval" do not imply regular cyclic occurrence. The actual times between occurrences vary randomly, with most of the times being less than the average and a few being substantially greater than the average. For example, the 100-year flood is the flow rate that is exceeded by the annual maximum peak flow at intervals whose average length is 100 years (that is, once in 100 years, on average); almost two-thirds of all exceedances of the 100-year flood occur less than 100 years after the previous exceedance, half occur less than 70 years after the previous exceedance, and about one-eighth occur more than 200 years after the previous exceedance. Similarly, the 7-day, 10-year low flow ($7Q_{10}$) is the flow rate below which the annual minimum 7-day-mean flow dips at intervals whose average length is 10 years (that is, once in 10 years, on average); almost two-thirds of the nonexceedances of the $7Q_{10}$ occur less than 10 years after the previous nonexceedance, half occur less than 7 years after, and about one-eighth occur more than 20 years after the previous nonexceedance. The recurrence interval for annual events is the reciprocal of the annual probability of occurrence. Thus, the 100-year flood has a 1-percent chance of being exceeded by the maximum peak flow in any year, and there is a 10-percent chance in any year that the annual minimum 7-day-mean flow will be less than the $7Q_{10}$.

Replicate samples are a group of samples collected in a manner such that the samples are thought to be essentially identical in composition.

Return period (See "Recurrence interval")

Riffle, as used in this report, is a shallow part of the stream where water flows swiftly over completely or partially submerged obstructions to produce surface agitation.

River mileage is the curvilinear distance, in miles, measured upstream from the mouth along the meandering path of a stream channel in accordance with Bulletin No. 14 (October 1968) of the Water Resources Council and typically is used to denote location along a river.

Run, as used in this report, is a relatively shallow part of a stream with moderate velocity and little or no surface turbulence.

Runoff is the quantity of water that is discharged ("runs off") from a drainage basin during a given time period. Runoff data may be presented as volumes in acre-feet, as mean discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches. (See also "Annual runoff")

Salinity is the total quantity of dissolved salts, measured by weight in parts per thousand. Values in this report are calculated from specific conductance and temperature. Seawater has an average salinity of about 35 parts per thousand (for additional information, refer to: Miller, R.L., Bradford, W.L., and Peters, N.E., 1988, Specific conductance: theoretical considerations and application to analytical quality control: U.S. Geological Survey Water-Supply Paper 2311, 16 p.)

Sea level, as used in this report, refers to one of the two commonly used national vertical datums (NGVD 1929 or NAVD 1988). See separate entries for definitions of these datums.

Sediment is solid material that originates mostly from disintegrated rocks; when transported by, suspended in, or deposited from water, it is referred to as "fluvial sediment." Sediment 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 affected by environmental and land-use factors. Some major factors are topography, soil characteristics, land cover, and depth and intensity of precipitation.

Sensible heat flux (often used interchangeably with latent sensible heat-flux density) is the amount of heat energy that moves by turbulent transport through the air across a specified cross-sectional area per unit time and goes to heating (cooling) the air. Usually expressed in watts per square meter.

Seven-day, 10-year low flow ($7Q_{10}$) is the discharge below which the annual 7-day minimum flow falls in 1 year out of 10 on the long-term average. The recurrence interval of the $7Q_{10}$ is 10 years; the chance that the annual 7-day minimum flow will be less than the $7Q_{10}$ is 10 percent in any given year. (See also "Annual 7-day minimum" and "Recurrence interval")

Shelves, as used in this report, are streambank features extending nearly horizontally from the flood plain to the lower limit of persistent woody vegetation.

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Sodium hazard in water is an index that can be used to evaluate the suitability of water for irrigating crops.

Soil heat flux (often used interchangeably with soil heat-flux density) is the amount of heat energy that moves by conduction across a specified cross-sectional area of soil per unit time and goes to heating (or cooling) the soil. Usually expressed in watts per square meter.

Soil-water content is the water lost from the soil upon drying to constant mass at 105 °C; expressed either as mass of water per unit mass of dry soil or as the volume of water per unit bulk volume of soil.

Specific electrical conductance (conductivity) is a measure of the capacity of water (or other media) to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 °C. Specific electrical conductance is a function of the types and quantity of dissolved substances in water 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.

Stable isotope ratio (per MIL) is a unit expressing the ratio of the abundance of two radioactive isotopes. Isotope ratios are used in hydrologic studies to determine the age or source of specific water, to evaluate mixing of different water, as an aid in determining reaction rates, and other chemical or hydrologic processes.

Stage (See "Gage height")

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

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.

Substrate is the physical surface upon which an organism lives.

Substrate embeddedness class is a visual estimate of riffle streambed substrate larger than gravel that is surrounded or covered by fine sediment (<2 mm, sand or finer). Below are the class categories expressed as the percentage covered by fine sediment:

0	no gravel or larger substrate	3	26-50 percent
1	> 75 percent	4	5-25 percent
2	51-75 percent	5	< 5 percent

Surface area of a lake is that area (acres) encompassed by the boundary of the lake as shown on USGS topographic maps, or other available maps or photographs. Because surface area changes with lake stage, surface areas listed in this report represent those determined for the stage at the time the maps or photographs were obtained.

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

Surrogate is an analyte that behaves similarly to a target analyte, but that is highly unlikely to occur in a sample. A surrogate is added to a sample in known amounts before extraction and is measured with the same laboratory procedures used to measure the target analyte. Its purpose is to monitor method performance for an individual sample.

Suspended is the amount (concentration) of undissolved material in a water-sediment mixture. Most commonly refers to that material retained on a 0.45-micrometer 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-micrometer filter has been extracted or digested. Complete recovery is not achieved by the extraction or digestion procedures and thus the determination represents less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results. (See also "Suspended")

Suspended sediment is sediment carried in suspension by the turbulent components of the fluid or by the Brownian movement (a law of physics). (See also "Sediment")

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 foot above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L). The analytical technique uses the mass of all of the sediment and the net weight of the water-sediment mixture in a sample to compute the suspended-sediment concentration. (See also "Sediment" and "Suspended sediment")

Suspended-sediment discharge (tons/d) is the rate of sediment transport, as measured by dry mass or volume, that passes a cross 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. (See also "Sediment," "Suspended sediment," and "Suspended-sediment concentration")

Suspended-sediment load is a general term that refers to a given characteristic of the material in suspension that passes a point during a specified period of time. The term needs to be qualified, such as "annual suspended-sediment load" or "sand-size suspended-sediment load," and so on. It is not synonymous with either suspended-sediment discharge or concentration. (See also "Sediment")

Suspended solids, total residue at 105 °C concentration is the concentration of inorganic and organic material retained on a filter, expressed as milligrams of dry material per liter of water (mg/L). An aliquot of the sample is used for this analysis.

Suspended, total is the total amount of a given constituent in the part of a water-sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. 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 directly analyzing portions of the suspended material collected on the filter or, more commonly, by difference, on the basis of determinations of (1) dissolved and (2) total concentrations of the constituent. (See also "Suspended")

Synoptic studies are short-term investigations of specific water-quality conditions during selected seasonal or hydrologic periods to provide improved spatial resolution for critical water-quality conditions. For the period and conditions sampled, they assess the spatial distribution of selected water-quality conditions in relation to causative factors, such as land use and contaminant sources.

Taxa (Species) richness is the number of species (taxa) present in a defined area or sampling unit.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchial scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, *Hexagenia limbata*, is the following:

Kingdom:	Animal
Phylum:	Arthropeda
Class:	Insecta
Order:	Ephemeroptera
Family:	Ephemeridae
Genus:	*Hexagenia*
Species:	*Hexagenia limbata*

Thalweg is the line formed by connecting points of minimum streambed elevation (deepest part of the channel).

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table descriptions and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

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 resulting from the mixing of flow proportionally to the duration of the concentration.

Tons per acre-foot (T/acre-ft) is the dry mass (tons) of a constituent per unit volume (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, tons/d) is a common chemical or sediment discharge unit. It is the quantity of a substance in solution, in suspension, or as bedload that passes a stream section during a 24-hour period. It is equivalent to 2,000 pounds per day, or 0.9072 metric ton per day.

Total is the amount of a given constituent in a representative whole-water (unfiltered) 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 at least 95 percent of the constituent in the sample.)

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. This group includes coliforms that inhabit the intestine of warmblooded animals and those that inhabit soils. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria that ferment lactose with gas formation within 48 hours at 35 °C. In the laboratory, these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35 °C plus or minus 1.0 °C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milliliters of sample. (See also "Bacteria")

Total discharge is the quantity of a given constituent, measured as dry mass or volume, that passes a stream cross section per unit of time. When referring to constituents other than water, this term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

Total in bottom material is the amount of a given constituent in a representative sample of bottom material. 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 judge when the results should be reported as "total in bottom material."

Total length (fish) is the straight-line distance from the anterior point of a fish specimen's snout, with the mouth closed, to the posterior end of the caudal (tail) fin, with the lobes of the caudal fin squeezed together.

Total load refers to all of a constituent in transport. When referring to sediment, it includes suspended load plus bed load.

Total organism count is the number of organisms collected and enumerated in any particular sample. (See also "Organism count/volume")

Total recoverable is the amount of a given constituent in a whole-water sample after a 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 for whole-water samples, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures may produce different analytical results.

Total sediment discharge is the mass of suspended-sediment plus bed-load transport, measured as dry weight, that passes a cross section in a given time. It is a rate and is reported as tons per day. (See also "Bedload," "Bedload discharge," "Sediment," "Suspended sediment," and "Suspended-sediment concentration")

Total sediment load or **total load** is the sediment in transport as bedload and suspended-sediment load. The term may be qualified, such as "annual suspended-sediment load" or "sand-size suspended-sediment load," and so on. It differs from total sediment discharge in that load refers to the material, whereas discharge refers to the quantity of material, expressed in units of mass per unit time. (See also "Sediment," "Suspended-sediment load," and "Total load")

Transect, as used in this report, is a line across a stream perpendicular to the flow and along which measurements are taken, so that morphological and flow characteristics along the line are described from bank to bank. Unlike a cross section, no attempt is made to determine known elevation points along the line.

Turbidity is an expression of the optical properties of a liquid that causes light rays to be scattered and absorbed rather than transmitted in straight lines through water. Turbidity, which can make water appear cloudy or muddy, is caused by the presence of suspended and dissolved matter, such as clay, silt, finely divided organic matter, plankton and other microscopic organisms, organic acids, and dyes (ASTM International, 2003, D1889–00 Standard test method for turbidity of water, *in* ASTM International, Annual Book of ASTM Standards, Water and Environmental Technology, v. 11.01: West Conshohocken, Pennsylvania, 6 p.). The color of water, whether resulting from dissolved compounds or suspended particles, can affect a turbidity measurement. To ensure that USGS turbidity data can be understood and interpreted properly within the context of the instrument used and site conditions encountered, data from each instrument type are stored and reported in the National Water Information System (NWIS) using parameter codes and measurement reporting units that are specific to the instrument type, with specific instruments designated by the method code. The respective measurement units, many of which also are in use internationally, fall into two categories: (1) the designations NTU, NTRU, BU, AU, and NTMU signify the use of a broad spectrum incident light in the wavelength range of 400-680 nanometers (nm), but having different light detection configurations; (2) The designations FNU, FNRU, FBU, FAU, and FNMU generally signify an incident light in the range between 780-900 nm, also with varying light detection configurations. These reporting units are equivalent when measuring a calibration solution (for example, formazin or polymer beads), but their respective instruments may not produce equivalent results for environmental samples. Specific reporting units are as follows:

NTU (Nephelometric Turbidity Units): white or broadband [400-680 nm] light source, 90 degree detection angle, one detector.

NTRU (Nephelometric Turbidity Ratio Units): white or broadband [400-680 nm] light source, 90 degree detection angle, multiple detectors with ratio compensation.

BU (Backscatter Units): white or broadband [400-680 nm] light source, 30 ± 15 degree detection angle (backscatter).

AU (Attenuation Units): white or broadband [400-680 nm] light source, 180 degree detection angle (attenuation).

NTMU (Nephelometric Turbidity Multibeam Units): white or broadband [400-680 nm] light source, multiple light sources, detectors at 90 degrees and possibly other angles to each beam.

FNU (Formazin Nephelometric Units): near infrared [780-900 nm] or monochrome light source, 90 degree detection angle, one detector.

FNRU (Formazin Nephelometric Ratio Units): near infrared [780-900 nm] or monochrome light source, 90 degree detection angle, multiple detectors, ratio compensation.

FBU (Formazin Backscatter Units): near infrared [780-900 nm] or monochrome light source, 30±15 degree detection angle.

FAU (Formazin Attenuation Units): near infrared [780-900 nm] light source, 180 degree detection angle.

FNMU (Formazin Nephelometric Multibeam Units): near infrared [780-900 nm] or monochrome light source, multiple light sources, detectors at 90 degrees and possibly other angles to each beam.

For more information please see http://water.usgs.gov/owq/FieldManual/Chapter6/6.7_contents.html.

Ultraviolet (UV) absorbance (absorption) at 254 or 280 nanometers is a measure of the aggregate concentration of the mixture of UV absorbing organic materials dissolved in the analyzed water, such as lignin, tannin, humic substances, and various aromatic compounds. UV absorbance (absorption) at 254 or 280 nanometers is measured in UV absorption units per centimeter of path length of UV light through a sample.

Unconfined aquifer is an aquifer whose upper surface is a water table free to fluctuate under atmospheric pressure. (See "Water-table aquifer")

Unfiltered pertains to the constituents in an unfiltered, representative water-suspended sediment sample.

Unfiltered, recoverable is the amount of a given constituent in a representative water-suspended sediment sample that has been extracted or digested. Complete recovery is not achieved by the extraction or digestion treatment and thus the determination represents less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results.

Vertical datum (See "Datum")

Volatile organic compounds (VOCs) are organic compounds that can be isolated from the water phase of a sample by purging the water sample with inert gas, such as helium, and, subsequently, analyzed by gas chromatography. Many VOCs are human-made chemicals that are used and produced in the manufacture of paints, adhesives, petroleum products, pharmaceuticals, and refrigerants. They often are components of fuels, solvents, hydraulic fluids, paint thinners, and dry-cleaning agents commonly used in urban settings. VOC contamination of drinking-water supplies is a human-health concern because many are toxic and are known or suspected human carcinogens.

Water table is that surface in a ground-water body at which the water pressure is equal to the atmospheric pressure.

Water-table aquifer is an unconfined aquifer within which the water table is found.

Water year in USGS 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, 2002, is called the "2002 water year."

Watershed (See "Drainage basin")

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.

Wet mass is the mass of living matter plus contained water. (See also "Biomass" and "Dry mass")

Wet weight refers to the weight of animal tissue or other substance including its contained water. (See also "Dry weight")

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

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and often are large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers. (See also "Plankton")

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 ($A1^{+3}$)	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 ($C1^{-1}$)	.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.

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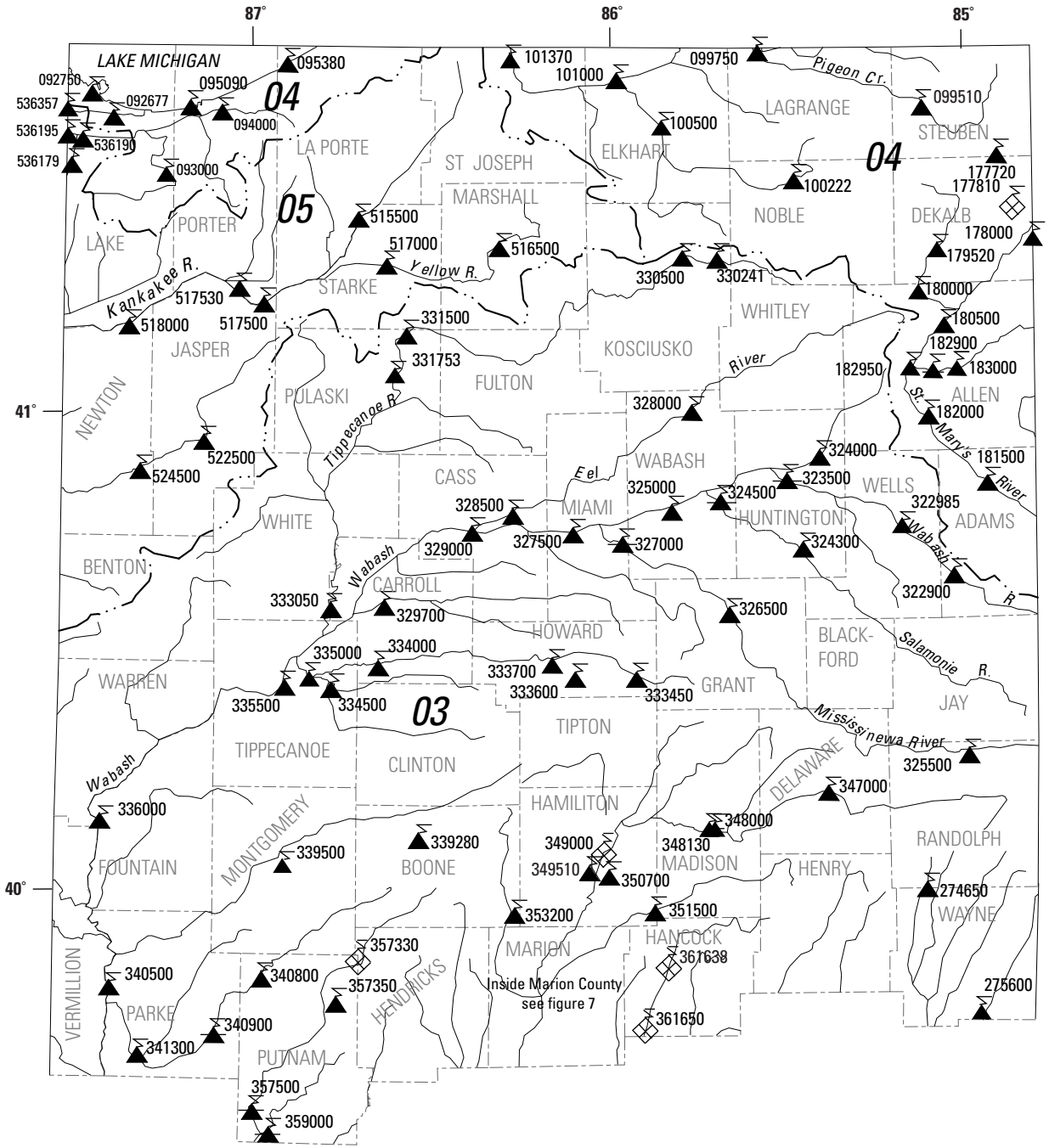
87°
86°
85°
41°
40°
LAKE MICHIGAN
04
05
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LAKE
PORTER
LA PORTE
ST JOSEPH
ELKHART
LAGRANGE
STEUBEN
MARSHALL
NOBLE
DEKALB
STARKE
WHITLEY
JASPER
KOSCIUSKO
NEWTON
PULASKI
FULTON
ALLEN
CASS
WABASH
WELLS
WHITE
MIAMI
HUNTINGTON
ADAMS
BENTON
CARROLL
HOWARD
BLACK-
FORD
WARREN
GRANT
JAY
TIPPECANOE
CLINTON
TIPTON
DELAWARE
MONTGOMERY
HAMILITON
FOUNTAIN
BOONE
MADISON
HENRY
RANDOLPH
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
101370
101000
099750
095090
099510
092750
536357
092677
100500
536195
094000
536190
177720
536179
093000
100222
177810
178000
515500
179520
517000
516500
330500
330241
180000
517530
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331500
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331753
182900
183000
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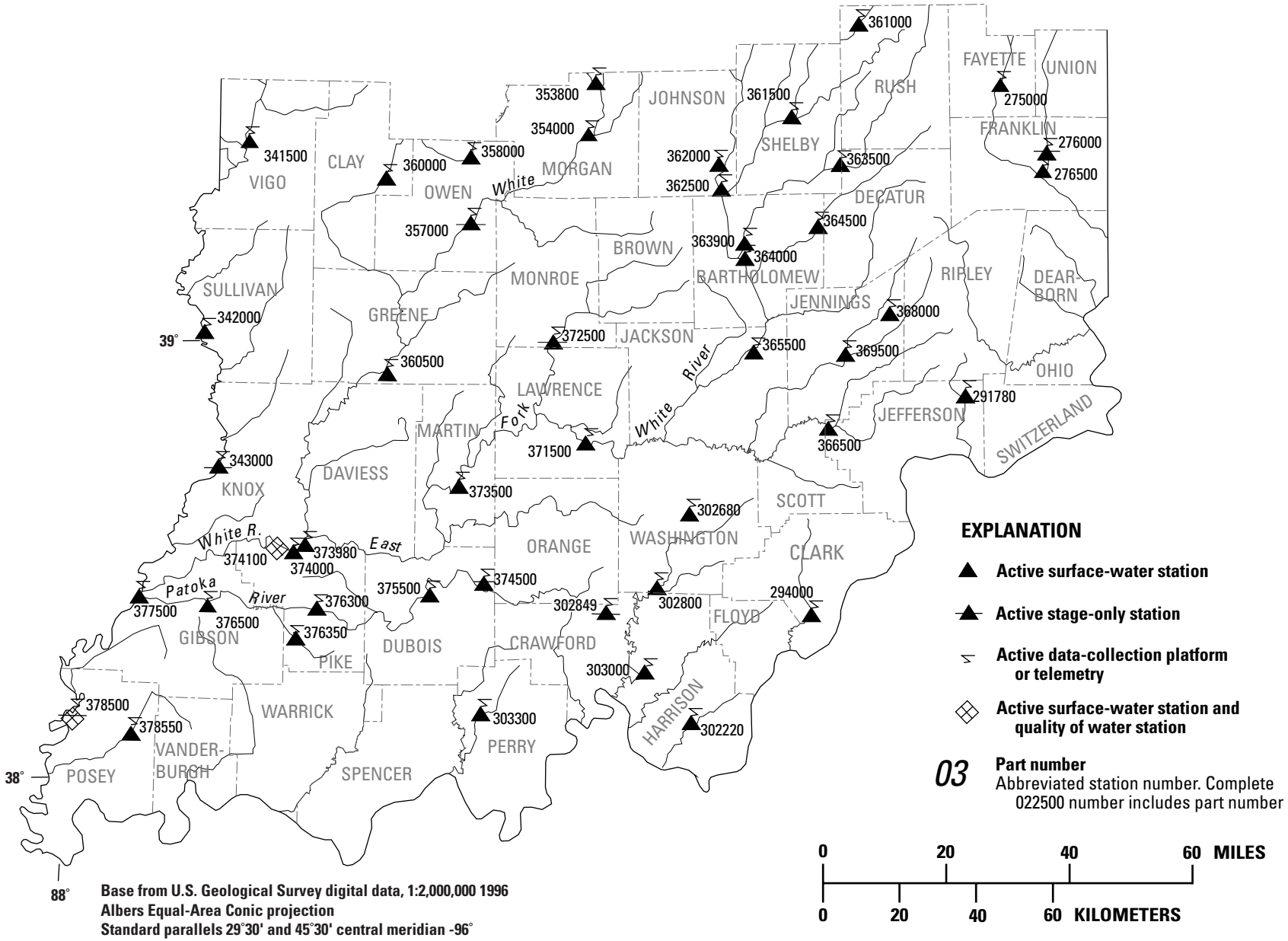


Figure 6.--Locations of streamflow- and water-quality gaging stations in Indiana.

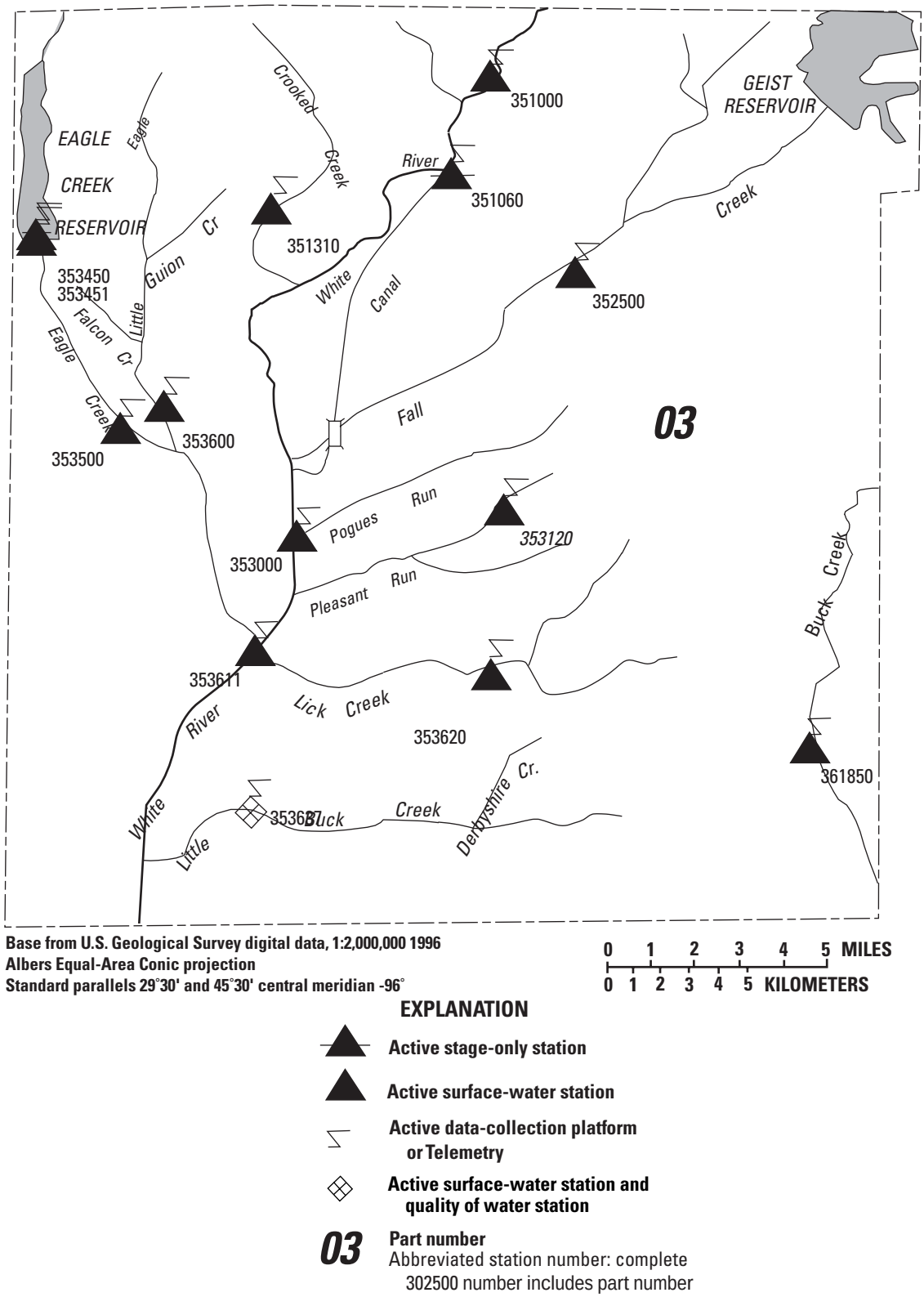


Figure 7.--Locations of streamflow- and water-quality gaging stations in Marion County, IN.

03274650 WHITEWATER RIVER NEAR ECONOMY, IN

LOCATION.--Lat 40°00'15", long 85°06'56", in NW¼NE¼ sec.19, T.18 N., R.13 E., Wayne County, Hydrologic Unit 05080003, (CARLOS, IN quadrangle), 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 National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for estimated daily discharges and those below 1.0 ft^3/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.8	8.0	22	15	e4.8	16	21	6.1	39	6.2	1.8	1.1
2	8.2	8.0	16	57	e5.0	19	14	23	24	6.1	1.4	0.99
3	8.1	7.9	12	68	20	13	10	12	18	6.2	1.2	0.99
4	10	7.7	11	338	12	17	8.3	8.2	14	7.7	1.4	1.1
5	10	7.4	24	179	11	30	7.3	6.9	11	6.1	1.3	0.95
6	10	7.1	26	54	36	19	6.9	6.0	9.0	5.4	1.1	0.86
7	12	7.0	16	35	14	13	6.6	5.3	8.1	5.1	0.93	0.85
8	12	6.5	13	28	8.8	11	6.4	5.1	7.5	4.8	0.87	0.81
9	15	6.4	12	25	9.5	10	5.6	4.9	7.2	4.7	1.3	0.81
10	17	6.4	21	23	11	9.0	5.2	4.6	7.0	4.7	1.4	0.79
11	22	6.8	25	20	11	9.0	5.2	4.5	129	4.5	1.4	0.76
12	25	15	14	15	12	8.2	5.1	4.4	92	4.5	1.4	0.72
13	31	10	12	13	9.2	7.6	5.1	4.4	40	4.3	1.4	0.69
14	167	8.5	11	12	9.3	8.1	4.9	4.4	28	4.1	1.3	0.65
15	64	8.0	9.8	11	9.9	7.5	4.7	4.6	19	3.9	1.3	0.64
16	32	7.6	17	10	7.2	8.0	4.5	4.4	52	3.8	1.3	0.63
17	24	7.1	19	11	6.8	7.7	4.5	4.2	35	3.8	1.3	0.89
18	20	22	13	16	11	8.4	4.4	4.2	19	3.8	1.5	0.82
19	14	67	11	11	27	15	4.4	9.4	13	3.8	2.0	0.68
20	11	30	9.6	9.4	37	16	4.4	7.5	11	3.6	32	0.64
21	9.6	20	9.2	9.2	25	13	4.5	6.0	9.6	3.7	14	0.60
22	8.6	14	9.5	8.7	14	11	4.8	5.2	9.6	6.3	3.1	0.58
23	8.1	12	76	8.2	13	9.6	9.7	4.7	8.3	3.0	2.0	0.57
24	7.5	29	40	8.0	12	9.3	6.6	4.5	7.9	2.5	1.6	0.60
25	7.5	19	24	e7.1	10	8.6	6.4	4.4	7.6	2.3	1.5	0.57
26	12	14	17	e7.0	9.3	17	5.5	4.2	7.3	2.4	1.7	0.56
27	11	104	13	e6.8	8.8	35	5.0	80	6.9	2.5	1.4	0.57
28	10	92	12	e6.0	8.5	20	4.7	251	6.8	2.4	1.3	0.57
29	10	39	23	e5.2	8.7	15	4.5	53	6.5	2.2	1.3	0.56
30	9.1	27	41	e4.9	---	24	5.1	39	6.3	2.9	1.3	0.58
31	8.2	---	20	e4.8	---	44	---	195	---	5.6	1.2	---
TOTAL	623.7	624.4	599.1	1,026.3	381.8	459.0	195.3	781.1	659.6	132.9	88.00	22.13
MEAN	20.1	20.8	19.3	33.1	13.2	14.8	6.51	25.2	22.0	4.29	2.84	0.74
MAX	167	104	76	338	37	44	21	251	129	7.7	32	1.1
MIN	7.5	6.4	9.2	4.8	4.8	7.5	4.4	4.2	6.3	2.2	0.87	0.56
CFSM	1.93	2.00	1.86	3.18	1.27	1.42	0.63	2.42	2.11	0.41	0.27	0.07
IN.	2.23	2.23	2.14	3.67	1.37	1.64	0.70	2.79	2.36	0.48	0.31	0.08

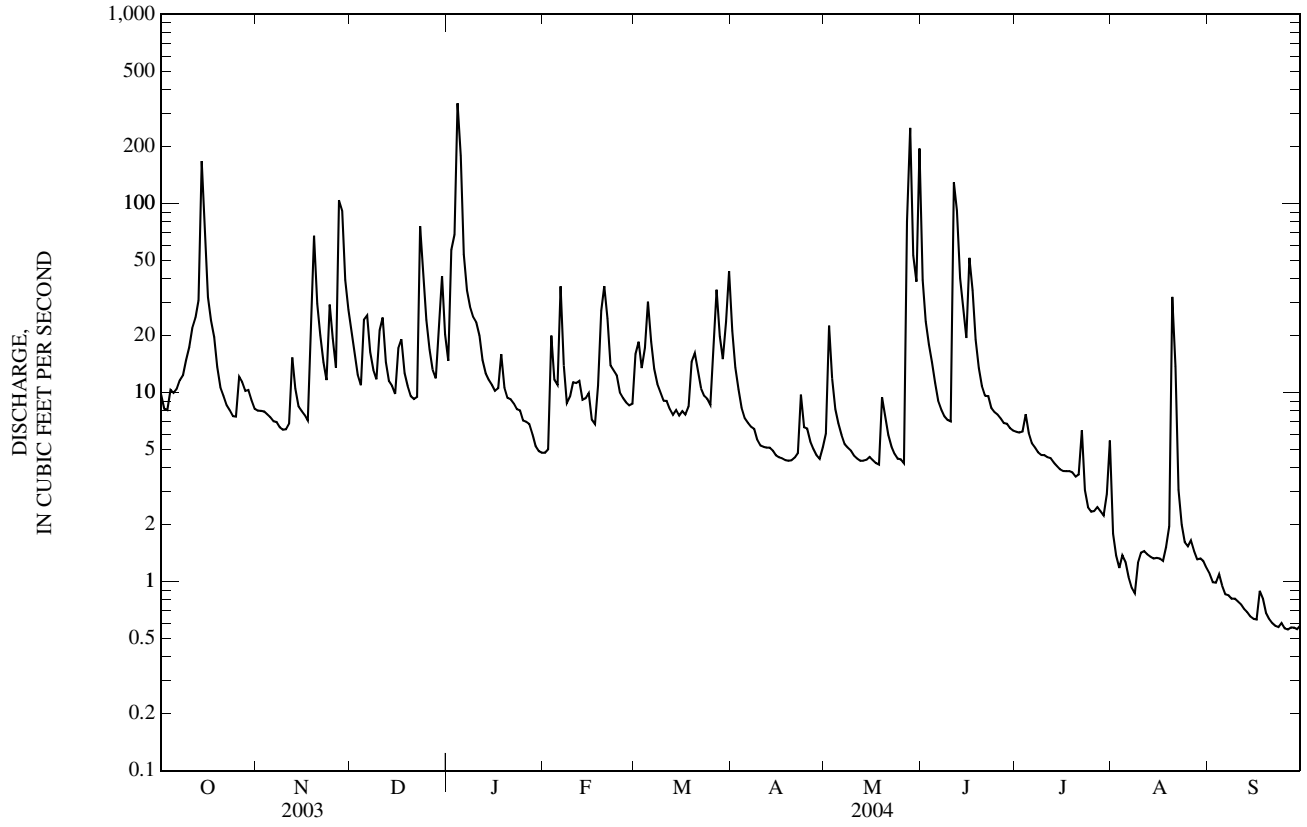
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2004, BY WATER YEAR (WY)

MEAN	4.85	10.6	12.5	13.4	17.3	19.6	18.6	14.7	9.62	8.59	4.54	4.06
MAX	39.9	67.0	39.7	37.7	56.0	41.6	46.0	58.4	24.8	63.2	61.5	40.8
(WY)	(1987)	(1994)	(1978)	(1996)	(1985)	(1978)	(1996)	(1996)	(1998)	(2003)	(1979)	(2003)
MIN	0.14	0.10	0.19	0.33	3.31	2.58	2.96	1.47	1.03	0.57	0.40	0.15
(WY)	(2000)	(2000)	(2000)	(1977)	(1978)	(1981)	(1971)	(1988)	(1977)	(1977)	(1999)	(1999)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1971 - 2004	
ANNUAL TOTAL	7,937.3		5,593.33			
ANNUAL MEAN	21.7		15.3		11.5	
HIGHEST ANNUAL MEAN					18.8	1979
LOWEST ANNUAL MEAN					3.26	1977
HIGHEST DAILY MEAN	487	Jul 9	338	Jan 4	647	Nov 14, 1993
LOWEST DAILY MEAN	1.2	Feb 18	0.56	Sep 26	0.00	Feb 3, 2000
ANNUAL SEVEN-DAY MINIMUM	1.3	Feb 15	0.57	Sep 23	0.00	Feb 3, 2000
MAXIMUM PEAK FLOW			686	Jan 4	1,120	Nov 14, 1993
MAXIMUM PEAK STAGE			7.72	Jan 4	8.91	Nov 14, 1993
ANNUAL RUNOFF (CFSM)	2.09		1.47		1.11	
ANNUAL RUNOFF (INCHES)	28.39		20.01		15.01	
10 PERCENT EXCEEDS	39		28		26	
50 PERCENT EXCEEDS	9.6		8.1		4.1	
90 PERCENT EXCEEDS	2.6		1.3		0.71	

e Estimated

03274650 WHITEWATER RIVER NEAR ECONOMY, IN—Continued



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.l4, T.13 N., R.12 E., Fayette County, Hydrologic Unit 05080003, (ALPINE, IN quadrangle), 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.

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

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 750.19 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 9, 1928, nonrecording gage 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 fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	578	533	1,360	949	e360	545	777	397	2,590	435	538	181
2	520	588	1,140	1,960	e370	756	655	834	1,390	415	373	173
3	478	538	997	2,620	953	712	572	983	1,030	399	316	170
4	469	500	902	9,680	1,000	659	517	685	822	424	348	168
5	448	472	928	15,900	743	719	471	568	701	403	321	165
6	421	444	1,310	3,830	1,810	765	443	490	616	375	275	160
7	394	420	1,080	2,060	1,410	639	431	440	551	356	255	155
8	373	398	939	1,610	775	561	417	399	502	338	245	152
9	360	379	863	1,380	657	519	392	370	460	329	239	151
10	353	369	867	1,170	730	483	368	380	433	345	233	147
11	345	372	1,130	1,060	771	458	356	348	2,950	344	226	145
12	338	479	972	1,000	785	434	351	324	9,750	330	221	142
13	329	630	832	934	723	410	363	316	2,380	310	217	139
14	608	495	793	887	609	403	372	313	1,550	293	214	139
15	2,590	448	736	853	669	402	339	352	1,230	282	212	136
16	1,220	424	773	794	560	417	322	368	2,940	276	207	136
17	841	403	1,100	791	505	411	310	345	5,150	372	203	141
18	667	497	927	1,120	497	405	303	362	1,750	285	199	135
19	579	2,210	804	887	716	457	295	1,280	1,270	273	199	130
20	510	1,740	720	744	1,250	592	309	1,500	1,010	263	240	127
21	464	1,040	661	695	1,450	653	315	879	884	254	878	125
22	433	799	646	666	860	562	330	701	901	663	459	124
23	407	681	936	597	742	500	390	577	820	465	317	123
24	385	813	2,010	e560	727	470	410	565	703	336	261	121
25	373	971	1,200	e540	672	446	398	504	718	293	233	120
26	609	744	928	e540	597	424	391	485	629	290	250	118
27	819	5,630	805	e540	557	582	358	475	563	299	223	117
28	632	7,150	744	e500	524	656	329	3,130	523	286	210	117
29	611	3,140	758	e400	508	583	308	2,510	493	272	207	116
30	604	1,740	1,590	e360	---	551	341	1,100	461	269	200	118
31	528	---	1,200	e350	---	658	---	6,190	---	746	190	---
TOTAL	18,286	35,047	30,651	55,977	22,530	16,832	11,933	28,170	45,770	11,020	8,709	4,191
MEAN	590	1,168	989	1,806	777	543	398	909	1,526	355	281	140
MAX	2,590	7,150	2,010	15,900	1,810	765	777	6,190	9,750	746	878	181
MIN	329	369	646	350	360	402	295	313	433	254	190	116
CFSM	1.13	2.24	1.89	3.46	1.49	1.04	0.76	1.74	2.92	0.68	0.54	0.27
IN.	1.30	2.50	2.18	3.99	1.61	1.20	0.85	2.01	3.26	0.79	0.62	0.30

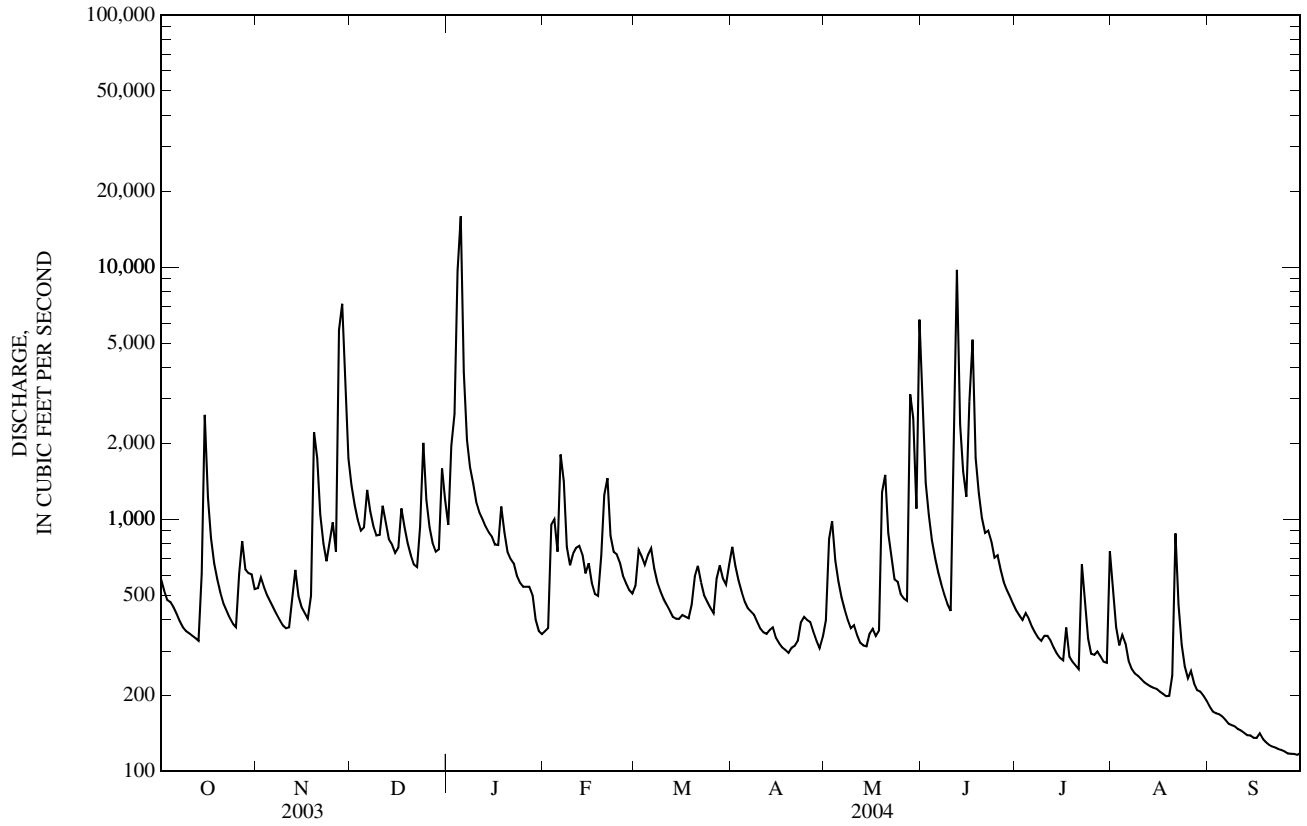
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2004, BY WATER YEAR (WY)

MEAN	208	360	561	823	856	993	1,001	792	565	383	245	190
MAX	1,685	1,978	2,531	4,409	2,639	2,522	2,665	3,763	2,609	1,777	2,342	1,362
(WY)	(1987)	(1994)	(1991)	(1937)	(1950)	(1963)	(2002)	(1996)	(1998)	(1979)	(1979)	(2003)
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)

03275000 WHITEWATER RIVER NEAR ALPINE, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1929 - 2004	
ANNUAL TOTAL	316,967		289,116			
ANNUAL MEAN	868		790		580	
HIGHEST ANNUAL MEAN					1,066	2002
LOWEST ANNUAL MEAN					117	1941
HIGHEST DAILY MEAN	14,400	Sep 2	15,900	Jan 5	26,300	Mar 5, 1963
LOWEST DAILY MEAN	204	Jul 4	116	Sep 29	30	Aug 6, 1934
ANNUAL SEVEN-DAY MINIMUM	218	Feb 15	118	Sep 24	33	Aug 2, 1934
MAXIMUM PEAK FLOW			17,400	Jan 4	37,100	Jan 14, 1937
MAXIMUM PEAK STAGE			18.57	Jan 4	19.70	Dec 31, 1990
ANNUAL RUNOFF (CFSM)	1.66		1.51		1.11	
ANNUAL RUNOFF (INCHES)	22.59		20.60		15.09	
10 PERCENT EXCEEDS	1,700		1,270		1,160	
50 PERCENT EXCEEDS	514		500		283	
90 PERCENT EXCEEDS	263		207		88	

e Estimated



03275600 EAST FORK WHITEWATER RIVER AT ABINGTON, IN

LOCATION.--Lat 39°43'57", long 84°57'35", in NE¼SW¼ sec.2, T.12 N., R.2 W., Wayne County, Hydrologic Unit 05080003, (LIBERTY, IN quadrangle), 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 National Geodetic Vertical Datum of 1929. 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	183	244	512	353	e140	219	207	151	777	130	129	37
2	161	259	399	732	e150	317	193	520	452	122	98	33
3	151	229	342	968	570	267	175	437	327	115	83	39
4	161	202	307	5,930	e360	253	158	278	262	146	107	34
5	141	184	386	5,530	e320	290	146	219	228	125	103	31
6	131	170	468	1,180	1,130	287	137	181	207	113	77	30
7	121	158	362	684	527	231	136	158	191	102	67	30
8	110	148	315	540	281	201	134	141	176	93	61	29
9	105	137	286	457	e240	186	126	129	168	88	56	31
10	103	133	310	385	e230	170	117	118	167	92	55	27
11	100	137	343	355	e210	169	112	110	4,090	94	51	25
12	96	367	288	335	e200	155	110	102	1,880	99	51	25
13	92	328	252	312	e190	144	120	100	742	86	50	24
14	313	228	256	293	e180	145	147	97	512	73	48	23
15	682	194	232	279	e170	142	124	129	446	67	45	24
16	354	182	287	250	e160	161	111	117	3,010	63	45	24
17	259	166	483	267	e156	156	106	107	2,140	81	44	47
18	206	295	333	454	e154	162	101	114	724	71	42	25
19	181	1,250	279	308	e200	218	95	502	458	63	43	24
20	168	622	240	e240	375	299	99	492	343	59	223	23
21	155	378	218	e220	422	348	107	284	289	55	245	21
22	144	294	224	e190	267	269	109	225	309	443	111	21
23	134	246	504	e180	240	222	157	182	273	276	76	20
24	126	358	780	e170	255	202	131	164	240	128	60	20
25	122	345	433	e160	229	184	157	150	300	99	51	20
26	468	271	323	e170	204	172	169	156	214	106	94	18
27	422	4,630	276	e180	190	193	139	154	179	123	56	19
28	289	3,500	256	e170	180	184	125	2,520	165	104	47	19
29	300	1,280	326	e160	179	180	116	592	156	89	46	23
30	269	702	853	e150	---	174	128	358	141	83	47	27
31	219	---	471	e145	---	178	---	3,630	---	194	41	---
TOTAL	6,466	17,637	11,344	21,747	8,109	6,478	3,992	12,617	19,566	3,582	2,352	793
MEAN	209	588	366	702	280	209	133	407	652	116	75.9	26.4
MAX	682	4,630	853	5,930	1,130	348	207	3,630	4,090	443	245	47
MIN	92	133	218	145	140	142	95	97	141	55	41	18
CFSM	1.04	2.94	1.83	3.51	1.40	1.04	0.67	2.04	3.26	0.58	0.38	0.13
IN.	1.20	3.28	2.11	4.04	1.51	1.20	0.74	2.35	3.64	0.67	0.44	0.15

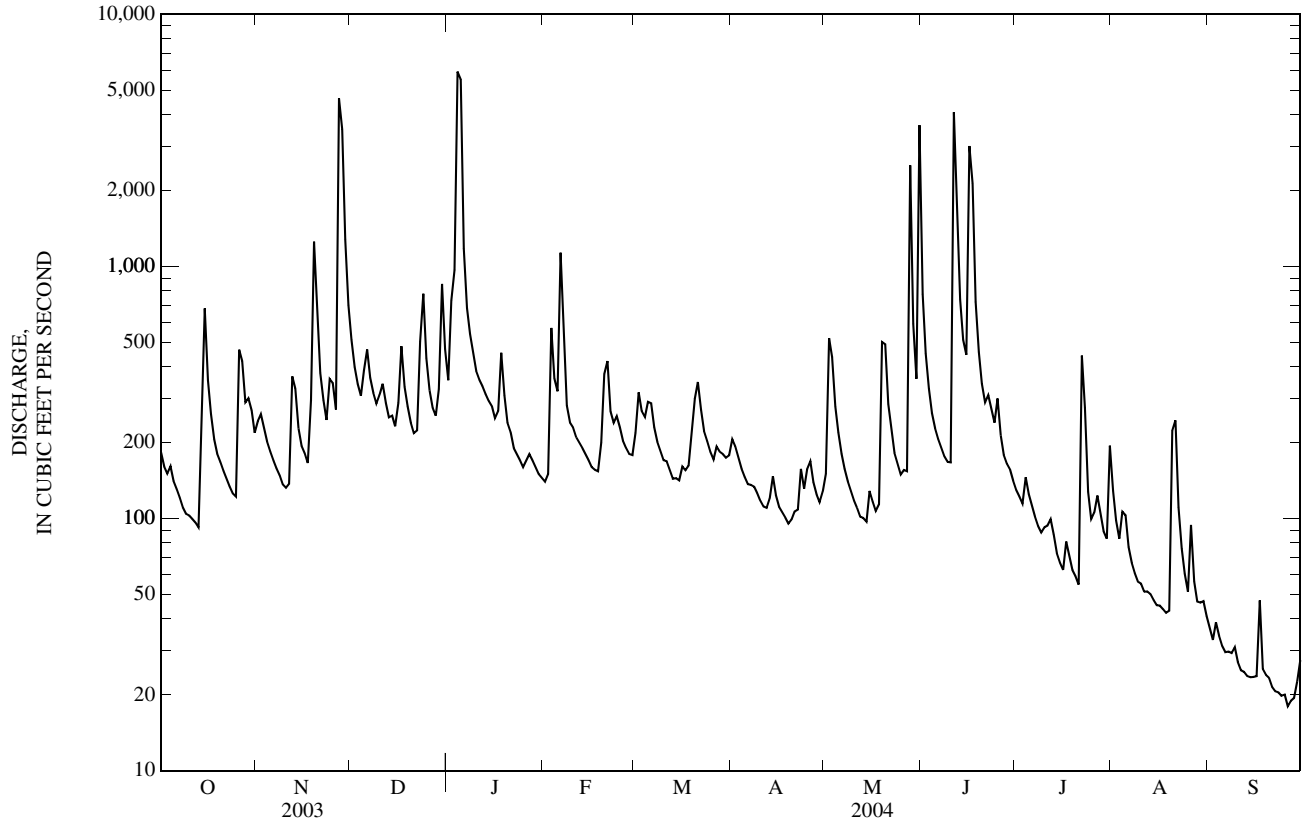
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2004, BY WATER YEAR (WY)

MEAN	89.0	174	277	279	310	367	390	350	217	173	111	67.2
MAX	615	732	929	708	901	884	1,052	1,049	789	790	773	501
(WY)	(1987)	(1994)	(1991)	(1969)	(1975)	(1978)	(2002)	(1968)	(1998)	(2003)	(1979)	(2003)
MIN	18.8	25.5	26.5	21.3	83.8	111	88.7	55.9	24.6	22.9	18.6	12.9
(WY)	(2000)	(2000)	(1977)	(1977)	(1992)	(1992)	(1976)	(1976)	(1988)	(1988)	(1988)	(1999)

03275600 EAST FORK WHITEWATER RIVER AT ABINGTON, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1966 - 2004	
ANNUAL TOTAL	146,016		114,683			
ANNUAL MEAN	400		313		233	
HIGHEST ANNUAL MEAN					388	1979
LOWEST ANNUAL MEAN					92.3	1977
HIGHEST DAILY MEAN	5,500	Sep 2	5,930	Jan 4	10,100	Jan 22, 1999
LOWEST DAILY MEAN	75	Jul 4	18	Sep 26	10	Sep 17, 1999
ANNUAL SEVEN-DAY MINIMUM	82	Jan 27	20	Sep 22	11	Sep 22, 1999
MAXIMUM PEAK FLOW			12,400	Jan 5	20,000	Jul 20, 1969
MAXIMUM PEAK STAGE			14.37	Jan 5	16.18	Jul 20, 1969
ANNUAL RUNOFF (CFSM)	2.00		1.57		1.17	
ANNUAL RUNOFF (INCHES)	27.16		21.33		15.85	
10 PERCENT EXCEEDS	757		475		456	
50 PERCENT EXCEEDS	218		171		117	
90 PERCENT EXCEEDS	98		47		33	

e Estimated



03276000 EAST FORK WHITEWATER RIVER AT BROOKVILLE, IN

LOCATION.--Lat 39°26'02", long 85°00'12", in NE¼NE¼ sec.20, T.9 N., R.2 W., Franklin County, Hydrologic Unit 05080003, (BROOKVILLE, IN quadrangle), 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 September 1981 (discharge). October 1981 to September 2001 (discharge provided by U.S. Army Corps of Engineers). October 2001 to current year (stage only).

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

GAGE.--Water-stage recorder. Datum of gage is 621.76 ft above National Geodetic Vertical Datum of 1929. Prior to May 22, 1954, nonrecording gage 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 October 1981 to September 2001.

EXTREMES FOR PERIOD OF RECORD.--(October 2001 to current year) maximum gage height, 8.21 ft, May 19, 2002; minimum gage height, 1.87 ft, Dec. 3, 2002. (March 1954 to September 1981) maximum discharge, 36,100 ft^3/s, Jan. 21, 1959; maximum gage height, 17.35 ft, May 24, 1968; minimum discharge, no flow, Nov. 27, 1991, July 14-16, 21-26, Aug. 4-27, 1992.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 7.41 ft, Jan. 14; minimum gage height, 2.31 ft, Oct. 28.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.28	4.53	4.51	4.47	3.52	3.47	2.69	2.76	4.91	3.21	3.41	2.68
2	3.40	4.53	5.95	4.99	3.23	3.46	2.69	2.71	5.61	3.21	3.41	2.68
3	2.83	4.52	5.94	2.94	4.20	3.92	2.69	2.69	6.12	3.21	3.40	2.69
4	2.82	4.52	5.94	3.06	4.20	3.92	2.69	2.68	6.83	3.18	3.40	2.69
5	2.82	4.52	5.94	2.91	4.24	3.92	2.69	2.68	6.21	3.18	3.40	2.68
6	2.82	4.52	5.93	2.89	4.22	3.92	2.69	2.68	3.89	3.18	3.40	2.68
7	3.52	4.52	5.93	2.89	4.22	3.92	2.69	2.68	3.74	3.18	3.39	2.68
8	3.52	4.83	5.92	2.89	4.21	3.92	2.69	2.68	3.72	2.68	2.68	2.68
9	3.52	4.82	4.17	4.51	4.21	3.41	2.69	2.68	3.71	2.68	2.67	2.68
10	3.52	4.82	4.17	5.47	4.94	3.41	2.69	2.68	2.71	2.68	2.67	2.68
11	3.52	4.88	4.17	5.48	4.94	3.41	2.69	2.68	2.71	2.68	2.67	2.68
12	3.52	4.82	4.17	6.34	4.94	3.41	2.69	2.68	2.72	2.68	2.67	2.68
13	3.52	4.81	4.17	6.96	4.94	3.41	2.77	2.66	4.38	2.68	2.67	2.68
14	3.53	4.81	4.17	7.39	4.15	3.41	2.70	2.66	4.58	2.68	2.67	2.68
15	3.96	4.80	4.17	7.38	3.71	2.67	2.69	2.65	5.58	2.68	2.67	2.68
16	3.96	4.80	3.41	7.35	3.70	2.68	2.69	2.65	5.58	2.69	2.65	2.68
17	3.95	4.79	4.23	7.35	3.70	2.68	2.69	2.65	4.58	2.68	2.65	2.68
18	3.95	4.80	4.23	7.33	3.17	2.69	2.69	2.70	5.09	2.68	2.65	2.67
19	3.95	4.80	4.23	7.32	3.17	2.68	2.69	2.67	5.57	2.68	2.65	2.67
20	3.95	4.79	3.82	6.19	3.19	2.68	2.69	3.25	6.49	2.68	2.66	2.67
21	3.95	5.01	3.42	4.44	4.81	2.68	2.69	3.61	6.47	2.69	2.70	2.67
22	3.95	5.01	3.42	4.43	4.49	2.68	2.74	3.61	6.47	2.69	2.70	2.67
23	3.95	5.01	3.44	3.84	3.68	2.68	2.70	3.61	5.03	3.41	2.69	2.67
24	3.95	5.00	3.43	3.84	3.68	2.68	3.00	3.61	4.52	3.41	2.69	2.67
25	3.96	4.48	3.43	3.82	3.68	2.68	3.00	3.62	4.52	3.41	3.96	2.67
26	3.96	4.18	3.93	3.83	3.68	2.69	2.68	3.77	3.86	3.41	3.60	2.67
27	4.26	3.43	4.51	3.84	3.68	2.69	2.68	3.76	3.86	3.41	3.09	2.67
28	4.28	3.44	4.52	3.84	3.68	2.69	2.68	4.39	3.68	3.41	3.10	3.77
29	4.28	3.43	4.53	3.62	3.46	2.69	2.68	4.39	3.41	3.41	2.67	3.77
30	4.53	3.43	4.52	3.58	---	2.73	2.69	4.40	3.41	2.68	2.67	3.76
31	4.53	---	4.52	3.56	---	2.70	---	3.42	---	3.41	2.68	---
MEAN	3.76	4.55	4.48	4.80	3.99	3.12	2.71	3.11	4.67	2.99	2.94	2.79
MAX	4.53	5.01	5.95	7.39	4.94	3.92	3.00	4.40	6.83	3.41	3.96	3.77
MIN	2.82	3.43	3.41	2.89	3.17	2.67	2.68	2.65	2.71	2.68	2.65	2.67

CAL YR 2003 MEAN 3.90 MAX 8.12 MIN 1.97
WTR YR 2004 MEAN 3.66 MAX 7.39 MIN 2.65

03276000 EAST FORK WHITEWATER RIVER AT BROOKVILLE, IN—Continued

WATER-QUALITY RECORDS

INSTRUMENTATION.--Temperature recorder.

PERIOD OF RECORD.--

WATER TEMPERATURE.--September 1987 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 27.8°C, July 7, 1999; minimum, 1.1°C, Jan. 31, 1996.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 25.4°C, June 28 - 29, minimum, 2.0°C, Jan. 25 - 26.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	21.9	21.9	21.9	15.9	15.9	15.9	11.0	11.0	11.0	5.0	5.0	5.0
2	21.9	20.9	21.0	15.9	15.9	15.9	11.0	11.0	11.0	5.0	5.0	5.0
3	20.9	19.9	20.5	15.9	15.9	15.9	11.0	10.0	10.6	7.0	5.0	5.6
4	19.9	19.9	19.9	15.9	14.9	15.6	10.0	10.0	10.0	7.0	6.0	6.6
5	19.9	18.9	19.8	15.9	14.9	15.0	10.0	10.0	10.0	6.0	5.0	6.0
6	19.9	18.9	19.1	15.9	14.9	15.3	10.0	10.0	10.0	5.0	5.0	5.0
7	18.9	18.9	18.9	15.9	14.9	15.4	10.0	9.0	9.7	5.0	5.0	5.0
8	18.9	17.9	18.6	15.9	14.9	15.5	9.0	9.0	9.0	5.0	5.0	5.0
9	17.9	17.9	17.9	14.9	14.9	14.9	9.0	8.0	8.6	5.0	5.0	5.0
10	17.9	17.9	17.9	14.9	14.9	14.9	8.0	8.0	8.0	5.0	5.0	5.0
11	17.9	17.9	17.9	14.9	14.9	14.9	8.0	8.0	8.0	5.0	5.0	5.0
12	17.9	17.9	17.9	14.9	14.9	14.9	8.0	8.0	8.0	5.0	5.0	5.0
13	17.9	17.9	17.9	14.9	13.9	13.9	8.0	8.0	8.0	5.0	5.0	5.0
14	17.9	17.9	17.9	13.9	13.9	13.9	8.0	8.0	8.0	5.0	4.0	4.7
15	17.9	17.9	17.9	13.9	13.9	13.9	8.0	8.0	8.0	5.0	4.0	4.0
16	17.9	17.9	17.9	13.9	13.9	13.9	8.0	7.0	7.1	4.0	4.0	4.0
17	17.9	17.9	17.9	13.9	12.9	13.3	7.0	7.0	7.0	4.0	4.0	4.0
18	17.9	17.9	17.9	13.0	12.9	13.0	7.0	7.0	7.0	4.0	4.0	4.0
19	17.9	17.9	17.9	13.0	13.0	13.0	7.0	7.0	7.0	4.0	4.0	4.0
20	17.9	17.9	17.9	13.0	13.0	13.0	7.0	7.0	7.0	4.0	3.0	3.5
21	17.9	17.9	17.9	13.0	12.0	12.1	7.0	6.0	6.6	4.0	3.0	3.4
22	17.9	17.9	17.9	13.0	12.0	12.2	6.0	6.0	6.0	4.0	3.0	3.5
23	17.9	17.9	17.9	13.0	12.0	12.1	6.0	6.0	6.0	4.0	3.0	3.3
24	17.9	17.9	17.9	13.0	12.0	12.1	6.0	6.0	6.0	4.0	3.0	3.0
25	17.9	17.9	17.9	12.0	12.0	12.0	6.0	6.0	6.0	3.0	2.0	2.1
26	17.9	16.9	17.6	12.0	12.0	12.0	6.0	6.0	6.0	3.0	2.0	2.1
27	16.9	16.9	16.9	12.0	12.0	12.0	6.0	6.0	6.0	3.1	2.1	2.8
28	16.9	16.9	16.9	12.0	12.0	12.0	6.0	6.0	6.0	3.1	2.1	2.5
29	16.9	16.9	16.9	12.0	11.0	11.9	6.0	5.0	5.6	3.1	2.1	2.5
30	16.9	15.9	16.7	11.0	11.0	11.0	5.0	5.0	5.0	3.1	3.1	3.1
31	15.9	15.9	15.9	---	---	---	5.0	5.0	5.0	3.1	3.1	3.1
MONTH	21.9	15.9	18.2	15.9	11.0	13.7	11.0	5.0	7.7	7.0	2.0	4.1

03276000 EAST FORK WHITEWATER RIVER AT BROOKVILLE, IN—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.1	3.1	3.1	4.1	3.1	3.6	9.4	8.4	8.4	13.7	12.7	13.3
2	3.1	3.1	3.1	4.1	3.1	3.9	9.4	8.4	8.7	14.7	13.7	13.7
3	3.1	3.1	3.1	4.1	4.1	4.1	9.4	8.4	8.5	14.7	13.7	14.5
4	3.1	3.1	3.1	4.1	4.1	4.1	9.4	8.4	8.7	14.7	13.7	14.3
5	3.1	2.1	3.0	4.1	4.1	4.1	9.4	8.4	8.7	14.7	13.7	14.1
6	3.1	2.1	3.1	4.1	4.1	4.1	9.5	8.4	8.6	14.8	13.7	14.3
7	3.1	3.1	3.1	4.2	4.1	4.2	9.5	8.5	8.7	15.8	13.8	14.8
8	3.1	2.1	3.0	4.2	4.2	4.2	9.5	8.5	8.7	15.8	13.8	14.9
9	3.1	2.1	2.2	5.2	4.2	4.8	10.5	9.5	10.0	15.8	13.8	14.6
10	2.1	2.1	2.1	5.2	4.2	5.0	11.5	9.5	10.4	15.8	14.8	15.0
11	2.1	2.1	2.1	5.2	4.2	4.7	11.5	9.5	10.5	15.8	14.8	15.1
12	2.1	2.1	2.1	5.2	4.2	5.1	11.5	11.5	11.5	15.8	14.8	15.0
13	2.1	2.1	2.1	5.2	5.2	5.2	11.5	10.5	10.9	16.8	14.8	15.5
14	2.1	2.1	2.1	5.2	4.2	5.2	11.5	10.5	10.8	16.8	14.8	16.1
15	2.1	2.1	2.1	6.2	5.2	5.6	11.5	10.5	10.7	18.8	15.8	18.5
16	2.1	2.1	2.1	6.2	6.2	6.2	10.6	9.6	10.3	18.8	17.8	18.6
17	2.1	2.1	2.1	6.3	5.2	5.7	10.6	9.6	10	17.8	16.7	17.3
18	3.1	2.1	2.3	6.3	5.3	5.9	10.6	9.6	10.2	18.7	16.7	17.6
19	3.1	2.1	2.7	6.3	5.3	6.2	9.6	9.6	9.6	19.7	17.7	18.7
20	3.1	3.1	3.1	6.3	5.3	6.1	11.6	9.6	11.2	18.7	16.7	17.9
21	3.1	3.1	3.1	6.3	5.3	5.5	11.6	10.6	10.7	18.7	17.7	18.3
22	3.1	3.1	3.1	6.3	5.3	5.9	12.6	10.6	11.8	18.7	17.7	18.2
23	3.1	3.1	3.1	6.3	5.3	5.8	13.6	12.6	12.8	19.7	16.7	17.8
24	3.1	3.1	3.1	6.3	5.3	5.9	12.6	11.6	12.6	20.7	17.7	19.6
25	3.1	3.1	3.1	6.3	6.3	6.3	12.6	10.6	12.0	20.7	17.7	19.6
26	3.1	3.1	3.1	6.3	6.3	6.3	13.7	11.6	12.5	21.7	19.7	20.4
27	3.1	3.1	3.1	7.4	6.3	6.9	13.7	12.7	13.2	19.7	17.7	19.0
28	3.1	3.1	3.1	7.4	6.4	7.3	13.7	11.7	12.9	20.7	13.7	16.6
29	3.1	3.1	3.1	8.4	6.4	7.4	12.7	11.7	12.7	13.7	13.7	13.7
30	---	---	---	8.4	7.4	8.2	13.7	12.7	13.1	13.7	12.6	13.2
31	---	---	---	8.4	7.4	7.9	---	---	---	20.6	12.6	15.3
MONTH	3.1	2.1	2.7	8.4	3.1	5.5	13.7	8.4	10.6	21.7	12.6	16.3
		JUNE			JULY			AUGUST			SEPTEMBER	
1	20.6	12.6	15.6	22.4	22.4	22.4	23.1	22.1	22.4	22.9	22.9	22.9
2	12.6	10.6	11.4	22.4	22.4	22.4	23.1	22.1	22.2	22.9	21.9	22.8
3	11.6	10.6	11.5	22.4	22.4	22.4	23.1	22.1	22.5	22.9	22.9	22.9
4	12.6	11.6	11.9	22.4	22.4	22.4	23.1	22.1	22.5	22.9	22.9	22.9
5	12.6	11.6	12.5	22.4	21.3	22.3	23.1	23.1	23.1	22.9	21.8	22.6
6	12.6	10.6	11.6	22.3	21.3	22.3	23.1	22.1	22.9	22.8	21.8	22.7
7	22.6	10.6	18.9	23.3	22.3	22.3	23.1	22.1	23.0	23.8	22.8	23.5
8	22.6	22.6	22.6	22.3	21.3	22.2	23.1	22.1	22.7	23.8	23.8	23.8
9	23.6	22.6	22.6	22.3	21.3	21.8	23.1	22.1	22.2	23.8	22.8	23.5
10	23.6	21.6	22.5	22.3	21.3	22.0	23.1	22.1	22.6	23.8	22.8	23.0
11	23.5	21.5	22.4	22.3	21.3	21.8	23.1	22.0	22.2	23.8	22.8	23.0
12	22.5	21.5	21.8	22.3	21.3	22.0	23.0	22.0	22.2	22.8	22.8	22.8
13	22.5	14.5	18.7	22.3	21.3	21.8	23.0	22.0	22.2	22.8	22.8	22.8
14	15.5	11.5	13.1	22.3	21.3	22.0	23.0	22.0	22.2	23.8	22.8	22.8
15	12.5	11.5	12.1	22.3	21.3	21.9	23.0	22.0	22.3	22.8	22.8	22.8
16	12.5	12.5	12.5	22.3	21.3	21.8	23.0	22.0	22.3	22.8	22.8	22.8
17	12.5	12.5	12.5	22.3	21.3	22.2	23.0	22.0	22.2	22.8	22.7	22.8
18	13.5	12.5	12.6	22.3	21.2	22.0	23.0	22.0	22.2	22.7	22.7	22.7
19	13.5	12.5	13.3	22.2	21.2	21.8	23.0	22.0	22.5	22.7	21.7	22.6
20	14.5	13.5	14.0	22.2	21.2	22.0	23.0	22.0	22.2	22.7	21.7	22.1
21	14.5	14.5	14.5	22.2	21.2	22.0	24.0	22.0	23.2	22.7	21.7	22.0
22	15.5	14.5	15.3	22.2	21.2	22.0	23.0	22.0	22.5	22.7	21.7	22.0
23	15.5	14.4	15.2	23.2	21.2	22.3	23.0	22.0	22.7	22.7	21.7	22.0
24	15.4	14.4	14.8	23.2	22.2	22.6	23.0	21.9	22.5	22.7	21.7	21.9
25	15.4	14.4	15.2	23.2	23.2	23.2	22.9	21.9	22.8	22.7	21.7	22.0
26	15.4	14.4	15.0	23.2	22.2	23.1	22.9	21.9	22.8	22.7	21.7	22.0
27	15.4	14.4	15.1	23.2	22.2	23.1	22.9	22.9	22.9	22.7	21.7	22.0
28	25.4	15.4	20.7	23.2	22.2	22.2	22.9	22.9	22.9	21.7	14.7	17.2
29	25.4	22.4	23.8	23.2	22.2	22.4	23.9	22.9	23.0	14.7	14.7	14.7
30	22.4	22.4	22.4	23.2	22.1	22.5	23.9	22.9	23.4	15.6	14.6	14.7
31	---	---	---	23.1	22.1	22.7	22.9	21.9	22.7	---	---	---
MONTH	25.4	10.6	16.2	23.3	21.2	22.3	24.0	21.9	22.6	23.8	14.6	21.9
YEAR	25.4	2.0	13.5									

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, (BROOKVILLE, IN quadrangle), 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 National Geodetic Vertical Datum of 1929. Prior to July 1923, nonrecording gage at same site at datum 1.5 ft higher. July 1923 to Sept. 27, 1928, nonrecording gage at same site and datum.

REMARKS.--Records fair. Flow partially 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

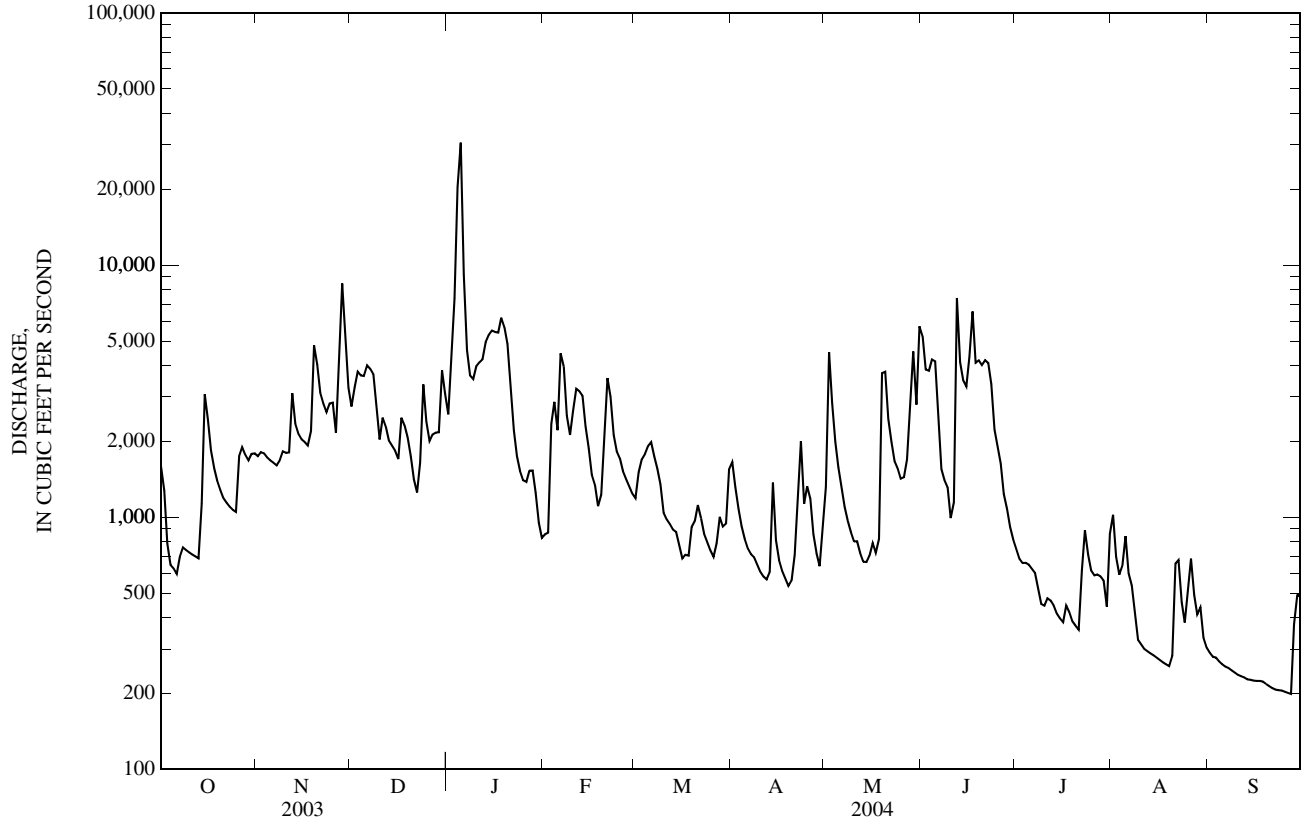
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,580	1,750	2,750	2,560	856	1,190	1,650	1,320	5,210	747	1,020	291
2	1,270	1,810	3,270	4,120	868	1,510	1,320	4,510	3,850	684	696	280
3	785	1,790	3,780	7,380	2,350	1,690	1,080	2,850	3,810	658	591	278
4	647	1,730	3,650	20,400	2,870	1,780	922	1,990	4,220	659	641	268
5	626	1,680	3,630	30,600	2,220	1,910	820	1,580	4,160	649	841	261
6	595	1,640	4,000	9,170	4,470	1,980	750	1,300	2,410	624	599	256
7	695	1,610	3,880	4,600	3,960	1,750	714	1,100	1,550	601	536	252
8	759	1,680	3,690	3,660	2,530	1,560	693	967	1,410	523	420	247
9	741	1,820	2,740	3,540	2,120	1,350	649	875	1,310	453	327	242
10	725	1,800	2,030	3,970	2,640	1,040	607	802	993	446	313	237
11	712	1,810	2,480	4,110	3,230	981	582	803	1,150	476	301	234
12	699	3,100	2,290	4,230	3,170	939	566	719	7,400	467	294	231
13	687	2,350	2,010	4,960	3,030	894	605	667	4,120	447	288	228
14	1,130	2,140	1,920	5,280	2,290	874	1,370	664	3,500	415	283	227
15	3,070	2,040	1,840	5,490	1,880	775	810	705	3,310	397	277	225
16	2,430	1,990	1,700	5,430	1,480	686	674	791	4,330	384	272	224
17	1,840	1,930	2,480	5,400	1,340	710	613	723	6,550	447	266	224
18	1,560	2,200	2,320	6,190	1,110	704	571	820	4,100	420	261	223
19	1,400	4,810	2,070	5,670	1,230	914	534	3,730	4,190	386	256	218
20	1,280	4,030	1,740	4,860	2,200	965	562	3,770	4,020	371	281	214
21	1,190	3,120	1,410	3,140	3,560	1,120	707	2,460	4,190	358	655	210
22	1,140	2,820	1,260	2,210	3,010	989	1,160	1,990	4,090	615	676	207
23	1,100	2,610	1,650	1,750	2,120	860	2,000	1,670	3,370	887	460	206
24	1,070	2,830	3,360	1,520	1,830	798	1,130	1,560	2,220	711	382	205
25	1,050	2,850	2,390	1,400	1,710	740	1,330	1,420	1,910	615	509	203
26	1,750	2,160	2,010	1,380	1,520	697	1,180	1,440	1,630	589	685	201
27	1,900	4,630	2,130	1,530	1,420	787	857	1,690	1,240	593	492	199
28	1,760	8,460	2,170	1,530	1,330	1,000	718	3,000	1,080	583	411	376
29	1,680	5,130	2,170	1,250	1,240	919	640	4,550	918	560	439	490
30	1,790	3,270	3,820	950	---	945	892	2,800	816	442	333	490
31	1,790	---	3,090	828	---	1,550	---	5,710	---	859	304	---
TOTAL	39,451	81,590	79,730	159,108	63,584	34,607	26,706	58,976	93,057	17,066	14,109	7,647
MEAN	1,273	2,720	2,572	5,133	2,193	1,116	890	1,902	3,102	551	455	255
MAX	3,070	8,460	4,000	30,600	4,470	1,980	2,000	5,710	7,400	887	1,020	490
MIN	595	1,610	1,260	828	856	686	534	664	816	358	256	199
CFSM	1.04	2.22	2.10	4.19	1.79	0.91	0.73	1.55	2.53	0.45	0.37	0.21
IN.	1.20	2.48	2.42	4.84	1.93	1.05	0.81	1.79	2.83	0.52	0.43	0.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 2004, BY WATER YEAR (WY)

MEAN	509	943	1,329	1,963	1,988	2,243	2,164	1,795	1,289	788	504	421
MAX	2,796	4,160	5,468	9,401	6,290	5,909	5,146	8,618	5,273	3,390	4,271	4,239
(WY)	(1927)	(1994)	(1991)	(1937)	(1950)	(1963)	(2002)	(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)

03276500 WHITEWATER RIVER AT BROOKVILLE, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1916 - 2004	
ANNUAL TOTAL	705,874		675,631			
ANNUAL MEAN	1,934		1,846		1,324	
HIGHEST ANNUAL MEAN					2,398	1996
LOWEST ANNUAL MEAN					271	1941
HIGHEST DAILY MEAN	8,760	Sep 2	30,600	Jan 5	55,000	Jan 21, 1959
LOWEST DAILY MEAN	327	Aug 27	199	Sep 27	60	Jul 27, 1934
ANNUAL SEVEN-DAY MINIMUM	340	Aug 23	204	Sep 21	66	Sep 25, 1941
MAXIMUM PEAK FLOW			45,700	Jan 5	81,800	Jan 21, 1959
MAXIMUM PEAK STAGE			20.67	Jan 5	27.78	Jan 21, 1959
ANNUAL RUNOFF (CFSM)	1.58		1.51		1.08	
ANNUAL RUNOFF (INCHES)	21.45		20.53		14.70	
10 PERCENT EXCEEDS	4,010		4,020		2,920	
50 PERCENT EXCEEDS	1,510		1,260		647	
90 PERCENT EXCEEDS	564		299		169	



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, (REXVILLE, IN quadrangle), 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 National Geodetic Vertical Datum of 1929, from topographic map.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	7.0	32	37	e18	23	23	299	62	12	30	2.4
2	4.4	6.4	24	222	e19	29	18	405	35	18	10	2.2
3	3.7	6.0	21	81	e20	23	16	95	23	23	4.1	2.5
4	3.8	5.7	19	1,340	e30	356	13	51	17	23	4.0	2.3
5	3.6	5.3	23	415	102	96	12	37	13	19	5.8	2.2
6	3.2	5.3	26	112	387	58	11	27	11	16	3.5	2.0
7	2.9	5.6	20	e73	98	40	11	20	9.0	15	2.8	1.8
8	2.6	4.7	18	e52	47	30	11	16	7.5	13	2.4	1.7
9	2.5	4.1	17	e42	40	26	9.5	13	7.8	12	2.1	1.5
10	2.5	3.7	121	e38	73	21	8.4	11	9.9	20	1.9	1.4
11	2.6	5.7	88	e35	66	19	8.0	10	7.3	30	1.7	1.3
12	2.8	548	43	32	52	17	9.2	8.3	158	38	1.5	1.3
13	2.8	96	32	28	41	15	133	7.6	43	28	1.4	1.1
14	22	39	29	28	e31	14	216	7.4	134	24	1.3	1.1
15	19	38	23	25	e26	13	60	16	726	18	1.2	0.99
16	9.0	34	66	22	e22	27	38	17	417	14	1.1	0.93
17	6.6	25	56	23	e20	32	28	10	115	12	1.0	0.88
18	5.5	165	36	54	e19	24	22	8.7	69	12	1.00	0.91
19	4.6	170	29	e36	21	21	19	283	56	11	0.95	0.82
20	4.2	55	e24	e30	32	19	20	112	42	10	1.2	0.71
21	3.9	35	e23	e26	47	18	26	36	35	9.0	1.8	0.65
22	3.9	26	23	e24	27	15	300	21	31	27	1.7	0.55
23	3.9	21	121	e23	27	14	241	14	26	19	1.4	0.45
24	3.9	84	103	e22	27	14	72	10	23	14	1.4	0.44
25	4.2	41	47	e22	23	13	224	8.0	20	11	1.3	0.33
26	33	29	34	e21	20	12	78	23	19	10	4.2	0.33
27	21	161	28	e21	18	12	45	404	17	9.5	4.3	0.22
28	12	322	24	e20	16	12	32	319	15	8.9	3.0	0.22
29	11	83	53	e19	15	12	25	62	14	8.3	3.4	0.18
30	9.6	47	153	e19	---	14	40	159	13	9.1	3.4	0.17
31	8.0	---	52	e18	---	18	---	313	---	241	2.9	---
TOTAL	228.6	2,078.5	1,408	2,960	1,384	1,057	1,769.1	2,823.0	2,175.5	734.8	107.75	33.58
MEAN	7.37	69.3	45.4	95.5	47.7	34.1	59.0	91.1	72.5	23.7	3.48	1.12
MAX	33	548	153	1,340	387	356	300	405	726	241	30	2.5
MIN	2.5	3.7	17	18	15	12	8.0	7.4	7.3	8.3	0.95	0.17
CFSM	0.27	2.52	1.65	3.47	1.74	1.24	2.14	3.31	2.64	0.86	0.13	0.04
IN.	0.31	2.81	1.90	4.00	1.87	1.43	2.39	3.82	2.94	0.99	0.15	0.05

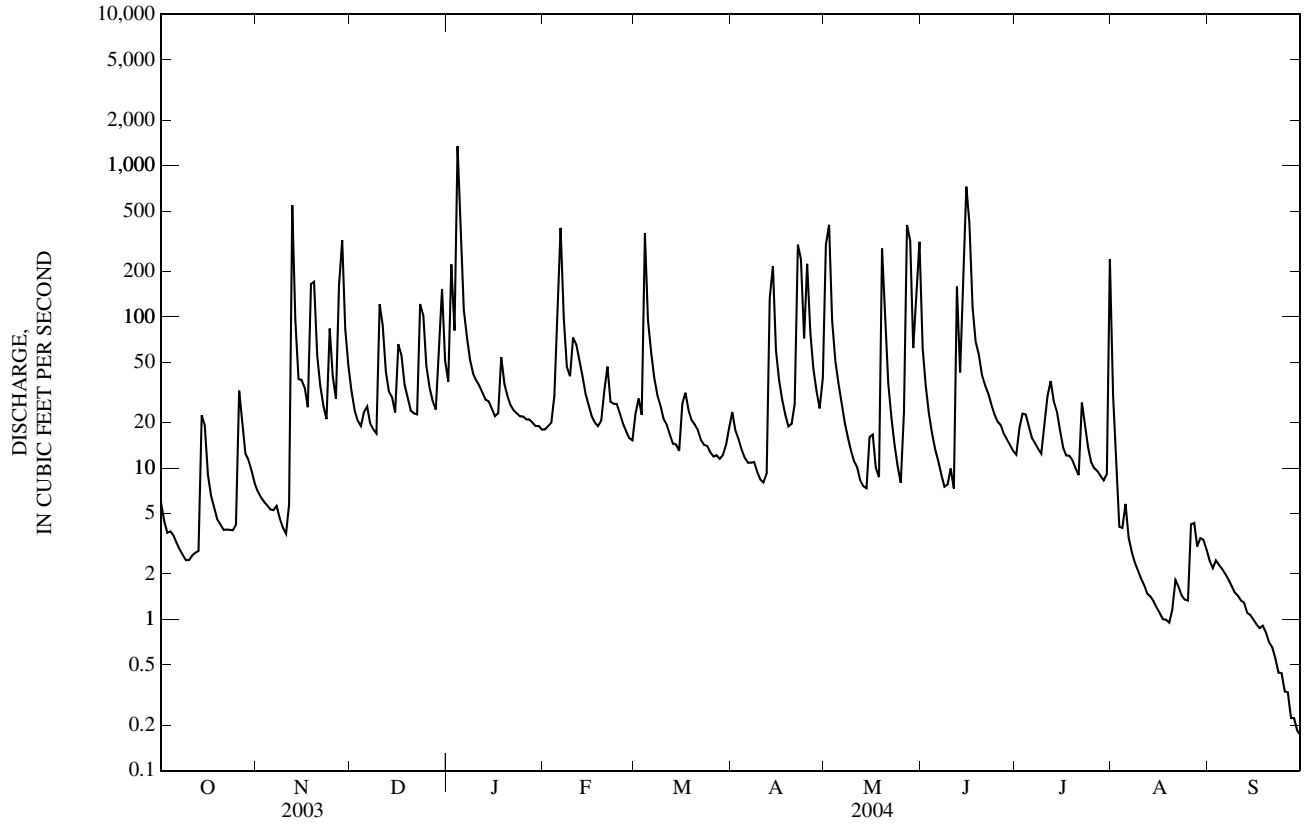
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2004, BY WATER YEAR (WY)

MEAN	12.7	33.7	52.9	51.8	57.7	65.9	62.1	53.4	31.8	16.0	13.4	11.7
MAX	104	137	173	169	136	134	216	198	152	60.5	78.9	81.9
(WY)	(2002)	(1980)	(1991)	(1982)	(1990)	(1975)	(1996)	(1996)	(1996)	(2000)	(1995)	(2001)
MIN	0.00	0.00	3.95	0.60	5.24	11.7	5.68	3.82	0.44	0.12	0.00	0.00
(WY)	(1988)	(2000)	(1977)	(1977)	(1992)	(1983)	(2001)	(1992)	(1988)	(1975)	(1999)	(1987)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1970 - 2004	
ANNUAL TOTAL	14,756.00		16,759.83			
ANNUAL MEAN	40.4		45.8		38.5	
HIGHEST ANNUAL MEAN					77.2	1996
LOWEST ANNUAL MEAN					17.0	1988
HIGHEST DAILY MEAN	715	Feb 22	1,340	Jan 4	2,370	Apr 29, 1996
LOWEST DAILY MEAN	0.66	Aug 26	0.17	Sep 30	0.00	Oct 1, 1969
ANNUAL SEVEN-DAY MINIMUM	0.84	Aug 20	0.27	Sep 24	0.00	Jun 27, 1970
MAXIMUM PEAK FLOW			2,990	Jun 15	7,800	May 16, 1990
MAXIMUM PEAK STAGE			8.23	Jun 15	11.34	May 16, 1990
ANNUAL RUNOFF (CFSM)	1.47		1.67		1.40	
ANNUAL RUNOFF (INCHES)	19.96		22.67		19.02	
10 PERCENT EXCEEDS	84		97		80	
50 PERCENT EXCEEDS	16		19		9.2	
90 PERCENT EXCEEDS	2.0		1.7		0.11	

e Estimated

03291780 INDIAN-KENTUCK CREEK NEAR CANAAN, IN—Continued



03294000 SILVER CREEK NEAR SELLERSBURG, IN

LOCATION.--Lat 38°22'14", long 85°43'35", in lot 68, Clark Military Grant, Clark County, Hydrologic Unit 05140101, (JEFFERSONVILLE, IN quadrangle), 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 National Geodetic Vertical Datum of 1929, (levels by State of Indiana, Department of Natural Resources). Prior to Oct. 6, 1976, and Feb. 15 to Sept. 20, 1984 nonrecording gage and crest-stage gage at same site and datum.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	78	275	251	e120	91	237	2,010	2,020	8.6	115	8.7
2	42	65	212	2,130	148	142	184	3,530	573	9.3	51	6.5
3	33	60	174	1,590	1,240	126	149	1,410	346	13	35	5.1
4	30	56	154	3,800	640	1,510	124	586	258	12	32	5.2
5	26	53	166	5,090	558	797	106	381	208	10	24	4.7
6	23	49	183	1,930	1,480	564	95	283	174	16	23	3.4
7	26	49	151	607	787	374	93	228	142	27	22	2.5
8	19	45	132	417	e433	277	85	189	116	18	15	2.1
9	16	38	118	338	e352	229	74	154	101	12	12	2.1
10	26	36	280	275	e285	192	66	128	192	172	10	2.1
11	28	35	446	231	e259	170	63	108	102	75	13	2.5
12	30	479	245	213	e237	154	71	91	85	77	8.4	2.3
13	20	410	191	192	e212	134	334	81	104	42	5.2	2.1
14	53	187	179	174	e196	120	1,680	90	112	60	4.4	1.8
15	133	157	172	163	e178	112	778	165	79	76	4.5	1.7
16	74	159	200	140	e164	271	389	206	64	37	5.2	2.2
17	49	129	338	129	e142	340	274	124	57	1,830	5.7	6.3
18	41	207	232	494	e135	230	218	103	56	1,210	5.3	5.9
19	35	885	237	402	e137	189	182	83	81	247	4.9	5.6
20	31	398	202	234	e133	164	159	78	83	147	7.0	4.4
21	27	248	165	206	e134	165	148	66	44	96	18	2.9
22	24	190	158	184	e135	139	169	52	34	72	17	1.7
23	24	156	202	145	e140	123	576	42	27	62	11	0.93
24	24	515	465	143	139	116	494	35	21	48	6.8	0.60
25	21	406	288	113	124	116	793	102	17	34	8.2	0.45
26	497	236	213	129	107	102	729	1,780	16	29	63	0.39
27	404	662	180	150	98	99	363	e5,350	14	30	205	0.81
28	183	1,590	161	143	90	98	253	e7,420	15	23	58	1.5
29	134	753	165	132	85	96	204	e6,020	15	23	30	1.8
30	105	405	561	119	---	137	320	1,400	10	25	24	1.9
31	87	---	331	e110	---	278	---	4,040	---	295	13	---
TOTAL	2,320	8,736	7,176	20,374	8,888	7,655	9,410	36,335	5,166	4,835.9	856.6	90.18
MEAN	74.8	291	231	657	306	247	314	1,172	172	156	27.6	3.01
MAX	497	1,590	561	5,090	1,480	1,510	1,680	7,420	2,020	1,830	205	8.7
MIN	16	35	118	110	85	91	63	35	10	8.6	4.4	0.39
CFSM	0.40	1.54	1.22	3.48	1.62	1.31	1.66	6.20	0.91	0.83	0.15	0.02
IN.	0.46	1.72	1.41	4.01	1.75	1.51	1.85	7.15	1.02	0.95	0.17	0.02

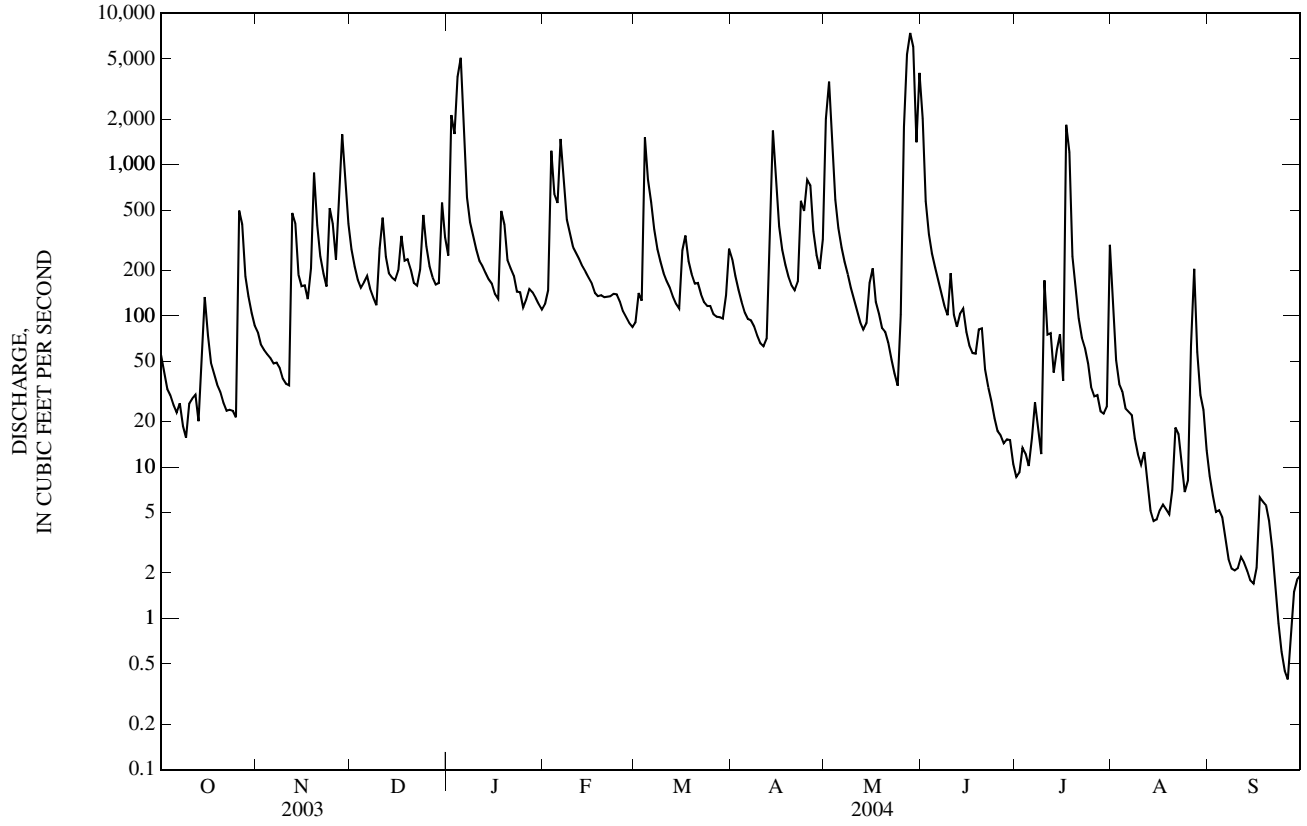
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 2004, BY WATER YEAR (WY)

MEAN	38.1	123	258	314	412	508	394	345	161	70.4	46.0	39.4
MAX	384	805	862	1,150	1,323	2,252	1,117	1,369	1,337	316	514	390
(WY)	(2002)	(1980)	(1979)	(1959)	(1956)	(1964)	(1970)	(1983)	(1960)	(1973)	(1978)	(1979)
MIN	0.21	0.61	0.60	5.43	32.0	112	68.7	25.4	3.07	2.75	0.53	0.12
(WY)	(1965)	(1964)	(1964)	(1977)	(1992)	(1981)	(2001)	(1988)	(1988)	(1959)	(1999)	(1999)

03294000 SILVER CREEK NEAR SELLERSBURG, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1955 - 2004	
ANNUAL TOTAL	93,365.0		111,842.68			
ANNUAL MEAN	256		306		225	
HIGHEST ANNUAL MEAN					423	1997
LOWEST ANNUAL MEAN					92.8	1981
HIGHEST DAILY MEAN	4,000	Jan 1	e 7,420	May 28	15,100	Mar 10, 1964
LOWEST DAILY MEAN	2.4	Aug 21	0.39	Sep 26	0.00	Oct 1, 1954
ANNUAL SEVEN-DAY MINIMUM	3.2	Aug 18	0.91	Sep 22	0.00	Oct 1, 1954
MAXIMUM PEAK FLOW			8,730	May 28	19,600	Jan 22, 1959
MAXIMUM PEAK STAGE			24.46	May 28	30.89	Jan 22, 1959
INSTANTANEOUS LOW FLOW			1.4	Sep 26		
ANNUAL RUNOFF (CFSM)	1.35		1.62		1.19	
ANNUAL RUNOFF (INCHES)	18.38		22.01		16.16	
10 PERCENT EXCEEDS	519		562		477	
50 PERCENT EXCEEDS	127		124		54	
90 PERCENT EXCEEDS	14		6.7		3.1	

e Estimated



03302220 BUCK CREEK NEAR NEW MIDDLETOWN, IN

LOCATION.--Lat 38°07'13", long 86°05'17", in SE¼NE¼ sec.32, T.4 S., R.4 E., Harrison County, Hydrologic Unit 05140104, (LACONIA, IN quadrangle), 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: 197l(P).

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

REMARKS.--Records good 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	54	100	106	e65	32	46	312	331	e13	e15	e10
2	42	51	80	569	e220	32	45	882	316	e12	e14	e11
3	38	50	70	294	698	39	42	328	181	e12	e14	e11
4	36	49	65	359	282	895	39	168	132	e12	e14	e10
5	34	48	63	1,000	320	364	36	125	101	e13	e51	e9.0
6	34	48	60	341	651	248	35	101	81	e16	e17	e8.1
7	34	47	55	189	285	155	34	94	66	e36	e12	e7.3
8	39	46	53	147	157	119	33	69	57	e29	e11	e9.4
9	42	45	51	119	130	100	30	56	52	e28	e9.7	e9.5
10	41	45	71	95	109	80	27	46	50	e37	e10	e8.2
11	42	47	83	82	96	71	26	40	43	e32	e10	e7.1
12	47	253	72	74	85	63	33	37	90	e129	e11	e7.2
13	46	198	66	66	75	56	203	35	70	e47	e12	e6.9
14	69	113	66	61	71	53	381	36	57	e46	e12	e6.5
15	71	99	58	57	66	48	187	235	54	e30	e12	e6.4
16	58	93	75	52	58	63	123	147	56	e23	e13	e6.6
17	54	81	105	52	54	67	93	93	51	e20	e13	e6.3
18	51	134	94	193	50	59	75	75	40	e16	e14	e5.4
19	49	268	86	145	49	53	64	64	38	e13	e14	e5.2
20	48	169	76	107	49	54	57	66	31	e13	e18	e5.2
21	50	119	69	91	45	65	55	54	27	e12	e21	e4.8
22	49	95	66	80	41	54	56	47	24	e12	e17	e4.7
23	49	81	149	68	38	50	135	41	20	e14	e16	e4.2
24	48	188	220	65	38	47	122	37	17	e13	e16	e4.6
25	47	136	139	61	36	44	340	227	16	e12	e18	e5.1
26	115	108	105	63	35	42	228	812	15	e13	e58	e4.6
27	103	207	86	100	33	40	135	1,550	14	e15	e23	e5.1
28	83	383	76	79	30	38	94	2,460	14	e14	e14	e4.9
29	73	209	101	73	30	40	76	531	14	e14	e12	e4.5
30	64	142	214	70	---	47	97	354	14	e14	e11	e4.1
31	58	---	135	e68	---	49	---	816	---	e17	e11	---
TOTAL	1,663	3,606	2,809	4,926	3,896	3,167	2,947	9,938	2,072	727	513.7	202.9
MEAN	53.6	120	90.6	159	134	102	98.2	321	69.1	23.5	16.6	6.76
MAX	115	383	220	1,000	698	895	381	2,460	331	129	58	11
MIN	34	45	51	52	30	32	26	35	14	12	9.7	4.1
CFSM	1.45	3.24	2.44	4.28	3.62	2.75	2.65	8.64	1.86	0.63	0.45	0.18
IN.	1.67	3.62	2.82	4.94	3.91	3.18	2.95	9.96	2.08	0.73	0.52	0.20

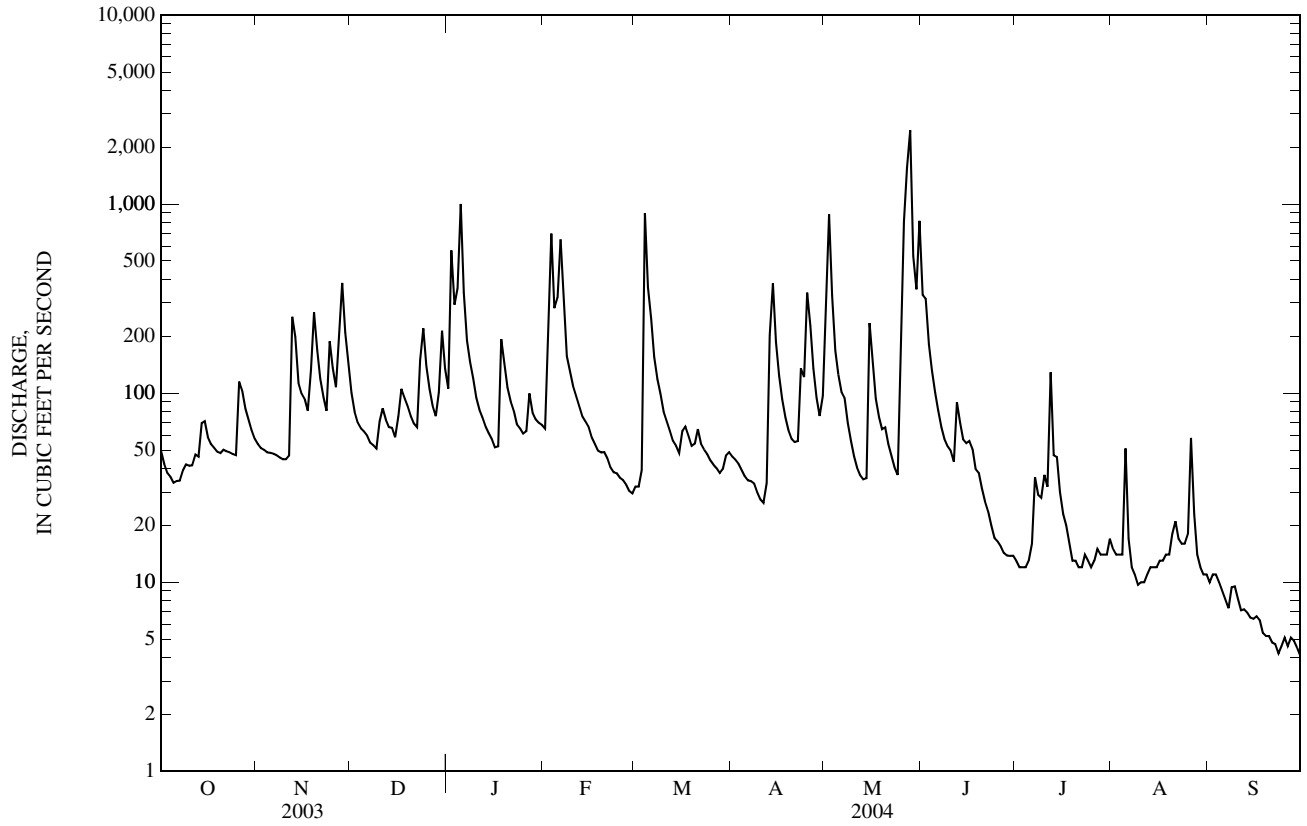
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2004, BY WATER YEAR (WY)

MEAN	18.6	54.7	99.9	110	134	155	137	113	59.8	27.5	16.1	18.8
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	0.76	3.16	6.01	2.64	24.8	40.4	21.9	16.3	1.56	4.59	1.45	0.72
(WY)	(1988)	(1988)	(1977)	(1977)	(1992)	(1983)	(2001)	(1976)	(1988)	(1975)	(1999)	(1987)

03302220 BUCK CREEK NEAR NEW MIDDLETOWN, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1970 - 2004	
ANNUAL TOTAL	31,746.1		36,467.6			
ANNUAL MEAN	87.0		99.6		78.5	
HIGHEST ANNUAL MEAN					150	1997
LOWEST ANNUAL MEAN					32.8	1981
HIGHEST DAILY MEAN	1,140	Feb 22	2,460	May 28	5,610	Mar 2, 1997
LOWEST DAILY MEAN	8.1	Jul 20	e 4.1	Sep 30	0.52	Jul 10, 1988
ANNUAL SEVEN-DAY MINIMUM	11	Jul 14	e 4.7	Sep 24	0.57	Jul 4, 1988
MAXIMUM PEAK FLOW			6,360	May 28	20,500	Mar 2, 1997
MAXIMUM PEAK STAGE			10.92	May 28	17.26	Mar 2, 1997
ANNUAL RUNOFF (CFSM)	2.34		2.69		2.11	
ANNUAL RUNOFF (INCHES)	31.83		36.57		28.73	
10 PERCENT EXCEEDS	184		208		175	
50 PERCENT EXCEEDS	51		52		28	
90 PERCENT EXCEEDS	19		11		3.4	

e Estimated



03302680 WEST FORK BLUE RIVER AT SALEM, IN

LOCATION.--Lat 38°36'19", long 86°05'40", in SW¼SE¼ sec.17, T.2 N., R.4 E., Washington County, Hydrologic Unit 05140104, (SALEM, IN quadrangle), 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 National Geodetic Vertical Datum of 1929.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	e2.4	27	22	11	13	9.9	200	79	3.4	6.3	2.4
2	1.0	e2.1	22	195	23	13	9.0	304	45	3.5	5.1	2.0
3	0.95	e2.0	19	81	106	16	8.6	95	30	4.7	4.6	1.8
4	1.0	e1.9	17	538	45	135	8.0	54	24	5.8	4.2	1.6
5	1.0	e1.8	19	246	70	66	7.5	40	20	8.1	4.4	1.5
6	1.0	e2.3	17	88	112	50	7.3	31	16	8.3	4.0	1.2
7	1.0	e2.0	16	54	50	38	7.3	24	13	5.7	3.5	1.1
8	1.0	e2.0	15	42	36	32	7.2	18	11	4.7	3.4	1.0
9	0.94	e1.8	14	35	35	27	6.6	15	9.9	35	3.2	0.97
10	0.98	e1.7	23	28	37	21	6.1	13	9.1	19	3.0	0.93
11	1.0	4.0	26	24	34	e18	5.9	11	8.3	12	3.0	0.87
12	1.0	23	22	22	30	e16	6.0	9.5	59	8.5	3.0	0.72
13	1.0	9.1	20	18	26	e15	14	11	25	7.2	2.8	0.71
14	2.1	5.5	19	16	23	e13	49	10	15	11	2.8	0.67
15	3.6	5.3	16	15	20	e14	44	20	12	8.3	2.5	0.60
16	2.6	5.0	24	13	16	16	31	19	10	6.6	2.5	0.62
17	e1.9	4.1	28	14	15	14	22	16	8.9	281	2.5	0.61
18	e1.7	36	25	33	13	13	17	13	8.6	48	2.3	0.60
19	e1.6	91	23	30	13	11	14	11	11	27	2.4	0.60
20	e1.3	42	19	24	15	11	14	10	7.9	19	3.7	0.56
21	e1.1	28	18	21	16	11	13	8.8	6.7	14	4.1	0.55
22	e0.99	22	18	19	14	9.7	21	7.7	6.5	14	3.2	0.52
23	e0.98	19	21	20	14	9.3	29	7.1	5.7	13	2.7	0.42
24	e1.0	43	24	15	14	9.1	21	6.5	5.1	9.4	2.9	0.40
25	3.3	31	22	18	13	8.6	36	34	4.6	8.2	4.2	0.38
26	16	25	19	18	12	8.2	33	116	4.5	8.2	14	0.35
27	6.6	81	17	14	12	8.2	26	2,170	4.1	7.6	7.1	0.35
28	4.2	129	16	13	11	7.7	20	526	3.7	6.4	20	0.32
29	3.5	61	19	11	11	8.7	16	99	3.6	5.5	13	0.30
30	e3.0	38	28	12	---	9.2	26	127	3.4	5.4	4.6	0.28
31	e2.7	---	24	11	---	9.5	---	209	---	11	3.1	---
TOTAL	71.04	722.0	637	1,710	847	651.2	535.4	4,235.6	470.6	629.5	148.1	24.93
MEAN	2.29	24.1	20.5	55.2	29.2	21.0	17.8	137	15.7	20.3	4.78	0.83
MAX	16	129	28	538	112	135	49	2,170	79	281	20	2.4
MIN	0.94	1.7	14	11	11	7.7	5.9	6.5	3.4	3.4	2.3	0.28
CFSM	0.12	1.27	1.08	2.90	1.54	1.11	0.94	7.19	0.83	1.07	0.25	0.04
IN.	0.14	1.41	1.25	3.35	1.66	1.27	1.05	8.29	0.92	1.23	0.29	0.05

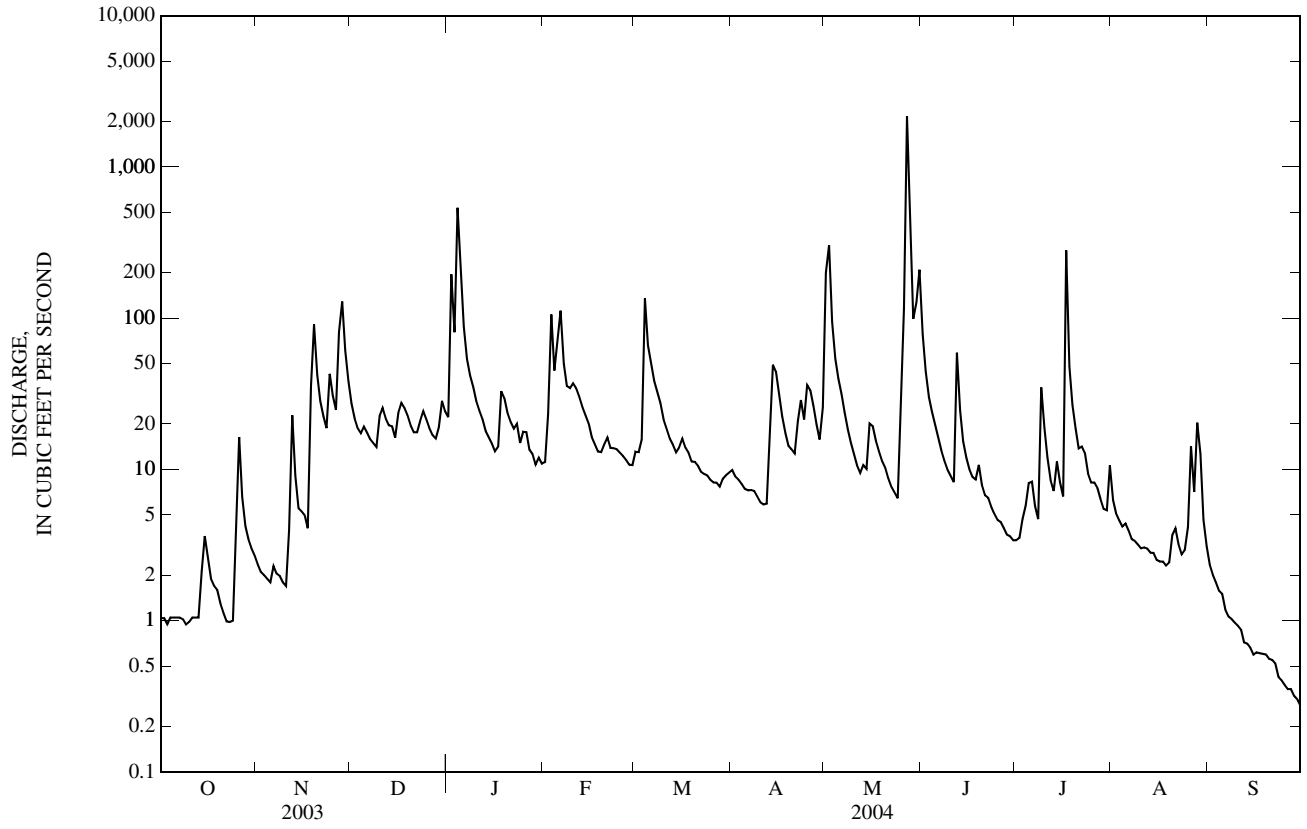
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2004, BY WATER YEAR (WY)

MEAN	6.84	22.0	33.8	33.6	41.5	43.5	43.3	37.1	15.0	12.2	6.82	6.06
MAX	45.7	89.9	108	103	106	104	164	140	80.3	65.7	30.5	40.0
(WY)	(1984)	(1986)	(2002)	(1982)	(1989)	(1989)	(1996)	(1983)	(1997)	(1988)	(1985)	(1982)
MIN	0.14	0.29	2.33	0.97	5.41	9.65	2.83	1.91	0.09	0.29	0.13	0.02
(WY)	(1988)	(2000)	(1977)	(1977)	(1992)	(1976)	(2001)	(1988)	(1988)	(1991)	(1987)	(1999)

03302680 WEST FORK BLUE RIVER AT SALEM, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1970 - 2004	
ANNUAL TOTAL	8,377.39		10,682.37			
ANNUAL MEAN	23.0		29.2		25.1	
HIGHEST ANNUAL MEAN					43.4	2002
LOWEST ANNUAL MEAN					10.7	1981
HIGHEST DAILY MEAN	580	Feb 22	2,170	May 27	2,170	May 27, 2004
LOWEST DAILY MEAN	0.44	Sep 19	0.28	Sep 30	0.00	Sep 3, 1999
ANNUAL SEVEN-DAY MINIMUM	0.52	Sep 15	0.34	Sep 24	0.00	Sep 14, 1999
MAXIMUM PEAK FLOW			8,490	May 27	8,490	May 27, 2004
MAXIMUM PEAK STAGE			17.12	May 27	17.12	May 27, 2004
INSTANTANEOUS LOW FLOW			0.01	Sep 30	0.01	Sep 30, 2004
ANNUAL RUNOFF (CFSM)	1.21		1.54		1.32	
ANNUAL RUNOFF (INCHES)	16.40		20.91		17.96	
10 PERCENT EXCEEDS	58		42		55	
50 PERCENT EXCEEDS	5.8		11		7.3	
90 PERCENT EXCEEDS	0.96		1.0		0.44	

e Estimated



03302800 BLUE RIVER AT FREDERICKSBURG, IN

LOCATION.--Lat 38°26'02", long 86°11'30", in NE¼NW¼ sec.16, T.1 S., R.3 E., Washington County, Hydrologic Unit 05140104, (FREDERICKSBURG, IN quadrangle), 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 National Geodetic Vertical Datum of 1929.

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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	69	533	382	e150	159	256	3,910	1,690	53	91	55
2	23	61	372	3,150	e196	211	247	6,430	1,030	55	62	42
3	20	53	290	1,820	1,950	193	222	2,160	768	56	50	40
4	e19	48	247	4,550	1,030	1,980	197	1,170	619	63	46	38
5	e18	46	240	6,430	833	1,350	171	852	513	79	50	28
6	e18	47	257	1,770	2,240	1,020	154	665	434	87	40	23
7	e17	40	212	1,050	1,240	766	147	526	368	97	34	e20
8	e17	39	193	808	779	618	143	416	316	76	30	e19
9	e17	44	179	674	631	506	128	347	274	119	29	e18
10	e16	42	221	547	609	402	113	289	246	742	29	e17
11	16	41	489	449	629	343	105	248	222	321	28	e16
12	16	171	368	399	548	300	101	214	272	256	27	e16
13	14	455	293	346	472	253	134	187	435	154	27	e15
14	19	228	274	304	415	229	923	187	250	133	27	e15
15	74	169	237	279	374	210	1,060	236	208	150	26	e15
16	60	154	252	242	303	273	641	361	183	106	25	e14
17	41	133	567	225	274	379	455	257	156	1,650	25	e14
18	30	150	447	489	246	309	343	222	197	807	25	e13
19	28	1,130	411	619	236	266	279	208	193	382	25	e13
20	25	784	326	428	251	236	241	426	189	231	25	e13
21	21	489	265	370	275	237	231	217	136	162	27	e12
22	17	336	250	320	241	204	235	168	126	128	28	e12
23	16	256	260	251	221	186	746	139	116	211	24	e12
24	17	448	491	261	216	177	718	116	101	138	24	e11
25	18	601	399	220	205	166	1,340	108	93	102	37	e11
26	433	402	309	208	183	156	1,140	1,190	85	87	425	e11
27	505	757	256	249	172	153	699	7,140	78	79	516	e11
28	221	1,930	230	212	159	148	522	17,000	66	74	133	e10
29	146	1,120	218	200	152	144	395	3,650	61	66	708	e10
30	114	724	548	e170	---	176	421	1,570	57	62	197	e9.6
31	84	---	487	e155	---	239	---	4,780	---	76	93	---
TOTAL	2,107	10,967	10,121	27,577	15,230	11,989	12,507	55,389	9,482	6,802	2,933	553.6
MEAN	68.0	366	326	890	525	387	417	1,787	316	219	94.6	18.5
MAX	505	1,930	567	6,430	2,240	1,980	1,340	17,000	1,690	1,650	708	55
MIN	14	39	179	155	150	144	101	108	57	53	24	9.6
CFSM	0.24	1.29	1.15	3.14	1.86	1.37	1.47	6.31	1.12	0.78	0.33	0.07
IN.	0.28	1.44	1.33	3.62	2.00	1.58	1.64	7.28	1.25	0.89	0.39	0.07

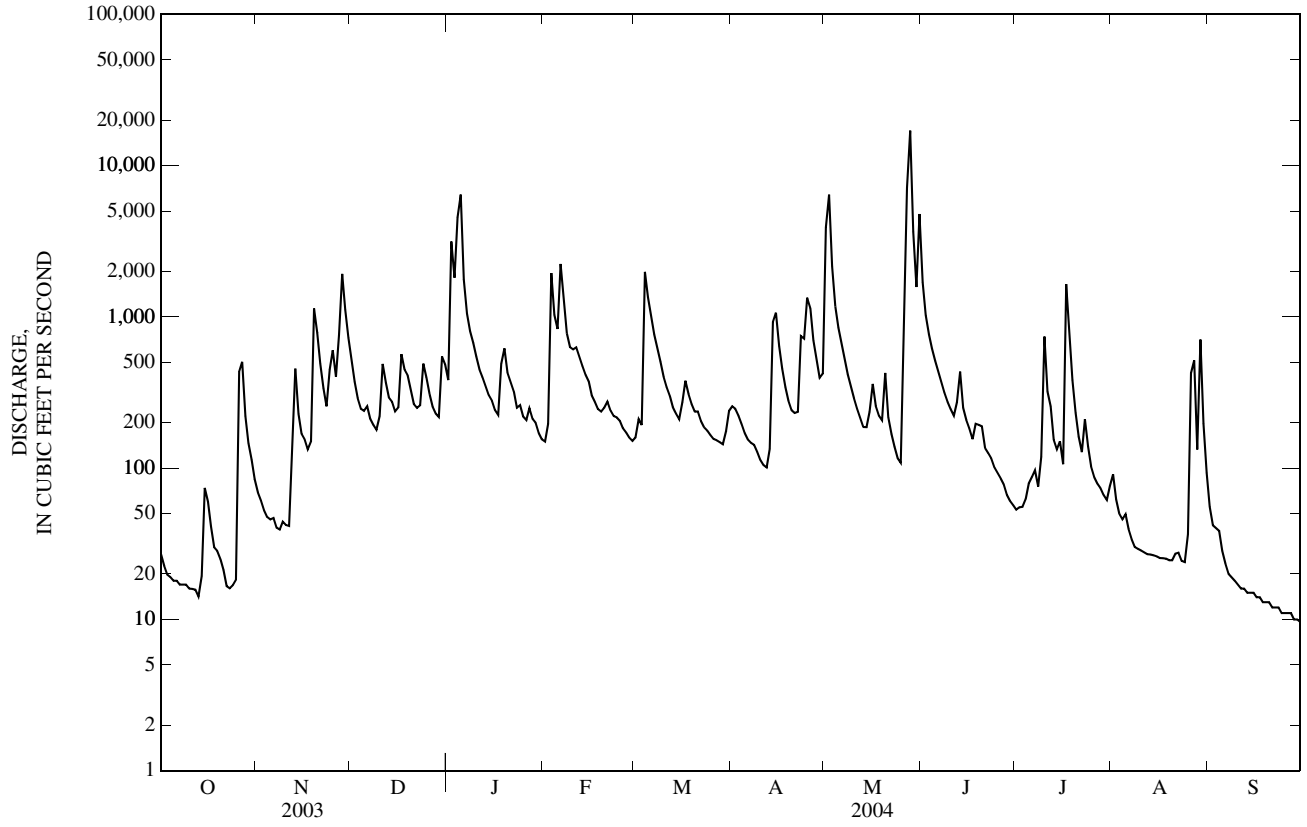
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2004, BY WATER YEAR (WY)

MEAN	70.0	243	420	477	553	610	588	500	253	138	86.6	67.3
MAX	463	1,135	1,303	1,341	1,236	1,372	1,957	1,808	1,188	588	463	299
(WY)	(2002)	(1980)	(2002)	(1982)	(1990)	(1997)	(1996)	(1983)	(1997)	(1973)	(1977)	(1996)
MIN	3.45	6.74	29.4	11.6	56.1	142	83.9	35.2	8.36	13.1	9.55	4.25
(WY)	(1998)	(2000)	(1977)	(1977)	(1992)	(1969)	(2001)	(1988)	(1988)	(1991)	(1999)	(1999)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1969 - 2004	
ANNUAL TOTAL	130,354.7		165,657.6			
ANNUAL MEAN	357		453		333	
HIGHEST ANNUAL MEAN					551	1996
LOWEST ANNUAL MEAN					129	1992
HIGHEST DAILY MEAN	4,940	Feb 23	17,000	May 28	22,000	Apr 29, 1996
LOWEST DAILY MEAN	8.9	Sep 21	e 9.6	Sep 30	e 1.8	Nov 15, 1999
ANNUAL SEVEN-DAY MINIMUM	11	Aug 24	e 11	Sep 24	1.8	Nov 12, 1999
MAXIMUM PEAK FLOW			23,900	May 28	39,000	Apr 29, 1996
MAXIMUM PEAK STAGE			25.43	May 28	27.15	Apr 29, 1996
ANNUAL RUNOFF (CFSM)	1.26		1.60		1.18	
ANNUAL RUNOFF (INCHES)	17.13		21.78		15.98	
10 PERCENT EXCEEDS	786		807		752	
50 PERCENT EXCEEDS	168		210		116	
90 PERCENT EXCEEDS	17		19		14	

e Estimated

03302800 BLUE RIVER AT FREDERICKSBURG, IN—Continued



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, (HARDINSBURG, IN quadrangle), on left (north) bank approximately 100 ft upstream from bridge in Marengo, approximately 100 ft upstream of the intersection of North Main Street and North Water Street in Marengo, known as Old Town, .1 mi northwest of the intersection of State Highway 64 and North Main Street in Marengo, and .6 mi west of the intersection of State Highway 64 and State Highway 66.

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 National Geodetic Vertical Datum of 1929.

REMARKS.--Stage affected at times by inflow from small cave 50 ft below gage. Stages of 0.90 ft or less are below the gage intake level.

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, 7.12 ft, May 28; minimum gage height, undetermined below 0.90 ft. Period from Sept. 11 - 30 is known to be below 0.90 ft.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.43	1.43	1.76	1.82	1.68	1.72	2.10	3.37	2.18	1.46	1.33	1.35
2	1.43	1.43	1.70	2.59	2.86	1.72	1.95	2.85	2.10	1.46	1.32	1.35
3	1.43	1.43	1.62	2.36	2.44	3.32	1.86	2.35	1.88	1.46	1.32	1.35
4	1.43	1.43	1.62	4.00	2.18	2.53	1.80	2.12	1.75	1.46	1.32	1.35
5	1.43	1.43	1.63	2.48	2.76	2.45	1.74	1.96	1.75	1.46	1.32	1.35
6	1.42	1.43	1.62	2.18	2.47	2.36	1.74	1.86	1.62	1.46	1.23	1.24
7	1.31	1.43	1.62	2.08	2.16	2.11	1.74	1.74	1.58	1.46	1.20	1.15
8	1.32	1.43	1.62	1.96	2.08	2.00	1.74	1.74	1.58	1.46	1.14	1.12
9	1.31	1.43	1.55	1.91	2.08	1.92	1.63	1.63	2.27	1.46	1.14	0.99
10	1.31	1.43	1.89	1.76	2.00	1.82	1.59	1.60	1.88	1.46	1.03	0.97
11	1.31	1.43	1.78	1.76	1.99	1.76	1.59	1.60	1.69	1.38	1.00	---
12	1.31	1.93	1.74	1.70	1.96	1.76	1.59	1.52	2.14	1.51	1.00	---
13	1.31	1.74	1.74	1.70	1.92	1.68	2.84	1.71	1.95	1.52	1.00	---
14	1.48	1.57	1.74	1.70	1.92	1.68	2.43	1.81	1.76	1.52	0.95	---
15	1.41	1.57	1.64	1.70	1.92	1.66	2.19	2.12	1.76	1.46	0.94	---
16	1.41	1.57	1.87	1.70	1.74	1.84	2.05	1.94	1.64	1.45	0.94	---
17	1.41	1.57	1.81	1.73	1.74	1.81	1.89	1.77	1.60	1.43	1.03	---
18	1.41	2.64	1.80	2.18	1.68	1.75	1.84	1.67	1.54	1.42	0.94	---
19	1.41	2.04	1.78	1.95	1.68	1.75	1.74	1.68	1.54	1.42	0.94	---
20	1.41	1.85	1.72	1.84	1.71	1.75	1.72	1.67	1.53	1.42	1.27	---
21	1.41	1.69	1.72	1.84	1.67	1.75	1.72	1.56	1.53	1.42	1.27	---
22	1.41	1.62	1.72	1.73	1.65	1.75	2.23	1.56	1.53	1.37	1.21	---
23	1.41	1.62	1.82	1.69	1.65	1.67	2.42	1.49	1.53	1.37	1.11	---
24	1.41	2.11	1.78	1.69	1.65	1.66	2.18	1.48	1.47	1.34	1.36	---
25	1.51	1.94	1.75	1.69	1.65	1.64	2.33	3.14	1.47	1.34	1.32	---
26	1.75	1.75	1.71	1.69	1.65	1.63	2.12	4.77	1.46	1.34	1.54	---
27	1.55	2.52	1.71	1.78	1.65	1.63	2.03	6.98	1.46	1.34	1.45	---
28	1.48	2.29	1.62	1.76	1.56	1.63	1.90	2.58	1.46	1.33	1.45	---
29	1.44	2.00	2.14	1.75	1.56	1.68	1.83	2.21	1.46	1.33	1.45	---
30	1.43	1.91	1.96	1.68	---	2.21	2.12	2.68	1.46	1.32	1.36	---
31	1.43	---	1.93	1.68	---	2.10	---	2.44	---	1.35	1.35	---
MEAN	1.42	1.72	1.75	1.94	1.92	1.89	1.96	2.25	1.69	1.42	1.20	---
MAX	1.75	2.64	2.14	4.00	2.86	3.32	2.84	6.98	2.27	1.52	1.54	---
MIN	1.31	1.43	1.55	1.68	1.56	1.63	1.59	1.48	1.46	1.32	0.94	---

CAL YR 2003 MEAN 1.66 MAX 3.39 MIN 1.26

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, (CORYDON WEST, IN quadrangle), 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 National Geodetic Vertical Datum of 1929, (levels by State of Indiana, Department of Natural Resources). Prior to Nov. 16, 1938, nonrecording gage at same site and datum.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	145	206	915	752	e370	362	624	6,200	4,570	179	e237	e212
2	116	176	709	3,220	e500	402	604	12,500	2,330	170	e193	e177
3	98	154	590	5,110	2,450	440	563	6,020	1,580	165	e171	e163
4	87	142	525	6,040	2,500	2,420	520	2,640	1,220	168	e161	e159
5	77	129	485	12,400	1,510	3,100	476	1,730	1,010	170	e154	e146
6	70	123	469	5,030	3,130	1,990	441	1,300	881	198	e162	e134
7	64	118	459	2,240	2,730	1,510	422	1,030	777	252	e148	e125
8	60	112	416	1,540	1,580	1,170	410	856	692	230	e139	e118
9	58	102	392	1,230	1,180	964	392	735	645	196	e134	e115
10	55	98	413	1,010	1,030	821	366	647	799	338	e130	e112
11	51	103	535	861	1,020	712	347	575	605	727	e128	e106
12	45	465	657	769	961	645	342	520	849	664	e125	e99
13	41	761	557	698	855	578	494	483	1,140	515	e124	e95
14	59	586	516	635	776	528	1,460	459	784	447	e122	e90
15	87	425	488	587	717	494	1,800	535	612	380	e121	e87
16	102	364	481	541	651	611	1,270	634	540	356	e120	e84
17	189	330	638	507	570	722	930	613	500	310	e118	e81
18	133	376	772	766	538	692	750	528	471	2,010	e117	e78
19	105	1,210	690	1,100	507	607	642	485	536	708	e116	e75
20	90	1,530	642	882	504	554	570	563	475	477	e114	e72
21	81	881	564	728	512	537	531	551	449	e325	e110	e70
22	77	640	516	666	505	515	524	439	392	e281	e107	e68
23	69	516	522	602	464	475	1,240	388	358	e356	e113	e66
24	63	649	624	531	445	454	1,450	355	326	e301	e120	e64
25	58	927	731	527	432	435	1,820	813	297	e254	e100	e62
26	313	751	636	487	415	416	2,610	3,320	270	e214	e100	e59
27	781	927	561	531	391	401	1,440	7,310	247	e200	e420	e57
28	563	2,550	512	545	373	394	1,050	19,100	229	e192	e505	e54
29	367	2,240	492	483	357	391	846	16,500	209	e183	e320	e52
30	282	1,260	687	e450	---	421	797	3,320	192	e176	e702	e49
31	242	---	896	e390	---	601	---	7,020	---	e172	e336	---
TOTAL	4,628	18,851	18,090	51,858	27,973	24,362	25,731	98,169	23,985	11,314	5,767	2,929
MEAN	149	628	584	1,673	965	786	858	3,167	800	365	186	97.6
MAX	781	2,550	915	12,400	3,130	3,100	2,610	19,100	4,570	2,010	702	212
MIN	41	98	392	390	357	362	342	355	192	165	100	49
CFSM	0.31	1.32	1.23	3.51	2.03	1.65	1.80	6.65	1.68	0.77	0.39	0.21
IN.	0.36	1.47	1.41	4.05	2.19	1.90	2.01	7.67	1.87	0.88	0.45	0.23

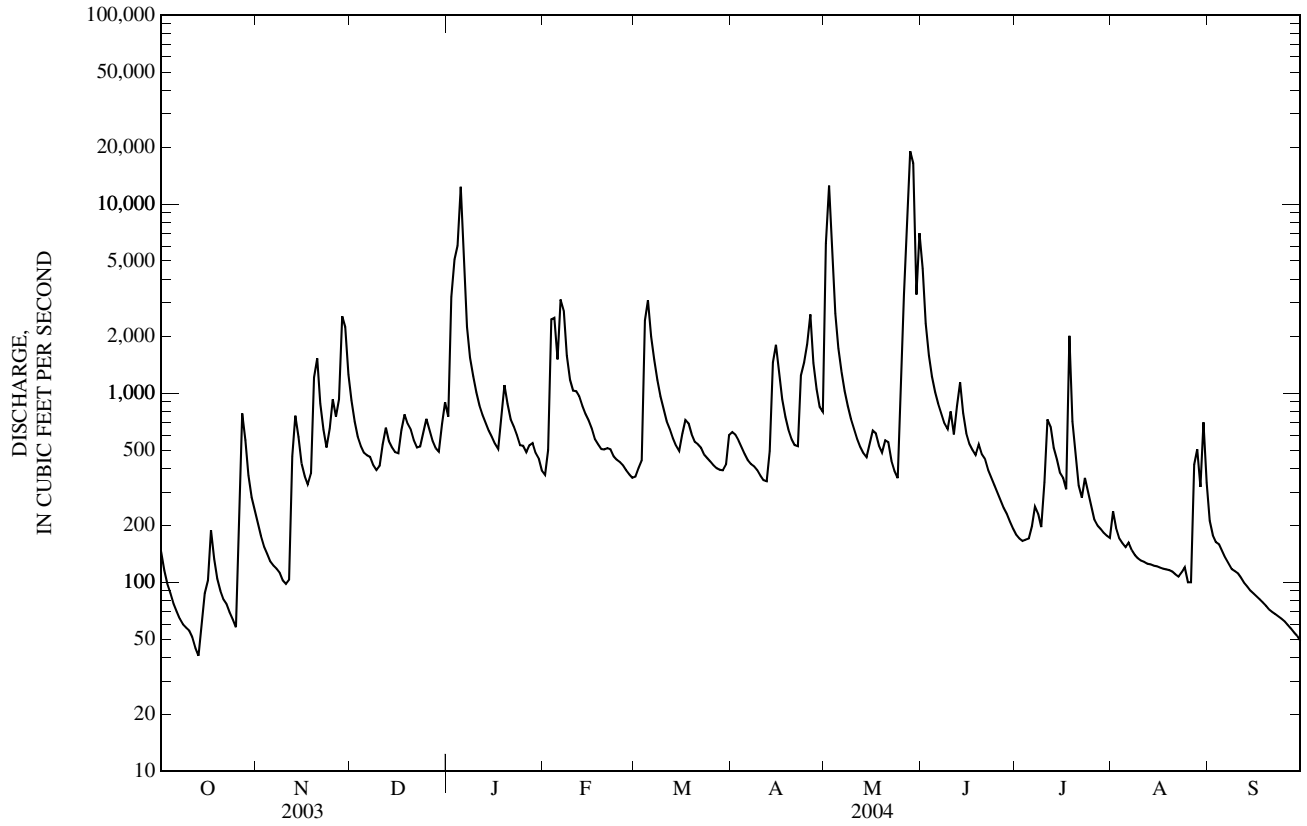
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2004, BY WATER YEAR (WY)

MEAN	138	378	685	1,060	1,140	1,372	1,161	924	509	282	175	140
MAX	934	2,057	2,502	6,290	3,404	4,299	3,243	4,020	2,785	1,655	801	551
(WY)	(2002)	(1980)	(2002)	(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)

03303000 BLUE RIVER NEAR WHITE CLOUD, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1932 - 2004	
ANNUAL TOTAL	258,147		313,657			
ANNUAL MEAN	707		857		661	
HIGHEST ANNUAL MEAN					1,199	1950
LOWEST ANNUAL MEAN					140	1941
HIGHEST DAILY MEAN	9,780	Feb 23	19,100	May 28	27,300	Apr 30, 1996
LOWEST DAILY MEAN	29	Aug 29	41	Oct 13	9.6	Oct 17, 1964
ANNUAL SEVEN-DAY MINIMUM	35	Aug 23	53	Oct 8	11	Oct 12, 1964
MAXIMUM PEAK FLOW			23,600	May 29	29,400	Apr 30, 1996
MAXIMUM PEAK STAGE			19.93	May 29	23.30	Apr 30, 1996
ANNUAL RUNOFF (CFSM)	1.49		1.80		1.39	
ANNUAL RUNOFF (INCHES)	20.17		24.51		18.87	
10 PERCENT EXCEEDS	1,440		1,520		1,480	
50 PERCENT EXCEEDS	435		484		261	
90 PERCENT EXCEEDS	73		97		38	

e Estimated



03303300 MIDDLE FORK ANDERSON RIVER AT BRISTOW, IN

LOCATION.--Lat 38°08'20", long 86°43'16", in NW¼SE¼ sec.27, T.4 S., R.3 W., Perry County, Hydrologic Unit 05140201, (BRISTOW, IN quadrangle), 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 National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except for estimated daily discharges, and those below 1 ft^3/s, which are poor. Flow regulated by U.S. 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, discharge 15,000 ft^3/s from rating curve extended above 7,000 ft^3/s. This is the maximum flood since 1905, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	4.4	44	35	32	19	42	388	324	4.7	1.6	8.4
2	0.68	5.4	31	277	110	24	39	483	209	6.1	1.6	7.1
3	0.33	6.4	25	328	345	35	36	432	119	4.7	1.5	5.6
4	0.32	7.0	21	575	214	321	32	407	81	4.6	1.3	3.8
5	0.08	7.1	23	e510	152	241	28	320	60	3.9	1.5	2.6
6	0.07	6.4	23	e420	253	203	26	141	47	4.0	1.4	1.7
7	0.06	6.9	21	e370	180	134	24	68	38	6.1	1.2	1.4
8	e0.06	7.1	18	e230	115	93	22	47	32	4.8	1.1	1.2
9	e0.06	7.1	17	81	85	68	20	35	50	3.9	0.97	1.0
10	e0.05	6.5	23	53	68	51	18	28	59	3.4	1.0	0.88
11	e0.05	6.6	26	43	57	43	18	23	41	3.2	0.91	0.71
12	e0.05	14	23	38	50	36	18	20	63	12	0.77	0.61
13	e0.06	16	20	33	44	32	87	18	101	14	0.67	0.54
14	0.42	11	20	30	39	29	201	18	82	16	0.59	0.48
15	1.3	10	19	27	35	27	115	27	58	13	0.54	0.47
16	1.3	9.7	22	24	31	47	81	27	44	11	0.50	0.52
17	1.1	7.6	25	26	28	53	62	26	34	10	0.44	0.50
18	1.1	36	27	119	26	44	49	31	26	9.5	0.41	0.35
19	1.1	74	32	100	25	38	40	38	33	7.9	0.37	0.30
20	0.93	46	29	69	25	79	34	67	24	5.6	0.52	0.24
21	0.91	29	26	54	23	103	30	58	18	4.0	0.71	0.21
22	6.9	20	24	45	21	56	47	44	15	2.9	0.85	0.19
23	5.2	14	27	36	20	43	199	32	12	3.1	1.1	0.16
24	1.3	48	34	33	19	36	179	25	10	3.3	1.5	0.22
25	0.97	37	30	30	18	32	239	215	8.6	3.1	3.9	0.27
26	4.3	25	26	32	17	28	189	607	7.0	2.8	38	0.32
27	1.6	129	23	61	16	28	116	592	5.9	2.6	46	0.29
28	0.78	183	21	54	15	26	80	567	5.1	2.3	29	0.27
29	0.64	110	25	47	15	26	60	449	4.6	2.0	19	0.26
30	0.78	67	49	43	---	34	133	388	4.0	1.8	12	0.25
31	2.7	---	41	41	---	42	---	405	---	1.8	9.1	---
TOTAL	39.00	957.2	815	3,864	2,078	2,071	2,264	6,026	1,615.2	178.1	180.05	40.84
MEAN	1.26	31.9	26.3	125	71.7	66.8	75.5	194	53.8	5.75	5.81	1.36
MAX	6.9	183	49	575	345	321	239	607	324	16	46	8.4
MIN	0.05	4.4	17	24	15	19	18	18	4.0	1.8	0.37	0.16
CFSM	0.03	0.80	0.66	3.13	1.80	1.68	1.90	4.88	1.35	0.14	0.15	0.03
IN.	0.04	0.89	0.76	3.61	1.94	1.94	2.12	5.63	1.51	0.17	0.17	0.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2004, BY WATER YEAR (WY)

MEAN	9.47	37.1	73.6	80.8	97.7	121	109	81.6	32.5	16.3	11.1	10.1
MAX	63.7	194	224	223	245	393	312	405	190	141	162	78.8
(WY)	(1978)	(1980)	(2002)	(1982)	(1989)	(1964)	(1972)	(1983)	(1979)	(1979)	(1979)	(1982)
MIN	0.00	0.00	0.00	2.78	5.66	33.4	15.7	2.37	0.82	0.38	0.01	0.00
(WY)	(1965)	(1964)	(1964)	(1964)	(1992)	(1990)	(2001)	(2001)	(1988)	(1968)	(1965)	(1964)

03303300 MIDDLE FORK ANDERSON RIVER AT BRISTOW, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1962 - 2004	
ANNUAL TOTAL	17,879.41		20,128.39			
ANNUAL MEAN	49.0		55.0		56.5	
HIGHEST ANNUAL MEAN					122	1979
LOWEST ANNUAL MEAN					15.2	1992
HIGHEST DAILY MEAN	598	Feb 22	607	May 26	4,870	Mar 9, 1964
LOWEST DAILY MEAN	0.05	Oct 10	e 0.05	Oct 10	0.00	Oct 2, 1961
ANNUAL SEVEN-DAY MINIMUM	0.06	Oct 7	0.06	Oct 7	0.00	Oct 9, 1961
MAXIMUM PEAK FLOW			1,070	May 25	6,360	Mar 9, 1964
MAXIMUM PEAK STAGE			14.39	May 25	19.33	Mar 4, 1964
ANNUAL RUNOFF (CFSM)	1.23		1.38		1.42	
ANNUAL RUNOFF (INCHES)	16.71		18.81		19.29	
10 PERCENT EXCEEDS	121		136		147	
50 PERCENT EXCEEDS	20		24		15	
90 PERCENT EXCEEDS	1.1		0.57		0.20	

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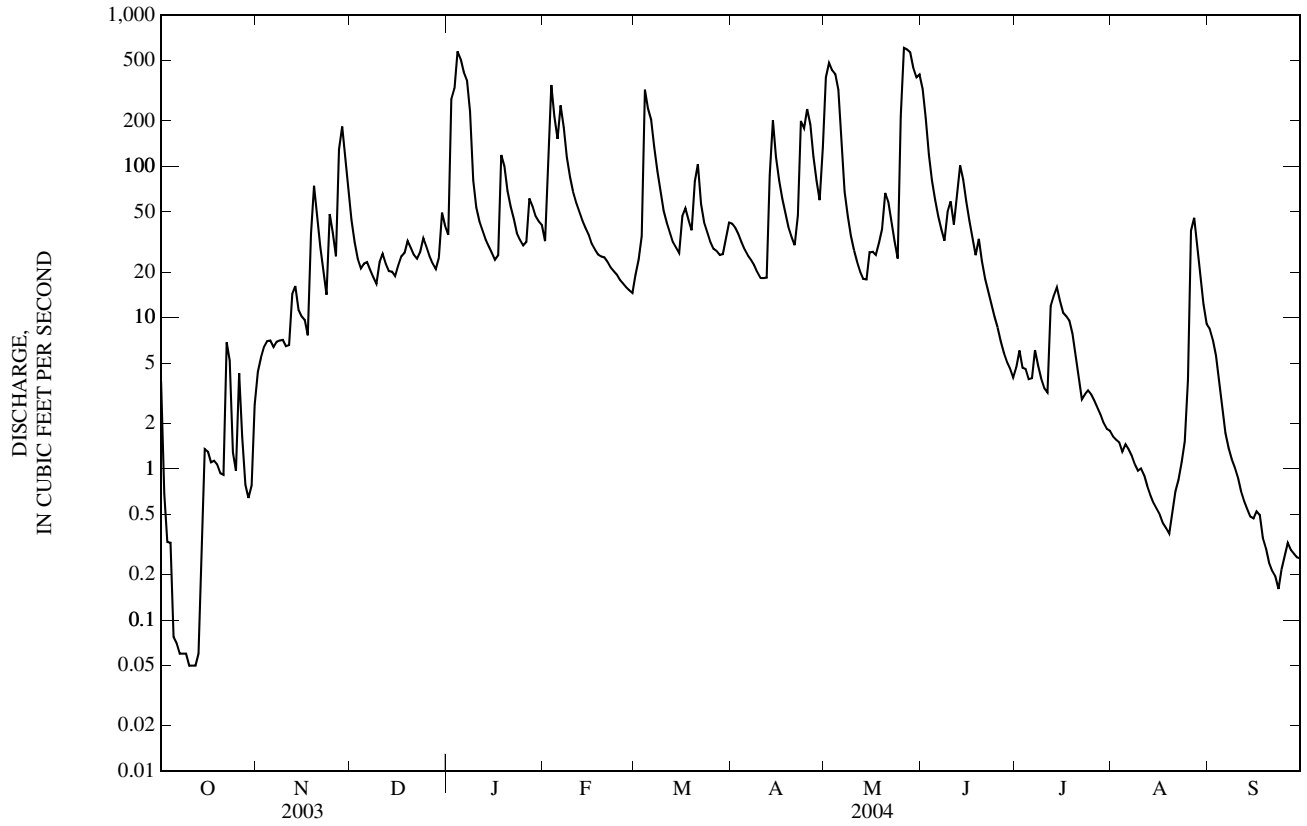


03322900 WABASH RIVER AT LINN GROVE, IN

LOCATION.--Lat 40°39'22", long 85°01'58", in SE¼SE¼ sec.34, T.26 N., R.13 E., Adams County, Hydrologic Unit 05120101, (LINN GROVE, IN quadrangle), 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 National Geodetic Vertical Datum of 1929.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	653	184	1,510	685	e153	565	636	104	790	116	330	977
2	337	242	681	518	e150	1,390	401	180	273	110	142	272
3	219	190	403	566	e160	1,280	302	542	155	104	86	146
4	207	170	366	2,140	e152	967	245	343	113	168	142	333
5	216	160	341	4,070	e138	1,870	200	197	97	214	207	194
6	192	147	473	e4,900	e150	2,360	187	151	85	129	156	89
7	169	134	573	e4,290	e145	1,940	180	133	74	107	91	99
8	155	123	457	3,740	e138	933	174	137	64	90	65	71
9	143	114	863	2,530	e135	480	157	125	58	78	55	47
10	137	113	1,260	1,590	e131	327	144	105	53	77	51	39
11	130	112	1,500	807	e143	277	136	102	709	76	43	30
12	124	233	1,190	566	e164	235	132	106	2,150	79	37	25
13	117	483	605	432	e135	200	146	108	2,970	82	34	24
14	235	269	431	352	e132	204	139	101	3,820	74	32	22
15	1,000	184	331	313	e130	198	116	186	3,480	59	30	21
16	911	160	290	283	e125	196	110	200	2,780	47	28	22
17	435	147	349	327	e129	224	104	131	2,400	43	29	19
18	277	159	349	240	e143	201	98	120	1,730	49	32	22
19	220	682	291	e228	e200	273	92	422	1,570	44	34	23
20	192	955	260	e203	1,580	433	84	541	1,130	41	81	19
21	170	586	257	e225	2,350	666	99	274	442	36	534	18
22	158	318	232	e238	1,350	559	193	403	284	56	286	18
23	147	239	1,400	e211	616	345	377	448	224	112	109	16
24	138	350	2,860	e206	527	269	387	246	188	128	65	15
25	130	441	4,070	e190	421	241	250	160	175	79	47	15
26	145	290	3,090	e192	301	329	189	139	186	60	41	14
27	189	392	1,740	e198	256	1,160	139	112	156	61	36	14
28	201	1,460	909	e185	236	1,230	112	106	140	128	733	14
29	179	2,040	651	e177	245	743	105	105	130	84	2,680	15
30	157	2,250	1,040	e159	---	474	96	96	122	63	3,070	19
31	148	---	1,060	e156	---	760	---	779	---	522	2,330	---
TOTAL	7,831	13,327	29,832	30,917	10,635	21,329	5,730	6,902	26,548	3,116	11,636	2,652
MEAN	253	444	962	997	367	688	191	223	885	101	375	88.4
MAX	1,000	2,250	4,070	4,900	2,350	2,360	636	779	3,820	522	3,070	977
MIN	117	112	232	156	125	196	84	96	53	36	28	14
CFSM	0.56	0.98	2.12	2.20	0.81	1.52	0.42	0.49	1.95	0.22	0.83	0.20
IN.	0.64	1.09	2.45	2.54	0.87	1.75	0.47	0.57	2.18	0.26	0.96	0.22

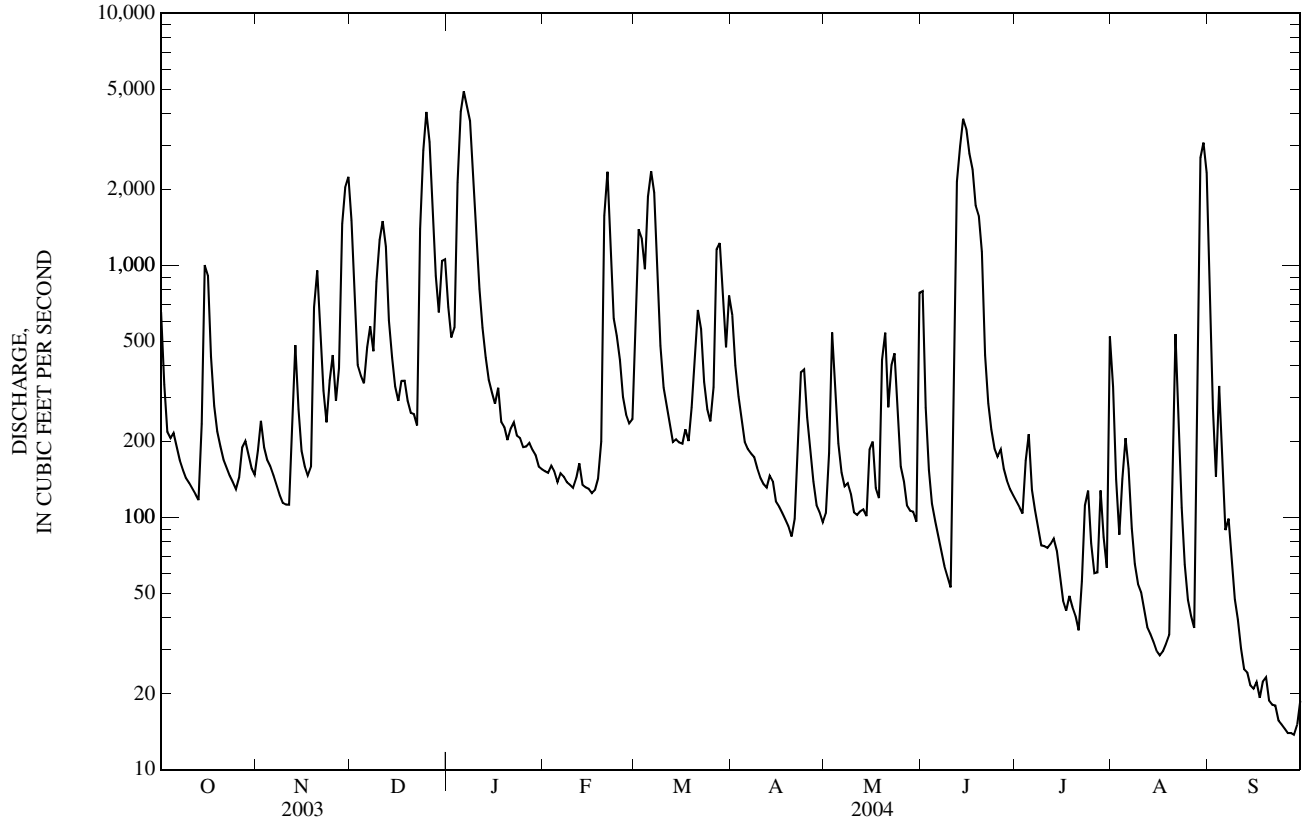
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2004, BY WATER YEAR (WY)

MEAN	111	271	494	502	655	782	647	393	377	345	197	118
MAX	1,002	1,853	1,514	1,563	1,717	2,397	2,085	1,584	1,914	3,033	1,513	1,074
(WY)	(2002)	(1973)	(1991)	(1974)	(1976)	(1978)	(1972)	(1996)	(1981)	(2003)	(1995)	(2003)
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)

03322900 WABASH RIVER AT LINN GROVE, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1965 - 2004	
ANNUAL TOTAL	331,276		170,455			
ANNUAL MEAN	908		466		406	
HIGHEST ANNUAL MEAN					794	2003
LOWEST ANNUAL MEAN					76.8	1966
HIGHEST DAILY MEAN	13,900	Jul 8	e 4,900	Jan 6	13,900	Jul 8, 2003
LOWEST DAILY MEAN	27	Jan 31	14	Sep 26	4.0	Nov 1, 1999
ANNUAL SEVEN-DAY MINIMUM	30	Jan 26	15	Sep 23	5.1	Oct 29, 1999
MAXIMUM PEAK FLOW			5,460	Jan 6	14,500	Jul 8, 2003
MAXIMUM PEAK STAGE			12.22	Jan 6	14.76	Jul 8, 2003
ANNUAL RUNOFF (CFSM)	2.00		1.03		0.897	
ANNUAL RUNOFF (INCHES)	27.20		14.00		12.19	
10 PERCENT EXCEEDS	2,650		1,270		1,190	
50 PERCENT EXCEEDS	285		188		119	
90 PERCENT EXCEEDS	93		46		12	

e Estimated



03322985 WABASH RIVER NEAR BLUFFTON, IN

LOCATION.--Lat 40°43'41", long 85°08'12", in NE¼NE¼ sec.11, T.26 N., R.12 E., Wells County, Hydrologic Unit 05120101, (BLUFFTON, IN quadrangle), on left bank 300 ft downstream of bridge on County Road 450 East (State Highway 201), 0.95 mi south of State Highway 124, 2.5 mi southeast of Bluffton, and at mile 436.6.

DRAINAGE AREA.--508 mi^2.

PERIOD OF RECORD.--September 2001 to current year.

GAGE.--Water-stage recorder. Datum of gage is 795.42 ft above National Geodetic Vertical Datum of 1929.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	929	175	1,830	947	e167	683	843	113	1,030	130	536	1,440
2	515	290	981	723	e165	1,600	572	177	446	123	213	489
3	302	243	587	710	e171	1,530	407	576	215	114	110	226
4	264	205	485	2,510	e164	1,260	326	508	145	150	190	382
5	272	190	472	4,020	e154	2,290	251	277	117	271	317	326
6	244	175	532	4,880	e165	2,280	223	e198	100	174	237	153
7	209	156	723	4,100	e158	2,180	214	163	87	123	123	226
8	184	143	618	3,550	e155	1,280	206	156	73	104	80	204
9	168	127	991	2,660	e152	693	191	159	65	85	64	104
10	156	123	1,780	1,880	e147	462	166	127	59	78	58	75
11	148	127	1,780	1,170	e160	364	156	118	1,010	77	52	58
12	138	182	1,480	826	e173	314	149	113	2,620	76	42	47
13	131	594	877	631	e151	247	157	131	2,980	83	38	43
14	194	407	616	508	e149	242	167	112	3,610	78	37	39
15	1,000	249	491	439	e148	246	138	161	3,410	66	32	36
16	1,090	201	397	386	e143	227	123	264	2,930	53	31	35
17	637	179	463	e358	e141	270	119	170	3,150	45	29	34
18	379	184	492	e317	e156	249	113	e138	2,120	44	36	31
19	282	703	405	e288	e215	305	106	e625	1,660	46	41	32
20	235	1,100	352	e260	1,390	528	99	812	1,370	41	91	33
21	209	847	306	e272	2,300	773	102	506	685	39	626	26
22	188	481	304	e254	1,910	761	203	497	391	53	478	27
23	171	331	1,630	e233	943	489	418	632	294	86	168	25
24	158	458	2,670	e223	724	359	527	381	235	143	89	22
25	146	649	3,450	e207	608	310	355	241	210	96	59	22
26	160	439	3,460	e205	436	453	259	182	221	68	49	20
27	207	399	2,230	e210	351	1,300	184	149	e189	59	86	20
28	248	1,510	1,220	e201	316	1,390	145	123	e168	105	967	19
29	219	1,990	883	e191	319	1,000	123	122	151	108	3,130	20
30	192	2,210	1,250	e173	---	660	115	116	140	69	3,140	21
31	171	---	1,280	e171	---	857	---	677	---	455	2,680	---
TOTAL	9,546	15,067	35,035	33,503	12,331	25,602	7,157	8,724	29,881	3,242	13,829	4,235
MEAN	308	502	1,130	1,081	425	826	239	281	996	105	446	141
MAX	1,090	2,210	3,460	4,880	2,300	2,290	843	812	3,610	455	3,140	1,440
MIN	131	123	304	171	141	227	99	112	59	39	29	19
CFSM	0.61	0.99	2.22	2.13	0.84	1.63	0.47	0.55	1.96	0.21	0.88	0.28
IN.	0.70	1.10	2.57	2.45	0.90	1.87	0.52	0.64	2.19	0.24	1.01	0.31

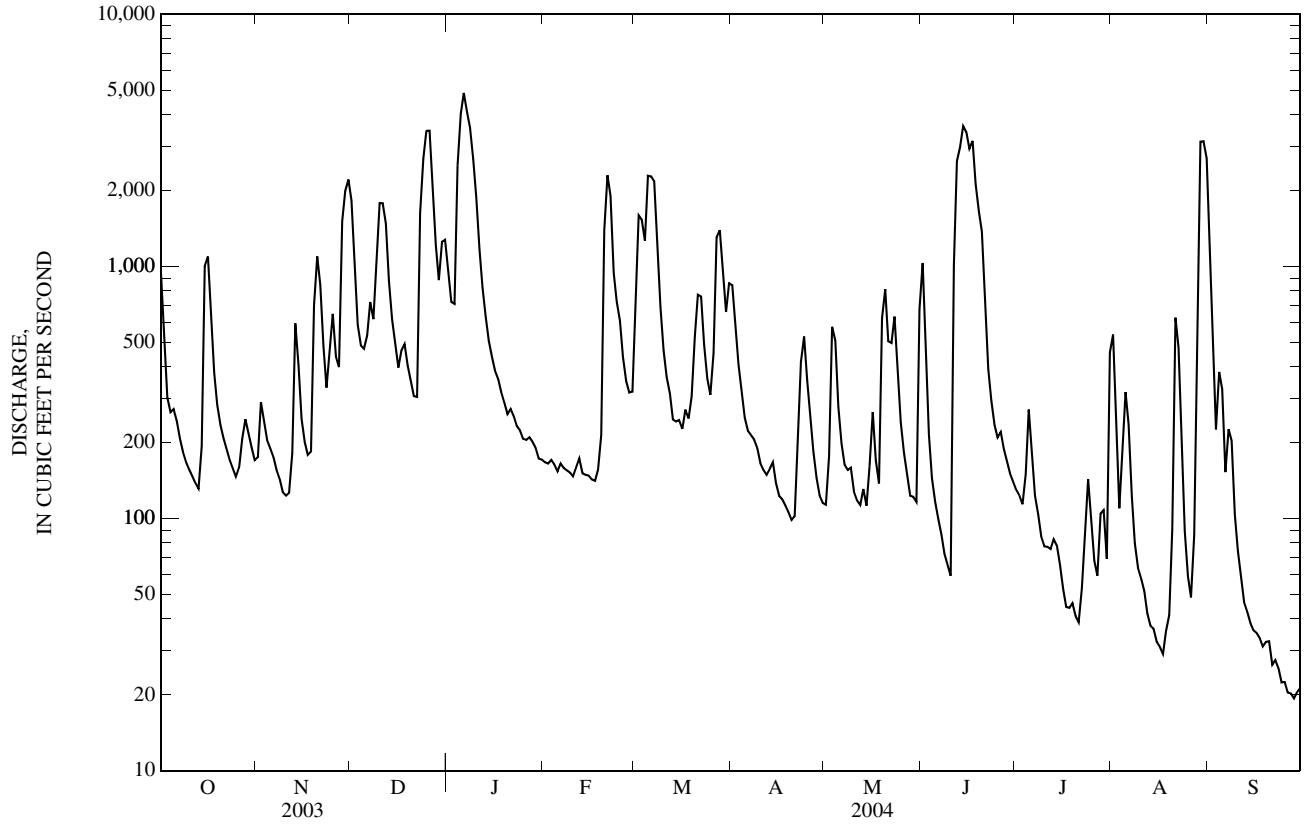
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2004, BY WATER YEAR (WY)

MEAN	496	251	779	561	568	1,044	738	900	547	1,128	542	432
MAX	1,165	502	1,130	1,081	995	1,513	1,542	1,375	996	3,238	1,158	1,138
(WY)	(2002)	(2004)	(2004)	(2004)	(2002)	(2003)	(2002)	(2003)	(2004)	(2003)	(2003)	(2003)
MIN	16.4	86.3	247	197	289	794	239	281	146	42.2	22.0	17.7
(WY)	(2003)	(2003)	(2003)	(2002)	(2003)	(2002)	(2004)	(2004)	(2002)	(2002)	(2002)	(2002)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1994 - 2004	
ANNUAL TOTAL	368,314		198,152			
ANNUAL MEAN	1,009		541		668	
HIGHEST ANNUAL MEAN					875	2003
LOWEST ANNUAL MEAN					541	2004
HIGHEST DAILY MEAN	14,600	Jul 9	4,880	Jan 6	e 14,600	Jul 9, 2003
LOWEST DAILY MEAN	30	Jan 31	19	Sep 28	2.9	Sep 6, 2001
ANNUAL SEVEN-DAY MINIMUM	33	Jan 26	21	Sep 24	3.4	Sep 5, 2001
MAXIMUM PEAK FLOW			5,110	Jan 6	e 15,300	Jul 9, 2003
MAXIMUM PEAK STAGE			13.21	Jan 6	e 18.43	Jul 9, 2003
ANNUAL RUNOFF (CFSM)	1.99		1.07		1.32	
ANNUAL RUNOFF (INCHES)	26.97		14.51		17.88	
10 PERCENT EXCEEDS	2,870		1,490		1,980	
50 PERCENT EXCEEDS	379		217		214	
90 PERCENT EXCEEDS	109		56		25	

e Estimated

03322985 WABASH RIVER NEAR BLUFFTON, IN—Continued



03323500 WABASH RIVER AT HUNTINGTON, IN

LOCATION.--Lat 40°51'20", long 85°29'53", in SW ¼ NE ¼ sec.27, T.28 N., R.9 E., Huntington County, Hydrologic Unit 05120101, (MAJENICA, IN quadrangle), 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 September 1976 (discharge). October 1976 to September 2001 (discharge provided by U.S. Army Corps of Engineers). October 2001 to current year (stage only).

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

GAGE.--Water-stage recorder. Datum of gage is 700.04 ft above National Geodetic Vertical Datum of 1929, (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.

COOPERATION.--Records of daily discharge provided by U.S. Army Corps of Engineers October 1976 to September 2001.

EXTREMES FOR PERIOD OF RECORD.--(October 2001 to current year) maximum gage height, 19.37 ft, July 11, 2003; minimum gage height, 9.08 ft, Aug. 7-12, 31, and Sept. 1-2, 2002. (January 1951 to September 1976) maximum discharge, 14,900 ft^3/s, Feb. 10, 1959; maximum gage height, 23.20 ft, Feb. 10, 1959 (backwater from ice); minimum discharge, no flow, 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 gage height, 14.79 ft, Jan. 7; minimum gage height, 9.08 ft, Aug. 23.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.02	9.79	11.82	10.88	9.71	10.18	10.62	9.31	10.48	9.48	10.20	13.01
2	11.54	9.77	10.98	10.41	9.60	11.93	10.52	9.53	11.25	10.13	9.78	10.97
3	11.47	9.79	10.38	10.40	9.68	11.86	10.10	10.42	10.85	9.97	9.65	10.72
4	11.39	9.81	9.97	10.86	9.68	11.19	9.97	10.42	10.28	9.78	9.66	10.40
5	10.87	9.85	10.11	10.84	9.59	11.45	9.96	10.12	9.67	9.78	10.05	10.12
6	10.84	9.84	10.11	13.79	9.67	12.58	9.53	9.69	9.69	9.84	10.05	9.78
7	10.79	9.78	10.12	14.79	9.67	12.51	9.54	9.69	9.65	9.77	9.44	9.78
8	10.23	9.75	10.13	14.64	9.69	12.68	9.54	9.69	9.59	9.37	9.46	9.94
9	9.93	9.62	10.46	14.50	9.68	10.42	9.55	9.69	9.53	9.38	9.58	9.96
10	9.56	9.61	11.12	14.00	9.89	10.32	9.55	9.63	9.31	9.40	9.58	9.40
11	9.58	9.62	11.91	12.25	9.69	9.97	9.56	9.64	9.87	9.16	9.53	9.44
12	9.63	9.61	12.42	11.00	9.68	10.03	9.56	9.64	9.95	9.55	9.45	9.50
13	9.67	10.16	11.19	10.41	9.83	9.90	9.56	9.64	10.17	9.58	9.41	9.51
14	9.75	10.16	10.59	10.17	9.65	9.82	9.56	9.62	10.18	9.57	9.20	9.44
15	10.66	10.01	10.11	10.05	9.80	9.82	9.56	9.62	10.19	9.40	9.20	9.66
16	10.94	9.79	10.22	9.86	9.77	9.53	9.52	9.62	10.20	9.31	9.19	9.70
17	10.53	9.69	10.11	9.86	9.70	9.54	9.52	9.67	10.78	9.31	9.23	9.70
18	10.32	9.70	10.15	10.05	9.57	9.55	9.52	9.67	12.42	9.36	9.31	9.54
19	9.91	10.02	10.11	9.87	9.67	9.55	9.17	10.59	13.09	9.37	9.33	9.47
20	9.91	10.74	9.90	9.61	10.35	9.57	9.18	10.88	13.54	9.36	9.70	9.46
21	9.72	10.88	9.90	9.70	11.75	9.58	9.17	11.24	13.79	9.43	10.93	9.45
22	9.72	10.34	9.91	9.96	11.46	9.60	9.18	10.26	13.67	9.97	10.42	9.44
23	9.75	9.99	10.04	9.69	11.39	9.60	9.18	10.33	13.54	9.96	9.77	9.43
24	9.75	10.00	12.69	9.86	10.56	9.61	9.18	10.58	13.40	9.53	9.77	9.43
25	9.75	10.45	13.60	9.71	10.38	9.62	9.18	9.83	12.02	9.50	9.54	9.44
26	9.73	10.43	13.98	9.72	10.09	9.64	9.18	9.89	11.47	9.52	9.26	9.44
27	9.73	10.14	12.69	9.71	10.13	11.63	9.18	9.66	11.42	9.50	9.32	9.42
28	9.75	10.75	12.44	9.71	9.98	12.51	9.18	9.62	11.33	9.49	10.50	9.41
29	9.78	11.86	11.03	9.71	9.98	12.28	9.18	9.62	10.94	9.47	11.32	9.40
30	9.90	11.85	11.30	9.71	---	11.04	9.22	10.20	11.10	9.49	12.57	9.40
31	9.79	---	11.00	9.71	---	10.60	---	9.69	---	9.82	13.12	---
MEAN	10.26	10.13	10.98	10.82	10.01	10.58	9.51	9.93	11.11	9.57	9.92	9.79
MAX	13.02	11.86	13.98	14.79	11.75	12.68	10.62	11.24	13.79	10.13	13.12	13.01
MIN	9.56	9.61	9.90	9.61	9.57	9.53	9.17	9.31	9.31	9.16	9.19	9.40

CAL YR 2003 MEAN 10.85 MAX 19.31 MIN 9.18
WTR YR 2004 MEAN 10.22 MAX 14.79 MIN 9.16

03323500 WABASH RIVER AT HUNTINGTON, IN—Continued

WATER-QUALITY RECORDS

INSTRUMENTATION.--Temperature recorder.

PERIOD OF RECORD.-- WATER TEMPERATURE.--October 1987 to September 1988. October 1989 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 29.2°C, July 31, 1999; minimum, -0.4°C, Jan. 8, 9, 10, 2004.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 27.3°C, Aug. 23, minimum, -0.4°C, Jan. 8, 9, 10.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	15.4	14.7	15.1	12.4	11.7	11.9	4.7	3.6	4.0	3.9	3.1	3.4
2	14.8	14.1	14.5	13.6	11.8	12.6	3.7	3.0	3.4	5.8	3.8	4.8
3	14.1	13.8	13.9	14.7	12.5	13.4	3.8	3.3	3.6	7.3	5.8	6.9
4	13.9	13.4	13.7	15.5	13.4	14.3	4.1	3.0	3.5	7.1	4.0	5.3
5	14.0	13.3	13.5	14.7	13.8	14.3	3.6	2.7	3.2	4.5	3.5	4.1
6	13.7	12.9	13.3	13.8	12.7	13.5	3.4	2.7	3.0	3.5	1.2	2.1
7	13.9	13.1	13.4	12.7	11.2	12.1	3.7	2.7	3.0	1.2	-0.3	0.4
8	14.5	13.3	13.7	11.7	9.9	10.8	3.7	2.8	3.2	-0.2	-0.4	-0.3
9	14.1	13.2	13.6	10.9	8.9	9.7	4.0	3.0	3.5	-0.3	-0.4	-0.4
10	15.7	13.5	14.4	10.3	8.3	9.2	5.3	3.3	4.7	-0.1	-0.4	-0.2
11	16.4	13.6	14.7	10.5	9.3	10	5.4	4.3	5.1	0.4	-0.1	0.2
12	16.4	13.9	14.8	11.0	9.0	10.1	4.8	3.3	4.0	0.9	0.4	0.6
13	16.9	13.8	14.9	9.0	7.5	8.3	3.4	1.9	2.7	1.2	0.6	0.9
14	15.0	14.4	14.7	7.5	6.4	6.9	2.6	1.9	2.1	1.7	1.0	1.3
15	15.7	14.4	15.1	6.5	6.2	6.3	2.6	1.9	2.1	1.9	1.0	1.5
16	15.0	14.0	14.6	7.2	6.2	6.8	2.6	2.1	2.4	2.2	1.4	1.7
17	14.0	13.1	13.7	8.9	7.1	7.8	2.4	1.3	1.9	2.2	1.6	1.9
18	13.9	12.8	13.2	10.2	8.1	9.3	1.8	1.1	1.4	2.1	1.3	1.7
19	14.5	12.7	13.4	10.5	9.2	10	2.1	1.3	1.7	2.0	1.1	1.5
20	14.8	12.6	13.4	10.4	9.2	10.0	2.6	1.2	1.8	3.2	1.4	2.2
21	14.1	13.0	13.6	10.4	9.7	10.1	2.9	1.4	2.1	2.9	2.2	2.5
22	13.7	12.6	13.1	10.6	9.8	10.2	3.0	2.3	2.6	2.5	0.7	1.8
23	14.2	12.3	13.0	11.5	10.4	11.0	4.5	2.7	3.6	2.0	1.4	1.8
24	13.8	11.7	12.5	11.3	7.9	9.7	3.8	1.5	2.9	2.9	1.7	2.2
25	12.7	12.2	12.4	7.9	5.6	6.7	2.6	1.2	2.1	2.0	1.4	1.7
26	13.2	11.6	12.3	6.3	5.4	5.8	1.6	0.5	1.0	1.9	1.6	1.7
27	11.8	11.0	11.4	6.9	5.8	6.5	0.7	0.3	0.5	2.0	1.4	1.8
28	11.4	10.9	11.1	6.9	5.1	6.2	1.7	0.6	1.2	1.8	1.2	1.5
29	11.3	10.4	10.7	5.1	3.6	4.7	3.4	1.7	2.7	1.7	1.1	1.4
30	12.0	10.0	10.9	4.6	4.2	4.4	3.7	3.1	3.4	1.5	1.1	1.2
31	12.5	10.9	11.7	---	---	---	3.9	3.1	3.5	1.5	1.1	1.2
MONTH	16.9	10.0	13.4	15.5	3.6	9.4	5.4	0.3	2.8	7.3	-0.4	1.9

03323500 WABASH RIVER AT HUNTINGTON, IN—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.7	1.0	1.3	6.8	4.7	5.5	11.5	9.9	11.0	17.8	14.2	16.0
2	1.9	1.1	1.5	6.3	4.6	5.7	10.6	9.6	10.1	16.6	13.4	14.5
3	2.1	1.0	1.7	6.3	5.9	6.1	11.8	9.8	10.6	17.0	13.2	14.7
4	1.9	1.0	1.3	7.1	6.0	6.4	10.8	8.8	10.0	15.9	14.9	15.3
5	2.0	1.2	1.6	8.7	7.1	7.9	11.4	8.6	9.6	16.8	14.6	15.5
6	2.0	1.6	1.8	8.9	8.4	8.7	12.3	8.6	10.5	18.0	14.5	15.8
7	2.1	1.4	1.7	8.4	7.8	8.2	14.3	10.0	12.0	15.8	13.7	14.8
8	1.9	1.1	1.4	7.8	6.3	7.1	14.7	11.3	12.7	18.2	14.4	16.0
9	2.0	1.1	1.5	6.3	5.4	5.9	15.2	11.1	12.8	18.0	15.0	16.3
10	2.0	1.2	1.5	6.8	5.3	5.8	15.2	11.0	12.9	18.0	15.3	16.3
11	2.3	1.0	1.5	7.6	5.5	6.4	15.4	12.0	13.4	17.9	15.5	16.4
12	2.1	1.4	1.7	5.7	3.6	4.9	13.5	11.8	12.5	18.8	15.3	16.8
13	2.2	1.4	1.7	6.5	3.6	4.8	11.9	10.8	11.4	17.5	15.9	16.7
14	3.1	1.3	2.0	7.5	4.8	5.7	15.0	10.0	12.1	17.6	16.0	16.7
15	2.8	1.6	2.0	8.2	5.6	6.6	15.0	10.1	12.2	16.8	15.8	16.2
16	2.7	1.6	2.0	7.1	6.0	6.5	16.3	11.4	13.6	19.6	16.2	17.5
17	3.2	1.5	2.2	6.9	6.1	6.5	17.6	13.0	14.9	19.4	16.9	18.1
18	3.1	1.4	2.3	7.4	5.5	6.4	18.0	14.2	15.7	18.8	17.7	18.2
19	3.9	2.2	2.8	7.9	6.2	6.8	17.8	14.7	16.2	21.7	17.5	19.1
20	3.3	1.3	2.2	8.7	6.4	7.4	15.9	14.3	15.1	20.4	19.7	19.9
21	1.3	0.1	0.6	7.2	5.7	6.5	17.0	14.7	15.7	21.9	19.9	21.0
22	1.0	0.3	0.6	9.2	5.2	6.8	15.5	13.9	14.6	21.6	20.3	21.1
23	0.9	0.6	0.8	9.6	5.7	7.3	16.9	13.3	14.9	21.4	20.4	20.9
24	1.3	0.7	1.0	8.5	6.9	7.8	16.7	14.4	15.6	21.9	20.8	21.3
25	2.4	0.9	1.5	9.3	8.0	8.5	17.1	14.5	15.7	21.5	20.1	20.9
26	3.7	1.6	2.4	9.6	8.6	9.0	17.2	14.3	15.6	21.6	19.5	20.3
27	4.9	2.3	3.3	9.2	7.5	8.6	15.2	13.6	14.3	21.1	19.4	20.0
28	6.1	2.7	4.2	11.3	9.0	9.9	17.0	12.3	14.7	21.8	19.1	20.1
29	6.7	3.4	4.8	12.1	11.3	11.6	18.1	14.8	16.5	21.5	18.6	19.9
30	---	---	---	12.6	11.9	12.2	18.5	16.0	17.2	20.9	17.8	19.5
31	---	---	---	12.5	11.5	12.0	---	---	---	20.7	17.3	18.9
MONTH	6.7	0.1	1.9	12.6	3.6	7.4	18.5	8.6	13.5	21.9	13.2	17.9
		JUNE			JULY			AUGUST			SEPTEMBER	
1	23.8	18.4	19.7	23.5	21.4	22.9	24.7	21.9	23.1	23.5	22.8	23.1
2	21.6	19.8	20.4	23.7	20.2	22.1	24.7	23.2	23.9	24.1	23.0	23.4
3	21.2	20.3	20.5	23.2	21.8	22.4	25.6	23.1	24.1	23.4	22.8	23.1
4	21.4	19.9	20.5	23.8	22.0	22.7	23.4	21.3	22.8	23.5	22.5	22.9
5	21.2	18.9	20.1	24.7	22.2	23.2	25.2	22.3	23.6	23.7	22.3	22.8
6	21.2	18.6	19.5	25.3	22.8	23.9	25.5	23.5	24.2	24.2	22.1	22.9
7	22.0	18.5	20.0	24.8	23.2	23.8	25.0	23.1	24.0	24.3	21.4	22.5
8	22.7	18.7	20.4	25.3	22.5	23.7	25.5	22.2	23.5	23.3	21.4	22.3
9	22.5	19.2	20.4	25.6	21.3	23.2	25.3	21.7	23.2	24.3	22.3	23.0
10	20.3	19.2	19.7	25.0	22.0	23.3	23.8	22.2	22.9	24.3	21.7	22.8
11	20.3	18.4	19.5	25.3	22.3	23.7	24.3	21.9	22.7	24.1	20.4	22.0
12	21.3	17.4	20.4	25.8	22.9	24.2	22.8	21.2	21.9	24.7	20.6	22.2
13	22.2	19.3	20.3	25.9	22.7	23.9	23.0	21.0	21.9	24.2	20.8	22.3
14	21.1	18.8	19.7	24.7	22.5	23.4	23.3	20.3	21.7	24.1	21.2	22.4
15	20.7	19.2	19.7	25.0	22.2	23.4	22.0	20.1	21.2	24.2	21.0	22.4
16	19.9	19.3	19.6	24.4	21.3	22.8	23.4	20.2	21.6	23.6	21.8	22.4
17	21.1	19.5	20.3	25.4	21.2	23.0	22.9	20.9	21.9	23.5	21.3	22.1
18	22.1	20.5	21.3	25.5	21.3	23.3	22.7	21.1	22.0	23.8	20.9	22.0
19	22.5	21.7	22.1	25.3	21.5	23.3	22.3	19.3	21.3	23.8	20.2	21.7
20	23.0	22.3	22.7	25.4	21.6	23.4	21.4	20.2	20.8	23.7	19.8	21.4
21	23.3	22.8	23.1	25.7	20.6	23.6	23.5	20.8	22.1	23.7	19.7	21.3
22	23.2	23.0	23.1	27.0	21.8	23.6	23.2	21.9	22.5	23.8	19.6	21.3
23	23.4	23.1	23.2	25.7	23.6	24.5	27.3	20.5	22.4	23.5	19.7	21.3
24	23.3	22.9	23.2	25.6	23.4	24.2	22.7	20.5	21.5	21.9	20.0	20.9
25	23.3	22.8	23.0	23.8	22.8	23.2	23.0	21.1	21.8	22.9	19.9	21.0
26	22.9	22.5	22.7	23.6	22.7	23.1	23.9	21.0	22.2	21.2	19.5	20.2
27	23.2	22.5	22.8	23.5	22.3	22.8	23.7	21.6	22.5	22.5	18.9	20.4
28	23.0	22.5	22.7	25.9	21.8	23.4	24.3	20.9	22.2	20.1	18.9	19.5
29	26.7	22.0	22.7	24.0	21.7	22.8	24.4	21.8	23.1	20.9	18.7	19.5
30	23.3	22.4	22.8	22.7	21.6	22.1	25.3	23.3	24.2	21.2	17.7	19.3
31	---	---	---	23.8	21.6	22.6	23.4	22.9	23.2	---	---	---
MONTH	26.7	17.4	21.2	27.0	20.2	23.3	27.3	19.3	22.6	24.7	17.7	21.8
YEAR	27.3	-0.4	13.1									

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, (HUNTINGTON, IN quadrangle), on right bank on upstream side of former highway bridge, 0.5 mi upstream of County Road 200 East bridge, 5 mi east of Huntington, and at mile 7.5.

DRAINAGE AREA.--263 mi^2.

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

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 728.10 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1948, nonrecording gage 3.5 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 poor. During periods of extreme high water in the St. Marys River, some water leaves the St. Marys River Basin through Junk Ditch and flows into Little River Basin via Graham McCulloch Ditch.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	237	74	250	304	e73	887	177	75	2,740	64	114	187
2	169	79	182	262	e70	1,360	146	355	1,700	58	72	123
3	130	73	149	250	e67	674	126	341	717	56	59	99
4	133	70	132	1,200	e66	621	111	163	369	95	486	454
5	131	70	135	2,340	e64	2,080	96	118	237	94	956	268
6	102	66	170	1,180	e62	1,200	89	93	172	71	347	139
7	90	59	160	e452	e61	542	87	256	138	186	170	390
8	81	55	142	e295	e59	378	86	575	112	129	106	343
9	74	52	324	e221	e58	287	80	241	98	73	77	164
10	69	51	1,520	e177	e58	223	74	148	88	62	73	110
11	65	54	1,450	e165	e57	193	72	125	876	57	70	86
12	61	94	602	158	e56	163	68	122	2,300	56	56	75
13	58	107	331	146	e56	134	67	99	3,100	54	49	67
14	89	77	237	137	e56	130	67	90	4,080	47	46	61
15	536	68	188	126	e55	129	63	87	4,030	42	45	57
16	336	64	168	e111	e55	118	61	77	3,060	41	42	55
17	237	63	199	e104	e55	121	60	68	2,230	56	42	50
18	167	133	164	111	e56	126	60	66	1,480	46	79	45
19	135	1,010	139	e102	e58	132	57	139	732	45	248	43
20	113	521	121	e100	e81	135	55	136	463	39	440	41
21	98	282	106	e98	e650	135	106	326	320	43	1,150	39
22	89	190	114	e96	e524	114	119	498	228	1,100	394	38
23	81	151	1,400	e94	789	105	83	245	165	995	179	38
24	73	539	2,060	e91	629	108	74	1,440	131	363	113	37
25	71	492	994	e89	425	128	69	694	121	156	86	36
26	100	267	464	e88	396	261	67	349	125	105	77	35
27	110	223	317	e86	376	718	59	211	96	94	89	35
28	96	437	255	e84	355	413	53	151	84	95	782	35
29	89	633	344	e81	355	287	50	115	79	77	1,620	37
30	81	349	767	e79	---	232	48	529	70	65	801	38
31	71	---	431	e76	---	210	---	3,290	---	163	349	---
TOTAL	3,972	6,403	14,015	8,903	5,722	12,344	2,430	11,222	30,141	4,627	9,217	3,225
MEAN	128	213	452	287	197	398	81.0	362	1,005	149	297	108
MAX	536	1,010	2,060	2,340	789	2,080	177	3,290	4,080	1,100	1,620	454
MIN	58	51	106	76	55	105	48	66	70	39	42	35
CFSM	0.49	0.81	1.72	1.09	0.75	1.51	0.31	1.38	3.82	0.57	1.13	0.41
IN.	0.56	0.91	1.98	1.26	0.81	1.75	0.34	1.59	4.26	0.65	1.30	0.46

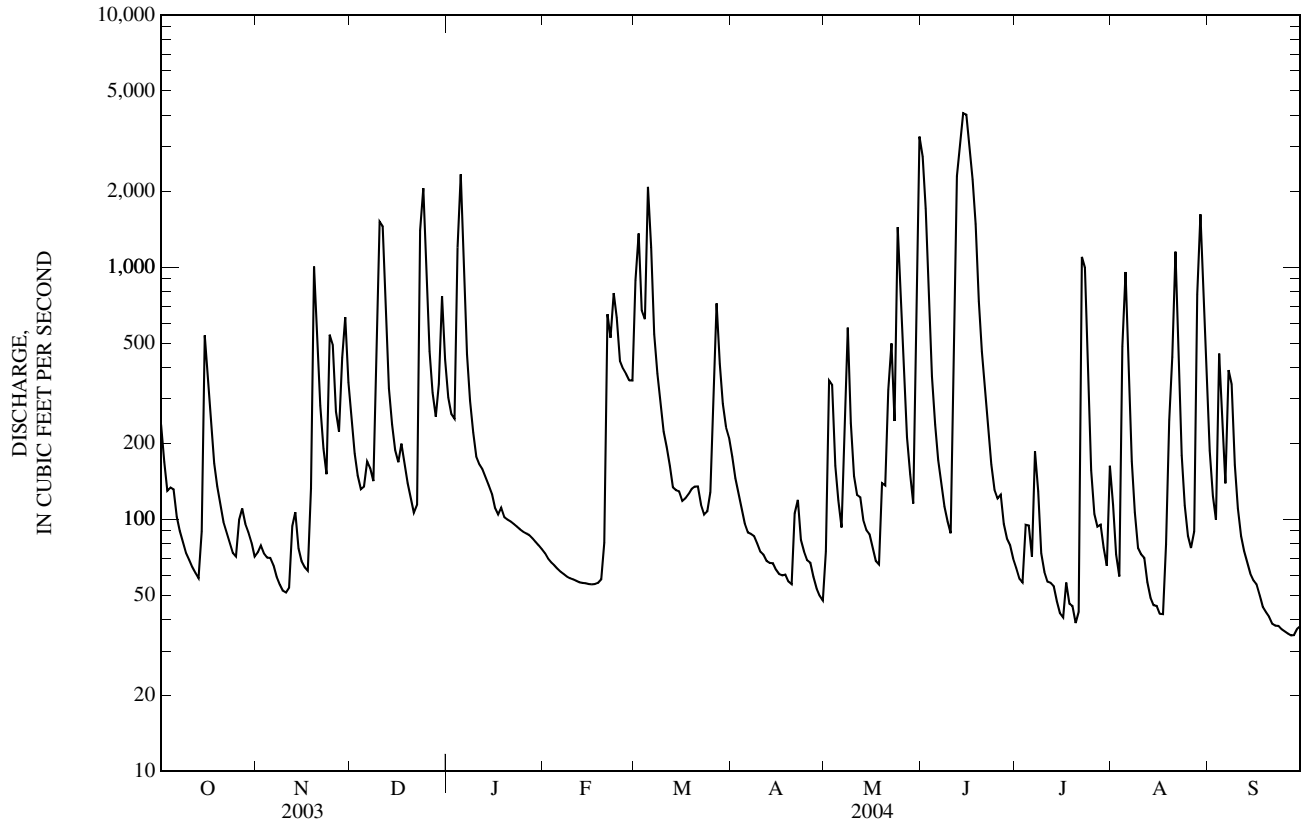
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2004, BY WATER YEAR (WY)

MEAN	95.9	157	274	319	392	473	414	256	253	129	70.9	65.2
MAX	906	1,137	1,010	1,693	1,164	1,765	1,396	826	1,005	799	501	414
(WY)	(2002)	(1993)	(1967)	(1950)	(1959)	(1982)	(1957)	(2003)	(2004)	(2003)	(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)

03324000 LITTLE RIVER NEAR HUNTINGTON, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1945 - 2004	
ANNUAL TOTAL	127,666		112,221			
ANNUAL MEAN	350		307		241	
HIGHEST ANNUAL MEAN					450	1950
LOWEST ANNUAL MEAN					67.0	1954
HIGHEST DAILY MEAN	3,740	Jul 8	4,080	Jun 14	5,610	Mar 14, 1982
LOWEST DAILY MEAN	28	Jan 27	35	Sep 26	1.1	Oct 8, 1946
ANNUAL SEVEN-DAY MINIMUM	30	Jan 24	36	Sep 23	1.8	Oct 7, 1946
MAXIMUM PEAK FLOW			4,280	Jun 14	5,990	Jan 4, 1950
MAXIMUM PEAK STAGE			16.92	Jun 14	19.50	Feb 25, 1985
ANNUAL RUNOFF (CFSM)	1.33		1.17		0.915	
ANNUAL RUNOFF (INCHES)	18.06		15.87		12.43	
10 PERCENT EXCEEDS	974		717		601	
50 PERCENT EXCEEDS	112		114		70	
90 PERCENT EXCEEDS	44		55		15	

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, (WARREN, IN quadrangle), 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 National Geodetic Vertical Datum of 1929, (levels by State of Indiana, Department of Natural Resources). Prior to July 28, 1960, nonrecording gage at same site and datum.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	321	99	406	418	e62	838	1,650	e77	743	82	281	245
2	228	238	284	318	e62	2,130	586	e151	235	78	112	137
3	180	167	217	378	e68	1,010	367	e415	136	79	70	145
4	169	138	186	4,040	e66	938	264	232	95	95	113	340
5	164	121	184	6,750	e66	3,770	194	144	75	143	170	146
6	144	105	253	e5,880	e74	2,650	155	112	66	117	133	90
7	125	89	402	e2,730	e74	820	140	100	59	93	75	100
8	111	82	310	e777	e71	441	130	86	52	75	56	151
9	100	74	995	378	e70	306	118	80	49	69	50	84
10	94	70	1,780	e250	e73	228	102	76	48	69	52	58
11	88	72	2,280	e217	e72	188	93	99	2,680	68	48	45
12	83	241	875	202	e73	159	89	136	5,330	66	47	40
13	79	765	381	191	e70	134	88	90	5,400	77	44	36
14	113	321	266	166	e66	124	86	92	4,390	77	43	34
15	977	176	216	155	e65	123	78	163	2,720	68	42	34
16	550	141	189	135	e63	123	72	207	896	60	46	35
17	259	129	274	125	e61	124	69	123	4,180	58	48	34
18	181	170	281	e121	e64	132	68	322	2,550	56	63	31
19	145	1,380	202	e108	e97	210	65	1,240	1,240	57	74	e30
20	122	1,290	166	e95	e1,420	360	67	605	481	54	135	e30
21	107	451	139	e89	e2,590	608	74	1,010	309	60	632	e29
22	104	264	137	e82	826	413	101	636	236	114	365	e28
23	96	199	2,330	e77	518	227	428	449	186	101	129	e28
24	88	713	4,230	e74	514	179	360	363	153	86	76	e27
25	83	914	3,700	e72	388	157	e269	247	140	78	59	e26
26	90	366	1,060	e71	250	530	e181	168	135	65	53	e26
27	159	275	439	e70	203	2,430	e133	119	118	63	53	e26
28	156	1,820	346	e69	182	1,290	e102	456	103	69	125	33
29	130	2,440	413	e67	187	565	80	189	93	79	1,270	33
30	115	799	1,450	e66	---	422	e74	112	86	80	2,560	30
31	99	---	874	e64	---	1,920	---	934	---	225	828	---
TOTAL	5,460	14,109	25,265	24,235	8,395	23,549	6,283	9,233	32,984	2,561	7,852	2,131
MEAN	176	470	815	782	289	760	209	298	1,099	82.6	253	71.0
MAX	977	2,440	4,230	6,750	2,590	3,770	1,650	1,240	5,400	225	2,560	340
MIN	79	70	137	64	61	123	65	76	48	54	42	26
CFSM	0.41	1.11	1.92	1.84	0.68	1.79	0.49	0.70	2.59	0.19	0.60	0.17
IN.	0.48	1.23	2.21	2.12	0.73	2.06	0.55	0.81	2.89	0.22	0.69	0.19

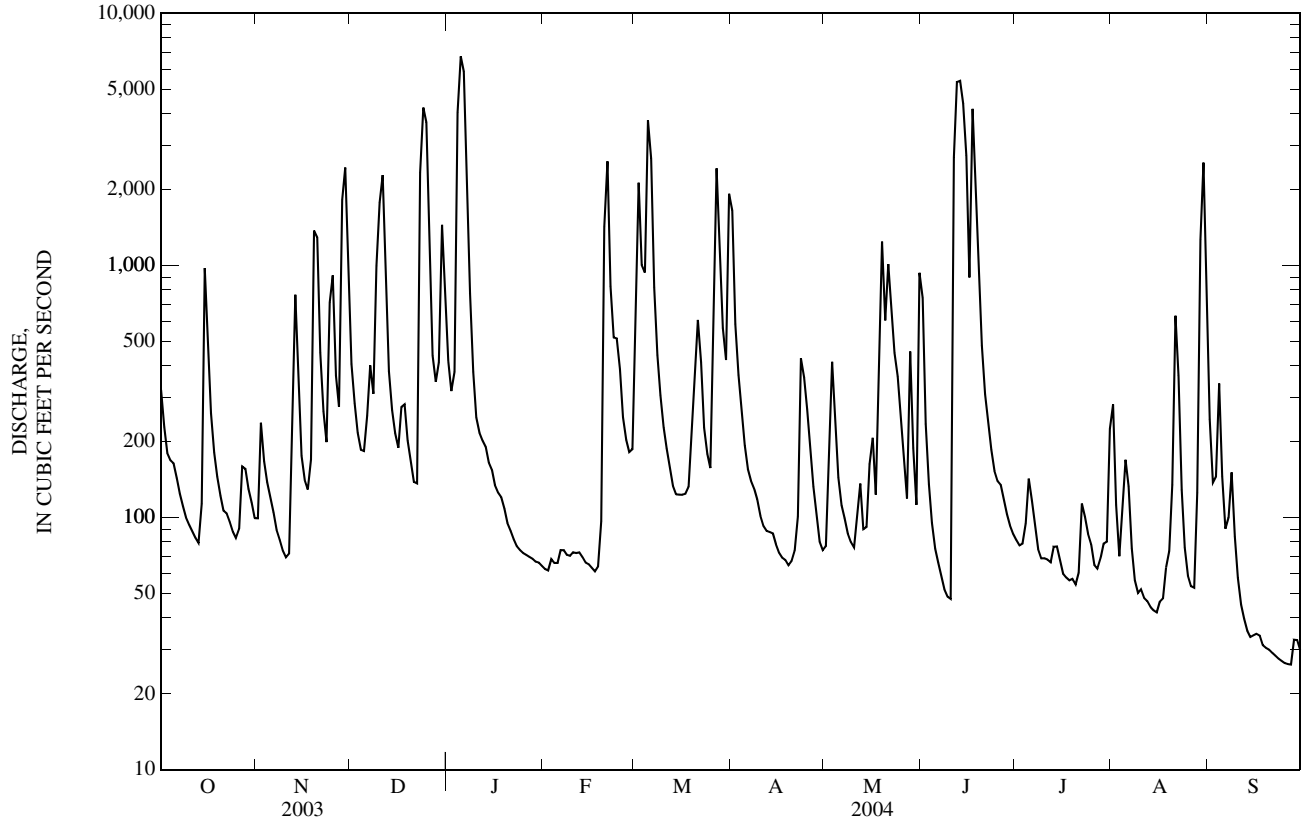
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2004, BY WATER YEAR (WY)

MEAN	113	300	479	490	623	844	691	402	379	275	151	111
MAX	1,486	1,794	1,685	1,724	1,906	2,616	2,214	1,421	2,312	2,219	1,363	1,001
(WY)	(2002)	(1993)	(1991)	(1974)	(1976)	(1978)	(1964)	(2003)	(1958)	(2003)	(1998)	(2003)
MIN	8.13	13.1	11.4	6.12	19.2	103	74.5	32.8	16.7	23.8	11.8	9.22
(WY)	(1964)	(2000)	(1977)	(1977)	(1964)	(1981)	(1976)	(1988)	(1988)	(1967)	(1965)	(1963)

03324300 SALAMONIE RIVER NEAR WARREN, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1958 - 2004	
ANNUAL TOTAL	281,441		162,057			
ANNUAL MEAN	771		443		404	
HIGHEST ANNUAL MEAN					689	2003
LOWEST ANNUAL MEAN					109	1966
HIGHEST DAILY MEAN	9,800	Jul 9	6,750	Jan 5	10,900	Jan 23, 1999
LOWEST DAILY MEAN	30	Feb 1	e 26	Sep 25	5.1	Jan 2, 1977
ANNUAL SEVEN-DAY MINIMUM	32	Jan 26	e 27	Sep 21	5.9	Dec 29, 1976
MAXIMUM PEAK FLOW			7,170	Jan 5	13,500	Aug 5, 1998
MAXIMUM PEAK STAGE			12.88	Feb 20	17.05	Feb 10, 1959
ANNUAL RUNOFF (CFSM)	1.81		1.04		0.950	
ANNUAL RUNOFF (INCHES)	24.63		14.18		12.91	
10 PERCENT EXCEEDS	2,250		1,010		1,000	
50 PERCENT EXCEEDS	181		133		94	
90 PERCENT EXCEEDS	50		56		18	

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, (LAGRO, IN quadrangle), 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 September 1976 (discharge). October 1976 to September 2001 (discharge provided by U.S. Army Corps of Engineers). October 2001 to current year (stage only). 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 National Geodetic Vertical Datum of 1929, (levels by State of Indiana, Department of Natural Resources). Prior to Oct. 1, 1951, non-recording gage at site 1.5 mi upstream at datum 688.59 ft above National Geodetic Vertical Datum of 1929, (levels by U.S. Army Corps of Engineers) and Oct. 1, 1951, to Oct. 8, 1961, water-stage recorder located on left bank 2,000 ft upstream at datum 679.77 ft above National Geodetic Vertical Datum of 1929, (levels by U.S. Army Corps of Engineers). Oct. 9, 1961, to Sept. 30, 1974, water-stage recorder at site described in "LOCATION" paragraph.

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

COOPERATION.--Records of daily discharge provided by U.S. Army Corps of Engineers October 1976 to September 2001.

EXTREMES FOR PERIOD OF RECORD.--(October 2001 to current year) maximum gage height, 8.87 ft, Nov. 10, 2001; minimum gage height, 2.14 ft, Sept. 3, 2001. (November 1923 to September 1976) maximum discharge, 16,500 ft^3/s, May 18, 1943; maximum gage height, 14.75 ft, May 18, 1943 from graph based on gage readings, site and datum then in use; minimum discharge, 0.70 ft^3/s, Oct. 30, 1968, result of abnormal regulation.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 8.52 ft, July 2; minimum gage height, 2.24 ft, July 15.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.08	3.73	4.13	4.76	2.92	3.61	6.16	2.69	2.52	7.17	3.34	4.76
2	4.60	4.20	3.60	4.73	2.90	5.94	3.66	2.69	3.04	7.09	3.13	4.97
3	5.21	4.13	3.57	3.92	2.90	6.55	3.72	2.46	3.55	7.87	2.82	5.49
4	6.21	3.98	3.29	3.77	2.89	4.55	3.45	2.45	4.29	7.81	3.16	6.40
5	6.58	3.96	3.43	3.84	2.89	4.63	3.37	2.46	3.84	7.25	3.16	3.22
6	7.13	3.72	3.41	3.84	2.89	5.34	3.20	2.46	3.84	7.21	3.16	3.34
7	7.33	3.71	3.70	5.55	2.97	6.43	3.11	2.47	2.97	4.52	2.97	3.78
8	7.52	3.74	3.66	6.01	3.00	6.36	2.76	2.47	2.84	4.51	2.68	3.37
9	7.48	3.74	4.11	6.40	3.00	5.93	2.76	2.47	2.84	3.83	2.68	3.37
10	7.05	3.73	6.35	6.36	3.01	4.71	2.76	2.47	2.84	3.83	2.68	2.84
11	3.81	3.73	6.37	7.36	2.96	3.97	2.76	2.47	2.87	3.31	2.61	2.84
12	4.10	3.76	5.62	7.27	2.93	3.60	2.68	2.47	2.89	2.76	2.61	2.84
13	4.09	4.96	4.26	6.85	2.89	3.28	2.68	2.47	2.89	2.60	2.61	2.60
14	4.10	4.13	3.73	6.42	2.88	3.31	2.68	2.47	2.92	2.52	2.61	2.60
15	5.08	4.12	3.61	5.61	2.87	3.20	2.68	2.48	2.92	2.51	2.61	2.60
16	5.56	3.68	3.37	4.76	2.84	2.88	2.68	2.48	2.92	2.52	2.61	2.60
17	5.04	3.66	3.36	3.66	2.81	2.74	2.68	2.49	2.92	2.53	2.61	2.52
18	4.14	3.61	3.60	3.33	2.81	2.74	2.68	2.51	2.92	2.54	2.63	2.52
19	4.27	4.98	3.38	3.38	2.84	2.74	2.68	2.51	2.92	2.54	2.61	2.52
20	4.27	5.81	3.29	3.37	5.08	2.75	2.69	2.52	2.92	2.54	2.99	2.52
21	4.20	4.92	3.14	3.21	5.16	2.75	2.69	2.53	2.92	2.56	3.73	2.52
22	4.08	3.85	3.13	3.17	6.58	2.75	2.69	2.55	3.52	3.12	3.80	2.52
23	4.08	4.23	3.67	2.96	5.07	2.75	2.69	2.55	3.80	3.12	3.80	2.52
24	3.90	4.76	3.71	2.88	4.43	2.76	2.69	2.56	4.08	3.12	2.91	2.52
25	3.89	5.57	5.40	3.00	3.98	2.76	2.69	2.56	4.51	2.97	2.76	2.52
26	3.77	4.12	5.88	3.05	3.33	2.77	2.69	2.56	6.34	2.60	2.76	2.52
27	3.84	3.77	6.54	3.07	3.47	2.79	2.69	2.56	6.78	2.60	2.61	2.52
28	4.16	5.67	6.47	2.94	3.37	2.80	2.69	2.56	6.76	2.60	2.70	2.52
29	4.16	6.36	6.41	2.89	3.36	3.72	2.69	2.56	7.06	2.60	3.48	2.52
30	4.09	5.57	6.37	2.91	---	3.76	2.69	2.73	7.04	2.60	3.82	2.52
31	3.81	---	6.32	2.92	---	5.76	---	2.52	---	2.81	4.25	---
MEAN	4.89	4.33	4.42	4.33	3.41	3.89	2.96	2.52	3.82	3.81	3.00	3.10
MAX	7.52	6.36	6.54	7.36	6.58	6.55	6.16	2.73	7.06	7.87	4.25	6.40
MIN	3.77	3.61	3.13	2.88	2.81	2.74	2.68	2.45	2.52	2.51	2.61	2.52

CAL YR 2003 MEAN 4.27 MAX 8.59 MIN 2.49
WTR YR 2004 MEAN 3.71 MAX 7.87 MIN 2.45

03324500 SALAMONIE RIVER AT DORA, IN—Continued

WATER-QUALITY RECORDS

INSTRUMENTATION.--Temperature recorder.

PERIOD OF RECORD.--

WATER TEMPERATURE.--October 1987 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 28.2°C, Aug. 4, 1997; minimum, -0.3°C, Jan. 7-8, 10, 1990; Jan. 4, 24-26, Dec. 11-13, 19-20, 1995; Jan. 24-28, 1996; Jan. 12-13, 19, 25-31, Feb. 1-10, 12, 1997; and Jan. 21-27, 29, 1999.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 24.9°C, July 21, minimum, 1.7°C, Jan. 14 - 16.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	17.7	17.2	17.4	13.2	12.7	12.9	5.4	5.3	5.4	3.4	2.8	3.2
2	17.2	17.1	17.2	12.8	12.7	12.7	5.3	5.0	5.1	4.2	3.4	3.7
3	17.1	16.9	17.0	13.0	12.7	12.8	5.0	4.6	4.8	4.7	4.2	4.6
4	16.9	16.6	16.8	13.2	12.8	13.0	4.6	4.3	4.4	4.7	4.7	4.7
5	16.6	16.5	16.6	13.2	12.8	13.0	4.3	4.0	4.1	5.2	4.7	4.9
6	16.5	16.3	16.3	13.1	13.0	13.1	4.1	3.9	4.0	5.2	4.5	4.8
7	16.3	16.1	16.2	13.1	12.9	13.0	3.9	3.6	3.8	4.5	3.6	4.0
8	16.1	15.9	16.0	12.9	12.5	12.7	3.6	3.4	3.5	3.6	2.6	3.1
9	15.9	15.7	15.8	12.5	12.1	12.3	3.6	3.4	3.5	2.7	2.5	2.6
10	15.8	15.7	15.7	12.1	11.9	11.9	3.7	3.4	3.6	2.5	2.2	2.3
11	15.7	14.9	15.3	11.9	11.8	11.9	4.3	3.4	3.9	2.3	2.1	2.2
12	14.9	14.7	14.8	11.8	11.3	11.6	5.0	4.3	4.8	2.1	1.9	2.0
13	15.0	14.8	14.9	11.3	10.9	11.2	4.9	4.5	4.7	1.9	1.8	1.8
14	15.1	14.8	14.9	10.9	10.3	10.6	4.5	4.4	4.4	1.8	1.7	1.7
15	15.4	14.9	15.1	10.3	9.9	10.1	4.4	3.9	4.2	1.7	1.7	1.7
16	15.5	15.4	15.4	9.9	9.4	9.6	3.9	3.6	3.8	1.8	1.7	1.8
17	15.5	15.3	15.4	9.5	9.3	9.4	3.6	3.3	3.5	1.9	1.8	1.8
18	15.3	15.2	15.3	10.1	9.5	9.8	3.3	3.1	3.2	1.9	1.8	1.9
19	15.3	15.1	15.2	10.1	9.7	9.8	3.1	2.8	3.0	2.1	1.8	1.9
20	15.3	15.1	15.2	9.8	9.5	9.7	2.8	2.4	2.6	2.1	2.0	2.0
21	15.2	15.0	15.1	9.9	9.5	9.6	2.4	2.1	2.2	2.1	2.0	2.1
22	15.0	14.9	15.0	10.4	9.9	10.1	2.2	2.1	2.1	2.1	1.9	2.0
23	14.9	14.6	14.7	11.0	10.4	10.7	2.3	2.1	2.2	2.1	1.9	2.0
24	14.7	14.5	14.6	10.8	10.1	10.5	2.4	2.1	2.2	2.4	2.0	2.1
25	14.6	14.3	14.4	10.1	9.2	9.6	2.4	2.1	2.3	2.1	1.9	2.0
26	14.3	14.0	14.2	9.2	9.0	9.1	2.3	2.2	2.3	2.1	2.0	2.1
27	14.0	13.7	13.9	9.0	8.0	8.6	2.5	2.3	2.4	2.2	2.0	2.1
28	13.7	13.4	13.6	8.0	7.2	7.5	2.6	2.4	2.5	2.4	2.0	2.2
29	13.4	13.0	13.2	7.5	5.9	6.6	2.6	2.6	2.6	2.3	2.0	2.1
30	13.3	12.9	13.1	5.9	5.4	5.5	2.6	2.6	2.6	2.3	2.0	2.1
31	13.3	13.1	13.2	---	---	---	2.8	2.6	2.6	2.3	2.0	2.1
MONTH	17.7	12.9	15.2	13.2	5.4	10.6	5.4	2.1	3.4	5.2	1.7	2.6

03324500 SALAMONIE RIVER AT DORA, IN—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.4	2.1	2.2	3.7	3.3	3.5	11.0	10.0	10.6	15.7	15.0	15.4
2	2.4	2.1	2.3	4.3	3.7	3.9	11.2	11.0	11.2	15.5	14.6	15.0
3	2.3	2.1	2.3	5.5	4.3	4.9	11.5	11.2	11.4	16.0	14.5	15.0
4	2.6	2.1	2.3	6.1	5.5	5.9	11.5	11.3	11.3	16.6	14.3	15.2
5	2.4	2.2	2.3	7.4	6.0	6.6	11.4	11.0	11.2	17.1	15.0	15.8
6	2.5	2.4	2.4	8.2	7.4	7.8	11.5	11.0	11.2	17.7	15.0	16.1
7	2.5	2.4	2.4	8.9	8.2	8.6	11.8	11.1	11.5	15.8	15.1	15.5
8	2.5	2.3	2.4	9.0	8.9	9.0	11.6	11.1	11.4	18.1	14.9	16.3
9	2.6	2.3	2.4	9.0	8.6	8.8	12.5	11.2	11.8	17.9	15.6	16.6
10	2.6	2.3	2.4	8.7	8.4	8.6	12.7	11.4	11.9	17.8	15.7	16.5
11	2.7	2.2	2.4	8.6	8.0	8.4	12.3	11.5	11.8	17.6	15.8	16.4
12	2.7	2.3	2.4	8.0	7.3	7.6	12.0	11.5	11.7	18.1	15.8	16.7
13	2.5	2.3	2.4	7.5	7.1	7.3	11.6	11.0	11.3	16.9	15.8	16.3
14	2.8	2.3	2.4	7.3	7.1	7.2	12.3	10.9	11.4	16.8	15.7	16.2
15	2.7	2.2	2.4	7.3	6.8	7.0	12.6	11.0	11.8	15.8	15.3	15.6
16	2.8	2.2	2.5	6.8	6.5	6.7	13.7	11.9	12.7	17.6	15.4	16.2
17	2.9	2.3	2.5	6.5	6.3	6.4	13.9	12.4	13.0	17.0	15.6	16.2
18	3.0	2.3	2.6	6.6	6.2	6.4	13.9	12.1	13.0	16.4	15.7	16.0
19	3.0	2.5	2.7	6.8	6.3	6.5	14.2	12.3	13.5	17.1	15.7	16.3
20	2.6	2.5	2.5	6.9	6.3	6.6	14.7	12.5	13.7	16.7	15.9	16.2
21	2.5	2.3	2.4	6.5	6.0	6.3	15.7	13.7	15.0	17.1	15.9	16.4
22	2.3	2.0	2.1	6.8	5.8	6.1	14.3	13.6	14.0	17.9	15.8	16.5
23	2.0	1.9	1.9	6.8	5.8	6.2	14.9	13.9	14.3	17.0	15.9	16.4
24	1.9	1.8	1.8	6.8	6.3	6.6	15.6	13.8	14.7	17.3	15.7	16.3
25	2.0	1.9	2.0	7.4	6.7	7.1	16.3	14.4	15.5	17.8	15.6	16.5
26	2.3	2.0	2.2	8.0	7.4	7.7	15.4	14.1	14.6	17.8	15.8	16.5
27	2.6	2.2	2.4	8.1	7.4	7.7	14.5	14.1	14.3	17.5	15.8	16.4
28	2.9	2.5	2.7	9.9	8.1	9.2	15.8	14.3	15.0	17.7	15.9	16.5
29	3.3	2.8	3.1	9.7	8.4	8.9	16.2	15.1	15.6	17.9	15.7	16.7
30	---	---	---	9.2	8.4	8.8	16.3	15.4	15.8	18.0	16.0	16.8
31	---	---	---	10.0	8.9	9.3	---	---	---	18.0	16.3	17.1
MONTH	3.3	1.8	2.4	10.0	3.3	7.1	16.3	10.0	12.9	18.1	14.3	16.2
		JUNE			JULY			AUGUST			SEPTEMBER	
1	17.9	16.1	16.8	22.2	22.0	22.1	23.2	22.7	23.0	22.3	22.0	22.1
2	16.9	16.3	16.6	22.6	22.1	22.4	23.2	22.7	22.9	22.4	22.1	22.3
3	16.8	16.3	16.6	22.9	22.5	22.7	23.6	22.8	23.1	22.6	22.3	22.4
4	17.0	16.3	16.7	23.0	22.8	22.9	23.3	22.8	23.1	22.8	22.5	22.6
5	17.4	16.9	17.2	23.1	22.9	23.0	23.3	22.7	22.9	22.8	22.2	22.6
6	17.8	17.3	17.6	23.3	23.1	23.2	23.4	22.7	23.0	22.6	22.1	22.3
7	19.9	17.8	18.9	23.4	22.9	23.2	23.6	22.8	23.1	22.4	22.1	22.2
8	20.4	19.1	19.6	23.1	22.9	23.0	24.4	23.1	23.5	22.4	22.0	22.2
9	20.4	19.3	19.7	23.4	23.0	23.2	24.0	22.8	23.3	22.3	22.0	22.1
10	19.8	19.4	19.6	23.2	22.9	23.1	23.5	22.9	23.1	23.1	22.0	22.4
11	19.8	19.4	19.6	23.4	23.0	23.1	23.8	22.6	23.1	22.9	22.0	22.3
12	20.1	19.2	19.7	23.9	23.0	23.3	23.2	22.4	22.8	22.9	21.9	22.3
13	20.5	19.4	19.8	24.8	23.1	23.6	23.3	22.4	22.8	23.0	22.0	22.3
14	20.5	19.5	20.0	24.4	22.8	23.3	23.3	22.2	22.7	23.0	21.8	22.2
15	20.5	19.7	20.1	24.7	22.6	23.4	23.5	22.3	22.7	23.1	21.8	22.3
16	20.0	19.8	19.9	24.7	22.7	23.4	23.7	22.2	22.8	22.8	21.8	22.2
17	20.7	19.6	20.1	24.6	22.7	23.4	23.5	22.3	22.8	22.6	21.5	21.9
18	20.1	19.2	19.7	24.4	22.7	23.4	23.3	22.5	22.8	22.8	21.2	21.8
19	20.6	19.9	20.1	24.6	22.6	23.4	22.7	22.4	22.6	22.8	21.2	21.8
20	20.8	19.9	20.3	24.6	22.6	23.4	22.5	22.3	22.4	22.8	21.2	21.8
21	20.7	20.0	20.3	24.9	22.8	23.6	22.6	22.3	22.4	22.9	21.1	21.9
22	20.2	18.5	19.2	23.3	22.7	23.0	22.6	22.4	22.5	22.9	21.2	21.9
23	19.3	18.5	19.0	23.2	22.6	22.9	22.6	22.3	22.4	22.8	21.3	22.0
24	20.0	19.3	19.7	23.3	22.6	22.9	22.7	22.0	22.4	22.6	21.5	21.9
25	20.5	20.0	20.3	23.6	22.7	23.2	22.9	22.4	22.6	22.6	21.3	21.8
26	21.0	20.4	20.8	23.5	23.1	23.3	23.1	22.3	22.5	21.9	21.1	21.4
27	21.4	21.0	21.3	23.5	23.0	23.1	22.9	22.2	22.5	22.2	20.8	21.4
28	21.5	21.4	21.5	24.6	22.9	23.6	23.1	22.2	22.4	21.4	20.7	21.0
29	21.7	21.5	21.6	24.2	23.0	23.5	22.3	21.9	22.1	21.4	20.3	20.8
30	22.0	21.7	21.9	23.5	23.1	23.3	22.2	21.9	22.0	21.4	20.0	20.5
31	---	---	---	23.8	23.2	23.4	22.2	21.9	22.1	---	---	---
MONTH	22.0	16.1	19.5	24.9	22.0	23.2	24.4	21.9	22.7	23.1	20.0	22.0
YEAR	24.9	1.7	13.2									

03325000 WABASH RIVER AT WABASH, IN

LOCATION.--Lat 40°47'27", long 85°49'13", in SE¼NW¼ sec.14, T.27 N., R.6 E., Wabash County, Hydrologic Unit 05120101, (WABASH, IN quadrangle), on right bank on upstream side of Wabash Street bridge in Wabash,0.3 mi upstream of Huntington Road bridge, 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 National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1954, nonrecording gage at same site and datum.

REMARKS.--Records fair 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,740	939	4,010	4,440	e680	2,440	4,040	239	4,520	4,810	876	4,840
2	4,370	1,030	2,990	3,110	e660	5,440	3,120	405	3,920	4,080	1,110	4,770
3	3,950	1,150	1,900	2,480	e640	6,380	e1,700	813	3,210	4,230	695	3,370
4	4,270	1,090	1,300	5,050	e660	5,520	e1,300	1,180	2,300	4,420	645	3,530
5	4,670	908	984	7,390	e600	7,050	e1,030	1,080	1,800	4,100	1,860	2,970
6	4,550	967	1,150	5,940	e560	6,550	832	707	1,090	3,600	1,330	1,090
7	4,770	858	1,180	6,870	e580	6,370	549	430	817	2,690	966	1,080
8	4,740	831	1,270	7,800	e540	6,380	502	914	543	1,490	443	1,440
9	4,230	814	1,650	7,810	e520	5,730	414	671	454	1,130	340	1,060
10	3,800	733	4,760	7,690	e500	3,130	402	511	411	782	397	849
11	2,130	744	6,900	7,150	e520	2,140	396	412	2,770	657	396	e426
12	918	794	e5,200	6,350	e530	1,470	376	412	5,830	396	350	e346
13	1,010	1,230	e3,800	5,240	e540	1,260	364	403	5,780	326	e308	e364
14	1,170	1,680	2,790	4,110	e520	1,050	340	366	8,840	345	e286	e316
15	2,320	1,410	1,820	3,240	e480	952	363	348	6,430	334	e238	e286
16	3,410	1,140	1,280	2,420	e500	883	360	339	5,020	273	e218	e328
17	3,350	854	1,270	1,690	e520	615	331	327	4,470	226	e210	e360
18	2,320	815	1,230	e1,170	e500	580	322	419	4,620	214	e235	e338
19	1,660	2,590	1,290	e1,000	e490	595	319	589	4,420	216	e506	e280
20	1,390	3,290	1,060	e860	e1,200	609	252	1,320	4,550	238	644	e216
21	1,320	3,320	877	e760	5,660	618	245	2,110	4,740	234	2,640	e212
22	1,130	2,580	825	e700	5,890	e600	289	2,230	4,850	1,080	2,560	e218
23	1,070	1,600	3,010	e660	5,670	e590	288	1,370	4,860	1,950	1,450	e226
24	1,030	2,130	5,820	e630	4,360	e595	251	3,130	4,850	1,270	820	e220
25	964	3,000	6,420	e680	2,870	618	246	2,310	4,660	616	568	e206
26	946	2,480	6,950	e740	2,140	794	234	1,050	4,190	429	406	e212
27	948	1,790	7,080	e840	1,710	2,260	245	785	4,780	372	311	e210
28	1,030	2,150	6,500	e780	1,650	3,590	235	539	4,910	379	1,080	e202
29	1,130	4,680	6,120	e740	1,550	4,020	225	425	4,460	356	3,790	e200
30	1,120	5,160	5,930	e720	---	3,700	223	741	4,710	308	4,420	e210
31	1,090	---	5,440	e700	---	3,580	---	7,010	---	353	4,630	---
TOTAL	75,546	52,757	102,806	99,760	43,240	86,109	19,793	33,585	118,805	41,904	34,728	30,375
MEAN	2,437	1,759	3,316	3,218	1,491	2,778	660	1,083	3,960	1,352	1,120	1,012
MAX	4,770	5,160	7,080	7,810	5,890	7,050	4,040	7,010	8,840	4,810	4,630	4,840
MIN	918	733	825	630	480	580	223	239	411	214	210	200
CFSM	1.38	0.99	1.88	1.82	0.84	1.57	0.37	0.61	2.24	0.76	0.63	0.57
IN.	1.59	1.11	2.16	2.10	0.91	1.81	0.42	0.71	2.50	0.88	0.73	0.64

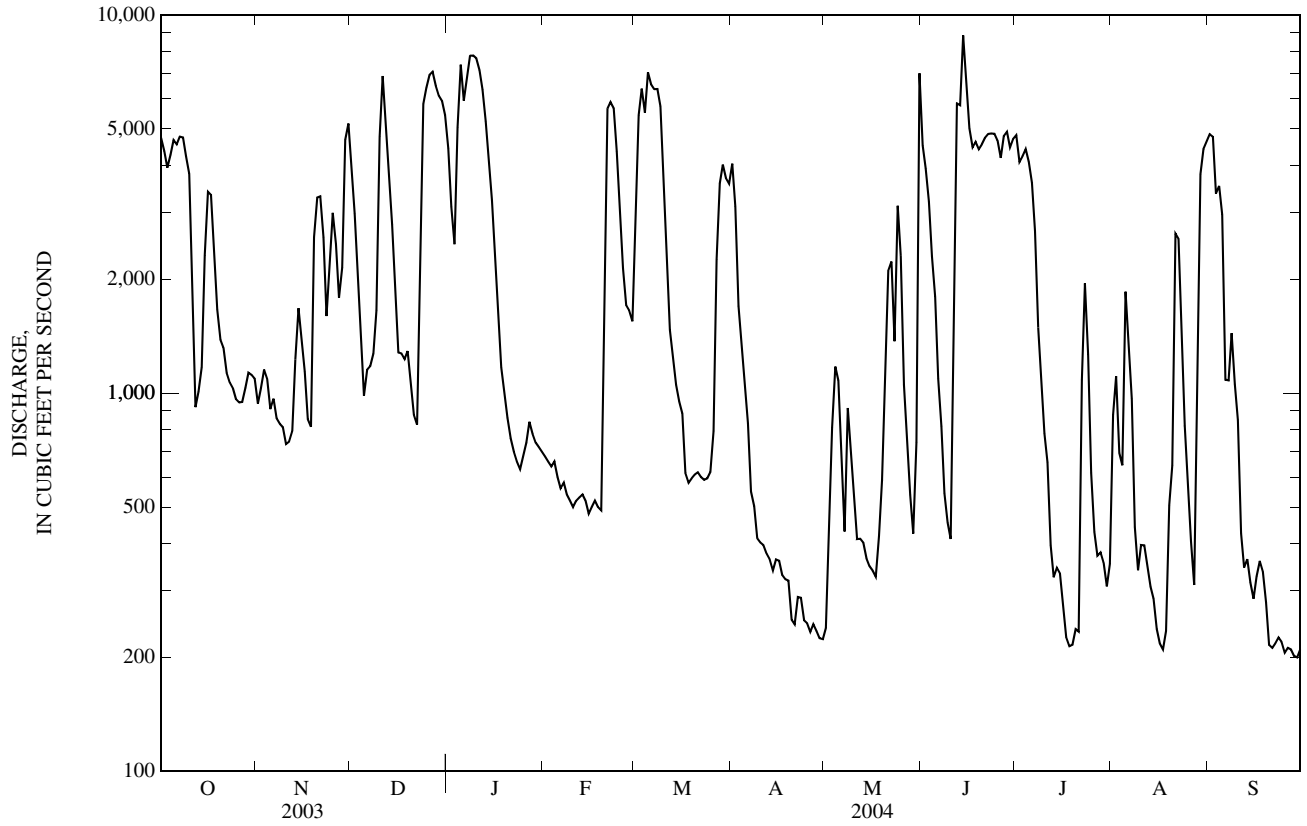
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2004, BY WATER YEAR (WY)

MEAN	655	988	1,743	2,188	2,418	3,049	2,632	1,662	1,445	922	569	543
MAX	3,667	5,044	5,829	13,260	7,764	8,144	11,060	10,410	8,260	7,253	4,887	5,676
(WY)	(2002)	(1993)	(1968)	(1950)	(1959)	(1982)	(1957)	(1943)	(1958)	(2003)	(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)

03325000 WABASH RIVER AT WABASH, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1924 - 2004	
ANNUAL TOTAL	1,119,264		739,408			
ANNUAL MEAN	3,066		2,020		1,565	
HIGHEST ANNUAL MEAN					2,994	1950
LOWEST ANNUAL MEAN					276	1931
HIGHEST DAILY MEAN	13,500	Jul 7	8,840	Jun 14	47,800	May 18, 1943
LOWEST DAILY MEAN	192	Apr 30	e 200	Sep 29	17	Aug 3, 1934
ANNUAL SEVEN-DAY MINIMUM	219	Apr 25	e 209	Sep 24	18	Aug 3, 1934
MAXIMUM PEAK FLOW			9,700	Jan 5	49,600	May 18, 1943
MAXIMUM PEAK STAGE			13.41	Jan 5	24.44	Feb 11, 1959
ANNUAL RUNOFF (CFSM)	1.73		1.14		0.885	
ANNUAL RUNOFF (INCHES)	23.55		15.56		12.02	
10 PERCENT EXCEEDS	7,070		5,080		4,660	
50 PERCENT EXCEEDS	2,310		1,080		544	
90 PERCENT EXCEEDS	400		302		90	

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, (DEERFIELD, IN quadrangle), 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 National Geodetic Vertical Datum of 1929 (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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	47	201	128	e23	211	335	39	138	18	35	27
2	77	53	137	274	e24	324	189	312	82	17	14	17
3	64	52	106	255	e35	181	137	197	56	17	11	13
4	75	50	88	2,230	e38	462	101	102	42	47	54	65
5	69	46	212	3,400	e30	1,090	79	77	36	26	48	39
6	55	38	368	852	e120	324	71	60	31	18	14	18
7	46	34	195	266	e170	173	68	50	28	16	8.5	13
8	40	30	140	154	e50	118	64	42	24	14	6.8	12
9	37	27	124	109	e27	93	49	38	21	13	6.0	11
10	37	27	301	76	47	72	43	34	21	20	5.8	9.5
11	34	34	353	66	45	68	42	31	841	21	5.5	8.7
12	32	656	147	63	61	57	39	29	673	35	5.3	8.2
13	30	236	101	52	51	45	42	27	391	17	5.1	7.9
14	782	115	91	47	e37	47	38	29	1,310	13	5.2	8.3
15	878	88	73	45	e31	44	31	30	476	11	5.0	8.4
16	299	75	119	34	e27	47	30	25	1,350	11	4.9	11
17	173	61	210	34	e25	48	29	23	802	10	5.2	12
18	122	141	109	47	e40	53	28	24	437	9.9	5.6	11
19	92	1,290	82	e32	e400	146	28	28	172	9.5	5.5	9.8
20	72	413	65	e30	732	463	28	28	108	8.8	28	9.2
21	68	194	58	e29	525	436	32	44	80	8.3	74	8.8
22	54	130	62	e28	162	156	36	80	66	19	18	8.8
23	47	101	1,850	e27	159	108	119	39	47	25	9.0	8.5
24	39	240	1,060	e26	169	91	72	28	39	14	6.9	9.7
25	37	153	299	e25	98	91	61	24	35	9.3	6.1	8.4
26	81	108	154	e25	78	340	51	23	32	9.6	6.0	8.0
27	103	1,070	114	e24	66	841	42	35	27	20	6.1	8.1
28	76	1,750	101	e24	64	294	34	218	25	18	57	8.3
29	69	672	158	e23	75	176	30	91	23	11	925	8.7
30	56	302	534	e22	---	161	33	59	20	10	204	12
31	48	---	188	e22	---	969	---	326	---	59	64	---
TOTAL	3,794	8,233	7,800	8,469	3,409	7,729	1,981	2,192	7,433	555.4	1,654.5	408.3
MEAN	122	274	252	273	118	249	66.0	70.7	248	17.9	53.4	13.6
MAX	878	1,750	1,850	3,400	732	1,090	335	326	1,350	59	925	65
MIN	30	27	58	22	23	44	28	23	20	8.3	4.9	7.9
CFSM	0.92	2.06	1.89	2.05	0.88	1.87	0.50	0.53	1.86	0.13	0.40	0.10
IN.	1.06	2.30	2.18	2.37	0.95	2.16	0.55	0.61	2.08	0.16	0.46	0.11

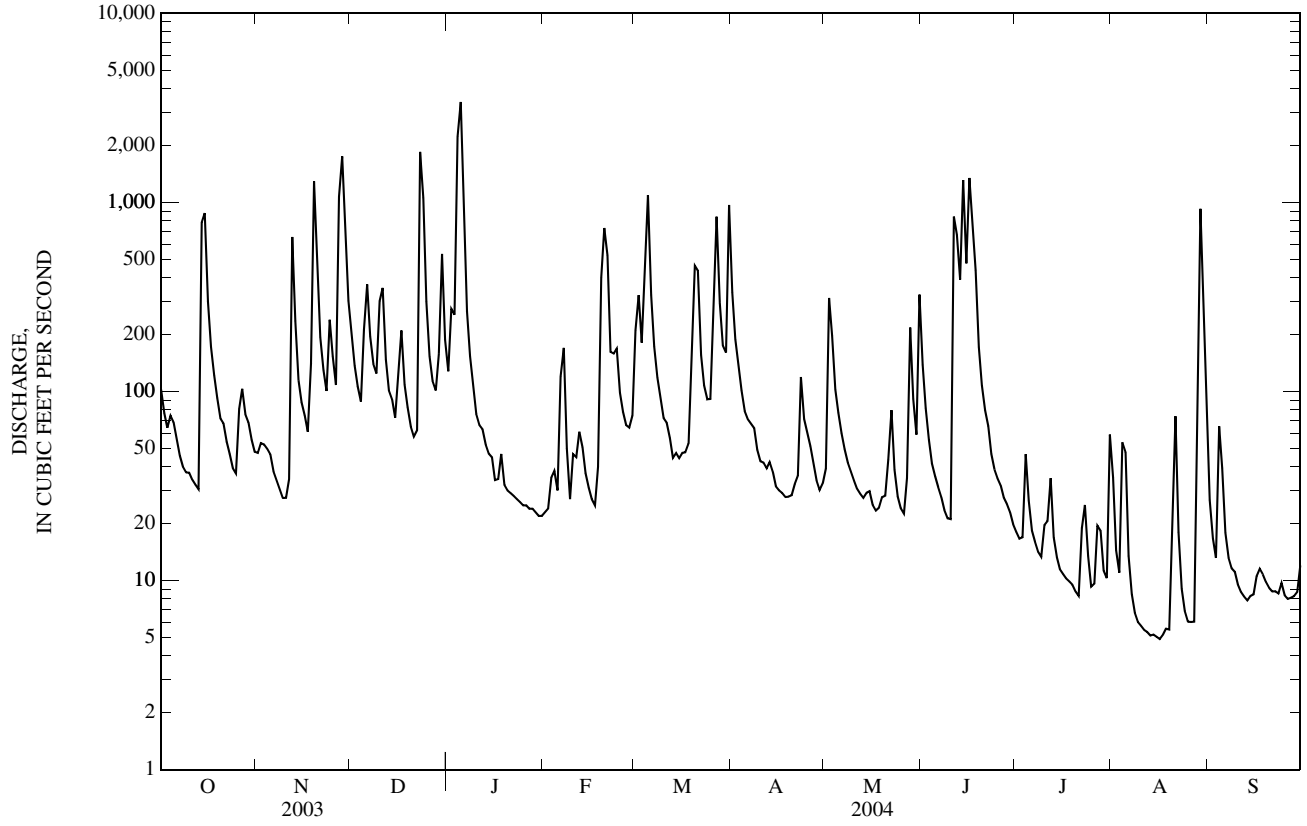
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2004, BY WATER YEAR (WY)

MEAN	35.8	93.7	149	179	202	248	219	128	146	102	37.6	35.5
MAX	314	729	872	865	548	714	810	371	1,417	709	454	384
(WY)	(2002)	(1994)	(1991)	(1950)	(1950)	(1978)	(1964)	(2002)	(1958)	(1979)	(1979)	(2003)
MIN	1.25	1.82	2.62	3.25	5.00	46.1	25.8	15.3	6.52	2.37	2.13	0.99
(WY)	(1947)	(1954)	(1964)	(1977)	(1964)	(1957)	(1976)	(1988)	(1988)	(1952)	(1983)	(1954)

03325500 MISSISSINEWA RIVER NEAR RIDGEVILLE, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1947 - 2004	
ANNUAL TOTAL	81,247.6		53,658.2			
ANNUAL MEAN	223		147		131	
HIGHEST ANNUAL MEAN					223	1958
LOWEST ANNUAL MEAN					29.8	1954
HIGHEST DAILY MEAN	4,120	Jul 9	3,400	Jan 5	11,300	Jun 10, 1958
LOWEST DAILY MEAN	8.6	Aug 28	4.9	Aug 16	0.10	Oct 24, 1946
ANNUAL SEVEN-DAY MINIMUM	9.1	Aug 23	5.2	Aug 11	0.23	Oct 5, 1946
MAXIMUM PEAK FLOW			4,120	Jan 5	13,900	Jun 10, 1958
MAXIMUM PEAK STAGE			14.01	Jan 5	16.25	Jun 10, 1958
ANNUAL RUNOFF (CFSM)	1.67		1.10		0.983	
ANNUAL RUNOFF (INCHES)	22.72		15.01		13.36	
10 PERCENT EXCEEDS	501		329		278	
50 PERCENT EXCEEDS	69		47		29	
90 PERCENT EXCEEDS	21		9.5		3.9	

e Estimated



03326500 MISSISSINEWA RIVER AT MARION, IN

LOCATION.--Lat 40°34'35", long 85°39'36", in SE¼NE¼ sec.31, T.25 N., R.8 E., Grant County, Hydrologic Unit 05120103, (MARION, IN quadrangle), 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 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 774.56 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 9, 1933, nonrecording gage at same site and datum.

REMARKS.--Records fair 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	763	397	1,040	970	e157	1,070	2,300	228	1,680	177	279	349
2	595	473	763	752	e157	2,180	1,220	349	743	164	177	216
3	510	414	618	945	206	1,450	777	467	468	159	157	213
4	476	378	546	5,770	e198	1,330	599	586	343	170	196	203
5	444	352	539	11,000	221	4,780	490	401	272	167	143	144
6	419	317	837	8,720	223	3,480	418	313	235	183	128	121
7	383	292	1,190	3,940	222	1,540	378	273	209	172	153	160
8	351	267	870	e1,290	e254	909	355	241	187	144	115	166
9	333	243	971	e852	e277	667	324	219	167	136	93	123
10	318	228	1,390	e618	e225	532	291	207	158	181	88	98
11	302	237	2,490	e534	e195	463	265	196	2,480	172	81	88
12	286	829	1,560	493	217	403	250	196	6,900	204	73	80
13	271	1,910	846	468	221	353	244	192	5,100	215	68	74
14	338	1,030	648	429	e201	325	237	197	3,100	168	66	71
15	1,390	625	563	399	e193	311	225	254	2,560	144	65	68
16	2,070	514	519	363	e180	309	213	349	2,120	123	66	65
17	987	454	589	345	e173	311	200	257	5,220	114	67	61
18	638	477	712	367	e169	318	194	278	3,740	104	103	60
19	519	1,720	568	343	e243	416	185	423	1,570	100	90	58
20	448	2,370	482	e253	e1,570	565	196	399	846	98	214	57
21	391	1,540	426	e226	3,230	1,120	212	490	597	92	492	54
22	361	796	409	e196	1,580	1,150	247	764	491	117	393	54
23	329	615	3,050	e173	934	625	529	494	400	123	238	53
24	311	1,200	6,680	e166	858	491	464	426	336	122	149	51
25	288	1,560	4,480	e162	709	437	436	325	304	110	111	50
26	300	927	1,530	e157	552	964	364	252	267	101	97	52
27	366	700	948	e157	459	3,210	302	247	237	98	89	50
28	419	2,240	785	e157	409	2,440	262	366	215	98	123	49
29	409	3,790	815	e159	398	1,230	233	702	200	100	570	50
30	359	2,360	1,900	e157	---	898	215	491	184	109	1,540	50
31	324	---	1,740	e157	---	2,180	---	1,530	---	295	700	---
TOTAL	15,698	29,255	40,504	40,718	14,631	36,457	12,625	12,112	41,329	4,460	6,924	2,988
MEAN	506	975	1,307	1,313	505	1,176	421	391	1,378	144	223	99.6
MAX	2,070	3,790	6,680	11,000	3,230	4,780	2,300	1,530	6,900	295	1,540	349
MIN	271	228	409	157	157	309	185	192	158	92	65	49
CFSM	0.74	1.43	1.92	1.93	0.74	1.72	0.62	0.57	2.02	0.21	0.33	0.15
IN.	0.86	1.60	2.21	2.22	0.80	1.99	0.69	0.66	2.25	0.24	0.38	0.16

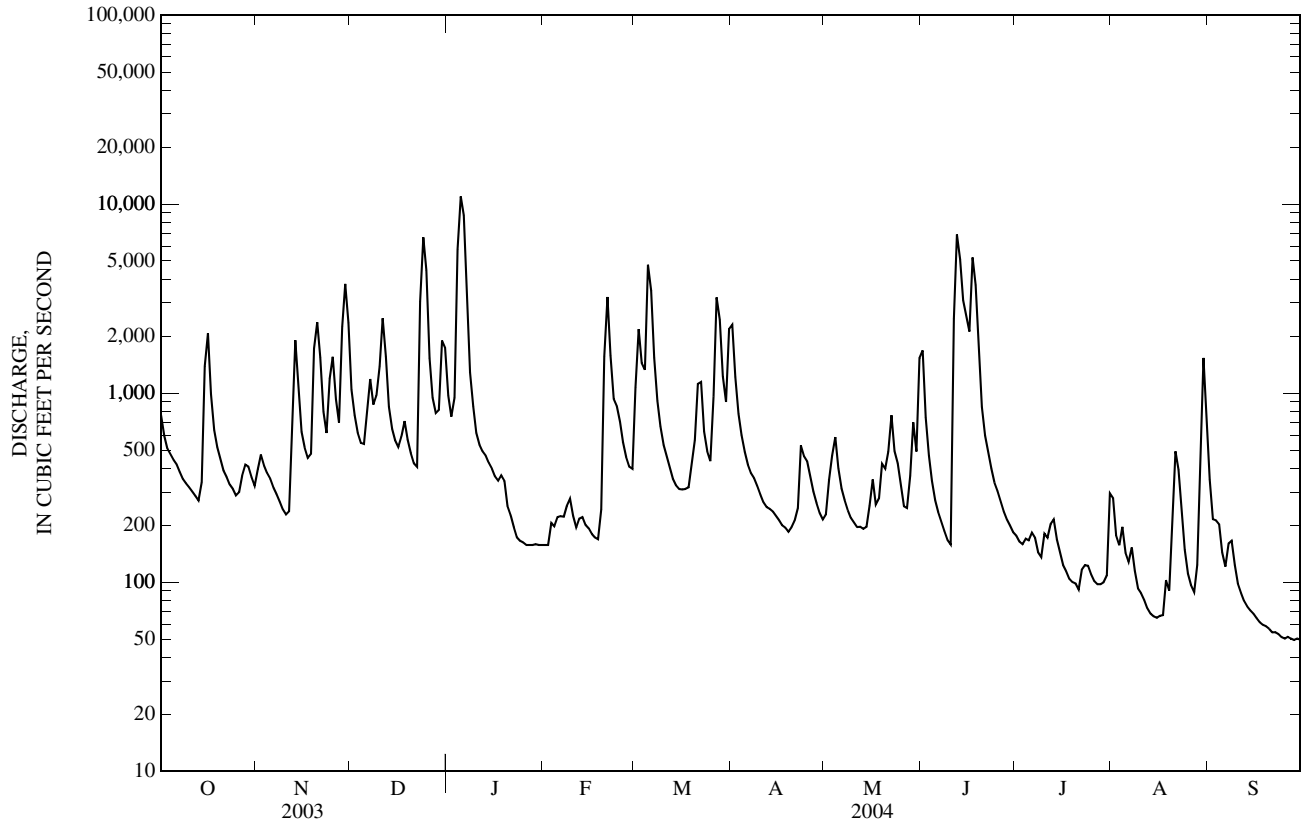
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2004, BY WATER YEAR (WY)

MEAN	199	409	695	896	941	1,244	1,124	737	642	430	209	244
MAX	2,259	2,626	2,947	5,129	2,707	3,181	3,699	3,776	4,765	3,308	1,522	4,223
(WY)	(2002)	(1993)	(1991)	(1930)	(1990)	(1982)	(1964)	(1933)	(1958)	(2003)	(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)

03326500 MISSISSINEWA RIVER AT MARION, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1924 - 2004	
ANNUAL TOTAL	440,430		257,701			
ANNUAL MEAN	1,207		704		639	
HIGHEST ANNUAL MEAN					1,167	1927
LOWEST ANNUAL MEAN					106	1941
HIGHEST DAILY MEAN	17,300	Jul 10	11,000	Jan 5	23,400	Jun 11, 1958
LOWEST DAILY MEAN	130	Aug 28	49	Sep 28	3.4	Oct 25, 1968
ANNUAL SEVEN-DAY MINIMUM	146	Aug 22	50	Sep 24	8.4	Oct 17, 1940
MAXIMUM PEAK FLOW			11,700	Jan 5	25,000	Mar 21, 1927
MAXIMUM PEAK STAGE			11.21	Jan 5	17.40	Mar 21, 1927
ANNUAL RUNOFF (CFSM)	1.77		1.03		0.936	
ANNUAL RUNOFF (INCHES)	24.02		14.06		12.72	
10 PERCENT EXCEEDS	2,630		1,570		1,500	
50 PERCENT EXCEEDS	477		331		204	
90 PERCENT EXCEEDS	189		98		49	

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, (PEORIA, IN quadrangle), 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 September 1976 (discharge). October 1976 to September 2001 (discharge provided by U.S. Army Corps of Engineers). October 2001 to current year (stage only).

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

GAGE.--Water-stage recorder. Datum of gage is 660.00 ft above National Geodetic Vertical Datum of 1929. 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 October 1976 to September 2001.

EXTREMES FOR PERIOD OF RECORD.--(October 2001 to current year) maximum gage height, 9.23 ft, July 10, 2003; minimum gage height, -0.53 ft, Nov. 21, 2002. (October 1952 to September 1976) maximum discharge, 28,000 ft^3/s, June 11, 1958; maximum gage height, 19.26 ft, June 11, 1958 site then in use; minimum discharge, zero flow, Sept. 11 to Oct. 2, 1985, Oct. 21 to Nov. 22, 1992.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 8.61 ft, June 18; minimum gage height, 0.46 ft, May 6.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.60	1.93	5.14	4.05	1.14	2.35	6.76	1.77	5.05	1.75	1.97	2.34
2	3.00	2.35	2.93	2.88	1.14	5.23	4.85	1.77	5.69	1.66	1.61	1.87
3	2.70	2.22	2.93	2.98	1.14	5.21	3.21	1.93	1.95	1.41	1.41	1.66
4	1.92	1.95	2.52	4.97	1.14	4.50	3.43	2.71	1.95	1.65	1.41	1.97
5	2.83	1.97	2.52	6.21	1.15	7.07	2.66	2.61	1.95	1.65	1.41	1.97
6	2.71	1.97	2.30	7.90	1.15	7.81	2.22	2.57	1.95	1.65	1.41	1.97
7	2.59	1.97	3.62	8.19	1.15	4.10	2.22	2.06	1.95	1.65	1.41	1.97
8	2.46	1.65	3.60	8.06	1.15	4.09	0.98	2.06	1.50	1.65	1.41	1.97
9	2.33	1.65	2.66	6.16	1.15	2.49	0.98	1.78	1.51	1.65	1.70	1.97
10	2.11	1.65	4.06	5.43	1.15	2.65	0.98	1.78	1.57	1.65	1.63	1.26
11	2.37	1.65	6.08	5.37	1.94	2.74	0.98	1.78	5.61	1.65	1.52	1.27
12	2.36	2.64	4.81	5.29	1.94	2.37	0.99	1.78	4.42	1.65	1.52	1.27
13	2.24	5.14	2.66	4.86	1.94	2.37	0.99	1.78	5.29	1.65	1.27	1.27
14	2.25	3.19	3.17	4.07	1.73	1.89	0.93	1.78	3.53	1.65	1.27	1.27
15	4.09	2.66	2.54	4.02	1.73	1.89	0.93	1.78	5.38	1.65	1.09	1.27
16	5.22	2.16	2.54	3.77	1.73	0.89	0.93	1.78	7.46	1.49	1.09	1.27
17	3.22	2.16	2.36	3.71	1.73	0.89	0.93	1.78	8.41	1.31	1.14	1.27
18	2.69	2.17	2.65	3.47	1.73	0.89	0.93	2.02	8.60	1.09	1.11	0.79
19	2.57	4.07	2.65	2.10	1.74	0.89	0.94	2.73	8.47	1.09	2.05	0.79
20	2.10	5.45	2.37	2.10	4.47	0.89	0.94	2.73	7.24	1.09	1.67	0.79
21	2.10	4.07	2.36	2.10	6.45	0.90	0.94	2.72	5.86	1.38	2.41	0.79
22	2.10	2.93	2.14	2.09	5.21	0.90	0.95	3.29	5.43	1.61	2.41	1.25
23	2.10	2.93	4.82	1.13	3.21	0.91	0.95	3.29	3.78	1.61	1.50	1.29
24	1.63	2.94	7.94	1.13	3.43	0.91	3.27	2.74	2.02	1.60	1.50	1.29
25	1.63	4.44	7.95	1.13	3.18	0.91	2.43	2.73	2.02	1.60	1.50	1.29
26	1.99	3.62	7.23	1.13	2.56	0.93	2.43	2.07	2.02	1.40	1.50	1.29
27	1.98	3.19	3.19	1.13	2.56	5.86	2.43	2.07	2.02	1.23	1.50	0.88
28	2.22	3.64	3.42	1.13	2.11	5.85	1.95	2.07	2.02	1.23	1.53	0.89
29	2.21	5.85	3.42	1.14	2.21	6.44	1.77	2.73	1.75	1.23	2.74	1.50
30	1.99	5.85	4.26	1.14	---	6.93	1.77	2.75	1.75	1.24	4.71	1.80
31	1.99	---	4.79	1.14	---	6.84	---	3.78	---	1.60	3.82	---
MEAN	2.59	3.00	3.73	3.55	2.17	3.18	1.89	2.30	3.94	1.50	1.75	1.42
MAX	6.60	5.85	7.95	8.19	6.45	7.81	6.76	3.78	8.60	1.75	4.71	2.34
MIN	1.63	1.65	2.14	1.13	1.14	0.89	0.93	1.77	1.50	1.09	1.09	0.79

CAL YR 2003 MEAN 3.35 MAX 9.18 MIN 1.29
WTR YR 2004 MEAN 2.59 MAX 8.60 MIN 0.79

03327000 MISSISSINEWA RIVER AT PEORIA, IN—Continued

WATER-QUALITY RECORDS

INSTRUMENTATION.--Temperature recorder.

PERIOD OF RECORD.--

WATER TEMPERATURE.--October 1987 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 29.1°C, Aug. 4, 2002; minimum, -0.3°C, Jan. 27-31, 1996.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 28.3°C, July 21, minimum, 1.1°C, Feb. 22.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	16.3	15.7	16.0	12.6	11.9	12.2	6.7	5.7	6.1	4.4	3.4	3.7
2	15.7	15.0	15.5	12.8	12.2	12.4	6.9	5.4	5.7	5.5	3.8	4.3
3	15.0	14.4	14.6	13.2	12.5	12.7	5.4	4.8	5.0	5.0	4.7	4.9
4	14.6	13.8	14.3	13.8	13.0	13.4	5.1	4.5	4.7	5.5	4.7	4.9
5	14.7	13.8	14.1	14.1	12.3	13.0	4.5	4.3	4.4	6.1	5.0	5.6
6	14.3	13.6	13.9	13.2	12.5	13.0	4.6	4.2	4.4	5.6	3.9	4.7
7	14.5	13.7	14.0	12.9	12.3	12.5	4.4	4.1	4.3	3.9	3.0	3.4
8	14.6	13.9	14.1	12.8	11.6	12.2	4.3	4.0	4.1	3.0	2.1	2.5
9	14.6	13.9	14.1	12.3	11.2	11.6	5.4	4.0	4.2	3.1	1.8	2.1
10	15.2	14.1	14.5	12.0	11.0	11.4	4.5	4.3	4.4	2.8	1.6	1.9
11	15.1	14.3	14.6	12.0	11.5	11.7	4.3	4.1	4.2	2.0	1.8	1.9
12	14.7	14.1	14.4	11.5	9.5	10.8	4.9	4.1	4.3	2.0	1.7	1.9
13	15.8	14.6	15.2	11.0	10.3	10.7	5.4	4.1	4.4	2.6	1.7	1.9
14	15.6	14.4	15.1	10.6	9.9	10.2	4.4	4.2	4.3	3.2	1.9	2.0
15	15.6	14.8	15.2	10.3	9.7	9.8	5.1	4.0	4.2	1.9	1.8	1.9
16	15.6	15.3	15.5	10.1	9.4	9.6	4.1	3.8	4.0	2.3	1.8	2.0
17	15.3	14.5	14.9	10.0	9.4	9.7	3.8	3.3	3.5	2.1	2.0	2.0
18	14.6	13.9	14.3	10.5	9.9	10.2	3.3	3.1	3.2	2.3	1.9	2.0
19	15.2	14.1	14.4	10.4	9.8	10.1	3.2	2.7	2.9	3.5	1.8	2.1
20	14.7	14.0	14.2	10.0	9.7	9.8	2.9	2.3	2.5	2.1	1.8	1.9
21	14.4	13.7	14.1	11.1	9.7	10.3	2.5	2.1	2.3	2.2	1.7	1.9
22	14.1	13.7	13.9	11.5	11.0	11.1	2.8	2.3	2.5	2.3	1.7	1.9
23	14.5	13.7	14.0	11.9	11.5	11.7	2.7	2.3	2.5	3.4	1.7	2.1
24	14.6	13.6	14.0	11.6	10.2	10.8	2.4	2.0	2.2	3.0	1.7	2.1
25	13.9	13.6	13.7	10.2	9.5	9.8	3.0	2.4	2.7	2.0	1.4	1.6
26	13.9	13.1	13.5	9.8	9.4	9.5	3.9	3.0	3.2	2.0	1.4	1.7
27	13.2	12.6	12.9	9.5	8.9	9.2	4.4	3.0	3.6	2.4	1.7	2.0
28	12.6	12.4	12.5	8.9	7.9	8.3	3.8	2.9	3.6	2.5	1.7	1.9
29	12.8	12.1	12.4	8.1	7.0	7.5	3.7	3.4	3.5	2.1	1.6	1.8
30	12.9	11.8	12.2	7.0	6.3	6.6	3.5	3.0	3.2	2.3	1.6	1.8
31	12.7	12.2	12.5	---	---	---	3.4	3.0	3.2	2.1	1.5	1.7
MONTH	16.3	11.8	14.1	14.1	6.3	10.7	6.9	2.0	3.8	6.1	1.4	2.5

03327000 MISSISSINEWA RIVER AT PEORIA, IN—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.3	1.6	1.8	4.4	3.5	3.8	11.1	10.4	10.8	15.5	14.8	15.2
2	2.2	1.7	1.9	4.0	3.8	3.9	11.2	10.8	11.0	16.0	14.4	15.0
3	2.1	1.7	1.9	5.1	4.0	4.6	10.9	10.2	10.6	15.4	14.3	14.7
4	2.9	1.6	2.1	5.6	4.3	5.2	10.8	10.2	10.5	15.2	14.4	14.7
5	2.1	1.6	1.8	7.2	4.5	5.9	10.7	9.9	10.3	14.9	14.3	14.6
6	2.3	1.8	2.0	8.3	7.2	7.8	10.6	9.8	10.0	21.0	13.4	15.7
7	2.7	1.8	2.1	8.7	8.3	8.4	11.8	10.0	10.7	16.8	15.5	16.0
8	2.5	1.5	1.9	8.3	8.0	8.2	11.3	9.6	10.7	17.4	15.8	16.4
9	2.8	1.4	2.0	8.1	7.7	7.9	12.4	9.4	10.6	17.1	15.5	16.4
10	2.7	1.7	2.0	8.4	7.6	8.0	12.6	9.8	10.8	17.1	15.9	16.4
11	2.2	1.5	1.7	8.1	7.3	7.8	12.8	9.9	11.0	17.2	15.9	16.5
12	2.4	1.5	1.8	7.5	6.5	7.0	11.1	9.6	10.4	17.4	16.0	16.5
13	2.1	1.5	1.7	7.5	6.3	6.8	10.6	9.8	10.2	17.0	16.0	16.4
14	3.3	1.4	1.9	7.3	6.3	6.6	13.6	9.4	11.0	16.8	15.9	16.4
15	2.6	1.4	1.8	7.4	6.1	6.6	13.7	9.7	11.3	16.7	15.6	16.2
16	2.6	1.5	1.8	6.9	5.9	6.4	14.2	10.6	11.8	17.9	16.3	16.9
17	3.1	1.6	2.0	6.1	5.8	6.0	14.3	11.2	12.3	17.9	16.4	17.0
18	3.0	1.6	2.1	6.6	5.2	6.0	15.1	11.2	12.4	17.6	16.6	17.1
19	3.0	1.8	2.2	7.8	5.7	6.5	14.3	11.6	12.6	18.1	17.1	17.7
20	2.0	1.8	1.9	7.9	5.7	6.7	13.8	11.1	12.3	18.2	17.6	17.9
21	1.8	1.3	1.6	6.2	4.8	5.6	14.9	12.0	13.1	19.1	17.8	18.6
22	1.8	1.1	1.3	8.1	4.7	6.0	13.7	11.8	12.9	19.8	18.7	19.2
23	2.1	1.2	1.4	8.6	4.9	6.4	15.8	12.4	13.5	21.9	19.5	20.6
24	1.3	1.2	1.3	7.4	6.1	6.7	15.4	12.2	14.1	21.3	20.1	20.6
25	2.3	1.2	1.6	8.1	6.6	7.2	15.3	14.1	14.8	21.4	20.6	21.0
26	2.6	1.8	2.2	7.9	7.0	7.4	14.7	14.1	14.3	21.5	20.6	21.0
27	3.0	2.2	2.5	8.0	6.9	7.3	14.7	14.0	14.3	21.8	20.8	21.3
28	3.7	2.5	3.0	9.2	8.0	8.6	15.5	13.8	14.5	22.1	20.8	21.4
29	4.0	3.0	3.4	9.4	8.3	8.9	15.8	14.2	15.2	22.7	20.9	21.9
30	---	---	---	11.0	9.4	10.5	16.2	15.1	15.6	22.7	22.0	22.4
31	---	---	---	11.0	10.2	10.6	---	---	---	22.4	22.1	22.3
MONTH	4.0	1.1	2.0	11.0	3.5	6.9	16.2	9.4	12.1	22.7	13.4	17.9
		JUNE			JULY			AUGUST			SEPTEMBER	
1	22.3	21.9	22.1	24.4	22.8	23.4	25.8	23.9	24.7	23.3	22.3	22.9
2	22.1	21.6	21.8	24.4	22.9	23.5	25.6	23.4	24.7	23.8	22.1	22.9
3	22.2	19.9	21.3	24.2	22.0	23.3	26.1	24.3	24.9	23.6	22.2	22.8
4	22.4	20.8	21.4	24.1	23.0	23.4	25.1	24.1	24.4	23.9	22.4	23.1
5	22.4	21.0	21.6	24.7	23.2	23.7	25.7	23.8	24.6	24.1	23.0	23.4
6	22.3	21.1	21.5	25.1	23.3	24.0	25.8	23.7	24.5	24.2	23.1	23.5
7	22.6	21.1	21.8	24.5	23.3	23.7	25.4	23.8	24.4	24.2	22.8	23.3
8	22.5	20.0	21.8	24.9	23.2	23.8	25.5	24.0	24.6	24.0	22.7	23.0
9	22.5	21.0	21.5	25.2	23.5	24.2	25.5	24.0	24.6	23.9	22.7	23.0
10	22.1	21.1	21.7	25.0	23.6	24.1	24.9	22.7	24.2	24.4	22.5	23.1
11	23.1	20.5	22.0	25.2	23.8	24.3	25.1	23.6	24.2	24.1	22.2	22.9
12	23.6	21.7	22.7	25.2	23.7	24.4	23.9	23.2	23.5	24.4	22.3	23.0
13	22.2	21.2	21.6	25.9	24.0	24.6	24.0	22.7	23.3	23.9	22.4	23.0
14	21.6	20.5	21.3	25.4	23.8	24.5	24.0	22.5	23.0	23.9	22.4	23.0
15	22.4	21.0	21.8	25.6	24.2	24.7	24.1	22.2	23.0	24.2	22.4	23.1
16	23.8	21.7	22.9	25.7	23.4	24.7	25.1	22.1	23.1	24.3	22.4	23.2
17	23.6	23.1	23.3	25.7	24.1	24.7	24.0	22.1	22.8	24.1	21.9	22.7
18	24.1	23.6	23.9	27.6	22.3	25.4	23.9	22.3	22.9	25.0	21.9	22.8
19	24.1	23.7	23.9	27.6	25.0	26.1	23.1	22.3	22.8	25.0	20.9	22.5
20	24.4	23.7	24.1	28.1	25.2	26.3	22.8	22.3	22.6	25.0	20.5	22.4
21	24.4	23.8	24.1	28.3	25.0	26.3	23.3	22.1	22.6	25.2	20.7	22.4
22	24.1	23.4	23.7	26.7	24.6	25.3	23.3	22.4	22.7	24.2	20.8	22.2
23	23.8	22.9	23.5	26.4	24.7	25.4	23.9	22.3	22.9	24.5	21.9	22.7
24	24.0	22.4	23.4	26.5	24.6	25.4	23.6	22.0	22.7	23.4	22.1	22.6
25	24.4	23.1	23.6	25.6	24.7	25.1	23.2	22.6	22.8	23.2	21.0	22.1
26	24.1	23.0	23.4	25.0	24.0	24.7	23.8	22.3	22.9	22.4	21.0	21.5
27	24.1	23.0	23.4	25.9	23.6	24.7	23.7	22.7	23.0	23.9	19.6	21.8
28	24.1	22.9	23.4	26.4	23.9	24.8	24.0	22.5	23.0	21.2	20.0	20.5
29	24.1	21.8	23.2	25.6	24.0	24.6	22.7	22.0	22.3	21.5	19.7	20.4
30	24.5	22.8	23.4	24.6	23.9	24.2	23.4	22.0	22.9	21.4	19.9	20.4
31	---	---	---	25.2	23.9	24.4	23.5	23.0	23.2	---	---	---
MONTH	24.5	19.9	22.6	28.3	22.0	24.6	26.1	22.0	23.5	25.2	19.6	22.5
YEAR	28.3	1.1	13.6									

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, (BUNKER HILL, IN quadrangle), 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 National Geodetic Vertical Datum of 1929, (levels by U.S. Army Corps of Engineers). Prior to June 20, 1961, nonrecording gage at same site and datum.

REMARKS.--Records good except those for June 15-23 and 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8,460	1,480	7,070	6,290	e740	2,390	7,490	537	6,720	4,940	897	5,630
2	6,710	1,500	5,000	4,580	e700	5,890	6,520	626	6,460	4,260	1,440	5,060
3	4,560	1,800	3,130	3,340	e660	8,380	3,520	1,060	5,050	4,340	1,060	3,820
4	4,560	1,690	2,350	6,640	e700	7,510	2,540	1,570	3,030	4,510	838	3,600
5	5,010	1,380	1,780	11,300	e640	9,850	2,140	1,890	2,460	4,230	1,730	3,830
6	5,080	1,450	1,890	9,770	e600	10,900	1,670	1,340	1,800	3,750	1,720	1,690
7	5,310	1,390	2,220	11,300	e620	10,100	1,250	1,210	1,510	3,350	1,270	1,360
8	5,320	1,310	2,680	12,500	e600	7,580	1,050	1,220	1,050	1,870	846	1,830
9	4,850	1,190	2,670	11,800	e560	6,760	595	1,270	809	1,620	577	1,500
10	4,380	1,130	4,980	10,400	e520	3,900	540	909	761	1,200	664	1,270
11	3,370	1,120	9,290	9,590	e530	2,940	527	824	4,850	1,100	596	777
12	1,650	1,220	8,830	8,700	e540	2,230	518	784	9,980	831	553	576
13	1,710	2,530	6,650	7,360	e550	1,830	495	776	8,940	639	502	539
14	1,790	3,620	4,040	5,820	e540	1,570	465	744	12,000	667	375	489
15	2,910	2,480	3,030	4,750	e520	1,290	480	715	9,530	636	383	460
16	5,300	2,090	2,220	3,960	e530	1,200	472	686	8,740	595	327	479
17	5,420	1,500	2,060	3,170	e540	768	464	672	9,440	494	319	545
18	3,600	1,470	1,950	2,510	e530	615	440	798	9,880	415	393	528
19	2,600	2,860	2,120	1,960	e520	618	436	1,290	9,740	380	665	420
20	2,160	5,420	1,940	1,540	e1,900	622	427	2,050	9,170	352	1,030	317
21	1,940	6,020	1,560	1,280	7,290	627	365	2,810	8,030	349	2,230	294
22	1,780	4,310	1,440	1,150	8,530	613	388	3,390	7,260	730	3,350	313
23	1,660	2,720	3,460	e1,000	7,310	600	424	2,550	6,740	2,230	2,220	367
24	1,570	2,970	9,180	e650	5,240	604	801	4,190	5,330	1,780	1,160	359
25	1,360	4,360	11,200	e740	3,890	617	1,320	3,760	4,920	1,070	878	360
26	1,390	4,670	11,400	e820	2,890	736	857	2,140	4,340	779	694	351
27	1,440	3,260	9,950	e900	2,210	2,450	837	1,480	4,870	578	574	332
28	1,530	2,980	7,190	e820	2,110	6,190	803	1,210	5,050	516	985	271
29	1,760	6,230	7,180	e800	1,840	6,840	576	1,150	4,810	516	3,860	297
30	1,730	8,140	6,930	e780	---	7,160	518	1,330	4,580	505	5,460	419
31	1,650	---	7,000	e760	---	7,250	---	8,200	---	531	6,270	---
TOTAL	102,560	84,290	152,390	146,980	54,350	120,630	38,928	53,181	177,850	49,763	43,866	38,083
MEAN	3,308	2,810	4,916	4,741	1,874	3,891	1,298	1,716	5,928	1,605	1,415	1,269
MAX	8,460	8,140	11,400	12,500	8,530	10,900	7,490	8,200	12,000	4,940	6,270	5,630
MIN	1,360	1,120	1,440	650	520	600	365	537	761	349	319	271
CFSM	1.23	1.05	1.83	1.77	0.70	1.45	0.48	0.64	2.21	0.60	0.53	0.47
IN.	1.42	1.17	2.11	2.04	0.75	1.67	0.54	0.74	2.46	0.69	0.61	0.53

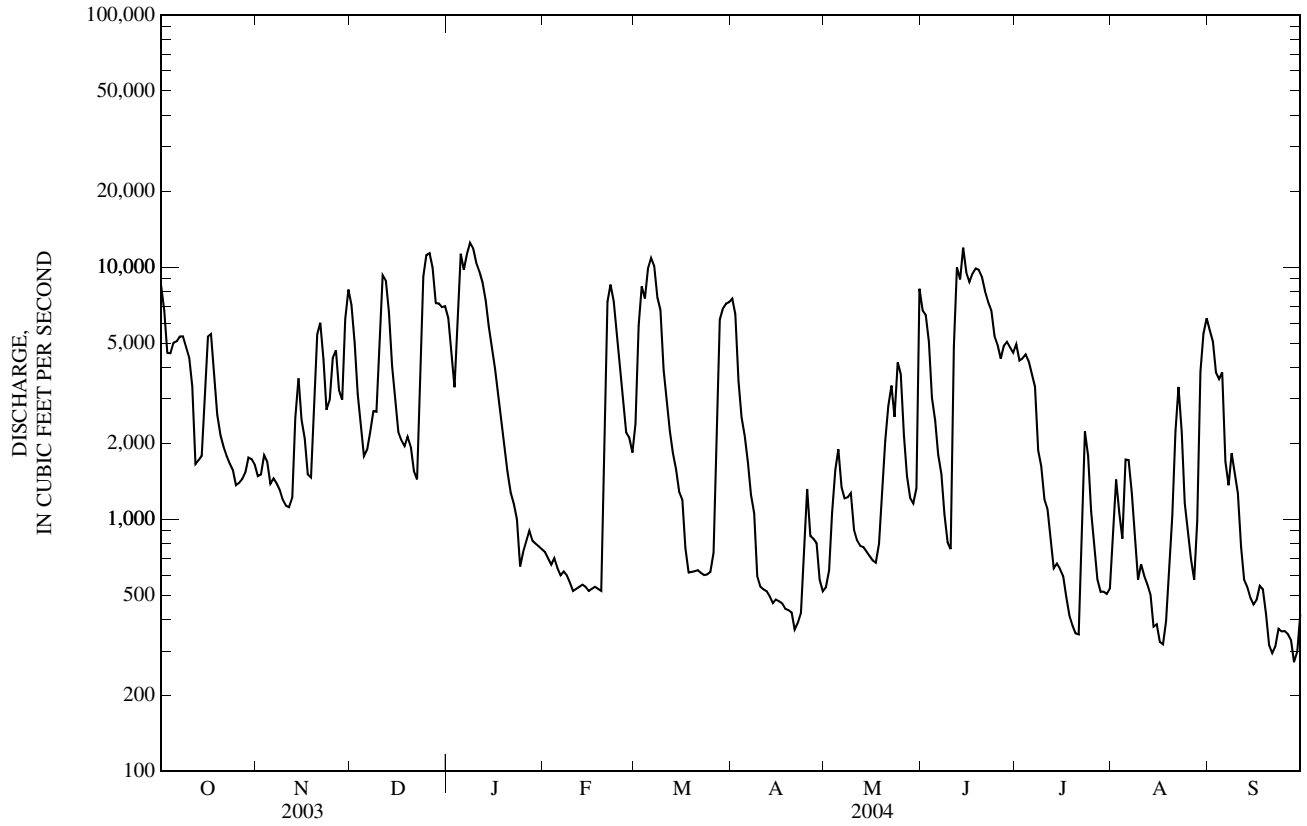
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2004, BY WATER YEAR (WY)

MEAN	1,192	1,732	2,724	3,314	3,674	4,612	4,029	2,527	2,487	1,722	938	898
MAX	6,340	7,653	8,314	18,500	10,740	10,890	14,840	7,577	14,260	11,350	7,049	5,438
(WY)	(2002)	(1973)	(1958)	(1950)	(1959)	(1982)	(1957)	(2003)	(1958)	(2003)	(1998)	(2003)
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)

03327500 WABASH RIVER AT PERU, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1944 - 2004	
ANNUAL TOTAL	1,633,683		1,062,871			
ANNUAL MEAN	4,476		2,904		2,481	
HIGHEST ANNUAL MEAN					4,425	1950
LOWEST ANNUAL MEAN					691	1954
HIGHEST DAILY MEAN	19,500	Jul 7	12,500	Jan 8	50,900	Jun 12, 1958
LOWEST DAILY MEAN	434	Apr 29	271	Sep 28	72	Oct 5, 1946
ANNUAL SEVEN-DAY MINIMUM	492	Apr 25	334	Sep 23	85	Oct 29, 1944
MAXIMUM PEAK FLOW			13,800	Jun 12	68,000	May 18, 1943
MAXIMUM PEAK STAGE			11.52	Jun 12	24.46	May 18, 1943
ANNUAL RUNOFF (CFSM)	1.67		1.08		0.924	
ANNUAL RUNOFF (INCHES)	22.63		14.72		12.55	
10 PERCENT EXCEEDS	10,000		7,320		7,020	
50 PERCENT EXCEEDS	3,030		1,660		1,020	
90 PERCENT EXCEEDS	643		500		224	

e Estimated



03328000 EEL RIVER AT NORTH MANCHESTER, IN

LOCATION.--Lat 40°59'38", long 85°46'53", in NE¼SE¼ sec.6, T.29 N., R.7 E., Wabash County, Hydrologic Unit 05120104, (NORTH MANCHESTER SOUTH, IN quadrangle), on right bank 300 ft upstream from New Wabash bridge in North Manchester, 400 ft downstream of New York Central railroad bridge, 0.4 mi downstream from Pony Creek, and at mile 51.0.

DRAINAGE AREA.--417 mi^2.

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 732.65 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 15, 2002 at site 1.75 mi upstream at Water Works property at datum 738.00 ft. From October 1929 to July 23, 1953, nonrecording gage on downstream side of Second Street bridge, 1.9 mi upstream at datum 5.35 ft higher, at same drainage area. From July 24, 1953 to Jan. 14, 2002, at site 1.75 mi upstream at Water Works property at datum 5.35 ft higher, at same drainage area.

REMARKS.--Records good except those for Nov. 19 to Dec. 7, Dec. 24 to Jan. 6, Jan. 12-18, Feb. 21 to Mar. 9, May 24-25, May 31 to June 1 and estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--The flood of Dec. 30, 1990, reached a stage of 14.81 ft (datum 738.00 ft) from estimated discharge of 8,740 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e460	186	425	597	e180	1,360	327	161	2,760	262	138	372
2	e340	185	395	537	e179	1,980	299	236	1,840	243	132	293
3	294	184	345	538	e178	1,280	278	281	1,050	231	128	284
4	296	180	329	860	e178	980	259	227	685	279	547	714
5	287	182	331	1,540	e177	2,580	243	192	514	293	777	512
6	259	193	335	958	e177	2,140	233	173	427	248	366	360
7	239	180	330	e550	e174	1,270	230	239	366	266	250	345
8	228	170	313	e470	e172	845	228	715	320	271	196	330
9	214	161	378	e410	e168	659	215	444	285	222	167	259
10	202	159	958	e384	e164	544	204	318	267	207	174	219
11	194	165	1,430	e366	e162	475	199	286	1,580	196	159	194
12	184	173	850	361	e159	419	195	259	2,670	198	143	178
13	177	164	540	347	e156	371	191	224	3,890	186	135	166
14	216	156	426	333	e152	353	188	209	6,470	175	129	157
15	778	162	369	320	e148	343	182	204	4,830	163	126	151
16	582	162	337	299	e143	325	177	191	3,430	152	174	143
17	447	162	326	284	e142	318	176	179	2,600	153	153	133
18	352	205	306	283	e141	316	173	174	1,940	145	e260	129
19	303	1,440	285	e250	e140	314	166	274	1,360	142	e400	124
20	266	1,040	267	e230	e240	311	170	263	1,030	137	e588	120
21	247	618	252	e220	1,380	301	186	219	843	144	e1,040	116
22	227	453	255	e190	909	278	183	362	695	489	e800	113
23	214	386	1,270	e134	1,190	271	171	340	567	538	e370	109
24	200	688	2,260	e194	1,050	275	163	1,250	496	298	212	115
25	197	752	1,530	e189	779	294	160	1,040	452	215	184	107
26	211	514	864	e183	801	385	157	622	411	185	243	102
27	226	443	617	e179	769	561	150	425	365	172	201	103
28	222	451	504	e175	790	469	145	325	333	164	1,390	104
29	216	556	836	e180	791	403	142	266	309	151	1,710	107
30	201	466	1,360	e181	---	365	140	438	284	144	933	104
31	191	---	831	e180	---	374	---	3,620	---	146	522	---
TOTAL	8,670	10,936	19,854	11,922	11,789	21,159	5,930	14,156	43,069	6,815	12,747	6,263
MEAN	280	365	640	385	407	683	198	457	1,436	220	411	209
MAX	778	1,440	2,260	1,540	1,380	2,580	327	3,620	6,470	538	1,710	714
MIN	177	156	252	134	140	271	140	161	267	137	126	102
CFSM	0.67	0.87	1.54	0.92	0.97	1.64	0.47	1.10	3.44	0.53	0.99	0.50
IN.	0.77	0.98	1.77	1.06	1.05	1.89	0.53	1.26	3.84	0.61	1.14	0.56

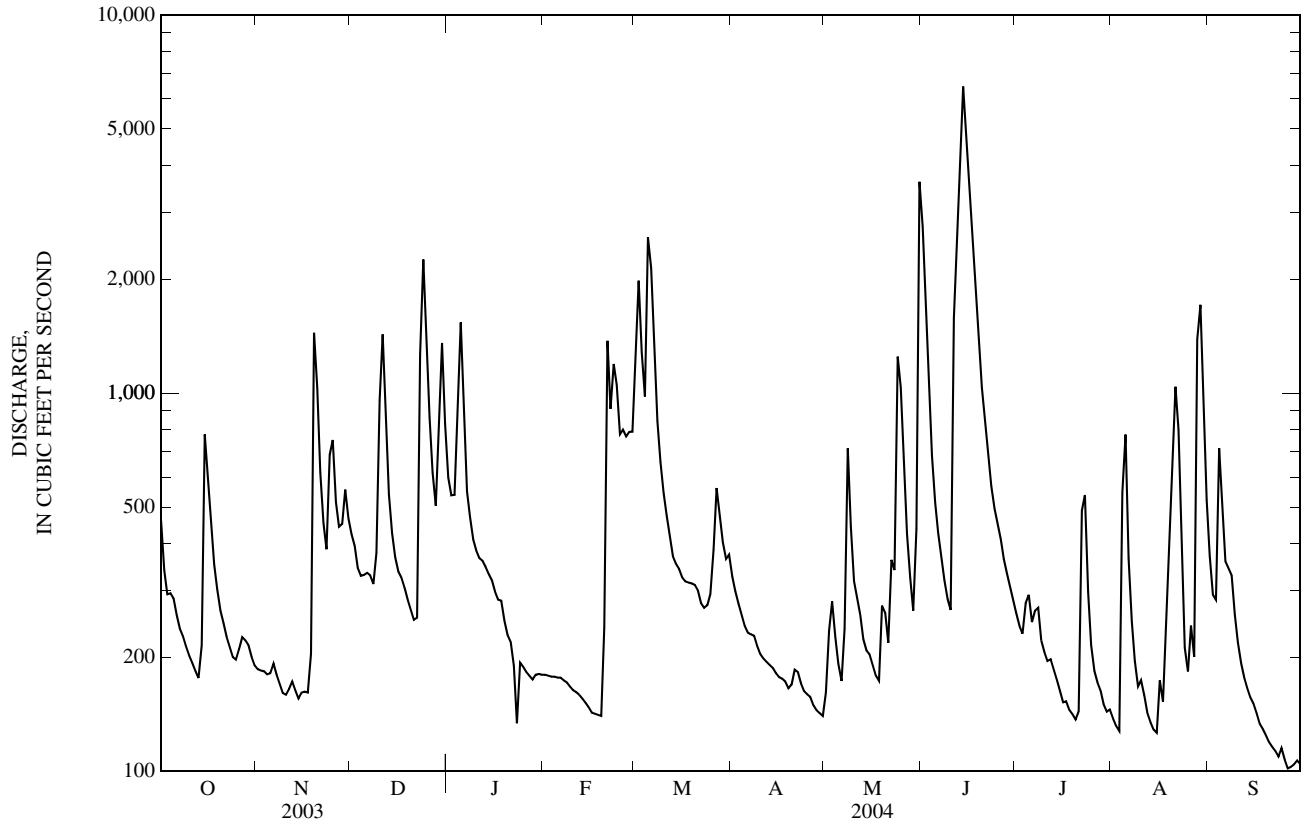
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2004, BY WATER YEAR (WY)

MEAN	181	271	398	473	574	706	668	438	360	225	163	142
MAX	1,309	1,416	1,717	2,258	1,772	2,425	1,768	2,021	1,436	782	1,031	846
(WY)	(2002)	(1993)	(1967)	(1950)	(1959)	(1982)	(1957)	(1943)	(2004)	(2003)	(1990)	(2003)
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)

03328000 EEL RIVER AT NORTH MANCHESTER, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1930 - 2004	
ANNUAL TOTAL	161,665		173,310			
ANNUAL MEAN	443		474		383	
HIGHEST ANNUAL MEAN					783	1950
LOWEST ANNUAL MEAN					103	1931
HIGHEST DAILY MEAN	3,410	May 10	6,470	Jun 14	e 7,770	Dec 31, 1990
LOWEST DAILY MEAN	69	Jan 24	102	Sep 26	16	Oct 19, 1956
ANNUAL SEVEN-DAY MINIMUM	70	Jan 22	106	Sep 24	23	Sep 13, 1941
MAXIMUM PEAK FLOW			7,050	Jun 14	e 8,740	Dec 30, 1990
MAXIMUM PEAK STAGE			13.02	Jun 14	unknown	Dec 30, 1990
ANNUAL RUNOFF (CFSM)	1.06		1.14		0.919	
ANNUAL RUNOFF (INCHES)	14.42		15.46		12.49	
10 PERCENT EXCEEDS	1,040		995		901	
50 PERCENT EXCEEDS	239		266		178	
90 PERCENT EXCEEDS	90		147		66	

e Estimated



03328500 EEL RIVER NEAR LOGANSPORT, IN

LOCATION.--Lat 40°46'55", long 86°15'50", in NE¼SE¼ sec.14, T.27 N., R.2 E., Cass County, Hydrologic Unit 05120104, (LOGANSPORT, IN quadrangle), 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 National Geodetic Vertical Datum of 1929. Prior to Aug. 16, 1956, nonrecording gage at same site and datum.

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

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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	835	348	717	1,300	e410	1,470	864	311	5,620	499	267	1,390
2	665	339	650	1,050	e405	3,150	698	386	3,650	471	258	1,050
3	572	336	597	1,000	e400	2,580	612	485	2,240	451	246	884
4	527	336	542	1,550	e398	1,800	553	483	1,410	471	335	925
5	509	338	531	3,680	e395	3,810	507	412	1,040	501	1,050	1,160
6	483	338	532	2,520	e390	4,140	478	369	824	494	876	887
7	445	346	544	e1,400	e388	2,790	463	350	692	452	520	726
8	417	335	543	e1,060	e380	1,770	448	529	593	457	392	678
9	399	319	574	e900	e370	1,350	435	875	519	453	327	613
10	381	311	945	e780	e365	1,110	411	611	475	443	291	516
11	362	318	2,050	e740	e360	962	394	484	2,780	423	286	457
12	345	335	1,780	689	e355	849	383	478	5,700	393	272	418
13	331	342	1,130	659	e350	752	374	438	6,180	378	253	390
14	354	326	836	630	e345	696	369	397	7,240	357	241	369
15	600	313	706	607	e340	670	361	377	8,930	327	232	352
16	1,150	317	629	569	e335	642	353	364	6,780	312	237	338
17	856	319	587	540	e330	621	346	346	4,510	299	268	319
18	699	362	557	527	e325	611	342	339	3,580	288	397	304
19	583	1,180	520	e500	e320	600	331	355	2,530	281	1,040	294
20	515	2,050	486	e430	e500	592	338	441	1,870	268	1,100	284
21	464	1,310	456	e420	e2,000	579	357	429	1,520	267	1,400	275
22	435	915	446	e350	1,860	548	359	384	1,300	378	1,320	268
23	409	737	806	e300	1,640	517	349	551	1,100	766	749	264
24	387	875	3,350	e340	1,690	519	331	1,010	935	649	527	257
25	376	1,350	2,870	e415	1,440	550	322	1,730	856	432	426	255
26	372	1,070	1,800	e410	1,170	687	315	1,290	781	350	458	249
27	379	840	1,210	e400	1,170	1,170	306	856	700	315	516	242
28	401	763	988	e390	1,110	1,110	298	629	633	299	1,590	241
29	394	804	1,330	e385	1,140	909	289	502	580	287	5,350	243
30	385	839	2,420	e395	---	789	285	488	535	275	4,020	245
31	363	---	1,890	e405	---	974	---	4,290	---	277	2,100	---
TOTAL	15,393	18,711	33,022	25,341	20,681	39,317	12,271	20,989	76,103	12,313	27,344	14,893
MEAN	497	624	1,065	817	713	1,268	409	677	2,537	397	882	496
MAX	1,150	2,050	3,350	3,680	2,000	4,140	864	4,290	8,930	766	5,350	1,390
MIN	331	311	446	300	320	517	285	311	475	267	232	241
CFSM	0.63	0.79	1.35	1.04	0.90	1.61	0.52	0.86	3.22	0.50	1.12	0.63
IN.	0.73	0.88	1.56	1.19	0.98	1.85	0.58	0.99	3.59	0.58	1.29	0.70

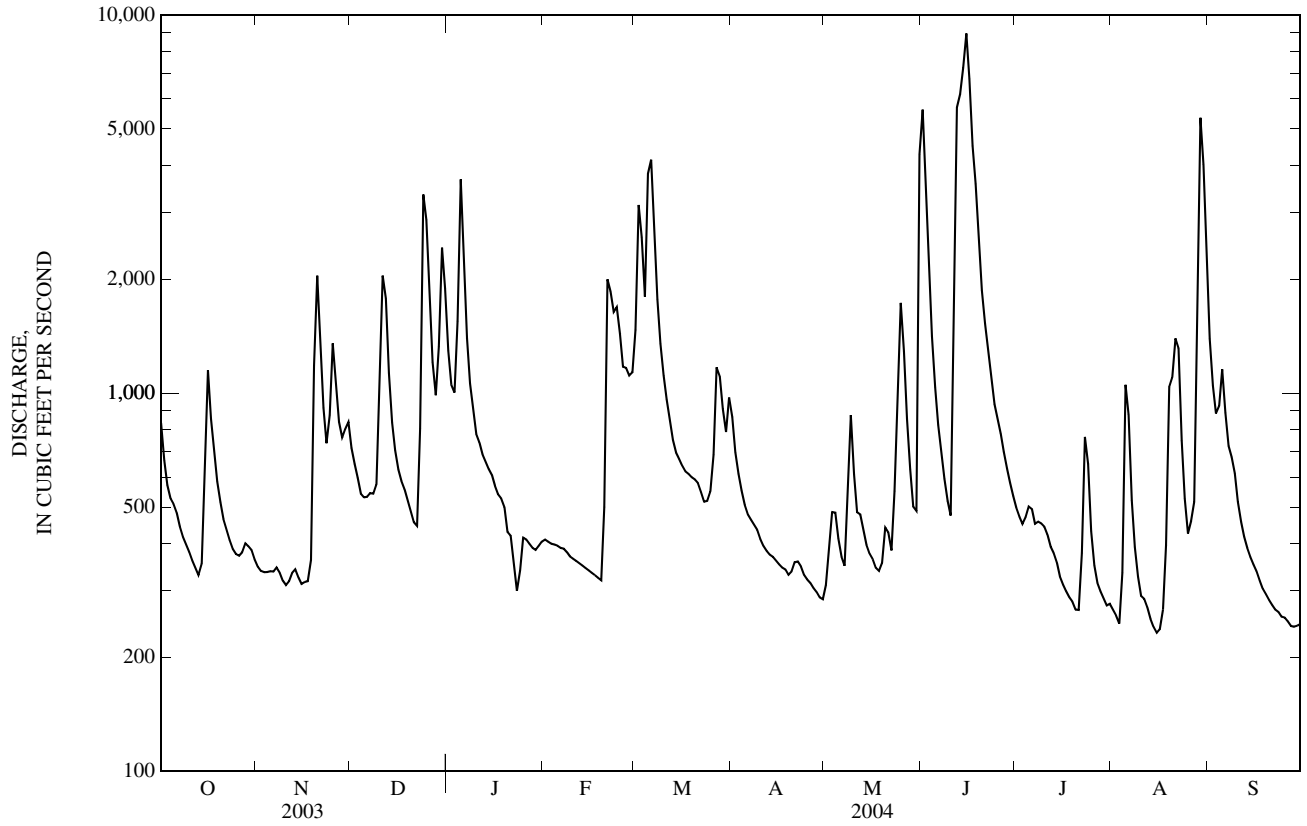
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2004, BY WATER YEAR (WY)

MEAN	383	517	817	941	1,118	1,340	1,290	884	814	524	376	321
MAX	2,522	2,384	2,898	4,507	3,090	4,612	3,285	1,827	2,537	2,072	2,115	1,107
(WY)	(2002)	(1993)	(1967)	(1950)	(1959)	(1982)	(1950)	(1983)	(2004)	(1998)	(1990)	(2003)
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)

03328500 EEL RIVER NEAR LOGANSPORT, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1944 - 2004	
ANNUAL TOTAL	280,560		316,378			
ANNUAL MEAN	769		864		775	
HIGHEST ANNUAL MEAN					1,573	1950
LOWEST ANNUAL MEAN					324	1954
HIGHEST DAILY MEAN	7,930	Jul 8	8,930	Jun 15	16,600	Feb 24, 1985
LOWEST DAILY MEAN	174	Jan 26	232	Aug 15	70	Mar 15, 1960
ANNUAL SEVEN-DAY MINIMUM	178	Jan 22	247	Sep 24	76	Dec 17, 1963
MAXIMUM PEAK FLOW			9,180	Jun 15	17,700	Feb 24, 1985
MAXIMUM PEAK STAGE			9.68	Jun 15	12.68	Feb 24, 1985
ANNUAL RUNOFF (CFSM)	0.974		1.10		0.982	
ANNUAL RUNOFF (INCHES)	13.23		14.92		13.35	
10 PERCENT EXCEEDS	1,660		1,740		1,750	
50 PERCENT EXCEEDS	406		500		405	
90 PERCENT EXCEEDS	200		303		156	

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, (CLYMERS, IN quadrangle), on left bank, 150 ft downstream from Cicott Street bridge in Logansport, 1,000 ft downstream from Eel River, 0.85 mi upstream of U.S. Highway 35, and at mile 353.7.

DRAINAGE AREA.--3,779 mi^2.

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

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

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

REMARKS.--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 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10,300	1,890	8,820	8,850	e1,220	3,860	9,460	1,030	13,900	5,670	1,010	7,680
2	8,780	1,760	6,610	6,620	e1,200	9,310	8,650	1,190	11,000	4,970	1,570	6,520
3	5,670	2,100	4,250	5,010	e1,190	12,200	5,060	1,530	8,630	5,020	1,480	5,450
4	5,620	2,050	3,280	8,460	e1,210	10,700	3,520	1,980	4,960	5,250	1,310	4,710
5	5,870	1,890	2,580	19,100	e1,200	14,900	3,070	2,430	3,850	5,110	2,280	5,500
6	6,030	1,690	2,570	15,100	e1,190	16,900	2,430	2,040	2,980	4,570	2,810	3,180
7	6,120	1,790	2,700	14,500	e1,200	14,900	2,010	1,650	2,370	4,310	1,910	2,280
8	6,140	1,690	3,420	15,200	e1,190	10,500	1,750	1,600	1,880	2,540	1,470	2,530
9	5,660	1,560	3,570	14,500	e1,190	9,330	1,400	2,370	1,500	2,240	1,040	2,310
10	5,140	1,500	5,450	12,500	e1,180	6,040	1,170	1,700	1,380	1,920	982	1,980
11	4,320	1,470	12,200	11,300	e1,160	4,410	1,130	1,450	8,770	1,930	994	1,500
12	2,240	1,580	12,200	10,400	e1,130	3,550	1,100	1,410	19,000	1,550	910	1,140
13	2,060	2,340	9,140	9,050	e1,150	2,820	1,060	1,380	18,300	1,250	853	1,050
14	2,220	4,440	5,750	7,340	e1,100	2,560	1,040	1,290	20,700	1,180	755	1,010
15	3,250	2,990	4,420	5,970	e1,060	2,200	997	1,240	19,700	1,100	701	951
16	6,640	2,540	3,280	5,070	e1,030	2,040	997	1,190	16,700	1,100	643	903
17	7,070	1,970	2,870	4,090	e1,040	1,760	978	1,150	15,600	1,030	620	939
18	4,870	1,920	2,670	3,400	e1,020	1,450	947	1,210	15,100	881	1,150	932
19	3,520	3,540	2,800	e2,900	e1,010	1,420	920	1,910	13,800	796	1,620	855
20	2,920	7,850	2,660	e2,000	e2,300	1,420	953	2,420	12,400	742	2,190	742
21	2,520	8,240	2,250	e1,700	e9,000	1,430	926	3,280	10,800	749	3,070	681
22	2,340	5,940	2,050	e1,400	e11,000	1,390	896	3,950	9,580	964	4,940	658
23	2,150	3,950	3,790	e1,200	10,100	1,320	945	3,490	8,860	2,920	3,360	674
24	2,050	4,110	13,800	e1,040	7,750	1,330	938	5,410	7,140	2,700	1,930	696
25	1,820	5,930	15,800	e1,080	6,090	1,370	1,790	6,380	6,370	1,750	1,480	699
26	1,780	6,640	14,600	e1,170	4,630	1,600	1,430	4,070	5,570	1,290	1,340	680
27	1,840	4,660	12,900	e1,250	3,690	3,500	1,290	2,600	5,850	1,070	1,240	670
28	1,890	3,840	9,210	e1,300	3,460	8,260	1,250	2,380	6,070	927	2,100	614
29	2,120	6,790	9,750	e1,280	3,160	8,590	1,090	1,930	5,870	886	10,500	580
30	2,140	9,790	10,800	e1,260	---	8,880	961	2,100	5,230	858	10,100	670
31	2,030	---	10,200	e1,240	---	9,250	---	12,300	---	875	9,140	---
TOTAL	127,120	108,450	206,390	195,280	82,850	179,190	60,158	80,060	283,860	68,148	75,498	58,784
MEAN	4,101	3,615	6,658	6,299	2,857	5,780	2,005	2,583	9,462	2,198	2,435	1,959
MAX	10,300	9,790	15,800	19,100	11,000	16,900	9,460	12,300	20,700	5,670	10,500	7,680
MIN	1,780	1,470	2,050	1,040	1,010	1,320	896	1,030	1,380	742	620	580
CFSM	1.09	0.96	1.76	1.67	0.76	1.53	0.53	0.68	2.50	0.58	0.64	0.52
IN.	1.25	1.07	2.03	1.92	0.82	1.76	0.59	0.79	2.79	0.67	0.74	0.58

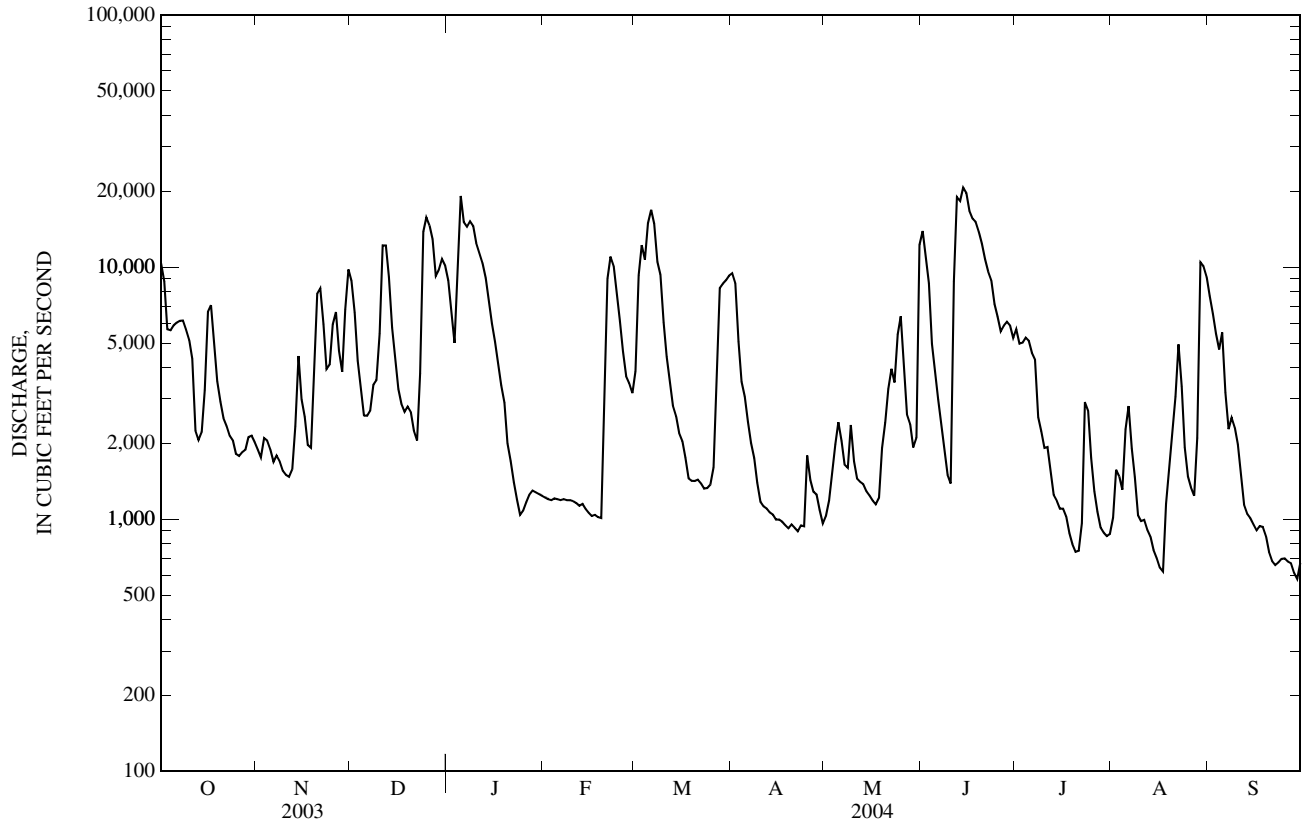
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2004, BY WATER YEAR (WY)

MEAN	1,537	2,230	3,697	4,604	5,174	6,414	5,797	3,896	3,323	2,219	1,394	1,308
MAX	9,526	10,940	12,340	25,590	15,880	18,180	17,520	21,310	16,440	15,110	9,044	10,710
(WY)	(2002)	(1973)	(1968)	(1950)	(1959)	(1982)	(1957)	(1943)	(1958)	(2003)	(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)

03329000 WABASH RIVER AT LOGANSPORT, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1924 - 2004	
ANNUAL TOTAL	2,127,641		1,525,788			
ANNUAL MEAN	5,829		4,169		3,456	
HIGHEST ANNUAL MEAN					6,614	1950
LOWEST ANNUAL MEAN					796	1941
HIGHEST DAILY MEAN	33,000	Jul 7	20,700	Jun 14	84,700	May 19, 1943
LOWEST DAILY MEAN	700	Jan 27	580	Sep 29	135	Sep 26, 1941
ANNUAL SEVEN-DAY MINIMUM	740	Jan 24	658	Sep 24	142	Sep 24, 1941
MAXIMUM PEAK FLOW			22,800	Jun 12	89,800	May 18, 1943
MAXIMUM PEAK STAGE			10.55	Jun 12	21.32	May 18, 1943
ANNUAL RUNOFF (CFSM)	1.54		1.10		0.915	
ANNUAL RUNOFF (INCHES)	20.94		15.02		12.43	
10 PERCENT EXCEEDS	14,200		10,300		9,380	
50 PERCENT EXCEEDS	3,840		2,280		1,480	
90 PERCENT EXCEEDS	975		952		428	

e Estimated



03329700 DEER CREEK NEAR DELPHI, IN

LOCATION.--Lat 40°35'25", long 86°37'17", in NE¼NE¼ sec.27, T.25 N., R.2 W., Carroll County, Hydrologic Unit 05120105, (FLORA, IN quadrangle), on downstream side of left wingwall of county road bridge,0.85 mi south of Sharp Point Cemetery, 3.0 mi northeast of Delphi Post Office, and 4.5 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 National Geodetic Vertical Datum of 1929, (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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	434	119	215	468	e115	304	733	124	508	131	84	389
2	324	116	190	394	e113	826	479	189	294	122	79	279
3	267	114	176	349	e115	571	365	204	217	116	74	407
4	247	112	172	1,510	e112	483	297	181	172	122	97	711
5	219	119	180	3,710	e108	1,500	249	159	151	117	113	477
6	194	116	177	2,090	e113	1,170	225	144	140	113	105	335
7	177	113	168	1,010	e111	678	215	136	129	106	87	278
8	167	109	171	644	e109	475	204	126	118	98	73	268
9	157	103	213	488	e103	375	188	117	109	144	65	243
10	151	103	335	386	e98	306	171	112	107	1,370	61	204
11	144	107	623	e319	e95	270	160	122	1,890	959	57	174
12	138	141	478	e284	e92	243	155	120	3,280	550	55	153
13	131	184	333	e261	e89	214	152	137	2,950	347	52	137
14	159	180	277	e242	e88	204	149	142	1,640	251	50	125
15	e410	155	243	e224	e86	197	141	131	1,010	222	49	118
16	e420	143	222	e211	e85	189	133	123	679	186	45	112
17	282	134	205	e196	e82	188	133	e114	1,260	656	43	107
18	229	154	186	e209	e89	185	128	116	1,380	382	128	98
19	207	443	176	e198	e112	180	123	124	762	323	133	92
20	189	452	163	e184	329	186	135	134	516	239	115	87
21	177	313	152	e169	507	196	148	131	400	183	200	82
22	168	248	152	e161	296	184	148	185	326	167	178	79
23	158	222	502	e150	249	176	145	146	264	159	121	74
24	149	398	1,470	e143	267	178	134	360	227	139	100	74
25	143	505	837	e139	244	172	136	350	217	116	86	71
26	136	363	501	e133	211	217	131	237	197	109	87	68
27	133	291	383	e128	194	597	121	193	179	102	85	67
28	134	257	340	e126	179	546	113	271	163	96	298	71
29	133	238	568	e121	179	409	110	310	151	90	1,960	70
30	128	234	1,130	e118	---	333	108	225	141	85	1,240	66
31	121	---	682	e116	---	631	---	485	---	94	614	---
TOTAL	6,226	6,286	11,620	14,881	4,570	12,383	5,829	5,648	19,577	7,894	6,534	5,516
MEAN	201	210	375	480	158	399	194	182	653	255	211	184
MAX	434	505	1,470	3,710	507	1,500	733	485	3,280	1,370	1,960	711
MIN	121	103	152	116	82	172	108	112	107	85	43	66
CFSM	0.73	0.76	1.37	1.75	0.58	1.46	0.71	0.66	2.38	0.93	0.77	0.67
IN.	0.85	0.85	1.58	2.02	0.62	1.68	0.79	0.77	2.66	1.07	0.89	0.75

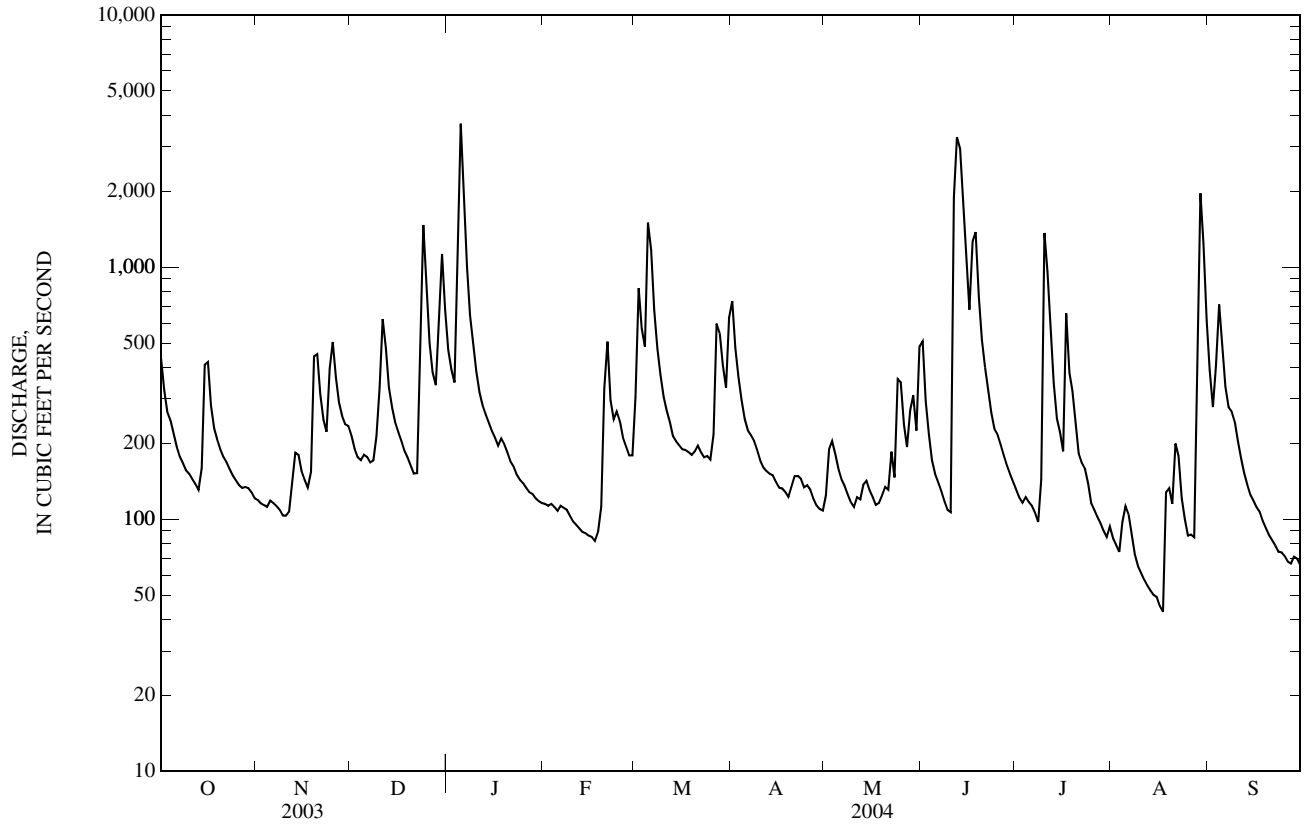
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2004, BY WATER YEAR (WY)

MEAN	102	159	245	310	362	434	414	301	281	214	100	86.4
MAX	673	1,249	983	1,882	1,039	1,311	1,109	793	1,799	2,130	537	568
(WY)	(2002)	(1993)	(1991)	(1950)	(1959)	(1982)	(1959)	(1983)	(1958)	(2003)	(1958)	(1989)
MIN	15.0	22.7	22.2	17.6	36.1	46.8	44.3	62.2	30.7	22.5	12.5	10.5
(WY)	(1965)	(1954)	(1945)	(1977)	(1954)	(1954)	(2000)	(1976)	(1977)	(1944)	(1966)	(1954)

03329700 DEER CREEK NEAR DELPHI, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1944 - 2004	
ANNUAL TOTAL	138,901		106,964			
ANNUAL MEAN	381		292		250	
HIGHEST ANNUAL MEAN					510	1950
LOWEST ANNUAL MEAN					62.7	1966
HIGHEST DAILY MEAN	13,400	Jul 6	3,710	Jan 5	13,400	Jul 6, 2003
LOWEST DAILY MEAN	34	Feb 1	43	Aug 17	6.2	Sep 25, 1954
ANNUAL SEVEN-DAY MINIMUM	38	Jan 27	50	Aug 11	6.3	Sep 22, 1954
MAXIMUM PEAK FLOW			3,860	Jan 5	18,700	Jul 5, 2003
MAXIMUM PEAK STAGE			8.40	Jan 5	18.64	Jul 5, 2003
ANNUAL RUNOFF (CFSM)	1.39		1.07		0.912	
ANNUAL RUNOFF (INCHES)	18.86		14.52		12.40	
10 PERCENT EXCEEDS	624		547		555	
50 PERCENT EXCEEDS	132		173		105	
90 PERCENT EXCEEDS	56		91		28	

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, (NORTH WEBSTER, IN quadrangle), on right upstream corner of State Road 13 bridge, at the intersection of State Road 13 and County Road 550 North, 0.4 mi southeast of North Webster. amd 0.5 mi north of intersection of State Road 13 and 500 North.

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 National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Flow regulated by dams at Webster Lake, 0.25 mi upstream.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

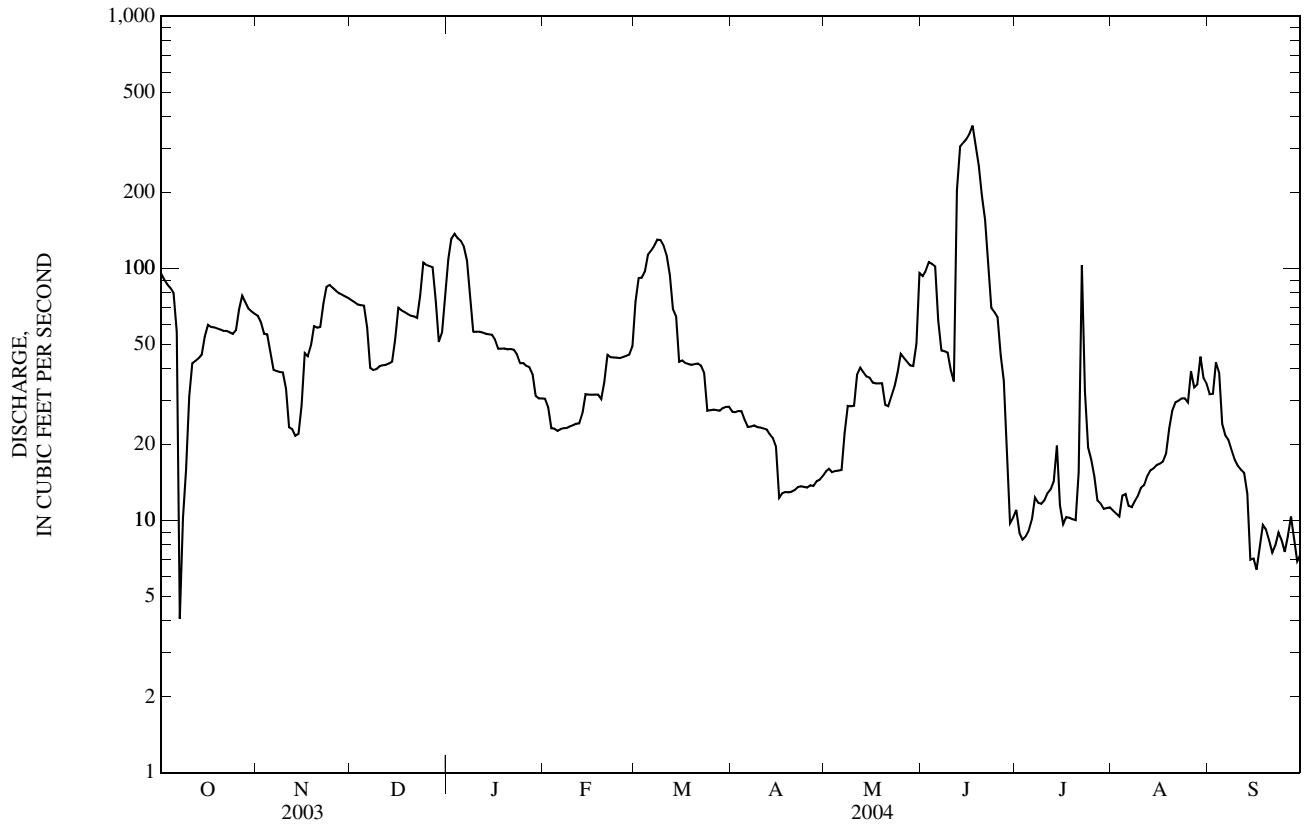
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	65	75	109	30	74	27	16	93	11	11	32
2	90	61	73	131	28	92	27	16	98	8.9	11	32
3	87	55	72	137	23	92	27	16	106	8.4	10	42
4	84	55	72	132	23	97	27	16	104	8.7	13	39
5	80	47	71	129	23	113	25	16	102	9.1	13	24
6	56	40	58	122	23	118	24	16	62	10	11	22
7	4.1	39	40	107	23	123	24	22	47	12	11	21
8	10	39	40	79	23	130	24	28	47	12	12	19
9	16	39	40	56	24	130	23	28	46	12	13	17
10	31	33	41	56	24	123	23	29	40	12	13	16
11	42	23	41	56	24	113	23	38	36	13	14	16
12	43	23	41	56	24	94	23	40	204	13	15	15
13	44	22	42	55	27	69	22	39	304	14	16	13
14	45	22	43	55	32	65	21	37	315	20	16	7.0
15	54	29	52	55	32	43	20	37	326	11	17	7.1
16	60	46	70	52	32	43	12	35	342	9.7	17	6.4
17	59	45	68	48	32	42	13	35	369	10	17	7.9
18	58	50	67	48	32	42	13	35	307	10	18	9.6
19	58	59	66	48	30	41	13	35	255	10	23	9.2
20	57	58	65	48	35	42	13	29	195	10	27	8.4
21	57	59	65	48	45	42	13	28	156	16	29	7.5
22	57	73	64	48	44	41	14	31	106	103	30	8.0
23	56	85	78	46	44	39	14	34	70	33	31	9.0
24	55	86	106	42	44	27	14	39	67	19	31	8.4
25	57	84	103	42	44	27	14	46	64	18	29	7.5
26	69	82	102	41	44	28	14	44	45	15	39	8.6
27	78	80	101	41	45	27	14	43	36	12	34	10
28	73	79	74	38	45	27	14	41	16	12	35	8.4
29	69	77	51	31	49	28	14	41	9.7	11	45	6.9
30	68	76	56	31	---	28	15	50	10	11	37	7.3
31	66	---	77	31	---	28	---	96	---	11	35	---
TOTAL	1,779.1	1,631	2,014	2,018	948	2,028	564	1,056	3,977.7	485.8	673	445.2
MEAN	57.4	54.4	65.0	65.1	32.7	65.4	18.8	34.1	133	15.7	21.7	14.8
MAX	96	86	106	137	49	130	27	96	369	103	45	42
MIN	4.1	22	40	31	23	27	12	16	9.7	8.4	10	6.4
CFSM	1.16	1.10	1.32	1.32	0.66	1.33	0.38	0.69	2.69	0.32	0.44	0.30
IN.	1.34	1.23	1.52	1.52	0.72	1.53	0.43	0.80	3.00	0.37	0.51	0.34

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2004, BY WATER YEAR (WY)

MEAN	38.8	41.0	50.4	68.3	59.2	64.2	76.7	52.7	52.2	26.4	24.8	21.4
MAX	147	133	102	209	153	137	139	119	138	77.0	80.1	102
(WY)	(2002)	(1993)	(2002)	(1993)	(2001)	(1997)	(2002)	(2002)	(1996)	(2003)	(1990)	(2003)
MIN	2.68	6.61	12.3	13.6	6.05	15.0	18.8	15.4	3.08	4.36	2.00	1.67
(WY)	(1995)	(1995)	(1996)	(2000)	(2000)	(2000)	(2004)	(1988)	(1988)	(1988)	(1988)	(1999)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1987 - 2004	
ANNUAL TOTAL	18,081.4		17,619.8			
ANNUAL MEAN	49.5		48.1		47.9	
HIGHEST ANNUAL MEAN					70.5	1991
LOWEST ANNUAL MEAN					23.0	2000
HIGHEST DAILY MEAN	281	Sep 5	369	Jun 17	420	Jan 8, 1993
LOWEST DAILY MEAN	2.8	Jun 25	4.1	Oct 7	0.06	Aug 18, 1988
ANNUAL SEVEN-DAY MINIMUM	3.6	Jun 25	7.9	Sep 14	0.36	Aug 14, 1988
MAXIMUM PEAK FLOW			375	Jun 16	446	Aug 22, 2001
MAXIMUM PEAK STAGE			6.00	Jun 16	6.49	Jan 2, 1991
ANNUAL RUNOFF (CFSM)	1.00		0.977		0.972	
ANNUAL RUNOFF (INCHES)	13.64		13.30		13.21	
10 PERCENT EXCEEDS	103		96		116	
50 PERCENT EXCEEDS	35		38		30	
90 PERCENT EXCEEDS	9.7		11		5.8	

03330241 TIPPECANOE RIVER AT NORTH WEBSTER, IN—Continued



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, (LEESBURG, IN quadrangle), 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 National Geodetic Vertical Datum of 1929. Prior to Aug. 12, 1953, nonrecording gage at same site and datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Regulation by gates at lake outlet.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	141	89	160	e190	58	126	129	29	212	61	35	108
2	139	86	158	e209	54	145	126	80	221	58	44	80
3	136	82	156	e220	52	162	122	87	233	55	42	67
4	134	77	152	e227	49	180	85	37	241	55	43	100
5	130	76	152	e229	46	211	54	29	242	53	43	114
6	127	70	150	e227	44	241	56	30	233	52	27	111
7	117	63	143	220	42	259	58	38	216	54	17	111
8	48	59	136	213	40	279	26	47	199	51	18	106
9	16	54	129	201	38	289	13	48	187	49	19	45
10	17	51	127	187	37	293	16	51	176	24	36	21
11	19	48	123	176	36	288	18	56	181	15	27	38
12	20	44	122	167	35	282	21	59	217	17	18	43
13	22	38	122	160	34	271	23	89	264	28	18	42
14	75	35	121	151	34	256	37	140	305	33	18	41
15	124	34	120	145	34	242	56	136	350	33	18	40
16	117	36	121	140	34	228	52	114	377	32	19	38
17	93	35	123	134	34	213	49	99	398	32	19	26
18	35	38	e123	128	34	199	47	99	408	32	34	18
19	36	69	e122	122	34	188	44	95	400	32	46	18
20	37	87	e122	118	34	177	21	79	385	25	62	18
21	37	98	e121	113	40	167	13	51	367	17	63	18
22	38	124	e120	109	47	159	16	58	344	80	59	18
23	39	142	e120	105	55	152	19	93	317	106	58	14
24	39	151	e130	102	66	146	21	115	291	100	57	12
25	41	158	e160	96	78	142	46	115	270	76	56	12
26	43	161	e190	90	91	140	51	115	247	51	56	12
27	64	165	e188	87	102	138	46	113	216	49	56	12
28	104	165	e181	83	108	137	34	112	164	26	60	13
29	102	165	e170	77	115	136	26	109	121	18	87	13
30	99	163	e160	71	---	134	27	111	90	21	110	13
31	92	---	e170	63	---	133	---	183	---	22	109	---
TOTAL	2,281	2,663	4,392	4,560	1,505	6,113	1,352	2,617	7,872	1,357	1,374	1,322
MEAN	73.6	88.8	142	147	51.9	197	45.1	84.4	262	43.8	44.3	44.1
MAX	141	165	190	229	115	293	129	183	408	106	110	114
MIN	16	34	120	63	34	126	13	29	90	15	17	12
CFSM	0.65	0.79	1.25	1.30	0.46	1.75	0.40	0.75	2.32	0.39	0.39	0.39
IN.	0.75	0.88	1.45	1.50	0.50	2.01	0.45	0.86	2.59	0.45	0.45	0.44

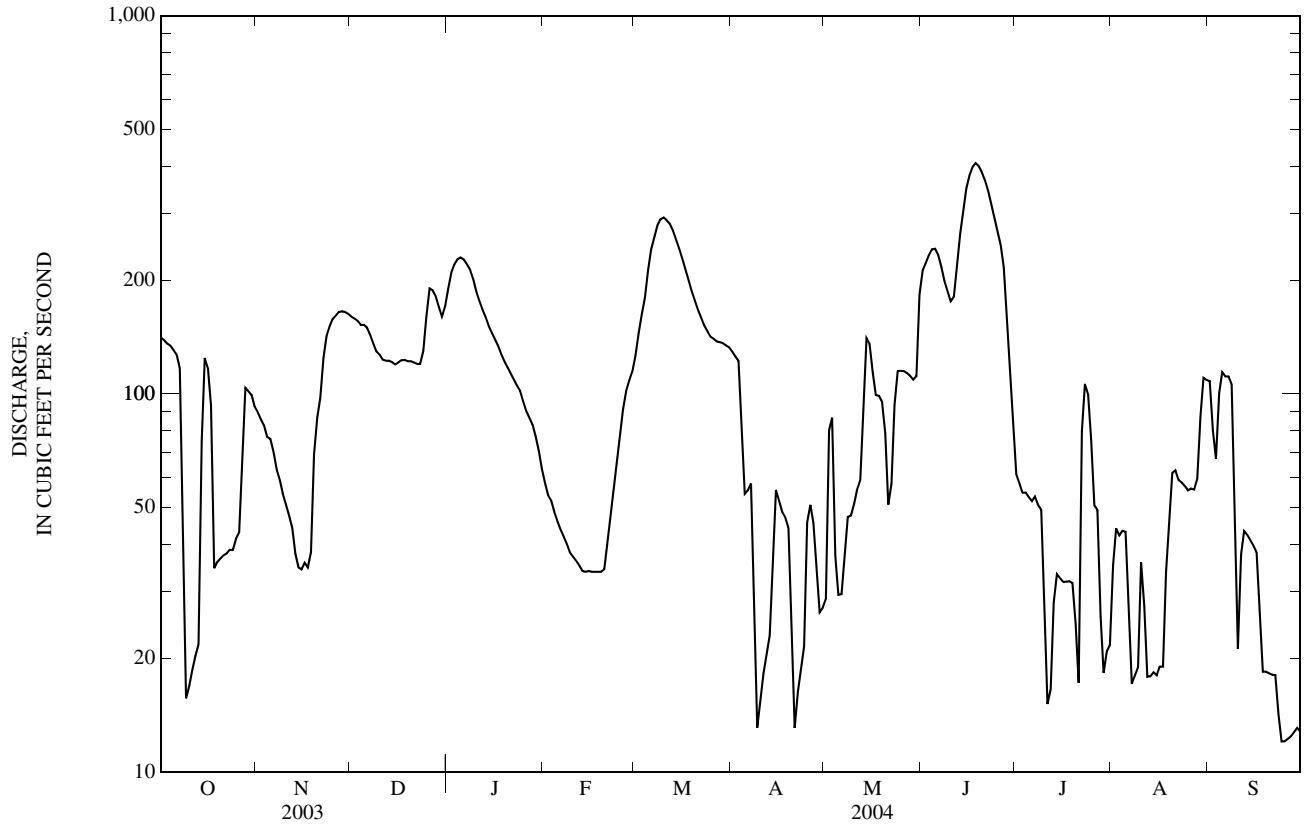
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2004, BY WATER YEAR (WY)

MEAN	61.2	76.5	109	128	141	182	191	133	105	65.4	47.2	46.2
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	45.1	30.8	18.6	11.4	1.13	0.40
(WY)	(1954)	(1954)	(1963)	(1963)	(1963)	(1964)	(2004)	(1958)	(1988)	(1988)	(1967)	(1967)

03330500 TIPPECANOE RIVER AT OSWEGO, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1950 - 2004	
ANNUAL TOTAL	35,903		37,408			
ANNUAL MEAN	98.4		102		107	
HIGHEST ANNUAL MEAN					196	1950
LOWEST ANNUAL MEAN					30.8	1964
HIGHEST DAILY MEAN	354	May 15	408	Jun 18	944	Mar 21, 1982
LOWEST DAILY MEAN	12	Jun 18	12	Sep 24	0.08	Aug 4, 1967
ANNUAL SEVEN-DAY MINIMUM	15	Jun 27	12	Sep 24	0.28	Aug 22, 1967
MAXIMUM PEAK FLOW			410	Jun 18	950	Mar 21, 1982
MAXIMUM PEAK STAGE			7.70	Jun 18	9.25	Mar 21, 1982
ANNUAL RUNOFF (CFSM)	0.870		0.904		0.946	
ANNUAL RUNOFF (INCHES)	11.82		12.31		12.85	
10 PERCENT EXCEEDS	223		216		242	
50 PERCENT EXCEEDS	60		82		76	
90 PERCENT EXCEEDS	22		21		15	

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, (BASS LAKE, IN quadrangle), 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 National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to July 30, 1956, nonrecording gage on upstream side of old highway bridge, 120 ft downstream. July 30, 1956, to Dec. 20, 1964, water-stage recorder on right bank at downstream side of old highway bridge, and Dec. 21, 1964, to Aug. 19, 1965, nonrecording gage on right bank 500 ft downstream. All gages at same datum.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	552	438	974	1,900	e435	1,060	1,050	421	2,100	681	313	2,690
2	528	431	908	1,710	e430	1,450	991	446	2,340	614	300	2,240
3	502	436	856	1,610	e428	1,630	943	499	2,220	555	291	1,840
4	488	441	820	1,560	e425	1,560	892	519	2,020	538	353	1,580
5	482	451	809	1,590	e422	1,690	836	510	1,830	533	558	1,350
6	470	489	818	1,640	e420	2,120	788	505	1,590	524	607	1,180
7	453	504	806	1,470	e420	2,260	758	483	1,340	514	531	1,070
8	439	509	795	1,350	e418	2,110	717	494	1,130	478	476	971
9	424	508	799	1,250	e417	1,930	678	516	972	470	419	859
10	415	499	860	1,180	e416	1,770	651	514	857	462	379	754
11	385	492	1,040	1,160	e415	1,640	635	508	959	438	353	685
12	338	487	1,070	1,130	e414	1,500	598	506	1,710	423	331	617
13	319	474	989	1,090	e410	1,370	577	504	2,370	409	317	550
14	327	457	921	1,050	e402	1,280	562	549	2,920	383	309	516
15	349	445	881	1,000	e400	1,220	539	634	3,070	357	295	497
16	384	439	841	943	e400	1,180	521	672	2,880	344	280	497
17	423	428	813	890	e415	1,130	520	652	2,720	351	272	493
18	474	460	781	859	e435	1,080	532	620	2,540	340	386	464
19	476	879	748	810	e485	1,040	521	606	2,300	337	948	436
20	464	1,250	717	e720	542	1,000	514	612	2,010	343	1,310	411
21	438	1,170	691	e680	909	970	530	609	1,730	337	1,340	384
22	410	1,050	673	e630	1,130	921	523	614	1,510	393	1,330	365
23	396	980	758	e580	1,120	883	505	725	1,340	563	1,080	354
24	384	1,300	1,250	e550	1,200	854	470	855	1,200	598	861	346
25	403	1,600	1,440	e520	1,190	875	450	898	1,090	563	712	340
26	425	1,440	1,340	e505	1,120	964	440	855	1,020	514	698	334
27	440	1,280	1,250	e490	1,080	1,130	426	786	937	454	825	328
28	454	1,190	1,210	e480	1,040	1,160	419	706	868	406	856	324
29	455	1,120	1,370	e475	1,020	1,110	425	635	805	370	1,550	321
30	447	1,040	1,870	e470	---	1,060	419	611	742	347	2,480	320
31	439	---	2,060	e450	---	1,070	---	1,310	---	337	2,890	---
TOTAL	13,383	22,687	31,158	30,742	18,358	41,017	18,430	19,374	51,120	13,976	23,650	23,116
MEAN	432	756	1,005	992	633	1,323	614	625	1,704	451	763	771
MAX	552	1,600	2,060	1,900	1,200	2,260	1,050	1,310	3,070	681	2,890	2,690
MIN	319	428	673	450	400	854	419	421	742	337	272	320
CFSM	0.50	0.88	1.17	1.16	0.74	1.55	0.72	0.73	1.99	0.53	0.89	0.90
IN.	0.58	0.99	1.35	1.34	0.80	1.78	0.80	0.84	2.22	0.61	1.03	1.00

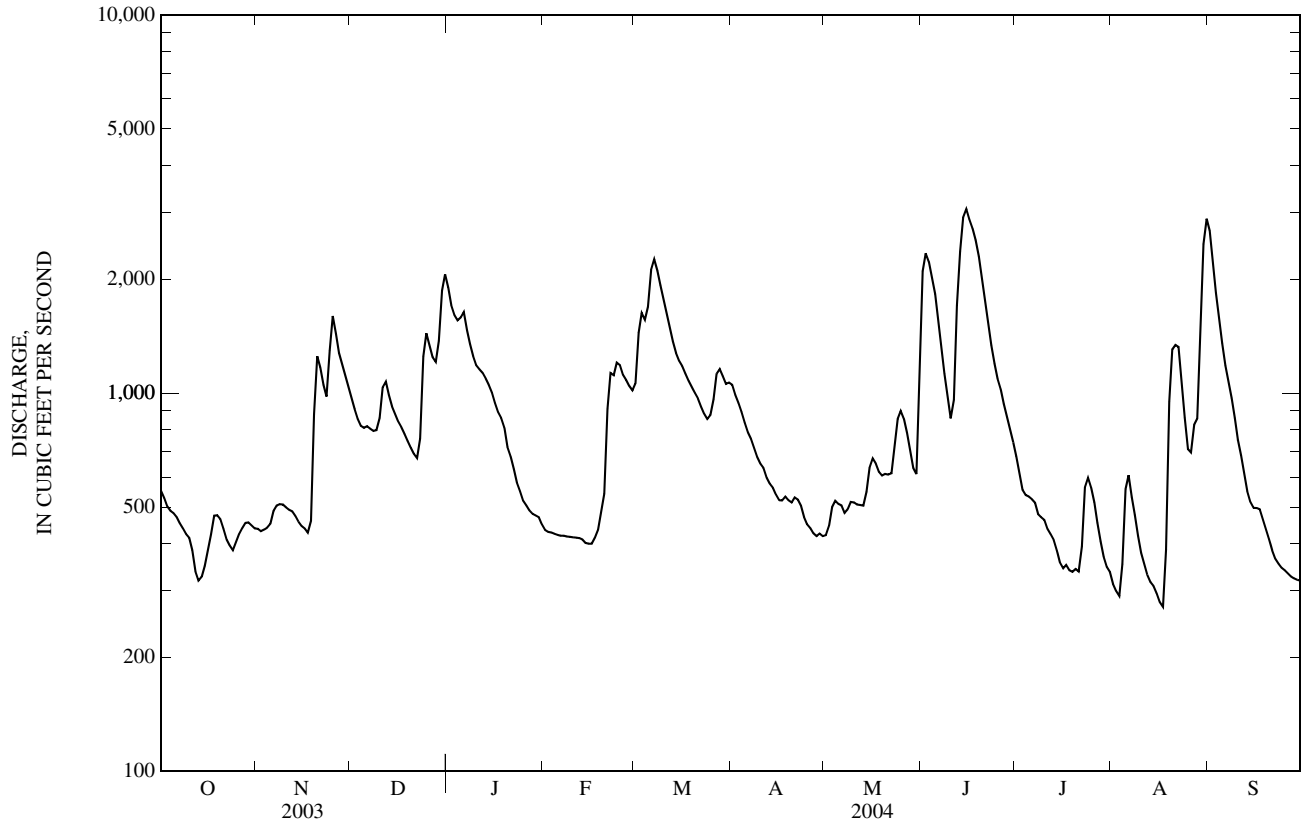
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2004, BY WATER YEAR (WY)

MEAN	476	603	802	987	1,167	1,444	1,534	1,142	929	627	442	374
MAX	2,112	1,933	2,478	3,552	3,020	4,239	4,116	2,869	3,468	1,943	2,699	1,224
(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)

03331500 TIPPECANOE RIVER NEAR ORA, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1944 - 2004	
ANNUAL TOTAL	231,725		307,011			
ANNUAL MEAN	635		839		875	
HIGHEST ANNUAL MEAN					1,580	1950
LOWEST ANNUAL MEAN					354	1964
HIGHEST DAILY MEAN	2,830	Jul 10	3,070	Jun 15	8,450	Jun 15, 1981
LOWEST DAILY MEAN	227	Jul 4	272	Aug 17	87	Sep 13, 1966
ANNUAL SEVEN-DAY MINIMUM	243	Aug 22	308	Aug 11	93	Sep 8, 1966
MAXIMUM PEAK FLOW			3,100	Jun 15	8,660	Jun 15, 1981
MAXIMUM PEAK STAGE			12.22	Jun 15	15.22	Aug 20, 1990
ANNUAL RUNOFF (CFSM)	0.742		0.980		1.02	
ANNUAL RUNOFF (INCHES)	10.07		13.34		13.89	
10 PERCENT EXCEEDS	1,200		1,590		1,850	
50 PERCENT EXCEEDS	474		618		610	
90 PERCENT EXCEEDS	270		384		219	

e Estimated



03331753 TIPPECANOE RIVER AT WINAMAC, IN

LOCATION.--Lat 41°02'59", long 86°35'57", in SW¼NW¼ sec.13, T.30 N., R.R W., Pulaski County, Hydrologic Unit 05120106, (WINAMAC, IN quadrangle), on the northeast corner of the Washington Street bridge in Winamac, 0.3 mi downstream of the city park, 2 mi north of U.S. Highway 35 bridge, and at mile 70.3.

DRAINAGE AREA.--942 mi^2.

PERIOD OF RECORD.--August 2001 to current year.

GAGE.--Water-stage recorder. Datum of gage is 674.19 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for June 15 - 24 and estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	610	512	1,130	e2,000	e530	1,160	1,190	515	1,780	769	348	2,710
2	587	505	1,080	e1,850	e520	e1,600	1,140	537	2,120	700	329	2,430
3	558	506	1,030	1,740	e510	e1,800	1,090	586	2,210	639	316	2,030
4	541	518	980	1,690	e505	e1,740	1,040	612	2,080	614	423	1,740
5	535	536	966	1,660	e503	e2,200	994	598	1,900	604	589	1,470
6	524	566	963	1,710	e501	e2,400	961	591	1,720	588	687	1,290
7	505	589	958	1,630	e500	e2,600	935	601	1,490	583	596	1,180
8	489	593	945	1,460	e495	e2,300	893	600	1,290	543	521	1,080
9	475	591	947	1,370	e490	e2,050	849	610	1,130	521	470	995
10	461	e580	1,020	1,340	e488	e1,900	817	611	1,030	528	425	910
11	444	e578	1,150	1,250	e487	1,720	798	617	1,060	e515	390	839
12	402	e570	1,230	e1,220	e486	1,590	758	620	1,490	e490	364	778
13	362	e558	1,150	e1,180	e482	1,470	727	619	2,010	463	348	704
14	368	537	1,080	e1,160	e480	e1,400	705	655	2,430	428	343	650
15	386	e530	1,040	1,140	e478	1,330	687	734	2,800	400	324	624
16	423	e510	992	1,080	e470	1,290	666	804	2,930	388	306	617
17	465	e490	966	e1,030	e475	1,250	664	795	2,830	394	350	606
18	515	e700	940	992	e500	1,210	661	778	2,660	379	491	585
19	544	e896	906	971	e560	1,180	659	748	2,440	370	1,070	545
20	531	e1,400	869	933	651	1,140	663	752	2,240	373	1,380	505
21	512	1,330	834	e850	860	1,110	674	744	1,910	386	1,440	474
22	478	1,220	819	e760	1,200	1,070	674	745	1,670	461	1,430	446
23	453	e1,200	920	e700	1,190	1,040	660	803	1,470	635	1,210	429
24	436	1,420	1,230	e640	1,280	1,020	601	947	1,290	659	998	417
25	470	e1,760	1,520	e610	1,280	1,040	562	1,000	1,170	600	871	406
26	497	e1,580	1,500	e600	1,230	1,120	533	994	1,090	543	924	398
27	511	e1,480	1,390	e590	1,190	1,260	509	937	1,020	494	1,020	388
28	524	e1,400	1,350	e570	1,150	1,320	499	858	958	456	1,060	383
29	528	1,280	1,530	e560	1,120	1,270	497	789	894	414	1,650	379
30	515	1,200	1,810	e550	---	1,200	501	770	829	380	2,150	376
31	508	---	2,070	e540	---	1,200	---	1,190	---	372	2,550	---
TOTAL	15,157	26,135	35,315	34,376	20,611	45,980	22,607	22,760	51,941	15,689	25,373	26,384
MEAN	489	871	1,139	1,109	711	1,483	754	734	1,731	506	818	879
MAX	610	1,760	2,070	2,000	1,280	2,600	1,190	1,190	2,930	769	2,550	2,710
MIN	362	490	819	540	470	1,020	497	515	829	370	306	376
CFSM	0.52	0.92	1.21	1.18	0.75	1.57	0.80	0.78	1.84	0.54	0.87	0.93
IN.	0.60	1.03	1.39	1.36	0.81	1.82	0.89	0.90	2.05	0.62	1.00	1.04

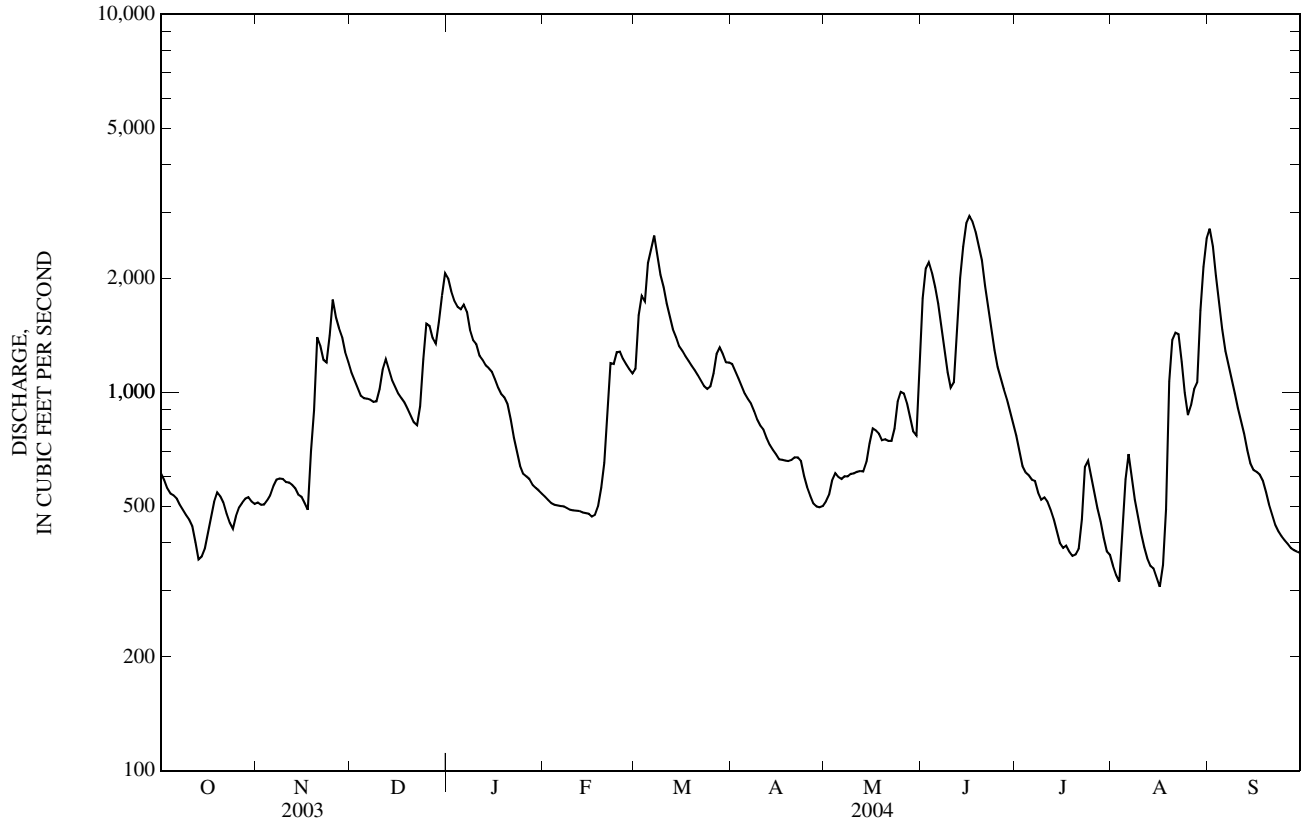
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2004, BY WATER YEAR (WY)

MEAN	847	798	941	737	926	1,215	1,212	1,475	1,066	736	523	572
MAX	1,853	1,250	1,396	1,109	1,689	1,625	2,273	2,334	1,731	1,331	818	879
(WY)	(2002)	(2002)	(2002)	(2004)	(2002)	(2002)	(2002)	(2002)	(2004)	(2003)	(2004)	(2004)
MIN	201	274	288	318	386	537	608	734	512	373	311	208
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2004)	(2003)	(2002)	(2002)	(2002)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2001 - 2004	
ANNUAL TOTAL	263,308		342,328			
ANNUAL MEAN	721		935		921	
HIGHEST ANNUAL MEAN					1,252	2002
LOWEST ANNUAL MEAN					576	2003
HIGHEST DAILY MEAN	2,950	Jul 11	2,930	Jun 16	4,280	May 16, 2002
LOWEST DAILY MEAN	251	Aug 26	306	Aug 16	4.8	Sep 3, 2001
ANNUAL SEVEN-DAY MINIMUM	263	Aug 23	346	Aug 11	5.1	Aug 28, 2001
MAXIMUM PEAK FLOW			3,130	Jun 16	4,600	May 16, 2002
MAXIMUM PEAK STAGE			9.56	Jun 16	11.48	May 16, 2002
ANNUAL RUNOFF (CFSM)	0.766		0.993		0.978	
ANNUAL RUNOFF (INCHES)	10.40		13.52		13.28	
10 PERCENT EXCEEDS	1,370		1,710		1,960	
50 PERCENT EXCEEDS	550		764		660	
90 PERCENT EXCEEDS	312		434		278	

e Estimated

03331753 TIPPECANOE RIVER AT WINAMAC, IN—Continued



03333050 TIPPECANOE RIVER NEAR DELPHI, IN

LOCATION.--Lat 40°35'38", long 86°46'12", in SW¼SW¼ sec.21, T.25 N., R.3 W., Carroll County, Hydrologic Unit 05120106, (BROOKSTON, IN quadrangle), 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 National Geodetic Vertical Datum of 1929. Mar. 14, 1903 to July 20, 1906, and Nov. 2 to Dec. 31, 1908, nonrecording gage at present site at different datum. July 1939 to Sept. 30, 1987, at site 6.4 mi upstream at datum 17.01 ft higher.

REMARKS.--Records good. Flow regulated by upstream reservoirs.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

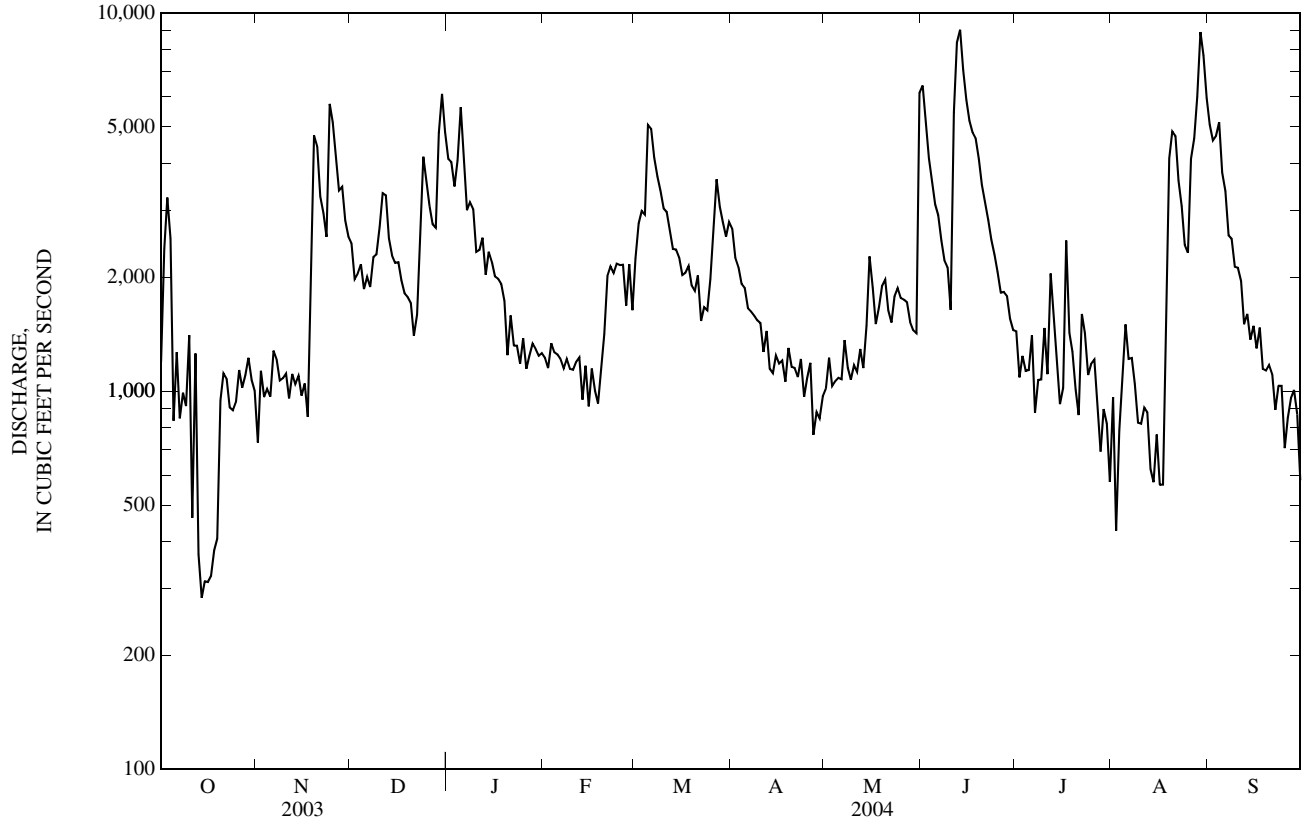
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,190	732	2,460	4,120	1,220	2,240	2,690	1,010	6,430	1,440	965	5,070
2	2,380	1,130	1,980	4,040	1,150	2,780	2,250	1,230	5,160	1,090	427	4,600
3	3,250	965	2,040	3,480	1,340	3,000	2,130	1,030	4,130	1,240	789	4,730
4	2,530	1,010	2,160	4,080	1,270	2,930	1,920	1,060	3,630	1,130	1,060	5,140
5	835	968	1,860	5,640	1,250	5,060	1,870	1,080	3,120	1,140	1,500	3,780
6	1,270	1,280	2,010	4,290	1,220	4,940	1,660	1,070	2,920	1,410	1,220	3,380
7	847	1,220	1,890	3,010	1,150	4,150	1,630	1,360	2,500	877	1,220	2,580
8	991	1,070	2,260	3,160	1,220	3,700	1,580	1,150	2,220	1,070	1,040	2,530
9	913	1,080	2,300	3,030	1,150	3,390	1,540	1,070	2,130	1,070	825	2,130
10	1,410	1,110	2,720	2,340	1,140	3,040	1,510	1,170	1,640	1,470	820	2,120
11	463	957	3,340	2,360	1,200	2,980	1,270	1,130	5,460	1,110	905	1,950
12	1,260	1,110	3,300	2,550	1,230	2,650	1,440	1,290	8,360	2,050	880	1,500
13	370	1,040	2,540	2,030	950	2,380	1,150	1,150	9,040	1,570	623	1,600
14	284	1,100	2,280	2,340	1,170	2,370	1,120	1,490	7,080	1,170	574	1,370
15	314	973	2,180	2,190	912	2,260	1,240	2,270	5,890	924	768	1,490
16	313	1,050	2,190	2,010	1,150	2,030	1,180	1,880	5,200	1,020	565	1,300
17	324	855	1,970	1,980	1,000	2,050	1,210	1,500	4,830	2,500	566	1,470
18	380	1,530	1,810	1,920	928	2,140	1,060	1,670	4,660	1,430	1,580	1,150
19	408	4,750	1,770	1,730	1,130	1,900	1,300	1,900	4,110	1,270	4,130	1,130
20	946	4,440	1,710	1,250	1,420	1,840	1,160	1,970	3,510	1,010	4,860	1,170
21	1,110	3,270	1,400	1,590	2,020	2,020	1,150	1,640	3,140	864	4,730	1,110
22	1,080	2,950	1,590	1,320	2,140	1,530	1,090	1,520	2,830	1,600	3,600	893
23	906	2,560	2,730	1,320	2,050	1,670	1,220	1,780	2,520	1,420	3,080	1,030
24	890	5,750	4,170	1,180	2,170	1,640	966	1,870	2,300	1,100	2,440	1,030
25	936	5,140	3,590	1,380	2,150	1,980	1,080	1,770	2,070	1,180	2,320	707
26	1,140	4,210	3,090	1,150	2,160	2,620	1,190	1,750	1,820	1,210	4,110	849
27	1,020	3,390	2,770	1,240	1,680	3,630	767	1,720	1,830	927	4,660	958
28	1,100	3,470	2,710	1,340	2,170	3,080	881	1,520	1,780	692	6,000	1,010
29	1,230	2,830	4,830	1,290	1,640	2,800	847	1,450	1,560	897	8,900	868
30	1,070	2,560	6,110	1,240	---	2,560	970	1,420	1,450	821	7,730	582
31	1,000	---	4,840	1,260	---	2,800	---	6,150	---	576	5,960	---
TOTAL	32,160	64,500	82,600	71,860	41,380	84,160	41,071	50,070	113,320	37,278	78,847	59,227
MEAN	1,037	2,150	2,665	2,318	1,427	2,715	1,369	1,615	3,777	1,203	2,543	1,974
MAX	3,250	5,750	6,110	5,640	2,170	5,060	2,690	6,150	9,040	2,500	8,900	5,140
MIN	284	732	1,400	1,150	912	1,530	767	1,010	1,450	576	427	582
CFSM	0.56	1.15	1.43	1.24	0.76	1.45	0.73	0.86	2.02	0.64	1.36	1.06
IN.	0.64	1.28	1.64	1.43	0.82	1.68	0.82	1.00	2.26	0.74	1.57	1.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2004, BY WATER YEAR (WY)

MEAN	1,269	1,538	1,863	2,417	2,413	2,895	2,926	2,455	2,311	1,923	1,234	1,086
MAX	4,215	4,120	3,819	6,854	4,774	5,184	4,958	4,610	4,324	6,326	4,849	3,092
(WY)	(2002)	(1993)	(1991)	(1993)	(1997)	(1998)	(1994)	(2002)	(1997)	(2003)	(1990)	(1993)
MIN	369	453	490	505	605	811	1,096	983	493	360	308	325
(WY)	(1996)	(2000)	(2003)	(2003)	(2003)	(1996)	(2003)	(1988)	(1988)	(1988)	(1988)	(1999)

03333050 TIPPECANOE RIVER NEAR DELPHI, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1988 - 2004	
ANNUAL TOTAL	675,101		756,473			
ANNUAL MEAN	1,850		2,067		2,025	
HIGHEST ANNUAL MEAN					3,046	1993
LOWEST ANNUAL MEAN					954	2000
HIGHEST DAILY MEAN	17,300	Jul 10	9,040	Jun 13	18,400	Dec 30, 1990
LOWEST DAILY MEAN	284	Oct 14	284	Oct 14	131	Aug 5, 1988
ANNUAL SEVEN-DAY MINIMUM	342	Oct 13	342	Oct 13	255	Aug 2, 1988
MAXIMUM PEAK FLOW			9,780	Aug 29	20,600	Apr 12, 1994
MAXIMUM PEAK STAGE			8.63	Aug 29	13.72	Apr 12, 1994
ANNUAL RUNOFF (CFSM)	0.990		1.11		1.08	
ANNUAL RUNOFF (INCHES)	13.44		15.06		14.72	
10 PERCENT EXCEEDS	3,610		4,140		4,260	
50 PERCENT EXCEEDS	1,110		1,550		1,450	
90 PERCENT EXCEEDS	514		896		465	



03333450 WILDCAT CREEK NEAR JEROME, IN

LOCATION.--Lat 40°26'29", long 85°55'08", in NE¼SE¼ sec.14, T.23 N., R.5 E., Howard County, Hydrologic Unit 05120107, (GREENTOWN, IN quadrangle), 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 National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	233	19	161	273	e37	404	561	65	560	34	11	7.2
2	161	34	114	231	e39	799	369	87	274	30	8.5	6.6
3	125	33	97	206	e40	498	260	101	154	28	7.2	8.4
4	114	30	91	1,690	e39	477	182	84	105	33	9.7	24
5	86	29	99	3,280	e32	1,390	131	76	86	27	15	17
6	67	27	151	1,380	e34	876	110	66	75	23	11	10
7	56	21	180	646	e34	519	108	61	63	20	8.3	8.1
8	47	19	179	378	e30	341	104	53	53	18	7.1	8.1
9	42	18	167	251	e27	245	88	53	46	23	6.3	7.1
10	39	15	296	175	e27	173	74	50	44	77	7.7	5.7
11	36	18	571	149	e26	151	70	46	960	39	7.2	6.5
12	35	291	326	142	e26	124	66	45	1,880	28	6.1	4.6
13	31	267	199	128	e25	99	66	45	1,250	21	5.6	3.5
14	58	126	163	113	e25	95	63	45	879	18	5.3	3.3
15	194	92	125	112	e25	87	54	44	578	15	5.1	3.0
16	144	73	111	91	e24	84	51	39	667	14	4.8	2.9
17	98	56	102	87	e24	86	51	37	888	16	4.7	3.0
18	74	63	89	99	e24	82	48	36	682	17	5.9	2.7
19	65	438	77	e74	e50	93	47	36	402	13	5.9	2.5
20	51	345	62	e66	486	119	50	35	264	11	14	2.4
21	50	195	53	e60	642	140	66	87	193	10	31	2.4
22	43	136	63	e59	290	111	62	73	150	17	17	2.3
23	37	110	805	e60	310	98	274	56	108	24	11	2.3
24	32	395	1,380	e54	274	92	200	73	87	13	8.5	2.2
25	27	437	711	e50	176	83	142	60	74	10	7.5	2.2
26	27	249	426	e52	133	427	109	53	66	9.3	7.0	2.3
27	24	181	302	e50	111	1,430	91	49	55	9.4	6.9	2.3
28	27	288	274	e41	98	822	77	125	49	8.7	9.8	2.4
29	27	378	321	e39	106	517	68	73	43	7.9	12	2.4
30	20	241	592	e38	---	370	62	60	37	8.3	11	2.6
31	18	---	391	e37	---	695	---	853	---	12	8.6	---
TOTAL	2,088	4,624	8,678	10,111	3,214	11,527	3,704	2,666	10,772	634.6	286.7	160.0
MEAN	67.4	154	280	326	111	372	123	86.0	359	20.5	9.25	5.33
MAX	233	438	1,380	3,280	642	1,430	561	853	1,880	77	31	24
MIN	18	15	53	37	24	82	47	35	37	7.9	4.7	2.2
CFSM	0.46	1.06	1.92	2.23	0.76	2.55	0.85	0.59	2.46	0.14	0.06	0.04
IN.	0.53	1.18	2.21	2.58	0.82	2.94	0.94	0.68	2.74	0.16	0.07	0.04

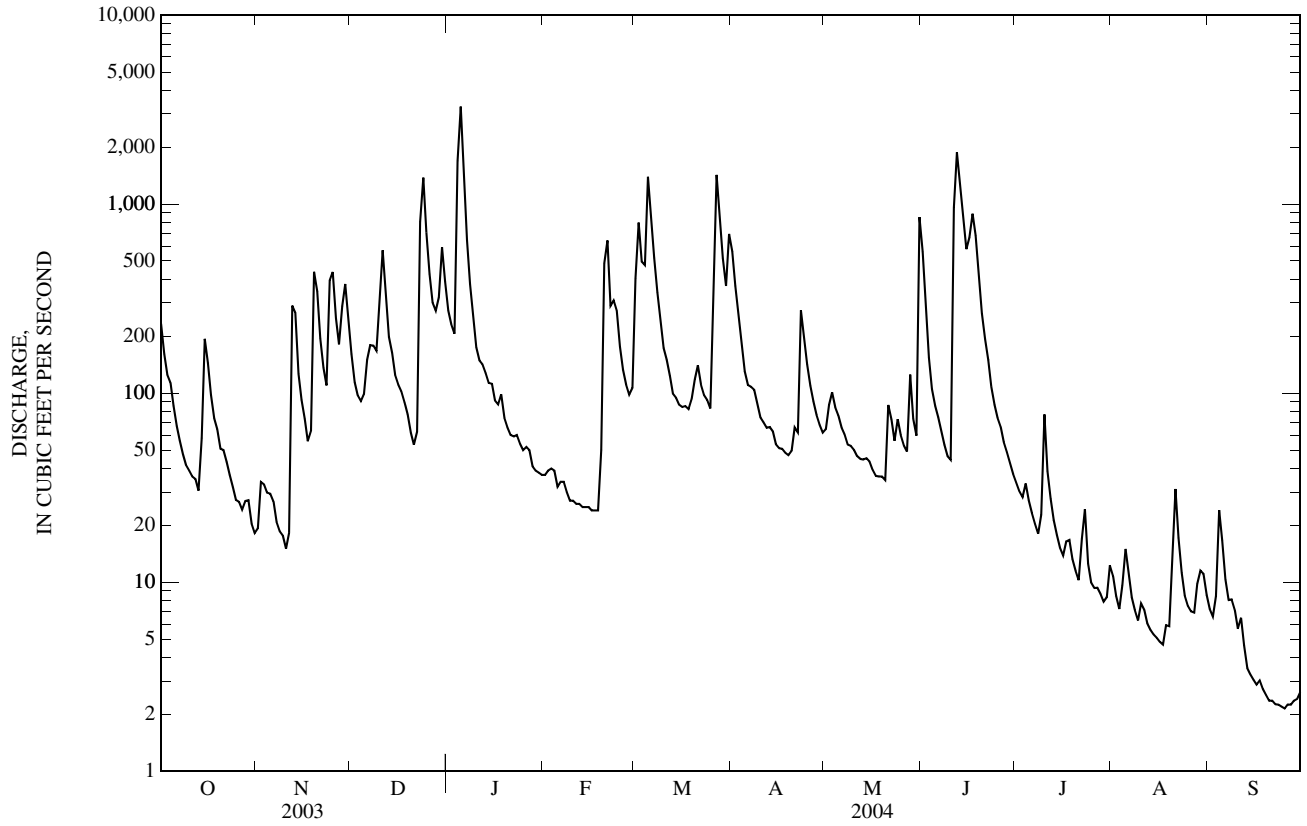
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2004, BY WATER YEAR (WY)

MEAN	50.8	109	158	159	202	280	220	167	141	120	41.1	52.3
MAX	481	834	622	687	649	793	689	487	720	1,114	401	589
(WY)	(2002)	(1993)	(1991)	(1974)	(1976)	(1982)	(1964)	(2003)	(1998)	(2003)	(1998)	(1989)
MIN	1.72	1.53	2.32	1.02	11.2	31.5	16.5	17.9	8.20	7.00	2.86	0.88
(WY)	(1967)	(2000)	(2000)	(1977)	(1963)	(2000)	(2000)	(1976)	(1988)	(1994)	(1999)	(1999)

03333450 WILDCAT CREEK NEAR JEROME, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1962 - 2004	
ANNUAL TOTAL	100,112.9		58,465.3			
ANNUAL MEAN	274		160		141	
HIGHEST ANNUAL MEAN					253	1993
LOWEST ANNUAL MEAN					37.7	2000
HIGHEST DAILY MEAN	6,120	Jul 6	3,280	Jan 5	6,300	Jun 12, 1998
LOWEST DAILY MEAN	7.0	Aug 27	2.2	Sep 24	0.47	Sep 27, 1999
ANNUAL SEVEN-DAY MINIMUM	8.1	Aug 22	2.3	Sep 21	0.52	Sep 22, 1999
MAXIMUM PEAK FLOW			3,910	Jan 5	7,160	Jul 6, 2003
MAXIMUM PEAK STAGE			11.21	Jan 5	14.35	Jul 6, 2003
ANNUAL RUNOFF (CFSM)	1.88		1.09		0.968	
ANNUAL RUNOFF (INCHES)	25.51		14.90		13.15	
10 PERCENT EXCEEDS	626		411		344	
50 PERCENT EXCEEDS	65		60		46	
90 PERCENT EXCEEDS	15		7.2		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,(KOKOMO EAST, IN quadrangle), on left bank at upstream side of bridge on County Road 200 East, 0.5 mi south of County Road 200 South, 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 National Geodetic Vertical Datum of 1929.

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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	8.3	21	39	6.0	77	98	8.4	116	8.1	5.0	2.8
2	36	7.8	17	34	6.4	113	62	13	60	7.5	3.3	2.4
3	29	8.0	16	31	8.3	74	43	13	34	7.8	2.7	12
4	27	8.7	15	297	6.5	84	31	11	23	9.8	7.1	17
5	22	10	17	395	6.1	186	24	9.9	18	7.5	6.2	10
6	18	8.4	18	158	7.0	117	21	8.4	14	6.4	3.9	6.4
7	16	7.4	20	98	6.4	76	20	7.9	12	5.8	2.8	6.1
8	15	6.9	23	60	5.5	48	18	7.3	9.6	5.1	2.4	6.3
9	14	6.3	23	41	5.6	35	14	7.0	8.3	20	2.1	4.9
10	12	6.5	44	30	6.0	26	13	6.5	8.0	115	3.7	3.6
11	12	8.1	69	26	e5.4	23	12	6.4	362	44	2.7	2.7
12	11	76	42	24	e5.2	18	11	6.2	314	30	2.2	2.1
13	10	51	30	21	e5.0	16	11	6.1	168	18	2.0	1.7
14	22	30	26	19	e4.8	18	10	6.2	136	13	1.9	1.5
15	45	23	21	18	e4.6	16	8.9	5.8	96	9.6	1.7	1.3
16	32	19	20	15	e4.5	16	8.5	5.1	71	8.0	1.6	1.2
17	24	16	17	15	e4.4	16	8.2	4.9	185	8.4	1.5	1.1
18	20	18	15	16	e4.9	16	7.7	5.0	136	6.5	3.5	0.89
19	22	57	13	13	e12	19	7.4	5.4	93	5.3	2.2	0.74
20	16	41	11	11	58	23	8.3	5.3	57	4.6	5.1	0.63
21	15	29	11	11	66	24	9.5	23	43	4.0	8.9	0.59
22	13	23	11	9.8	30	20	9.3	18	31	4.5	5.1	0.50
23	12	20	143	9.1	38	19	17	13	23	17	3.4	0.44
24	11	54	155	9.2	36	17	15	16	19	7.6	2.6	e0.43
25	10	48	95	7.7	26	16	13	12	17	4.8	2.4	e0.43
26	9.8	34	57	8.2	23	107	11	9.2	15	4.1	2.6	e0.44
27	9.7	27	42	8.3	19	187	9.6	14	13	3.6	2.3	e0.44
28	10	30	39	6.7	18	120	8.5	71	11	3.2	3.9	e0.45
29	9.8	34	61	6.8	20	80	7.8	32	10	2.6	5.6	e0.45
30	9.8	28	92	6.7	---	63	7.5	44	8.9	4.1	5.1	e0.46
31	7.8	---	55	6.0	---	141	---	275	---	8.8	3.7	---
TOTAL	571.9	744.4	1,239	1,450.5	448.6	1,811	545.2	676.0	2,111.8	404.7	109.2	89.99
MEAN	18.4	24.8	40.0	46.8	15.5	58.4	18.2	21.8	70.4	13.1	3.52	3.00
MAX	51	76	155	395	66	187	98	275	362	115	8.9	17
MIN	7.8	6.3	11	6.0	4.4	16	7.4	4.9	8.0	2.6	1.5	0.43
CFSM	0.75	1.00	1.62	1.89	0.63	2.37	0.74	0.88	2.85	0.53	0.14	0.12
IN.	0.86	1.12	1.87	2.18	0.68	2.73	0.82	1.02	3.18	0.61	0.16	0.14

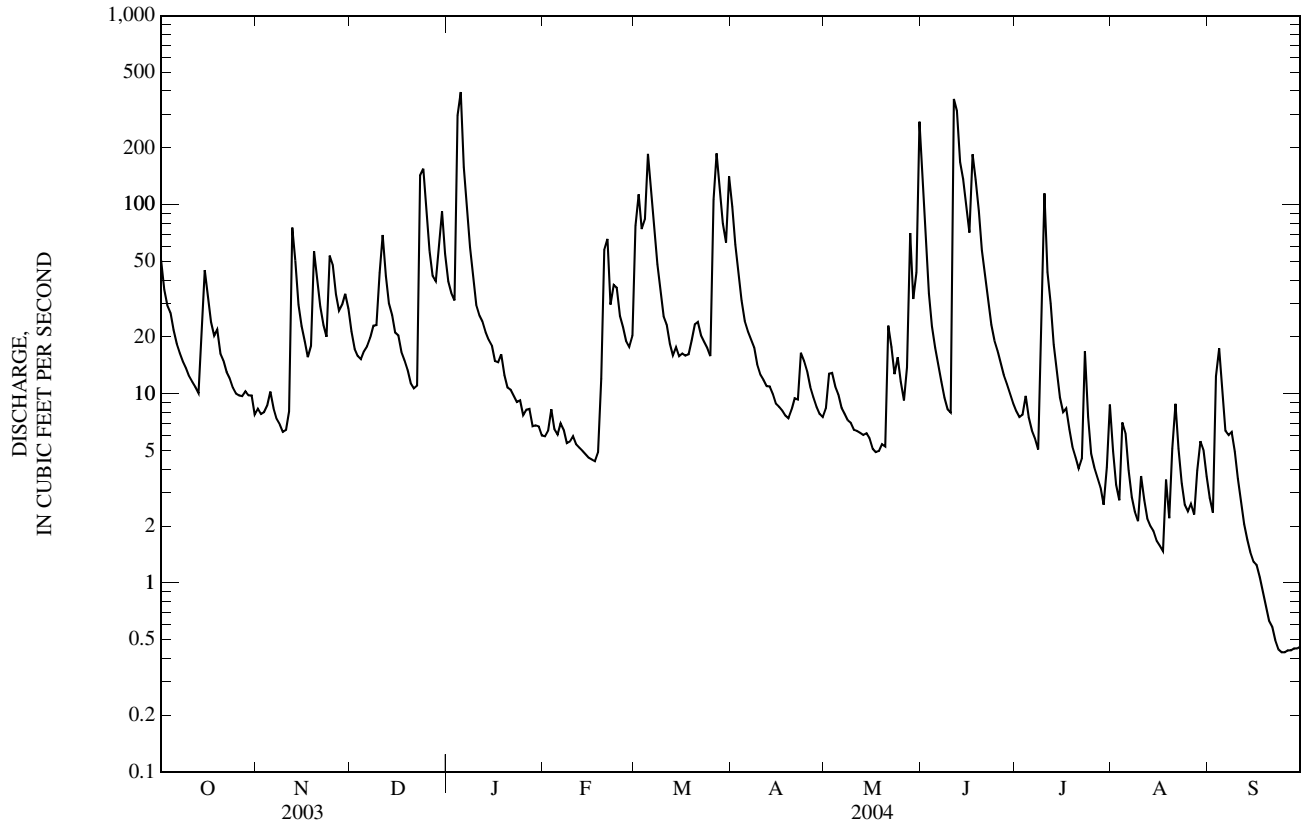
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2004, BY WATER YEAR (WY)

MEAN	10.9	18.7	24.9	24.9	33.9	47.4	39.9	27.9	20.5	18.7	7.07	7.60
MAX	98.6	144	102	114	129	150	117	87.2	99.7	201	58.5	77.3
(WY)	(2002)	(1993)	(1991)	(1974)	(1990)	(1982)	(1964)	(1996)	(1980)	(2003)	(1998)	(2003)
MIN	0.44	0.55	0.44	0.33	1.98	4.21	2.02	2.52	1.20	1.07	0.50	0.16
(WY)	(2003)	(2000)	(1977)	(1977)	(1964)	(2000)	(2000)	(1976)	(1988)	(1988)	(1988)	(1991)

03333600 KOKOMO CREEK NEAR KOKOMO, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1960 - 2004	
ANNUAL TOTAL	15,551.53		10,202.29			
ANNUAL MEAN	42.6		27.9		23.5	
HIGHEST ANNUAL MEAN					45.2	1993
LOWEST ANNUAL MEAN					6.51	2000
HIGHEST DAILY MEAN	1,890	Jul 5	395	Jan 5	1,890	Jul 5, 2003
LOWEST DAILY MEAN	0.43	Jan 28	e 0.43	Sep 24	0.01	Sep 15, 2002
ANNUAL SEVEN-DAY MINIMUM	0.43	Jan 25	0.44	Sep 23	0.02	Sep 11, 2002
MAXIMUM PEAK FLOW			534	Jun 11	2,950	Jul 5, 2003
MAXIMUM PEAK STAGE			7.26	Jun 11	11.85	Jul 5, 2003
ANNUAL RUNOFF (CFSM)	1.72		1.13		0.951	
ANNUAL RUNOFF (INCHES)	23.42		15.37		12.92	
10 PERCENT EXCEEDS	86		67		55	
50 PERCENT EXCEEDS	12		12		7.5	
90 PERCENT EXCEEDS	1.4		2.7		0.85	

e Estimated



03333700 WILDCAT CREEK AT KOKOMO, IN

LOCATION.--Lat 40°28'24", long 86°09'25", in SW¼NE¼ sec.2, T.23 N., R.3 E., Howard County, Hydrologic Unit 05120107, (KOKOMO WEST, IN quadrangle), 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 National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to May 9, 1986, recording gage at site 0.4 mi downstream at present datum.

REMARKS.--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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

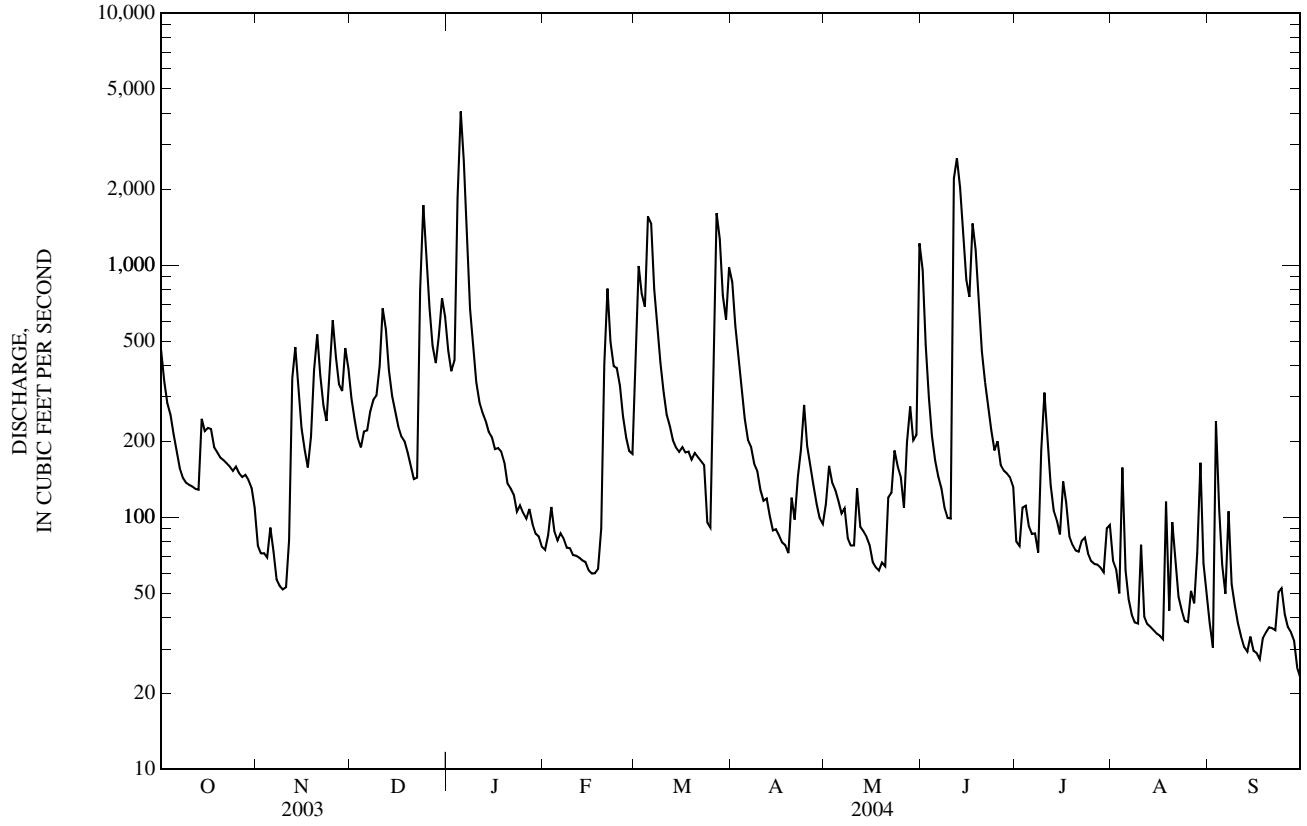
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	461	77	295	457	74	408	856	113	955	80	67	38
2	346	72	243	379	85	992	576	160	481	77	62	30
3	284	72	207	418	110	771	413	138	297	109	50	241
4	255	69	189	1,850	88	683	315	128	210	111	157	108
5	214	91	219	4,070	81	1,560	246	116	168	93	62	65
6	182	73	221	2,590	86	1,460	203	104	145	86	47	50
7	156	57	263	1,150	82	805	190	108	130	86	41	106
8	143	53	292	672	76	569	163	83	110	72	38	54
9	137	52	304	464	75	410	153	77	99	184	38	45
10	134	53	398	343	71	313	128	77	99	312	78	38
11	132	81	674	285	70	255	116	130	2,210	200	40	34
12	130	356	556	261	69	230	119	92	2,660	134	38	31
13	129	473	383	241	67	202	101	88	2,020	106	37	29
14	246	313	303	218	66	189	89	84	1,290	97	36	34
15	220	225	264	207	62	182	90	78	873	86	35	30
16	226	185	229	186	60	190	85	66	749	139	34	29
17	224	158	209	188	60	181	79	63	1,460	114	33	27
18	189	209	200	182	62	182	77	61	1,150	84	115	33
19	181	383	181	165	90	169	72	66	697	78	43	35
20	172	530	159	136	402	180	120	64	454	74	96	37
21	168	365	142	130	807	174	98	120	343	73	66	36
22	164	277	143	122	494	167	145	125	272	81	48	36
23	159	241	793	105	398	161	185	184	221	83	43	50
24	153	388	1,730	111	391	95	279	159	184	72	39	52
25	159	604	1,150	104	332	91	192	145	200	67	38	41
26	150	431	674	99	251	349	161	109	161	65	51	37
27	144	337	478	108	207	1,610	134	199	153	65	46	35
28	147	317	409	94	183	1,270	113	275	149	63	72	32
29	141	469	523	86	178	757	99	202	144	60	164	25
30	131	388	740	84	---	608	94	212	132	90	66	23
31	109	---	625	76	---	979	---	1,220	---	93	50	---
TOTAL	5,786	7,399	13,196	15,581	5,077	16,192	5,691	4,846	18,216	3,134	1,830	1,461
MEAN	187	247	426	503	175	522	190	156	607	101	59.0	48.7
MAX	461	604	1,730	4,070	807	1,610	856	1,220	2,660	312	164	241
MIN	109	52	142	76	60	91	72	61	99	60	33	23
CFSM	0.77	1.02	1.76	2.08	0.72	2.16	0.78	0.65	2.51	0.42	0.24	0.20
IN.	0.89	1.14	2.03	2.40	0.78	2.49	0.87	0.74	2.80	0.48	0.28	0.22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 2004, BY WATER YEAR (WY)

MEAN	97.0	187	256	259	339	438	409	284	260	211	92.2	94.4
MAX	752	1,387	968	1,375	1,097	1,376	1,117	835	1,432	1,743	602	879
(WY)	(2002)	(1993)	(1991)	(1974)	(1990)	(1982)	(1957)	(1996)	(1958)	(2003)	(1998)	(1989)
MIN	11.2	15.5	13.8	15.6	25.8	62.4	35.3	53.6	28.2	28.6	22.7	12.8
(WY)	(1957)	(1957)	(1964)	(2000)	(1964)	(2000)	(2000)	(1988)	(1988)	(1988)	(2000)	(1956)

03333700 WILDCAT CREEK AT KOKOMO, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1956 - 2004	
ANNUAL TOTAL	154,744		98,409			
ANNUAL MEAN	424		269		243	
HIGHEST ANNUAL MEAN					444	1993
LOWEST ANNUAL MEAN					84.8	2000
HIGHEST DAILY MEAN	8,980	Jul 6	4,070	Jan 5	8,980	Jul 6, 2003
LOWEST DAILY MEAN	31	Aug 24	23	Sep 30	7.2	Sep 30, 1956
ANNUAL SEVEN-DAY MINIMUM	32	Aug 22	30	Sep 12	8.3	Dec 28, 1963
MAXIMUM PEAK FLOW			4,420	Jan 5	9,500	Jul 5, 2003
MAXIMUM PEAK STAGE			12.03	Jan 5	17.75	Jul 5, 2003
ANNUAL RUNOFF (CFSM)	1.75		1.11		1.01	
ANNUAL RUNOFF (INCHES)	23.79		15.13		13.66	
10 PERCENT EXCEEDS	838		605		576	
50 PERCENT EXCEEDS	152		143		89	
90 PERCENT EXCEEDS	46		46		24	



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, (PYRMONT, IN quadrangle), on left bank 200 ft downstream from bridge on State Highway 39, 0.5 mi northwest of Owasco, 8.7 mi south of Delphi, 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 National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1950, nonrecording gage at site 500 ft upstream at same datum.

REMARKS.--Records 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	901	249	507	859	175	287	1,390	251	1,260	311	177	146
2	684	231	445	681	168	653	1,250	269	1,240	257	137	123
3	563	212	395	600	165	1,060	943	324	857	243	127	113
4	496	201	361	1,210	184	933	732	324	616	289	146	829
5	457	196	346	3,670	180	1,330	602	313	500	290	260	339
6	405	200	354	4,990	168	2,090	519	296	420	255	161	223
7	365	204	362	e2,830	161	1,900	465	277	372	253	127	180
8	332	193	379	e1,800	153	1,290	432	262	335	249	114	222
9	305	180	405	e1,200	146	966	402	252	297	299	105	165
10	287	172	429	e850	141	750	374	235	266	1,440	107	141
11	274	168	545	e680	141	617	350	225	e1,580	726	145	125
12	266	242	713	e550	139	531	327	230	e5,030	511	109	114
13	256	537	665	452	133	474	309	245	e4,960	358	99	105
14	257	550	550	412	134	439	295	240	e3,370	290	96	99
15	446	456	471	379	132	415	278	236	e1,960	243	93	92
16	442	382	424	352	129	396	265	229	e1,370	213	89	94
17	412	333	390	329	129	387	256	217	e2,190	339	85	86
18	400	304	362	324	125	381	248	206	e2,760	323	99	86
19	379	474	345	316	125	377	240	202	e1,840	255	177	81
20	360	606	320	280	187	375	234	200	e1,240	208	131	85
21	343	625	294	254	522	375	249	198	e874	190	193	82
22	331	524	272	233	744	372	275	221	e685	179	160	79
23	318	447	363	214	641	364	283	241	e552	178	123	79
24	306	481	1,310	213	e520	358	331	300	e469	165	107	82
25	296	661	1,920	e213	e460	331	379	370	e430	157	100	88
26	290	709	1,420	e208	e420	312	371	367	e423	144	104	84
27	289	607	912	e196	377	692	347	345	e386	141	114	77
28	282	523	697	196	306	1,640	317	555	e354	141	144	76
29	278	483	680	197	272	1,600	290	704	e342	135	273	75
30	273	526	e1,100	186	---	1,150	266	576	e317	133	330	74
31	265	---	e1,500	180	---	1,100	---	622	---	148	188	---
TOTAL	11,558	11,676	19,236	25,054	7,277	23,945	13,019	9,532	37,295	9,063	4,420	4,244
MEAN	373	389	621	808	251	772	434	307	1,243	292	143	141
MAX	901	709	1,920	4,990	744	2,090	1,390	704	5,030	1,440	330	829
MIN	256	168	272	180	125	287	234	198	266	133	85	74
CFSM	0.94	0.98	1.57	2.04	0.63	1.95	1.10	0.78	3.14	0.74	0.36	0.36
IN.	1.09	1.10	1.81	2.35	0.68	2.25	1.22	0.90	3.50	0.85	0.42	0.40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2004, BY WATER YEAR (WY)

MEAN	166	256	333	526	510	624	670	467	422	358	142	152
MAX	1,011	2,024	1,325	3,083	1,725	1,301	1,857	1,108	2,536	2,948	707	1,339
(WY)	(2002)	(1993)	(1958)	(1950)	(1959)	(1997)	(1957)	(1996)	(1958)	(2003)	(1958)	(1989)
MIN	20.0	30.3	25.9	24.6	50.0	95.4	67.6	120	84.8	41.5	37.1	20.6
(WY)	(1945)	(1945)	(1945)	(1945)	(1963)	(2000)	(2000)	(1954)	(1949)	(1954)	(1954)	(1954)

03334000 WILDCAT CREEK AT OWASCO, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1945 - 2004	
ANNUAL TOTAL	242,726		176,319			
ANNUAL MEAN	665		482		385	
HIGHEST ANNUAL MEAN					733	1950
LOWEST ANNUAL MEAN					104	1954
HIGHEST DAILY MEAN	16,300	Jul 6	5,030	Jun 12	16,300	Jul 6, 2003
LOWEST DAILY MEAN	62	Aug 28	74	Sep 30	12	Oct 23, 1944
ANNUAL SEVEN-DAY MINIMUM	67	Aug 23	79	Sep 24	15	Sep 23, 1954
MAXIMUM PEAK FLOW			5,790	Jun 12	19,300	Jul 6, 2003
MAXIMUM PEAK STAGE			9.59	Jun 12	16.22	Jul 6, 2003
ANNUAL RUNOFF (CFSM)	1.68		1.22		0.972	
ANNUAL RUNOFF (INCHES)	22.80		16.56		13.21	
10 PERCENT EXCEEDS	1,300		950		900	
50 PERCENT EXCEEDS	282		312		167	
90 PERCENT EXCEEDS	93		124		42	

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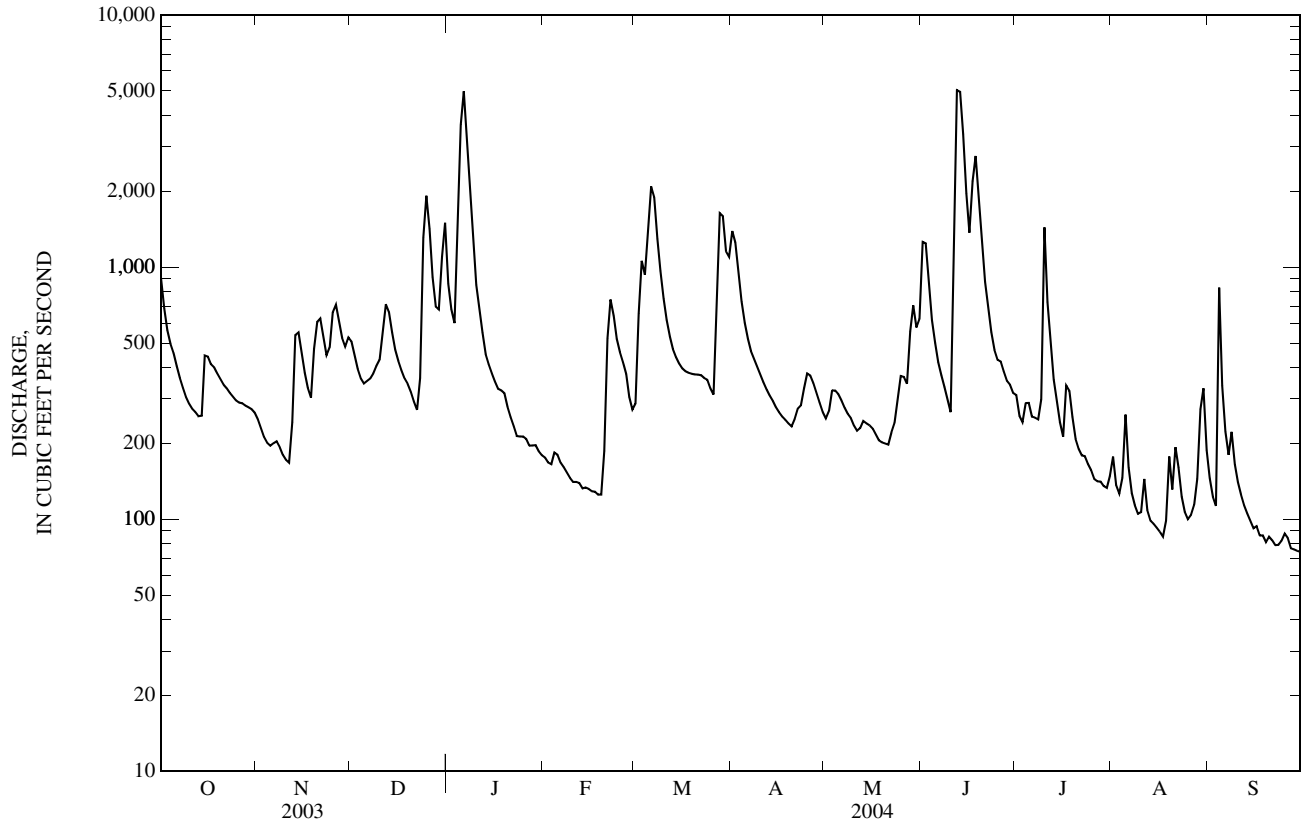


03334500 SOUTH FORK WILDCAT CREEK NEAR LAFAYETTE, IN

LOCATION.--Lat 40°25'04", long 86°46'05", in SW¼SW¼ sec.21, T.23 N., R.3 W., Tippecanoe County, Hydrologic Unit 05120107, (LAFAYETTE EAST, IN quadrangle), 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 National Geodetic Vertical Datum of 1929 (Indiana Department of Highways bench mark). Prior to July 29, 1954, nonrecording gage at site 40 ft downstream at same datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. At times peaks affected by backwater from Middle Fork.

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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	542	92	242	488	e129	239	789	133	503	139	65	53
2	400	90	206	398	126	777	520	187	306	131	60	49
3	315	89	189	370	127	536	395	195	216	125	58	47
4	276	88	180	2,400	135	441	322	166	170	136	65	50
5	232	94	191	4,440	116	1,430	268	152	149	123	86	58
6	200	103	205	2,140	117	1,130	235	139	136	115	73	56
7	178	95	210	1,180	118	667	223	128	125	110	65	53
8	161	89	228	747	109	465	210	119	115	104	59	50
9	146	83	233	538	104	367	194	113	107	116	55	46
10	139	80	250	415	106	301	175	108	103	221	55	45
11	131	85	485	352	104	264	163	118	4,920	239	52	45
12	123	96	431	328	104	239	155	119	7,440	256	50	44
13	115	117	309	302	101	212	151	114	3,420	154	50	42
14	151	118	263	278	96	202	146	146	1,440	140	50	41
15	435	106	233	266	98	196	138	142	945	118	49	41
16	349	102	211	241	91	187	131	127	848	103	47	40
17	258	99	198	227	96	188	126	116	2,740	98	46	39
18	208	113	178	244	92	182	123	124	1,750	94	48	41
19	184	705	167	217	116	183	116	141	924	98	48	38
20	165	554	153	198	433	187	128	162	600	88	55	37
21	152	340	141	194	647	196	155	142	447	82	77	36
22	142	253	140	178	349	179	141	149	366	82	62	36
23	132	217	742	e171	275	169	267	139	300	76	55	36
24	123	691	1,520	e166	273	166	233	302	255	71	52	36
25	116	787	925	e160	241	164	195	306	236	68	50	35
26	112	478	566	e153	202	352	172	249	215	67	56	35
27	106	369	413	e149	181	1,230	151	199	189	65	57	35
28	108	318	377	e144	164	848	137	180	173	63	52	35
29	111	296	709	e138	157	567	128	155	160	61	58	35
30	102	272	1,160	e136	---	442	122	142	148	62	82	36
31	95	---	721	e131	---	916	---	300	---	68	60	---
TOTAL	6,007	7,019	12,176	17,489	5,007	13,622	6,409	5,012	29,446	3,473	1,797	1,270
MEAN	194	234	393	564	173	439	214	162	982	112	58.0	42.3
MAX	542	787	1,520	4,440	647	1,430	789	306	7,440	256	86	58
MIN	95	80	140	131	91	164	116	108	103	61	46	35
CFSM	0.80	0.96	1.62	2.32	0.71	1.81	0.88	0.67	4.04	0.46	0.24	0.17
IN.	0.92	1.07	1.86	2.68	0.77	2.09	0.98	0.77	4.51	0.53	0.28	0.19

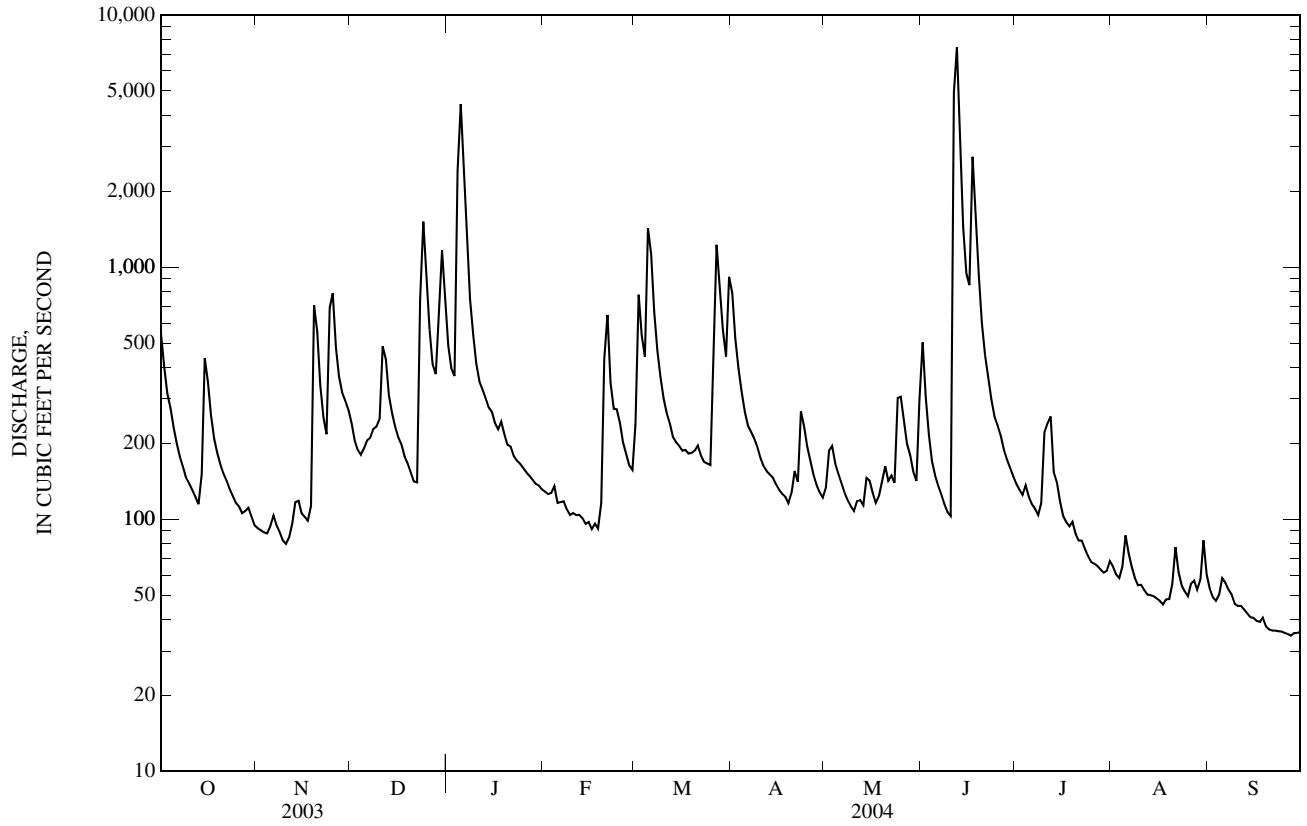
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2004, BY WATER YEAR (WY)

MEAN	102	170	239	294	334	408	395	307	294	178	97.5	106
MAX	568	1,304	954	1,808	929	1,143	1,172	881	1,674	954	510	849
(WY)	(2002)	(1993)	(1991)	(1950)	(1985)	(1982)	(1964)	(1983)	(1958)	(1992)	(1958)	(1989)
MIN	22.9	27.2	23.5	19.5	37.5	62.6	45.9	67.6	40.6	26.2	18.3	18.0
(WY)	(1964)	(2000)	(1964)	(1977)	(1963)	(2000)	(2000)	(1976)	(1977)	(1977)	(1944)	(1944)

03334500 SOUTH FORK WILDCAT CREEK NEAR LAFAYETTE, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1944 - 2004	
ANNUAL TOTAL	126,428		108,727			
ANNUAL MEAN	346		297		243	
HIGHEST ANNUAL MEAN					473	1950
LOWEST ANNUAL MEAN					79.2	1954
HIGHEST DAILY MEAN	4,570	Jul 6	7,440	Jun 12	11,000	May 2, 1983
LOWEST DAILY MEAN	40	Aug 28	35	Sep 25	15	Sep 19, 1944
ANNUAL SEVEN-DAY MINIMUM	44	Aug 22	35	Sep 23	16	Sep 17, 1944
MAXIMUM PEAK FLOW			10,200	Jun 11	15,100	May 2, 1983
MAXIMUM PEAK STAGE			14.29	Jun 11	15.68	May 2, 1983
ANNUAL RUNOFF (CFSM)	1.43		1.22		1.00	
ANNUAL RUNOFF (INCHES)	19.35		16.64		13.59	
10 PERCENT EXCEEDS	729		546		528	
50 PERCENT EXCEEDS	153		149		110	
90 PERCENT EXCEEDS	80		52		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, (LAFAYETTE EAST, IN quadrangle), 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 National Geodetic Vertical Datum of 1929 (Indiana Flood Control and Water Resources Commission bench mark). Nonrecording gage prior to June 13, 1957, and August 31, 1974, to May 20, 1976, at present site and datum.

REMARKS.--Records fair 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,860	424	944	1,710	e350	699	2,450	447	2,120	530	346	325
2	1,410	404	796	1,390	e360	1,750	1,860	563	1,540	472	292	279
3	1,130	379	705	1,270	e360	1,890	1,410	653	1,010	438	270	256
4	990	372	652	4,800	e350	1,610	1,140	557	758	448	318	924
5	868	385	660	10,300	e340	3,340	948	519	620	503	450	609
6	749	403	691	7,870	e350	3,610	830	480	542	417	361	423
7	669	399	699	6,060	e340	2,720	762	453	488	416	288	348
8	609	368	769	2,990	e330	1,770	716	424	439	410	257	369
9	570	346	826	1,960	e320	1,360	665	415	392	443	240	317
10	542	336	896	1,480	e310	1,090	611	387	371	2,460	243	279
11	518	344	1,360	1,210	e300	919	569	403	7,820	1,570	267	256
12	498	402	1,480	1,080	e282	811	541	403	15,500	1,220	249	236
13	477	837	1,210	977	e278	731	527	425	11,600	809	223	221
14	530	837	992	892	e270	690	507	438	6,330	670	216	210
15	1,040	702	862	834	e268	659	482	431	3,870	574	210	198
16	990	606	779	759	e265	632	e462	403	2,890	506	204	198
17	e820	554	722	716	e280	634	e440	374	6,680	595	196	185
18	e730	570	652	729	306	621	e430	372	5,800	667	204	186
19	e660	1,510	623	679	356	624	e420	391	3,430	535	298	177
20	e630	1,530	577	602	851	628	e460	412	2,280	429	282	174
21	e580	1,290	534	e550	1,600	641	e500	392	1,700	394	357	175
22	563	1,020	514	e500	1,420	617	e520	437	1,370	411	360	170
23	538	883	1,410	e470	1,060	592	590	457	1,120	373	276	166
24	520	1,500	3,620	e460	989	590	641	740	952	341	242	168
25	505	1,840	3,260	e440	914	540	671	837	870	330	228	177
26	500	1,530	2,330	e425	785	754	579	698	820	311	251	177
27	487	1,240	1,630	e400	678	2,330	512	577	708	299	249	166
28	482	1,070	1,380	e390	601	2,810	467	1,110	648	297	294	162
29	483	994	1,870	e380	563	2,240	437	1,010	607	287	544	163
30	468	1,050	2,850	e370	---	1,670	411	775	563	285	658	161
31	448	---	2,200	e360	---	2,330	---	1,250	---	303	423	---
TOTAL	21,864	24,125	38,493	53,053	15,476	41,902	21,558	17,233	83,838	17,743	9,296	7,855
MEAN	705	804	1,242	1,711	534	1,352	719	556	2,795	572	300	262
MAX	1,860	1,840	3,620	10,300	1,600	3,610	2,450	1,250	15,500	2,460	658	924
MIN	448	336	514	360	265	540	411	372	371	285	196	161
CFSM	0.89	1.01	1.56	2.16	0.67	1.70	0.91	0.70	3.52	0.72	0.38	0.33
IN.	1.02	1.13	1.80	2.49	0.73	1.96	1.01	0.81	3.93	0.83	0.44	0.37

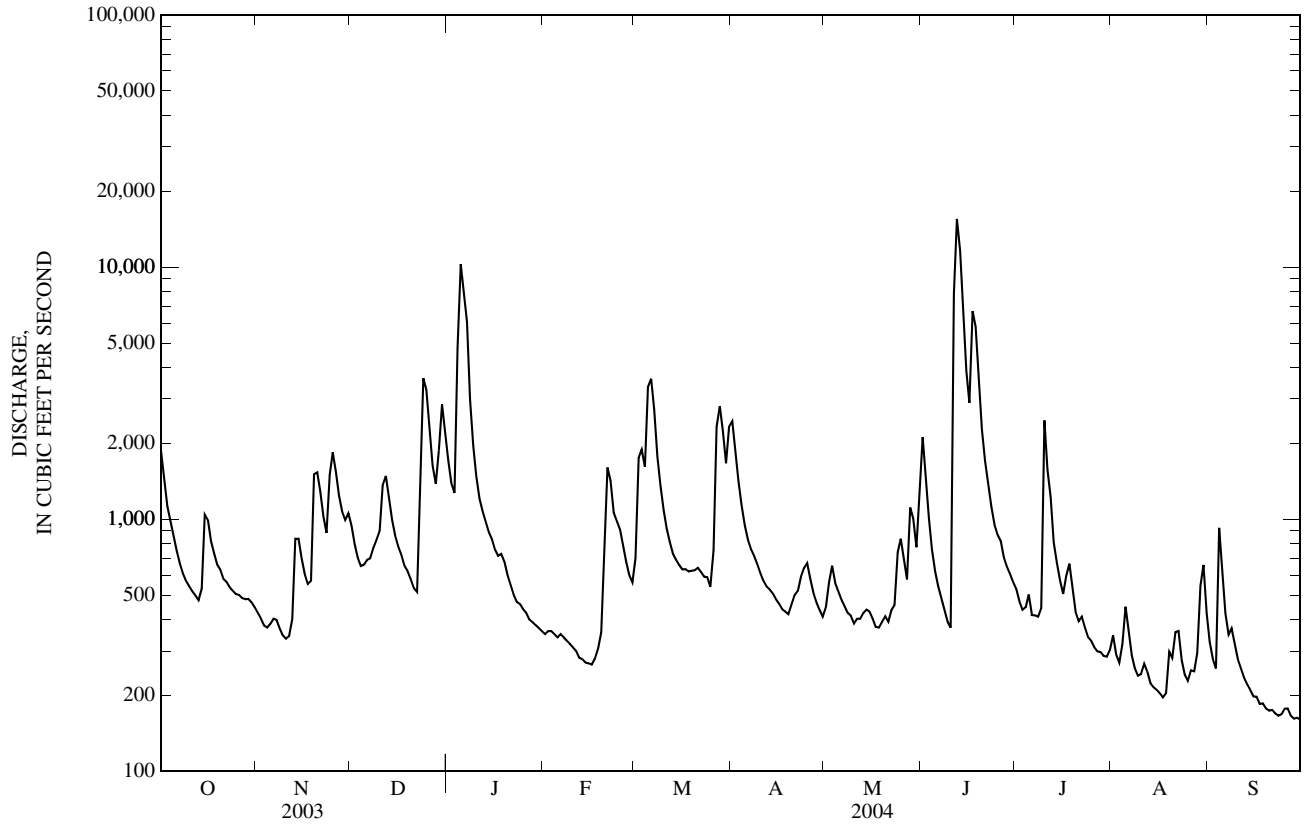
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 2004, BY WATER YEAR (WY)

MEAN	328	566	797	822	1,055	1,360	1,266	956	914	670	337	328
MAX	1,792	3,963	2,474	3,711	3,227	3,991	3,657	2,614	5,210	4,318	1,511	2,546
(WY)	(2002)	(1993)	(1991)	(1974)	(1976)	(1982)	(1964)	(1983)	(1958)	(2003)	(1958)	(1989)
MIN	67.9	85.6	67.0	61.6	104	196	146	231	130	84.4	79.8	68.8
(WY)	(1964)	(1964)	(1964)	(1977)	(1963)	(2000)	(2000)	(1976)	(1988)	(1977)	(1966)	(1999)

03335000 WILDCAT CREEK NEAR LAFAYETTE, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1955 - 2004	
ANNUAL TOTAL	431,235		352,436			
ANNUAL MEAN	1,181		963		781	
HIGHEST ANNUAL MEAN					1,460	1993
LOWEST ANNUAL MEAN					264	2000
HIGHEST DAILY MEAN	19,100	Jul 7	15,500	Jun 12	22,100	Jun 10, 1958
LOWEST DAILY MEAN	133	Aug 28	161	Sep 30	47	Sep 6, 1964
ANNUAL SEVEN-DAY MINIMUM	155	Aug 22	168	Sep 24	51	Dec 20, 1963
MAXIMUM PEAK FLOW			16,800	Jun 12	25,000	Jun 10, 1958
MAXIMUM PEAK STAGE			19.31	Jun 12	23.64	Jul 7, 2003
ANNUAL RUNOFF (CFSM)	1.49		1.21		0.984	
ANNUAL RUNOFF (INCHES)	20.20		16.51		13.37	
10 PERCENT EXCEEDS	2,360		1,790		1,760	
50 PERCENT EXCEEDS	554		563		362	
90 PERCENT EXCEEDS	220		266		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, (LAFAYETTE WEST, IN quadrangle), 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 National Geodetic Vertical Datum of 1929. Prior to May 2, 1903, nonrecording gage 0.5 mi upstream at different datum. Oct. 7, 1923, to Nov. 20, 1933, nonrecording gage at same site and datum.

REMARKS.--Records good 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15,400	4,140	13,000	17,200	e3,000	6,430	15,900	3,040	24,200	7,700	2,600	15,300
2	14,100	3,950	11,100	14,300	e3,600	10,600	14,400	3,290	21,300	7,500	2,530	12,700
3	12,700	3,850	8,650	11,800	e3,800	16,700	11,300	3,730	16,600	6,960	2,990	11,000
4	10,500	4,130	7,040	14,800	e3,700	16,800	7,920	3,780	11,600	7,040	3,340	12,300
5	8,330	4,120	6,310	32,900	e3,500	20,800	6,620	4,110	8,420	7,110	3,560	10,900
6	8,790	3,930	5,770	36,700	e3,600	27,700	5,830	4,270	7,250	6,880	4,670	9,300
7	8,100	3,860	5,780	30,100	e3,550	26,000	5,150	3,910	6,150	6,330	4,470	6,610
8	8,320	3,900	6,280	24,400	e3,500	20,600	4,760	3,580	5,210	5,700	3,650	5,710
9	8,140	3,660	7,030	21,900	e3,450	16,000	4,470	3,670	4,670	4,430	2,980	5,670
10	7,640	3,540	7,680	19,000	e3,400	12,700	3,840	4,160	4,000	7,730	2,740	5,060
11	6,870	3,550	13,800	16,300	e3,300	9,470	3,600	3,610	16,900	7,110	2,510	4,710
12	5,920	3,970	18,300	15,300	e3,250	8,120	3,530	3,430	45,100	6,450	2,390	3,860
13	4,260	4,240	15,300	13,700	e3,200	6,860	3,260	3,390	56,800	5,210	2,410	3,470
14	3,990	5,460	11,500	12,100	e3,150	6,160	3,280	3,380	49,300	4,090	2,040	3,200
15	4,850	6,060	8,760	10,300	e3,100	5,780	3,140	4,120	40,900	3,590	2,150	3,110
16	6,940	5,120	7,280	9,010	e3,000	5,380	3,080	3,930	34,100	3,230	1,940	2,950
17	8,820	4,380	6,550	8,020	e2,900	5,150	2,960	3,540	31,700	4,840	1,850	2,920
18	8,010	4,490	5,980	7,320	e2,900	4,800	3,010	3,410	31,900	4,890	2,410	2,700
19	6,240	8,660	5,520	e6,200	e3,000	4,520	2,940	4,590	27,600	3,580	4,740	2,790
20	5,610	13,100	5,600	e5,200	e3,900	4,370	2,770	4,960	22,400	3,200	7,210	2,550
21	5,200	13,600	5,240	e4,800	8,650	4,460	3,150	5,140	18,700	2,830	7,400	2,490
22	4,850	11,900	4,740	e4,600	14,900	4,160	2,980	5,650	15,600	3,540	8,270	2,370
23	4,540	9,250	6,270	e4,200	13,800	4,070	3,090	6,300	13,900	3,890	7,950	2,080
24	4,490	11,400	17,200	e3,900	12,100	4,070	3,040	6,670	12,100	5,020	5,770	2,200
25	4,090	14,100	23,700	e3,600	10,200	4,180	3,150	9,050	10,300	4,600	4,690	2,230
26	4,070	13,400	22,300	e3,550	8,580	4,860	3,690	8,240	9,580	3,560	5,160	2,100
27	4,130	11,700	19,500	e3,500	7,010	8,510	3,190	6,080	8,570	3,020	6,510	2,170
28	4,220	9,430	15,700	e3,100	6,470	12,400	2,980	5,370	8,700	2,970	8,110	1,910
29	4,190	9,020	15,900	e3,000	6,010	14,100	2,940	5,350	8,470	2,610	16,700	2,070
30	4,340	12,100	22,500	e2,800	---	13,300	2,700	4,430	7,940	2,470	23,600	1,960
31	4,250	---	20,500	e2,700	---	14,400	---	11,900	---	2,500	19,000	---
TOTAL	211,900	214,010	350,780	366,300	154,520	323,450	142,670	150,080	579,960	150,580	176,340	148,390
MEAN	6,835	7,134	11,320	11,820	5,328	10,430	4,756	4,841	19,330	4,857	5,688	4,946
MAX	15,400	14,100	23,700	36,700	14,900	27,700	15,900	11,900	56,800	7,730	23,600	15,300
MIN	3,990	3,540	4,740	2,700	2,900	4,070	2,700	3,040	4,000	2,470	1,850	1,910
CFSM	0.94	0.98	1.56	1.63	0.73	1.44	0.65	0.67	2.66	0.67	0.78	0.68
IN.	1.08	1.10	1.80	1.88	0.79	1.66	0.73	0.77	2.97	0.77	0.90	0.76

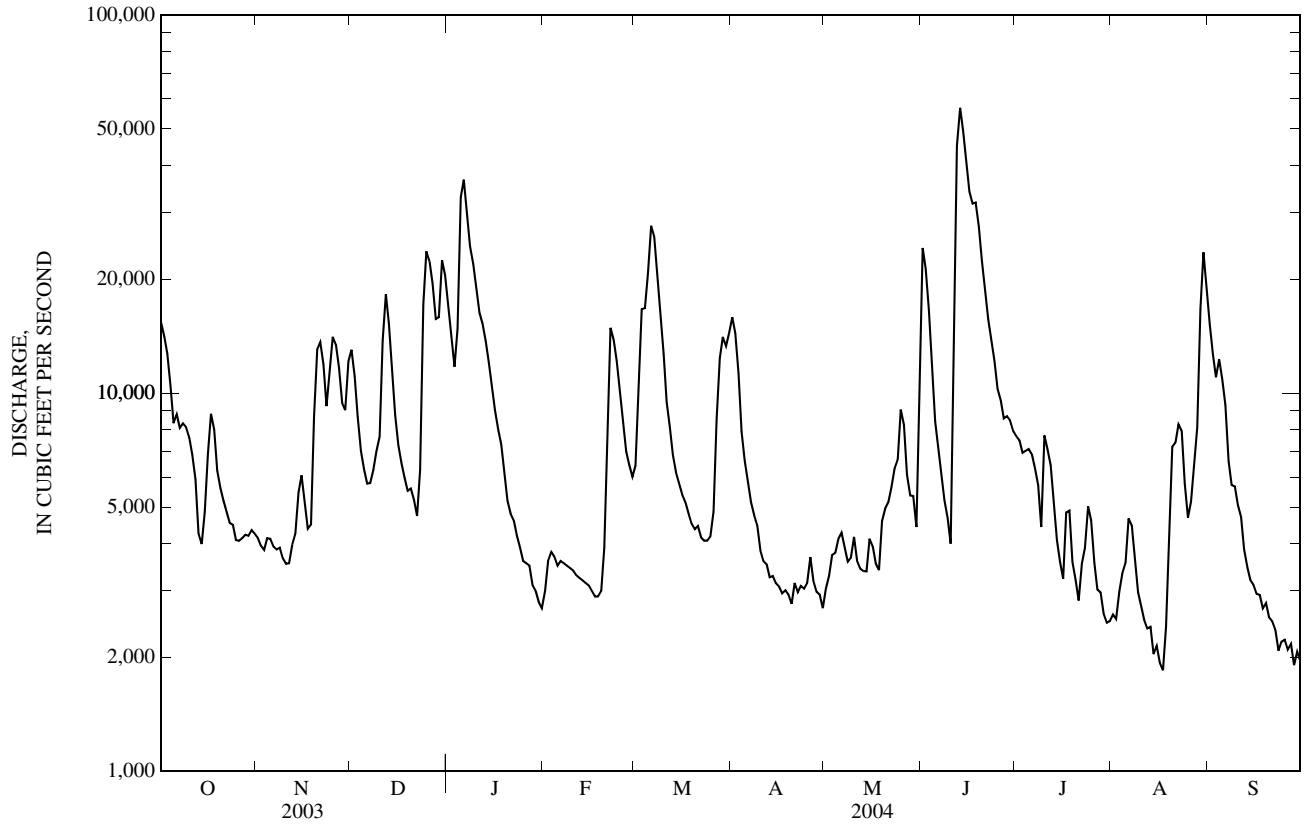
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2004, BY WATER YEAR (WY)

MEAN	3,169	4,314	6,712	8,380	9,530	11,690	11,440	8,369	6,845	4,664	2,908	2,790
MAX	17,250	19,910	25,250	42,040	28,000	33,560	28,000	37,290	31,830	31,730	12,890	20,120
(WY)	(2002)	(1993)	(1928)	(1950)	(1959)	(1982)	(1957)	(1943)	(1958)	(2003)	(1998)	(1926)
MIN	652	828	747	735	1,232	1,663	3,135	1,460	1,029	655	484	435
(WY)	(1964)	(1965)	(1964)	(1977)	(1964)	(1941)	(1941)	(1934)	(1934)	(1936)	(1941)	(1941)

03335500 WABASH RIVER AT LAFAYETTE, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1924 - 2004	
ANNUAL TOTAL	3,615,470		2,968,980			
ANNUAL MEAN	9,905		8,112		6,717	
HIGHEST ANNUAL MEAN					12,340	1950
LOWEST ANNUAL MEAN					1,631	1941
HIGHEST DAILY MEAN	79,000	Jul 10	56,800	Jun 13	129,000	May 19, 1943
LOWEST DAILY MEAN	1,700	Feb 20	1,850	Aug 17	399	Sep 26, 1941
ANNUAL SEVEN-DAY MINIMUM	1,920	Feb 16	2,090	Sep 24	404	Sep 21, 1941
MAXIMUM PEAK FLOW			58,300	Jun 13	131,000	May 19, 1943
MAXIMUM PEAK STAGE			21.70	Jun 13	28.47	May 19, 1943
ANNUAL RUNOFF (CFSM)	1.36		1.12		0.924	
ANNUAL RUNOFF (INCHES)	18.51		15.20		12.56	
10 PERCENT EXCEEDS	21,900		16,600		16,100	
50 PERCENT EXCEEDS	6,270		5,210		3,670	
90 PERCENT EXCEEDS	2,270		2,940		1,190	

e Estimated



03336000 WABASH RIVER AT COVINGTON, IN

LOCATION.--Lat 40°08'24", long 87°24'24", in NE¼NW¼ sec.35, T.20 N., R.9 W., Warren County, Hydrologic Unit 05120108, (COVINGTON, IN quadrangle), 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 National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1979, nonrecording gage on old bridge.

REMARKS.--Records good 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23,100	4,540	13,700	23,600	e3,500	6,900	19,200	3,670	18,800	8,870	3,050	19,700
2	17,700	4,360	13,300	19,900	e4,300	8,550	18,700	4,250	23,400	8,820	3,100	15,900
3	15,400	4,270	11,100	16,000	e4,700	14,100	16,100	4,620	22,500	8,290	3,070	13,100
4	12,700	4,230	8,940	18,100	e4,600	17,900	12,100	4,660	17,500	8,560	3,560	12,200
5	10,800	4,440	7,790	26,500	e4,400	20,800	9,110	4,690	12,000	8,430	3,870	12,700
6	9,050	4,390	7,050	32,100	e4,500	24,300	7,910	4,960	9,340	8,200	4,130	11,200
7	9,210	4,290	6,740	35,800	e4,500	27,300	7,000	4,960	8,070	8,340	5,050	9,210
8	8,720	4,240	6,710	33,700	e4,300	27,400	6,300	4,600	6,860	7,370	4,610	6,960
9	8,760	4,160	7,440	29,600	e4,200	23,700	5,790	4,270	5,990	6,700	3,950	6,330
10	8,370	4,000	8,050	26,100	e4,100	18,200	5,370	4,460	5,410	11,100	3,400	6,100
11	8,020	3,940	10,200	22,000	e4,000	13,400	4,820	4,720	15,100	11,600	3,110	5,530
12	6,970	3,900	16,600	18,500	e3,900	10,400	4,510	4,320	31,700	9,170	2,960	5,030
13	6,020	4,480	18,200	16,600	e3,900	8,870	4,420	4,170	57,500	7,840	2,870	4,280
14	4,780	4,840	15,000	14,500	e3,800	7,650	4,200	4,120	68,500	6,240	2,800	3,870
15	4,890	6,030	11,400	12,800	e3,700	7,150	4,130	4,330	56,500	5,120	2,540	3,660
16	5,980	6,000	9,140	11,000	e3,600	6,680	3,990	4,920	47,000	4,520	2,570	3,570
17	8,090	5,350	7,920	9,800	e3,500	6,250	3,880	4,620	41,800	4,290	2,410	3,380
18	9,120	5,240	7,080	8,950	e3,500	6,010	3,780	4,260	38,600	5,900	2,320	3,350
19	7,860	9,670	6,590	8,020	e3,600	5,690	3,710	5,470	36,400	5,380	3,050	3,160
20	6,470	15,000	6,280	e6,800	e4,000	5,410	3,720	6,660	32,900	4,410	5,630	3,180
21	5,970	16,900	6,200	e6,000	e5,000	5,280	3,720	6,460	28,900	3,980	7,350	3,060
22	5,560	15,500	5,760	e5,800	e10,000	5,330	3,890	6,380	24,200	3,730	7,790	2,930
23	5,250	12,800	6,500	e5,300	15,000	5,020	3,890	7,050	19,400	4,220	8,610	2,790
24	4,930	14,800	12,200	e5,100	13,800	4,960	4,010	7,810	16,200	4,730	7,560	2,590
25	4,800	17,900	20,800	e4,850	12,000	4,940	3,870	8,980	13,700	5,410	5,910	2,650
26	4,550	17,300	23,400	e4,600	10,300	7,330	4,060	10,700	12,000	4,890	5,560	2,580
27	4,520	15,600	23,300	e4,400	8,710	13,200	4,330	8,870	10,800	4,120	6,520	2,510
28	4,510	12,700	20,900	e4,300	7,340	16,000	3,880	6,920	10,200	3,630	7,390	2,570
29	4,570	10,700	19,300	e3,900	7,050	18,000	3,710	6,400	10,100	3,430	11,500	2,420
30	4,650	11,000	22,500	e3,500	---	17,600	3,610	5,960	9,610	3,210	20,400	2,480
31	4,680	---	24,800	e3,200	---	17,600	---	7,630	---	3,090	22,400	---
TOTAL	246,000	252,570	384,890	441,320	169,800	381,920	187,710	175,890	710,980	193,590	179,040	178,990
MEAN	7,935	8,419	12,420	14,240	5,855	12,320	6,257	5,674	23,700	6,245	5,775	5,966
MAX	23,100	17,900	24,800	35,800	15,000	27,400	19,200	10,700	68,500	11,600	22,400	19,700
MIN	4,510	3,900	5,760	3,200	3,500	4,940	3,610	3,670	5,410	3,090	2,320	2,420
CFSM	0.97	1.02	1.51	1.73	0.71	1.50	0.76	0.69	2.88	0.76	0.70	0.73
IN.	1.11	1.14	1.74	2.00	0.77	1.73	0.85	0.80	3.22	0.88	0.81	0.81

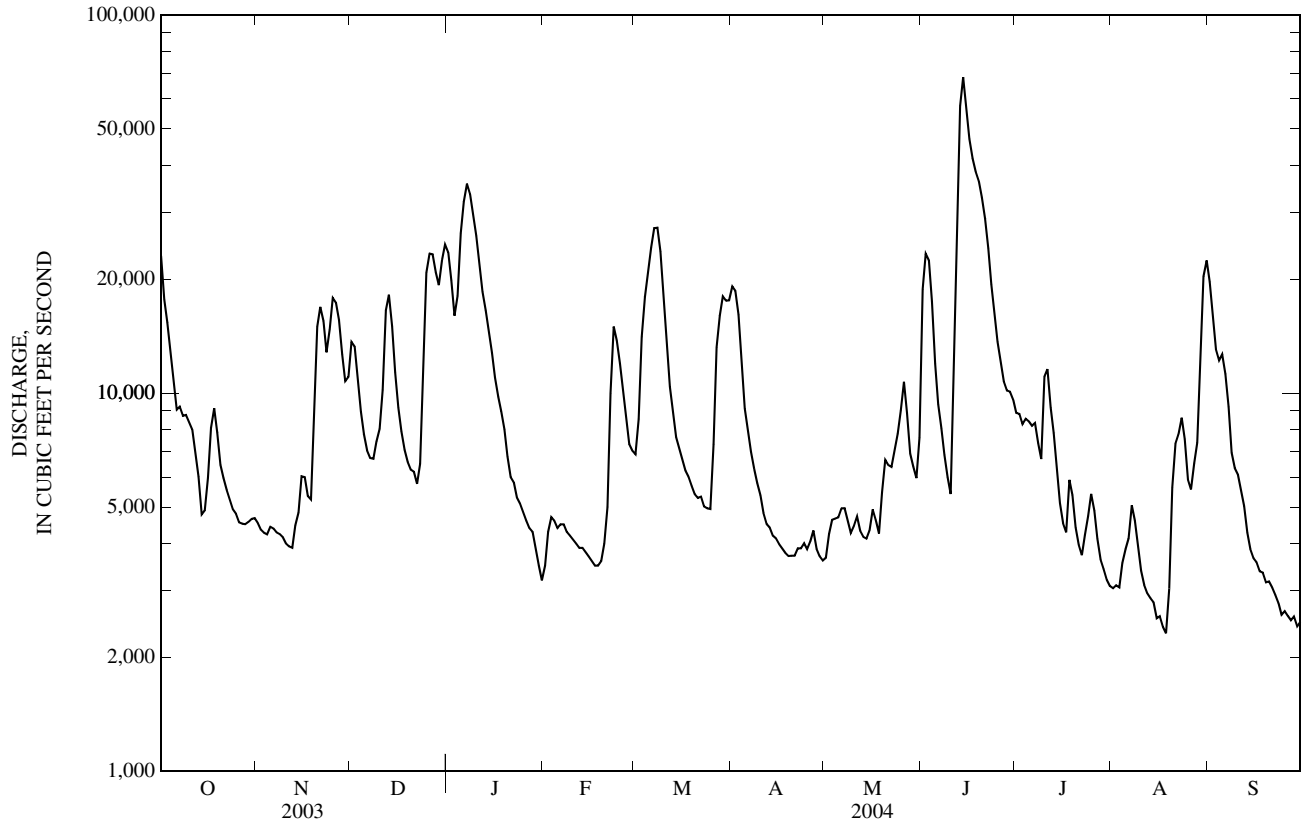
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2004, BY WATER YEAR (WY)

MEAN	3,624	4,891	7,239	8,991	10,760	13,080	12,920	10,010	8,617	5,835	3,607	3,130
MAX	18,360	23,930	22,080	49,700	34,450	34,840	28,470	43,540	36,010	31,750	13,470	14,030
(WY)	(2002)	(1993)	(1968)	(1950)	(1959)	(1982)	(1957)	(1943)	(1958)	(2003)	(1998)	(2003)
MIN	738	919	810	896	1,357	1,915	3,536	1,814	1,542	1,212	640	545
(WY)	(1965)	(1965)	(1964)	(1977)	(1963)	(1941)	(1941)	(1941)	(1988)	(1988)	(1941)	(1941)

03336000 WABASH RIVER AT COVINGTON, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1940 - 2004	
ANNUAL TOTAL	3,914,680		3,502,700			
ANNUAL MEAN	10,730		9,570		7,706	
HIGHEST ANNUAL MEAN					14,980	1950
LOWEST ANNUAL MEAN					1,862	1941
HIGHEST DAILY MEAN	86,700	Jul 11	68,500	Jun 14	143,000	May 20, 1943
LOWEST DAILY MEAN	2,200	Feb 20	2,320	Aug 18	487	Sep 29, 1941
ANNUAL SEVEN-DAY MINIMUM	2,500	Feb 16	2,540	Sep 24	497	Sep 24, 1941
MAXIMUM PEAK FLOW			72,800	Jun 14	147,000	May 20, 1943
MAXIMUM PEAK STAGE			27.57	Jun 14	32.44	May 20, 1943
ANNUAL RUNOFF (CFSM)	1.31		1.16		0.938	
ANNUAL RUNOFF (INCHES)	17.72		15.86		12.74	
10 PERCENT EXCEEDS	23,700		19,800		18,600	
50 PERCENT EXCEEDS	7,290		6,320		4,480	
90 PERCENT EXCEEDS	2,900		3,570		1,500	

e Estimated



03339280 PRAIRIE CREEK NEAR LEBANON, IN

LOCATION.--Lat 40°06'16", long 86°31'22", in NW¼SW¼ sec.10, T.19 N., R.1 W., Boone County, Hydrologic Unit 05120110, (HAZELRIGG, IN quadrangle), 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 mi^2.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	25	38	58	e14	103	163	17	63	11	6.9	5.2
2	25	30	32	56	e17	100	91	35	39	10	5.8	4.4
3	23	27	29	65	e21	63	65	23	28	14	5.0	4.1
4	24	21	28	829	e22	153	49	19	21	46	14	4.6
5	19	21	38	591	e22	295	40	17	18	17	9.3	4.5
6	16	18	44	184	e23	131	35	14	17	13	6.0	4.3
7	16	16	39	91	e23	80	32	13	15	11	4.4	8.7
8	15	14	36	65	e20	57	31	12	13	7.8	4.2	4.9
9	15	13	33	51	e17	45	26	11	12	10	4.3	3.2
10	14	13	76	40	e19	35	23	11	13	10	5.6	2.9
11	14	16	95	36	e18	32	22	10	345	12	3.6	2.8
12	15	24	59	34	e15	27	22	10	258	13	2.7	2.0
13	14	18	45	30	e11	23	21	15	145	8.4	2.7	2.2
14	69	16	40	29	e12	24	20	18	84	7.8	2.6	2.3
15	90	16	34	29	e12	22	18	19	329	5.9	2.3	3.1
16	51	16	34	24	e13	24	16	16	377	5.6	3.2	6.1
17	35	15	32	29	e13	24	16	15	195	5.5	3.3	5.1
18	27	67	29	44	27	25	14	34	98	5.6	4.4	2.9
19	24	141	26	e27	45	27	14	131	62	5.3	4.2	1.9
20	21	74	23	e22	119	28	25	64	44	4.1	40	2.7
21	21	52	22	e16	84	26	28	44	38	4.8	20	2.9
22	18	41	23	e16	47	22	27	33	32	25	8.6	1.8
23	16	36	525	e14	50	24	41	29	25	8.1	5.5	1.5
24	15	178	291	e14	47	22	26	40	22	5.1	6.0	2.2
25	16	87	131	e13	36	19	23	35	20	4.4	7.5	2.4
26	15	61	85	e13	31	145	19	28	18	4.7	25	1.8
27	15	55	68	e13	26	218	16	23	16	4.3	9.0	2.6
28	16	62	64	e13	24	104	14	130	15	3.5	6.5	2.6
29	15	58	106	e13	25	72	14	58	13	3.4	8.1	2.5
30	14	48	117	e12	---	88	13	42	12	5.3	6.5	2.8
31	16	---	75	e12	---	417	---	125	---	12	5.5	---
TOTAL	735	1,279	2,317	2,483	853	2,475	964	1,091	2,387	303.6	242.7	101.0
MEAN	23.7	42.6	74.7	80.1	29.4	79.8	32.1	35.2	79.6	9.79	7.83	3.37
MAX	90	178	525	829	119	417	163	131	377	46	40	8.7
MIN	14	13	22	12	11	19	13	10	12	3.4	2.3	1.5
CFSM	0.71	1.28	2.25	2.41	0.89	2.40	0.97	1.06	2.40	0.29	0.24	0.10
IN.	0.82	1.43	2.60	2.78	0.96	2.77	1.08	1.22	2.67	0.34	0.27	0.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2004, BY WATER YEAR (WY)

MEAN	15.7	35.3	33.1	43.0	46.1	57.0	51.9	69.8	43.2	34.8	10.3	23.3
MAX	94.3	205	158	129	139	109	96.7	248	158	168	34.8	139
(WY)	(2002)	(1993)	(1991)	(1993)	(1990)	(1990)	(1989)	(1996)	(1998)	(2003)	(1989)	(1989)
MIN	1.59	2.37	3.84	4.73	7.18	11.2	9.73	6.45	4.34	3.08	2.27	1.24
(WY)	(1998)	(1998)	(1998)	(2000)	(1998)	(2000)	(2000)	(1988)	(1988)	(1991)	(1999)	(1999)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1988 - 2004	
ANNUAL TOTAL	22,735.8		15,231.3			
ANNUAL MEAN	62.3		41.6		38.6	
HIGHEST ANNUAL MEAN					66.4	2002
LOWEST ANNUAL MEAN					10.0	2000
HIGHEST DAILY MEAN	1,530	May 11	829	Jan 4	e 1,900	Dec 30, 1990
LOWEST DAILY MEAN	4.0	Aug 26	1.5	Sep 23	e 0.20	Sep 11, 1999
ANNUAL SEVEN-DAY MINIMUM	4.6	Aug 20	2.1	Sep 22	e 0.24	Sep 21, 1999
MAXIMUM PEAK FLOW			1,450	Jan 4	2,710	Mar 11, 1990
MAXIMUM PEAK STAGE			10.84	Jan 4	13.99	Mar 11, 1990
ANNUAL RUNOFF (CFSM)	1.88		1.25		1.16	
ANNUAL RUNOFF (INCHES)	25.48		17.07		15.79	
10 PERCENT EXCEEDS	98		87		76	
50 PERCENT EXCEEDS	23		21		14	
90 PERCENT EXCEEDS	9.5		4.4		2.9	

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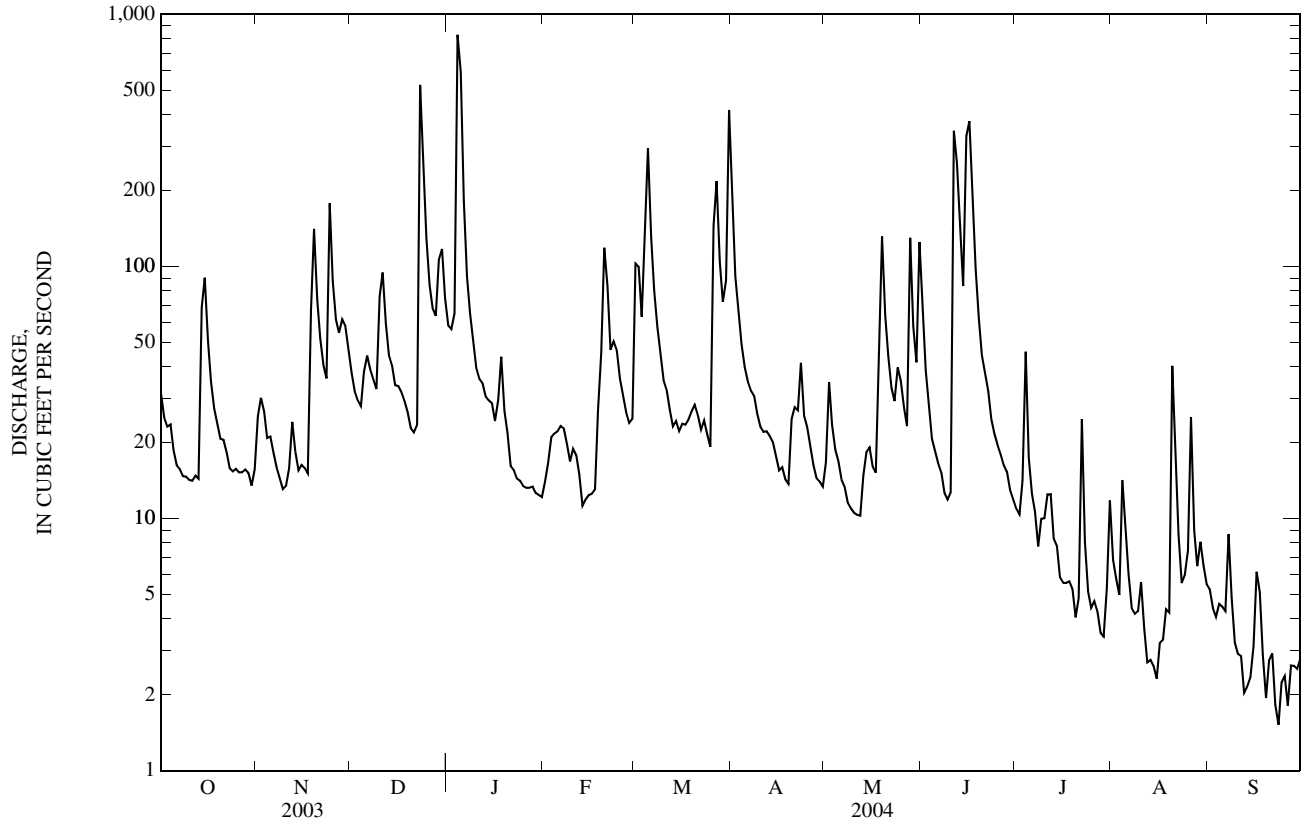
03339280 PRAIRIE CREEK NEAR LEBANON, IN—Continued



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, (CRAWFORDSVILLE, IN quadrangle), 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 National Geodetic Vertical Datum of 1929.

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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	863	260	499	936	e154	737	2,450	202	1,030	189	72	34
2	657	346	395	798	e160	1,670	1,420	277	626	174	64	31
3	528	343	351	763	e157	1,090	999	318	429	169	54	30
4	480	313	331	5,260	e153	1,080	754	263	328	211	58	29
5	409	295	344	9,860	e150	3,330	563	233	284	210	62	30
6	344	282	441	4,310	e148	2,140	471	207	257	165	53	30
7	305	253	481	1,820	e147	1,330	430	185	233	146	46	32
8	276	225	455	1,230	e146	969	391	173	210	129	42	28
9	254	204	417	956	e143	751	335	158	185	121	39	28
10	242	193	499	739	e141	585	287	152	177	128	41	25
11	227	205	1,130	626	e140	504	268	146	1,020	138	38	24
12	212	232	860	603	e139	444	248	139	4,300	197	37	23
13	202	268	591	552	e138	376	239	155	3,140	152	35	22
14	408	249	486	507	e137	351	230	189	1,940	123	34	21
15	1,260	223	416	500	e136	339	206	188	1,500	111	34	21
16	955	218	367	439	e136	324	194	170	3,510	98	32	20
17	658	210	340	414	e144	329	187	156	3,260	103	31	20
18	503	378	312	500	158	319	178	187	2,150	89	32	20
19	429	2,120	281	425	349	333	169	1,140	1,340	83	31	21
20	365	1,530	241	346	1,300	363	191	1,250	933	76	73	20
21	326	1,020	214	341	1,310	405	263	727	724	74	115	19
22	303	773	226	293	742	370	241	492	590	90	82	18
23	276	629	2,510	216	615	328	495	382	463	106	52	19
24	251	1,870	3,830	e197	604	312	521	650	383	83	41	18
25	232	1,640	1,920	e183	507	299	384	528	337	74	38	18
26	216	1,030	1,230	e180	411	554	314	427	300	70	48	17
27	205	822	924	e173	364	2,800	256	331	265	65	56	18
28	208	727	827	e170	327	1,790	221	342	242	61	46	19
29	209	741	1,360	e167	321	1,250	199	333	222	60	45	19
30	193	626	2,070	e159	---	994	184	283	203	59	43	21
31	183	---	1,300	e154	---	3,330	---	1,440	---	67	39	---
TOTAL	12,179	18,225	25,648	33,817	9,477	29,796	13,288	11,823	30,581	3,621	1,513	695
MEAN	393	608	827	1,091	327	961	443	381	1,019	117	48.8	23.2
MAX	1,260	2,120	3,830	9,860	1,310	3,330	2,450	1,440	4,300	211	115	34
MIN	183	193	214	154	136	299	169	139	177	59	31	17
CFSM	0.77	1.19	1.63	2.14	0.64	1.89	0.87	0.75	2.00	0.23	0.10	0.05
IN.	0.89	1.33	1.87	2.47	0.69	2.18	0.97	0.86	2.23	0.26	0.11	0.05

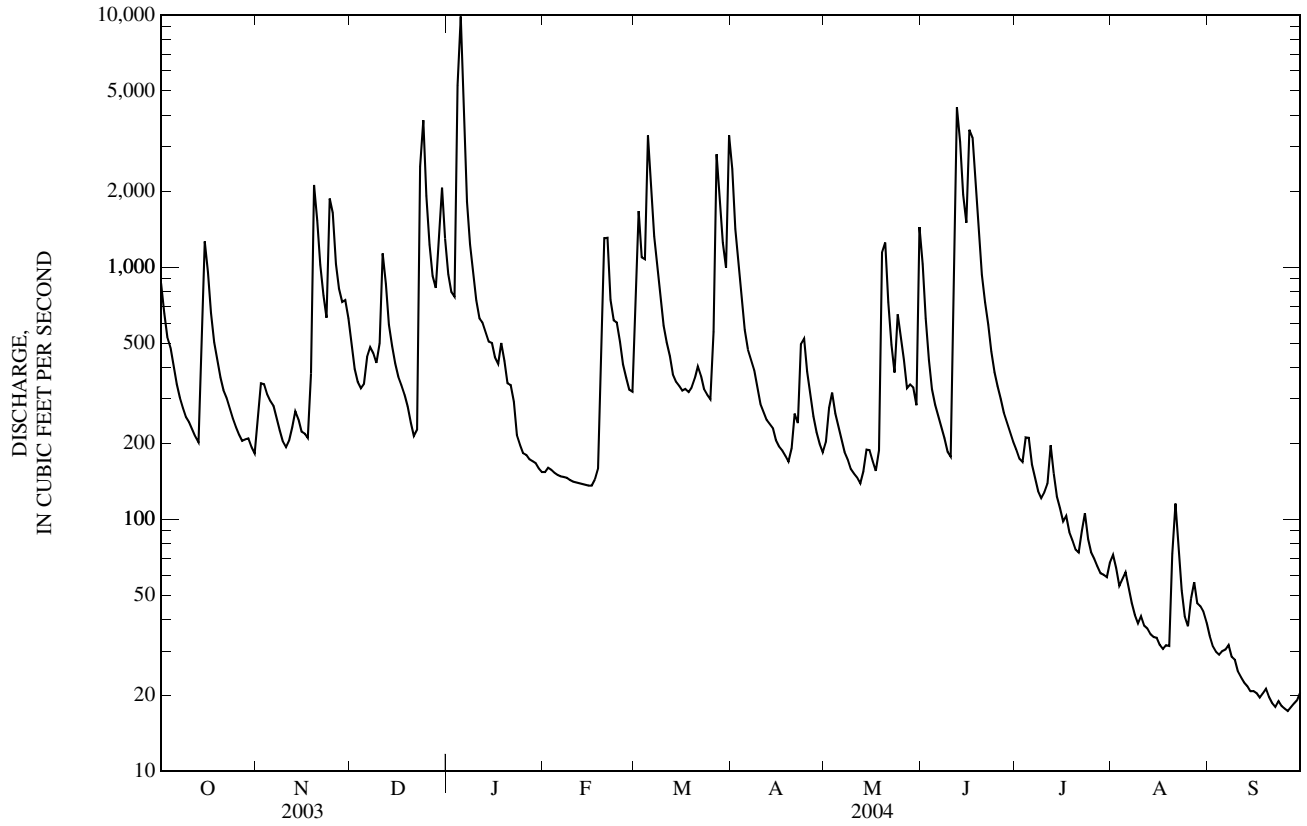
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2004, BY WATER YEAR (WY)

MEAN	162	342	483	616	709	881	838	700	584	327	165	166
MAX	1,098	3,060	2,084	4,163	2,229	2,390	2,592	3,297	2,648	1,719	1,801	1,991
(WY)	(1978)	(1993)	(1991)	(1950)	(1985)	(1978)	(1964)	(1943)	(1957)	(2003)	(1958)	(1989)
MIN	13.1	23.5	17.0	17.1	68.4	79.2	67.1	74.9	32.5	16.6	8.42	4.80
(WY)	(1964)	(1998)	(1964)	(1977)	(1964)	(1941)	(2000)	(1941)	(1988)	(1988)	(1941)	(1941)

03339500 SUGAR CREEK AT CRAWFORDSVILLE, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1939 - 2004	
ANNUAL TOTAL	275,971		190,663			
ANNUAL MEAN	756		521		496	
HIGHEST ANNUAL MEAN					1,086	1950
LOWEST ANNUAL MEAN					65.0	1941
HIGHEST DAILY MEAN	11,900	May 11	9,860	Jan 5	20,100	Jun 29, 1957
LOWEST DAILY MEAN	47	Aug 28	17	Sep 26	2.4	Sep 24, 1941
ANNUAL SEVEN-DAY MINIMUM	53	Aug 22	18	Sep 21	2.7	Sep 21, 1941
MAXIMUM PEAK FLOW			10,500	Jan 5	26,300	Jun 28, 1957
MAXIMUM PEAK STAGE			8.24	Jan 5	14.48	Jun 28, 1957
ANNUAL RUNOFF (CFSM)	1.49		1.02		0.975	
ANNUAL RUNOFF (INCHES)	20.17		13.93		13.25	
10 PERCENT EXCEEDS	1,700		1,250		1,160	
50 PERCENT EXCEEDS	313		262		180	
90 PERCENT EXCEEDS	109		35		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, (MONTEZUMA, IN quadrangle), 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, 193l(M). WSP 1505: 1954. WSP 1915: 1954(m). WSP 2109: Drainage area. WDR IN-74-1: 1973.

GAGE.--Water-stage recorder. Datum of gage is 457.75 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Oct. 1, 1927, to July 12, 1950, nonrecording gage on downstream side of bridge 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30,900	5,770	16,400	31,100	5,080	9,460	29,300	5,320	18,200	11,900	3,680	21,300
2	25,700	5,710	17,000	28,700	6,190	12,200	27,900	6,270	23,800	11,200	3,570	18,500
3	20,400	5,460	15,400	24,800	6,820	15,400	25,000	6,890	24,700	10,800	3,590	15,700
4	17,400	5,410	13,100	28,400	6,720	19,500	20,700	6,970	22,200	10,700	3,690	13,600
5	14,600	5,480	11,400	48,300	6,280	26,900	16,000	6,700	17,000	11,200	4,430	13,700
6	12,200	5,680	10,600	e52,900	6,440	30,900	13,000	6,710	12,800	10,800	4,490	12,700
7	11,300	5,460	10,100	e49,300	6,470	31,300	11,500	6,750	10,800	10,300	5,090	11,200
8	10,800	5,370	9,880	47,100	6,210	31,400	10,400	6,390	9,370	10,400	5,460	8,920
9	10,500	5,300	10,100	43,100	6,000	30,400	9,460	5,860	8,060	9,160	4,680	7,370
10	10,300	4,950	10,800	37,200	5,990	26,700	8,730	5,630	7,200	12,900	4,010	6,970
11	9,720	4,870	12,400	31,500	5,890	21,000	7,860	6,250	11,100	19,700	3,530	6,510
12	9,120	4,920	17,300	26,700	5,860	16,200	7,260	6,480	29,000	18,100	3,250	6,010
13	8,000	5,050	20,500	23,300	5,670	13,300	6,850	6,210	44,100	14,000	3,170	5,290
14	7,010	5,820	19,400	20,800	5,650	11,500	6,570	5,970	62,700	11,600	3,010	4,610
15	7,360	6,470	16,100	18,800	5,580	10,500	6,340	6,200	74,200	10,200	2,800	4,230
16	8,540	7,440	12,900	16,700	5,510	9,840	6,080	7,610	76,100	8,700	2,650	3,820
17	9,530	6,690	11,100	14,900	5,210	9,300	5,900	7,580	75,400	7,180	2,600	3,830
18	10,900	6,420	9,990	14,300	5,190	8,820	5,720	6,990	69,200	7,210	2,420	3,580
19	10,600	15,900	9,090	13,100	5,250	8,410	5,570	12,000	62,200	8,220	2,380	3,490
20	9,150	24,700	8,340	11,300	6,400	7,970	5,490	13,200	54,300	6,840	4,160	3,370
21	8,050	25,500	7,990	10,100	9,060	7,620	5,850	11,800	46,100	5,880	7,010	3,170
22	7,640	23,400	7,800	9,490	12,200	7,490	5,990	10,200	38,300	5,350	7,870	3,040
23	7,110	19,900	12,800	8,430	16,400	7,200	6,250	9,790	30,900	5,210	8,520	2,900
24	6,810	22,600	23,900	8,250	16,800	6,940	6,540	12,700	25,000	5,490	8,600	2,690
25	6,540	27,200	26,700	7,850	15,500	6,910	6,500	12,100	20,800	6,220	7,120	2,680
26	6,040	26,200	26,700	7,100	13,800	8,000	6,250	13,700	18,400	6,290	6,270	2,700
27	5,900	23,500	26,600	7,110	12,000	25,100	6,400	13,800	17,000	5,420	6,930	2,580
28	5,890	20,300	25,900	6,720	10,300	30,300	6,060	11,200	14,900	4,700	8,330	2,550
29	5,920	17,000	26,100	6,430	9,360	30,000	5,450	9,210	13,600	4,290	10,600	2,500
30	5,900	15,200	30,900	5,600	---	28,900	5,260	8,760	12,700	3,920	16,900	2,500
31	5,910	---	32,100	4,740	---	27,800	---	10,900	---	3,800	21,300	---
TOTAL	325,740	363,670	509,390	664,120	233,830	537,260	296,180	266,140	950,130	277,680	182,110	202,010
MEAN	10,510	12,120	16,430	21,420	8,063	17,330	9,873	8,585	31,670	8,957	5,875	6,734
MAX	30,900	27,200	32,100	52,900	16,800	31,400	29,300	13,800	76,100	19,700	21,300	21,300
MIN	5,890	4,870	7,800	4,740	5,080	6,910	5,260	5,320	7,200	3,800	2,380	2,500
CFSM	0.95	1.09	1.48	1.93	0.73	1.56	0.89	0.77	2.85	0.81	0.53	0.61
IN.	1.09	1.22	1.70	2.22	0.78	1.80	0.99	0.89	3.18	0.93	0.61	0.68

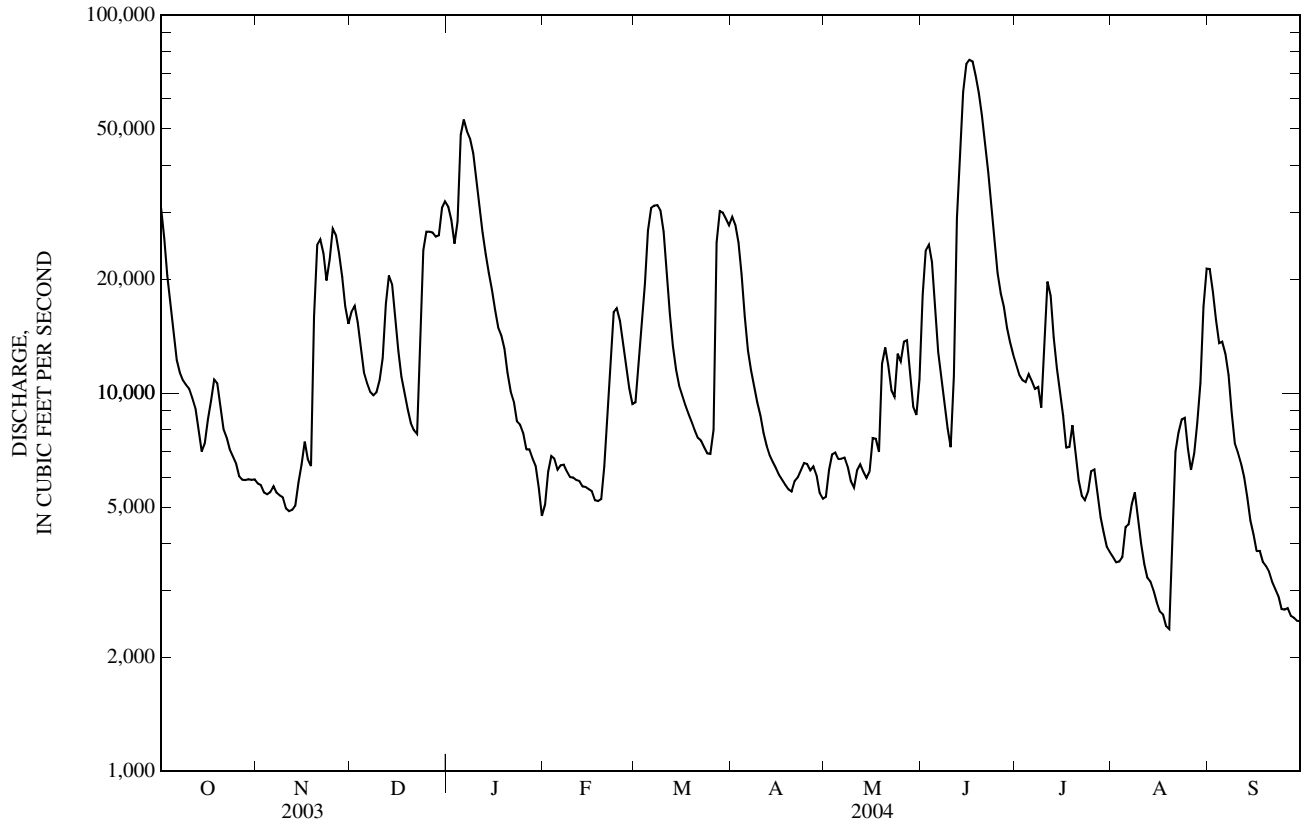
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2004, BY WATER YEAR (WY)

MEAN	4,442	6,224	9,398	12,440	14,150	17,130	17,240	14,050	11,090	7,752	4,552	3,826
MAX	23,630	36,840	40,350	66,690	40,610	49,690	37,650	58,400	42,730	40,530	18,840	19,470
(WY)	(2002)	(1993)	(1928)	(1950)	(1959)	(1982)	(1938)	(1943)	(1958)	(2003)	(1958)	(2003)
MIN	973	1,202	1,041	1,107	1,789	2,370	4,781	2,082	1,357	1,210	815	710
(WY)	(1964)	(1965)	(1964)	(1977)	(1931)	(1941)	(2000)	(1934)	(1934)	(1934)	(1941)	(1941)

03340500 WABASH RIVER AT MONTEZUMA, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1928 - 2004	
ANNUAL TOTAL	5,107,150		4,808,260			
ANNUAL MEAN	13,990		13,140		10,170	
HIGHEST ANNUAL MEAN					20,290	1950
LOWEST ANNUAL MEAN					2,506	1931
HIGHEST DAILY MEAN	108,000	Jul 12	76,100	Jun 16	182,000	May 20, 1943
LOWEST DAILY MEAN	2,080	Jan 19	2,380	Aug 19	571	Sep 24, 1941
ANNUAL SEVEN-DAY MINIMUM	2,320	Jan 27	2,600	Sep 24	600	Sep 23, 1941
MAXIMUM PEAK FLOW			78,100	Jun 16	184,000	May 20, 1943
MAXIMUM PEAK STAGE			26.99	Jun 16	32.83	May 20, 1943
ANNUAL RUNOFF (CFSM)	1.26		1.18		0.915	
ANNUAL RUNOFF (INCHES)	17.09		16.09		12.43	
10 PERCENT EXCEEDS	30,600		27,000		25,000	
50 PERCENT EXCEEDS	9,120		8,990		5,740	
90 PERCENT EXCEEDS	3,670		4,570		1,740	

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, (RUSSELLVILLE, IN quadrangle), 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 National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	50	134	259	e59	194	492	51	234	32	21	7.2
2	78	88	116	240	e58	382	294	60	132	30	19	6.8
3	69	103	110	241	e57	227	214	61	91	28	18	6.4
4	68	84	108	2,200	e56	351	168	57	72	37	19	5.6
5	63	74	112	3,030	e52	1,100	136	55	63	32	22	6.3
6	57	67	123	661	e52	512	120	51	58	28	17	5.9
7	52	61	121	372	e51	303	112	46	53	25	16	5.9
8	51	58	117	262	e50	215	105	43	49	23	15	5.2
9	48	53	113	206	e48	171	92	42	42	31	14	5.3
10	47	51	150	164	e47	138	82	40	40	191	13	4.7
11	46	54	300	145	e47	123	77	38	419	105	12	4.1
12	45	60	202	139	e46	108	72	36	724	204	12	3.6
13	43	60	155	125	e45	94	70	39	657	93	12	3.5
14	81	55	138	116	e44	91	68	43	271	130	11	3.2
15	256	54	122	114	e43	86	63	43	170	68	11	3.2
16	165	55	115	101	e42	85	60	39	336	50	11	3.0
17	112	53	109	100	e42	85	59	37	495	40	10	2.9
18	90	163	103	150	e49	81	56	37	265	35	9.6	2.8
19	80	871	98	121	139	79	53	80	189	31	9.6	2.5
20	72	436	90	e100	340	76	57	173	133	28	14	2.5
21	66	264	86	e93	238	75	72	114	104	26	24	2.3
22	64	193	89	e80	134	68	64	80	89	52	18	2.2
23	61	161	1,610	e74	113	65	83	67	72	42	14	2.1
24	59	702	1,210	e72	115	65	83	121	61	29	13	2.0
25	54	460	512	e71	100	64	74	122	54	25	13	1.9
26	53	278	341	e68	87	133	66	90	50	24	17	1.9
27	50	218	265	e67	80	835	59	73	44	23	16	1.9
28	51	190	234	e65	73	411	55	80	41	21	13	1.7
29	53	171	374	e62	71	270	51	69	37	20	11	1.7
30	50	156	551	e62	---	223	48	65	35	20	9.5	1.7
31	47	---	337	e61	---	677	---	372	---	22	8.1	---
TOTAL	2,222	5,343	8,245	9,621	2,378	7,387	3,105	2,324	5,080	1,545	442.8	110.0
MEAN	71.7	178	266	310	82.0	238	104	75.0	169	49.8	14.3	3.67
MAX	256	871	1,610	3,030	340	1,100	492	372	724	204	24	7.2
MIN	43	50	86	61	42	64	48	36	35	20	8.1	1.7
CFSM	0.52	1.28	1.91	2.23	0.59	1.71	0.74	0.54	1.22	0.36	0.10	0.03
IN.	0.59	1.43	2.21	2.57	0.64	1.98	0.83	0.62	1.36	0.41	0.12	0.03

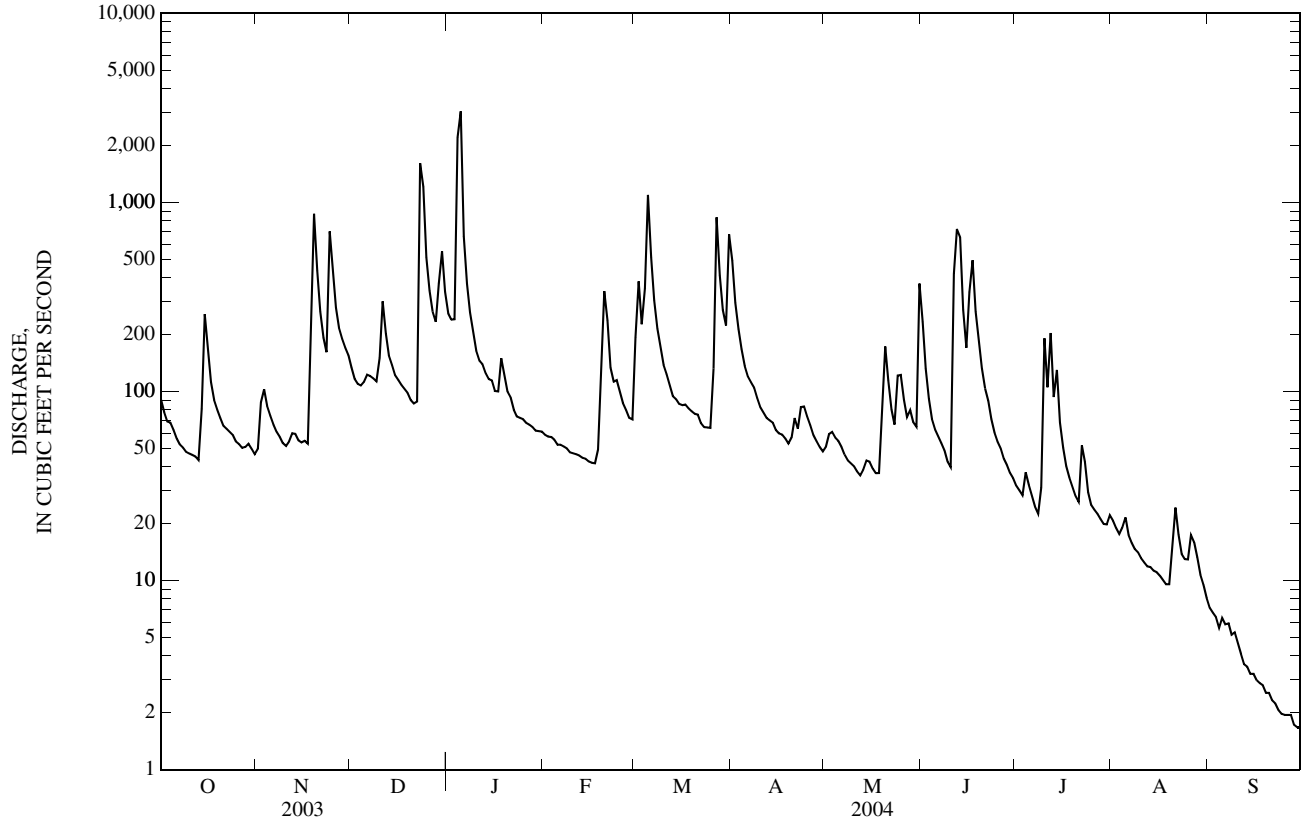
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2004, BY WATER YEAR (WY)

MEAN	55.8	125	181	167	200	253	216	195	130	95.6	46.3	49.2
MAX	406	844	913	616	694	683	730	811	614	430	268	545
(WY)	(2002)	(1993)	(1991)	(1974)	(1985)	(1978)	(1964)	(1996)	(1998)	(1979)	(1979)	(1989)
MIN	2.14	2.33	3.91	4.41	14.8	28.6	40.7	19.5	11.1	4.83	2.75	1.62
(WY)	(1998)	(2000)	(1998)	(2000)	(1998)	(1981)	(2000)	(1976)	(1988)	(1991)	(1991)	(1999)

03340800 BIG RACCOON CREEK NEAR FINCASTLE, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1958 - 2004	
ANNUAL TOTAL	80,031		47,802.8			
ANNUAL MEAN	219		131		143	
HIGHEST ANNUAL MEAN					292	1974
LOWEST ANNUAL MEAN					38.5	1966
HIGHEST DAILY MEAN	7,120	May 11	3,030	Jan 5	12,200	Dec 30, 1990
LOWEST DAILY MEAN	10	Aug 27	1.7	Sep 28	1.0	Oct 11, 1988
ANNUAL SEVEN-DAY MINIMUM	11	Aug 22	1.8	Sep 24	1.1	Oct 6, 1988
MAXIMUM PEAK FLOW			4,830	Jan 5	16,000	Dec 30, 1990
MAXIMUM PEAK STAGE			12.10	Jan 5	16.35	Sep 1, 2003
ANNUAL RUNOFF (CFSM)	1.58		0.940		1.03	
ANNUAL RUNOFF (INCHES)	21.42		12.79		13.93	
10 PERCENT EXCEEDS	416		266		298	
50 PERCENT EXCEEDS	71		65		53	
90 PERCENT EXCEEDS	29		11		6.4	

e Estimated



03340900 BIG RACCOON CREEK AT FERNDALE, IN

LOCATION.--Lat 39°42'41", long 87°04'17", in SE¼SE¼ sec.28, T.15 N., R.6 W., Parke County, Hydrologic Unit 05120108, (MANSFIELD, IN quadrangle), 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 September 1976 (discharge). October 1976 to September 2001 (discharge provided by U.S. Army Corps of Enginners). October 2001 to current year (stage only). 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 National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Oct. 1, 1974, water-stage recorder at site 1.7 mi downstream and at datum 7.64 ft lower.

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

COOPERATION.--Records of daily discharge provided by U.S. Army Corps of Engineers October 1976 to September 2001.

EXTREMES FOR PERIOD OF RECORD.--(October 2001 to current year) maximum gage height, 9.92 ft, May 16, 2002, minimum gage height 5.05 ft, Aug. 21, 2002. (October 1956 to September 1976) maximum discharge, 40,500 ft^3/s, June 28, 1957, maximum gage height, 19.87 ft, June 28, 1957, from rating curve extended above 5,000 ft^3/s on basis of records for station at Big Raccoon Creek at Mansfield; minimum gage height, 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 gage height, 8.92 ft, Oct. 23; minimum gage height, 5.59 July 26 - 29.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.23	7.60	7.89	7.63	8.51	6.36	5.66	5.68	6.12	6.22	5.61	5.62
2	7.23	7.59	7.88	7.63	7.92	6.35	5.66	5.67	6.12	6.10	5.62	5.63
3	6.50	7.59	7.87	7.64	6.90	6.35	5.66	5.67	6.11	6.11	5.62	5.63
4	6.49	7.58	7.86	6.00	5.98	6.45	5.66	5.67	6.50	6.11	5.63	5.63
5	6.23	7.58	7.85	5.75	6.12	6.42	5.66	5.67	7.32	6.11	5.63	5.63
6	6.11	7.65	7.84	5.73	6.28	6.41	5.66	5.68	7.32	5.71	5.63	5.63
7	6.11	7.64	7.83	5.72	6.28	6.41	5.66	5.68	7.32	5.71	5.63	5.63
8	6.11	7.64	7.82	5.71	6.28	6.41	5.66	5.68	7.31	5.71	5.64	5.63
9	6.11	7.63	7.80	5.71	6.28	6.41	5.66	5.68	6.54	5.71	5.65	5.63
10	6.12	7.62	7.80	5.71	6.28	6.41	5.66	5.68	6.54	5.71	5.65	5.63
11	6.11	7.61	7.80	5.71	6.28	6.41	5.66	5.68	7.30	6.54	5.64	5.63
12	6.11	7.60	7.79	5.71	6.28	6.41	5.66	5.68	7.31	7.26	5.64	5.63
13	6.12	7.59	7.01	7.77	6.28	6.41	5.66	5.68	6.55	7.31	5.64	5.64
14	6.15	7.59	7.01	8.30	6.28	6.41	5.66	5.68	6.55	7.29	5.63	5.63
15	6.15	7.57	6.01	8.67	6.28	6.41	5.66	5.68	6.55	7.28	5.63	5.63
16	6.14	7.56	6.67	8.66	6.28	5.64	5.66	5.68	6.61	7.27	5.63	5.63
17	6.14	7.55	7.26	8.66	6.28	5.63	5.66	5.68	6.58	7.27	5.63	5.63
18	7.82	7.68	6.35	8.64	5.97	5.63	5.66	5.78	6.57	6.08	5.63	5.63
19	7.81	7.61	6.35	8.63	6.34	5.63	5.66	5.68	6.56	6.08	5.63	5.63
20	8.32	7.60	6.34	8.61	6.34	5.63	5.67	5.68	6.56	5.61	5.64	5.63
21	8.53	7.59	6.34	8.78	6.94	5.63	5.67	5.68	6.55	5.61	5.63	5.63
22	8.52	7.87	6.37	8.76	6.94	5.61	5.67	5.68	6.55	5.61	5.63	5.63
23	8.90	7.90	6.47	8.74	7.70	5.61	5.67	5.69	7.28	5.60	5.62	5.63
24	8.88	7.14	6.45	8.72	7.69	5.61	5.67	5.68	7.28	5.60	5.63	5.63
25	8.07	7.13	6.45	8.70	7.68	5.61	5.67	5.69	8.17	5.60	5.63	5.63
26	8.50	7.92	6.45	8.68	6.32	5.83	5.67	5.69	8.17	5.59	5.63	5.63
27	8.49	7.92	7.63	8.66	6.32	5.64	5.67	5.69	8.16	5.59	5.63	5.63
28	8.47	7.91	7.62	8.63	6.32	5.64	5.67	5.69	8.16	5.59	5.63	5.63
29	8.46	7.91	7.66	8.61	6.32	5.64	5.67	5.69	8.16	5.60	5.63	5.63
30	7.94	7.89	7.64	8.58	---	5.65	5.67	5.83	8.15	5.61	5.62	5.63
31	7.59	---	7.64	8.55	---	5.66	---	6.12	---	5.61	5.62	---
MEAN	7.21	7.64	7.22	7.68	6.61	6.01	5.66	5.70	7.03	6.09	5.63	5.63
MAX	8.90	7.92	7.89	8.78	8.51	6.45	5.67	6.12	8.17	7.31	5.65	5.64
MIN	6.11	7.13	6.01	5.71	5.97	5.61	5.66	5.67	6.11	5.59	5.61	5.62

WTR YR 2004 MEAN 6.51 MAX 8.90 MIN 5.59

03340900 BIG RACCOON CREEK AT FERNDALE, IN—Continued

WATER-QUALITY RECORDS

INSTRUMENTATION.--Temperature recorder.

PERIOD OF RECORD.--

WATER TEMPERATURE.--September 1987 to April 1993. September 1994 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 26.3°C, Aug. 22, 1998; minimum, -0.3°C, Jan. 30-31, 1996.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 25.4°C, Aug. 3, minimum, 1.6°C, Jan. 28 - 29.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.1	19.5	19.9	15.2	15.0	15.1	8.3	7.7	8.0	3.7	3.4	3.5
2	19.6	19.0	19.3	15.1	14.9	15.0	7.7	7.4	7.6	4.2	3.7	3.9
3	19.0	18.5	18.7	15.2	14.9	15.0	7.4	7.0	7.2	4.5	4.2	4.3
4	18.9	18.2	18.4	15.1	14.8	15.0	7.0	6.6	6.8	5.9	4.5	5.0
5	19.0	17.8	18.3	15.4	15.0	15.3	6.6	6.3	6.5	5.4	4.1	4.8
6	18.8	17.5	18.0	15.2	14.7	14.9	6.3	6.0	6.2	4.5	3.2	3.7
7	18.6	17.3	17.8	14.7	14.2	14.5	6.0	5.8	5.9	4.8	3.4	3.9
8	18.4	17.2	17.6	14.2	13.6	14.0	5.8	5.5	5.6	4.6	3.6	4.1
9	17.7	17.1	17.3	13.6	13.0	13.3	5.7	5.5	5.6	4.6	3.4	4.0
10	18.0	17.1	17.4	13.1	12.7	12.9	6.0	5.6	5.8	4.6	3.0	3.6
11	17.7	17.0	17.3	12.7	12.6	12.7	5.9	5.5	5.7	5.1	3.2	3.9
12	18.1	16.7	17.3	13.1	12.6	12.8	5.5	5.1	5.2	4.3	3.4	3.9
13	18.0	16.6	17.1	12.6	12.0	12.3	5.4	4.7	4.9	4.4	3.2	3.4
14	17.4	16.8	17.0	12.0	11.6	11.8	4.7	4.4	4.6	3.4	3.2	3.3
15	17.9	16.7	17.2	11.6	11.3	11.5	6.1	4.4	4.7	3.2	2.9	3.1
16	17.9	16.8	17.2	11.4	11.0	11.2	4.6	3.9	4.3	3.2	3.0	3.1
17	17.9	16.6	17.1	11.0	10.8	10.9	3.9	3.5	3.7	3.1	2.9	3.0
18	17.4	16.5	17.0	11.4	10.6	10.9	4.9	3.3	3.5	3.0	2.7	2.9
19	17.3	17.0	17.1	11.6	11.3	11.5	3.4	2.9	3.2	2.7	2.2	2.3
20	17.2	17.0	17.1	11.4	11.2	11.3	3.2	2.6	2.8	2.5	1.9	2.2
21	17.4	17.0	17.2	11.4	11.1	11.2	3.3	2.6	2.8	2.8	2.4	2.6
22	17.4	17.0	17.2	11.3	11.1	11.2	3.0	2.8	2.9	2.6	2.2	2.5
23	17.1	16.8	17.0	11.7	11.3	11.5	3.7	2.9	3.2	2.6	2.2	2.4
24	16.8	16.5	16.7	11.6	10.8	11.2	3.0	2.6	2.8	2.6	2.2	2.4
25	16.6	16.4	16.5	10.8	10.4	10.6	3.1	2.4	2.7	2.3	1.8	2.0
26	16.5	16.2	16.4	10.5	10.0	10.3	3.4	2.7	2.9	2.0	1.9	2.0
27	16.2	15.9	16.0	10.1	9.9	9.9	3.4	2.9	3.0	2.1	1.8	2.0
28	15.9	15.5	15.7	9.9	9.1	9.5	3.3	3.1	3.2	2.0	1.6	1.8
29	15.5	15.0	15.3	9.1	8.5	8.8	3.4	3.3	3.3	1.9	1.6	1.8
30	15.0	14.8	14.9	8.5	8.3	8.4	3.5	3.2	3.3	2.1	1.9	2.0
31	15.1	14.8	14.9	---	---	---	3.5	3.3	3.4	2.2	2.0	2.1
MONTH	20.1	14.8	17.2	15.4	8.3	12.2	8.3	2.4	4.6	5.9	1.6	3.1

03340900 BIG RACCOON CREEK AT FERNDALE, IN—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.2	2.0	2.1	5.6	4.5	5.0	11.0	9.0	10.1	14.1	13.6	13.8
2	2.4	2.1	2.2	5.8	5.1	5.4	13.5	9.0	10.8	17.5	13.5	14.8
3	2.5	2.1	2.2	6.2	5.6	5.8	13.2	9.1	10.8	16.7	13.0	14.4
4	3.6	2.0	2.5	6.3	5.8	6.0	13.5	9.5	11.0	16.2	12.8	14.0
5	2.5	2.3	2.4	7.1	6.2	6.7	13.2	9.2	10.7	18.3	13.6	15.2
6	2.5	2.2	2.4	7.8	7.1	7.4	12.5	9.1	10.6	18.4	13.8	15.5
7	2.6	2.2	2.3	8.2	7.4	7.7	13.5	9.7	11.1	17.2	14.5	15.3
8	2.9	2.1	2.4	8.6	7.4	7.9	14.6	9.8	11.6	18.7	13.9	15.6
9	3.1	2.2	2.5	8.1	7.7	7.9	13.2	9.6	11.1	18.2	14.1	15.5
10	3.1	2.3	2.6	8.6	7.6	7.9	12.6	10.1	11.1	17.6	14.4	15.5
11	3.5	2.3	2.7	8.5	7.3	7.8	13.9	9.7	11.1	17.6	14.5	15.6
12	3.3	2.6	2.8	8.2	7.2	7.6	12.2	9.7	11.1	17.3	14.3	15.5
13	3.3	2.6	2.8	8.4	7.3	7.7	12.0	10.4	11.1	15.9	14.5	15.0
14	3.9	2.6	3.0	8.4	7.4	7.7	14.6	10.2	11.8	15.6	14.4	14.8
15	3.8	2.7	3.0	8.3	7.4	7.9	14.2	10.1	11.7	14.9	14.0	14.4
16	3.9	2.8	3.2	8.4	7.0	7.6	14.6	10.8	12.2	17.7	14.0	15.3
17	4.1	3.1	3.4	7.8	6.8	7.2	14.5	11.3	12.3	17.2	14.1	15.2
18	5.3	3.1	3.8	8.6	6.6	7.4	14.8	11.2	12.5	17.2	14.5	15.4
19	4.5	3.3	3.7	10.4	6.5	8.0	13.7	11.4	12.3	17.4	14.6	15.5
20	3.7	3.4	3.6	8.9	7.2	7.9	13.5	11.3	12.2	16.4	14.5	15.2
21	3.6	3.1	3.3	8.6	6.4	7.3	13.7	11.9	12.6	17.6	14.6	15.7
22	3.6	3.0	3.3	10.2	6.0	7.5	12.7	11.6	12.2	17.7	14.5	15.7
23	3.6	3.2	3.4	9.6	6.3	7.7	15.3	12.0	13.1	16.2	14.7	15.2
24	3.5	3.1	3.3	9.3	7.4	8.2	13.8	11.6	12.6	17.9	14.4	15.6
25	3.5	3.0	3.3	9.4	8.0	8.5	14.9	12.2	13.0	17.2	14.6	15.4
26	4.4	3.2	3.6	8.8	8.4	8.6	15.1	11.4	13.0	17.0	14.6	15.4
27	4.7	3.1	3.7	10.7	8.5	9.3	16.5	11.5	13.6	17.1	14.6	15.4
28	5.1	3.6	4.1	11.1	8.6	9.6	15.5	11.7	13.3	18.4	14.5	15.8
29	5.2	4.0	4.4	11.6	8.6	9.7	16.1	13.0	14.1	18.4	14.0	15.7
30	---	---	---	9.9	8.4	8.9	16.5	13.6	14.6	16.6	14.7	15.4
31	---	---	---	11.9	8.6	10.0	---	---	---	17.3	14.5	15.4
MONTH	5.3	2.0	3.0	11.9	4.5	7.7	16.5	9.0	12.0	18.7	12.8	15.2
		JUNE			JULY			AUGUST			SEPTEMBER	
1	16.5	14.5	15.1	22.5	21.0	21.8	25.2	21.7	23.0	24.9	21.2	22.7
2	16.3	14.4	15.0	22.8	21.4	22.0	24.7	21.6	22.9	24.9	21.3	22.8
3	16.3	14.4	15.1	22.5	21.5	22.0	25.4	22.0	23.2	24.1	21.9	22.7
4	15.9	14.4	14.9	22.7	21.5	22.0	24.9	22.1	23.0	24.8	21.8	22.9
5	15.6	14.6	14.9	23.1	21.6	22.1	24.5	21.3	22.6	24.8	21.7	22.9
6	15.3	14.7	15.0	23.6	21.5	22.2	24.5	20.8	22.2	24.8	21.7	22.9
7	15.6	14.8	15.2	22.9	21.1	21.8	24.2	20.7	22.1	24.7	21.4	22.6
8	15.9	14.9	15.4	22.8	20.8	21.5	24.8	21.1	22.5	25.1	20.8	22.5
9	16.4	15.1	15.7	23.3	21.2	22.0	24.6	21.3	22.6	24.7	21.2	22.5
10	16.4	16.0	16.2	23.3	21.2	21.9	24.4	21.4	22.6	25.1	21.0	22.5
11	16.5	16.1	16.3	22.8	21.4	21.8	23.6	20.8	22.0	24.3	20.9	22.4
12	16.9	16.3	16.5	22.5	20.9	21.6	22.6	20.3	21.3	24.9	21.1	22.6
13	17.3	16.5	16.8	22.7	20.3	21.3	23.3	20.8	21.8	24.4	21.6	22.8
14	17.6	16.7	17.1	21.9	21.3	21.6	24.0	20.8	22.0	23.0	21.7	22.1
15	17.5	16.9	17.2	22.1	21.5	21.8	25.2	21.1	22.5	24.2	21.9	22.8
16	17.6	17.0	17.3	22.2	21.7	21.9	24.4	20.8	22.3	23.0	22.2	22.6
17	17.8	17.2	17.5	22.4	21.7	22.1	24.6	21.2	22.6	25.1	21.5	22.9
18	18.0	17.4	17.6	24.0	21.7	22.7	24.0	22.0	22.7	24.8	20.8	22.4
19	18.3	17.3	17.7	23.9	22.3	22.9	24.2	21.9	22.8	24.8	21.2	22.6
20	18.3	17.3	17.8	25.0	22.2	23.2	22.3	21.7	22.0	24.8	20.9	22.5
21	18.4	17.7	18.0	25.1	21.8	23.0	24.8	21.3	22.6	25.3	20.8	22.6
22	18.4	17.7	18.2	24.9	22.0	23.0	24.9	21.2	22.7	25.2	20.9	22.6
23	18.9	17.9	18.2	24.6	21.5	22.8	24.7	21.4	22.9	24.8	21.1	22.6
24	18.4	17.7	18.1	23.5	21.1	22.1	25.0	22.0	23.0	23.3	21.4	22.4
25	19.8	18.0	18.9	22.0	21.0	21.4	23.7	22.1	22.7	25.0	21.6	23.2
26	20.2	19.7	20.0	23.0	21.1	21.8	23.8	21.9	22.8	23.8	20.6	22.0
27	20.6	20.1	20.4	23.7	20.8	22.0	24.7	22.3	23.2	24.3	20.7	22.0
28	21.0	20.5	20.7	24.8	20.8	22.4	24.7	22.3	23.1	22.4	20.6	21.2
29	21.4	20.8	21.1	23.8	21.1	22.3	22.5	21.6	22.2	23.2	20.0	21.2
30	21.7	21.1	21.5	22.5	21.7	22.0	25.2	21.5	22.7	23.3	19.4	20.9
31	---	---	---	24.6	21.9	22.7	24.7	21.0	22.5	---	---	---
MONTH	21.7	14.4	17.3	25.1	20.3	22.1	25.4	20.3	22.6	25.3	19.4	22.4
YEAR	25.4	1.6	13.3									

03341300 BIG RACCOON CREEK AT COXVILLE, IN

LOCATION.--Lat 39°39'09", long 87°17'37", in SW¼SW¼ sec.15, T.14 N., R.8 W., Parke County, Hydrologic Unit 05120108, (MECCA, IN quadrangle), 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 National Geodetic Vertical Datum of 1929 (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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	414	537	762	878	1,100	544	631	139	922	665	83	61
2	400	619	732	839	1,030	642	474	171	515	267	78	60
3	383	577	714	827	738	471	392	152	364	223	75	60
4	279	556	702	3,360	437	661	341	140	294	271	79	59
5	256	541	713	4,460	304	1,690	302	137	310	223	82	57
6	216	501	717	1,670	310	992	281	132	420	199	72	57
7	189	497	701	1,070	318	681	268	128	418	160	68	56
8	176	522	689	789	296	546	252	122	408	142	66	55
9	169	513	680	592	287	486	232	119	394	134	64	54
10	164	507	716	470	283	434	221	113	265	188	63	54
11	206	509	789	415	276	428	209	109	403	190	61	53
12	208	508	741	379	e270	388	198	105	618	588	61	53
13	157	495	697	349	e260	360	192	110	554	417	61	52
14	543	488	502	715	e255	353	184	119	356	454	59	53
15	433	483	451	992	e252	336	175	121	332	465	58	52
16	313	479	316	1,180	e249	333	171	113	1,850	437	56	52
17	261	476	387	1,230	e248	264	166	108	2,390	418	55	54
18	283	647	448	1,500	247	247	161	117	1,260	395	55	52
19	538	1,450	316	1,310	262	231	158	714	817	210	54	50
20	598	950	291	1,250	412	217	161	378	593	179	69	50
21	802	790	282	1,230	403	208	184	251	480	136	90	49
22	918	723	286	1,320	432	196	170	204	425	121	66	49
23	941	775	2,290	1,280	460	188	182	176	380	114	59	49
24	1,170	1,730	1,800	1,280	617	184	167	215	478	108	58	49
25	1,020	968	976	1,250	607	185	165	214	481	104	64	48
26	767	760	692	1,240	541	333	158	192	723	100	135	48
27	935	899	584	1,220	307	1,150	147	179	729	95	101	48
28	933	862	758	1,190	283	610	141	202	723	90	76	48
29	923	822	1,240	1,180	274	468	136	164	717	86	69	47
30	916	795	1,370	1,140	---	411	131	518	710	86	66	47
31	649	---	1,010	1,130	---	680	---	2,440	---	89	63	---
TOTAL	16,160	20,979	23,352	37,735	11,758	14,917	6,750	8,102	19,329	7,354	2,166	1,576
MEAN	521	699	753	1,217	405	481	225	261	644	237	69.9	52.5
MAX	1,170	1,730	2,290	4,460	1,100	1,690	631	2,440	2,390	665	135	61
MIN	157	476	282	349	247	184	131	105	265	86	54	47
CFSM	1.16	1.56	1.68	2.72	0.91	1.07	0.50	0.58	1.44	0.53	0.16	0.12
IN.	1.34	1.74	1.94	3.13	0.98	1.24	0.56	0.67	1.60	0.61	0.18	0.13

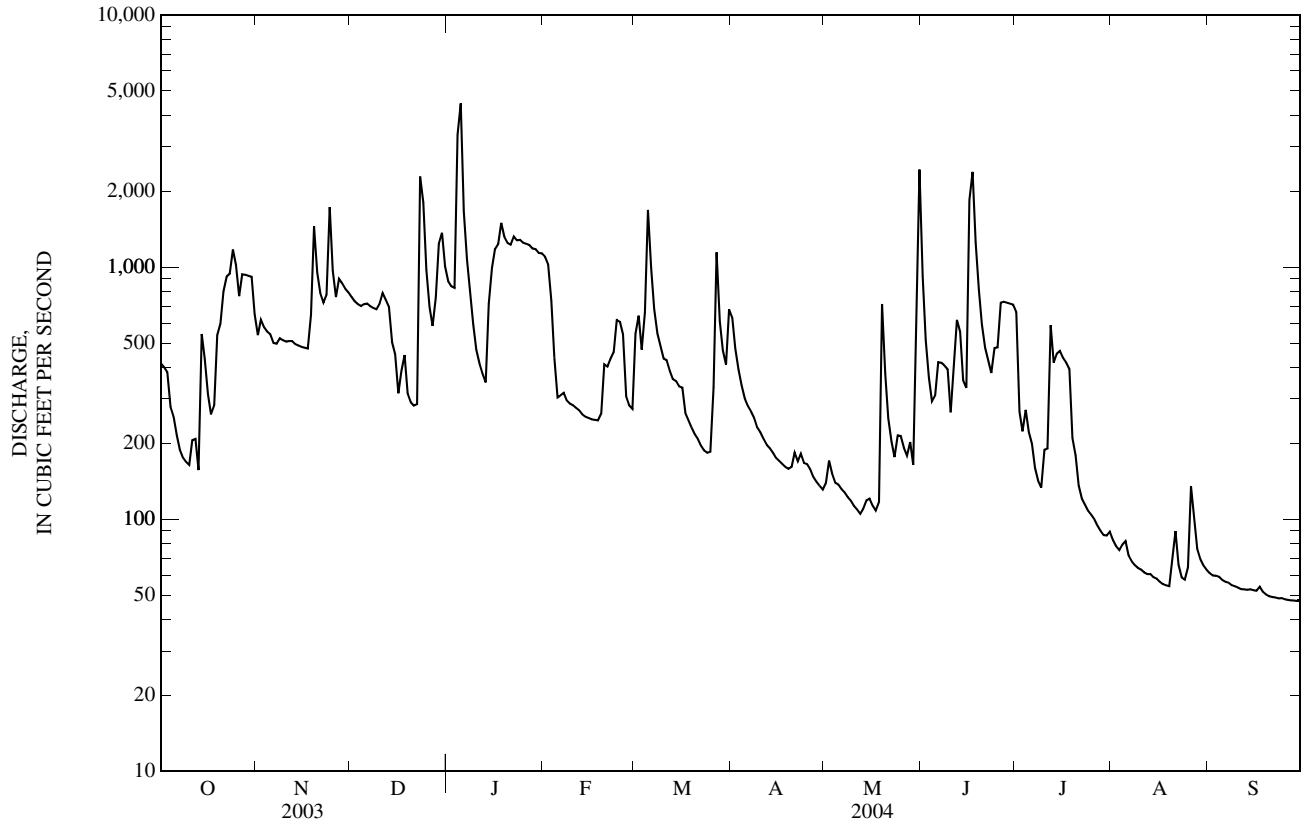
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2004, BY WATER YEAR (WY)

MEAN	340	578	622	565	622	640	633	622	544	353	230	231
MAX	994	1,684	2,070	1,572	1,648	1,493	1,648	2,596	3,613	1,001	1,062	1,542
(WY)	(1990)	(1994)	(1968)	(1974)	(1969)	(1985)	(1957)	(2002)	(1957)	(1981)	(1958)	(1989)
MIN	17.5	44.3	48.2	25.9	72.8	100	115	86.2	64.2	59.4	34.4	34.6
(WY)	(1957)	(1957)	(1964)	(1977)	(1998)	(2000)	(2000)	(2000)	(1988)	(1988)	(1966)	(1966)

03341300 BIG RACCOON CREEK AT COXVILLE, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1957 - 2004	
ANNUAL TOTAL	210,783		170,178			
ANNUAL MEAN	577		465		496	
HIGHEST ANNUAL MEAN					914	1974
LOWEST ANNUAL MEAN					160	1966
HIGHEST DAILY MEAN	5,660	Sep 2	4,460	Jan 5	51,400	Jun 28, 1957
LOWEST DAILY MEAN	81	Aug 28	47	Sep 29	6.5	Oct 10, 1956
ANNUAL SEVEN-DAY MINIMUM	87	Aug 23	48	Sep 24	8.8	Oct 7, 1956
MAXIMUM PEAK FLOW			6,500	Jan 5	108,000	Jun 28, 1957
MAXIMUM PEAK STAGE			14.19	Jan 5	21.23	Jun 28, 1957
ANNUAL RUNOFF (CFSM)	1.29		1.04		1.11	
ANNUAL RUNOFF (INCHES)	17.50		14.13		15.04	
10 PERCENT EXCEEDS	1,220		1,010		1,180	
50 PERCENT EXCEEDS	388		316		264	
90 PERCENT EXCEEDS	117		60		67	

e Estimated



03341500 WABASH RIVER AT TERRE HAUTE, IN

LOCATION.--Lat 39°28'33", long 87°25'08", in NE¼NW¼ sec.21, T.12 N., R.9 W., Vigo County, Hydrologic Unit 05120111,(TERRE HAUTE, IN quadrangle), on left bank at Indiana America Water Company, Inc., lst 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 National Geodetic Vertical Datum of 1929. 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 good. 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

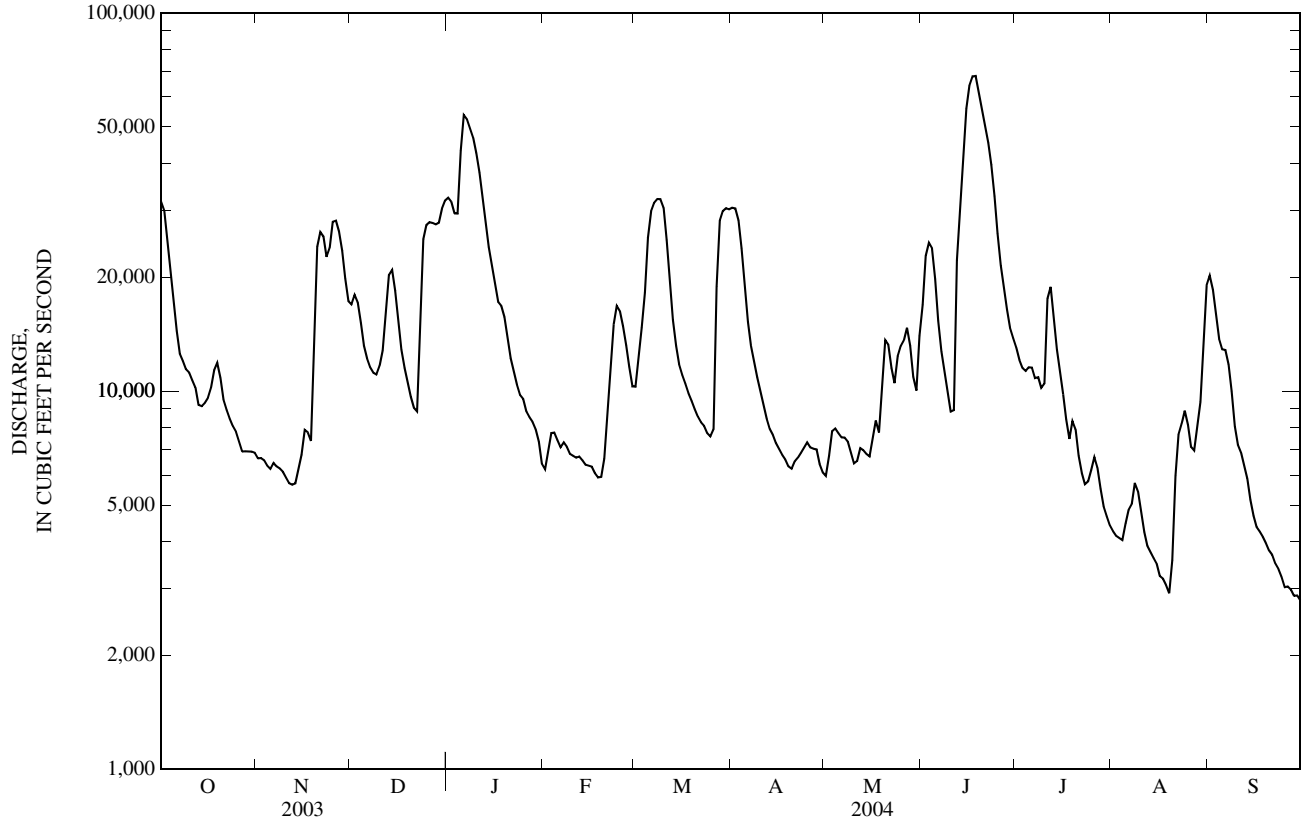
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31,800	6,650	17,000	32,500	6,210	10,300	30,500	5,970	16,900	13,000	4,260	20,200
2	30,100	6,660	18,000	31,700	6,900	12,500	30,400	6,750	22,800	12,100	4,140	18,500
3	24,800	6,570	17,200	29,500	7,750	14,700	28,300	7,830	24,700	11,500	4,090	16,000
4	20,400	6,360	15,100	29,500	7,770	18,200	23,900	7,970	23,900	11,300	4,040	13,700
5	17,100	6,230	13,200	43,300	7,420	25,500	18,900	7,750	19,800	11,600	4,460	12,900
6	14,400	6,460	12,200	53,700	7,110	29,900	15,200	7,550	15,300	11,500	4,850	12,900
7	12,600	6,330	11,600	52,300	7,320	31,500	13,200	7,540	12,800	10,800	5,030	11,800
8	12,000	6,250	11,200	49,500	7,140	32,200	11,900	7,360	11,200	10,900	5,720	10,000
9	11,400	6,130	11,100	46,800	6,830	32,200	10,900	6,880	9,880	10,200	5,430	8,070
10	11,200	5,910	11,700	42,700	6,750	30,500	9,990	6,440	8,830	10,500	4,800	7,220
11	10,700	5,710	12,800	37,800	6,670	25,100	9,230	6,540	8,910	17,600	4,240	6,880
12	10,200	5,660	16,000	32,800	6,720	19,100	8,470	7,070	22,200	18,900	3,900	6,380
13	9,200	5,700	20,300	27,900	6,560	15,400	7,960	6,980	31,800	15,800	3,750	5,870
14	9,130	6,220	20,900	24,000	6,390	13,200	7,660	6,820	41,900	12,900	3,620	5,170
15	9,310	6,790	18,400	21,500	6,360	11,800	7,300	6,720	55,900	11,200	3,490	4,680
16	9,600	7,900	15,100	19,200	6,310	11,000	7,030	7,530	64,300	9,810	3,250	4,370
17	10,200	7,790	12,900	17,200	6,070	10,500	6,790	8,360	68,000	8,420	3,190	4,250
18	11,400	7,390	11,500	16,800	5,910	9,870	6,590	7,780	68,200	7,470	3,070	4,120
19	11,900	13,700	10,500	15,700	5,930	9,440	6,320	10,600	62,100	8,340	2,920	3,960
20	10,800	24,100	9,660	13,800	6,630	8,960	6,240	13,700	56,600	7,920	3,570	3,790
21	9,510	26,300	9,050	12,200	8,850	8,570	6,520	13,300	50,800	6,740	5,970	3,690
22	8,930	25,600	8,850	11,300	11,300	8,270	6,670	11,500	45,400	6,070	7,670	3,500
23	8,460	22,700	13,800	10,400	15,000	8,100	6,870	10,500	39,700	5,670	8,210	3,380
24	8,080	23,900	25,200	9,770	16,800	7,750	7,100	12,400	32,800	5,770	8,880	3,230
25	7,820	28,000	27,500	9,550	16,300	7,600	7,320	13,200	26,100	6,180	8,150	3,030
26	7,350	28,200	28,000	8,840	14,900	7,930	7,100	13,600	21,500	6,700	7,130	3,040
27	6,930	26,400	27,800	8,550	13,200	18,900	7,040	14,700	18,800	6,280	6,970	2,990
28	6,940	23,500	27,600	8,300	11,600	28,200	7,020	13,200	16,400	5,520	8,090	2,880
29	6,930	19,900	27,900	7,940	10,300	29,900	6,420	10,900	14,700	4,960	9,360	2,880
30	6,920	17,300	30,400	7,360	---	30,500	6,100	10,000	13,800	4,670	13,600	2,800
31	6,870	---	31,900	6,420	---	30,300	---	14,000	---	4,420	19,100	---
TOTAL	372,980	396,310	544,360	738,830	253,000	557,890	334,940	291,440	926,020	294,740	184,950	212,180
MEAN	12,030	13,210	17,560	23,830	8,724	18,000	11,160	9,401	30,870	9,508	5,966	7,073
MAX	31,800	28,200	31,900	53,700	16,800	32,200	30,500	14,700	68,200	18,900	19,100	20,200
MIN	6,870	5,660	8,850	6,420	5,910	7,600	6,100	5,970	8,830	4,420	2,920	2,800
CFSM	0.98	1.08	1.43	1.94	0.71	1.47	0.91	0.77	2.52	0.78	0.49	0.58
IN.	1.13	1.20	1.65	2.24	0.77	1.69	1.02	0.88	2.81	0.89	0.56	0.64

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2004, BY WATER YEAR (WY)

MEAN	4,936	6,827	10,280	13,680	15,510	18,620	18,890	15,720	12,290	8,574	5,117	4,263
MAX	24,900	40,220	44,490	77,540	47,990	51,250	41,940	64,810	44,130	39,600	21,330	21,440
(WY)	(2002)	(1993)	(1928)	(1950)	(1950)	(1982)	(1938)	(1943)	(1958)	(2003)	(1958)	(1989)
MIN	1,103	1,405	1,145	1,216	1,998	2,645	5,250	2,405	1,492	1,292	1,002	966
(WY)	(1957)	(1954)	(1964)	(1977)	(1963)	(1941)	(1931)	(1934)	(1934)	(1936)	(1941)	(1941)

03341500 WABASH RIVER AT TERRE HAUTE, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1928 - 2004	
ANNUAL TOTAL	5,407,900		5,107,640			
ANNUAL MEAN	14,820		13,960		11,200	
HIGHEST ANNUAL MEAN					22,800	1950
LOWEST ANNUAL MEAN					2,864	1931
HIGHEST DAILY MEAN	93,600	Jul 13	68,200	Jun 18	186,000	May 20, 1943
LOWEST DAILY MEAN	2,640	Jan 19	2,800	Sep 30	701	Aug 3, 1934
ANNUAL SEVEN-DAY MINIMUM	2,740	Jan 28	2,980	Sep 24	732	Sep 24, 1941
MAXIMUM PEAK FLOW			70,500	Jun 18	189,000	May 20, 1943
MAXIMUM PEAK STAGE			22.98	Jun 18	30.50	May 20, 1943
ANNUAL RUNOFF (CFSM)	1.21		1.14		0.913	
ANNUAL RUNOFF (INCHES)	16.40		15.49		12.41	
10 PERCENT EXCEEDS	31,000		29,600		27,600	
50 PERCENT EXCEEDS	10,200		10,000		6,520	
90 PERCENT EXCEEDS	4,340		5,010		2,020	



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, (MEROM, IN-IL quadrangle), on left bank at downstream side of Illinois Central Railroad bridge at Riverton, 0.5 mi downstream from Turtle Creek, 2 mi south of Merom, 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 National Geodetic Vertical Datum of 1929. 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29,300	7,670	19,600	33,300	7,570	12,100	32,800	6,770	19,500	17,000	5,330	20,000
2	30,900	7,510	19,000	34,900	7,420	13,900	33,200	6,770	20,800	15,400	5,090	20,900
3	31,500	7,510	19,300	36,400	8,090	14,900	33,300	7,550	24,100	14,100	4,940	19,400
4	28,600	7,380	18,300	39,400	8,750	17,300	32,400	8,350	25,400	14,200	4,870	16,900
5	24,100	7,190	16,400	45,100	8,740	23,800	29,000	8,440	24,900	13,400	4,820	14,700
6	19,700	7,120	14,600	47,300	8,450	27,700	24,000	8,200	21,400	13,600	5,200	14,000
7	16,300	7,250	13,500	49,400	8,270	29,100	19,000	8,030	16,900	13,100	5,500	e13,300
8	14,300	7,100	12,800	52,700	8,290	30,700	15,900	8,010	14,000	12,200	5,750	e12,000
9	13,400	6,980	12,400	55,200	8,060	32,100	14,000	7,800	12,200	12,200	6,280	10,500
10	12,700	6,860	12,300	55,500	7,850	33,100	12,500	7,340	10,700	11,600	5,990	8,730
11	12,300	6,650	13,100	54,100	7,900	33,400	11,400	6,970	9,680	13,800	5,390	7,890
12	11,800	6,490	14,400	51,600	8,050	30,800	10,500	7,140	12,000	20,200	4,860	7,450
13	11,100	6,410	17,700	48,000	7,940	25,200	9,650	7,570	23,500	20,600	4,520	6,950
14	10,600	6,450	20,800	43,300	7,630	19,600	9,050	7,490	27,900	18,500	4,360	6,420
15	11,700	6,930	21,100	37,500	7,560	15,900	8,650	7,350	31,300	14,900	4,230	5,750
16	10,900	7,490	19,000	30,900	7,480	13,900	8,260	7,290	36,400	12,600	4,080	5,360
17	11,000	8,410	16,100	26,100	7,340	12,800	7,950	8,120	44,900	11,400	3,850	5,050
18	11,500	8,460	14,000	24,500	7,090	12,000	7,690	8,640	54,900	9,680	3,780	4,810
19	12,500	11,900	12,600	22,500	7,050	11,200	7,450	8,360	66,000	8,800	3,730	4,630
20	12,600	18,800	11,500	19,300	7,370	10,600	7,250	11,900	76,400	9,330	3,690	4,450
21	11,600	24,300	10,600	16,600	8,330	10,100	7,180	14,100	79,900	8,660	4,620	4,280
22	10,400	25,800	10,000	14,600	10,300	9,570	7,370	13,400	78,300	7,830	6,750	4,170
23	9,810	25,700	11,900	13,300	13,000	9,220	7,540	11,800	73,000	7,990	8,180	3,990
24	9,310	26,300	21,500	12,100	16,700	8,970	7,670	11,200	65,700	6,940	8,860	3,860
25	8,980	27,300	25,800	11,500	18,200	8,640	7,910	13,400	57,300	6,820	9,440	3,700
26	8,690	28,100	27,100	10,900	17,600	8,870	8,090	13,900	48,400	7,240	9,080	3,530
27	8,170	28,600	27,800	10,200	16,100	14,900	7,910	15,800	38,500	7,480	8,510	3,500
28	7,830	28,100	28,200	9,820	14,300	23,600	e7,600	19,600	28,900	6,980	7,970	3,430
29	7,760	25,900	29,000	9,430	12,600	27,400	7,520	15,700	23,300	6,280	8,890	3,330
30	7,730	22,500	31,100	9,020	---	29,200	7,000	12,500	19,400	5,830	10,600	3,300
31	7,700	---	32,200	8,350	---	31,600	---	17,200	---	5,750	15,600	---
TOTAL	434,780	423,160	573,700	932,820	284,030	602,170	409,740	316,690	1,085,580	354,410	194,760	246,280
MEAN	14,030	14,110	18,510	30,090	9,794	19,420	13,660	10,220	36,190	11,430	6,283	8,209
MAX	31,500	28,600	32,200	55,500	18,200	33,400	33,300	19,600	79,900	20,600	15,600	20,900
MIN	7,700	6,410	10,000	8,350	7,050	8,640	7,000	6,770	9,680	5,750	3,690	3,300
CFSM	1.07	1.07	1.41	2.29	0.74	1.48	1.04	0.78	2.75	0.87	0.48	0.62
IN.	1.23	1.20	1.62	2.64	0.80	1.70	1.16	0.90	3.07	1.00	0.55	0.70

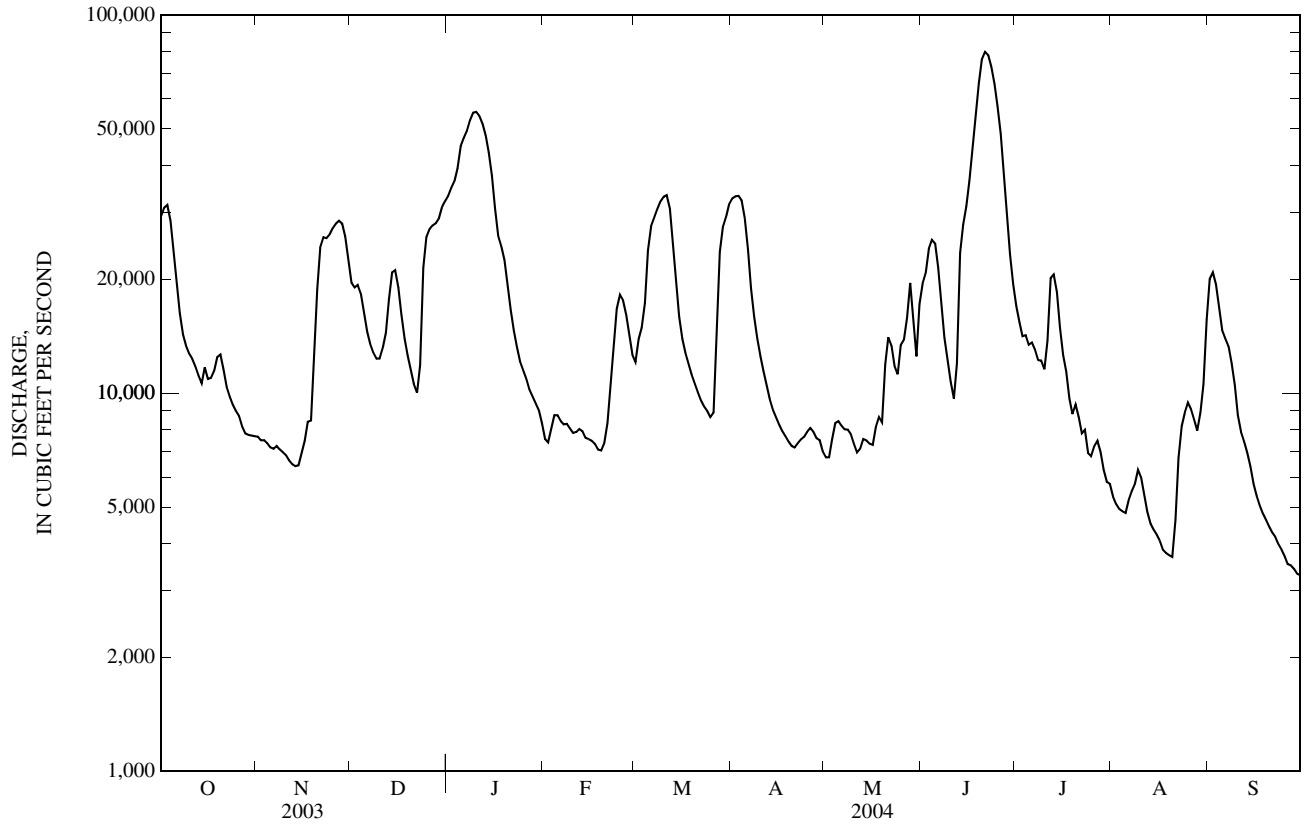
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2004, BY WATER YEAR (WY)

MEAN	5,331	7,451	10,910	13,830	17,000	20,680	20,840	17,680	14,320	9,775	5,924	4,880
MAX	26,610	39,340	39,250	80,210	54,530	60,520	41,840	68,010	45,640	44,660	23,680	25,370
(WY)	(2002)	(1993)	(1986)	(1950)	(1950)	(1982)	(1957)	(1943)	(1958)	(2003)	(1958)	(1989)
MIN	1,382	1,437	1,213	1,318	2,058	2,763	5,623	3,435	2,601	1,968	1,215	1,261
(WY)	(1957)	(1954)	(1964)	(1977)	(1963)	(1941)	(2000)	(1941)	(1977)	(1988)	(1941)	(1940)

03342000 WABASH RIVER AT RIVERTON, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1940 - 2004	
ANNUAL TOTAL	5,931,690		5,858,120			
ANNUAL MEAN	16,250		16,010		12,360	
HIGHEST ANNUAL MEAN					24,340	1950
LOWEST ANNUAL MEAN					3,206	1941
HIGHEST DAILY MEAN	96,700	Jul 17	79,900	Jun 21	200,000	May 21, 1943
LOWEST DAILY MEAN	2,790	Feb 2	3,300	Sep 30	858	Sep 27, 1941
ANNUAL SEVEN-DAY MINIMUM	2,850	Jan 29	3,520	Sep 24	870	Sep 25, 1941
MAXIMUM PEAK FLOW			80,100	Jun 21	201,000	May 21, 1943
MAXIMUM PEAK STAGE			22.30	Jun 21	29.36	May 21, 1943
ANNUAL RUNOFF (CFSM)	1.23		1.22		0.939	
ANNUAL RUNOFF (INCHES)	16.77		16.56		12.76	
10 PERCENT EXCEEDS	34,100		31,500		30,000	
50 PERCENT EXCEEDS	11,100		11,600		7,300	
90 PERCENT EXCEEDS	4,710		5,810		2,280	

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, (VINCENNES IL.IN quadrangle), 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: l955. WDR IN-73-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 394.43 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1968, to June 19, 1979, recording gage at site 570 ft upstream at same datum. Oct. l, l960, 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 1988 minimum gage height, 3.92 ft, Sept. 4, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 21.92 ft, June 22; minimum gage height, unknown.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.46	6.98	11.95	16.27	6.99	9.21	16.11	6.73	13.17	11.19	6.23	11.63
2	14.78	6.91	11.72	16.49	7.00	9.93	16.24	6.71	13.33	10.52	5.98	12.07
3	15.02	6.90	11.66	16.75	7.36	10.37	16.31	7.05	14.20	10.05	5.89	11.56
4	14.73	6.83	11.32	18.48	7.58	11.59	16.12	7.43	14.30	10.21	5.84	10.69
5	13.43	6.72	10.66	19.36	7.61	13.89	15.51	7.44	13.73	9.90	5.79	9.97
6	11.81	6.69	9.97	19.70	7.58	14.99	13.78	7.35	12.45	9.89	5.96	9.72
7	10.54	6.76	9.56	20.06	7.44	15.42	11.87	7.13	10.82	9.55	6.11	9.56
8	9.83	6.68	9.26	20.61	7.37	15.74	10.68	7.11	9.84	9.17	6.15	9.11
9	9.44	6.63	9.10	21.09	7.23	15.78	9.87	7.02	9.10	9.16	6.44	8.38
10	9.20	6.59	9.15	21.27	7.34	15.78	9.26	6.81	8.56	8.93	6.32	7.67
11	9.01	6.55	9.48	21.11	7.44	15.76	8.80	6.63	8.10	10.22	6.04	7.27
12	8.76	6.55	9.92	20.63	7.47	15.49	8.36	6.70	8.91	12.62	5.80	7.09
13	8.51	6.40	11.09	19.82	7.29	14.12	7.99	6.90	12.75	12.71	5.63	6.89
14	8.33	6.40	12.08	18.87	7.09	12.11	7.71	6.97	13.93	11.96	5.56	6.68
15	8.79	6.61	12.19	17.81	7.07	10.72	7.52	6.96	14.72	10.53	5.48	6.37
16	8.47	6.85	11.57	16.58	6.97	9.87	7.32	6.86	15.44	9.47	5.39	6.18
17	8.47	7.27	10.50	15.22	6.89	9.40	7.17	7.22	16.42	9.10	5.27	6.04
18	8.66	7.72	9.71	14.92	6.78	9.04	7.05	7.45	17.72	8.26	5.25	5.89
19	9.03	9.72	9.18	14.14	6.83	8.68	6.91	7.30	19.05	7.78	5.29	---
20	9.09	12.16	8.73	12.64	7.18	8.45	6.82	8.85	20.48	7.99	5.24	---
21	8.65	13.43	8.34	11.38	7.58	8.17	6.80	9.54	21.61	7.70	5.60	---
22	8.17	13.79	8.14	10.48	8.37	7.95	6.88	9.33	21.90	7.30	6.55	---
23	7.91	14.03	9.37	9.78	9.44	7.81	6.94	8.81	21.74	7.46	7.19	---
24	7.70	14.88	12.93	9.21	10.80	7.69	7.01	8.55	21.18	6.98	7.55	---
25	7.58	15.12	14.25	8.94	11.22	7.54	7.18	9.54	20.40	6.89	7.97	---
26	7.46	15.25	14.74	8.63	10.97	7.78	7.23	9.91	19.41	7.08	8.52	---
27	7.23	15.25	14.72	8.34	10.42	10.89	7.09	12.88	18.11	7.18	7.96	---
28	7.07	15.04	14.74	8.11	9.76	13.78	7.04	14.74	16.17	6.93	7.48	---
29	7.02	14.33	15.06	7.92	9.10	14.94	6.99	13.10	13.68	6.51	7.74	---
30	7.00	13.08	15.75	7.71	---	15.40	6.78	11.49	12.02	6.83	8.38	---
31	6.98	---	16.04	7.38	---	15.82	---	12.79	---	6.56	10.30	---
MEAN	9.46	9.60	11.38	14.83	8.01	11.75	9.38	8.49	15.11	8.92	6.48	---
MAX	15.02	15.25	16.04	21.27	11.22	15.82	16.31	14.74	21.90	12.71	10.30	---
MIN	6.98	6.40	8.14	7.38	6.78	7.54	6.78	6.63	8.10	6.51	5.24	---

03347000 WHITE RIVER AT MUNCIE, IN

LOCATION.--Lat 40°12'15", long 85°23'14", in NE¼NE¼, sec.9, T.20 N., R.10 E., Delaware County, Hydrologic Unit 05120201, (MUNCIE WEST, IN quadrangle), 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 National Geodetic Vertical Datum of 1929 (City of Muncie bench mark). See WSP 1705 for history of changes prior to Jan. 28, 1942. Jan. 28, 1942, to Apr. 27, 1964, water-stage recorder at present site at datum 3.00 ft higher.

REMARKS.--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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	328	198	507	412	e140	257	595	103	1,450	92	129	41
2	255	201	390	618	e150	416	408	206	647	94	73	31
3	227	197	328	780	e170	354	319	370	440	110	45	28
4	220	191	292	2,030	e220	395	261	248	336	189	53	27
5	206	185	341	5,740	e210	1,030	217	183	275	170	51	30
6	185	169	698	3,230	e220	682	193	140	237	111	44	24
7	168	154	507	904	e240	424	178	109	208	91	38	18
8	155	142	388	605	e170	323	166	97	185	75	35	16
9	141	128	334	465	e150	268	142	84	162	71	33	17
10	125	125	423	374	e145	235	118	74	149	137	29	15
11	120	148	666	334	e140	216	107	67	1,260	131	25	16
12	112	473	448	308	e146	198	101	62	2,730	88	22	16
13	106	448	326	293	e135	182	97	60	1,570	68	22	14
14	373	288	288	270	e130	177	96	100	2,680	55	23	13
15	1,660	235	267	262	e127	170	87	116	1,130	52	22	12
16	955	211	264	241	e124	165	84	86	1,040	46	23	15
17	541	192	444	235	e120	174	79	72	1,950	50	21	17
18	395	241	344	274	e130	176	81	77	899	46	22	17
19	312	1,250	283	249	e320	243	76	258	520	41	20	14
20	265	1,060	248	e215	693	355	71	268	382	40	79	14
21	240	550	229	e200	729	381	82	201	309	39	198	11
22	220	390	221	e186	400	284	89	148	268	69	97	9.5
23	204	323	1,150	e176	312	237	176	116	232	91	49	18
24	196	563	1,760	e167	299	217	196	93	205	57	33	19
25	189	590	822	e158	260	208	163	80	177	46	29	22
26	211	394	499	e150	221	316	141	72	159	46	39	22
27	255	689	384	e155	201	959	112	395	141	51	28	21
28	251	1,850	343	e150	189	638	101	3,080	122	56	26	20
29	227	1,490	356	e145	186	435	84	2,090	107	57	109	23
30	209	743	874	e140	---	385	80	752	96	54	124	24
31	195	---	587	e137	---	789	---	2,210	---	100	58	---
TOTAL	9,246	13,818	15,011	19,603	6,677	11,289	4,700	12,017	20,066	2,423	1,599	584.5
MEAN	298	461	484	632	230	364	157	388	669	78.2	51.6	19.5
MAX	1,660	1,850	1,760	5,740	729	1,030	595	3,080	2,730	189	198	41
MIN	106	125	221	137	120	165	71	60	96	39	20	9.5
CFSM	1.24	1.91	2.01	2.62	0.96	1.51	0.65	1.61	2.78	0.32	0.21	0.08
IN.	1.43	2.13	2.32	3.03	1.03	1.74	0.73	1.85	3.10	0.37	0.25	0.09

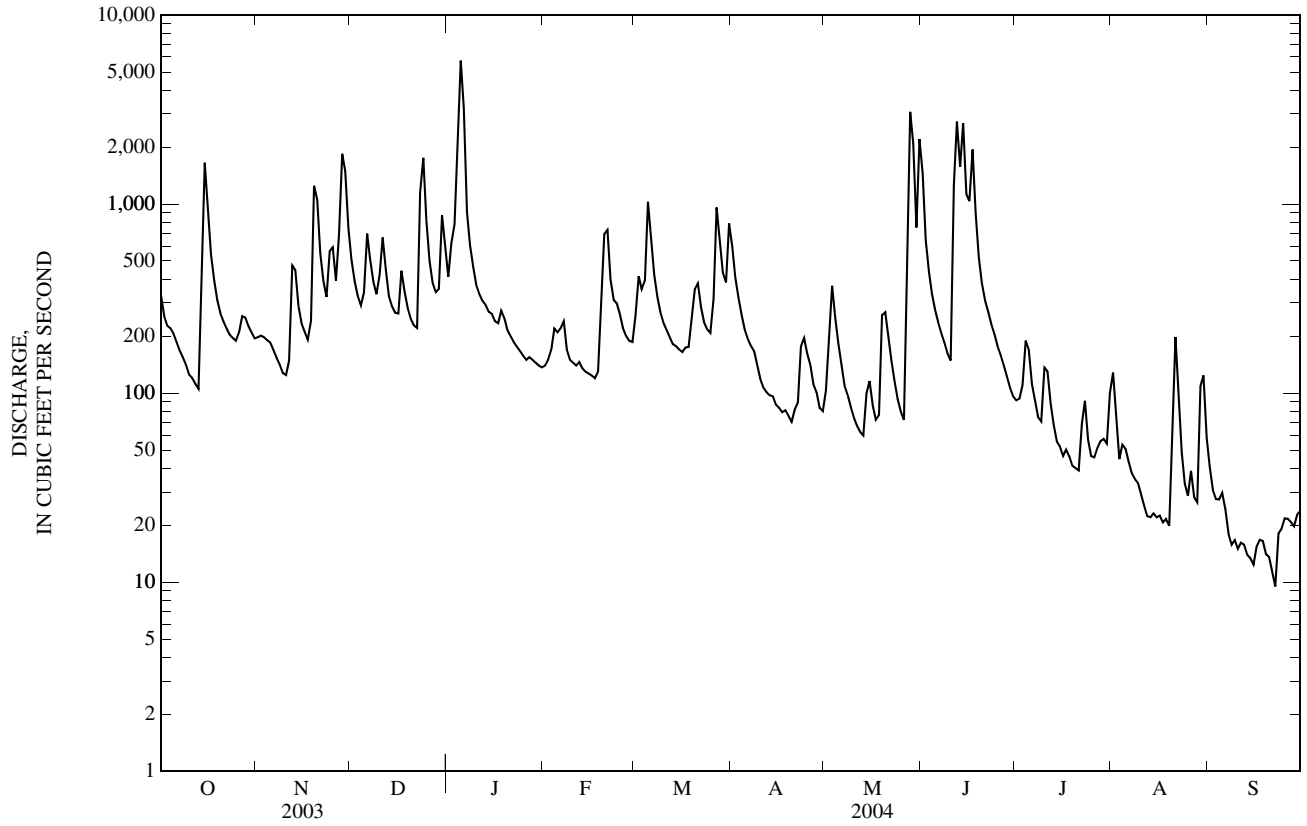
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2004, BY WATER YEAR (WY)

MEAN	70.0	148	227	299	336	411	399	274	224	134	70.3	70.2
MAX	807	1,068	1,119	1,654	1,122	963	1,476	1,239	1,492	1,169	816	961
(WY)	(2002)	(1994)	(1991)	(1950)	(1950)	(1978)	(1964)	(1933)	(1958)	(2003)	(1979)	(2003)
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)

03347000 WHITE RIVER AT MUNCIE, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1932 - 2004	
ANNUAL TOTAL	163,537		117,033.5			
ANNUAL MEAN	448		320		221	
HIGHEST ANNUAL MEAN					421	1950
LOWEST ANNUAL MEAN					42.1	1941
HIGHEST DAILY MEAN	9,920	Sep 2	5,740	Jan 5	11,600	Apr 21, 1964
LOWEST DAILY MEAN	37	Aug 27	9.5	Sep 22	1.1	Sep 16, 1954
ANNUAL SEVEN-DAY MINIMUM	42	Aug 22	14	Sep 16	1.2	Sep 21, 1954
MAXIMUM PEAK FLOW			6,830	Jan 5	14,300	Apr 21, 1964
MAXIMUM PEAK STAGE			10.86	Jan 5	21.07	Jan 15, 1937
ANNUAL RUNOFF (CFSM)	1.86		1.33		0.917	
ANNUAL RUNOFF (INCHES)	25.24		18.06		12.47	
10 PERCENT EXCEEDS	801		684		490	
50 PERCENT EXCEEDS	210		184		78	
90 PERCENT EXCEEDS	59		28		13	

e Estimated



03348000 WHITE RIVER AT ANDERSON, IN

LOCATION.--Lat 40°06'22", long 85°40'20", in NW¼NW¼ sec.17, T.19 N., R.8 E., Madison County, Hydrologic Unit 05120201, (ANDERSON SOUTH, IN quadrangle), on downstream side of abandoned Twelfth Street bridge abutment, 250 ft upstream from municipal water-supply plant in Anderson, 1 mi upstream from Killbuck Creek, and at mile 293.3

DRAINAGE AREA.--406 mi^2.

PERIOD OF RECORD.--July 1925 to September 1926, October 1931 to December 1993 (discharge). September 2000 to current year (stage only). Monthly discharge only for some periods, published in WSP 1305. Gage-height records collected at site 950 ft downstream December 1910 to February 1918, 250 ft downsteam from February 1918 to Sept. 14, 1973, and at present site since Sept. 15, 1973, are contained in reports of National Weather Service. Prior to October 1948, published as West Fork White River at Anderson.

REVISED RECORDS.--WSP 1335: 1932, 1934-35, 1936(M), 1938-40. WSP 1385: 1950(P). WSP 1725: 1956(P). WSP 1909: 1956. WSP 2109: Drainage area. WDR IN-03-1: 1972.

GAGE.--Water-stage recorder. Datum of gage is 825.02 ft above National Geodetic Vertical Datum of 1929. Prior to May 12, 1934, nonrecording gage at present site and datum. May 12, 1934 to Sept. 14, 1973, nonrecording gage at site 250 ft downstream at same datum. Sept. 15, 1973 to Sept. 23, 1976, nonrecording gage at presant site an datum.

REMARKS.--Prior to Sept. 15, 1973, the City of Anderson diverted water for its municipal supply above the gage then in use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 23.6 ft Mar. 25, 1913, at site 250 ft downstream and at present datum, based on determination of National Weather Service at site then in use, discharge, 28,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 13.54 ft, Jan. 6; minimum gage height, 4.15 ft, Sept. 23 - 24.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.52	5.03	5.79	---	5.79	5.55	5.85	4.94	6.85	4.80	4.64	4.41
2	5.40	5.04	5.58	6.37	5.71	5.66	5.54	5.15	6.05	4.75	4.55	4.33
3	5.31	5.00	5.46	6.35	5.75	5.46	5.38	5.38	5.72	4.84	4.50	4.34
4	5.26	4.96	5.36	10.14	5.78	5.98	5.22	5.13	5.48	5.02	4.75	4.32
5	5.14	4.92	---	13.47	5.10	6.72	5.12	4.97	5.30	4.89	4.55	4.32
6	5.10	4.89	6.11	9.20	5.34	6.00	5.10	4.87	5.18	4.80	4.40	4.29
7	5.08	4.83	5.74	6.50	5.49	5.58	5.01	4.83	5.08	4.73	4.34	4.25
8	4.96	4.79	5.53	6.07	5.09	5.40	5.04	4.78	5.00	4.69	4.34	4.24
9	4.94	4.75	5.44	5.81	4.97	5.25	4.91	4.73	4.89	4.69	4.33	4.24
10	4.91	4.76	5.88	5.60	5.11	5.14	4.90	4.69	4.87	4.77	4.33	4.22
11	4.92	4.93	6.04	5.54	5.04	5.09	4.89	4.69	9.68	4.83	4.27	4.21
12	4.88	5.91	5.62	5.45	5.14	5.01	4.84	4.61	9.55	4.72	4.25	4.21
13	4.89	5.52	5.44	5.38	5.05	4.95	4.83	4.63	7.85	4.66	4.26	4.20
14	6.03	5.21	5.35	5.34	4.92	4.94	4.78	4.79	9.49	4.62	4.26	4.19
15	7.56	5.11	5.27	5.28	5.07	4.93	4.75	4.96	6.77	4.59	4.26	4.19
16	6.31	5.03	5.33	5.21	4.87	4.94	4.74	4.80	8.08	4.55	4.24	4.20
17	5.76	4.97	5.66	5.29	4.77	4.96	4.74	4.76	7.96	4.57	4.22	4.21
18	5.50	5.58	---	5.38	4.82	4.98	4.75	4.88	6.41	4.54	4.31	4.20
19	5.30	7.42	---	5.21	5.61	5.20	4.75	5.75	5.94	4.52	4.24	4.18
20	5.19	6.33	---	5.08	---	---	4.74	5.42	5.67	4.41	5.36	4.17
21	5.12	5.76	---	5.08	---	---	4.80	5.21	5.53	4.51	4.99	4.16
22	5.05	5.50	---	5.16	---	---	4.91	5.05	5.39	4.90	4.60	4.15
23	5.00	5.40	8.43	4.97	---	---	5.06	5.04	5.25	4.75	4.46	4.16
24	4.94	6.30	7.55	5.05	---	---	5.01	4.88	5.15	4.52	4.45	4.19
25	5.03	5.81	6.28	6.42	5.19	---	4.99	4.89	5.07	4.53	4.35	4.18
26	5.05	5.57	5.83	6.75	5.09	---	4.97	4.82	4.99	4.49	4.53	4.18
27	5.14	6.46	5.61	5.97	5.02	---	4.82	7.77	4.95	4.58	4.37	4.19
28	5.10	8.12	5.54	5.95	4.97	5.90	4.75	9.97	4.92	4.49	4.35	4.18
29	5.04	6.88	---	5.85	4.99	5.63	4.77	7.19	4.84	4.50	4.67	4.19
30	4.97	6.10	6.53	5.72	---	5.66	4.71	6.86	4.82	4.54	4.65	4.19
31	5.00	---	5.87	5.84	---	6.39	---	9.44	---	4.61	4.48	---
MEAN	5.27	5.56	---	---	---	---	4.96	5.48	6.09	4.66	4.46	4.22
MAX	7.56	8.12	---	---	---	---	5.85	9.97	9.68	5.02	5.36	4.41
MIN	4.88	4.75	---	---	---	---	4.71	4.61	4.82	4.41	4.22	4.15

03348130 WHITE RIVER AT RAIBLE AVENUE AT ANDERSON, IN

LOCATION.--Lat 40°06'38", long 85°42'39", in NW¼SW¼ sec.11, T.19 N., R.7 E., Madison County, Hydrologic Unit 05120201, (ANDERSON SOUTH, IN quadrangle), on the upstream side of bridge in southeast quadrant of Raible Avenue and White River, 0.3 mi upstream of waste-water treatment plant, 2 mi downstream of Killbuck Creek, and 3.0 mi downstream of the municipal power plant in Anderson.

DRAINAGE AREA.--519 mi^2 (estimated).

PERIOD OF RECORD.--September 1999 to current year.

GAGE.--Water-stage recorder. Datum of gage is 816.54 ft above National Geodetic Vertical Datum of 1929 (based on Department of Natural Resources Benchmark MAD17 reset 1984).

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow maybe affected at times by upstream regulation.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	716	397	1,020	882	e300	511	1,260	293	3,410	271	228	160
2	583	412	797	913	e320	901	845	360	1,370	260	204	143
3	512	396	672	1,260	e340	751	671	530	918	276	179	141
4	500	379	602	2,900	e420	699	565	467	708	335	206	137
5	468	368	640	7,720	e390	1,950	489	382	578	345	202	132
6	429	350	1,130	7,900	e400	1,580	443	333	496	280	179	128
7	400	334	1,020	2,530	e480	937	426	305	441	253	158	122
8	377	319	792	1,330	e400	699	412	287	398	237	149	114
9	360	306	683	1,010	e340	578	390	276	363	223	140	110
10	348	298	738	819	e300	500	363	265	342	236	136	107
11	334	323	1,220	711	e290	454	347	255	2,210	298	132	104
12	325	687	965	660	e300	423	337	250	5,670	252	127	102
13	314	985	695	611	e290	387	332	242	3,330	223	125	102
14	450	625	601	565	e270	375	324	274	3,730	208	125	100
15	2,080	493	550	542	e260	371	312	409	2,850	195	123	98
16	1,710	441	532	500	e254	365	302	322	1,800	185	121	98
17	962	405	698	490	e250	371	297	284	3,370	180	119	102
18	698	456	679	555	e270	373	292	295	2,030	177	123	97
19	569	1,610	566	535	e420	424	286	580	1,130	175	130	95
20	493	2,030	500	e434	1,250	535	281	633	812	167	185	94
21	448	1,090	454	e400	1,560	708	287	470	664	165	344	90
22	419	767	445	e380	896	563	311	387	581	292	281	89
23	395	624	1,800	e360	666	462	364	349	496	257	195	86
24	370	972	4,340	e340	627	420	413	336	436	202	166	94
25	368	1,340	2,160	e330	559	400	389	315	395	177	153	97
26	409	846	1,190	e320	475	516	362	291	367	171	193	98
27	430	827	882	e310	430	1,670	325	406	341	181	162	98
28	449	2,510	765	e300	399	1,320	301	4,300	318	182	145	97
29	422	2,920	758	e296	385	879	289	4,170	301	173	164	95
30	393	1,530	1,480	e292	---	728	280	1,530	283	193	236	98
31	381	---	1,290	e290	---	1,280	---	3,570	---	218	198	---
TOTAL	17,112	25,040	30,664	36,485	13,541	22,130	12,295	23,166	40,138	6,987	5,328	3,228
MEAN	552	835	989	1,177	467	714	410	747	1,338	225	172	108
MAX	2,080	2,920	4,340	7,900	1,560	1,950	1,260	4,300	5,670	345	344	160
MIN	314	298	445	290	250	365	280	242	283	165	119	86

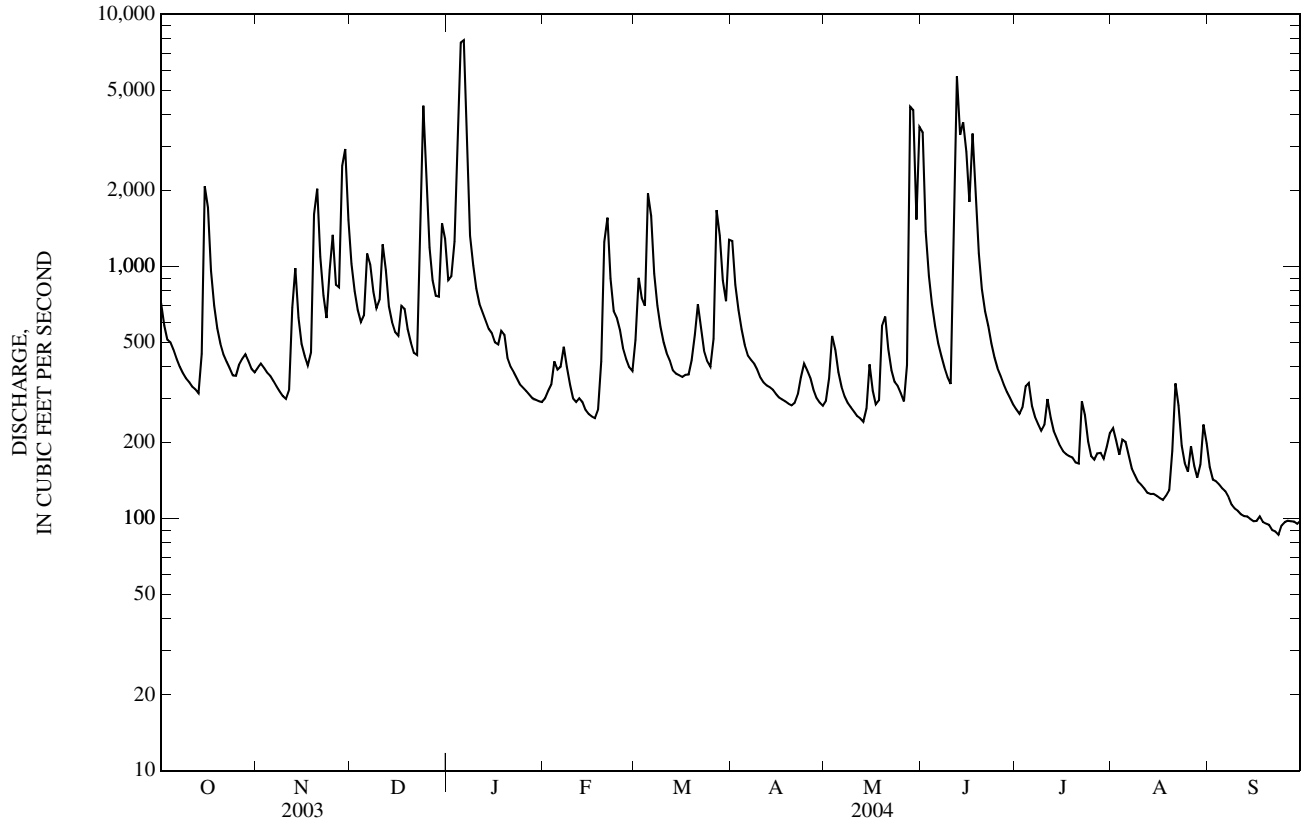
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2004, BY WATER YEAR (WY)

MEAN	573	392	641	487	612	762	746	1,008	628	740	258	544
MAX	1,712	835	1,258	1,177	1,011	1,271	1,661	1,886	1,338	2,427	430	1,864
(WY)	(2002)	(2004)	(2002)	(2004)	(2002)	(2003)	(2002)	(2002)	(2004)	(2003)	(2003)	(2003)
MIN	90.9	93.4	126	110	319	325	345	421	339	212	157	108
(WY)	(2000)	(2000)	(2000)	(2000)	(2003)	(2000)	(2003)	(2000)	(2003)	(2002)	(2002)	(2004)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1999 - 2004	
ANNUAL TOTAL	336,685		236,114			
ANNUAL MEAN	922		645		616	
HIGHEST ANNUAL MEAN					870	2002
LOWEST ANNUAL MEAN					310	2000
HIGHEST DAILY MEAN	13,500	Sep 3	7,900	Jan 6	13,500	Sep 3, 2003
LOWEST DAILY MEAN	134	Feb 17	86	Sep 23	e 74	Jan 22, 2000
ANNUAL SEVEN-DAY MINIMUM	154	Feb 15	92	Sep 18	77	Oct 26, 1999
MAXIMUM PEAK FLOW			9,000	Jan 6	15,200	Sep 3, 2003
MAXIMUM PEAK STAGE			13.00	Jan 6	17.24	Sep 3, 2003
10 PERCENT EXCEEDS	1,670		1,300		1,230	
50 PERCENT EXCEEDS	445		386		315	
90 PERCENT EXCEEDS	216		137		113	

e Estimated

03348130 WHITE RIVER AT RAIBLE AVENUE AT ANDERSON, IN—Continued



03349000 WHITE RIVER AT NOBLESVILLE, IN

LOCATION.--Lat 40°02'49", long 86°01'02", in SE¼SE¼ sec.36, T.19 N., R.4 E., Hamilton County, Hydrologic Unit 05120201, (NOBLESVILLE, IN quadrangle), 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 National Geodetic Vertical Datum of 1929.

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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,530	596	1,880	1,820	e540	987	2,690	418	4,710	504	415	343
2	1,180	717	1,430	1,540	e570	2,230	1,840	495	2,650	476	369	278
3	974	703	1,190	1,840	e640	1,860	1,370	627	1,600	464	301	284
4	892	649	1,050	4,150	e620	1,530	1,110	748	1,190	569	301	299
5	810	600	1,040	10,200	e640	3,680	920	606	967	577	354	251
6	727	558	1,520	11,700	e670	4,010	815	521	821	516	289	234
7	655	514	1,850	7,660	e700	2,360	762	456	721	454	253	230
8	605	478	1,470	2,920	e670	1,610	726	416	638	408	223	209
9	562	447	1,250	2,100	e600	1,250	672	390	567	382	206	193
10	537	427	1,270	1,650	e560	1,010	613	368	522	379	194	184
11	510	432	2,050	1,400	e550	882	574	350	3,590	441	186	179
12	485	853	1,980	1,310	e540	799	548	333	8,610	523	177	170
13	459	1,860	1,390	1,210	e560	711	534	322	7,500	400	169	166
14	550	1,300	1,140	1,110	e540	666	521	343	4,820	354	166	163
15	1,580	953	1,010	1,050	e500	644	496	541	4,770	324	165	155
16	2,540	803	935	965	e480	624	471	553	3,840	305	161	152
17	1,590	704	1,030	906	e460	627	458	441	5,000	294	155	151
18	1,120	702	1,190	997	e450	626	444	407	4,330	279	155	151
19	911	2,020	1,010	993	e600	672	433	911	2,610	269	172	145
20	776	3,290	878	856	1,930	814	427	1,190	1,800	258	235	137
21	690	2,190	784	762	3,280	1,090	438	865	1,410	249	502	136
22	633	1,470	735	e700	2,210	1,040	455	684	1,220	383	527	131
23	586	1,160	2,580	e640	1,530	833	555	581	1,030	436	394	127
24	546	1,700	6,590	e620	1,360	740	653	560	893	360	304	126
25	517	2,740	5,470	e600	1,170	683	637	516	797	287	285	134
26	561	1,910	2,820	e580	961	777	592	461	727	259	287	133
27	592	1,490	1,980	e600	837	2,980	528	451	667	258	320	133
28	640	2,410	1,650	e580	757	3,110	472	2,710	617	268	260	134
29	635	3,990	1,570	e560	722	2,010	438	4,410	581	258	263	132
30	578	2,880	2,340	e540	---	1,520	417	2,760	539	258	441	130
31	538	---	2,610	e520	---	2,190	---	3,280	---	392	461	---
TOTAL	25,509	40,546	55,692	63,079	25,647	44,565	21,609	27,714	69,737	11,584	8,690	5,390
MEAN	823	1,352	1,797	2,035	884	1,438	720	894	2,325	374	280	180
MAX	2,540	3,990	6,590	11,700	3,280	4,010	2,690	4,410	8,610	577	527	343
MIN	459	427	735	520	450	624	417	322	522	249	155	126
CFSM	0.96	1.58	2.09	2.37	1.03	1.68	0.84	1.04	2.71	0.44	0.33	0.21
IN.	1.11	1.76	2.41	2.73	1.11	1.93	0.94	1.20	3.02	0.50	0.38	0.23

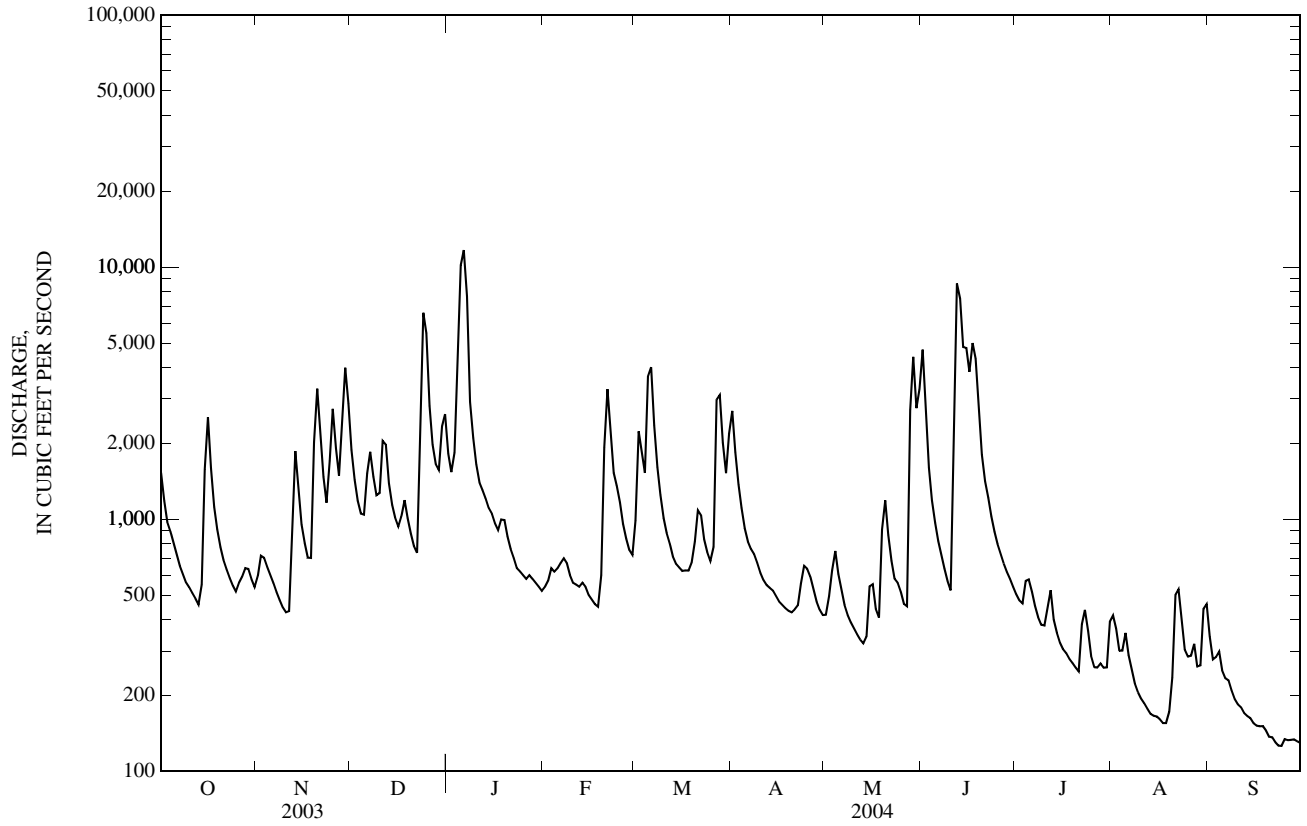
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2004, BY WATER YEAR (WY)

MEAN	329	603	883	1,147	1,257	1,557	1,471	1,026	926	631	365	343
MAX	2,845	3,359	3,472	6,494	3,485	3,732	4,281	3,236	4,432	4,157	2,264	3,143
(WY)	(2002)	(1994)	(1991)	(1950)	(1950)	(1978)	(1964)	(2002)	(1958)	(2003)	(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)

03349000 WHITE RIVER AT NOBLESVILLE, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1947 - 2004	
ANNUAL TOTAL	587,718		399,762			
ANNUAL MEAN	1,610		1,092		876	
HIGHEST ANNUAL MEAN					1,455	1950
LOWEST ANNUAL MEAN					266	1954
HIGHEST DAILY MEAN	18,800	Jul 10	11,700	Jan 6	25,400	Dec 31, 1990
LOWEST DAILY MEAN	195	Feb 18	126	Sep 24	44	Sep 28, 1954
ANNUAL SEVEN-DAY MINIMUM	234	Feb 14	131	Sep 22	58	Sep 23, 1954
MAXIMUM PEAK FLOW			11,900	Jan 6	27,000	Dec 31, 1990
MAXIMUM PEAK STAGE			17.03	Jan 6	21.86	Jul 10, 2003
ANNUAL RUNOFF (CFSM)	1.88		1.27		1.02	
ANNUAL RUNOFF (INCHES)	25.48		17.33		13.87	
10 PERCENT EXCEEDS	3,280		2,450		1,980	
50 PERCENT EXCEEDS	785		626		415	
90 PERCENT EXCEEDS	326		233		139	

e Estimated



[(National Water-Quality Assessment Program White River Basin, Miami River Basin Study Unit]

WATER-QUALITY RECORDS

The data described in the following table were collected and analyzed as part of the National Water Quality Assessment Program (NAWQA) in the White River Basin, Miami River Basin (WHMI) study units. 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 42 river basin and aquifer assessment projects being implemented across the nation on a staggered timeline. During the second decade of sampling, 14 of these projects will be actively collecting data. The period of high-intensity data collection for the WHMI project is in water years 2001-2004.

Water quality data from White River, W Bank, 1 RMI US 116th St at Fishers, IN are being reported as part of the Source Water- Quality Assessment (SWQA). The SWQA is a two year study beginning in October 2002. The first year's research will discover the presence and quantity of specific constituents in the water. The follow up year will focus on source water versus treated water comparisons to characterize which, if any, of the most frequently detected compounds in source water are not sufficiently removed by treatment processes and to help identify those treatment processes and (or) systems that are effective at removing select contaminants.

(- - -, no data; <, concentration or value reported is less than that indicated; E, estimated value;
K, value is estimated from a non-ideal colony count; M, presence verified, not quantified)

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 deg C (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	1,4-Dichlorobenzene water, fltrd, µg/L (34572)	1-Methylnaphthalene, water, fltrd, µg/L (62054)	1-Naphthol, water, fltrd 0.7µm GF µg/L (49295)	2,4-D methyl ester, water, fltrd, µg/L (50470)	2,4-D water, fltrd, µg/L (39732)
JUL													
01...	0830	662	739	7.8	8.1	720	26.0	21.8	<.5	<.5	E0.01	<0.009	0.03
14...	0800	511	729	7.7	7.9	726	27.0	24.9	<.5	<.5	<.09	--	--
27...	0820	350	742	7.0	7.9	709	21.0	19.5	<.5	<.5	<.09	E.078	<.11
SEP													
08...	0840	334	733	6.1	8.0	749	20.0	21.8	<.5	<.5	<.09	<.009	.05

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	2,4-DB water, fltrd 0.7µm GF µg/L (38746)	2,6-Diethylaniline water fltrd 0.7µm GF µg/L (82660)	2,6-Dimethylnaphthalene, water, fltrd, µg/L (62055)	2Chloro-2,6'-'diethyl acetanilide wat flt µg/L (61618)	CIAT, water, fltrd, µg/L (04040)	CEAT, water, fltrd, µg/L (04038)	2-Ethyl-6-methylaniline water, fltrd, µg/L (61620)	OIET, water, fltrd, µg/L (50355)	2-Methylnaphthalene, water, fltrd, µg/L (62056)	3,4-Dichloroaniline water fltrd, µg/L (61625)	3-beta-Coprostanol, water, fltrd, µg/L (62057)	3-Hydroxy carbofuran, wat flt 0.7µm GF µg/L (49308)	3-Ketocarbofuran, water, fltrd, µg/L (50295)
JUL													
01...	<0.02	<0.006	<0.5	<0.005	E0.109	E0.09	<0.004	E0.150	<0.5	0.005	<2	<0.006	<0.014
14...	--	<.006	<.5	<.005	E.064	--	<.004	--	<.5	<.004	<2	--	--
27...	<.02	<.006	<.5	<.005	E.041	<.01	<.004	E.249	<.5	<.008	<2	<.006	<.014
SEP													
08...	<.02	<.006	<.5	<.005	E.111	E.04	<.004	E.225	<.5	<.004	M	<.006	<.014

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	3-Methyl-1H-indole, water, fltrd, µg/L (62058)	3-tert-Butyl-4-hydroxyanisole wat flt µg/L (62059)	4Chloro 2methyl phenol, water, fltrd, µg/L (61633)	4-Cumylphenol, water, fltrd, µg/L (62060)	4-Octylphenol, water, fltrd, µg/L (62061)	4-Nonylphenol, water, fltrd, µg/L (62085)	4-tert-Octylphenol, water, fltrd, µg/L (62062)	5-Methyl-1H-benzotriazole, wat flt µg/L (62063)	9,10-Anthraquinone water, fltrd, µg/L (62066)	Acetochlor ESA, water, fltrd 0.7µm GF µg/L (61029)	Acetochlor OA, water, fltrd 0.7µm GF µg/L (61030)	Acetochlor, water, fltrd, µg/L (49260)	Acetophenone water, fltrd, µg/L (62064)
JUL													
01...	<1	<5	<0.006	<1	<1	<5	<1	<2	<0.5	--	--	0.046	<0.5
14...	<1	<5	<.006	<1	<1	E2	<1	<2	<.5	0.19	0.24	.029	<.5
27...	<1	<5	<.006	<1	<1	E1	<1	<2	<.5	.15	.16	.018	<.5
SEP													
08...	<1	<5	<.006	<1	<1	M	<1	<2	<.5	.25	.32	.021	<.5

[(National Water-Quality Assessment Program White River Basin, Miami River Basin Study Unit]—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	AHTN, water, fltrd, µg/L (62065)	Acifluorfen, water, fltrd 0.7µm GF µg/L (49315)	Alachlor ESA, water, fltrd 0.7µm GF µg/L (50009)	Alachlor OA, water, fltrd 0.7µm GF µg/L (61031)	Alachlor, water, fltrd, µg/L (46342)	Aldicarb sulfone water, fltrd 0.7µm GF µg/L (49313)	Aldicarb sulfoxide, wat flt 0.7µm GF µg/L (49314)	Aldicarb, water, fltrd 0.7µm GF µg/L (49312)	Anthracene, water, fltrd, µg/L (34221)	Atrazine, water, fltrd, µg/L (39632)	Azinphosmethyl oxon, water, fltrd, µg/L (61635)	Azinphosmethyl, water, fltrd 0.7µm GF µg/L (82686)	Bendiocarb, water, fltrd, µg/L (50299)
JUL													
01...	E0.1	<0.007	--	--	0.013	<0.02	<0.008	<0.04	<0.5	0.541	<0.07	<0.050	<0.03
14...	E.1	--	0.08	0.07	.009	--	--	--	<.5	.421	<.07	<.050	--
27...	E.1	<.007	.05	.05	<.005	<.02	<.008	<.04	<.5	.244	<.07	<.050	<.03
SEP													
08...	M	<.007	.03	.09	<.005	<.02	<.008	<.04	<.5	.455	<.07	<.050	<.03

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Benfluralin, water, fltrd 0.7µm GF µg/L (82673)	Benomyl water, fltrd, µg/L (50300)	Bensulfuron, water, fltrd, µg/L (61693)	Bentazon, water, fltrd 0.7µm GF µg/L (38711)	Benzo[a]pyrene, water, fltrd, µg/L (34248)	Benzophenone water, fltrd, µg/L (62067)	beta-Sitosterol, water, fltrd, µg/L (62068)	beta-Stigmastanol, water, fltrd, µg/L (62086)	Bisphenol A, water, fltrd, µg/L (62069)	Bromacil, water, fltrd, µg/L (04029)	Bromoxynil, water, fltrd 0.7µm GF µg/L (49311)	Caffeine, water, fltrd, µg/L (50305)	Camphor water, fltrd, µg/L (62070)
JUL													
01...	<0.010	<0.004	<0.02	E0.01	<0.5	<0.5	<2	<2	<1	<0.03	<0.02	<0.500	<0.5
14...	<.010	--	--	--	<.5	<.5	<2	<2	<1	--	--	E.200	<.5
27...	<.010	E.007	<.02	E.01	<.5	<.5	<20	<20	<1	E.02	<.02	E.097	<.5
SEP													
08...	<.010	.007	<.02	E.02	<.5	M	<2	<2	M	<.03	<.02	.033	<.5

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Carbaryl, water, fltrd 0.7µm GF µg/L (49310)	Carbaryl, water, fltrd 0.7µm GF µg/L (82680)	Carbazole, water, fltrd, µg/L (62071)	Carbofuran, water, fltrd 0.7µm GF µg/L (49309)	Chlorambenmethyl ester, water, fltrd, µg/L (61188)	Chlorimuron, water, fltrd, µg/L (50306)	Chlorodiamino-s-triazine, wat flt µg/L (04039)	Chlorothalonil, water, fltrd 0.7µm GF µg/L (49306)	Chlorpyrifos oxon, water, fltrd, µg/L (61636)	Chlorpyrifos water, fltrd, µg/L (38933)	Cholesterol, water, fltrd, µg/L (62072)	cis-Permethrin water fltrd 0.7µm GF µg/L (82687)	Clopyralid, water, fltrd 0.7µm GF µg/L (49305)
JUL													
01...	E0.01	E0.016	<0.5	<0.006	<0.02	<0.010	<0.04	<0.04	<0.06	<0.005	<2	<0.006	<0.01
14...	--	<.041	<.5	--	--	--	--	--	<.06	<.005	<2	<.006	--
27...	<.03	<.041	<.5	<.006	<.02	<.010	E.11	<.04	<.06	<.005	<20	<.006	<.01
SEP													
08...	<.03	<.041	<.5	<.006	<.02	<.010	E.04	<.04	<.06	<.005	M	<.006	<.01

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Cotinine, water, fltrd, µg/L (62005)	Cycloate, water, fltrd, µg/L (04031)	Cyfluthrin, water, fltrd, µg/L (61585)	Cypermethrin water, fltrd, µg/L (61586)	Dacthal monoacid, water, fltrd 0.7µm GF µg/L (49304)	DCPA, water fltrd 0.7µm GF µg/L (82682)	DEET, water, fltrd, µg/L (62082)	Desulfinyl fipronil, water, fltrd, µg/L (62170)	Diazinon oxon, water, fltrd, µg/L (61638)	Diazinon, water, fltrd, µg/L (39572)	Dicamba water fltrd 0.7µm GF µg/L (38442)	Dichlorprop, water, fltrd 0.7µm GF µg/L (49302)	Dicrotophos, water fltrd, µg/L (38454)
JUL													
01...	<1.00	<0.01	<0.008	<0.009	<0.01	<0.003	E0.5	E0.006	<0.01	<0.005	<0.01	<0.01	<0.08
14...	<1.00	--	<.008	<.009	--	<.003	.5	<.012	<.01	<.005	--	--	<.08
27...	<1.00	<.01	<.008	<.009	<.01	<.003	1.2	<.012	<.01	<.005	<.01	<.01	<.08
SEP													
08...	E.28	<.01	<.008	<.009	<.01	<.003	.6	<.012	<.01	<.005	<.01	<.01	<.08

[(National Water-Quality Assessment Program White River Basin, Miami River Basin Study Unit]—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Dieldrin, water, fltrd, µg/L (39381)	Diethoxynonylphenol, water, fltrd, µg/L (62083)	Diethoxyoctylphenol, water, fltrd µg/L (61705)	Dimethenamid ESA, water, fltrd, µg/L (61951)	Dimethenamid OA, water, fltrd, µg/L (62482)	Dimethoate, water, fltrd 0.7µm GF µg/L (82662)	Dinoseb water, fltrd 0.7µm GF µg/L (49301)	Diphenamid, water, fltrd, µg/L (04033)	Diuron, water, fltrd 0.7µm GF µg/L (49300)	D-Limonene, water, fltrd, µg/L (62073)	Ethion monoxon water, fltrd, µg/L (61644)	Ethion, water, fltrd, µg/L (82346)	Ethoxyoctylphenol, water, fltrd µg/L (61706)
JUL													
01...	<0.009	<5	<1	--	--	<0.006	<0.01	<0.03	<0.01	<0.5	<0.002	<0.004	<1
14...	<.009	<5	<1	<0.02	<0.02	<.006	--	--	--	<.5	<.002	<.004	<1
27...	<.009	E2	<1	<.02	<.02	<.006	<.01	<.03	<.01	<.5	<.002	<.004	<1
SEP													
08...	<.009	<5	<1	<.02	<.02	<.006	<.01	<.03	<.01	<.5	<.002	<.004	<1

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Fenamiphos sulfone water, fltrd, µg/L (61645)	Fenamiphos sulfoxide, water, fltrd, µg/L (61646)	Fenamiphos, water, fltrd, µg/L (61591)	Fenuron water, fltrd 0.7µm GF µg/L (49297)	Desulfinylfipronil amide, wat flt µg/L (62169)	Fipronil sulfide water, fltrd, µg/L (62167)	Fipronil sulfone water, fltrd, µg/L (62168)	Fipronil, water, fltrd, µg/L (62166)	Flufenacet ESA, water, fltrd, µg/L (61952)	Flufenacet OA, water, fltrd, µg/L (62483)	Flumetsulam, water, fltrd, µg/L (61694)	Fluometuron water fltrd 0.7µm GF µg/L (38811)	Fluoranthene water, fltrd, µg/L (34377)
JUL													
01...	<0.049	<0.04	<0.03	<0.03	<0.029	<0.013	<0.024	<0.016	--	--	<0.01	<0.03	<0.5
14...	<.049	<.04	<.03	--	<.029	<.013	<.024	<.016	<0.02	<0.02	--	--	<.5
27...	<.049	<.04	<.03	<.03	<.029	<.013	<.024	<.016	<.02	<.02	E.01	<.03	<.5
SEP													
08...	<.049	<.04	<.03	<.03	<.029	<.013	<.024	<.016	<.02	<.02	E.03	<.03	M

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Fonofos oxon, water, fltrd, µg/L (61649)	Fonofos water, fltrd, µg/L (04095)	HHCB, water, fltrd, µg/L (62075)	Hexazinone, water, fltrd, µg/L (04025)	Imazaquin, water, fltrd, µg/L (50356)	Imazethapyr, water, fltrd, µg/L (50407)	Imidacloprid water, fltrd, µg/L (61695)	Indole, water, fltrd, µg/L (62076)	Iprodione, water, fltrd, µg/L (61593)	Isoborneol, water, fltrd, µg/L (62077)	Isofenphos, water, fltrd, µg/L (61594)	Isophorone water, fltrd, µg/L (34409)	Isopropylbenzene water, fltrd, µg/L (62078)
JUL													
01...	<0.003	<0.003	E0.1	<0.013	<0.02	<0.02	<0.007	<0.5	<0.387	<0.5	<0.003	<0.5	<0.5
14...	<.003	<.003	E.1	<.013	--	--	--	<.5	<.387	<.5	<.003	<.5	<.5
27...	<.003	<.003	<.5	<.013	<.02	<.02	E.020	<.5	<.387	<.5	<.003	<.5	<.5
SEP													
08...	<.003	<.003	M	<.013	<.02	<.02	<.007	<.5	<.387	<.5	<.003	M	<.5

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Isoquinoline, water, fltrd, µg/L (62079)	Linuron water fltrd 0.7µm GF µg/L (38478)	Malaoxon, water, fltrd, µg/L (61652)	Malathion, water, fltrd, µg/L (39532)	MCPA, water, fltrd 0.7µm GF µg/L (38482)	MCPB, water, fltrd 0.7µm GF µg/L (38487)	Menthol water, fltrd, µg/L (62080)	Metalaxyl, water, fltrd, µg/L (50359)	Metalaxyl, water, fltrd, µg/L (61596)	Methialthion water, fltrd, µg/L (61598)	Methiocarb, water, fltrd 0.7µm GF µg/L (38501)	Methomyl, water, fltrd 0.7µm GF µg/L (49296)	Methyl paraoxon, water, fltrd, µg/L (61664)
JUL													
01...	<0.5	<0.01	<0.030	<0.027	<0.02	<0.01	<0.5	<0.02	<0.041	<0.006	<0.008	<0.004	<0.03
14...	<.5	--	<.030	<.027	--	--	<.5	--	<.010	<.006	--	--	<.03
27...	<.5	<.01	<.030	<.027	<.02	<.01	<.5	E.01	<.005	<.006	<.008	<.004	<.03
SEP													
08...	<.5	<.01	<.030	<.027	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.03

[(National Water-Quality Assessment Program White River Basin, Miami River Basin Study Unit]—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Methyl para-thion, water, fltrd 0.7µm GF µg/L (82667)	Methyl salicy-late, water, fltrd, µg/L (62081)	Metola-chlor ESA, water, fltrd 0.7µm GF µg/L (61043)	Metola-chlor OA, water, fltrd 0.7µm GF µg/L (61044)	Metola-chlor, water, fltrd, µg/L (39415)	Metri-buzin, water, fltrd, µg/L (82630)	Metsul-furon, water, fltrd, µg/L (61697)	Myclo-butanil water, fltrd, µg/L (61599)	N-(4-Chloro-phenyl) -N-' methyl-urea, µg/L (61692)	Naphth-alene, water, fltrd, µg/L (34443)	Neburon water, fltrd 0.7µ GF µg/L (49294)	Nico-sul-furon, water, fltrd, µg/L (50364)	Norflur azon, water, fltrd 0.7µm GF µg/L (49293)
JUL													
01...	<0.015	<0.5	--	--	0.296	<0.006	<0.03	<0.008	<0.02	<0.5	<0.01	<0.01	<0.02
14...	<.015	<.5	0.057	0.40	.219	<.006	--	<.008	--	<.5	--	--	--
27...	<.015	<.5	.47	.22	.110	.018	<.03	<.008	<.02	<.5	<.01	<.01	<.02
SEP													
08...	<.015	M	.46	.29	.208	<.006	<.03	<.008	<.02	<.5	<.01	<.01	<.02

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ory-zalin, water, fltrd 0.7µm GF µg/L (49292)	Oxamyl, water, fltrd 0.7µm GF µg/L (38866)	p-Cresol, water, fltrd, µg/L (62084)	Penta-chloro-phenol, water, fltrd, µg/L (34459)	Phenan-threne, water, fltrd, µg/L (34462)	Phenol, water, fltrd, µg/L (34466)	Phorate oxon, water, fltrd, µg/L (61666)	Phorate water fltrd 0.7µm GF µg/L (82664)	Phosmet oxon, water, fltrd, µg/L (61668)	Phosmet water, fltrd, µg/L (61601)	Pic-loram, water, fltrd 0.7µm GF µg/L (49291)	Prome-ton, water, fltrd, µg/L (04037)	Prome-tryn, water, fltrd, µg/L (04036)
JUL													
01...	<0.02	<0.01	<1	<2	<0.5	E0.3	<0.10	<0.011	<0.05	<0.008	<0.02	0.01	<0.005
14...	--	--	<1	<2	<.5	E.2	<.10	<.011	<.05	<.008	--	.06	<.005
27...	<.02	<.01	<1	<2	<.5	.5	<.10	<.011	<.05	<.008	<.02	.19	<.005
SEP													
08...	<.02	<.01	<1	<2	<.5	E.1	<.10	<.011	<.05	<.008	<.02	.04	<.005

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Propy-zamide, water, fltrd 0.7µm GF µg/L (82676)	Propham water fltrd 0.7µm GF µg/L (49236)	Propi-cona-zole, water, fltrd, µg/L (50471)	Pro-poxur, water, fltrd 0.7µm GF µg/L (38538)	Pyrene, water, fltrd, µg/L (34470)	Siduron water, fltrd, µg/L (38548)	Sima-zine, water, fltrd, µg/L (04035)	Sulfo-met-ruron, water, fltrd, µg/L (50337)	Tebu-thiuron water fltrd 0.7µm GF µg/L (82670)	Terba-cil, water, fltrd, µg/L (04032)	Ter-bufos oxon sulfone water, fltrd, µg/L (61674)	Terbu-fos, water, fltrd 0.7µm GF µg/L (82675)	Ter-buthyl-azine, water, fltrd, µg/L (04022)
JUL													
01...	<0.004	<0.010	<0.02	<0.008	<0.5	<0.02	0.039	<0.009	<0.02	<0.010	<0.07	<0.02	0<.01
14...	<.004	--	--	--	<.5	--	.030	--	<.02	--	<.07	<.02	E.01
27...	<.004	<.010	<.02	<.008	<.5	<.02	.045	E.005	<.02	<.010	<.07	<.02	E.01
SEP													
08...	<.004	<.010	<.02	<.008	M	<.02	.032	<.009	<.02	<.010	<.07	<.02	<.01

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Tetra-chloro-ethene, water, fltrd, µg/L (34476)	Tri-bromo-methane water, fltrd, µg/L (34288)	Tri-butyl phos-phate, water, fltrd, µg/L (62089)	Tri-clopyr, water, fltrd 0.7µm GF µg/L (49235)	Triclo-san, water, fltrd, µg/L (62090)	Tri-ethyl citrate water, fltrd, µg/L (62091)	Tri-flur-alin, water, fltrd 0.7µm GF µg/L (82661)	Tri-phenyl phos-phate, water, fltrd, µg/L (62092)	Tris(2-butoxy-ethyl) phos-phate, wat flt µg/L (62093)	Tris(2-chloro-ethyl) phos-phate, wat flt µg/L (62087)	Tris(di chloro-i-Pr) phos-phate, wat flt µg/L (62088)	1,1,1,2 -Tetra-chloro-ethane, water, unfltrd µg/L (77562)	1,1,1-Tri-chloro-ethane, water, unfltrd µg/L (34506)
JUL													
01...	<0.5	<0.5	<0.5	<0.02	<1	<0.5	<0.009	E0.1	<0.5	E0.1	E0.1	<0.03	<0.03
14...	<.5	<.5	<.5	--	<1	<.5	<.009	<.5	<.5	E.1	E.1	--	--
27...	<.5	<.5	<.5	<.11	<1	<.5	<.009	<.5	<.5	E.1	E.1	<.03	<.03
SEP													
08...	M	<.5	E.1	<.06	<1	E.1	<.009	E.1	E.3	E.1	E.1	<.03	<.03

[(National Water-Quality Assessment Program White River Basin, Miami River Basin Study Unit]—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	1,1,2,2-Tetrachloroethane, water, unfltrd µg/L (34516)	CFC-113 water unfltrd µg/L (77652)	1,1,2-Trichloroethane, water, unfltrd µg/L (34511)	1,1-Dichloroethane, water unfltrd µg/L (34496)	1,1-Dichloroethene, water, unfltrd µg/L (34501)	1,1-Dichloropropene water unfltrd µg/L (77168)	1,2,3,4 Tetramethylbenzene water unfltrd µg/L (49999)	1,2,3,5 Tetramethylbenzene water unfltrd µg/L (50000)	1,2,3-Trichlorobenzene water unfltrd µg/L (77613)	1,2,3-Trichloropropane water unfltrd µg/L (77443)	1,2,3-Trimethylbenzene water unfltrd µg/L (77221)	1,2,4-Trichlorobenzene water unfltrd µg/L (34551)	1,2,4-Trimethylbenzene water unfltrd µg/L (77222)
JUL													
01...	<0.16	<0.04	<0.06	<0.04	<0.02	<0.03	<0.1	<0.1	<0.3	<0.18	<0.1	<0.1	<0.06
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
27...	<.16	<.04	<.06	<.04	<.02	<.03	<.1	<.1	<.3	<.18	<.1	<.1	<.06
SEP													
08...	<.16	<.04	<.06	<.04	<.02	<.03	<.1	<.1	<.3	<.18	<.1	<.1	<.06

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Dibromochloropropane water unfltrd µg/L (82625)	1,2-Dibromoethane, water, unfltrd µg/L (77651)	1,2-Dichlorobenzene water unfltrd µg/L (34536)	1,2-Dichloroethane, water, unfltrd µg/L (32103)	1,2-Dichloropropane water unfltrd µg/L (34541)	1,3,5-Trimethylbenzene water unfltrd µg/L (77226)	1,3-Dichlorobenzene water unfltrd µg/L (34566)	1,3-Dichloropropane water unfltrd µg/L (77173)	1,4-Dichlorobenzene water unfltrd µg/L (34571)	2,2-Dichloropropane water unfltrd µg/L (77170)	2-Chlorotoluene water unfltrd µg/L (77275)	2-Ethyltoluene water unfltrd µg/L (77220)	3-Chloropropene water unfltrd µg/L (78109)
JUL													
01...	<0.5	<0.04	<0.05	<0.1	<0.03	<0.04	<0.03	<0.1	<0.03	<0.05	<0.04	<0.06	<0.50
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
27...	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1	<.03	<.05	<.04	<.06	<.50
SEP													
08...	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1	<.03	<.05	<.04	<.06	<.50

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	4-Chlorotoluene water unfltrd µg/L (77277)	4-Isopropyltoluene water unfltrd µg/L (77356)	Acetone water unfltrd µg/L (81552)	Acrylonitrile water unfltrd µg/L (34215)	Benzene water unfltrd µg/L (34030)	Bromobenzene water unfltrd µg/L (81555)	Bromochloromethane water unfltrd µg/L (77297)	Bromodichloromethane water unfltrd µg/L (32101)	Bromoethene, water, unfltrd µg/L (50002)	Bromomethane water unfltrd µg/L (34413)	Carbon disulfide water unfltrd µg/L (77041)	Chlorobenzene water unfltrd µg/L (34301)	Chloroethane, water, unfltrd µg/L (34311)
JUL													
01...	<0.05	<0.08	<6	<1	<0.02	<0.03	<0.12	E0.08	<0.1	<0.3	<0.04	<0.03	<0.1
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
27...	<.05	<.08	<6	<1	<.02	<.03	<.12	<.03	<.1	<.3	<.04	<.03	<.1
SEP													
08...	<.05	<.08	<6	<1	<.02	<.03	<.12	E.06	<.1	<.3	<.04	<.03	<.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Chloromethane water unfltrd µg/L (34418)	cis-1,2-Dichloroethene, water, unfltrd µg/L (77093)	Dibromochloromethane water unfltrd µg/L (32105)	Dibromomethane water unfltrd µg/L (30217)	Dichlorodifluoromethane wat unf µg/L (34668)	Dichloromethane water unfltrd µg/L (34423)	Diethyl ether, water, unfltrd µg/L (81576)	Diisopropyl ether, water, unfltrd µg/L (81577)	Ethyl methacrylate, water, unfltrd µg/L (73570)	Ethyl methyl ketone, water, unfltrd µg/L (81595)	Ethylbenzene water unfltrd µg/L (34371)	Hexachlorobutadiene, water, unfltrd µg/L (39702)	Hexachloroethane, water, unfltrd µg/L (34396)
JUL													
01...	<0.2	0.10	<0.1	<0.05	<0.18	<0.1	<0.1	<0.10	<0.2	<4.0	<0.03	<0.1	<0.1
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
27...	<.2	.14	<.1	<.05	<.18	<.1	<.1	<.10	<.2	<4.0	<.03	<.1	<.1
SEP													
08...	<.2	.12	<.1	<.05	<.18	<.1	<.1	<.10	<.2	<4.0	<.03	<.1	<.1

[(National Water-Quality Assessment Program White River Basin, Miami River Basin Study Unit]—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Iodomethane water unfltrd µg/L (77424)	Isobutyl methyl ketone, water, unfltrd µg/L (78133)	Isopropylbenzene water unfltrd µg/L (77223)	Methyl acrylonitrile water unfltrd µg/L (81593)	Methyl acrylate, water, unfltrd µg/L (49991)	Methyl methacrylate, water, unfltrd µg/L (81597)	Methyl tert-pentyl ether, water, unfltrd µg/L (50005)	meta- + para-Xylene, water, unfltrd µg/L (85795)	Naphthalene, water, unfltrd µg/L (34696)	Methyl n-butyl ketone, water, unfltrd µg/L (77103)	n-Butyl benzene water unfltrd µg/L (77342)	n-propylbenzene water unfltrd µg/L (77224)	o-Xylene, water, unfltrd µg/L (77135)
JUL													
01...	<0.35	<0.4	<0.04	<0.8	<2.0	<0.3	<0.08	<0.06	<0.5	<0.7	<0.1	<0.04	<0.04
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
27...	<.35	<.4	<.04	<.8	<2.0	<.3	<.08	<.06	<.5	<.7	<.1	<.04	<.04
SEP													
08...	<.35	<.4	<.04	<.8	<2.0	<.3	<.08	<.06	<.5	<.7	<.1	<.04	<.04

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	sec-Butylbenzene water unfltrd µg/L (77350)	Styrene water unfltrd µg/L (77128)	t-Butyl ethyl ether, water, unfltrd µg/L (50004)	Methyl t-butyl ether, water, unfltrd µg/L (78032)	tert-Butylbenzene water unfltrd µg/L (77353)	Tetrachloroethene, water, unfltrd µg/L (34475)	Tetrachloromethane water unfltrd µg/L (32102)	Tetrahydrofuran, water, unfltrd µg/L (81607)	Toluene water unfltrd µg/L (34010)	trans-1,2-Dichloroethene, water, unfltrd µg/L (34546)	trans-1,3-Dichloropropene water unfltrd µg/L (34699)	trans-1,4-Dichloro-2-butene, wat unf µg/L (73547)	Tribromomethane water unfltrd µg/L (32104)
JUL													
01...	<0.06	<0.04	<0.05	<0.2	<0.06	<0.06	<0.06	<2	E0.02	<0.03	<0.09	<0.7	<0.10
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
27...	<.06	<.04	<.05	<.2	<.06	<.06	<.06	<2	E.01	<.03	<.09	<.7	<.10
SEP													
08...	<.06	<.04	<.05	<.2	<.06	<.06	<.06	<2	<.05	<.03	<.09	<.7	<.10

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Trichloroethene, water, unfltrd µg/L (39180)	Trichlorofluoromethane water unfltrd µg/L (34488)	Trichloromethane water unfltrd µg/L (32106)	Vinyl chloride, water, unfltrd µg/L (39175)	Dichlorvos, water fltrd, µg/L (38775)
JUL					
01...	<0.04	<0.16	0.22	<0.1	<0.01
14...	--	--	--	--	<.01
27...	<.04	<.16	E.06	<.1	<.01
SEP					
08...	<.04	<.16	.17	<.1	<.01

[(National Water-Quality Assessment Program White River Basin, Miami River Basin Study Unit]

WATER-QUALITY RECORDS

The data described in the following table were collected and analyzed as part of the National Water Quality Assessment Program (NAWQA) in the White River Basin, Miami River Basin (WHMI) study units. 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 42 river basin and aquifer assessment projects being implemented across the nation on a staggered timeline. During the second decade of sampling, 14 of these projects will be actively collecting data. The period of high-intensity data collection for the WHMI project is in water years 2001-2004.

Water quality data from White River, W Bank, 1 RMI US 116th St at Fishers, IN, B are being reported as part of the Source Water- Quality Assessment (SWQA). The SWQA is a two year study beginning in October 2002. The first year's research will discover the presence and quantity of specific constituents in the water. The follow up year will focus on source water versus treated water comparisons to characterize which, if any, of the most frequently detected compounds in source water are not sufficiently removed by treatment processes and to help identify those treatment processes and (or) systems that are effective at removing select contaminants. Instantaneous discharge is taken from station 03351000 White River near Nora.

(- - -, no data; <, concentration or value reported is less than that indicated; E, estimated value;
K, value is estimated from a non-ideal colony count; M, presence verified, not quantified)

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 deg C (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	1,4-Dichlorobenzene water, fltrd, µg/L (34572)	1-Methylnaphthalene, water, fltrd, µg/L (62054)	1-Naphthol, water, fltrd 0.7µm GF µg/L (49295)	2,4-D methyl ester, water, fltrd, µg/L (50470)	2,4-D water, fltrd, µg/L (39732)	2,4-DB water, fltrd 0.7µm GF µg/L (38746)
JUL													
01...	1620	739	--	7.6	760	25.0	24.0	<0.5	<0.5	<0.09	<0.009	0.03	<0.02
14...	1830	724	--	7.5	758	26.0	26.5	<.5	<.5	<.09	<.009	.06	<.02
27...	1830	731	8.8	7.6	744	23.5	23.5	<.5	<.5	<.09	E.063	<.12	<.02
SEP													
08...	2000	734	7.4	7.9	768	21.0	23.1	<.5	<.5	<.09	<.009	.05	<.02

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	2,6-Diethylaniline water fltrd 0.7µm GF µg/L (82660)	2,6-Dimethylnaphthalene, water, fltrd, µg/L (62055)	2Chloro-2,6'-'diethyl acetanilide wat flt µg/L (61618)	CIAT, water, fltrd, µg/L (04040)	CEAT, water, fltrd, µg/L (04038)	2-Ethyl-6-methylaniline water, fltrd, µg/L (61620)	OIET, water, fltrd, µg/L (50355)	2-Methylnaphthalene, water, fltrd, µg/L (62056)	3,4-Dichloroaniline water fltrd, µg/L (61625)	3-beta-Coprostanol, water, fltrd, µg/L (62057)	3-Hydroxycarbofuran, wat flt 0.7µm GF µg/L (49308)	3-Ketocarbofuran, water, fltrd, µg/L (50295)	3-Methyl-1H-indole, water, fltrd, µg/L (62058)
JUL													
01...	<0.006	<0.5	<0.005	E0.093	E0.08	<0.004	E0.146	<0.5	<0.004	M	<0.006	<0.014	<1
14...	<.006	<.5	<.005	E.045	E.02	<.004	E.304	<.5	<.004	<2	<.006	<.014	<1
27...	<.006	<.5	<.005	E.032	<.01	<.004	E.250	<.5	<.004	<2	<.006	<.014	<1
SEP													
08...	<.006	<.5	<.005	E.091	E.04	<.004	E.172	<.5	<.004	<2	<.006	<.014	<1

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	3-tert-Butyl-4-hydroxyanisole wat flt µg/L (62059)	4Chloro 2methyl phenol, water, fltrd, µg/L (61633)	4-Cumylphenol, water, fltrd, µg/L (62060)	4-Octylphenol, water, fltrd, µg/L (62061)	4-Nonylphenol, water, fltrd, µg/L (62085)	4-tert-Octylphenol, water, fltrd, µg/L (62062)	5-Methyl-1H-benzotriazole, wat flt µg/L (62063)	9,10-Anthraquinone water, fltrd, µg/L (62066)	Acetochlor ESA, water, fltrd 0.7µm GF µg/L (61029)	Acetochlor OA, water, fltrd 0.7µm GF µg/L (61030)	Acetochlor, water, fltrd, µg/L (49260)	Acetophenone water, fltrd, µg/L (62064)	AHTN, water, fltrd, µg/L (62065)
JUL													
01...	<5	<0.006	<1	<1	<5	<1	<2	<0.5	--	--	0.054	<0.5	<0.5
14...	<5	<.006	<1	<1	E2	<1	<2	<.5	0.17	0.21	.026	<.5	E.1
27...	<5	<.006	<1	<1	E2	<1	<2	<.5	.14	.14	.018	<.5	E.1
SEP													
08...	<5	<.006	<1	<1	<5	<1	<2	<.5	.31	.32	.020	<.5	<.5

[(National Water-Quality Assessment Program White River Basin, Miami River Basin Study Unit]—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Acifluorfen, water, fltrd 0.7µm GF µg/L (49315)	Alachlor ESA, water, fltrd 0.7µm GF µg/L (50009)	Alachlor OA, water, fltrd 0.7µm GF µg/L (61031)	Alachlor, water, fltrd, µg/L (46342)	Aldicarb sulfone water, fltrd 0.7µm GF µg/L (49313)	Aldicarb sulfoxide, wat flt 0.7µm GF µg/L (49314)	Aldicarb, water, fltrd 0.7µm GF µg/L (49312)	Anthracene, water, fltrd, µg/L (34221)	Atrazine, water, fltrd, µg/L (39632)	Azinphosmethyl oxon, water, fltrd, µg/L (61635)	Azinphosmethyl, water, fltrd 0.7µm GF µg/L (82686)	Bendiocarb, water, fltrd, µg/L (50299)	Benfluralin, water, fltrd 0.7µm GF µg/L (82673)
JUL													
01...	<0.007	--	--	0.014	<0.02	<0.008	<0.04	<0.5	0.538	<0.07	<0.050	<0.03	<0.010
14...	<.007	0.06	0.06	.009	<.02	<.008	<.04	<.5	.403	<.07	<.050	<.03	<.010
27...	<.007	.05	.05	<.005	<.02	<.008	<.04	<.5	.252	<.07	<.050	<.03	<.010
SEP													
08...	<.007	.03	.08	<.005	<.02	<.008	<.04	<.5	.352	<.07	<.050	<.03	<.010

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Benomyl water, fltrd, µg/L (50300)	Bensulfuron, water, fltrd, µg/L (61693)	Bentazon, water, fltrd 0.7µm GF µg/L (38711)	Benzo[a]pyrene, water, fltrd, µg/L (34248)	Benzophenone water, fltrd, µg/L (62067)	beta-Sitosterol, water, fltrd, µg/L (62068)	beta-Stigmastanol, water, fltrd, µg/L (62086)	Bisphenol A, water, fltrd, µg/L (62069)	Bromacil, water, fltrd, µg/L (04029)	Bromoxynil, water, fltrd 0.7µm GF µg/L (49311)	Caffeine, water, fltrd, µg/L (50305)	Camphor water, fltrd, µg/L (62070)	Carbaryl, water, fltrd 0.7µm GF µg/L (49310)
JUL													
01...	<0.004	<0.02	E0.01	<0.5	<0.5	M	M	<1	<0.03	<0.02	<0.500	<0.5	E0.01
14...	.008	<.02	E.02	<.5	<.5	<2	<2	<1	<.03	<.02	.126	<.5	<.03
27...	E.004	<.02	<.01	<.5	<.5	<20	<20	<1	<.03	<.02	E.062	<.5	<.03
SEP													
08...	E.008	<.02	E.01	<.5	<.5	<2	<2	<1	<.03	<.02	E.022	<.5	<.03

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Carbaryl, water, fltrd 0.7µ GF µg/L (82680)	Carbazole, water, fltrd, µg/L (62071)	Carbofuran, water, fltrd 0.7µm GF µg/L (49309)	Chloramben methyl ester, water, fltrd, µg/L (61188)	Chlorimuron, water, fltrd, µg/L (50306)	Chlorodiamino-s-triazine, wat flt µg/L (04039)	Chlorothalonil, water, fltrd 0.7µm GF µg/L (49306)	Chlorpyrifos oxon, water, fltrd, µg/L (61636)	Chlorpyrifos water, fltrd, µg/L (38933)	Cholesterol, water, fltrd, µg/L (62072)	cis-Permethrin water fltrd 0.7µm GF µg/L (82687)	Clopyralid, water, fltrd 0.7µm GF µg/L (49305)	Cotinine, water, fltrd, µg/L (62005)
JUL													
01...	E0.016	<0.5	<0.006	<0.02	<0.010	<0.04	<0.04	<0.06	<0.005	E1	<0.006	<0.01	<1.00
14...	<.041	<.5	<.006	<.02	<.010	E.07	<.04	<.06	<.005	<2	<.006	<.01	<1.00
27...	<.041	<.5	<.006	<.02	<.010	E.07	<.04	<.06	<.005	<20	<.006	<.01	<1.00
SEP													
08...	<.041	<.5	<.006	<.02	<.010	E.02	E.71	<.06	<.005	<2	<.006	<.07	<1.00

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Cycloate, water, fltrd, µg/L (04031)	Cyfluthrin, water, fltrd, µg/L (61585)	Cypermethrin water, fltrd, µg/L (61586)	Dacthal mono-acid, water, fltrd 0.7µm GF µg/L (49304)	DCPA, water fltrd 0.7µm GF µg/L (82682)	DEET, water, fltrd, µg/L (62082)	Desulfinyl fipronil, water, fltrd, µg/L (62170)	Diazinon oxon, water, fltrd, µg/L (61638)	Diazinon, water, fltrd, µg/L (39572)	Dicamba water fltrd 0.7µm GF µg/L (38442)	Dichlorprop, water, fltrd 0.7µm GF µg/L (49302)	Dicrotophos, water fltrd, µg/L (38454)	Dieldrin, water, fltrd, µg/L (39381)
JUL													
01...	<0.01	<0.008	<0.009	<0.01	<0.003	E0.2	<0.012	<0.01	<0.005	<0.01	<0.01	<0.08	<0.009
14...	<.01	<.008	<.009	<.01	<.003	E.5	<.012	<.01	<.005	<.01	<.01	<.08	<.009
27...	<.01	<.008	<.009	<.01	<.003	E.3	<.012	<.01	<.005	<.01	<.01	<.08	<.009
SEP													
08...	<.01	<.008	<.009	<.01	<.003	E.1	<.012	<.01	<.005	<.01	<.01	<.08	<.009

[(National Water-Quality Assessment Program White River Basin, Miami River Basin Study Unit]—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Di-ethoxy-nonyl-phenol, water, fltrd, µg/L (62083)	Di-ethoxy-octyl-phenol, water, fltrd µg/L (61705)	Dimeth-enamid ESA, water, fltrd, µg/L (61951)	Dimeth-enamid OA, water, fltrd, µg/L (62482)	Dimeth-oate, water, fltrd 0.7µm GF µg/L (82662)	Dinoseb water, fltrd 0.7µm GF µg/L (49301)	Diphen-amid, water, fltrd, µg/L (04033)	Diuron, water, fltrd 0.7µm GF µg/L (49300)	D-Limo-nene, water, fltrd, µg/L (62073)	Ethion monoxon water, fltrd, µg/L (61644)	Ethion, water, fltrd, µg/L (82346)	Ethoxy-octyl-phenol, water, fltrd µg/L (61706)	Fenami-phos sulfone water, fltrd, µg/L (61645)
JUL													
01...	E2	<1	--	--	<0.006	<0.01	<0.03	<0.01	<0.5	<0.002	<0.004	M	<0.049
14...	<5	<1	<0.02	<0.02	<.006	<.01	<.03	<.01	<.5	<.002	<.004	<1	<.049
27...	<5	<1	<.02	<.02	<.006	<.01	<.03	<.01	<.5	<.002	<.004	<1	<.049
SEP													
08...	<5	<1	<.02	<.02	<.006	<.01	<.03	<.01	<.5	<.002	<.004	<1	<.049

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Fenami-phos sulf-oxide, water, fltrd, µg/L (61646)	Fenami-phos, water, fltrd, µg/L (61591)	Fenuron water, fltrd 0.7µm GF µg/L (49297)	Desulf-inyl-fipro-nil amide, wat flt µg/L (62169)	Fipro-nil sulfide water, fltrd, µg/L (62167)	Fipro-nil sulfone water, fltrd, µg/L (62168)	Fipro-nil, water, fltrd, µg/L (62166)	Flufen-acet ESA, water, fltrd, µg/L (61952)	Flufe-nacet OA, water, fltrd, µg/L (62483)	Flumet-sulam, water, fltrd, µg/L (61694)	Fluo-meturon water fltrd 0.7µm GF µg/L (38811)	Fluor-anthene water, fltrd, µg/L (34377)	Fonofos oxon, water, fltrd, µg/L (61649)
JUL													
01...	<0.04	<0.03	<0.03	<0.029	<0.013	<0.024	<0.016	--	--	<0.01	<0.03	<0.5	<0.003
14...	<.04	<.03	<.03	<.029	<.013	<.024	<.016	<0.02	<0.02	--	<.03	<.5	<.003
27...	<.04	<.03	<.03	<.029	<.013	<.024	<.016	<.02	<.02	<.01	<.03	<.5	<.003
SEP													
08...	<.04	<.03	<.03	<.029	<.013	<.024	<.016	<.02	<.02	<.01	<.03	<.5	<.003

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Fonofos water, fltrd, µg/L (04095)	HHCB, water, fltrd, µg/L (62075)	Hexa-zinone, water, fltrd, µg/L (04025)	Imaza-quin, water, fltrd, µg/L (50356)	Imaze-thapyr, water, fltrd, µg/L (50407)	Imida-cloprid water, fltrd, µg/L (61695)	Indole, water, fltrd, µg/L (62076)	Ipro-dione, water, fltrd, µg/L (61593)	Isobor-neol, water, fltrd, µg/L (62077)	Isofen-phos, water, fltrd, µg/L (61594)	Iso-phorone water, fltrd, µg/L (34409)	Iso-propyl-benzene water, fltrd, µg/L (62078)	Iso-quin-oline, water, fltrd, µg/L (62079)
JUL													
01...	<0.003	<0.5	<0.013	<0.02	<0.02	<0.007	<0.5	<0.387	<0.5	<0.003	<0.5	<0.5	<0.5
14...	<.003	E.1	<.013	<.02	<.02	<.007	<.5	<.387	<.5	<.003	<.5	<.5	<.5
27...	<.003	<.5	<.013	<.02	<.02	<.007	<.5	<.387	<.5	<.003	<.5	<.5	<.5
SEP													
08...	<.003	<.5	<.013	<.02	<.02	<.007	<.5	<.387	<.5	<.003	<.5	<.5	<.5

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Linuron water fltrd 0.7µm GF µg/L (38478)	Mala-oxon, water, fltrd, µg/L (61652)	Mala-thion, water, fltrd, µg/L (39532)	MCPA, water, fltrd 0.7µm GF µg/L (38482)	MCPB, water, fltrd 0.7µm GF µg/L (38487)	Menthol water, fltrd, µg/L (62080)	Meta-laxyl, water, fltrd, µg/L (50359)	Meta-laxyl, water, fltrd, µg/L (61596)	Methi-althion water, fltrd, µg/L (61598)	Methio-carb, water, fltrd 0.7µm GF µg/L (38501)	Meth-omyl, water, fltrd 0.7µm GF µg/L (49296)	Methyl para-oxon, water, fltrd, µg/L (61664)	Methyl para-thion, water, fltrd 0.7µm GF µg/L (82667)
JUL													
01...	<0.01	<0.030	<0.027	<0.02	<0.01	<0.5	<0.02	<0.039	<0.006	<0.008	<0.004	<0.03	<0.015
14...	<.01	<.030	<.027	<.02	<.01	<.5	.02	<.040	<.006	<.008	<.004	<.03	<.015
27...	<.01	<.030	<.027	<.02	<.01	<.5	E.01	<.005	<.006	<.008	<.004	<.03	<.015
SEP													
08...	<.01	<.030	<.027	<.02	<.01	<.5	E.01	<.005	<.006	<.008	<.004	<.03	<.015

[(National Water-Quality Assessment Program White River Basin, Miami River Basin Study Unit]—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Methyl salicylate, water, fltrd, µg/L (62081)	Metolachlor ESA, water, fltrd 0.7µm GF µg/L (61043)	Metolachlor OA, water, fltrd 0.7µm GF µg/L (61044)	Metolachlor, water, fltrd, µg/L (39415)	Metribuzin, water, fltrd, µg/L (82630)	Metsulfuron, water, fltrd, µg/L (61697)	Myclobutanil water, fltrd, µg/L (61599)	N-(4-Chlorophenyl) -N-' methylurea, µg/L (61692)	Naphthalene, water, fltrd, µg/L (34443)	Neburon water, fltrd 0.7µm GF µg/L (49294)	Nicosulfuron, water, fltrd, µg/L (50364)	Norflurazon, water, fltrd 0.7µm GF µg/L (49293)	Oryzalin, water, fltrd 0.7µm GF µg/L (49292)
JUL													
01...	<0.5	--	--	0.302	<0.006	<0.03	<0.008	<0.02	<0.5	<0.01	<0.01	<0.02	<0.02
14...	<.5	0.49	0.34	.207	<.006	<.03	<.008	<.02	<.5	<.01	<.01	<.02	<.02
27...	<.5	.40	.20	.113	<.006	<.03	<.008	<.02	<.5	<.01	<.01	<.02	<.02
SEP													
08...	<.5	.52	.34	.184	<.006	<.05	<.008	<.02	<.5	<.01	<.01	<.02	<.02

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Oxamyl, water, fltrd 0.7µm GF µg/L (38866)	p-Cresol, water, fltrd, µg/L (62084)	Pentachlorophenol, water, fltrd, µg/L (34459)	Phenanthrene, water, fltrd, µg/L (34462)	Phenol, water, fltrd, µg/L (34466)	Phorate oxon, water, fltrd, µg/L (61666)	Phorate water fltrd 0.7µm GF µg/L (82664)	Phosmet oxon, water, fltrd, µg/L (61668)	Phosmet water, fltrd, µg/L (61601)	Picloram, water, fltrd 0.7µm GF µg/L (49291)	Prometon, water, fltrd, µg/L (04037)	Prometryn, water, fltrd, µg/L (04036)	Propyzamide, water, fltrd 0.7µm GF µg/L (82676)
JUL													
01...	<0.01	<1	<2	<0.5	<0.5	<0.10	<0.011	<0.05	<0.008	<0.02	0.01	<0.005	<0.004
14...	<.01	<1	<2	<.5	<.5	<.10	<.011	<.05	<.008	<.02	.06	<.005	<.004
27...	<.01	<1	<2	<.5	<.5	<.10	<.011	<.05	<.008	<.02	.20	<.005	<.004
SEP													
08...	<.01	<1	<2	<.5	<.5	<.10	<.011	<.05	<.008	<.02	<.01	<.005	<.004

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Propham water fltrd 0.7µm GF µg/L (49236)	Propiconazole, water, fltrd, µg/L (50471)	Propoxur, water, fltrd 0.7µm GF µg/L (38538)	Pyrene, water, fltrd, µg/L (34470)	Siduron water, fltrd, µg/L (38548)	Simazine, water, fltrd, µg/L (04035)	Sulfometruron, water, fltrd, µg/L (50337)	Tebuthiuron water fltrd 0.7µm GF µg/L (82670)	Terbacil, water, fltrd, µg/L (04032)	Terbufos oxon sulfone water, fltrd, µg/L (61674)	Terbufos, water, fltrd 0.7µm GF µg/L (82675)	Terbuthylazine, water, fltrd, µg/L (04022)	Tetrachloroethene, water, fltrd, µg/L (34476)
JUL													
01...	<0.010	<0.02	<0.008	<0.5	<0.02	0.044	<0.009	<0.02	<0.010	<0.07	<0.02	<0.01	<0.5
14...	<.010	<.02	<.008	<.5	<.02	.029	<.009	<.02	<.010	<.07	<.02	E.01	<.5
27...	<.010	<.02	<.008	<.5	<.02	.049	<.009	<.02	<.010	<.07	<.02	<.01	<.5
SEP													
08...	<.010	<.02	<.008	<.5	<.02	.027	<.009	<.02	<.010	<.07	<.02	<.01	<.5

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Tribromomethane water, fltrd, µg/L (34288)	Tributyl phosphate, water, fltrd, µg/L (62089)	Triclopyr, water, fltrd 0.7µm GF µg/L (49235)	Triclosan, water, fltrd, µg/L (62090)	Triethyl citrate water, fltrd, µg/L (62091)	Trifluralin, water, fltrd 0.7µm GF µg/L (82661)	Triphenyl phosphate, water, fltrd, µg/L (62092)	Tris(2-butoxyethyl) phosphate, wat flt µg/L (62093)	Tris(2-chloroethyl) phosphate, wat flt µg/L (62087)	Tris(dichloro-i-Pr) phosphate, wat flt µg/L (62088)	1,1,1,2-Tetrachloroethane, water, unfltrd µg/L (77562)	1,1,1-Trichloroethane, water, unfltrd µg/L (34506)	1,1,2,2-Tetrachloroethane, water, unfltrd µg/L (34516)
JUL													
01...	E0.1	<0.5	<0.02	<1	<0.5	<0.009	<0.5	<0.5	<0.5	<0.5	<0.03	<0.03	<0.16
14...	E.1	<.5	.17	<1	<.5	<.009	<.5	<.5	E.1	E.1	--	--	--
27...	E.1	<.5	<.11	<1	<.5	<.009	<.5	<.5	E.1	<.5	<.03	<.03	<.16
SEP													
08...	<.5	<.5	<.07	<1	<.5	<.009	<.5	<.5	<.5	<.5	<.03	<.03	<.16

[(National Water-Quality Assessment Program White River Basin, Miami River Basin Study Unit]—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	CFC-113 water unfltrd µg/L (77652)	1,1,2-Trichloroethane, water, unfltrd µg/L (34511)	1,1-Dichloroethane, water unfltrd µg/L (34496)	1,1-Dichloroethene, water, unfltrd µg/L (34501)	1,1-Dichloropropene water unfltrd µg/L (77168)	1,2,3,4 Tetramethylbenzene water unfltrd µg/L (49999)	1,2,3,5 Tetramethylbenzene water unfltrd µg/L (50000)	1,2,3-Trichlorobenzene water unfltrd µg/L (77613)	1,2,3-Trichloropropane water unfltrd µg/L (77443)	1,2,3-Trimethylbenzene water unfltrd µg/L (77221)	1,2,4-Trichlorobenzene water unfltrd µg/L (34551)	1,2,4-Trimethylbenzene water unfltrd µg/L (77222)	Dibromochloropropane water unfltrd µg/L (82625)
JUL													
01...	<0.04	<0.06	<0.04	<0.02	<0.03	<0.1	<0.1	<0.3	<0.18	<0.1	<0.1	<0.06	<0.5
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
27...	<.04	<.06	<.04	<.02	<.03	<.1	<.1	<.3	<.18	<.1	<.1	<.06	<.5
SEP													
08...	<.04	<.06	<.04	<.02	<.03	<.1	<.1	<.3	<.18	<.1	<.1	<.06	<.5

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	1,2-Dibromoethane, water, unfltrd µg/L (77651)	1,2-Dichlorobenzene water unfltrd µg/L (34536)	1,2-Dichloroethane, water, unfltrd µg/L (32103)	1,2-Dichloropropane water unfltrd µg/L (34541)	1,3,5-Trimethylbenzene water unfltrd µg/L (77226)	1,3-Dichlorobenzene water unfltrd µg/L (34566)	1,3-Dichloropropane water unfltrd µg/L (77173)	1,4-Dichlorobenzene water unfltrd µg/L (34571)	2,2-Dichloropropane water unfltrd µg/L (77170)	2-Chlorotoluene water unfltrd µg/L (77275)	2-Ethyltoluene water unfltrd µg/L (77220)	3-Chloropropene water unfltrd µg/L (78109)	4-Chlorotoluene water unfltrd µg/L (77277)
JUL													
01...	<0.04	<0.05	<0.1	<0.03	<0.04	<0.03	<0.1	<0.03	<0.05	<0.04	<0.06	<0.50	<0.05
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
27...	<.04	<.05	<.1	<.03	<.04	<.03	<.1	<.03	<.05	<.04	<.06	<.50	<.05
SEP													
08...	<.04	<.05	<.1	<.03	<.04	<.03	<.1	<.03	<.05	<.04	<.06	<.50	<.05

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	4-Isopropyltoluene water unfltrd µg/L (77356)	Acetone water unfltrd µg/L (81552)	Acrylonitrile water unfltrd µg/L (34215)	Benzene water unfltrd µg/L (34030)	Bromobenzene water unfltrd µg/L (81555)	Bromochloromethane water unfltrd µg/L (77297)	Bromodichloromethane water unfltrd µg/L (32101)	Bromoethene, water, unfltrd µg/L (50002)	Bromomethane water unfltrd µg/L (34413)	Carbon disulfide water unfltrd µg/L (77041)	Chlorobenzene water unfltrd µg/L (34301)	Chloroethane, water, unfltrd µg/L (34311)	Chloromethane water unfltrd µg/L (34418)
JUL													
01...	<0.08	<6	<1	<0.02	<0.03	<0.12	14.1	<0.1	<0.3	<0.04	<0.03	<0.1	<0.2
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
27...	<.08	<6	<1	<.02	<.03	<.12	13.7	<.1	<.3	<.04	<.03	<.1	<.2
SEP													
08...	<.08	<6	<1	<.02	<.03	<.12	17.8	<.1	<.3	<.04	<.03	<.1	<.2

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	cis-1,2-Dichloroethene, water, unfltrd µg/L (77093)	Dibromochloromethane water unfltrd µg/L (32105)	Dibromomethane water unfltrd µg/L (30217)	Dichlorodifluoromethane wat unf µg/L (34668)	Dichloromethane water unfltrd µg/L (34423)	Diethyl ether, water, unfltrd µg/L (81576)	Diisopropyl ether, water, unfltrd µg/L (81577)	Ethyl methacrylate, water, unfltrd µg/L (73570)	Ethyl methyl ketone, water, unfltrd µg/L (81595)	Ethylbenzene water unfltrd µg/L (34371)	Hexachlorobutadiene, water, unfltrd µg/L (39702)	Hexachloroethane, water, unfltrd µg/L (34396)	Iodomethane water unfltrd µg/L (77424)
JUL													
01...	E0.07	2.4	<0.05	<0.18	<0.1	<0.1	<0.10	<0.2	<4.0	<0.03	<0.1	<0.1	<0.35
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
27...	E.10	2.3	<.05	<.18	<.1	<.1	<.10	<.2	<4.0	<.03	<.1	<.1	<.35
SEP													
08...	E.07	2.8	<.05	<.18	<.1	<.1	<.10	<.2	<4.0	<.03	<.1	<.1	<.35

[(National Water-Quality Assessment Program White River Basin, Miami River Basin Study Unit]—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Isobutyl methyl ketone, water, unfltrd µg/L (78133)	Isopropylbenzene water unfltrd µg/L (77223)	Methyl acrylonitrile water unfltrd µg/L (81593)	Methyl acrylate, water, unfltrd µg/L (49991)	Methyl methacrylate, water, unfltrd µg/L (81597)	Methyl tert-pentyl ether, water, unfltrd µg/L (50005)	meta- + para-Xylene, water, unfltrd µg/L (85795)	Naphthalene, water, unfltrd µg/L (34696)	Methyl n-butyl ketone, water, unfltrd µg/L (77103)	n-Butylbenzene water unfltrd µg/L (77342)	n-propylbenzene water unfltrd µg/L (77224)	o-Xylene, water, unfltrd µg/L (77135)	sec-Butylbenzene water unfltrd µg/L (77350)
JUL													
01...	<0.4	<0.04	<0.8	<2.0	<0.3	<0.08	<0.06	<0.5	<0.7	<0.1	<0.04	<0.04	<0.06
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
27...	<.4	<.04	<.8	<2.0	<.3	<.08	E.02	<.5	<.7	<.1	<.04	<.04	<.06
SEP													
08...	<.4	<.04	<.8	<2.0	<.3	<.08	E.02	<.5	<.7	<.1	<.04	<.04	<.06

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Styrene water unfltrd µg/L (77128)	t-Butyl ethyl ether, water, unfltrd µg/L (50004)	Methyl t-butyl ether, water, unfltrd µg/L (78032)	tert-Butylbenzene water unfltrd µg/L (77353)	Tetrachloroethene, water, unfltrd µg/L (34475)	Tetrachloromethane water unfltrd µg/L (32102)	Tetrahydrofuran, water, unfltrd µg/L (81607)	Toluene water unfltrd µg/L (34010)	trans-1,2-Dichloroethene, water, unfltrd µg/L (34546)	trans-1,3-Dichloropropene water unfltrd µg/L (34699)	trans-1,4-Dichloro-2-butene, wat unf µg/L (73547)	Tribromomethane water unfltrd µg/L (32104)	Trichloroethene, water, unfltrd µg/L (39180)
JUL													
01...	<0.04	<0.05	<0.2	<0.06	<0.06	E0.05	<2	E0.03	<0.03	<0.09	<0.7	E0.08	<0.04
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
27...	<.04	<.05	<.2	<.06	<.06	<.06	<2	E.02	<.03	<.09	<.7	<.10	<.04
SEP													
08...	E.01	<.05	<.2	<.06	E.01	E.06	<2	E.01	<.03	<.09	<.7	<.10	<.04

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Trichlorofluoromethane water unfltrd µg/L (34488)	Trichloromethane water unfltrd µg/L (32106)	Vinyl chloride, water, unfltrd µg/L (39175)	Dichlorvos, water fltrd, µg/L (38775)
JUL				
01...	<0.16	38.7	<0.1	<0.01
14...	--	--	--	<.01
27...	<.16	35.0	<.1	<.01
SEP				
08...	<.16	65.6	<.1	<.01

03349510 CICERO CREEK AT ARCADIA, IN

LOCATION.--Lat 40°10'28", long 86°00'02", in NW¼NE¼ sec.19, T.20 N., R.5 E., Hamilton County, Hydrologic Unit 05120201, (ARCADIA, IN quadrangle), affixed to the southeast abutment of the Mr. Pleasant Road bridge over Cicero Creek, 600 ft south of 266th Street, 3500 ft east of State Road 19, 0.9 mi north of 256th Street, and 1.2 mile west of Fall Road.

DRAINAGE AREA.--131 mi^2.

PERIOD OF RECORD.--July 12, 2004 to September 30, 2004.

GAGE.--Water-stage recorder. Datum of gage is 813.00 ft above National Geodetic Vertical Datum of 1929 by U.S. Geological Survey.

REMARKS.--Records good.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

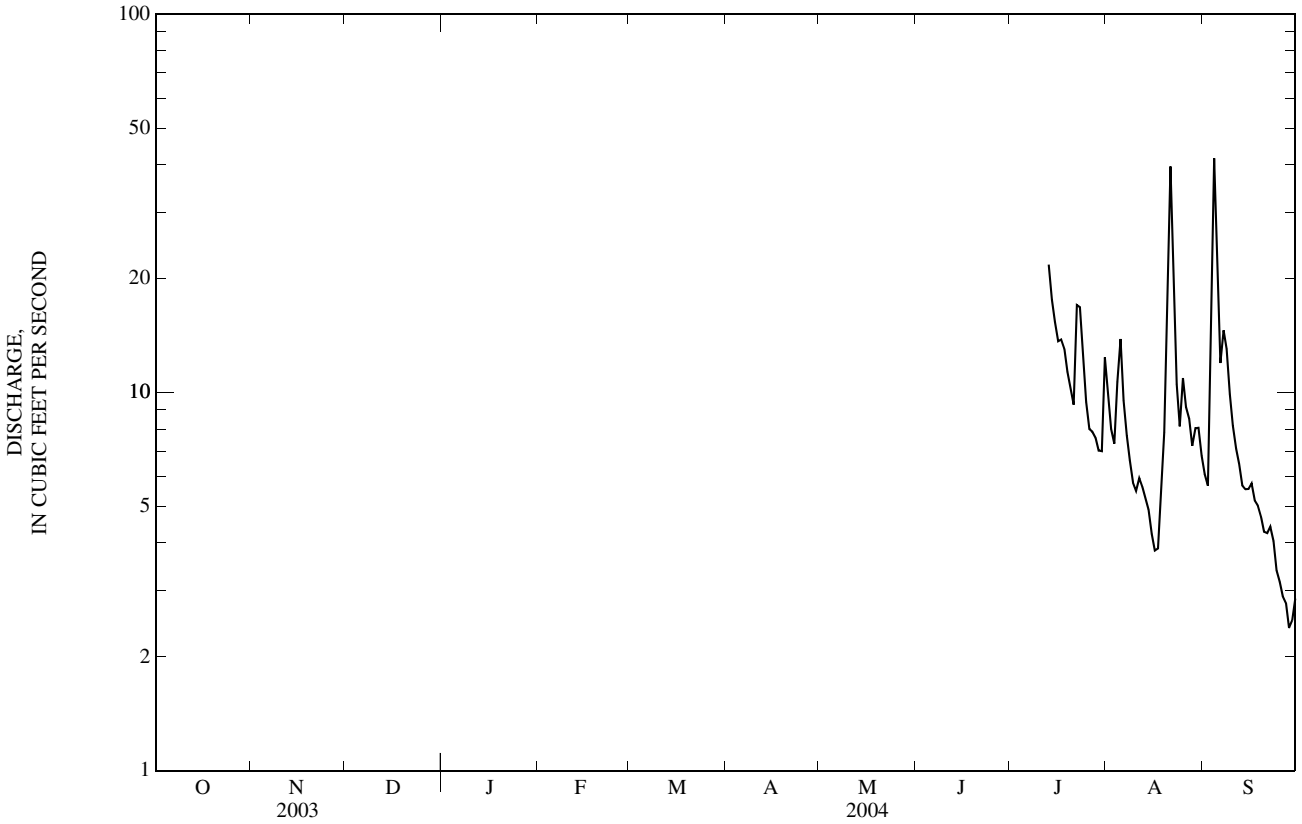
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	10	6.1
2	---	---	---	---	---	---	---	---	---	---	8.0	5.7
3	---	---	---	---	---	---	---	---	---	---	7.3	16
4	---	---	---	---	---	---	---	---	---	---	11	42
5	---	---	---	---	---	---	---	---	---	---	14	20
6	---	---	---	---	---	---	---	---	---	---	9.5	12
7	---	---	---	---	---	---	---	---	---	---	7.7	15
8	---	---	---	---	---	---	---	---	---	---	6.6	13
9	---	---	---	---	---	---	---	---	---	---	5.8	9.9
10	---	---	---	---	---	---	---	---	---	---	5.5	8.2
11	---	---	---	---	---	---	---	---	---	---	5.9	7.1
12	---	---	---	---	---	---	---	---	---	---	5.6	6.5
13	---	---	---	---	---	---	---	---	---	22	5.2	5.7
14	---	---	---	---	---	---	---	---	---	18	4.9	5.5
15	---	---	---	---	---	---	---	---	---	15	4.2	5.6
16	---	---	---	---	---	---	---	---	---	14	3.8	5.7
17	---	---	---	---	---	---	---	---	---	14	3.9	5.2
18	---	---	---	---	---	---	---	---	---	13	5.6	5.0
19	---	---	---	---	---	---	---	---	---	11	7.8	4.7
20	---	---	---	---	---	---	---	---	---	10	22	4.3
21	---	---	---	---	---	---	---	---	---	9.3	40	4.2
22	---	---	---	---	---	---	---	---	---	17	17	4.4
23	---	---	---	---	---	---	---	---	---	17	11	4.0
24	---	---	---	---	---	---	---	---	---	12	8.1	3.4
25	---	---	---	---	---	---	---	---	---	9.4	11	3.2
26	---	---	---	---	---	---	---	---	---	8.0	9.2	2.9
27	---	---	---	---	---	---	---	---	---	7.9	8.5	2.8
28	---	---	---	---	---	---	---	---	---	7.6	7.2	2.4
29	---	---	---	---	---	---	---	---	---	7.0	8.0	2.5
30	---	---	---	---	---	---	---	---	---	7.0	8.1	2.9
31	---	---	---	---	---	---	---	---	---	12	6.8	---
TOTAL	---	---	---	---	---	---	---	---	---	231.2	289.2	235.9
MEAN	---	---	---	---	---	---	---	---	---	12.2	9.33	7.86
MAX	---	---	---	---	---	---	---	---	---	22	40	42
MIN	---	---	---	---	---	---	---	---	---	7.0	3.8	2.4
CFSM	---	---	---	---	---	---	---	---	---	0.09	0.07	0.06
IN.	---	---	---	---	---	---	---	---	---	0.07	0.08	0.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2004, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	---	---	---	---	12.2	9.33	7.86
MAX	---	---	---	---	---	---	---	---	---	12.2	9.33	7.86
(WY)	---	---	---	---	---	---	---	---	---	(2004)	(2004)	(2004)
MIN	---	---	---	---	---	---	---	---	---	12.2	9.33	7.86
(WY)	---	---	---	---	---	---	---	---	---	(2004)	(2004)	(2004)

SUMMARY STATISTICS	FOR 2004 WATER YEAR	
ANNUAL TOTAL	756.3	
ANNUAL MEAN	9.45	
HIGHEST DAILY MEAN	42	Sep 4
LOWEST DAILY MEAN	2.4	Sep 28
ANNUAL SEVEN-DAY MINIMUM	2.9	Sep 24
MAXIMUM PEAK FLOW	73	Aug 20
MAXIMUM PEAK STAGE	3.50	Aug 20
ANNUAL RUNOFF (CFSM)	0.072	
ANNUAL RUNOFF (INCHES)	0.21	
10 PERCENT EXCEEDS	17	
50 PERCENT EXCEEDS	7.8	
90 PERCENT EXCEEDS	3.8	

03349510 CICERO CREEK AT ARCADIA, IN—Continued



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, (RIVERWOOD, IN quadrangle), on right bank, between dual bridges on State Road 37, 1.2 mi south of intersection of State Road 38 and State Road 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 National Geodetic Vertical Datum of 1929 (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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	29	73	82	e20	89	145	26	159	25	24	8.5
2	55	66	59	95	e25	124	99	30	99	24	17	7.8
3	46	57	52	94	e33	81	73	27	69	25	15	11
4	44	45	50	478	e28	92	58	25	55	64	21	10
5	36	37	61	737	e26	196	49	24	47	43	19	8.8
6	33	33	86	263	e33	130	44	22	41	32	14	8.0
7	30	29	69	152	e27	89	42	21	36	28	12	8.7
8	27	26	59	113	e24	67	39	20	32	25	12	7.8
9	26	24	53	90	e23	57	35	20	29	22	11	7.6
10	26	23	78	e70	e22	47	32	19	27	22	11	8.1
11	24	25	104	e62	e21	43	31	18	743	26	10	8.4
12	23	51	72	e57	e21	39	29	19	1,090	45	10	7.8
13	23	49	56	e53	e20	35	29	18	393	31	10	7.5
14	53	36	51	e49	e20	35	28	21	203	25	10	7.4
15	89	33	45	e47	e20	33	26	28	148	21	9.8	7.2
16	58	30	47	e45	e20	33	25	21	245	19	8.7	6.9
17	44	27	55	e45	e20	32	24	21	258	19	8.5	6.5
18	37	41	48	e59	28	32	23	21	185	17	9.3	6.4
19	35	166	41	e48	64	37	23	80	152	16	9.4	6.6
20	30	118	36	e40	135	37	24	72	100	15	20	6.6
21	29	81	34	e36	126	37	26	47	77	15	20	6.6
22	27	61	35	e33	73	33	30	36	68	49	12	7.6
23	25	51	417	e31	70	31	41	33	55	27	11	7.2
24	23	155	431	e29	69	30	33	49	48	18	10	6.9
25	23	130	190	e28	56	29	32	43	42	16	12	6.9
26	27	92	136	e26	48	56	30	36	38	16	15	6.8
27	32	91	112	e25	43	138	28	71	33	15	12	6.2
28	30	152	101	e23	41	92	26	327	31	15	10	6.3
29	27	136	105	e22	41	69	25	129	30	13	9.8	6.5
30	23	97	146	e21	---	80	25	100	27	16	9.1	5.9
31	22	---	104	e21	---	213	---	344	---	45	8.9	---
TOTAL	1,090	1,991	3,006	2,974	1,197	2,136	1,174	1,768	4,560	789	391.5	224.5
MEAN	35.2	66.4	97.0	95.9	41.3	68.9	39.1	57.0	152	25.5	12.6	7.48
MAX	89	166	431	737	135	213	145	344	1,090	64	24	11
MIN	22	23	34	21	20	29	23	18	27	13	8.5	5.9
CFSM	0.69	1.31	1.91	1.89	0.81	1.36	0.77	1.12	2.99	0.50	0.25	0.15
IN.	0.80	1.46	2.20	2.18	0.88	1.56	0.86	1.29	3.34	0.58	0.29	0.16

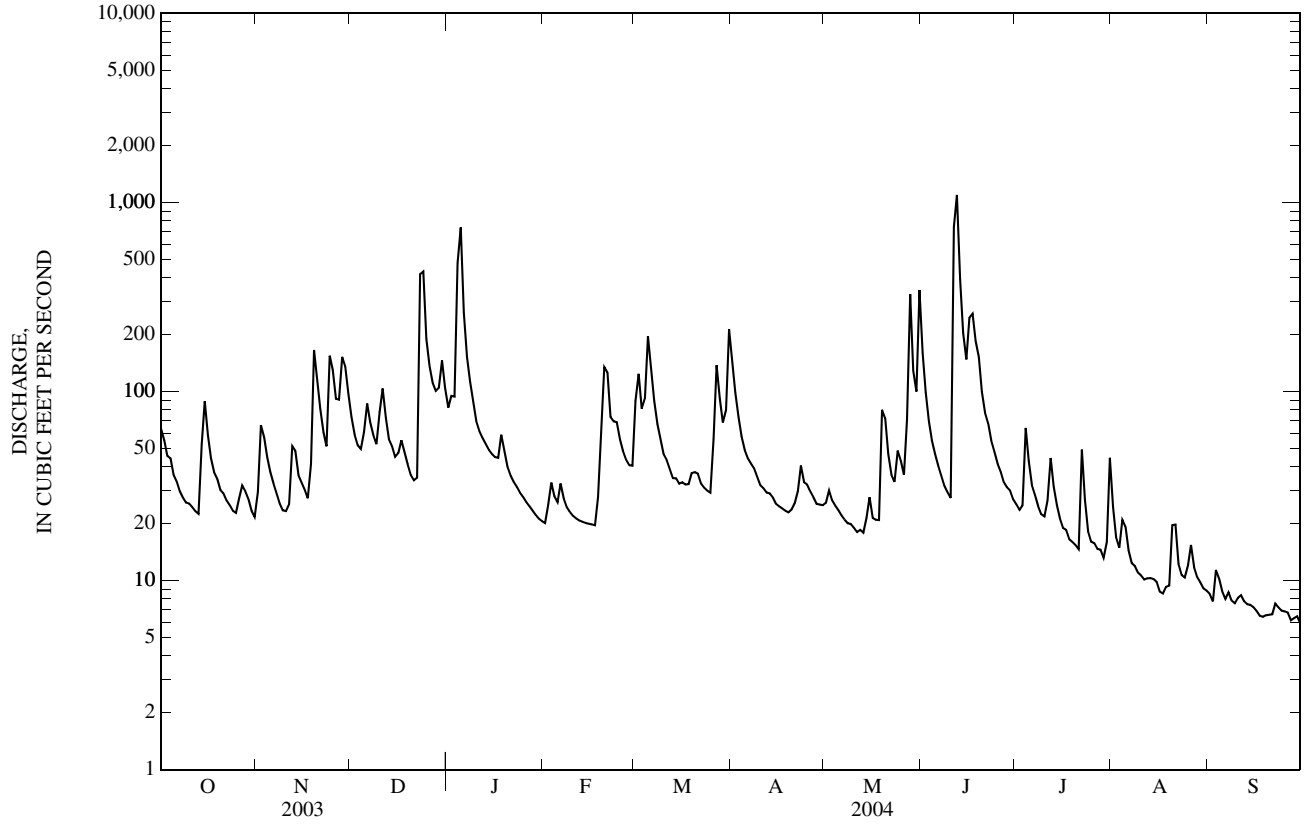
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2004, BY WATER YEAR (WY)

MEAN	20.7	45.3	56.8	57.1	74.9	84.6	77.7	66.6	52.1	34.2	20.6	21.5
MAX	181	287	235	145	190	203	160	229	241	176	80.5	210
(WY)	(2002)	(1993)	(1991)	(1974)	(1990)	(1978)	(1972)	(1996)	(1998)	(2003)	(1979)	(1989)
MIN	2.41	3.96	4.99	3.87	6.26	14.1	16.9	16.1	6.50	3.25	3.84	3.38
(WY)	(1996)	(2000)	(1998)	(1977)	(1998)	(2000)	(1971)	(1988)	(1988)	(1977)	(1988)	(1995)

03350700 STONY CREEK NEAR NOBLESVILLE, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1968 - 2004	
ANNUAL TOTAL	30,379		21,301.0			
ANNUAL MEAN	83.2		58.2		50.8	
HIGHEST ANNUAL MEAN					83.0	1993
LOWEST ANNUAL MEAN					15.4	2000
HIGHEST DAILY MEAN	1,450	Sep 2	1,090	Jun 12	1,760	Dec 30, 1990
LOWEST DAILY MEAN	12	Jan 30	5.9	Sep 30	e 0.88	Oct 9, 1995
ANNUAL SEVEN-DAY MINIMUM	13	Jan 26	6.5	Sep 24	0.96	Oct 8, 1995
MAXIMUM PEAK FLOW			1,560	Jun 11	2,260	Sep 1, 2003
MAXIMUM PEAK STAGE			7.64	Jun 11	9.21	Dec 30, 1990
ANNUAL RUNOFF (CFSM)	1.64		1.15		1.00	
ANNUAL RUNOFF (INCHES)	22.25		15.60		13.60	
10 PERCENT EXCEEDS	150		114		114	
50 PERCENT EXCEEDS	37		32		24	
90 PERCENT EXCEEDS	18		9.9		5.8	

e Estimated



03351000 WHITE RIVER NEAR NORA, IN

LOCATION.--Lat 39°54'38", long 86°06'20", in NW¼NW¼ sec.20, T.17 N., R.4 E., Marion County, Hydrologic Unit 05120201, (FISHERS, IN quadrangle), on right upstream corner of bridge on 82nd Street, 2 mi east of Nora, 3.75 mi upstream of the Indianapolis Water Company dam at Broad Ripple, 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 National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Oct. 26, 192 to July 29, 1942, at site 200 ft downstream at same datum. Supplemental water-stage recorder 4.5 mi downstream.

REMARKS.--Records fair 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,390	706	2,590	2,720	e640	1,290	4,100	642	5,670	661	534	390
2	1,850	1,000	1,960	2,350	e700	2,830	2,990	772	3,910	627	484	308
3	1,490	999	1,590	2,440	e760	2,830	2,180	803	2,200	641	406	455
4	1,330	902	1,400	5,250	e740	2,280	1,740	962	1,580	844	485	454
5	1,190	822	1,420	12,100	e780	4,300	1,400	852	1,270	794	469	377
6	1,040	764	1,790	e15,000	e800	5,870	1,210	744	1,070	719	412	360
7	926	686	2,360	e12,600	e840	3,720	1,100	663	925	629	351	365
8	840	629	2,010	4,920	e820	2,490	1,040	616	819	565	317	343
9	773	579	1,690	3,080	e770	1,910	968	569	729	524	298	319
10	729	547	1,720	2,390	e680	1,560	877	545	683	508	292	316
11	691	554	2,490	1,980	e660	1,340	819	515	3,690	607	272	320
12	654	766	2,720	1,900	e660	1,210	779	487	11,400	747	310	315
13	611	1,990	2,010	1,710	e680	1,080	759	491	11,000	600	337	314
14	897	1,750	1,610	1,500	e660	996	732	544	7,010	514	333	310
15	1,470	1,240	1,410	1,400	e620	960	685	732	6,240	458	336	310
16	3,030	1,040	1,280	1,270	e600	944	661	780	5,790	415	323	310
17	2,220	904	1,340	1,200	e560	933	649	645	6,620	467	314	300
18	1,520	921	1,510	1,330	e540	933	646	572	6,190	391	311	295
19	1,200	2,150	1,360	1,310	665	976	610	1,110	4,090	368	317	290
20	1,020	3,870	1,170	1,120	1,870	1,080	627	1,670	2,630	339	471	287
21	892	3,030	1,030	975	4,210	1,360	672	1,340	2,010	331	582	284
22	819	2,050	967	926	3,390	1,440	759	1,020	1,720	609	614	279
23	752	1,580	3,460	e840	2,250	1,190	902	856	1,460	607	525	277
24	694	2,230	8,150	e760	1,990	1,050	1,030	940	1,230	535	432	278
25	657	3,470	8,210	e740	1,750	989	1,050	901	1,080	438	448	278
26	733	2,780	4,450	e720	1,450	1,180	944	756	970	383	477	282
27	735	2,140	2,970	e760	1,250	3,410	830	660	885	361	434	284
28	758	2,600	2,430	e720	1,120	4,660	731	2,650	818	353	386	288
29	774	4,560	2,310	e680	1,050	3,150	661	5,060	768	351	361	292
30	717	3,930	3,000	e640	---	2,390	643	4,000	716	361	417	285
31	652	---	3,630	e630	---	3,490	---	4,050	---	571	496	---
TOTAL	34,054	51,189	76,037	85,961	33,505	63,841	32,794	36,947	95,173	16,318	12,544	9,565
MEAN	1,099	1,706	2,453	2,773	1,155	2,059	1,093	1,192	3,172	526	405	319
MAX	3,030	4,560	8,210	15,000	4,210	5,870	4,100	5,060	11,400	844	614	455
MIN	611	547	967	630	540	933	610	487	683	331	272	277
CFSM	0.90	1.40	2.01	2.27	0.95	1.69	0.90	0.98	2.60	0.43	0.33	0.26
IN.	1.04	1.56	2.32	2.62	1.02	1.95	1.00	1.13	2.90	0.50	0.38	0.29

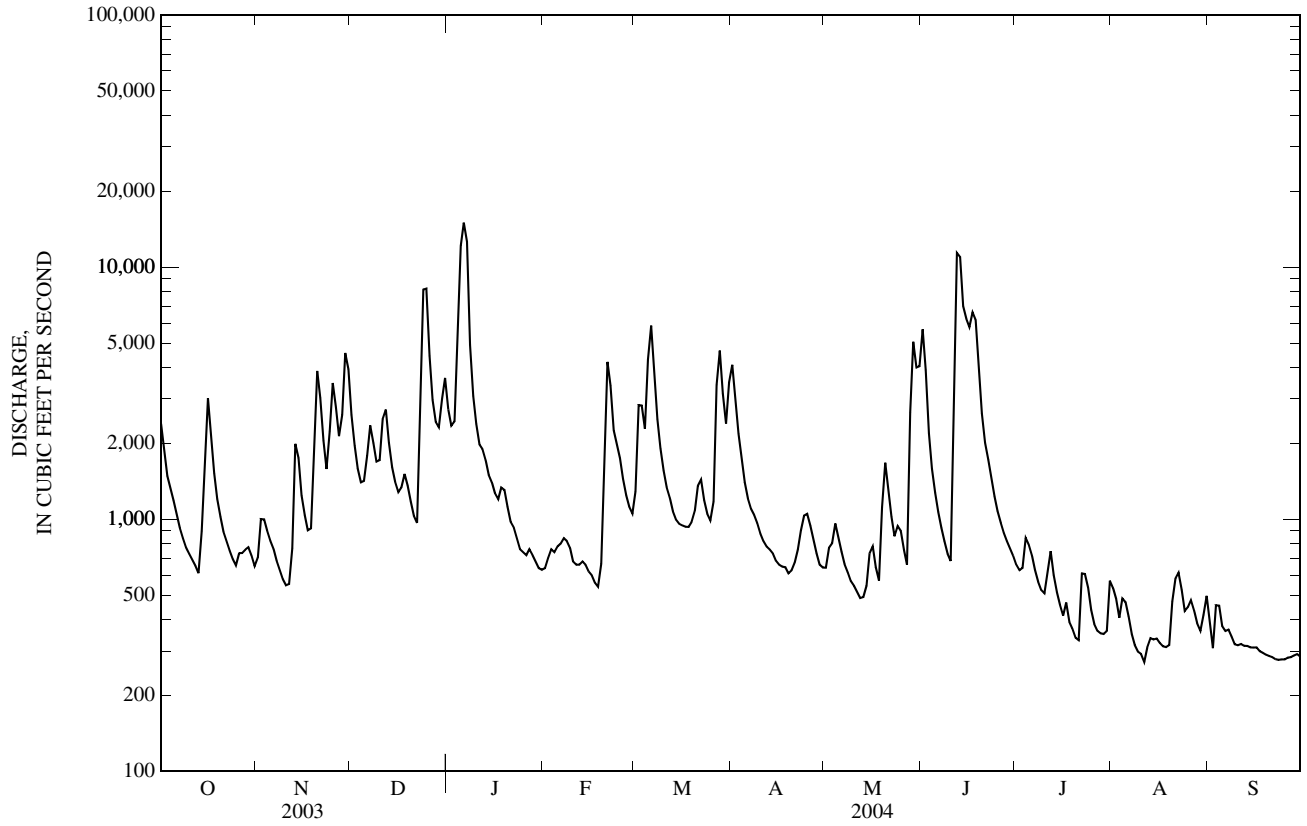
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2004, BY WATER YEAR (WY)

MEAN	415	743	1,111	1,579	1,655	2,080	2,024	1,475	1,191	783	458	424
MAX	3,819	5,115	4,366	9,015	4,805	5,113	5,878	6,815	6,093	5,478	2,612	4,397
(WY)	(2002)	(1993)	(1991)	(1950)	(1950)	(1978)	(1964)	(1943)	(1958)	(2003)	(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)

03351000 WHITE RIVER NEAR NORA, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1930 - 2004	
ANNUAL TOTAL	787,189		547,928			
ANNUAL MEAN	2,157		1,497		1,159	
HIGHEST ANNUAL MEAN					2,052	1950
LOWEST ANNUAL MEAN					235	1941
HIGHEST DAILY MEAN	24,100	Jul 11	15,000	Jan 6	31,500	May 19, 1943
LOWEST DAILY MEAN	315	Aug 25	272	Aug 11	49	Sep 17, 1941
ANNUAL SEVEN-DAY MINIMUM	365	Aug 22	280	Sep 21	53	Sep 17, 1941
MAXIMUM PEAK FLOW			15,100	Jan 6	32,400	May 19, 1943
MAXIMUM PEAK STAGE			13.61	Jan 6	19.19	Jan 1, 1991
ANNUAL RUNOFF (CFSM)	1.77		1.23		0.950	
ANNUAL RUNOFF (INCHES)	24.02		16.72		12.91	
10 PERCENT EXCEEDS	4,420		3,400		2,620	
50 PERCENT EXCEEDS	1,040		840		535	
90 PERCENT EXCEEDS	441		338		164	

e Estimated



03351060 WHITE RIVER AT BROAD RIPPLE, IN

LOCATION.--Lat 39°52'18", long 86°08'28", in SW¼ sec.36, T.17 N., R.3 E., Marion County, Hydrologic Unit 05120201, (INDIANAPOLIS WEST, IN quadrangle), on left bank at Indianapolis Water Company, 75 ft downstream from diversion canal, and 500 ft upstream from Broad Ripple dam, and at 243.2 mile.

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 National Geodetic Vertical Datum of 1929.

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

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

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 7.14 ft, Jan. 6; minimum 2.87 ft, Aug. 11-12.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.90	3.34	4.09	4.17	3.23	3.64	4.72	3.25	5.28	3.17	3.08	2.96
2	3.71	3.49	3.87	4.03	3.26	4.33	4.30	3.33	4.34	3.14	3.03	2.90
3	3.59	3.46	3.72	4.09	3.29	4.19	4.02	3.34	3.92	3.27	2.99	3.24
4	3.56	3.42	3.64	5.73	3.31	4.04	3.84	3.44	3.68	3.32	3.10	3.01
5	3.47	3.39	3.66	6.78	3.32	4.92	3.68	3.37	3.56	3.24	3.03	2.96
6	3.40	3.34	3.84	7.13	3.33	5.16	3.57	3.28	3.47	3.19	2.98	2.96
7	3.35	3.29	4.03	6.05	3.37	4.54	3.52	3.23	3.38	3.16	2.95	2.98
8	3.32	3.26	3.89	4.50	3.43	4.18	3.49	3.18	3.30	3.10	2.92	2.96
9	3.29	3.23	3.77	4.16	3.28	3.95	3.45	3.15	3.24	3.08	2.90	2.93
10	3.26	3.19	3.79	3.94	3.23	3.77	3.40	3.12	3.24	3.14	2.89	2.93
11	3.26	3.24	4.21	3.79	3.24	3.64	3.36	3.11	6.08	3.23	2.87	2.94
12	3.26	3.47	4.16	3.94	3.23	3.56	3.34	3.09	6.68	3.22	2.92	2.93
13	3.23	4.05	3.89	3.71	3.25	3.49	3.32	3.09	6.31	3.12	2.92	2.93
14	3.51	3.74	3.74	3.64	3.23	3.43	3.28	3.27	5.37	3.06	2.92	2.91
15	3.95	3.57	3.63	3.59	3.21	3.40	3.25	3.28	5.40	3.03	2.94	2.91
16	4.26	3.48	3.59	3.53	3.20	3.40	3.24	3.27	5.38	3.00	2.93	2.92
17	3.86	3.42	3.61	3.55	3.16	3.38	3.23	3.20	5.52	3.02	2.92	2.90
18	3.63	3.53	3.70	3.59	3.16	3.38	3.21	3.18	5.14	2.99	2.92	2.90
19	3.52	4.24	3.61	3.55	3.26	3.40	3.19	3.70	4.44	2.97	2.92	2.89
20	3.43	4.64	3.52	3.44	4.22	3.46	3.22	3.79	4.06	2.94	3.20	2.89
21	3.38	4.15	3.45	3.38	4.77	3.60	3.25	3.55	3.86	2.98	3.14	2.89
22	3.34	3.83	3.42	3.37	4.25	3.65	3.35	3.42	3.77	3.14	3.14	2.89
23	3.31	3.68	4.96	3.27	3.98	3.54	3.40	3.34	3.61	3.14	3.06	2.89
24	3.26	4.19	5.91	3.32	3.88	3.45	3.47	3.36	3.51	3.07	3.09	2.89
25	---	4.52	5.58	3.26	3.78	3.43	3.47	3.36	3.45	3.00	3.01	2.89
26	---	4.14	4.63	3.25	3.64	3.65	3.40	3.25	3.39	2.97	3.05	2.89
27	---	3.95	4.25	3.31	3.52	4.65	3.34	3.20	3.31	2.95	3.03	2.90
28	---	4.39	4.06	3.23	3.47	4.80	3.28	4.86	3.27	2.95	2.98	2.89
29	---	4.90	4.02	3.24	3.44	4.37	3.25	5.15	3.24	2.95	2.98	2.89
30	---	4.48	4.31	3.14	---	4.13	3.24	4.46	3.19	3.03	3.06	2.89
31	3.26	---	4.49	3.20	---	4.60	---	5.13	---	3.13	3.05	---
MEAN	---	3.77	4.03	3.96	3.48	3.91	3.47	3.51	4.21	3.09	3.00	2.93
MAX	---	4.90	5.91	7.13	4.77	5.16	4.72	5.15	6.68	3.32	3.20	3.24
MIN	---	3.19	3.42	3.14	3.16	3.38	3.19	3.09	3.19	2.94	2.87	2.89

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, (INDIANAPOLIS WEST, IN quadrangle), on left bank 150 ft downstream from 42nd Street bridge in Indianapolis, at mile 1.6, 2.30 mi west-northwest of burial plot of John Dillinger in Crown Hill Cementery, and 2.35 mi northeast of Indianapolis Motor Speedway.

DRAINAGE AREA.--17.9 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 711.00 ft above National Geodetic Vertical Datum of 1929 (Indiana Department of Highways bench mark).

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	8.6	11	14	e7.0	46	67	e7.8	e34	5.4	6.2	3.2
2	5.8	44	6.4	37	8.7	35	36	e14	e20	5.2	4.1	2.8
3	5.4	14	5.0	31	25	22	25	e13	e15	5.3	3.4	32
4	5.9	7.5	3.6	508	14	50	18	e10	e13	16	24	36
5	5.2	5.3	27	172	13	73	15	e8.3	e11	7.9	12	7.2
6	4.4	4.5	21	57	27	38	13	e7.3	e9.3	5.9	5.9	3.5
7	4.3	4.4	10	32	16	26	12	e6.8	e7.8	6.0	4.0	3.6
8	4.3	3.6	7.4	23	12	19	12	e6.4	e7.0	5.4	3.3	2.6
9	4.4	3.5	6.0	20	11	17	11	e6.1	e6.6	7.1	3.0	1.6
10	4.7	3.3	40	16	e11	15	10	e6.0	e6.4	11	3.0	1.4
11	5.1	4.4	30	14	e10	14	11	e5.6	e58	15	2.8	1.2
12	5.6	12	14	e12	e9.8	13	9.4	e5.3	e24	13	2.5	1.1
13	5.5	5.4	8.7	e12	e9.6	12	9.0	e5.7	e19	6.0	2.6	1.0
14	105	3.6	7.5	e11	e9.5	13	8.5	e7.5	e18	6.1	2.4	1.0
15	58	3.3	6.3	e10	e9.4	13	8.0	e13	e22	4.2	2.2	1.0
16	19	3.3	19	10	e9.2	14	7.9	e7.4	e290	3.4	2.2	1.2
17	10	3.2	13	18	9.1	15	7.6	e6.6	e80	3.1	2.1	0.94
18	7.5	31	7.5	35	9.5	15	7.2	e6.2	e27	3.2	2.2	0.92
19	6.7	83	6.3	17	14	14	e6.9	e40	e20	3.0	2.1	0.87
20	6.0	24	4.7	12	35	13	e8.0	e33	e16	2.8	22	0.82
21	6.5	10	4.1	11	40	14	e9.8	e24	e13	3.8	16	0.81
22	6.2	6.2	4.5	e9.0	22	12	e10	e16	e11	24	5.7	0.92
23	5.6	4.8	399	e8.0	21	11	e17	e10	e10	6.4	3.7	0.89
24	5.0	126	98	e7.4	21	11	e10	e19	8.5	4.1	4.0	0.72
25	5.4	31	45	e7.2	17	12	e10	e17	7.1	3.6	11	0.72
26	12	17	31	e8.5	15	107	e8.6	e12	6.6	4.1	23	0.89
27	7.8	21	25	e8.3	14	113	e7.7	e11	6.1	3.5	9.0	0.87
28	5.7	60	23	e8.0	13	41	e7.3	e41	5.8	3.4	5.0	0.81
29	6.1	30	35	e7.6	12	29	e7.0	e20	5.6	3.0	4.0	0.98
30	5.6	17	38	e7.4	---	48	e6.7	e18	5.6	4.5	3.6	0.81
31	5.3	---	19	e7.2	---	215	---	e64	---	21	3.3	---
TOTAL	351.2	594.9	976.0	1,150.6	444.8	1,090	396.6	468.0	783.4	216.4	200.3	112.37
MEAN	11.3	19.8	31.5	37.1	15.3	35.2	13.2	15.1	26.1	6.98	6.46	3.75
MAX	105	126	399	508	40	215	67	64	290	24	24	36
MIN	4.3	3.2	3.6	7.2	7.0	11	6.7	5.3	5.6	2.8	2.1	0.72
CFSM	0.63	1.11	1.76	2.07	0.86	1.96	0.74	0.84	1.46	0.39	0.36	0.21
IN.	0.73	1.24	2.03	2.39	0.92	2.27	0.82	0.97	1.63	0.45	0.42	0.23

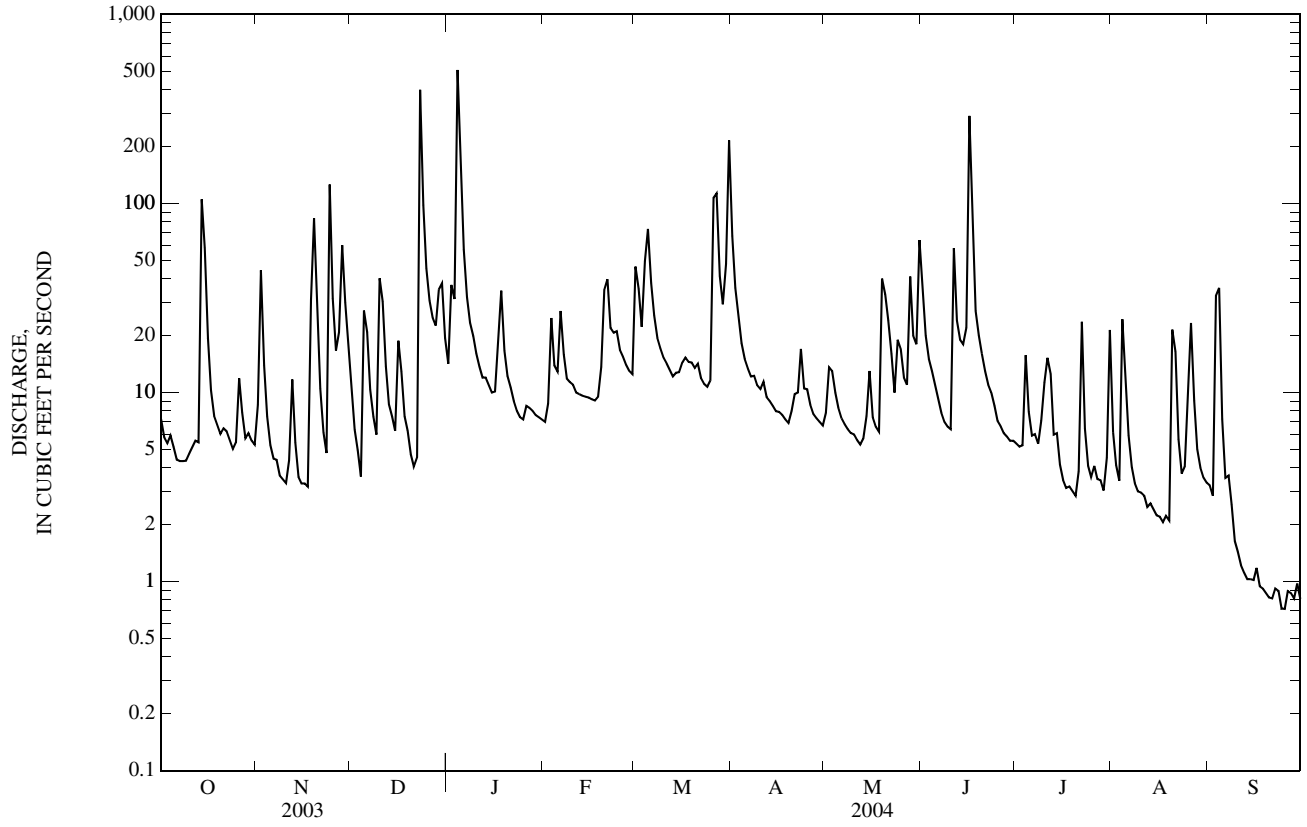
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2004, BY WATER YEAR (WY)

MEAN	9.45	19.6	21.0	18.9	24.2	30.5	28.7	27.4	18.5	12.7	7.81	10.9
MAX	60.9	88.2	95.4	54.8	79.4	63.7	58.2	110	90.8	57.7	30.8	96.6
(WY)	(1987)	(1994)	(1991)	(1974)	(1975)	(1991)	(1972)	(1996)	(1998)	(1979)	(1978)	(2003)
MIN	1.06	0.70	1.23	0.94	4.17	5.65	5.63	4.31	1.59	1.59	1.94	1.07
(WY)	(1998)	(2000)	(1977)	(1977)	(1978)	(1981)	(1971)	(1988)	(1988)	(1997)	(1991)	(1991)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1970 - 2004	
ANNUAL TOTAL	9,325.5		6,784.57			
ANNUAL MEAN	25.5		18.5		19.1	
HIGHEST ANNUAL MEAN					29.6	1974
LOWEST ANNUAL MEAN					8.30	1977
HIGHEST DAILY MEAN	1,820	Sep 1	508	Jan 4	1,820	Sep 1, 2003
LOWEST DAILY MEAN	1.5	Aug 26	0.72	Sep 24	0.00	Oct 7, 1991
ANNUAL SEVEN-DAY MINIMUM	2.6	Aug 20	0.82	Sep 19	0.00	Oct 12, 1991
MAXIMUM PEAK FLOW			857	Jan 4	5,500	Jun 26, 1978
MAXIMUM PEAK STAGE			7.01	Jan 4	13.31	Jun 26, 1978
ANNUAL RUNOFF (CFSM)	1.43		1.04		1.07	
ANNUAL RUNOFF (INCHES)	19.38		14.10		14.50	
10 PERCENT EXCEEDS	38		35		37	
50 PERCENT EXCEEDS	10		9.1		7.6	
90 PERCENT EXCEEDS	3.7		3.0		1.6	

e Estimated

03351310 CROOKED CREEK AT INDIANAPOLIS, IN—Continued



03351500 FALL CREEK NEAR FORTVILLE, IN

LOCATION.--Lat 39°57'17", long 85°52'03", in NW¼NE¼ sec.5, T.17 N., R.6 E., Hamilton County, Hydrologic Unit 05120201, (INGALLS, IN quadrangle), 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 National Geodetic Vertical Datum of 1929 (levels by Indianapolis Water Co.). Prior to June 27, 1942, nonrecording gage at same site and datum.

REMARKS.--Records fair 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	227	143	332	330	e132	259	297	100	1,390	164	87	59
2	195	165	275	410	e140	396	245	121	489	157	76	55
3	177	166	243	486	e155	300	213	126	340	160	74	56
4	177	152	225	1,150	e160	288	192	109	264	225	89	61
5	162	143	247	3,140	e170	558	172	102	218	180	98	58
6	148	133	356	1,910	e237	449	162	98	191	156	75	53
7	137	125	305	650	e264	327	164	91	168	142	66	48
8	130	119	264	474	e180	270	157	86	147	135	62	45
9	125	114	239	396	e160	236	144	86	134	129	60	44
10	123	113	255	336	e158	210	135	83	125	133	57	43
11	117	118	347	305	e153	199	132	78	1,170	136	56	42
12	114	163	291	295	e145	187	129	76	4,550	134	54	42
13	115	165	242	277	e130	174	126	73	2,410	121	54	42
14	216	139	227	259	e135	176	123	88	1,490	112	55	39
15	575	130	203	254	e140	171	116	198	1,290	104	55	38
16	358	128	200	230	e143	168	112	157	1,520	99	52	39
17	259	122	246	230	144	170	111	124	2,370	97	50	40
18	213	145	226	321	145	168	109	112	1,280	96	52	37
19	191	568	204	267	220	196	105	258	721	95	56	36
20	170	472	184	223	389	205	107	278	516	88	70	36
21	157	318	171	208	432	201	111	186	418	84	125	34
22	149	253	172	e190	284	179	117	149	366	181	78	33
23	140	219	732	e177	265	167	159	126	312	147	65	32
24	132	478	1,210	e170	274	161	135	135	278	105	59	32
25	133	510	615	e160	243	159	127	141	251	90	66	33
26	171	344	422	e150	215	200	124	136	231	90	91	32
27	185	352	346	e144	199	540	109	122	210	95	82	33
28	167	677	317	e140	189	395	102	896	197	92	66	31
29	156	645	322	e138	186	302	99	630	185	84	82	30
30	144	421	561	e135	---	258	97	366	172	84	77	31
31	133	---	423	e134	---	305	---	1,720	---	101	65	---
TOTAL	5,596	7,740	10,402	13,689	5,787	7,974	4,231	7,051	23,403	3,816	2,154	1,234
MEAN	181	258	336	442	200	257	141	227	780	123	69.5	41.1
MAX	575	677	1,210	3,140	432	558	297	1,720	4,550	225	125	61
MIN	114	113	171	134	130	159	97	73	125	84	50	30
CFSM	1.07	1.53	1.99	2.61	1.18	1.52	0.83	1.35	4.62	0.73	0.41	0.24
IN.	1.23	1.70	2.29	3.01	1.27	1.76	0.93	1.55	5.15	0.84	0.47	0.27

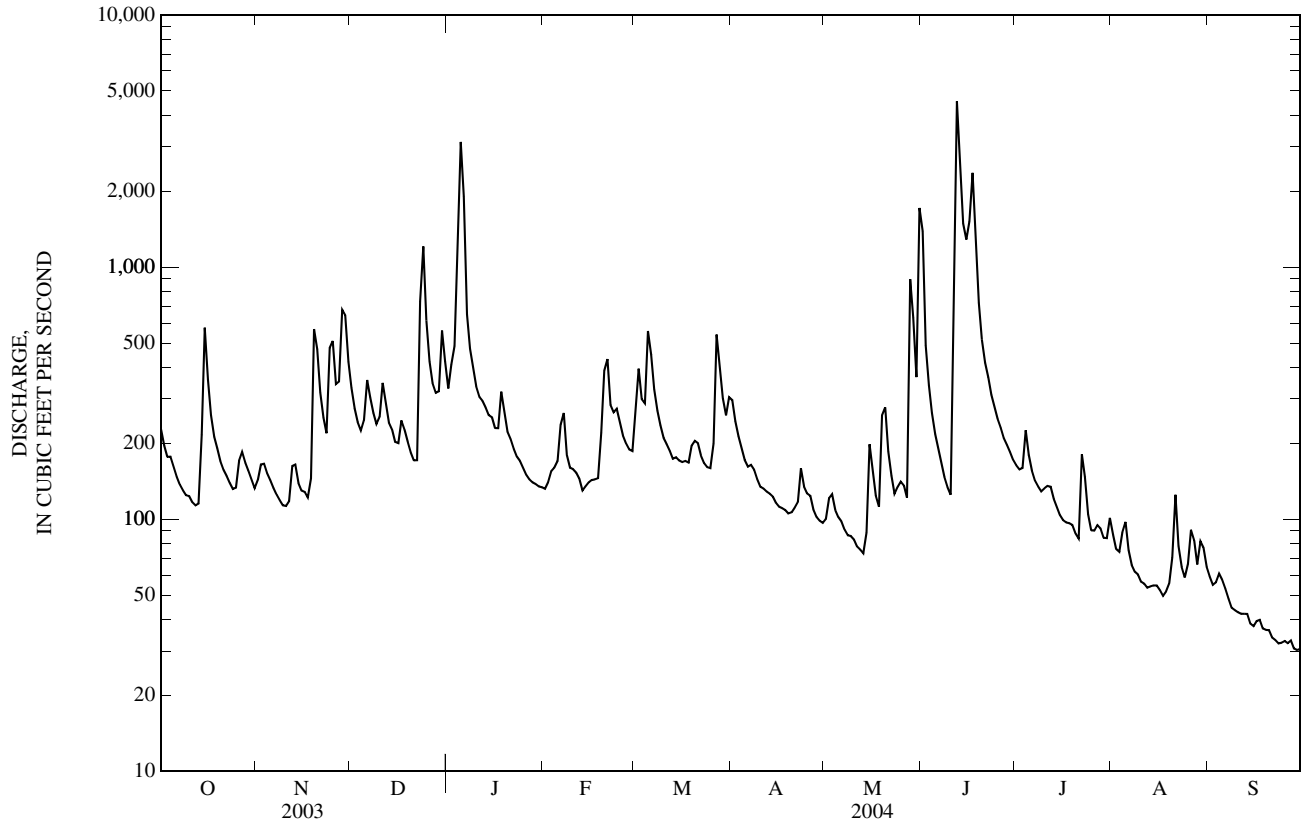
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2004, BY WATER YEAR (WY)

MEAN	73.5	122	172	213	248	298	289	234	196	127	76.2	67.3
MAX	539	788	727	1,210	720	674	829	753	888	775	467	686
(WY)	(2002)	(1994)	(1991)	(1950)	(1950)	(1978)	(1964)	(1996)	(1958)	(2003)	(1979)	(2003)
MIN	20.1	27.4	24.2	24.4	42.1	71.2	70.3	71.4	39.2	24.7	16.0	14.5
(WY)	(1964)	(2000)	(1964)	(1977)	(1964)	(1981)	(1971)	(1955)	(1988)	(1966)	(1988)	(1999)

03351500 FALL CREEK NEAR FORTVILLE, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1942 - 2004	
ANNUAL TOTAL	115,663		93,077			
ANNUAL MEAN	317		254		176	
HIGHEST ANNUAL MEAN					301	2002
LOWEST ANNUAL MEAN					61.4	1966
HIGHEST DAILY MEAN	6,770	Sep 2	4,550	Jun 12	6,950	Apr 21, 1964
LOWEST DAILY MEAN	63	Aug 28	30	Sep 29	7.0	Oct 1, 1941
ANNUAL SEVEN-DAY MINIMUM	68	Aug 23	32	Sep 24	9.7	Aug 21, 1988
MAXIMUM PEAK FLOW			5,120	Jun 12	8,750	Apr 21, 1964
MAXIMUM PEAK STAGE			8.82	Jun 12	9.88	Apr 21, 1964
ANNUAL RUNOFF (CFSM)	1.88		1.50		1.04	
ANNUAL RUNOFF (INCHES)	25.46		20.49		14.14	
10 PERCENT EXCEEDS	561		426		355	
50 PERCENT EXCEEDS	165		158		93	
90 PERCENT EXCEEDS	84		57		31	

e Estimated



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, (INDIANAPOLIS EAST, IN quadrangle), on right bank at downstream side of Emerson Way bridge at Millersville, 2.4 mi upstream of Keystone Avenue, 2.9 mi downstream of Interstate 465, 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 l305. 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. WRD IN-02-1: 1991, 1994(P). WRD IN-03-1: 1991, 1994, 1997-2002(P).

GAGE.--Water-stage recorder and Acoustic Doppler Velocity Meter. Datum of gage is 722.16 ft above National Geodetic Vertical Datum of 1929. 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.

REVISIONS.--The peak discharges for water years 1991 and 1994 have been revised to 8,200 ft^3/s, Dec. 31, 1990, gage height, 13.36 ft, and 6,890 ft^3/s, Nov. 15, 1993, gage height, 12.40 ft, superseding original figures published in reports for 1991 and 1994, and revisions published in reports for 1997-2002. The peak discharge for the 2002 water year has been revised to 6,550 ft^3/s, May 14, 2002, gage height, 12.14 ft, superseding figure published in the report for 2002.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	341	202	586	601	e192	363	788	152	2,320	205	158	72
2	275	236	458	756	e190	580	564	207	1,240	197	128	66
3	225	250	376	854	e220	518	426	179	678	218	111	67
4	224	229	320	2,100	e230	479	352	151	460	503	139	76
5	215	209	371	4,280	e220	768	286	150	349	357	177	71
6	189	196	483	4,090	e260	844	245	140	291	255	126	68
7	167	168	486	1,850	335	596	241	143	253	213	104	65
8	159	165	417	945	292	461	229	128	225	190	98	72
9	152	145	364	707	245	387	221	120	203	186	90	50
10	150	136	423	542	234	314	204	118	191	205	80	81
11	149	149	535	455	234	272	195	113	1,410	276	76	79
12	146	203	502	418	239	258	209	107	4,240	326	83	70
13	136	208	418	395	244	246	183	109	4,840	215	92	69
14	422	207	351	366	234	231	140	170	2,680	179	87	67
15	781	191	308	355	235	239	147	343	1,930	159	87	71
16	698	190	290	326	221	262	148	279	3,140	141	85	72
17	485	178	327	326	204	225	151	227	4,320	163	84	77
18	334	225	347	449	200	228	151	200	2,950	152	81	69
19	279	694	304	421	246	237	136	429	1,630	127	80	67
20	233	856	273	352	451	249	163	486	1,050	120	125	77
21	213	623	237	303	660	264	161	378	751	120	185	70
22	202	447	229	279	535	244	196	268	620	320	133	69
23	182	355	1,430	e260	422	217	278	216	499	262	113	69
24	163	733	2,340	e240	410	211	229	223	407	189	98	68
25	170	959	1,600	e226	384	219	210	274	363	148	241	68
26	246	697	921	e220	328	347	198	263	305	128	214	68
27	255	617	659	e214	291	879	174	208	279	119	153	68
28	239	919	545	e208	266	779	151	606	256	118	121	68
29	222	1,150	539	e202	254	590	144	1,020	238	116	110	68
30	199	824	766	e198	---	486	149	709	222	116	100	61
31	184	---	753	e194	---	937	---	2,050	---	180	81	---
TOTAL	8,035	12,361	17,958	23,132	8,476	12,930	7,069	10,166	38,340	6,203	3,640	2,083
MEAN	259	412	579	746	292	417	236	328	1,278	200	117	69.4
MAX	781	1,150	2,340	4,280	660	937	788	2,050	4,840	503	241	81
MIN	136	136	229	194	190	211	136	107	191	116	76	50
CFSM	0.87	1.38	1.94	2.50	0.98	1.40	0.79	1.10	4.29	0.67	0.39	0.23
IN.	1.00	1.54	2.24	2.89	1.06	1.61	0.88	1.27	4.79	0.77	0.45	0.26

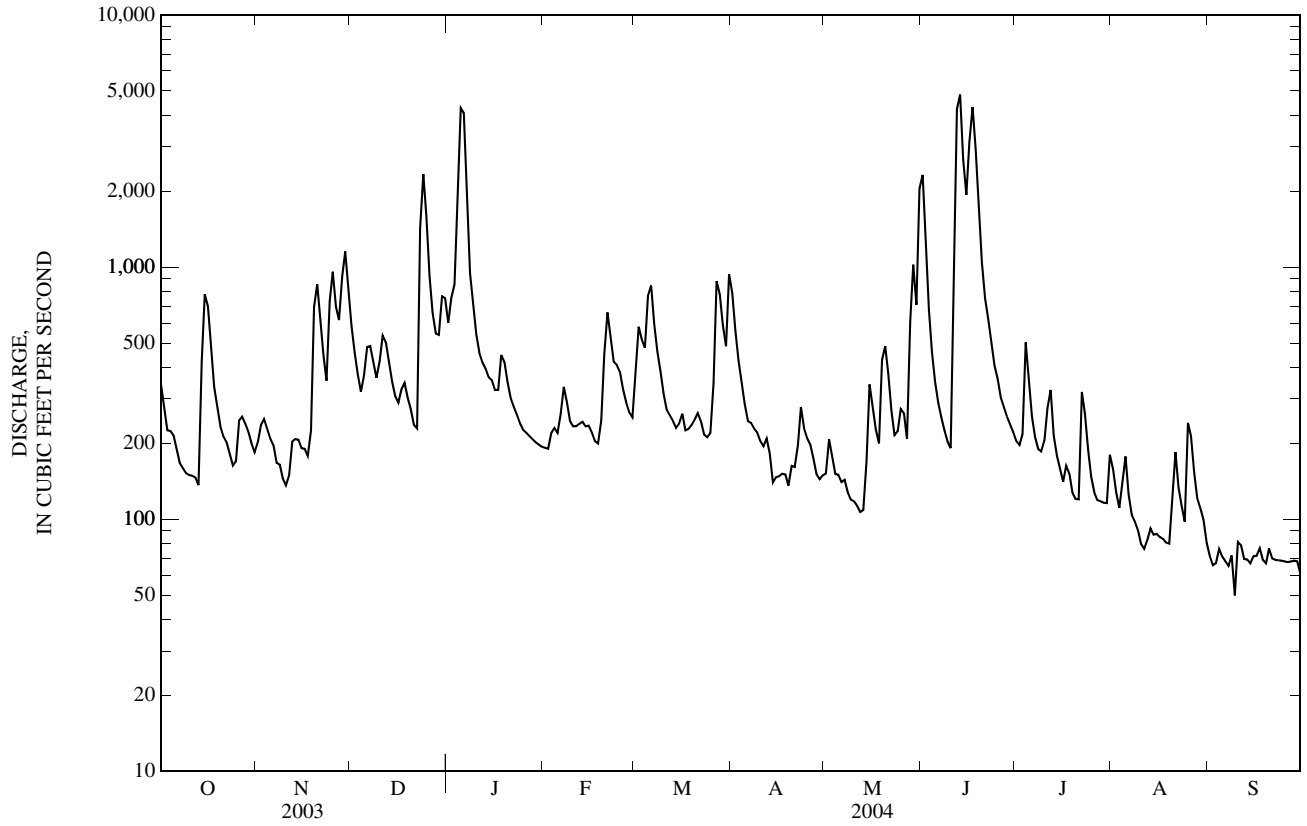
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2004, BY WATER YEAR (WY)

MEAN	111	190	283	398	420	514	505	400	309	204	118	110
MAX	981	1,283	1,059	2,390	1,278	1,399	1,503	1,524	1,638	1,258	739	1,242
(WY)	(2002)	(1994)	(1991)	(1950)	(1950)	(1963)	(1964)	(1943)	(1998)	(2003)	(1979)	(2003)
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)

03352500 FALL CREEK AT MILLERSVILLE, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1930 - 2004	
ANNUAL TOTAL	193,033		150,393			
ANNUAL MEAN	529		411		296	
HIGHEST ANNUAL MEAN					539	1950
LOWEST ANNUAL MEAN					44.0	1941
HIGHEST DAILY MEAN	10,500	Sep 2	4,840	Jun 13	10,600	May 18, 1943
LOWEST DAILY MEAN	76	Aug 26	50	Sep 9	7.8	Sep 28, 1941
ANNUAL SEVEN-DAY MINIMUM	90	Aug 20	67	Sep 3	9.0	Sep 24, 1941
MAXIMUM PEAK FLOW			5,260	Jun 13	12,900	May 28, 1956
MAXIMUM PEAK STAGE			11.06	Jun 13	15.68	Sep 2, 2003
ANNUAL RUNOFF (CFSM)	1.77		1.38		0.993	
ANNUAL RUNOFF (INCHES)	24.10		18.77		13.50	
10 PERCENT EXCEEDS	920		767		660	
50 PERCENT EXCEEDS	233		229		131	
90 PERCENT EXCEEDS	130		84		47	

e Estimated



03353000 WHITE RIVER AT INDIANAPOLIS, IN

LOCATION.--Lat 39°44'14", long 86°10'08", in NW¼NW¼ sec.14, T.15 N., R.3 E., Marion County, Hydrologic Unit 05120201, (INDIANAPOLIS WEST, IN quadrangle), on left bank under Raymond Street bridge in Indianapolis, 3.7 mi downstream from Fall Creek, 2.3 mi upstream from Eagle Creek, 2.9 mi upstream from Indianapolis Power and Light Company dam, and at mile 229.2.

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 2.0 mi upstream Feb. 8, 1911, to Mar. 25, 1913, and at site 3.2 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. WDR IN-01-1 (P).

GAGE.--Acoustic Velocity Meter and Data Collection Platform. Datum of gage is 662.26 ft above National Geodetic Vertical Datum of 1929. March 1904 to July 1906, nonrecording gage at railroad bridge 1.9 mi upstream at datum approximately 2.9 ft higher. April 1930 to July 20, 1931, nonrecording gage at Indianapolis sanitation plant, 1.2 mi downstream at datum 2.26 ft lower. July 21, 1931 to Mar. 2, 1932, nonrecording gage and March 3, 1932, to September, 30 1940, water-stage recorder at Morris Street, 1.1 mi upstream at datum 2.26 ft lower. October 1, 1940, to September 30, 1998, water-stage recorder at Morris Street, 1.1 mi upstream at present datum. October 1, 1998, to May 16, 2000, Acoustic Velocity Meter at Interstate 70 bridge, 1.3 mi upstream at present datum. May 16, 2000 to present, Acoustic Velocity Meter and Data collection Platform at Raymond Street.

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

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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,840	979	3,510	3,550	e820	1,660	5,600	764	7,710	780	750	476
2	2,150	1,280	2,700	3,580	e900	2,950	3,910	1,030	5,840	728	658	388
3	1,630	1,330	2,100	3,490	e1,060	3,500	2,840	969	3,190	855	564	380
4	1,480	1,220	1,820	9,720	e900	2,960	2,230	989	2,210	1,430	1,100	699
5	1,370	1,110	1,950	17,500	e1,070	4,510	1,770	972	1,670	1,230	776	476
6	1,230	1,050	2,230	e17,200	1,280	6,790	1,520	862	1,390	950	607	411
7	1,100	967	2,820	e14,800	1,240	4,750	1,390	767	1,200	824	509	406
8	950	885	2,570	6,930	1,310	3,010	1,330	713	1,040	736	460	403
9	879	847	2,210	3,890	1,170	2,300	1,250	635	922	763	426	387
10	835	748	2,340	3,000	988	1,880	1,140	622	860	896	398	351
11	799	753	2,880	2,450	925	1,580	1,050	596	3,910	1,310	370	379
12	771	941	3,390	2,180	945	1,420	1,000	564	15,400	1,300	344	365
13	824	1,620	2,640	2,130	937	1,280	983	574	e15,300	952	395	364
14	2,070	1,970	2,120	1,840	939	1,200	894	1,040	10,600	774	415	354
15	2,100	1,460	1,900	1,690	887	1,140	826	1,270	8,450	647	406	347
16	3,300	1,240	1,730	1,570	871	1,180	815	1,100	11,000	579	415	372
17	2,860	1,120	1,740	1,580	860	1,150	826	890	11,400	586	390	368
18	1,980	1,290	1,860	1,880	799	1,130	816	787	9,450	579	392	341
19	1,550	2,570	1,790	1,800	859	1,150	776	1,800	6,430	520	397	313
20	1,280	4,420	1,570	1,540	1,700	1,220	820	2,180	4,040	465	832	333
21	1,090	3,930	1,400	1,340	4,410	1,410	982	1,840	2,880	540	915	351
22	1,010	2,680	1,300	1,230	4,320	1,580	1,110	1,320	2,390	2,270	749	344
23	944	2,080	5,880	e1,010	2,640	1,380	1,380	1,140	1,990	1,010	693	335
24	882	3,360	10,900	e960	2,230	1,210	1,170	1,270	1,670	795	696	317
25	926	4,500	10,600	e940	2,080	1,150	1,320	1,400	1,400	669	893	301
26	1,230	3,900	6,220	e920	1,750	1,880	1,130	1,210	1,220	583	1,020	293
27	1,060	3,190	3,910	e940	1,510	3,970	979	960	1,100	537	645	311
28	1,020	3,490	3,110	e930	1,350	5,360	867	1,880	1,000	505	518	327
29	1,030	5,300	3,130	e860	1,260	4,030	761	5,340	919	495	507	332
30	978	5,090	3,720	e820	---	3,080	744	5,760	859	518	465	345
31	917	---	4,480	e800	---	5,380	---	7,360	---	796	522	---
TOTAL	43,085	65,320	100,520	113,070	42,010	77,190	42,229	48,604	137,440	25,622	18,227	11,169
MEAN	1,390	2,177	3,243	3,647	1,449	2,490	1,408	1,568	4,581	827	588	372
MAX	3,300	5,300	10,900	17,500	4,410	6,790	5,600	7,360	15,400	2,270	1,100	699
MIN	771	748	1,300	800	799	1,130	744	564	859	465	344	293
CFSM	0.85	1.33	1.98	2.23	0.89	1.52	0.86	0.96	2.80	0.51	0.36	0.23
IN.	0.98	1.49	2.29	2.57	0.96	1.76	0.96	1.11	3.13	0.58	0.41	0.25

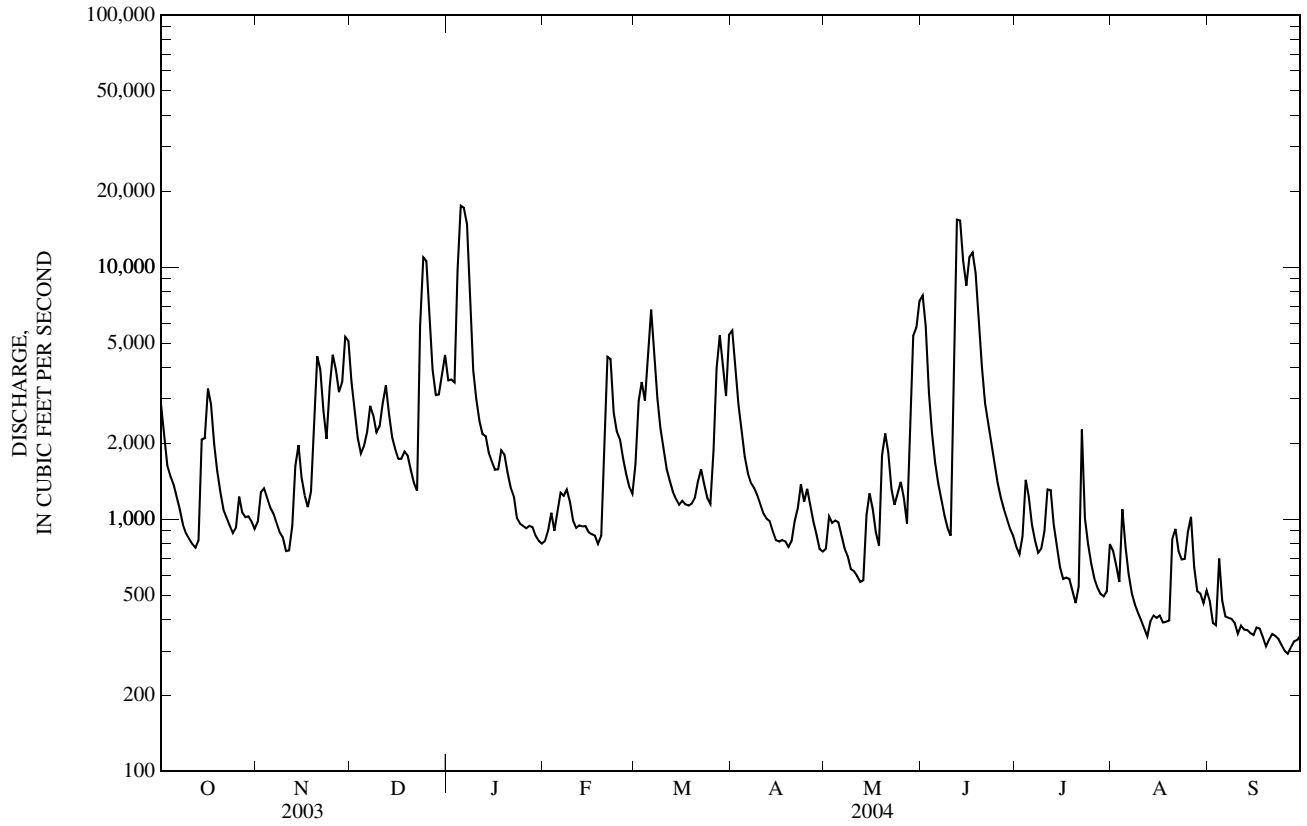
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2004, BY WATER YEAR (WY)

MEAN	491	925	1,402	1,921	2,109	2,693	2,636	1,969	1,507	960	533	495
MAX	4,791	6,425	5,826	12,120	6,452	6,610	7,777	8,594	7,910	6,173	3,399	5,814
(WY)	(2002)	(1994)	(1991)	(1950)	(1950)	(1963)	(1964)	(1943)	(1958)	(2003)	(1979)	(2003)
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)

03353000 WHITE RIVER AT INDIANAPOLIS, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1931 - 2004	
ANNUAL TOTAL	976,910		724,486			
ANNUAL MEAN	2,676		1,979		1,466	
HIGHEST ANNUAL MEAN					2,698	1950
LOWEST ANNUAL MEAN					233	1941
HIGHEST DAILY MEAN	33,800	Sep 2	17,500	Jan 5	36,800	Dec 31, 1990
LOWEST DAILY MEAN	206	Aug 26	293	Sep 26	8.0	Sep 29, 1941
ANNUAL SEVEN-DAY MINIMUM	278	Aug 21	317	Sep 23	12	Sep 24, 1941
MAXIMUM PEAK FLOW			unknown	unknown	42,500	Sep 1, 2003
MAXIMUM PEAK STAGE			13.40	Jan 6	21.57	Jan 16, 1937
ANNUAL RUNOFF (CFSM)	1.64		1.21		0.897	
ANNUAL RUNOFF (INCHES)	22.23		16.48		12.18	
10 PERCENT EXCEEDS	5,480		4,030		3,390	
50 PERCENT EXCEEDS	1,250		1,140		666	
90 PERCENT EXCEEDS	511		415		150	

e Estimated



03353120 PLEASANT RUN AT ARLINGTON AVENUE AT INDIANAPOLIS, IN

LOCATION.--Lat 39°46'33", long 86°03'50", in SW¼NW¼ sec.2, T.15 N., R.4 E., Marion County, Hydrologic Unit 05120201, (INDIANAPOLIS EAST, IN quadrangle), 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 National Geodetic Vertical Datum of 1929 (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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	8.2	5.4	20	2.6	33	18	4.5	9.9	1.3	1.4	2.2
2	1.1	2.6	4.4	59	6.0	7.8	8.6	18	4.8	1.3	1.2	2.0
3	1.1	2.1	3.9	38	17	4.9	5.9	3.2	3.5	77	1.2	12
4	2.0	2.0	4.1	398	6.4	21	4.4	2.1	2.6	29	77	2.6
5	1.1	2.2	27	49	11	20	3.9	1.6	2.2	3.6	5.4	1.9
6	0.94	2.3	10	13	16	8.1	3.5	1.3	1.8	2.2	2.5	1.8
7	1.2	2.1	6.3	7.7	5.7	5.2	3.5	1.2	1.6	2.6	2.1	1.9
8	1.0	2.2	5.1	e5.4	e3.4	4.1	3.4	1.1	1.5	1.7	1.5	e1.8
9	1.0	2.3	4.5	e4.0	e3.0	3.5	2.7	2.2	1.4	34	1.3	e1.5
10	1.1	2.6	27	e3.4	e2.8	3.1	2.4	3.7	1.6	28	1.2	e1.4
11	1.6	8.6	12	e3.1	e2.6	2.9	2.3	1.1	114	113	1.2	e1.3
12	2.5	5.9	6.4	e3.0	e2.4	2.7	2.1	e1.1	39	21	1.4	e1.2
13	2.8	2.0	4.9	e2.8	e2.3	2.6	2.1	e2.4	25	8.2	1.1	e1.1
14	126	1.8	5.5	e2.7	e2.2	3.5	1.9	e16	9.3	6.5	1.1	e0.97
15	11	1.9	4.7	e2.6	e2.1	2.8	1.8	e10	76	3.2	1.1	e0.88
16	3.7	1.8	14	e2.5	e2.0	10	1.7	e4.2	359	2.4	1.0	e0.83
17	2.5	1.6	7.0	24	e2.0	5.6	1.7	e3.2	38	2.3	0.99	e0.79
18	2.1	56	5.6	16	e1.9	7.5	1.6	e7.3	9.7	1.9	1.1	e0.75
19	1.9	31	4.9	6.2	4.2	4.8	1.7	89	5.5	1.8	2.8	e0.71
20	1.5	6.8	4.2	4.0	10	4.9	6.4	7.4	3.9	1.5	59	e0.66
21	2.0	3.9	4.2	e3.0	7.0	3.7	2.5	3.6	5.4	23	6.6	e0.63
22	2.5	2.8	5.2	e2.4	4.4	2.8	33	2.4	8.1	89	2.5	e0.60
23	1.8	3.9	150	e2.1	4.0	2.6	10	3.2	2.8	5.8	1.7	e0.58
24	1.7	72	24	e1.9	3.9	2.6	3.7	7.8	2.3	3.0	68	e0.54
25	17	10	12	e1.8	3.3	2.5	8.4	16	1.9	4.9	33	e0.52
26	22	6.5	7.8	2.4	2.9	126	3.1	8.7	1.7	2.8	80	e0.51
27	3.3	31	6.4	2.9	2.6	33	2.3	3.9	1.5	2.1	6.9	e0.49
28	3.8	46	5.5	e2.2	2.4	11	1.8	4.1	1.5	1.7	35	e0.47
29	2.7	12	30	e1.9	2.5	8.7	1.7	1.9	1.4	1.5	12	e0.45
30	1.9	7.5	14	e1.8	---	47	2.0	172	1.3	2.2	4.6	e0.44
31	2.1	---	7.7	e1.9	---	68	---	166	---	3.1	2.9	---
TOTAL	228.24	341.6	433.7	688.7	138.6	465.9	148.1	570.2	738.2	481.6	418.79	43.52
MEAN	7.36	11.4	14.0	22.2	4.78	15.0	4.94	18.4	24.6	15.5	13.5	1.45
MAX	126	72	150	398	17	126	33	172	359	113	80	12
MIN	0.94	1.6	3.9	1.8	1.9	2.5	1.6	1.1	1.3	1.3	0.99	0.44
CFSM	0.97	1.50	1.85	2.93	0.63	1.98	0.65	2.43	3.25	2.05	1.78	0.19
IN.	1.12	1.68	2.13	3.38	0.68	2.29	0.73	2.80	3.62	2.36	2.06	0.21

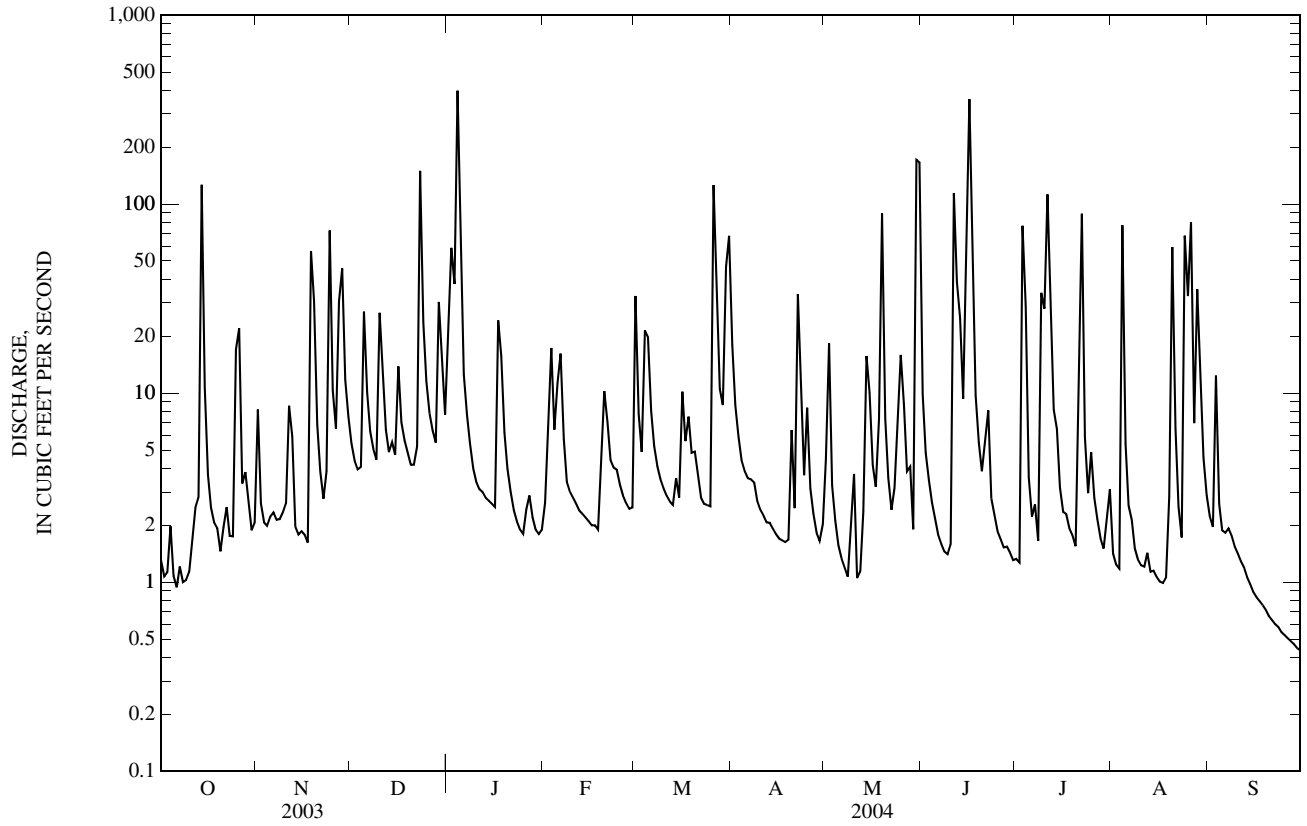
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2004, BY WATER YEAR (WY)

MEAN	4.72	8.70	8.61	8.00	8.60	12.8	11.0	10.7	8.07	8.68	5.10	4.98
MAX	27.5	36.9	33.3	25.0	25.7	42.3	28.5	37.8	49.2	33.8	21.3	34.3
(WY)	(1987)	(1994)	(1991)	(1969)	(1971)	(1963)	(1961)	(1996)	(1998)	(1979)	(1979)	(2003)
MIN	0.38	1.05	0.72	0.45	1.11	1.81	1.61	1.12	0.69	0.61	0.67	0.49
(WY)	(1964)	(2000)	(1964)	(1977)	(1978)	(2001)	(1971)	(1964)	(1967)	(1967)	(1967)	(1967)

03353120 PLEASANT RUN AT ARLINGTON AVENUE AT INDIANAPOLIS, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1960 - 2004	
ANNUAL TOTAL	4,187.73		4,697.15			
ANNUAL MEAN	11.5		12.8		8.35	
HIGHEST ANNUAL MEAN					12.8	2004
LOWEST ANNUAL MEAN					3.25	1966
HIGHEST DAILY MEAN	792	Sep 1	398	Jan 4	792	Sep 1, 2003
LOWEST DAILY MEAN	0.29	Aug 24	e 0.44	Sep 30	0.00	Sep 11, 1960
ANNUAL SEVEN-DAY MINIMUM	0.39	Aug 20	e 0.49	Sep 24	0.00	Oct 5, 1960
MAXIMUM PEAK FLOW			1,730	Jun 16	2,600	Jun 25, 1978
MAXIMUM PEAK STAGE			10.49	Jun 16	13.86	Jun 25, 1978
ANNUAL RUNOFF (CFSM)	1.51		1.69		1.10	
ANNUAL RUNOFF (INCHES)	20.55		23.05		14.97	
10 PERCENT EXCEEDS	24		29		17	
50 PERCENT EXCEEDS	3.1		3.0		1.9	
90 PERCENT EXCEEDS	0.79		1.2		0.50	

e Estimated



03353200 EAGLE CREEK AT ZIONSVILLE, IN

LOCATION.--Lat 39°56'47", long 86°15'37", in NE¼SE¼ sec.2, T.17 N., R.2 E., Boone County, Hydrologic Unit 05120201, (ZIONSVILLE, IN quadrangle), on right upstream end of Zionsville Road bridge over Eagle Creek, 0.15 mi south of Highway 334, 1.0 mi downstream from Little Eagle Creek, 0.34 mi downstream from Long Branch Ditch, and at mile 24.4.

DRAINAGE AREA.--106 mi^2.

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

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 813.85 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 9, 1957, nonrecording gage, and prior to Oct. 1, 1999 a continuous water-stage recorder at site 0.4 mi upstream and at datum 816.85 ft.

REMARKS.--Records fair except those for Apr. 1 - 8, May 31 to June 10, June 19 to July 16 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 (datum 816.85 ft).

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	131	50	151	143	e31	313	560	25	186	16	10	4.5
2	104	112	123	156	e32	352	286	45	116	14	8.9	3.8
3	88	100	111	178	66	194	181	40	79	14	e8.2	5.9
4	86	80	104	2,370	52	354	133	30	55	32	e18	6.7
5	67	64	157	1,960	41	927	107	27	44	18	11	4.2
6	54	52	235	568	56	422	94	23	38	15	8.9	3.8
7	45	43	178	269	49	220	87	21	31	15	7.3	4.9
8	40	36	150	183	e35	153	81	19	27	13	6.2	3.7
9	35	30	133	146	e34	e130	e66	18	25	12	5.6	3.0
10	33	29	223	118	e33	e110	e56	18	24	13	5.3	2.4
11	33	44	308	109	e32	96	e46	17	1,990	41	4.5	2.4
12	28	71	184	106	e31	83	43	16	1,330	26	4.2	2.1
13	25	72	138	98	e30	70	41	19	572	15	4.1	1.8
14	113	49	124	92	e29	72	38	34	341	13	4.0	1.8
15	242	44	108	90	e29	65	33	38	340	12	3.8	2.1
16	149	43	112	78	e28	68	30	26	674	12	3.6	2.0
17	109	38	127	84	e26	68	29	23	548	18	3.3	2.1
18	85	113	111	125	e27	72	28	23	301	15	2.9	2.0
19	70	598	96	e90	158	92	25	157	198	12	2.8	2.0
20	56	279	80	e82	604	94	29	123	117	11	14	1.9
21	51	176	71	e64	405	112	40	82	91	11	14	1.7
22	45	140	76	e60	178	87	39	59	73	15	10	1.7
23	37	120	2,000	e56	183	74	59	48	48	14	7.4	1.6
24	32	671	1,010	e52	167	69	45	77	38	11	6.9	1.5
25	31	351	439	e48	129	64	45	70	30	10	6.2	1.4
26	36	209	232	e46	111	218	37	45	28	9.5	16	1.1
27	33	183	171	e44	99	562	33	39	23	8.9	9.4	1.2
28	33	400	155	e42	91	265	25	284	21	8.2	7.4	1.3
29	33	299	235	e34	93	171	23	109	20	7.9	6.0	1.4
30	28	197	361	e32	---	194	22	110	19	9.8	5.7	1.5
31	25	---	189	e32	---	1,270	---	566	---	13	5.0	---
TOTAL	1,977	4,693	7,892	7,555	2,879	7,041	2,361	2,231	7,427	455.3	230.6	77.5
MEAN	63.8	156	255	244	99.3	227	78.7	72.0	248	14.7	7.44	2.58
MAX	242	671	2,000	2,370	604	1,270	560	566	1,990	41	18	6.7
MIN	25	29	71	32	26	64	22	16	19	7.9	2.8	1.1
CFSM	0.60	1.48	2.40	2.30	0.94	2.14	0.74	0.68	2.34	0.14	0.07	0.02
IN.	0.69	1.65	2.77	2.65	1.01	2.47	0.83	0.78	2.61	0.16	0.08	0.03

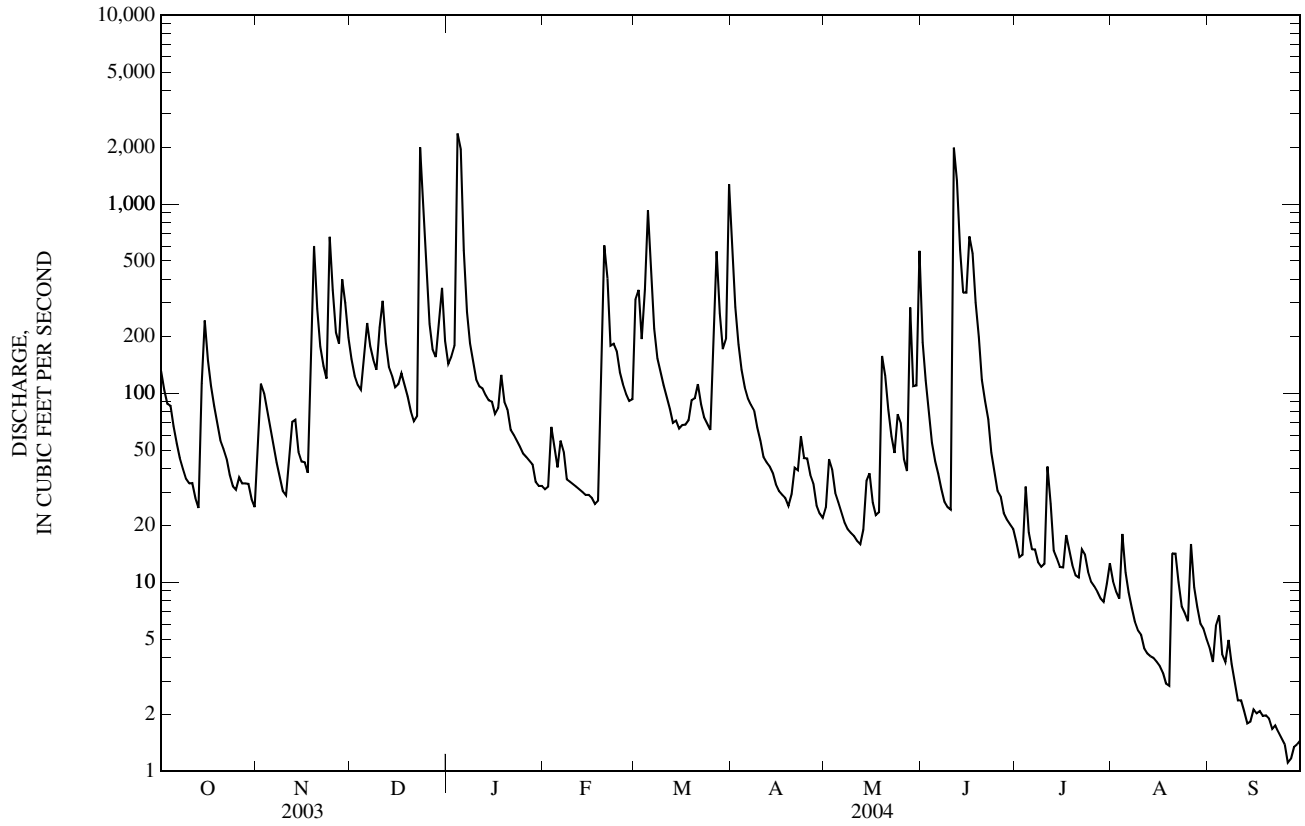
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2004, BY WATER YEAR (WY)

MEAN	27.9	83.5	124	118	147	195	169	117	96.3	66.5	33.6	28.6
MAX	330	542	530	452	423	459	532	456	523	520	444	414
(WY)	(2002)	(1993)	(1991)	(1974)	(1976)	(1963)	(1964)	(1996)	(1958)	(1979)	(1958)	(2003)
MIN	0.00	0.80	1.65	1.23	9.05	23.9	24.6	12.0	1.55	1.52	0.00	0.00
(WY)	(1967)	(2000)	(1977)	(1977)	(1964)	(2000)	(2000)	(1988)	(1988)	(1966)	(1966)	(1966)

03353200 EAGLE CREEK AT ZIONSVILLE, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1958 - 2004	
ANNUAL TOTAL	72,803.1		44,819.4			
ANNUAL MEAN	199		122		100	
HIGHEST ANNUAL MEAN					188	1974
LOWEST ANNUAL MEAN					15.9	2000
HIGHEST DAILY MEAN	4,910	Sep 1	2,370	Jan 4	6,840	Dec 30, 1990
LOWEST DAILY MEAN	6.5	Aug 26	1.1	Sep 26	0.00	Sep 9, 1959
ANNUAL SEVEN-DAY MINIMUM	8.4	Aug 21	1.3	Sep 24	0.00	Sep 15, 1959
MAXIMUM PEAK FLOW			4,140	Jan 4	12,400	Apr 20, 1964
MAXIMUM PEAK STAGE			9.56	Jan 4	14.64	Apr 20, 1964
ANNUAL RUNOFF (CFSM)	1.88		1.16		0.946	
ANNUAL RUNOFF (INCHES)	25.55		15.73		12.85	
10 PERCENT EXCEEDS	398		266		216	
50 PERCENT EXCEEDS	71		45		31	
90 PERCENT EXCEEDS	21		4.8		1.4	

e Estimated



03353450 EAGLE CREEK RESERVOIR NEAR INDIANAPOLIS, IN

LOCATION.--Lat 39°49'20", long 86°18'13", in NW¼NW¼ sec. 22, T.16 N., R.2 E., Marion County, Hydrologic Unit 05120201, (CLERMONT, IN quadrangle), 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 0.00 ft above National Geodetic Vertical Datum of 1929.

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 30,940 acre-ft May 11, 2003, elevation, 794.84 ft; minimum, 11,390 acre-ft Nov. 17-18, 1991, elevation, 778.70 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 28,000 acre-ft June 12, elevation, 792.86 ft; minimum, 21,010 acre-ft Sept. 30, elevation, 787.70 ft.

MONTHEND ELEVATION AND CONTENTS, AT 2400 HOURS

WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Elevation (feet	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	790.51	24,710	
Oct. 31.....	789.22	22,990	- 1720
Nov. 30.....	790.21	24,290	+ 1300
Dec. 31.....	789.26	23,040	- 1250
CAL YR 2003	---	---	- 1180
Jan. 31.....	789.12	22,860	- 180
Feb. 28.....	789.33	23,130	+ 270
Mar. 31.....	791.58	26,210	+ 3080
Apr. 30.....	791.91	25,270	- 940
May 31.....	791.03	25,440	+ 170
Jun. 30.....	791.00	25,400	- 40
Jul. 31.....	790.64	204,900	- 500
Aug. 31.....	789.63	23,520	- 1380
Sep. 30.....	787.70	21,010	- 2510
WTR YR 2004	---	---	- 3700

03353451 EAGLE CREEK BELOW RESERVOIR AT INDIANAPOLIS, IN

LOCATION.--Lat 39°49'19", long 86°18'14", in NW¼NW¼ sec. 22, T.16 N., R.2 E., Marion County, Hydrologic Unit 05120201, (CLERMONT, IN quadrangle), 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 2.0 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 National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. 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 Oct. 1993, this station was published under Eagle Creek Reservoir at Indianapolis (station 03353450).

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	18	---	15	11	12
2	---	---	---	---	---	---	---	---	---	15	11	12
3	---	---	---	---	15	---	---	19	---	14	11	11
4	---	---	---	---	16	---	---	19	---	---	12	11
5	---	---	---	---	---	---	---	17	18	---	12	11
6	---	---	---	---	---	---	---	---	18	13	13	10
7	---	---	---	---	---	---	---	---	17	14	12	12
8	10	---	---	---	---	---	---	15	16	14	12	12
9	10	---	---	---	---	---	---	16	16	13	11	12
10	9.6	12	---	---	19	---	---	16	16	13	11	12
11	9.9	11	---	---	19	---	---	15	---	13	13	12
12	---	---	---	---	20	---	---	16	---	14	14	12
13	---	---	---	---	21	---	---	16	---	16	14	11
14	---	---	---	---	19	---	17	---	---	19	14	12
15	---	---	---	---	---	---	16	---	---	20	13	11
16	---	---	---	---	---	---	16	---	---	19	13	12
17	---	---	---	---	---	---	15	17	---	19	13	12
18	---	---	---	---	---	---	15	17	---	18	12	12
19	---	---	---	---	---	---	15	---	---	17	12	12
20	9.1	---	---	---	---	---	---	---	---	15	13	12
21	9.7	---	---	---	---	---	---	---	---	15	13	13
22	11	---	---	---	---	---	---	---	---	14	12	12
23	12	---	---	17	18	---	---	---	---	14	12	12
24	12	---	---	---	---	---	---	---	---	15	12	12
25	---	---	---	---	---	---	---	---	17	16	11	12
26	---	---	---	---	---	---	18	---	16	15	12	13
27	13	---	---	---	---	---	20	---	16	15	11	12
28	13	---	---	17	---	---	18	---	15	13	11	12
29	13	---	---	17	---	---	16	---	15	13	12	11
30	12	---	---	e18	---	---	16	---	15	12	12	11
31	11	---	---	e20	---	---	---	---	---	12	12	---
TOTAL	155.3	23	---	89	147	---	182	201	195	435	377	353
MEAN	11.1	11.5	---	17.8	18.4	---	16.5	16.8	16.2	15.0	12.2	11.8
MAX	13	12	---	20	21	---	20	19	18	20	14	13
MIN	9.1	11	---	17	15	---	15	15	15	12	11	10
CFSM	0.07	0.07	---	0.11	0.11	---	0.10	0.10	0.10	0.09	0.08	0.07
IN.	0.04	0.01	---	0.02	0.03	---	0.04	0.05	0.04	0.10	0.09	0.08

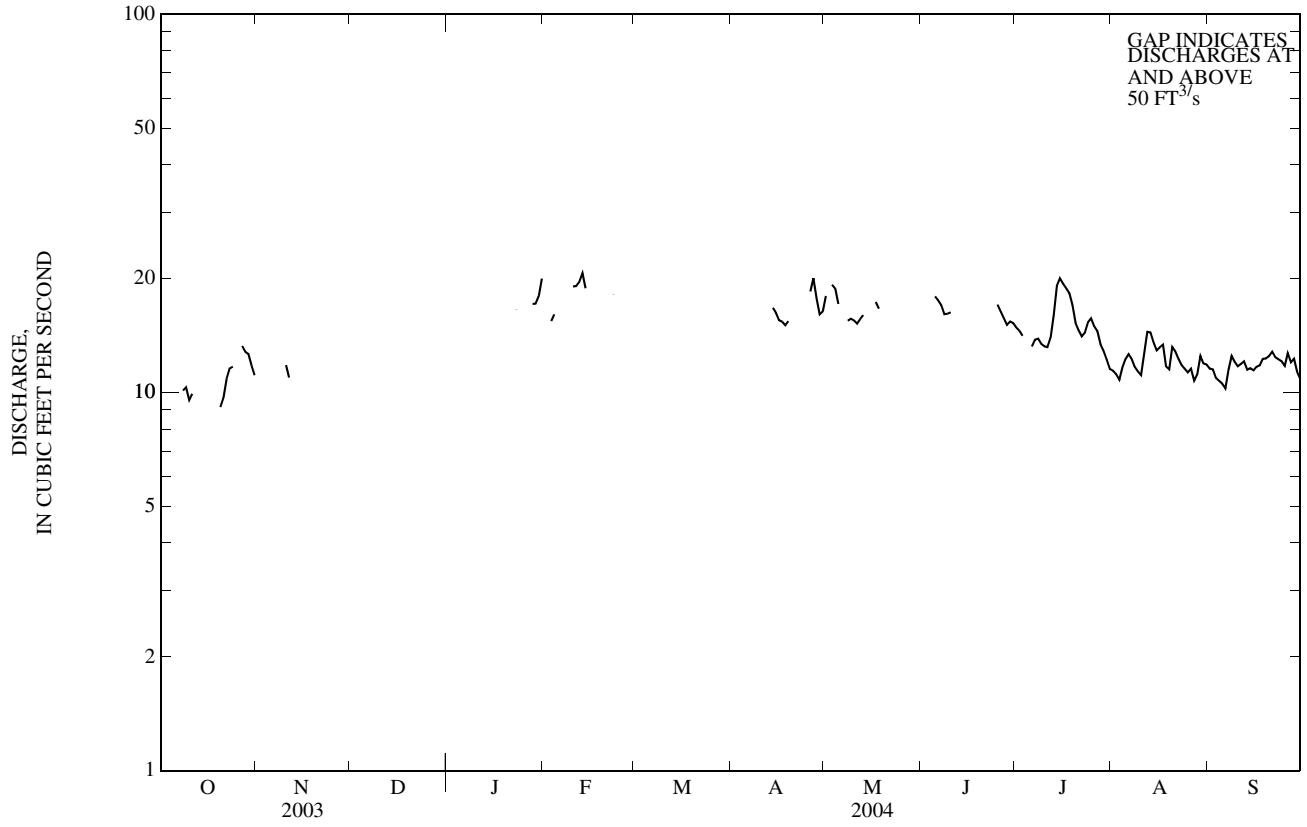
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2004, BY WATER YEAR (WY)

MEAN	9.13	9.10	9.00	9.77	10.3	11.0	14.1	12.9	11.7	11.2	9.42	9.44
MAX	13.0	12.6	12.0	17.8	18.4	16.0	24.2	23.0	16.2	15.0	13.0	19.4
(WY)	(2003)	(2001)	(1997)	(2004)	(2004)	(1997)	(1996)	(1996)	(2004)	(2004)	(1999)	(2003)
MIN	3.63	3.69	3.88	4.07	4.84	8.65	10.4	4.94	4.07	4.40	3.49	3.55
(WY)	(1995)	(1995)	(1996)	(1996)	(1995)	(1994)	(2000)	(1993)	(1993)	(1993)	(1994)	(1994)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1992 - 2004	
ANNUAL TOTAL	2,382.1		2,157.3			
ANNUAL MEAN	12.9		14.0		10.3	
HIGHEST ANNUAL MEAN					14.0	2004
LOWEST ANNUAL MEAN					4.34	1993
HIGHEST DAILY MEAN	31	Sep 15	21	Feb 13	34	Apr 5, 1996
LOWEST DAILY MEAN	9.1	Oct 20	9.1	Oct 20	2.0	Sep 14, 1994
ANNUAL SEVEN-DAY MINIMUM	11	Apr 27	11	Aug 31	2.3	Sep 8, 1994
ANNUAL RUNOFF (CFSM)	0.079		0.086		0.063	
ANNUAL RUNOFF (INCHES)	0.55		0.50		0.86	
10 PERCENT EXCEEDS	15		18		14	
50 PERCENT EXCEEDS	12		13		11	
90 PERCENT EXCEEDS	11		11		4.2	

e Estimated

03353451 EAGLE CREEK BELOW RESERVOIR AT INDIANAPOLIS, IN—Continued



03353500 EAGLE CREEK AT INDIANAPOLIS, IN

LOCATION.--Lat 39°46'40", long 86°15'01", in NW¼NW¼ sec.6, T.15 N., R.3 E., Marion County, Hydrologic Unit 05120201, (CLERMONT, IN quadrangle), 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 National Geodetic Vertical Datum of 1929. Aug. 8, 1957 to June 30, 1958, temporary site during reconstruction of bridge on Lynhurst Drive, a nonrecording gage on downstream side of 10th Street bridge. Mar. 10, 1966 to Aug. 16, 1967, during channelization of Eagle Creek, a nonrecording gage on downstream side of Lynhurst Drive bridge. Prior to Oct. 1, 1967, at datum 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 except for estimated daily discharges, which are poor. 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	539	53	426	248	164	221	e574	28	439	21	15	13
2	431	125	387	282	77	482	368	106	81	20	14	13
3	45	121	148	495	35	568	329	33	203	22	13	14
4	167	121	148	2,200	28	573	234	29	120	90	48	13
5	185	122	160	2,890	104	848	140	26	37	95	18	12
6	183	123	172	966	161	900	138	28	32	21	15	12
7	178	123	267	357	156	494	137	45	30	21	14	14
8	27	123	170	273	153	146	136	23	27	20	13	14
9	20	87	265	271	86	141	135	22	25	29	13	14
10	20	19	293	266	33	138	131	23	26	28	12	13
11	18	19	287	257	33	137	130	21	674	26	13	13
12	52	49	362	252	32	140	125	21	2,250	25	15	13
13	207	79	168	181	36	138	75	27	965	25	14	13
14	273	79	225	120	34	137	33	96	370	28	13	13
15	225	78	247	119	58	135	30	195	289	28	13	13
16	215	76	142	119	94	140	27	117	1,170	27	13	14
17	212	75	142	132	91	137	27	33	900	26	13	13
18	210	97	141	196	90	137	27	29	430	25	13	13
19	177	412	140	214	93	135	24	244	509	24	13	14
20	21	492	139	137	377	134	79	359	317	21	36	14
21	16	240	136	134	831	136	187	206	127	34	19	14
22	17	238	137	114	689	136	150	109	124	162	16	14
23	18	239	1,710	39	53	132	155	195	121	31	15	14
24	19	585	2,150	59	71	129	72	199	83	22	24	14
25	63	745	786	131	165	129	166	215	28	24	21	13
26	273	422	390	127	165	212	34	207	26	e23	46	15
27	66	576	220	94	164	184	31	111	24	e20	18	15
28	21	400	215	28	162	139	30	93	23	e18	15	15
29	20	152	556	27	161	e111	26	175	22	17	16	15
30	18	147	541	29	---	e300	26	273	21	23	15	13
31	16	---	377	56	---	e787	---	1,140	---	25	14	---
TOTAL	3,952	6,217	11,647	10,813	4,396	8,276	3,776	4,428	9,493	1,021	550	407
MEAN	127	207	376	349	152	267	126	143	316	32.9	17.7	13.6
MAX	539	745	2,150	2,890	831	900	574	1,140	2,250	162	48	15
MIN	16	19	136	27	28	111	24	21	21	17	12	12
CFSM	0.73	1.19	2.16	2.00	0.87	1.53	0.72	0.82	1.82	0.19	0.10	0.08
IN.	0.84	1.33	2.49	2.31	0.94	1.77	0.81	0.95	2.03	0.22	0.12	0.09

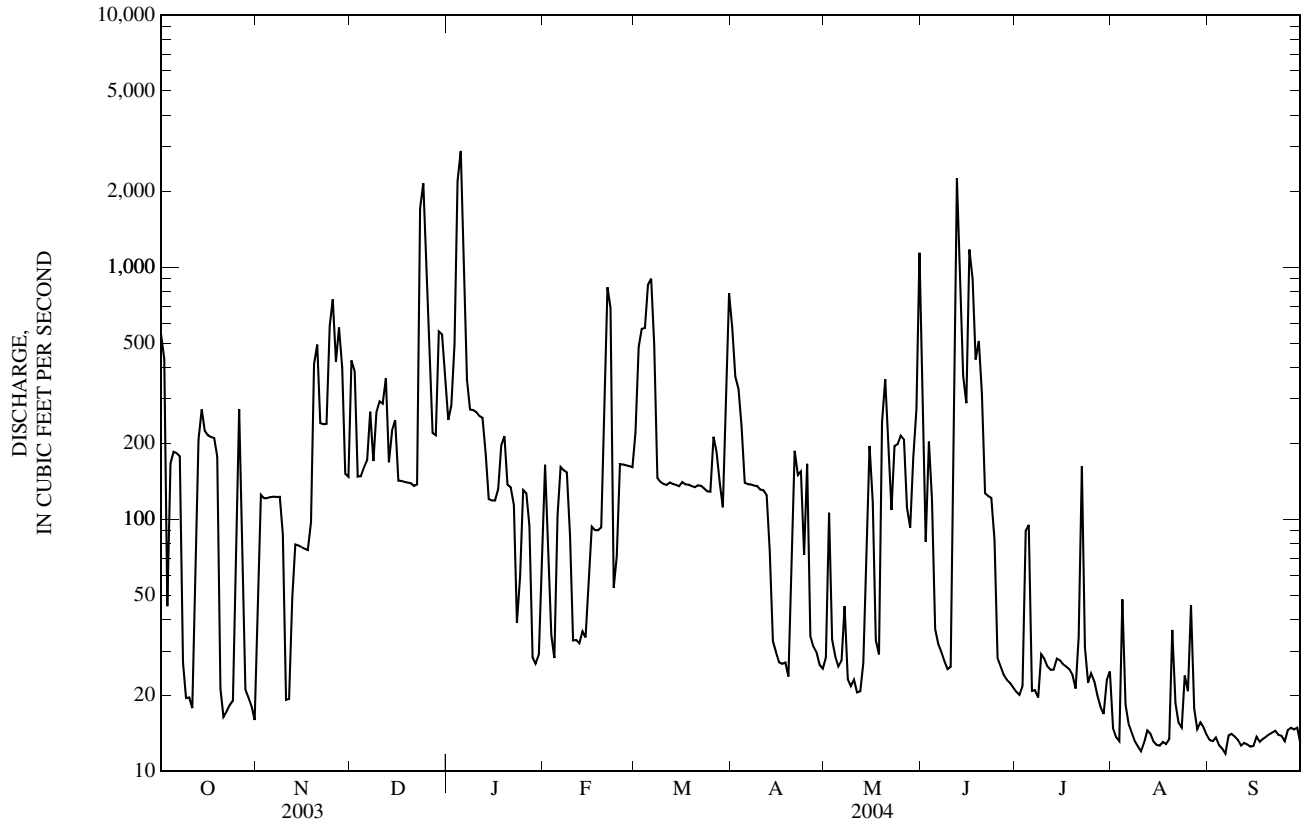
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2004, BY WATER YEAR (WY)

MEAN	41.6	112	166	203	238	303	292	220	152	90.3	38.0	49.6
MAX	574	851	906	1,485	765	900	906	1,127	904	800	490	780
(WY)	(2002)	(1993)	(1991)	(1950)	(1976)	(1978)	(1964)	(1943)	(1957)	(1979)	(1958)	(2003)
MIN	1.52	3.05	3.48	4.06	10.8	16.5	25.4	14.3	4.66	3.69	0.19	0.40
(WY)	(1941)	(1941)	(1945)	(1945)	(1998)	(2000)	(2000)	(1976)	(1988)	(1968)	(1941)	(1941)

03353500 EAGLE CREEK AT INDIANAPOLIS, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1939 - 2004	
ANNUAL TOTAL	105,242		64,976			
ANNUAL MEAN	288		178		158	
HIGHEST ANNUAL MEAN					316	1974
LOWEST ANNUAL MEAN					18.8	1941
HIGHEST DAILY MEAN	8,370	Sep 1	2,890	Jan 5	9,890	Dec 30, 1990
LOWEST DAILY MEAN	12	Aug 16	12	Aug 10	0.00	Aug 7, 1941
ANNUAL SEVEN-DAY MINIMUM	15	Aug 10	13	Aug 31	0.01	Aug 22, 1941
MAXIMUM PEAK FLOW			3,970	Jan 4	28,800	Jun 28, 1957
MAXIMUM PEAK STAGE			8.54	Jan 4	23.59	Jun 28, 1957
ANNUAL RUNOFF (CFSM)	1.66		1.02		0.910	
ANNUAL RUNOFF (INCHES)	22.50		13.89		12.37	
10 PERCENT EXCEEDS	659		415		359	
50 PERCENT EXCEEDS	123		94		38	
90 PERCENT EXCEEDS	18		14		6.2	

e Estimated



03353600 LITTLE EAGLE CREEK AT SPEEDWAY, IN

LOCATION.--Lat 39°47'15", long 86°13'43", in NE¼SW¼ sec.32, T.16 N., R.3 E., Marion County, Hydrologic Unit 05120201, (INDIANAPOLIS WEST, IN quadrangle), 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 National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to June 13, 1975, at datum 3.00 ft higher.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	22	18	22	e7.2	57	78	13	53	6.5	12	5.1
2	7.7	41	15	60	e14	33	46	44	30	6.2	8.1	4.6
3	7.0	15	13	52	e40	21	32	18	22	9.3	6.6	7.9
4	7.9	11	13	481	e22	61	24	13	17	35	61	12
5	6.3	11	48	184	e21	73	20	11	14	12	20	6.5
6	5.8	15	30	61	e41	39	17	10	14	7.7	9.7	5.1
7	5.3	15	19	36	e21	26	15	9.8	12	15	7.1	9.3
8	4.9	12	15	27	e15	19	15	8.4	11	8.0	5.8	5.3
9	4.8	11	13	21	e13	16	14	8.2	11	16	5.1	4.4
10	5.7	10	47	17	e12	13	12	9.0	12	22	4.8	e3.7
11	5.5	18	30	15	e11	13	11	7.7	179	27	4.8	e2.9
12	6.0	28	19	13	e9.9	10	10	7.1	117	25	4.3	e2.5
13	6.1	14	15	12	e9.4	9.9	9.9	9.8	68	15	4.1	e2.2
14	161	10	13	11	e8.8	11	9.2	52	65	12	3.8	e2.0
15	49	10	12	11	e8.5	10	8.7	41	275	7.2	3.7	e1.8
16	22	9.4	22	9.8	e8.2	17	8.4	17	440	5.9	3.5	e1.7
17	15	9.3	e14	31	e8.0	17	8.2	16	171	5.5	3.3	e1.6
18	12	64	e12	48	e7.8	16	8.5	17	102	5.0	3.1	e1.5
19	9.6	77	e11	23	e7.6	14	7.5	148	83	4.5	3.1	e1.4
20	7.9	27	e10	e14	32	15	20	63	66	4.1	55	e1.3
21	9.3	18	e9.4	e12	34	13	20	30	e27	31	27	e1.3
22	9.2	14	e9.0	e11	20	10	39	22	e22	148	9.6	e1.2
23	9.0	15	431	e9.7	17	8.9	46	18	e37	21	6.6	e1.1
24	8.5	159	101	e9.2	17	8.8	18	44	e24	11	14	e1.1
25	19	42	47	e8.9	14	10	30	74	e16	12	18	e1.0
26	24	26	29	e10	12	183	19	38	e12	9.1	61	e1.0
27	11	35	22	e11	11	163	13	27	e9.4	7.4	16	e0.97
28	9.4	73	19	e12	10	57	11	32	e7.0	6.2	10	e0.92
29	9.2	35	44	e8.4	9.4	38	9.6	21	6.8	5.5	8.6	e0.86
30	7.6	24	39	e7.8	---	72	9.3	107	6.8	16	6.8	e0.82
31	7.4	---	23	e7.4	---	226	---	238	---	39	5.6	---
TOTAL	482.6	870.7	1,162.4	1,256.2	461.8	1,280.6	589.3	1,174.0	1,930.0	555.1	412.1	93.07
MEAN	15.6	29.0	37.5	40.5	15.9	41.3	19.6	37.9	64.3	17.9	13.3	3.10
MAX	161	159	431	481	41	226	78	238	440	148	61	12
MIN	4.8	9.3	9.0	7.4	7.2	8.8	7.5	7.1	6.8	4.1	3.1	0.82
CFSM	0.64	1.19	1.54	1.67	0.66	1.70	0.81	1.56	2.65	0.74	0.55	0.13
IN.	0.74	1.33	1.78	1.92	0.71	1.96	0.90	1.80	2.95	0.85	0.63	0.14

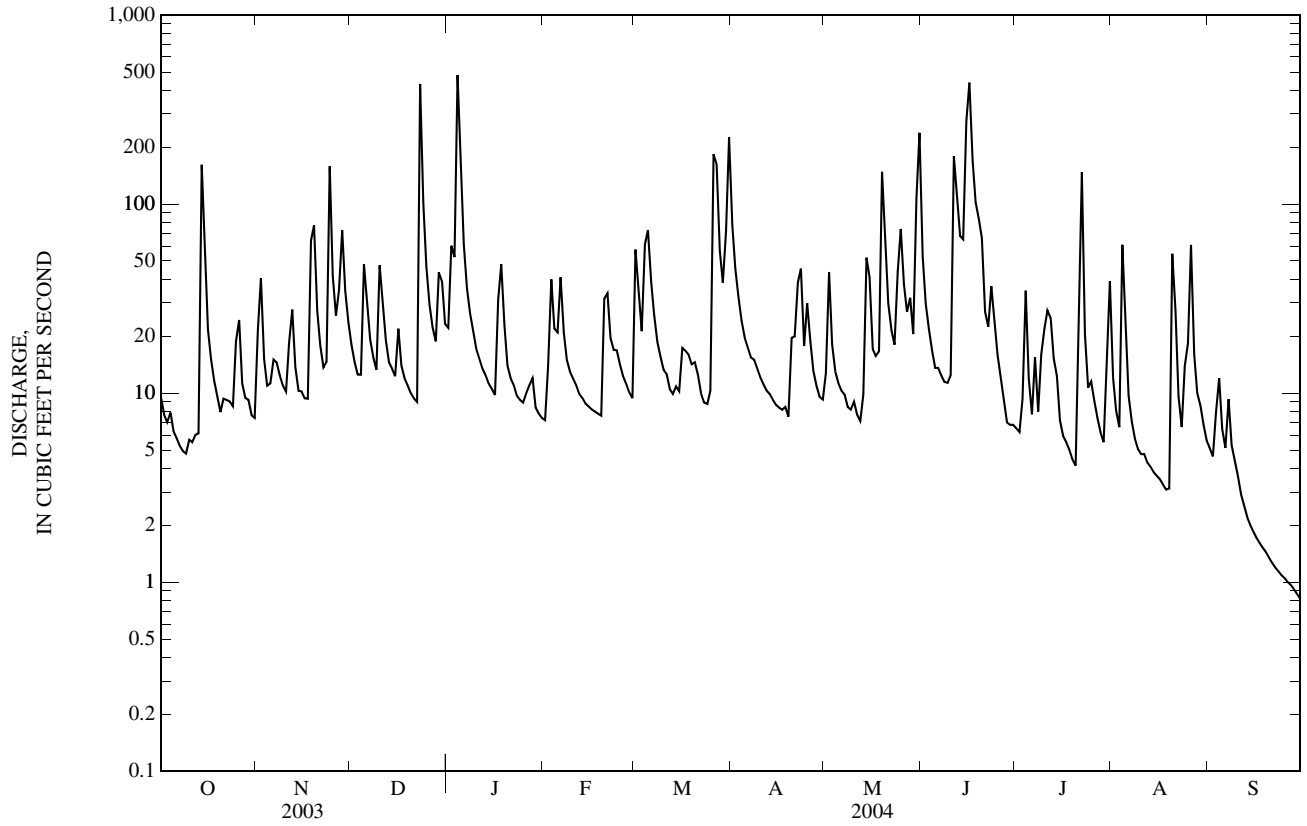
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2004, BY WATER YEAR (WY)

MEAN	12.7	24.8	28.7	26.0	30.6	37.4	35.8	34.4	22.6	19.6	11.9	13.9
MAX	88.9	115	111	78.3	77.1	87.8	84.4	140	112	92.3	44.7	114
(WY)	(1987)	(1994)	(1991)	(1969)	(1997)	(1978)	(1996)	(1996)	(1998)	(1979)	(1979)	(2003)
MIN	0.81	1.50	0.85	0.32	3.82	4.84	5.51	4.84	0.98	0.67	0.15	0.20
(WY)	(1967)	(1966)	(1977)	(1977)	(1978)	(1981)	(1976)	(1976)	(1988)	(1966)	(1966)	(1966)

03353600 LITTLE EAGLE CREEK AT SPEEDWAY, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1965 - 2004	
ANNUAL TOTAL	13,314.5		10,267.87			
ANNUAL MEAN	36.5		28.1		24.9	
HIGHEST ANNUAL MEAN					43.6	1993
LOWEST ANNUAL MEAN					4.86	1966
HIGHEST DAILY MEAN	2,130	Sep 1	481	Jan 4	2,130	Sep 1, 2003
LOWEST DAILY MEAN	1.9	Jan 30	e 0.82	Sep 30	0.00	Jul 8, 1966
ANNUAL SEVEN-DAY MINIMUM	2.0	Jan 26	e 0.95	Sep 24	0.07	Aug 2, 1966
MAXIMUM PEAK FLOW			1,170	Jun 15	3,870	Sep 1, 2003
MAXIMUM PEAK STAGE			6.47	Jun 15	12.79	Sep 1, 2003
ANNUAL RUNOFF (CFSM)	1.50		1.15		1.02	
ANNUAL RUNOFF (INCHES)	20.38		15.72		13.90	
10 PERCENT EXCEEDS	64		58		51	
50 PERCENT EXCEEDS	13		13		8.4	
90 PERCENT EXCEEDS	4.8		4.9		1.5	

e Estimated



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

LOCATION.--Lat 39°42'52", long 86°12'02", in SE¼NE¼ sec.28, T.15N., R.3E., Marion County, Hydrologic Unit 05120201, (MAYWOOD, IN quadrangle), on right bank 0.34 mi above confluence with Lick Creek, 0.63 mi west of South Harding Street, 1.42 mi east of Lockburn Street and 1.46 mi south of Raymond Street, and at mile 226.3.

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 National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Natural flow affected by regulation of Morse Reservoir, Geist Reservoir, and Eagle Creek Reservoir and by diversion of municipal water supply by the Indianapolis Water Company.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,020	1,260	3,940	3,860	e1,170	2,130	6,540	828	8,150	860	785	493
2	2,340	1,580	3,100	4,090	e1,240	3,350	4,300	1,120	6,040	807	695	410
3	1,760	1,620	2,390	4,000	e1,400	3,890	3,050	1,030	3,410	918	605	399
4	1,670	1,500	2,090	11,400	e1,360	3,430	2,340	1,030	2,320	1,500	1,200	707
5	1,570	1,390	2,290	18,200	e1,420	5,010	1,800	1,020	1,700	1,290	823	495
6	1,420	1,330	2,540	17,700	1,710	7,390	1,540	922	1,430	1,000	649	428
7	1,290	1,240	3,150	14,300	1,640	5,100	1,430	845	1,250	885	549	431
8	1,110	1,160	2,870	6,790	1,700	3,280	1,370	785	1,110	800	501	428
9	1,040	1,120	2,530	3,980	1,550	2,650	1,280	708	998	852	465	408
10	1,000	993	2,720	3,200	1,350	2,280	1,190	704	946	1,010	441	373
11	971	992	3,230	2,710	1,280	2,010	1,120	679	4,300	1,420	413	399
12	959	1,210	3,800	2,500	1,300	1,850	1,080	644	15,800	1,400	386	385
13	1,050	1,870	2,930	2,450	1,280	1,710	1,070	664	15,800	1,050	440	385
14	2,520	2,220	2,420	2,160	1,290	1,610	970	1,180	10,400	867	463	374
15	2,410	1,720	2,220	2,050	1,250	1,560	902	1,400	8,390	735	452	367
16	3,490	1,500	2,030	1,930	1,240	1,620	902	1,200	11,400	660	462	394
17	3,090	1,370	2,030	1,960	1,220	1,580	925	972	11,600	666	433	395
18	2,230	1,600	2,140	2,300	1,150	1,570	903	880	9,450	661	436	363
19	1,810	3,020	2,070	2,220	1,220	1,580	857	2,040	6,610	594	443	343
20	1,490	4,840	1,840	1,920	2,100	1,650	926	2,420	4,200	535	936	359
21	1,310	4,240	1,660	1,700	4,750	1,860	1,100	1,970	2,920	602	976	375
22	1,230	2,980	1,570	1,600	4,680	2,030	1,250	1,380	2,440	2,800	801	369
23	1,170	2,380	7,270	e1,340	2,880	1,820	1,490	1,250	2,020	1,060	745	361
24	1,100	4,000	12,500	e1,320	2,530	1,640	1,230	1,400	1,680	838	756	345
25	1,180	5,100	11,300	e1,300	2,440	1,580	1,400	1,540	1,430	717	1,070	335
26	1,580	4,360	6,690	e1,270	2,160	2,440	1,190	1,330	1,270	632	1,120	330
27	1,320	3,740	4,210	e1,300	1,930	4,450	1,040	1,060	1,160	583	651	343
28	1,250	4,050	3,420	e1,260	1,760	5,650	926	1,930	1,070	550	528	356
29	1,260	5,690	3,620	e1,170	1,670	4,460	834	5,470	991	538	528	359
30	1,220	5,490	4,190	e1,170	---	3,530	813	6,050	937	564	483	369
31	1,150	---	4,850	e1,130	---	6,390	---	8,500	---	839	533	---
TOTAL	50,010	75,565	113,610	124,280	52,670	91,100	45,768	52,951	141,222	28,233	19,768	11,878
MEAN	1,613	2,519	3,665	4,009	1,816	2,939	1,526	1,708	4,707	911	638	396
MAX	3,490	5,690	12,500	18,200	4,750	7,390	6,540	8,500	15,800	2,800	1,200	707
MIN	959	992	1,570	1,130	1,150	1,560	813	644	937	535	386	330
CFSM	0.85	1.33	1.93	2.11	0.96	1.55	0.80	0.90	2.48	0.48	0.34	0.21
IN.	0.98	1.48	2.23	2.44	1.03	1.79	0.90	1.04	2.77	0.55	0.39	0.23

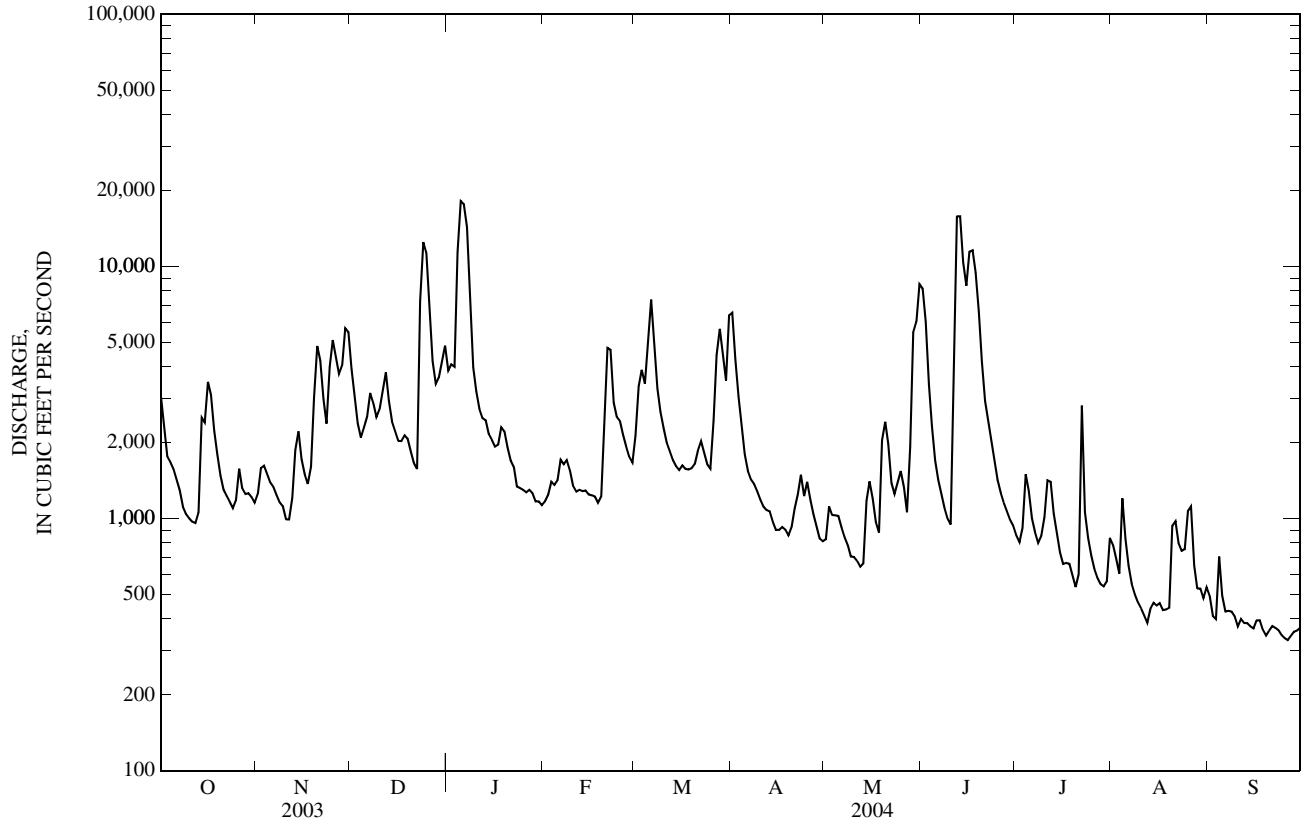
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2004, BY WATER YEAR (WY)

MEAN	1,028	2,051	1,758	2,442	2,051	2,928	2,734	3,145	2,534	1,705	626	1,046
MAX	5,339	7,366	4,215	4,949	4,000	5,526	5,334	7,735	6,924	6,751	1,360	6,137
(WY)	(2002)	(1994)	(1997)	(1999)	(1997)	(1997)	(2002)	(1996)	(1998)	(2003)	(1998)	(2003)
MIN	227	200	252	269	666	751	1,418	1,326	829	533	273	181
(WY)	(1995)	(2000)	(2000)	(2000)	(1995)	(2000)	(2003)	(2000)	(1994)	(1999)	(1999)	(1999)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1992 - 2004	
ANNUAL TOTAL	1,107,042		807,055			
ANNUAL MEAN	3,033		2,205		2,002	
HIGHEST ANNUAL MEAN					2,947	1993
LOWEST ANNUAL MEAN					770	2000
HIGHEST DAILY MEAN	37,800	Sep 2	18,200	Jan 5	37,800	Sep 2, 2003
LOWEST DAILY MEAN	388	Aug 26	330	Sep 26	150	Oct 1, 1995
ANNUAL SEVEN-DAY MINIMUM	494	Aug 21	347	Sep 23	161	Sep 14, 1999
MAXIMUM PEAK FLOW			19,100	Jan 5	51,500	Sep 1, 2003
MAXIMUM PEAK STAGE			9.42	Jan 5	15.42	Sep 1, 2003
ANNUAL RUNOFF (CFSM)	1.60		1.16		1.06	
ANNUAL RUNOFF (INCHES)	21.70		15.82		14.34	
10 PERCENT EXCEEDS	5,930		4,450		4,470	
50 PERCENT EXCEEDS	1,570		1,360		1,020	
90 PERCENT EXCEEDS	670		463		300	

e Estimated

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



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

WATER-QUALITY RECORDS

INSTRUMENTATION.--Temperature recorder.

PERIOD OF RECORD.--

WATER TEMPERATURE.-- September 1992 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 31.6°C, July 25, 1999; minimum, -0.1°C, Jan. 29, 1995.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 28.4°C, Aug. 3; minimum, 15.1°C, May 3.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

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

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	18.3	17.1	17.7
2	---	---	---	---	---	---	---	---	---	17.2	15.6	16.4
3	---	---	---	---	---	---	---	---	---	17.2	15.1	16.2
4	---	---	---	---	---	---	---	---	---	17.2	15.5	16.3
5	---	---	---	---	---	---	---	---	---	18.0	16.0	16.7
6	---	---	---	---	---	---	---	---	---	19.8	16.7	18.1
7	---	---	---	---	---	---	---	---	---	20.7	19.1	19.9
8	---	---	---	---	---	---	---	---	---	21.7	18.3	19.9
9	---	---	---	---	---	---	---	---	---	22.6	19.7	21.1
10	---	---	---	---	---	---	---	---	---	22.3	21.0	21.6
11	---	---	---	---	---	---	---	---	---	23.5	21.5	22.3
12	---	---	---	---	---	---	---	---	---	24.1	22.5	23.1
13	---	---	---	---	---	---	---	---	---	23.1	22.8	23.0
14	---	---	---	---	---	---	---	---	---	23.0	20.2	22.3
15	---	---	---	---	---	---	---	---	---	20.7	19.5	20.2
16	---	---	---	---	---	---	---	---	---	21.0	19.0	19.9
17	---	---	---	---	---	---	---	---	---	22.1	19.7	20.7
18	---	---	---	---	---	---	---	---	---	22.8	20.7	21.6
19	---	---	---	---	---	---	---	---	---	22.1	20.4	21.2
20	---	---	---	---	---	---	---	---	---	22.1	20.8	21.4
21	---	---	---	---	---	---	---	---	---	23.7	21.5	22.5
22	---	---	---	---	---	---	---	---	---	24.7	22.5	23.5
23	---	---	---	---	---	---	---	---	---	23.7	23.1	23.5
24	---	---	---	---	---	---	---	---	---	23.7	22.4	23.1
25	---	---	---	---	---	---	---	---	---	23.4	22.3	23.0
26	---	---	---	---	---	---	---	---	---	23.1	22.2	22.6
27	---	---	---	---	---	---	---	---	---	23.2	21.9	22.5
28	---	---	---	---	---	---	---	---	---	23.4	22.3	22.8
29	---	---	---	---	---	---	---	---	---	22.6	20.4	21.3
30	---	---	---	---	---	---	---	---	---	21.4	20.2	20.7
31	---	---	---	---	---	---	---	---	---	22.0	20.2	21.1
MONTH	---	---	---	---	---	---	---	---	---	24.7	15.1	20.8
		JUNE			JULY			AUGUST			SEPTEMBER	
1	21.2	20.4	20.8	25.4	23.5	24.4	26.6	24.1	25.2	26.6	24.5	25.4
2	21.0	20.0	20.6	26.0	24.2	25.1	27.1	25.1	25.9	26.8	24.7	25.6
3	21.5	19.8	20.7	25.9	25.0	25.4	28.4	25.8	26.7	26.4	25.0	25.6
4	22.0	20.4	21.2	25.9	24.6	25.2	26.9	24.8	26.0	27.2	24.9	25.9
5	22.5	20.6	21.5	26.4	24.9	25.6	26.2	24.9	25.6	27.5	25.5	26.3
6	22.9	21.0	21.8	26.9	25.4	26.1	25.5	24.8	25.2	27.4	25.6	26.4
7	23.8	21.4	22.5	26.2	25.6	25.9	26.2	24.5	25.2	26.6	25.3	25.9
8	25.0	22.4	23.6	25.6	24.9	25.3	26.6	24.5	25.4	25.4	23.9	24.7
9	25.5	24.0	24.7	26.3	24.9	25.4	26.6	24.7	25.6	25.8	23.6	24.5
10	25.2	24.6	24.9	26.2	24.8	25.5	26.6	24.8	25.6	26.2	23.7	24.9
11	24.8	23.0	24.0	26.7	25.2	25.8	25.5	24.1	24.7	26.0	24.1	25.1
12	23.9	22.6	23.1	26.2	25.1	25.6	24.2	23.3	23.7	26.1	24.5	25.3
13	23.5	22.5	22.9	27.6	25.7	26.5	23.8	23.0	23.3	26.6	24.8	25.6
14	23.9	22.5	23.2	26.8	25.9	26.3	23.7	22.8	23.3	26.4	25.2	25.8
15	24.6	23.1	23.6	26.8	25.5	26.1	24.5	22.7	23.5	26.3	25.1	25.7
16	24.0	22.7	23.4	27.3	25.8	26.4	25.1	22.9	23.9	25.9	24.8	25.4
17	24.2	23.2	23.6	26.9	25.8	26.3	25.3	22.9	24.1	25.5	24.0	24.9
18	24.7	22.8	23.7	26.1	25.4	25.7	25.7	23.0	24.4	24.9	23.7	24.3
19	24.7	23.4	24.1	26.6	25.1	25.7	26.5	23.5	25.1	24.6	23.1	23.9
20	23.8	22.3	23.2	27.2	25.2	26.1	25.3	22.5	23.9	24.5	23.0	23.8
21	23.4	22.5	23.0	27.1	25.6	26.3	24.0	22.3	23.1	24.9	23.0	23.8
22	23.3	22.4	22.8	26.3	23.4	25.1	24.7	23.2	24.0	25.0	22.8	24.0
23	23.8	22.0	22.8	27.0	25.8	26.3	25.9	23.6	24.7	25.2	23.2	24.2
24	24.4	22.4	23.4	26.3	25.2	25.7	26.4	24.2	25.2	24.6	23.3	24.2
25	23.1	22.3	22.7	25.5	23.5	24.4	25.5	24.1	24.7	25.4	23.7	24.5
26	23.8	21.7	22.6	23.5	22.6	23.1	24.9	23.7	24.6	24.8	23.2	24.0
27	24.0	22.1	23.0	24.2	22.2	23.2	26.3	24.6	25.3	24.6	23.0	23.7
28	24.0	22.5	23.1	25.6	22.6	23.9	26.8	25.4	25.7	24.4	22.6	23.2
29	24.4	22.5	23.3	24.7	23.2	23.9	25.5	24.8	25.2	23.6	22.1	22.6
30	25.0	22.8	23.7	24.7	23.6	24.2	25.9	24.2	24.8	22.6	21.2	21.9
31	---	---	---	25.4	23.5	24.4	26.1	24.2	25.0	---	---	---
MONTH	25.5	19.8	22.9	27.6	22.2	25.3	28.4	22.3	24.8	27.5	21.2	24.7
YEAR	28.4	15.1	23.7									

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, (BEECH GROVE, IN quadrangle), on left bank, at upstream side of Sherman Drive bridge, in Indianapolis, 0.35 mi downstream of Beach Creek mouth, 5.1 mi west of Wanamaker, IN., 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 National Geodetic Vertical Datum of 1929 (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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	26	17	26	e6.1	46	54	6.9	29	1.5	4.1	e4.7
2	3.2	14	13	106	e8.7	29	28	25	15	1.4	3.7	e3.6
3	3.2	9.9	11	82	e49	17	18	7.3	8.7	34	4.0	e3.2
4	3.9	9.9	11	786	e31	31	12	4.4	7.4	53	71	e2.8
5	3.0	7.8	43	231	e28	49	9.9	3.7	4.9	9.2	18	e2.6
6	2.6	6.9	34	64	e56	28	8.3	2.9	4.1	5.3	7.5	e2.3
7	2.3	6.2	21	42	e33	18	7.7	2.6	3.4	e6.6	5.1	e2.1
8	2.1	5.1	17	25	e19	13	7.2	2.4	3.0	e7.9	4.2	e1.9
9	2.0	4.7	13	21	e15	11	6.1	2.2	2.7	e11	3.5	e1.8
10	2.1	4.5	41	e17	e13	9.5	5.1	2.1	2.7	e16	2.9	e1.7
11	2.3	7.1	34	e15	e12	8.6	4.7	1.9	56	e22	2.4	e1.6
12	2.8	16	19	e14	e12	7.7	4.6	1.8	22	e18	2.1	e1.5
13	2.7	10	14	e13	e11	6.8	4.3	3.0	14	e11	2.0	e1.4
14	140	7.6	13	e13	e11	7.9	3.9	24	12	e9.6	2.0	e1.3
15	41	8.4	12	e12	e10	7.1	3.7	18	15	e5.7	1.8	e1.2
16	17	8.2	20	e11	e9.6	16	3.4	6.0	245	e4.8	1.7	e1.1
17	10	7.0	20	e27	e9.4	14	3.2	4.8	92	e4.1	1.6	e1.00
18	7.6	47	15	e53	e9.9	13	3.0	10	27	e3.7	1.6	e0.98
19	6.7	80	14	e25	e14	14	2.7	67	15	e3.3	1.5	e0.91
20	5.7	30	12	e11	34	11	7.2	22	8.4	e3.3	61	e0.80
21	5.4	16	13	e9.5	32	11	5.7	8.5	7.0	e28	22	e0.80
22	5.7	12	11	e8.5	20	9.4	23	5.0	13	e126	6.6	e0.73
23	5.4	12	204	e7.6	19	7.8	26	4.4	5.2	e20	3.8	e0.68
24	5.2	134	68	e6.5	21	7.1	7.7	12	3.8	e9.0	15	e0.62
25	15	37	35	e6.1	17	6.6	11	16	3.1	e11	40	e0.57
26	39	23	24	e6.0	14	123	7.9	12	2.7	e8.2	171	e0.54
27	14	61	18	e6.1	13	105	5.8	8.3	2.3	6.8	e26	e0.51
28	11	104	16	e6.1	13	35	3.6	7.4	2.1	5.1	e16	e0.50
29	14	42	52	e6.0	11	23	2.9	3.7	1.9	4.2	e11	e0.44
30	9.7	25	52	e5.7	---	38	3.1	87	1.7	4.8	e7.8	e0.44
31	8.1	---	26	e5.7	---	139	---	249	---	7.1	e5.9	---
TOTAL	396.4	782.3	913	1,667.8	551.7	862.5	293.7	631.3	630.1	461.6	526.8	44.32
MEAN	12.8	26.1	29.5	53.8	19.0	27.8	9.79	20.4	21.0	14.9	17.0	1.48
MAX	140	134	204	786	56	139	54	249	245	126	171	4.7
MIN	2.0	4.5	11	5.7	6.1	6.6	2.7	1.8	1.7	1.4	1.5	0.44
CFSM	0.82	1.67	1.89	3.45	1.22	1.78	0.63	1.31	1.35	0.95	1.09	0.09
IN.	0.95	1.87	2.18	3.98	1.32	2.06	0.70	1.51	1.50	1.10	1.26	0.11

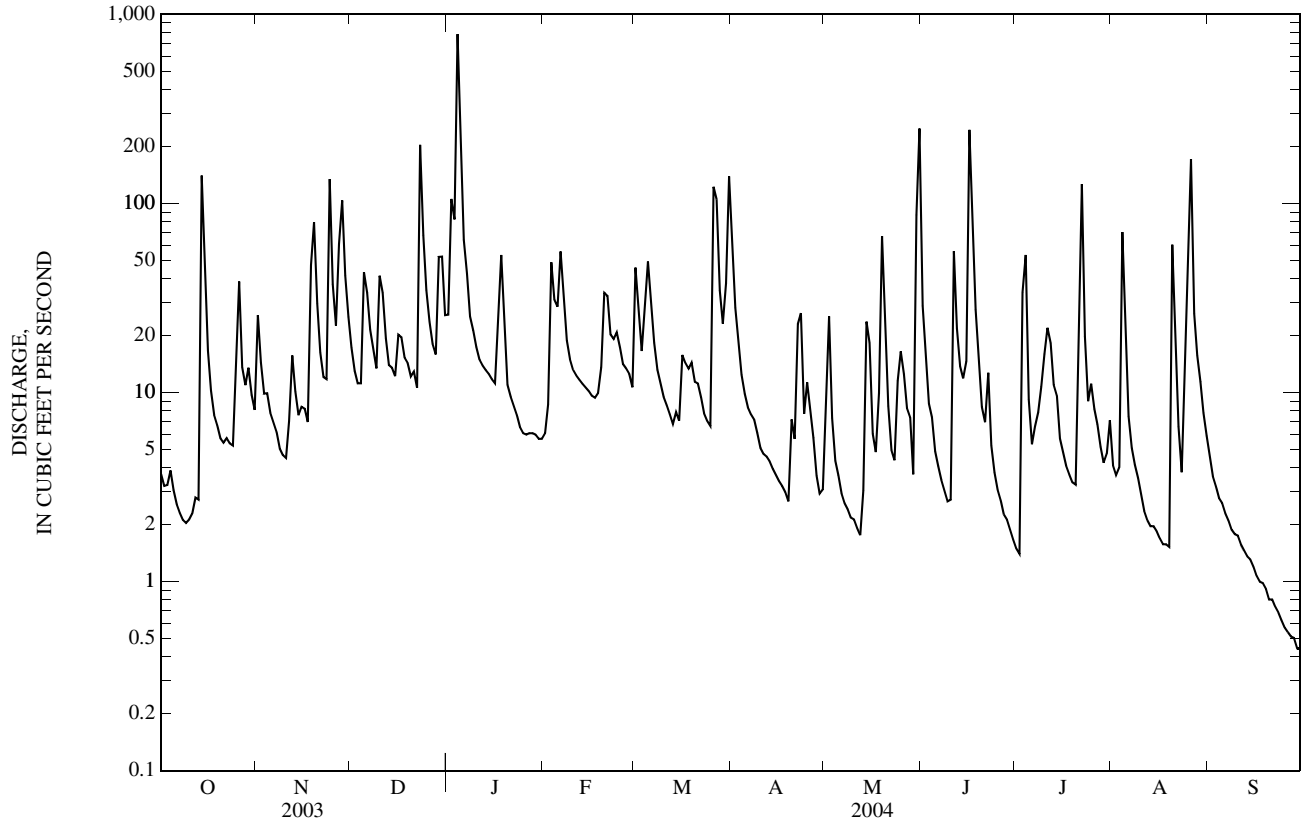
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2004, BY WATER YEAR (WY)

MEAN	9.48	20.7	23.0	21.5	25.7	30.7	26.8	26.8	18.5	17.4	10.6	9.50
MAX	55.9	102	76.4	53.8	57.1	64.6	71.4	102	88.8	95.5	54.1	54.8
(WY)	(2002)	(1994)	(1991)	(2004)	(1975)	(1978)	(1996)	(1996)	(1998)	(1992)	(1979)	(2003)
MIN	1.03	0.71	2.14	1.00	4.67	5.46	3.92	1.87	0.39	2.55	1.28	0.17
(WY)	(1983)	(2000)	(1981)	(1981)	(1978)	(2001)	(1971)	(1988)	(1988)	(1991)	(1986)	(1999)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1971 - 2004	
ANNUAL TOTAL	8,711.0		7,761.52			
ANNUAL MEAN	23.9		21.2		20.0	
HIGHEST ANNUAL MEAN					30.6	2002
LOWEST ANNUAL MEAN					10.8	2000
HIGHEST DAILY MEAN	1,120	Sep 1	786	Jan 4	1,380	Nov 14, 1993
LOWEST DAILY MEAN	1.1	Aug 26	e 0.44	Sep 29	0.05	Sep 19, 1983
ANNUAL SEVEN-DAY MINIMUM	1.2	Aug 20	e 0.52	Sep 24	0.07	Sep 22, 1999
MAXIMUM PEAK FLOW			1,410	Jan 4	2,500	Jun 25, 1978
MAXIMUM PEAK STAGE			6.63	Jan 4	9.61	Jun 25, 1978
ANNUAL RUNOFF (CFSM)	1.53		1.36		1.28	
ANNUAL RUNOFF (INCHES)	20.77		18.51		17.45	
10 PERCENT EXCEEDS	47		42		43	
50 PERCENT EXCEEDS	10		9.4		6.8	
90 PERCENT EXCEEDS	2.0		2.0		1.2	

e Estimated

03353620 LICK CREEK AT INDIANAPOLIS, IN—Continued



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, (MAYWOOD, IN quadrangle), on right bank, 10 ft upstream from bridge on South Belmont Street, 0.75 mi west of State Road 37, 1.5 mi south of Interstate 465, 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 National Geodetic Vertical Datum of 1929.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	14	21	21	e6.2	24	52	7.0	38	0.39	13	14
2	6.1	13	16	109	26	23	28	17	19	0.21	11	13
3	5.6	9.5	14	57	50	17	21	10	13	6.8	10	12
4	6.9	7.6	13	559	45	22	16	7.7	9.9	33	25	11
5	5.7	6.8	29	260	43	35	14	6.7	7.7	9.8	20	11
6	5.1	5.9	35	85	44	25	12	5.4	6.3	4.7	14	9.9
7	4.2	5.4	22	48	19	19	12	4.6	4.9	4.4	11	8.9
8	3.1	5.0	17	e26	e12	15	11	4.1	4.0	2.3	9.1	7.6
9	2.5	4.8	15	e22	e11	14	9.9	3.7	3.3	50	6.6	6.9
10	2.3	4.5	29	e19	e10	12	8.9	3.1	3.2	28	3.9	5.1
11	1.5	4.8	30	e17	e9.5	11	8.8	3.0	9.9	33	1.2	4.1
12	0.86	5.5	20	e15	e8.9	10	8.2	2.8	11	26	0.01	3.3
13	0.83	4.9	16	e14	e8.4	9.3	7.8	3.4	9.0	11	0.00	2.0
14	101	4.8	16	e13	e8.0	10	7.8	9.9	18	8.3	0.00	0.54
15	46	5.7	14	e12	e7.8	9.8	7.7	15	9.3	4.4	0.00	0.00
16	19	5.7	17	e12	e7.4	15	7.2	9.5	159	2.5	0.00	0.08
17	12	5.3	19	e12	e7.2	15	6.6	7.1	80	2.3	0.00	0.07
18	9.3	20	16	48	e7.0	14	5.6	11	27	1.9	0.00	0.00
19	7.5	57	15	28	e6.8	13	5.1	70	16	1.2	0.00	0.00
20	6.4	27	13	34	24	12	7.0	27	10	0.61	41	0.00
21	5.4	16	12	e14	30	11	7.6	13	7.2	3.5	31	0.00
22	5.3	12	12	e10	19	10	13	9.1	8.7	502	16	0.00
23	4.9	10	114	e9.1	e14	9.3	21	7.0	5.9	69	12	0.00
24	4.4	99	69	e8.4	e12	8.8	11	12	4.2	33	19	0.00
25	8.1	39	35	e7.8	e10	8.4	11	20	5.9	24	32	0.00
26	23	23	26	e7.4	e9.4	53	8.3	14	3.5	20	116	0.00
27	13	55	21	e7.1	e8.6	94	7.0	11	2.4	16	31	0.00
28	9.9	99	18	e6.8	e8.2	32	6.1	10	1.6	14	31	0.00
29	9.3	49	30	e6.6	e8.0	23	5.0	7.1	1.1	13	38	0.00
30	7.1	29	48	e6.4	---	22	4.8	60	0.83	13	20	0.00
31	5.6	---	28	e6.3	---	73	---	216	---	15	16	---
TOTAL	349.19	648.2	800	1,500.9	480.4	669.6	351.4	607.2	499.83	953.31	527.81	109.49
MEAN	11.3	21.6	25.8	48.4	16.6	21.6	11.7	19.6	16.7	30.8	17.0	3.65
MAX	101	99	114	559	50	94	52	216	159	502	116	14
MIN	0.83	4.5	12	6.3	6.2	8.4	4.8	2.8	0.83	0.21	0.00	0.00
CFSM	0.66	1.27	1.52	2.85	0.97	1.27	0.69	1.15	0.98	1.81	1.00	0.21
IN.	0.76	1.42	1.75	3.28	1.05	1.47	0.77	1.33	1.09	2.09	1.15	0.24

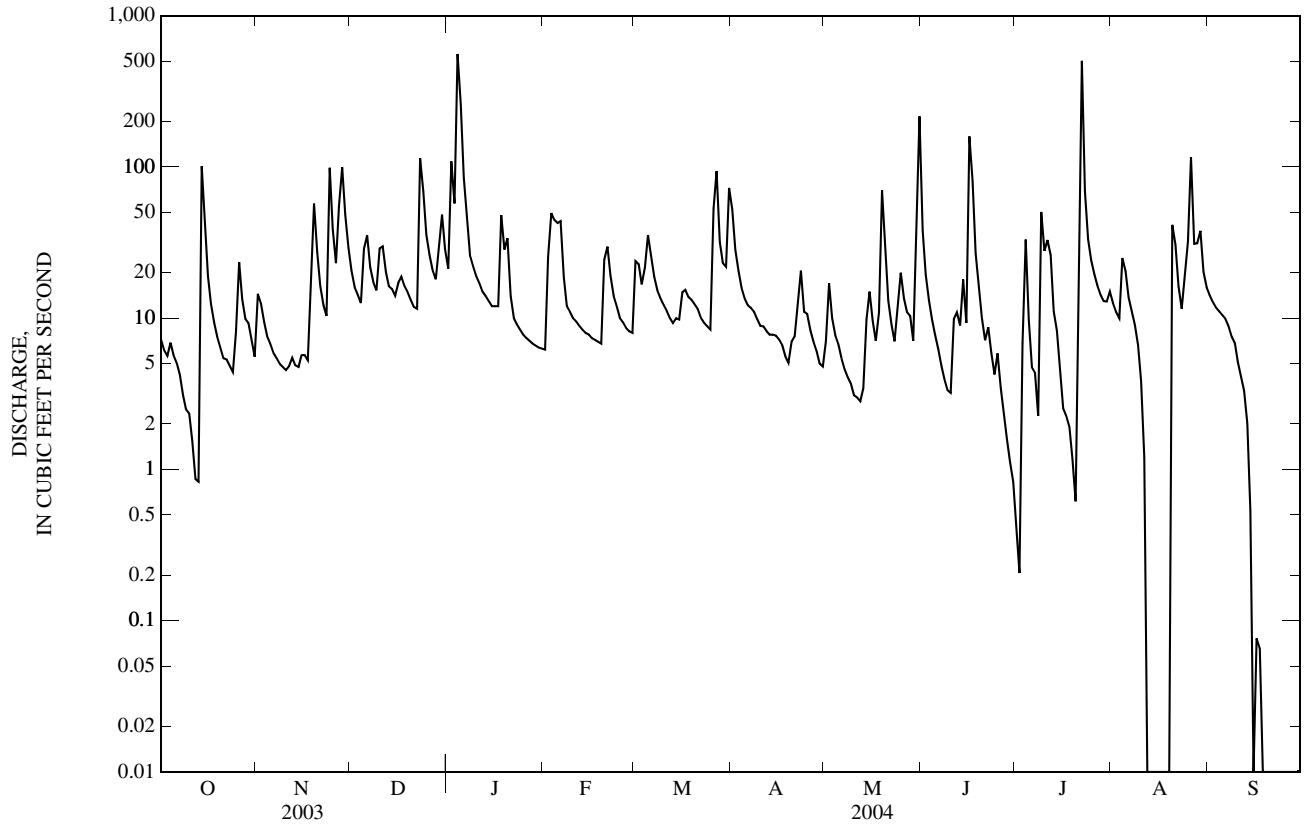
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2004, BY WATER YEAR (WY)

MEAN	10.7	22.6	20.7	25.4	22.7	29.0	32.2	33.7	25.1	17.5	6.72	9.54
MAX	45.5	91.9	99.4	62.7	54.5	68.0	63.7	105	77.3	85.7	18.3	38.5
(WY)	(2002)	(1994)	(1991)	(1999)	(1990)	(1991)	(1996)	(1996)	(1998)	(1992)	(1990)	(2003)
MIN	0.06	0.00	1.02	1.42	6.39	5.82	5.39	4.60	4.99	2.67	0.43	0.00
(WY)	(2000)	(2000)	(1998)	(2000)	(1998)	(2001)	(2001)	(2001)	(1991)	(1991)	(2002)	(1999)

03353637 LITTLE BUCK CREEK NEAR INDIANAPOLIS, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1990 - 2004	
ANNUAL TOTAL	7,181.15		7,497.33			
ANNUAL MEAN	19.7		20.5		21.3	
HIGHEST ANNUAL MEAN					32.3	2002
LOWEST ANNUAL MEAN					10.4	2000
HIGHEST DAILY MEAN	595	Sep 1	559	Jan 4	1,390	Dec 30, 1990
LOWEST DAILY MEAN	0.00	Jul 4	0.00	Aug 13	0.00	Sep 8, 1991
ANNUAL SEVEN-DAY MINIMUM	0.10	Aug 20	0.00	Aug 13	0.00	Sep 8, 1991
MAXIMUM PEAK FLOW			1,250	Jul 22	2,300	Dec 30, 1990
MAXIMUM PEAK STAGE			8.35	Jul 22	11.21	Nov 14, 1993
ANNUAL RUNOFF (CFSM)	1.16		1.20		1.25	
ANNUAL RUNOFF (INCHES)	15.71		16.41		17.03	
10 PERCENT EXCEEDS	36		38		44	
50 PERCENT EXCEEDS	12		10		8.0	
90 PERCENT EXCEEDS	2.5		1.8		0.00	

e Estimated



03353637 LITTLE BUCK CREEK NR INDIANAPOLIS, IN—Continued

[(National Water-Quality Assessment Program), White River Basin, Miami River Basin Study Unit]

WATER-QUALITY RECORDS

The data described in the following table were collected and analyzed as part of the National Water Quality Assessment Program (NAWQA) in the White River Basin, Miami River Basin (WHMI) study units. 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 42 river basin and aquifer assessment projects being implemented across the nation on a staggered timeline. During the second decade of sampling, 14 of these projects will be actively collecting data. The period of high-intensity data collection for the WHMI project is in water years 2001-2004.

Water quality data from four stream sites in Indiana and two stream sites in Ohio are being reported as part of the NAWQA study: Big Walnut Creek nr Roachdale, IN (03357330), Little Buck Creek nr Indianapolis, IN (03353637), Sugar Creek at Co. Rd. 400S at New Palestine, IN (394340085524601), White River at Hazleton, IN (03374100), Holes Creek at Huffman Park at Kettering, OH (393944084120700), Mad River at St. Paris Pike near Eagle City, OH (03267900). Additionally, continuous monitor data, water temperature, dissolved oxygen, specific conductance, and pH were collected for all sites except Sugar Creek at Co. Rd. 400S at New Palestine, IN (394340085524601), which were instead collected at Sugar Creek at New Palestine, IN (03361650).

These data can also be obtained electronically at http//in.water.usgs.gov or at http//oh.water.usgs.gov.

(- - -, no data: <, concentration or value reported is less than that indicated: E, estimated value: K, value is estimated from a non-ideal colony count: M, presence verified, not quantified).

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEDIAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.1	7.9	8.1	8.3	8.0	8.2	8.2	8.0	7.4	7.4	---	7.7
2	8.0	7.8	8.1	8.1	8.0	8.3	8.1	8.0	7.4	7.4	---	7.7
3	8.1	7.9	8.1	8.1	8.0	8.3	8.1	8.2	7.5	7.5	---	7.7
4	8.0	7.9	8.1	8.0	8.1	8.2	8.1	e8.1	7.9	7.8	7.7	7.8
5	8.0	7.9	8.0	7.8	8.1	8.2	8.1	e8.1	7.8	7.9	7.6	7.9
6	8.0	8.0	8.1	8.0	8.0	8.2	8.2	8.0	7.9	8.0	7.6	7.9
7	8.1	8.1	8.0	8.0	8.1	8.1	8.2	8.0	7.9	8.0	7.6	7.9
8	8.0	8.2	8.2	7.9	8.2	8.1	8.2	8.0	8.0	8.0	7.6	8.3
9	8.0	8.2	8.2	7.8	8.2	8.1	8.3	7.9	8.0	8.0	7.6	8.2
10	8.0	8.2	8.1	7.8	8.2	8.1	8.3	7.9	8.0	7.6	7.6	8.2
11	8.0	8.1	8.2	7.8	8.2	8.1	8.3	e8.0	7.9	7.7	7.7	8.2
12	7.9	8.1	8.2	7.8	8.2	8.1	8.4	8.0	7.9	7.8	8.0	8.2
13	7.9	8.2	8.2	7.8	8.2	8.0	8.4	8.0	7.9	7.8	8.4	8.1
14	7.6	8.2	8.2	7.8	8.2	8.0	8.3	7.9	7.9	7.8	8.4	---
15	7.8	8.2	8.2	8.2	8.2	8.0	8.3	8.0	7.9	7.9	8.3	---
16	7.8	8.2	8.1	8.2	8.1	8.2	8.2	8.0	7.6	8.0	8.2	---
17	7.8	8.3	8.1	8.2	8.1	8.3	8.2	8.0	7.6	8.0	8.2	---
18	7.8	8.1	8.1	8.2	8.1	---	8.1	7.9	7.8	8.0	8.1	---
19	7.9	8.0	8.1	8.2	8.1	---	8.2	7.7	8.0	8.1	8.0	---
20	7.9	8.2	8.1	8.2	8.1	---	8.1	7.8	8.0	8.2	8.0	---
21	7.9	8.2	8.1	8.2	8.1	---	8.0	7.8	8.0	8.1	7.7	---
22	7.8	8.2	8.1	8.3	8.2	---	8.0	7.8	8.0	7.8	7.7	---
23	7.9	8.2	8.2	8.2	8.1	---	8.1	7.8	8.0	7.5	7.8	---
24	7.9	8.0	8.3	8.2	8.3	---	8.2	7.8	8.1	7.5	7.8	---
25	7.8	8.3	8.4	8.2	8.4	---	8.2	7.7	8.0	7.6	8.0	---
26	7.6	8.3	8.4	8.1	8.4	8.0	8.2	7.8	7.7	7.6	7.7	---
27	7.8	8.2	8.4	8.1	8.4	8.0	8.2	7.8	7.6	8.0	7.6	---
28	7.8	8.2	8.4	8.1	8.4	8.1	8.2	7.9	7.6	7.8	7.7	---
29	7.8	8.3	8.4	8.1	8.3	8.1	8.2	7.9	7.6	---	7.7	---
30	8.0	8.2	8.4	8.1	---	8.1	8.1	7.7	7.5	---	7.7	---
31	8.0	---	8.2	8.0	---	7.9	---	7.6	---	---	7.7	---

e Estimated

03353637 LITTLE BUCK CREEK NR INDIANAPOLIS, IN—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.4	8.8	---	---	15.2	12.3	10.1	8.3	---	---	---	---
2	11.9	8.7	---	---	15.1	13.0	10.9	9.7	---	---	---	e7.7
3	12.3	8.9	---	---	15.1	---	11.0	10.7	---	---	---	7.6
4	11.7	9.1	---	---	15.7	---	11.6	e10.2	7.9	e8.7	---	7.7
5	11.5	8.7	---	---	15.5	10.7	12.0	e9.8	7.8	9.2	---	7.6
6	11.0	10.6	---	---	15.1	11.3	12.0	9.3	7.8	9.2	---	7.2
7	11.0	12.1	---	---	15.5	12.1	11.2	8.7	8.1	8.9	---	7.5
8	10.8	13.2	---	---	15.8	12.7	10.4	8.5	8.5	9.1	---	8.2
9	10.7	12.7	11.5	---	15.4	12.8	10.9	7.6	8.4	8.8	---	8.4
10	10.2	12.8	10.8	---	15.2	13.2	11.1	7.8	8.6	7.4	---	8.1
11	9.5	10.1	12.6	---	15.4	12.5	11.0	e7.8	7.9	7.4	---	8.2
12	7.9	11.0	14.4	---	15.1	13.8	12.0	7.7	7.7	7.6	---	7.8
13	8.5	13.0	14.8	---	15.7	13.8	12.9	6.4	8.3	7.8	---	7.3
14	7.3	15.0	14.7	---	15.8	12.7	13.2	6.4	8.0	8.5	---	---
15	8.8	13.0	14.6	---	15.8	13.1	11.9	7.4	8.3	9.0	---	---
16	10.1	13.0	13.7	13.8	16.3	12.8	10.7	8.3	e7.8	9.5	---	---
17	10.3	12.2	14.9	13.7	16.3	13.5	9.7	8.2	---	9.5	---	---
18	10.8	8.3	15.4	13.8	15.9	---	8.9	7.3	---	10.1	---	---
19	10.5	8.5	15.5	15.0	15.3	---	8.8	7.1	---	10.1	---	---
20	9.9	10.0	16.6	14.8	13.7	---	8.4	7.3	---	9.1	---	---
21	9.3	10.3	16.2	14.8	14.5	---	7.9	7.0	---	7.7	---	---
22	9.4	10.0	13.9	14.9	15.3	---	8.6	6.9	---	---	---	---
23	10.7	9.3	12.5	15.0	14.7	---	9.3	7.0	---	---	---	---
24	11.2	8.0	13.4	14.9	14.7	---	8.8	7.1	---	---	---	---
25	9.9	10.2	13.9	15.2	15.4	---	e10.0	7.3	---	---	---	---
26	9.0	e10.4	---	14.7	15.5	9.1	10.4	7.6	---	---	---	---
27	10.5	---	---	14.9	15.2	9.9	11.0	7.7	---	---	---	---
28	9.5	---	---	15.2	15.1	9.9	11.1	7.7	---	---	---	---
29	11.1	---	---	15.3	14.7	10.2	10.2	8.1	---	---	---	---
30	10.8	---	---	15.3	---	10.8	9.2	---	---	---	---	---
31	9.5	---	---	15.2	---	10.2	---	---	---	---	---	---

e Estimated

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.6	14.9	5.7	5.0	---	8.8	9.9	16.4	20.2	22.9	---	20.8
2	10.4	15.6	4.5	7.8	---	9.0	10.2	13.5	19.5	23.8	---	21.0
3	9.8	15.7	4.9	9.8	---	8.1	10.9	12.9	18.8	24.4	---	21.7
4	11.9	15.4	5.0	6.7	---	8.9	9.8	---	19.1	23.8	23.4	22.2
5	13.0	14.1	5.5	5.6	---	11.9	9.7	---	19.6	24.1	22.2	22.7
6	13.1	10.7	5.1	2.6	0.5	10.3	10.9	18.3	20.4	24.5	20.5	22.9
7	13.4	7.9	5.4	1.5	.8	8.5	13.7	19.3	21.7	23.3	19.7	22.0
8	15.0	5.9	5.7	2.7	---	6.9	15.1	19.2	23.6	21.7	20.3	19.5
9	15.2	4.9	7.8	3.1	1.9	6.4	13.7	20.9	23.9	22.8	21.2	19.6
10	16.7	6.6	8.8	1.5	2.2	6.1	13.9	21.2	22.8	23.5	22.0	19.6
11	17.3	10.7	5.7	2.6	1.9	7.5	12.8	---	22.8	24.3	20.3	19.8
12	16.9	12.5	2.7	4.1	2.8	4.6	9.7	22.4	22.3	24.6	---	20.3
13	14.3	6.8	2.0	3.7	1.8	5.1	7.7	21.2	22.7	24.9	---	21.4
14	14.5	5.3	2.6	3.2	1.7	7.0	9.7	20.2	24.1	23.2	---	---
15	13.8	6.6	3.0	2.9	1.8	7.1	13.1	16.9	24.3	22.6	---	---
16	13.6	8.4	4.0	2.8	---	5.8	16.1	17.3	23.1	23.0	---	---
17	13.2	8.9	2.5	3.0	1.7	4.8	18.6	19.0	24.5	22.7	---	---
18	11.7	12.0	2.3	2.8	2.5	---	19.8	20.4	24.1	21.6	---	---
19	12.6	12.3	2.3	---	4.2	---	18.7	20.6	22.6	22.2	---	---
20	13.9	10.2	1.0	---	5.1	---	16.5	21.3	20.4	23.5	---	---
21	14.9	10.4	1.6	1.3	3.7	---	16.8	22.7	20.8	24.2	---	---
22	12.8	11.4	4.5	---	4.5	---	14.7	23.3	20.8	24.2	20.7	---
23	11.8	13.0	5.8	---	6.0	---	14.5	22.5	20.4	24.5	21.2	---
24	10.6	9.2	3.8	---	5.6	---	15.0	21.7	21.2	21.7	22.0	---
25	11.6	6.4	2.9	---	4.5	---	16.3	21.3	19.8	19.3	22.7	---
26	11.9	7.0	2.7	---	4.6	13.0	15.4	20.4	19.4	18.5	22.7	---
27	9.6	8.5	3.4	---	5.1	13.1	13.7	20.3	20.3	18.8	23.6	---
28	9.4	7.5	5.4	---	5.7	14.9	14.0	20.9	20.9	19.6	23.7	---
29	9.4	5.5	7.1	---	7.1	14.0	16.6	19.8	20.9	---	22.3	---
30	10.9	5.9	5.0	---	---	12.1	17.8	19.8	21.6	---	21.1	---
31	14.8	---	4.7	---	---	10.4	---	21.0	---	---	20.5	---

03353637 LITTLE BUCK CREEK NR INDIANAPOLIS, IN—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	692	789	795	1,040	864	766	877	639	990	---	737
2	---	663	824	556	---	913	819	672	726	993	---	760
3	---	738	853	673	---	907	855	812	784	859	---	782
4	---	763	872	458	---	884	875	e860	824	337	517	808
5	---	802	889	451	e1,220	903	886	e882	873	458	452	835
6	---	827	775	581	---	891	896	894	900	529	530	856
7	842	844	779	641	---	903	905	907	904	636	588	878
8	864	856	816	692	e1,220	921	904	920	887	711	630	899
9	882	873	850	732	1,130	930	896	939	895	626	661	916
10	890	883	728	761	1,200	935	908	956	904	466	683	933
11	899	894	733	794	1,160	936	921	e962	748	499	e696	931
12	912	884	773	832	1,050	946	934	966	662	467	---	934
13	924	886	815	872	1,010	953	949	977	687	630	---	934
14	547	900	---	871	980	969	946	844	578	672	---	---
15	479	903	e1,130	875	967	965	915	664	684	721	---	---
16	574	892	978	885	954	---	897	779	508	775	---	---
17	640	897	921	---	952	---	890	861	534	810	---	---
18	690	786	e950	e822	951	---	891	817	653	815	---	---
19	735	548	e1,100	746	925	---	904	517	718	814	---	---
20	768	644	981	777	879	---	901	634	770	837	---	---
21	801	718	940	808	834	---	868	719	820	837	467	---
22	821	765	923	835	835	---	831	767	801	257	563	---
23	838	798	713	875	848	---	695	801	810	384	635	---
24	851	519	708	862	878	---	805	687	867	452	658	---
25	829	621	768	896	889	---	794	571	837	510	418	---
26	546	706	789	---	899	846	814	628	823	551	401	---
27	672	601	814	---	911	680	859	657	877	587	530	---
28	722	559	830	---	920	778	867	721	924	612	578	---
29	750	655	839	---	916	819	871	777	945	---	500	---
30	781	740	711	1,180	---	825	886	582	971	---	627	---
31	811	---	759	1,110	---	730	---	466	---	---	697	---

e Estimated

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 deg C (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Alkalinity, wat flt fxd end field, mg/L as CaCO3 (39036)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)
NOV													
17...	1040	3.0	754	14.1	8.1	833	8.0	13.5	290	286	348	<1	95.4
DEC													
08...	1140	17.0	751	13.0	8.3	801	5.0	5.4	270	267	324	1	77.5
JAN													
15...	1110	19.0	757	14.0	8.2	889	0.0	2.5	300	300	363	1	82.6
FEB													
24...	1040	22.0	752	13.7	8.3	884	3.0	5.7	260	256	310	1	109.0
MAR													
16...	1130	22.0	746	13.7	8.3	1,880	3.0	5.0	250	246	E298	E1	427.0
APR													
13...	1030	12.0	743	13.3	8.3	922	5.0	7.9	290	288	349	1	107.0
MAY													
11...	1020	2.9	739	10.8	8.0	963	28.0	20.7	290	294	356	2	116.0
JUN													
07...	1100	3.3	738	8.6	8.3	879	29.0	21.2	260	251	291	4	97.1
JUL													
19...	0940	0.5	735	12.1	8.1	828	25.0	20.6	260	258	308	3	94.0
SEP													
07...	1450	6.8	735	9.6	8.2	879	26.0	22.6	270	271	E271	E16	93.6

03353637 LITTLE BUCK CREEK NR INDIANAPOLIS, IN—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	2,6-Diethylaniline water fltrd 0.7µm GF µg/L (82660)	CIAT, water, fltrd, µg/L (04040)
NOV													
17...	44.7	<0.04	0.08	E0.006	0.16	<0.006	0.022	0.8	<0.1	0.7	3.5	<0.006	<0.006
DEC													
08...	41.5	<.04	.73	.020	.06	E.005	.025	.5	<.1	.4	3.4	--	--
JAN													
15...	45.9	<.04	1.05	.051	.04	E.004	.028	.4	<.1	.3	2.4	<.006	<.006
FEB													
24...	42.1	<.04	.56	.016	.10	<.006	.021	.7	<.1	.7	3.0	--	--
MAR													
16...	41.0	<.04	.56	.013	.05	<.006	.021	.4	<.1	.4	3.5	<.006	E.005
APR													
13...	46.1	<.04	.46	.014	.07	<.006	.010	.5	<.1	.5	2.7	<.006	E.005
MAY													
11...	45.4	<.04	.46	.035	.04	<.006	.025	.5	<.1	.5	3.1	<.006	E.008
JUN													
07...	40.7	<.04	.55	.014	.04	.018	.037	.3	<.1	.3	2.6	<.006	E.031
JUL													
19...	38.7	<.04	.30	E.007	.05	.007	.022	.3	<.1	.3	3.0	<.006	E.012
SEP													
07...	40.8	<.04	.32	.012	.04	.017	.037	.3	<.1	.3	2.4	<.006	E.007

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Acetochlor, water, fltrd, µg/L (49260)	Alachlor, water, fltrd, µg/L (46342)	alpha-HCH, water, fltrd, µg/L (34253)	Atrazine, water, fltrd, µg/L (39632)	Azinphosmethyl, water, fltrd 0.7µm GF µg/L (82686)	Benfluralin, water, fltrd 0.7µm GF µg/L (82673)	Butylate, water, fltrd, µg/L (04028)	Carbaryl, water, fltrd 0.7µm GF µg/L (82680)	Carbofuran, water, fltrd 0.7µm GF µg/L (82674)	Chlorpyrifos water, fltrd, µg/L (38933)	cis-Permethrin water fltrd 0.7µm GF µg/L (82687)	Cyanazine, water, fltrd, µg/L (04041)	DCPA, water fltrd 0.7µm GF µg/L (82682)
NOV													
17...	<0.006	<0.005	<0.005	0.010	<0.050	<0.010	<0.004	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003
DEC													
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
15...	<.006	<.005	<.005	.008	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003
FEB													
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16...	<.006	<.005	<.005	.012	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003
APR													
13...	<.006	<.005	<.005	.016	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003
MAY													
11...	.009	<.005	<.005	.051	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003
JUN													
07...	.019	<.005	<.005	.161	<.050	<.010	<.004	E.021	<.020	<.005	<.006	<.018	<.003
JUL													
19...	E.005	<.005	<.005	.058	<.050	E.003	<.004	E.017	<.020	<.005	<.006	<.018	<.003
SEP													
07...	<.006	<.005	<.005	.024	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003

03353637 LITTLE BUCK CREEK NR INDIANAPOLIS, IN—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Desulfinyl fipronil, water, fltrd, µg/L (62170)	Diazinon, water, fltrd, µg/L (39572)	Dieldrin, water, fltrd, µg/L (39381)	Disulfoton, water, fltrd 0.7µm GF µg/L (82677)	EPTC, water, fltrd 0.7µm GF µg/L (82668)	Ethalfluralin, water, fltrd 0.7µm GF µg/L (82663)	Ethoprop, water, fltrd 0.7µm GF µg/L (82672)	Desulfinyl fipronil amide, wat flt µg/L (62169)	Fipronil sulfide water, fltrd, µg/L (62167)	Fipronil sulfone water, fltrd, µg/L (62168)	Fipronil, water, fltrd, µg/L (62166)	Fonofos water, fltrd, µg/L (04095)	Lindane water, fltrd, µg/L (39341)
NOV													
17...	<0.012	0.005	<0.009	<0.02	<0.004	<0.009	<0.005	<0.029	<0.013	<0.024	<0.016	<0.003	<0.004
DEC													
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
15...	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004
FEB													
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16...	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004
APR													
13...	<.012	.007	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004
MAY													
11...	E.003	.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004
JUN													
07...	<.012	.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004
JUL													
19...	<.012	.006	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004
SEP													
07...	<.012	.006	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Linuron water fltrd 0.7µm GF µg/L (82666)	Malathion, water, fltrd, µg/L (39532)	Methyl parathion, water, fltrd 0.7µm GF µg/L (82667)	Metolachlor, water, fltrd, µg/L (39415)	Metribuzin, water, fltrd, µg/L (82630)	Molinate, water, fltrd 0.7µm GF µg/L (82671)	Napropamide, water, fltrd 0.7µm GF µg/L (82684)	p,p'-DDE, water, fltrd, µg/L (34653)	Parathion, water, fltrd, µg/L (39542)	Pebulate, water, fltrd 0.7µm GF µg/L (82669)	Pendimethalin, water, fltrd 0.7µm GF µg/L (82683)	Phorate water fltrd 0.7µm GF µg/L (82664)	Prometon, water, fltrd, µg/L (04037)
NOV													
17...	<0.035	<0.027	<0.015	E0.002	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011	0.02
DEC													
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
15...	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.02
FEB													
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16...	<.035	<.027	<.015	E.008	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.02
APR													
13...	<.035	<.027	<.015	E.006	<.006	<.003	<.007	.004	<.010	<.004	E.009	<.011	.03
MAY													
11...	<.035	<.027	<.015	E.012	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.03
JUN													
07...	<.035	<.027	<.015	.074	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.04
JUL													
19...	<.035	<.027	<.015	.023	<.006	<.003	<.007	<.005	<.010	<.004	<.022	<.011	.08
SEP													
07...	<.035	<.027	<.015	E.011	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.04

03353637 LITTLE BUCK CREEK NR INDIANAPOLIS, IN—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Propyzamide, water, fltrd 0.7µm GF µg/L (82676)	Propachlor, water, fltrd, µg/L (04024)	Propanil, water, fltrd 0.7µm GF µg/L (82679)	Propargite, water, fltrd 0.7µm GF µg/L (82685)	Simazine, water, fltrd, µg/L (04035)	Tebuthiuron water fltrd 0.7µm GF µg/L (82670)	Terbacil, water, fltrd 0.7µm GF µg/L (82665)	Terbufos, water, fltrd 0.7µm GF µg/L (82675)	Thiobencarb water fltrd 0.7µm GF µg/L (82681)	Triallate, water, fltrd 0.7µm GF µg/L (82678)	Trifluralin, water, fltrd 0.7µm GF µg/L (82661)	Suspended sediment concentration mg/L (80154)
NOV 17...	<0.004	<0.025	<0.011	<0.02	E0.005	<0.02	<0.034	<0.02	<0.010	<0.002	<0.009	19
DEC 08...	--	--	--	--	--	--	--	--	--	--	--	13
JAN 15...	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.002	<.009	78
FEB 24...	--	--	--	--	--	--	--	--	--	--	--	9
MAR 16...	<.004	<.025	<.011	<.02	.007	<.02	<.034	<.02	<.010	<.002	<.009	46
APR 13...	<.004	<.025	<.011	<.02	.009	<.02	<.034	<.02	<.010	<.002	<.009	8
MAY 11...	<.004	<.025	<.011	<.02	.009	<.02	<.034	<.02	<.010	<.002	<.009	26
JUN 07...	<.004	<.025	<.011	<.02	.011	<.02	<.034	<.02	<.010	<.002	<.009	19
JUL 19...	<.010	<.025	<.011	<.02	.008	<.02	<.034	<.02	<.010	<.002	<.009	10
SEP 07...	<.004	<.025	<.011	<.02	.010	<.02	<.100	<.02	<.010	<.002	<.009	49

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, (MOORESVILLE WEST, IN quadrangle), 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 National Geodetic Vertical Datum of 1929. Dec. 10, 1963 to Sept. 30, 1964, nonrecording gage at bridge 1,950 ft upstream at datum 1.39 ft higher.

REMARKS.--Records fair 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	182	117	295	293	e126	253	701	75	604	86	66	43
2	154	169	252	487	e124	468	380	95	330	82	59	37
3	139	243	231	502	e123	333	272	104	244	80	53	33
4	140	188	219	4,010	e120	280	217	94	198	152	57	31
5	125	159	261	4,800	e117	626	181	87	174	145	103	30
6	112	139	323	1,080	e113	551	159	81	158	105	104	29
7	104	128	279	551	e112	351	148	75	143	95	90	27
8	101	117	253	408	e110	268	141	72	131	87	79	26
9	96	108	237	342	e108	226	132	68	120	109	68	25
10	94	103	318	290	e106	199	121	62	121	524	60	24
11	92	103	571	264	e103	182	114	58	247	269	51	24
12	87	125	378	262	e100	170	109	56	429	603	45	23
13	82	140	290	242	e98	156	106	56	437	341	40	22
14	347	121	261	226	e96	152	103	75	367	255	36	21
15	542	111	240	223	e94	152	98	185	259	188	33	21
16	306	110	236	211	e93	151	92	119	2,660	138	31	20
17	219	107	273	216	e92	164	90	94	1,410	113	29	20
18	188	122	247	367	e90	162	87	96	539	101	27	19
19	168	643	228	286	209	159	83	268	384	94	25	19
20	151	478	206	228	447	152	83	343	297	88	25	18
21	136	317	190	e200	516	151	97	271	231	84	39	18
22	126	257	190	e180	321	143	95	186	196	1,390	44	18
23	114	231	2,820	e166	273	135	140	138	165	439	41	17
24	107	824	2,110	e157	273	132	122	125	141	257	36	17
25	107	613	758	e152	252	131	108	152	130	137	47	17
26	155	387	456	e147	218	193	112	196	117	104	63	17
27	142	367	353	e142	197	1,430	98	176	107	85	76	16
28	126	475	305	e138	182	589	89	150	101	70	72	16
29	124	495	302	e134	174	350	81	132	96	59	66	17
30	118	359	469	e131	---	267	76	145	91	51	58	17
31	108	---	368	e128	---	720	---	3,330	---	62	49	---
TOTAL	4,792	7,856	13,919	16,963	4,987	9,396	4,435	7,164	10,627	6,393	1,672	682
MEAN	155	262	449	547	172	303	148	231	354	206	53.9	22.7
MAX	542	824	2,820	4,800	516	1,430	701	3,330	2,660	1,390	104	43
MIN	82	103	190	128	90	131	76	56	91	51	25	16
CFSM	0.73	1.24	2.12	2.58	0.81	1.43	0.70	1.09	1.67	0.97	0.25	0.11
IN.	0.84	1.38	2.44	2.98	0.88	1.65	0.78	1.26	1.86	1.12	0.29	0.12

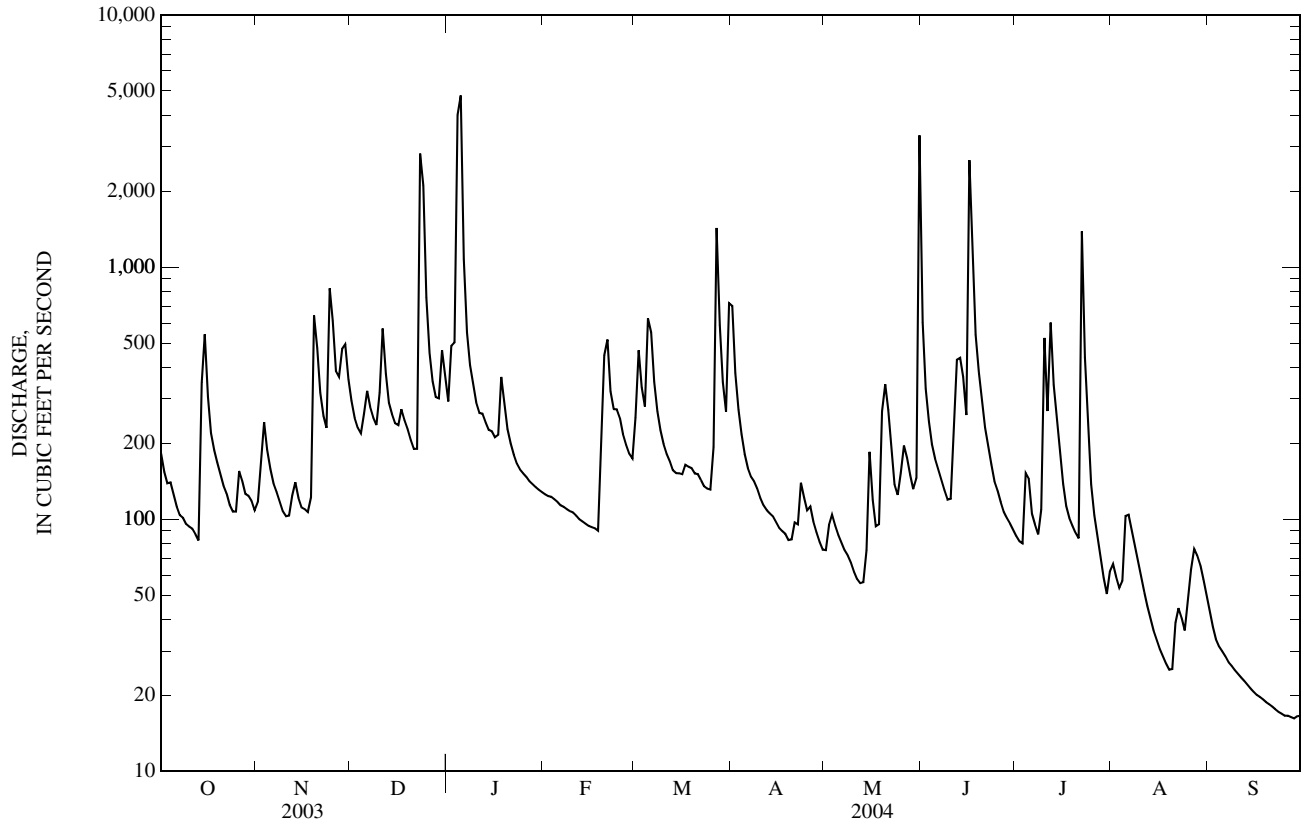
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2004, BY WATER YEAR (WY)

MEAN	80.4	193	265	263	320	416	366	304	181	149	76.9	73.3
MAX	592	1,193	975	845	942	1,154	1,328	1,062	936	764	567	905
(WY)	(2002)	(1994)	(1991)	(1969)	(1971)	(1963)	(1964)	(1996)	(1998)	(1979)	(1979)	(2003)
MIN	5.47	9.86	8.83	9.60	35.7	86.8	83.1	46.3	12.9	11.7	5.10	3.51
(WY)	(1998)	(1968)	(1964)	(1977)	(1964)	(2000)	(1971)	(1976)	(1988)	(1966)	(1966)	(1991)

03353800 WHITE LICK CREEK AT MOORESVILLE, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1957 - 2004	
ANNUAL TOTAL	117,707		88,886			
ANNUAL MEAN	322		243		224	
HIGHEST ANNUAL MEAN					372	1974
LOWEST ANNUAL MEAN					51.1	1966
HIGHEST DAILY MEAN	13,200	Sep 2	4,800	Jan 5	13,200	Sep 2, 2003
LOWEST DAILY MEAN	25	Aug 25	16	Sep 27	0.68	Aug 27, 1988
ANNUAL SEVEN-DAY MINIMUM	27	Aug 22	17	Sep 23	1.8	Sep 24, 1988
MAXIMUM PEAK FLOW			9,360	Jan 4	19,900	Sep 2, 2003
MAXIMUM PEAK STAGE			19.56	Jan 4	23.31	Jul 13, 1979
ANNUAL RUNOFF (CFSM)	1.52		1.15		1.06	
ANNUAL RUNOFF (INCHES)	20.65		15.60		14.37	
10 PERCENT EXCEEDS	570		441		471	
50 PERCENT EXCEEDS	155		138		91	
90 PERCENT EXCEEDS	59		37		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, (MOORESVILLE WEST, IN quadrangle), 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 National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark), levels by Indianapolis Power and Light Co. See WSP 1725 for history of changes prior to July 1953. July 1953 to Aug. 7, 1975, water-stage recorder at site 0.4 mi downstream at same datum.

REMARKS.--Records fair. 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

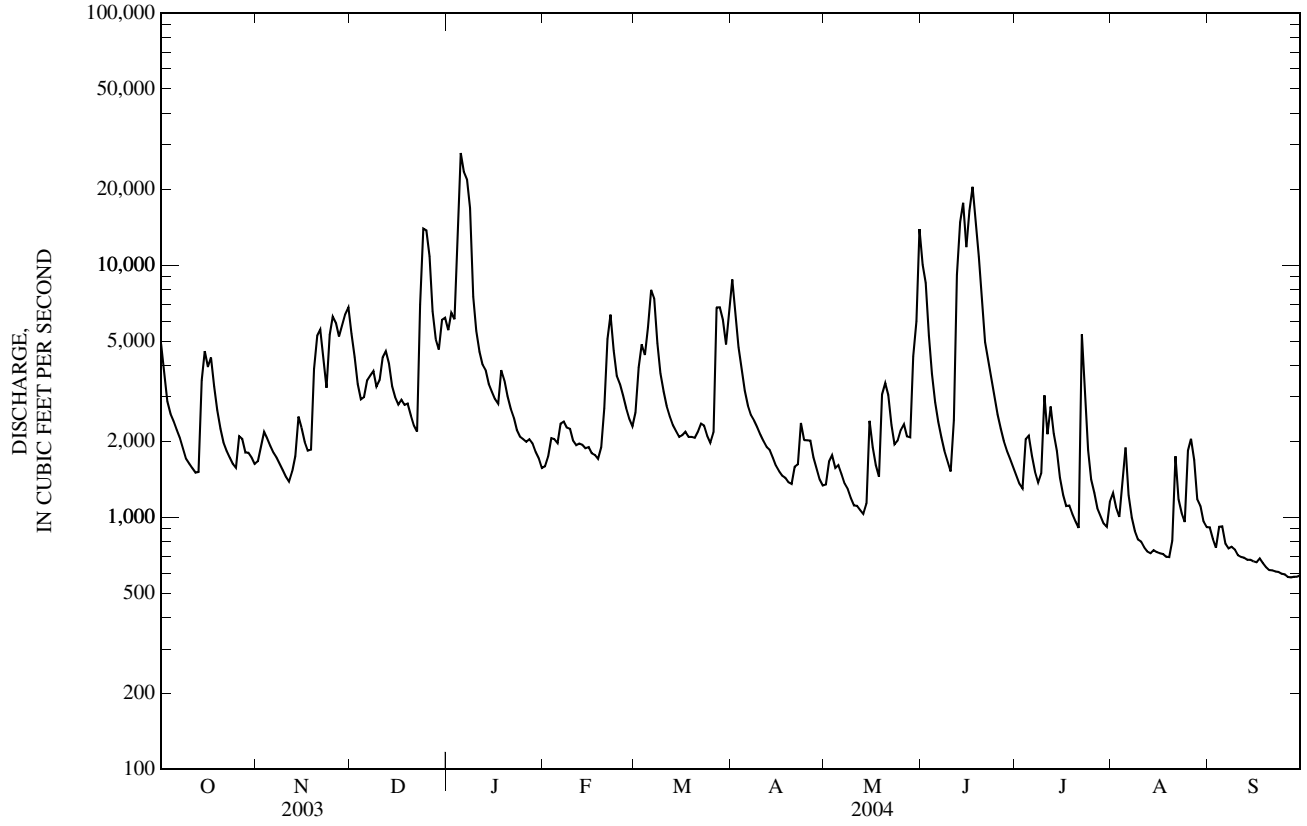
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,870	1,670	5,350	5,520	1,590	2,610	8,780	1,350	10,000	1,470	1,250	912
2	3,750	1,910	4,310	6,480	1,740	3,930	6,640	1,660	8,500	1,360	1,090	820
3	2,890	2,180	3,380	6,100	2,060	4,850	4,730	1,760	5,250	1,300	1,000	756
4	2,570	2,060	2,930	13,900	2,040	4,400	3,860	1,570	3,710	2,040	1,350	916
5	2,410	1,920	2,990	27,800	1,970	5,660	3,180	1,610	2,860	2,110	1,890	920
6	2,220	1,800	3,490	23,500	2,350	7,980	2,770	1,480	2,400	1,750	1,220	786
7	2,070	1,720	3,650	21,900	2,400	7,380	2,540	1,360	2,080	1,520	997	753
8	1,880	1,620	3,800	16,900	2,270	4,900	2,410	1,290	1,830	1,370	883	763
9	1,710	1,540	3,290	7,490	2,240	3,720	2,280	1,190	1,660	1,490	816	744
10	1,630	1,440	3,500	5,480	2,010	3,160	2,130	1,110	1,520	3,050	801	707
11	1,570	1,380	4,300	4,540	1,930	2,760	2,010	1,110	2,430	2,140	759	696
12	1,500	1,520	4,550	4,030	1,960	2,510	1,900	1,070	9,150	2,750	731	691
13	1,510	1,750	4,080	3,830	1,940	2,320	1,850	1,030	14,800	2,150	720	678
14	3,500	2,510	3,310	3,380	1,880	2,190	1,720	1,130	17,700	1,830	740	678
15	4,560	2,260	3,000	3,140	1,900	2,080	1,600	2,410	11,800	1,430	727	668
16	3,950	1,990	2,800	2,950	1,790	2,120	1,520	1,890	16,400	1,230	720	662
17	4,300	1,840	2,920	2,820	1,760	2,180	1,460	1,610	20,500	1,110	715	686
18	3,290	1,850	2,790	3,830	1,700	2,080	1,430	1,450	15,000	1,110	697	658
19	2,660	3,880	2,820	3,490	1,900	2,080	1,380	3,070	10,800	1,030	696	634
20	2,250	5,240	2,540	3,030	2,700	2,070	1,360	3,400	7,100	961	806	617
21	1,980	5,540	2,310	2,700	5,090	2,180	1,580	3,050	4,950	906	1,750	616
22	1,840	4,140	2,180	2,480	6,360	2,350	1,620	2,320	4,100	5,320	1,180	609
23	1,730	3,260	6,970	2,220	4,570	2,310	2,360	1,940	3,490	3,110	1,040	607
24	1,630	5,290	14,000	2,090	3,640	2,100	2,020	2,010	2,980	1,840	958	597
25	1,570	6,250	13,700	2,040	3,380	1,970	2,020	2,220	2,560	1,410	1,840	594
26	2,100	5,900	10,800	1,990	3,050	2,170	2,010	2,340	2,250	1,250	2,050	580
27	2,050	5,220	6,560	2,040	2,710	6,790	1,730	2,090	2,010	1,090	1,690	577
28	1,810	5,800	5,080	1,960	2,460	6,800	1,560	2,070	1,830	1,010	1,180	581
29	1,800	6,380	4,630	1,820	2,300	6,090	1,410	4,360	1,710	944	1,110	581
30	1,720	6,800	6,070	1,710	---	4,850	1,340	5,990	1,580	916	963	588
31	1,630	---	6,190	1,570	---	6,570	---	13,900	---	1,150	913	---
TOTAL	74,950	96,660	148,290	192,730	73,690	115,160	73,200	74,840	192,950	52,147	33,282	20,675
MEAN	2,418	3,222	4,784	6,217	2,541	3,715	2,440	2,414	6,432	1,682	1,074	689
MAX	4,870	6,800	14,000	27,800	6,360	7,980	8,780	13,900	20,500	5,320	2,050	920
MIN	1,500	1,380	2,180	1,570	1,590	1,970	1,340	1,030	1,520	906	696	577
CFSM	0.99	1.32	1.96	2.54	1.04	1.52	1.00	0.99	2.63	0.69	0.44	0.28
IN.	1.14	1.47	2.26	2.93	1.12	1.75	1.11	1.14	2.94	0.79	0.51	0.31

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2004, BY WATER YEAR (WY)

MEAN	968	1,839	2,588	3,273	3,710	4,519	4,272	3,230	2,553	1,941	1,120	1,041
MAX	6,725	11,760	8,248	17,760	10,430	10,390	11,530	11,280	10,310	9,354	6,001	9,121
(WY)	(2002)	(1994)	(1958)	(1950)	(1950)	(1963)	(1964)	(1996)	(1998)	(2003)	(1979)	(2003)
MIN	281	320	305	302	460	1,083	1,097	799	419	344	338	213
(WY)	(1964)	(1954)	(1964)	(1977)	(1964)	(2000)	(1971)	(1976)	(1988)	(1954)	(1966)	(1954)

03354000 WHITE RIVER NEAR CENTERTON, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1948 - 2004	
ANNUAL TOTAL	1,549,556		1,148,574			
ANNUAL MEAN	4,245		3,138		2,581	
HIGHEST ANNUAL MEAN					4,115	1950
LOWEST ANNUAL MEAN					812	1954
HIGHEST DAILY MEAN	49,900	Sep 2	27,800	Jan 5	49,900	Sep 2, 2003
LOWEST DAILY MEAN	800	Jul 4	577	Sep 27	138	Sep 27, 1954
ANNUAL SEVEN-DAY MINIMUM	891	Jun 28	585	Sep 24	157	Sep 27, 1954
MAXIMUM PEAK FLOW			30,800	Jan 5	65,700	Sep 2, 2003
MAXIMUM PEAK STAGE			16.08	Jan 5	20.04	Sep 2, 2003
ANNUAL RUNOFF (CFSM)	1.74		1.28		1.06	
ANNUAL RUNOFF (INCHES)	23.59		17.48		14.35	
10 PERCENT EXCEEDS	7,510		6,130		5,760	
50 PERCENT EXCEEDS	2,270		2,060		1,380	
90 PERCENT EXCEEDS	1,150		804		412	



03354000 WHITE RIVER NEAR CENTERTON, IN—Continued

WATER-QUALITY RECORDS

INSTRUMENTATION.--Temperature recorder.

PERIOD OF RECORD.--

WATER TEMPERATURE.--October 1955 to April 1956; October 1966 to September 1967; January 1970 to September 1972; August 1975 to December 1977; June 1978 to December 1978; March 1980 to October 1984; and December 1988 to current year.

REMARKS.--No records.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 33.1°C, Sept. 7, 1977; minimum, -0.6°C, on a few days during 1976 ,1977, 1999, and 2001.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 26.2°C, Sept. 13; minimum, 18.4°C, Sept. 31.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	---	---	---	---	---	---	---	---	---
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12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
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30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

03354000 WHITE RIVER NEAR CENTERTON, IN—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
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4	---	---	---	---	---	---	---	---	---	---	---	---
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14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
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19	---	---	---	---	---	---	---	---	---	---	---	---
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31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
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3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
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6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	24.4	22.4	23.2
9	---	---	---	---	---	---	---	---	---	24.7	21.3	22.8
10	---	---	---	---	---	---	---	---	---	25.4	21.6	23.4
11	---	---	---	---	---	---	---	---	---	25.2	22.0	23.6
12	---	---	---	---	---	---	---	---	---	25.6	22.5	24.0
13	---	---	---	---	---	---	---	---	---	26.2	22.9	24.5
14	---	---	---	---	---	---	---	---	---	26.0	23.7	24.8
15	---	---	---	---	---	---	---	---	---	26.0	23.3	24.7
16	---	---	---	---	---	---	---	---	---	25.3	24.1	24.7
17	---	---	---	---	---	---	---	---	---	25.0	22.7	23.8
18	---	---	---	---	---	---	---	---	---	24.1	21.1	22.5
19	---	---	---	---	---	---	---	---	---	23.8	20.5	22.1
20	---	---	---	---	---	---	---	---	---	23.7	20.1	21.8
21	---	---	---	---	---	---	---	---	---	23.8	20.0	21.8
22	---	---	---	---	---	---	---	---	---	24.3	20.7	22.4
23	---	---	---	---	---	---	---	---	---	24.5	21.4	22.9
24	---	---	---	---	---	---	---	---	---	23.6	22.3	23.0
25	---	---	---	---	---	---	---	---	---	24.6	22.3	23.2
26	---	---	---	---	---	---	---	---	---	23.2	20.8	22.0
27	---	---	---	---	---	---	---	---	---	23.1	20.0	21.5
28	---	---	---	---	---	---	---	---	---	22.5	20.2	21.2
29	---	---	---	---	---	---	---	---	---	21.3	19.0	20.0
30	---	---	---	---	---	---	---	---	---	21.6	18.4	19.8
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	26.2	18.4	22.8
YEAR	26.2	18.4	22.8									

03357000 WHITE RIVER AT SPENCER, IN

LOCATION.--Lat 39°16'52", long 86°45'44", in NE¼NE¼ sec.29, T.10 N., R. 3 W., Owen County, Hydrologic Unit 05120202, (SPENCER, IN quadrangle), on right bank at upstream side of county road bridge at the south edge of Spencer, 3.3 mi upstream from McBrides Creek, 14 mi northwest of Bloomington, and at mile 165.9.

DRAINAGE AREA.--2,988 mi^2.

PERIOD OF RECORD.--July 1925 to September 1971 (discharge), October 1987 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 National Geodetic Vertical Datum of 1929. 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, 22.24 ft, Jan. 6; minimum gage height, 2.92 ft, Sept. 27 - 30.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.84	5.25	9.83	9.73	5.28	6.48	12.34	4.71	15.87	4.97	4.49	3.95
2	7.76	5.49	8.65	11.32	5.51	7.80	11.16	5.04	13.85	5.07	4.25	3.79
3	6.92	5.83	7.69	11.57	5.89	8.71	9.15	5.41	10.12	4.78	4.10	3.61
4	6.46	5.73	7.18	17.69	5.96	8.64	8.13	5.09	8.09	5.40	4.08	3.57
5	6.24	5.56	7.09	21.75	5.85	9.59	7.36	5.10	7.00	5.69	5.27	3.91
6	5.98	5.39	7.61	21.66	6.33	11.32	6.84	4.92	6.34	5.28	4.50	3.63
7	5.78	5.29	7.58	20.33	6.46	11.60	6.53	4.74	5.87	4.92	4.12	3.49
8	5.55	5.16	7.81	19.30	6.21	9.29	6.31	4.61	5.52	4.71	3.88	3.47
9	5.29	5.00	7.32	15.58	6.19	8.04	6.09	4.44	5.25	5.78	3.73	3.43
10	5.16	4.90	7.76	10.55	5.98	7.35	5.90	4.26	5.08	7.43	3.65	3.37
11	5.03	4.81	8.44	9.40	5.90	6.83	5.71	4.22	5.12	5.95	3.55	3.30
12	4.92	4.89	8.49	8.76	5.96	6.48	5.54	4.14	10.40	6.56	3.50	3.32
13	4.85	5.12	8.21	8.41	5.94	6.24	5.45	4.10	13.65	5.86	3.42	3.22
14	6.27	5.99	7.49	7.89	5.82	6.07	5.29	4.28	15.65	5.71	3.45	3.22
15	8.41	5.91	7.10	7.55	5.88	5.91	5.11	5.91	16.79	5.08	3.42	3.19
16	7.45	---	7.03	7.27	5.68	5.94	4.99	5.37	16.65	4.78	3.39	3.16
17	8.04	---	---	7.26	5.61	6.07	4.88	5.09	18.44	4.49	3.38	3.19
18	7.18	---	7.00	8.71	5.61	5.94	4.80	4.94	18.58	4.40	3.49	3.15
19	6.50	---	---	8.08	6.04	5.90	4.73	6.88	16.54	4.24	3.43	3.10
20	6.03	8.53	---	7.46	7.23	5.86	4.73	7.32	12.14	4.10	3.94	3.08
21	5.68	9.42	---	7.07	9.27	5.91	4.95	6.92	9.29	3.97	5.02	3.04
22	5.44	8.28	6.21	6.74	10.45	6.04	5.06	6.09	8.25	8.42	4.36	3.03
23	5.28	7.43	9.77	6.37	9.13	6.04	5.97	5.54	7.54	6.97	4.08	3.02
24	5.13	9.76	14.69	6.19	8.05	5.81	5.62	5.44	6.91	5.46	4.05	2.99
25	5.07	10.37	15.73	---	7.64	5.63	5.51	5.53	6.41	4.88	5.30	2.99
26	5.57	10.03	15.52	6.02	7.25	6.16	5.61	6.05	6.02	4.61	5.59	2.95
27	5.74	10.34	11.46	6.03	6.82	10.89	5.23	6.27	5.71	4.32	5.40	2.93
28	5.44	11.19	9.47	5.89	6.48	10.76	4.99	6.69	5.48	4.16	4.67	2.92
29	5.37	11.39	8.93	5.73	6.29	10.33	4.81	7.94	5.32	4.01	4.62	2.92
30	5.26	11.57	10.12	---	---	9.35	4.66	11.25	5.14	4.00	4.25	---
31	5.17	---	10.05	---	---	9.90	---	14.57	---	4.27	4.03	---
MEAN	6.06	---	---	---	6.58	7.64	6.12	5.90	9.77	5.17	4.14	---
MAX	8.84	---	---	---	10.45	11.60	12.34	14.57	18.58	8.42	5.59	---
MIN	4.85	---	---	---	5.28	5.63	4.66	4.10	5.08	3.97	3.38	---

03357330 BIG WALNUT CREEK NEAR ROACHDALE, IN

LOCATION.--Lat 39°48'58", long 86°45'12", in SE¼NW¼ sec.21, T.16 N., R.3 W., Putnam County, Hydrologic Unit 05120203, (ROACHDALE, IN quadrangle), on right upstream bank at County Road 1100 South bridge, 3.4 mi southeast of Roachdale, 9.06 mi upstream from confluence with Plum Creek, and at mile 29.16.

DRAINAGE AREA.--131 mi^2.

PERIOD OF RECORD.--October 2001 to current year.

GAGE.--Water-stage recorder. Datum of gage is 800 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	249	72	167	201	e50	280	490	54	237	34	33	9.6
2	225	185	135	208	e50	363	281	69	139	32	28	9.1
3	213	165	118	227	e49	225	202	67	101	32	26	8.9
4	213	133	108	2,380	e48	308	159	60	80	128	83	8.2
5	e195	116	124	2,200	e48	780	136	60	71	81	71	7.7
6	e182	100	141	703	e47	416	126	57	64	51	35	7.7
7	e176	90	131	391	e47	253	117	53	56	45	30	9.0
8	e172	78	123	280	e46	191	112	49	50	35	26	8.3
9	e166	71	116	232	e46	e160	97	49	46	537	24	7.3
10	e166	69	208	198	e45	e140	88	49	47	708	23	7.2
11	e166	79	330	183	e45	122	85	49	267	486	22	7.5
12	e162	96	206	177	e44	108	80	48	527	625	21	7.6
13	e162	91	157	166	e44	97	77	54	411	304	20	7.6
14	e320	88	138	160	e44	96	72	61	201	211	20	7.5
15	e270	78	118	157	e43	87	66	87	231	132	18	7.0
16	225	75	108	141	e42	90	61	74	711	94	17	7.3
17	172	70	110	145	e42	88	57	e66	603	74	17	12
18	143	201	108	210	e49	86	55	66	324	60	15	8.9
19	127	640	92	e160	e228	83	52	158	268	51	15	7.1
20	112	397	81	e138	e387	82	57	174	184	45	26	6.5
21	104	278	82	e115	e285	79	63	135	134	43	36	6.2
22	96	225	80	e103	e180	71	60	125	110	e226	20	6.1
23	90	198	1,900	e95	e150	68	74	147	87	101	16	6.1
24	82	677	1,110	e84	e159	67	63	265	73	62	14	5.5
25	79	430	526	e76	e148	69	63	317	64	48	22	6.0
26	80	291	327	e69	e127	181	57	117	57	41	35	5.8
27	74	246	245	e64	e106	738	53	89	50	43	28	5.9
28	76	259	214	e59	97	355	49	111	46	39	16	6.1
29	75	263	276	e55	99	231	46	88	42	35	14	6.4
30	67	213	379	e52	---	187	46	77	38	36	12	7.2
31	63	---	250	e51	---	745	---	555	---	41	11	---
TOTAL	4,702	5,974	8,208	9,480	2,795	6,846	3,044	3,430	5,319	4,480	794	223.3
MEAN	152	199	265	306	96.4	221	101	111	177	145	25.6	7.44
MAX	320	677	1,900	2,380	387	780	490	555	711	708	83	12
MIN	63	69	80	51	42	67	46	48	38	32	11	5.5
CFSM	1.16	1.52	2.02	2.33	0.74	1.69	0.77	0.84	1.35	1.10	0.20	0.06
IN.	1.34	1.70	2.33	2.69	0.79	1.94	0.86	0.97	1.51	1.27	0.23	0.06

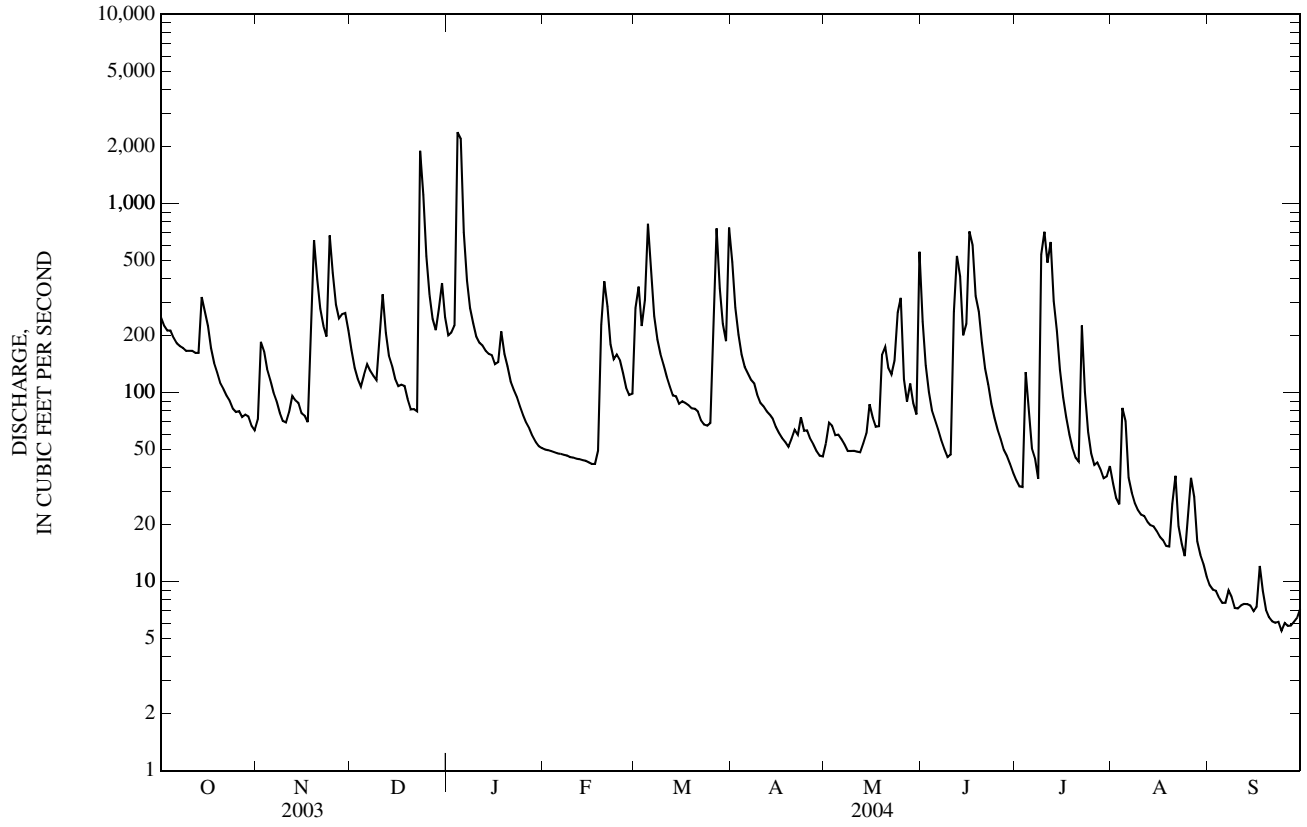
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2004, BY WATER YEAR (WY)

MEAN	85.9	124	224	166	149	288	191	387	145	185	36.2	216
MAX	152	199	315	306	239	363	406	688	207	363	42.8	612
(WY)	(2004)	(2004)	(2002)	(2004)	(2002)	(2002)	(2002)	(2002)	(2002)	(2003)	(2003)	(2003)
MIN	20.2	71.1	92.7	47.4	96.4	221	67.4	111	50.5	48.5	25.6	7.44
(WY)	(2003)	(2003)	(2003)	(2002)	(2004)	(2004)	(2003)	(2004)	(2003)	(2002)	(2004)	(2004)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2002 - 2004	
ANNUAL TOTAL	80,979		55,295.3			
ANNUAL MEAN	222		151		168	
HIGHEST ANNUAL MEAN					186	2003
LOWEST ANNUAL MEAN					151	2004
HIGHEST DAILY MEAN	6,490	Sep 1	2,380	Jan 4	6,490	Sep 1, 2003
LOWEST DAILY MEAN	19	Jul 4	5.5	Sep 24	5.2	Sep 12, 2002
ANNUAL SEVEN-DAY MINIMUM	20	Aug 20	5.9	Sep 22	5.5	Sep 12, 2002
MAXIMUM PEAK FLOW			4,320	Jan 5	11,300	Sep 1, 2003
MAXIMUM PEAK STAGE			13.40	Jan 5	19.86	Sep 1, 2003
ANNUAL RUNOFF (CFSM)	1.69		1.15		1.28	
ANNUAL RUNOFF (INCHES)	23.00		15.70		17.45	
10 PERCENT EXCEEDS	426		295		329	
50 PERCENT EXCEEDS	100		84		76	
90 PERCENT EXCEEDS	35		16		20	

e Estimated

03357330 BIG WALNUT CREEK NEAR ROACHDALE, IN—Continued



03357330 BIG WALNUT CREEK NR ROACHDALE, IN—Continued

[(National Water-Quality Assessment Program), White River Basin, Miami River Basin Study Unit]

WATER-QUALITY RECORDS

The data described in the following table were collected and analyzed as part of the National Water Quality Assessment Program (NAWQA) in the White River Basin, Miami River Basin (WHMI) study units. 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 42 river basin and aquifer assessment projects being implemented across the nation on a staggered timeline. During the second decade of sampling, 14 of these projects will be actively collecting data. The period of high-intensity data collection for the WHMI project is in water years 2001-2004.

Water quality data from four stream sites in Indiana and two stream sites in Ohio are being reported as part of the NAWQA study: Big Walnut Creek nr Roachdale, IN (03357330), Little Buck Creek nr Indianapolis, IN (03353637), Sugar Creek at Co. Rd. 400S at New Palestine, IN (394340085524601), White River at Hazleton, IN (03374100), Holes Creek at Huffman Park at Kettering, OH (393944084120700), Mad River at St. Paris Pike near Eagle City, OH (03267900). Additionally, continuous monitor data, water temperature, dissolved oxygen, specific conductance, and pH were collected for all sites except Sugar Creek at Co. Rd. 400S at New Palestine, IN (394340085524601), which were instead collected at Sugar Creek at New Palestine, IN (03361650).

These data can also be obtained electronically at http//in.water.usgs.gov or at http//oh.water.usgs.gov.

(- - -, no data: <, concentration or value reported is less than that indicated: E, estimated value: K, value is estimated from a non-ideal colony count: M, presence verified, not quantified).

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEDIAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	8.1	8.1	8.3	8.0	e7.9	8.0	8.0	8.0	7.0
2	---	---	---	8.1	8.1	8.1	8.2	8.1	8.1	7.9	7.9	7.0
3	---	---	---	8.1	8.2	8.2	8.2	8.2	8.2	7.8	7.9	6.9
4	---	---	8.3	7.8	8.2	8.2	8.3	8.2	8.3	7.9	7.8	6.9
5	---	---	8.3	7.6	8.2	7.9	8.3	8.1	8.3	8.0	7.7	6.9
6	---	---	8.3	7.7	8.2	8.0	8.3	8.0	8.3	8.0	7.8	6.9
7	---	---	8.3	7.8	8.2	8.1	8.2	7.9	8.2	8.0	7.9	7.8
8	---	---	8.3	7.9	8.2	8.2	8.3	7.9	8.1	8.0	7.8	7.9
9	---	---	8.3	8.0	8.3	---	8.3	7.9	8.1	8.0	7.8	8.0
10	---	---	8.3	8.0	8.3	---	8.3	7.9	8.2	7.7	7.8	8.0
11	---	---	8.2	8.0	8.3	8.3	8.3	e8.0	8.1	7.9	7.8	7.9
12	---	---	8.3	8.1	8.3	8.4	8.3	---	7.9	7.7	7.9	8.0
13	---	---	8.3	8.1	8.3	8.3	8.3	e7.9	7.8	8.0	7.9	7.9
14	---	---	8.3	8.3	8.3	8.3	8.3	7.9	8.1	8.1	7.9	7.9
15	---	---	8.3	8.3	8.4	8.4	8.2	8.0	8.1	8.2	7.9	7.9
16	---	---	8.3	8.3	8.3	8.4	8.2	8.1	7.9	8.3	7.8	7.8
17	---	---	8.3	8.3	8.3	8.4	8.1	---	7.8	8.4	7.7	7.9
18	---	---	8.3	8.3	8.4	8.4	8.0	e8.0	e7.8	8.4	7.6	8.0
19	---	---	8.3	8.3	---	8.4	8.0	8.0	7.8	8.4	7.6	8.0
20	---	---	8.3	8.3	---	8.3	8.0	8.1	8.0	8.0	7.5	8.0
21	---	---	8.3	8.3	---	8.3	8.1	8.1	8.0	7.8	7.5	8.0
22	---	---	8.3	8.3	---	8.3	8.1	8.0	8.0	e7.7	7.4	7.9
23	---	---	7.8	8.3	---	8.3	8.2	8.1	8.0	8.0	7.2	7.9
24	---	---	7.8	8.3	---	8.3	8.1	8.1	8.0	8.1	7.1	7.8
25	---	---	8.0	8.3	---	---	8.1	8.1	8.0	8.1	7.0	7.8
26	---	---	8.1	8.3	---	8.1	8.1	8.1	8.0	8.2	7.0	7.8
27	---	---	8.1	8.2	e8.5	7.9	8.1	8.1	8.0	8.1	6.9	7.9
28	---	---	8.1	8.2	8.4	8.0	8.1	8.2	7.9	8.0	6.9	7.9
29	---	---	8.1	8.2	8.5	8.1	8.1	8.2	7.9	8.0	7.0	8.0
30	---	---	8.0	8.2	---	8.1	7.9	8.1	7.9	8.0	7.0	8.0
31	---	---	8.1	8.1	---	7.9	---	7.7	---	8.1	7.0	---

e Estimated

03357330 BIG WALNUT CREEK NR ROACHDALE, IN—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	13.0	---	12.0	11.0	---	7.7	---	---	---
2	---	---	---	11.6	---	12.2	11.4	10.9	9.0	---	---	---
3	---	---	---	10.7	---	13.0	11.5	11.6	10.4	---	---	---
4	---	---	10.9	12.2	---	12.1	11.8	11.5	10.5	---	---	---
5	---	---	11.0	12.7	---	11.0	12.4	11.7	10.4	---	---	---
6	---	---	11.7	14.2	---	11.4	12.6	10.4	10.7	---	---	---
7	---	---	11.7	14.9	---	12.2	12.4	9.3	10.4	---	---	---
8	---	---	11.5	14.2	---	12.7	12.0	9.6	9.8	8.8	---	7.9
9	---	---	10.8	14.0	---	---	12.4	8.5	9.3	8.3	---	7.8
10	---	---	10.2	14.8	---	---	12.4	7.4	8.5	7.3	---	7.9
11	---	---	11.0	14.5	---	12.6	12.1	e7.5	6.6	7.5	---	8.1
12	---	---	12.7	13.7	---	13.6	12.4	e7.0	3.8	7.1	---	8.0
13	---	---	13.2	13.9	---	13.9	13.2	e6.5	---	7.1	---	7.8
14	---	---	13.1	13.0	---	13.1	13.5	6.6	---	7.3	---	7.5
15	---	---	13.1	12.7	---	13.7	12.2	7.9	---	7.9	---	7.3
16	---	---	12.5	13.0	---	13.7	11.1	8.7	---	8.1	---	6.2
17	---	---	13.4	12.9	---	14.0	10.0	---	---	8.3	---	7.5
18	---	---	13.9	12.8	---	14.3	9.2	e7.8	---	8.6	---	8.1
19	---	---	13.8	14.1	---	14.5	9.0	7.5	---	9.1	---	8.2
20	---	---	14.6	14.5	---	13.0	8.8	7.8	---	9.4	---	8.2
21	---	---	14.8	14.3	---	14.0	9.5	7.8	---	9.1	---	8.2
22	---	---	13.5	14.3	---	14.8	9.5	7.5	---	---	---	8.1
23	---	---	12.0	14.1	---	14.7	10.9	7.2	---	8.0	---	8.0
24	---	---	12.3	---	---	13.5	10.4	7.8	---	9.0	---	7.4
25	---	---	13.0	---	---	---	10.2	7.8	---	7.6	---	7.4
26	---	---	13.3	---	---	10.4	10.4	8.0	---	9.9	---	7.5
27	---	---	13.1	---	e14.5	10.6	10.7	8.0	---	9.9	---	8.0
28	---	---	12.5	---	14.6	10.8	10.8	8.1	---	9.0	---	7.8
29	---	---	11.6	---	14.3	11.1	10.3	8.7	---	7.9	---	8.0
30	---	---	12.5	---	---	11.5	9.1	8.1	---	---	---	8.2
31	---	---	13.0	---	---	10.8	---	6.5	---	---	---	---

e Estimated

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	6.4	1.6	9.3	9.7	e18.2	20.2	23.9	25.2	23.9
2	---	---	---	9.5	1.6	8.7	10.3	15.1	20.2	24.7	26.1	24.4
3	---	---	---	11.5	1.6	7.8	11.4	14.9	20.0	25.7	27.2	25.4
4	---	---	6.2	7.4	1.6	8.7	10.7	14.3	20.2	24.7	26.1	25.7
5	---	---	6.5	5.6	1.6	10.8	10.6	16.6	20.3	24.3	24.1	25.7
6	---	---	5.9	3.2	1.6	9.9	11.5	20.1	21.3	25.7	23.0	25.9
7	---	---	6.4	2.5	1.6	8.3	14.0	21.3	23.3	25.6	22.4	25.6
8	---	---	6.8	3.7	1.6	7.2	15.6	21.3	25.4	23.7	22.8	23.3
9	---	---	8.6	4.2	1.7	---	14.5	22.9	26.2	24.1	23.9	22.7
10	---	---	9.9	2.9	1.6	---	14.7	23.5	25.0	22.6	24.7	22.4
11	---	---	7.7	3.5	1.6	7.9	14.4	e24.0	23.6	23.5	22.9	22.5
12	---	---	4.6	4.8	1.6	5.8	11.3	e23.6	22.3	23.6	20.2	22.5
13	---	---	3.6	4.5	1.6	5.8	8.8	e23.0	22.6	23.9	19.8	23.3
14	---	---	4.0	4.4	1.7	7.8	9.9	21.9	23.7	23.3	19.8	23.8
15	---	---	4.3	4.0	1.6	7.8	13.6	18.5	23.8	23.3	21.0	24.0
16	---	---	5.2	3.8	1.6	6.8	16.8	18.9	22.3	23.8	21.7	23.8
17	---	---	3.9	3.9	1.7	5.9	19.6	---	22.7	24.5	22.6	22.3
18	---	---	3.4	4.2	1.7	5.8	21.0	e22.5	e22.6	24.0	24.0	20.8
19	---	---	3.6	1.8	e1.7	7.7	19.9	22.1	22.4	24.2	24.8	20.4
20	---	---	2.1	1.6	---	9.7	17.8	21.7	20.5	25.2	22.9	20.1
21	---	---	2.1	1.7	---	7.8	18.1	23.6	21.0	26.1	21.9	20.1
22	---	---	4.5	1.6	---	6.4	16.2	24.8	21.6	e25.7	23.0	20.6
23	---	---	6.2	1.7	---	7.5	15.5	24.0	21.2	25.6	24.0	21.2
24	---	---	5.4	1.7	---	10.6	16.2	22.9	22.3	23.5	25.2	21.5
25	---	---	4.9	1.6	---	e12.1	17.4	22.4	21.6	21.4	25.1	21.6
26	---	---	4.9	1.6	---	13.1	17.1	22.2	20.7	20.9	24.7	20.2
27	---	---	5.5	1.6	e6.0	12.1	15.8	22.0	21.7	21.1	25.8	19.4
28	---	---	7.2	1.6	6.2	13.6	15.7	22.3	22.7	22.2	26.6	18.6
29	---	---	8.8	1.6	7.5	14.0	17.9	21.5	22.4	22.8	24.7	17.4
30	---	---	6.7	1.6	---	12.1	19.8	21.9	22.9	22.5	23.6	16.8
31	---	---	6.2	1.6	---	10.3	---	20.7	---	23.8	23.5	---

e Estimated

03357330 BIG WALNUT CREEK NR ROACHDALE, IN—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	618	676	625	445	e595	578	594	584	647
2	---	---	---	622	648	564	497	597	616	595	587	649
3	---	---	---	624	625	589	530	608	630	588	588	650
4	---	---	718	375	637	601	546	619	630	550	531	653
5	---	---	721	282	648	528	556	613	628	515	446	653
6	---	---	714	410	623	532	560	602	620	543	549	650
7	---	---	714	496	620	574	559	606	608	571	576	633
8	---	---	716	557	648	611	555	605	605	587	581	631
9	---	---	717	593	642	---	557	609	606	504	579	630
10	---	---	685	619	623	---	562	609	607	332	578	630
11	---	---	585	638	621	626	570	e614	512	426	581	630
12	---	---	636	650	608	631	582	---	432	344	584	628
13	---	---	670	657	628	634	601	e622	432	434	594	628
14	---	---	684	655	625	630	605	625	514	484	604	625
15	---	---	691	648	603	626	587	612	541	538	609	621
16	---	---	691	647	610	616	572	635	453	568	608	615
17	---	---	693	640	613	631	568	---	464	593	609	622
18	---	---	691	610	601	644	570	e648	e502	609	610	619
19	---	---	692	624	---	639	578	623	544	608	612	600
20	---	---	702	640	---	633	582	625	561	582	584	599
21	---	---	709	639	---	640	592	640	588	546	563	604
22	---	---	698	644	---	641	595	651	598	---	595	607
23	---	---	373	672	---	642	591	644	603	483	612	609
24	---	---	369	656	---	637	603	612	616	543	614	609
25	---	---	466	657	---	e630	606	608	605	564	594	611
26	---	---	523	659	---	622	601	619	598	568	574	606
27	---	---	562	642	e655	521	603	634	588	567	573	606
28	---	---	589	637	665	560	604	631	589	564	606	606
29	---	---	585	650	669	596	602	633	588	560	626	607
30	---	---	560	658	---	616	600	652	599	569	636	604
31	---	---	592	672	---	478	---	509	---	585	642	---

e Estimated

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 deg C (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Alkalinity, wat flt fxd end field, mg/L as CaCO3 (39036)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)
NOV													
24...	1040	915	743	10.5	8.1	450	-1.0	8.1	170	170	E206	<1	21.5
JAN													
14...	1240	117	742	13.8	8.4	656	8.0	2.5	270	265	321	1	23.7
MAR													
31...	1130	972	740	11.2	7.9	425	18.0	8.1	140	140	E169	E1	29.7
APR													
14...	1050	64	751	14.7	8.5	751	21.0	6.5	240	235	232	<1	27.7
MAY													
10...	1140	43	732	9.0	7.9	610	26.0	22.5	240	237	E282	E3	29.7
JUN													
02...	1140	122	730	8.6	8.2	624	23.0	18.8	230	228	275	1	24.9
JUL													
20...	0930	40	729	10.5	8.2	620	31.0	21.7	250	248	295	3	26.8
SEP													
07...	1100	8.2	735	7.9	8.1	633	32.0	23.4	250	248	299	2	31.6

03357330 BIG WALNUT CREEK NR ROACHDALE, IN—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Suspended sediment concentration mg/L (80154)
NOV												
24...	19.0	0.05	3.72	0.018	0.79	0.199	0.630	8.5	0.2	8.3	6.0	238
JAN												
14...	39.4	<.04	3.77	.053	.02	.006	.041	0.2	<.1	0.2	2.9	26
MAR												
31...	24.5	<.04	4.25	.042	.28	<.006	.178	2.1	<.1	2.1	3.7	544
APR												
14...	39.6	<.04	2.81	.014	.07	<.006	.010	.4	<.1	.4	2.3	14
MAY												
10...	41.4	<.04	0.89	.046	.04	<.006	.024	.5	<.1	.4	3.3	42
JUN												
02...	27.1	<.04	8.61	.108	.09	.046	.080	.5	<.1	.5	2.7	32
JUL												
20...	36.3	<.04	1.72	.012	.06	E.004	.019	.3	<.1	.2	2.4	60
SEP												
07...	36.9	<.04	.44	.010	.11	.019	.064	.7	<.1	.7	3.0	19

03357350 PLUM CREEK NEAR BAINBRIDGE, IN

LOCATION.--Lat 39°45'42", long 86°43'46", in SW¼SE¼ sec.3, T.15 N., R.3 W., Putnam County, Hydrologic Unit 05120203, (NORTH SALEM, IN quadrangle), 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 National Geodetic Vertical Datum of 1929 (Indiana Department of Highways bench mark).

REMARKS.--Records fair except those for Jan. 19 to Feb. 2, and Feb. 16-18, and estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.83	1.0	2.7	4.1	1.3	7.4	6.6	0.64	3.9	0.39	0.23	0.23
2	0.70	5.3	2.3	5.4	1.4	6.6	4.9	0.91	2.0	0.36	0.18	0.21
3	0.69	2.4	2.1	6.5	e1.3	4.7	4.0	0.68	1.3	0.56	0.18	0.20
4	0.68	1.5	2.0	119	e1.3	8.9	3.3	0.63	1.1	1.5	4.7	0.20
5	0.56	1.1	3.3	20	e1.2	12	2.7	0.60	1.00	0.57	1.3	0.19
6	0.50	1.1	3.2	8.5	e1.2	7.2	3.1	0.52	0.86	0.47	0.62	0.18
7	0.46	0.91	2.7	6.0	e1.2	5.2	2.5	0.45	0.72	0.48	0.42	0.20
8	0.47	0.81	2.5	5.1	e1.2	4.1	1.6	0.42	0.64	0.37	0.32	0.17
9	0.50	0.74	2.2	4.3	e1.2	3.4	1.3	0.40	0.56	0.70	0.26	0.17
10	0.51	0.77	5.3	3.6	e1.2	2.6	1.2	0.36	0.58	2.5	0.22	0.17
11	0.49	0.91	5.0	3.5	e1.1	2.3	1.2	0.36	2.3	2.6	0.19	0.16
12	0.46	1.2	3.6	3.0	e1.1	1.8	1.1	0.44	1.4	2.0	0.19	0.16
13	0.46	0.81	3.0	2.7	e1.1	1.6	1.0	0.68	1.0	0.99	0.19	0.17
14	8.8	0.76	2.7	2.6	e1.1	1.7	0.93	0.96	0.76	1.4	0.19	0.17
15	6.8	0.77	2.2	2.2	e1.0	1.5	0.87	0.92	18	0.69	0.18	0.17
16	3.8	0.74	2.4	2.0	0.97	1.7	0.84	0.72	38	0.52	0.18	0.30
17	2.1	0.67	2.1	3.4	1.0	1.7	0.81	0.68	11	0.42	0.17	0.30
18	1.4	14	1.9	5.7	3.0	1.6	0.75	0.67	6.4	0.35	0.19	0.20
19	1.1	17	1.7	3.5	6.2	1.4	0.70	2.0	3.9	0.29	0.18	0.19
20	0.85	8.4	1.4	2.7	7.0	1.4	0.94	1.1	2.5	0.25	0.49	0.19
21	0.79	5.7	1.5	2.4	4.4	1.3	0.92	0.81	1.8	0.51	0.43	0.18
22	0.70	4.4	1.7	2.0	2.9	1.2	0.91	0.63	1.5	3.7	0.19	0.17
23	0.66	4.0	71	1.9	3.0	1.2	1.1	0.57	1.1	0.79	0.17	0.16
24	0.59	20	13	1.7	2.9	1.1	0.79	0.97	0.95	0.48	0.22	0.17
25	0.60	7.1	7.6	1.6	2.1	1.2	0.85	2.9	0.84	0.45	0.93	0.16
26	0.63	4.9	5.2	1.6	1.8	15	0.70	1.3	0.74	0.42	2.3	0.15
27	0.60	4.3	4.3	1.5	1.6	18	0.64	1.1	0.64	0.36	0.73	0.15
28	0.62	4.8	3.9	1.4	1.5	8.4	0.58	2.8	0.59	0.29	0.47	0.14
29	0.57	4.1	7.3	1.4	1.6	5.7	0.53	1.1	0.51	0.25	0.41	0.16
30	0.55	3.7	7.0	1.3	---	5.0	0.53	4.4	0.45	0.31	0.35	0.16
31	0.59	---	5.0	1.2	---	9.6	---	12	---	0.38	0.26	---
TOTAL	39.06	123.89	181.8	231.8	57.87	146.5	47.89	42.72	107.04	25.35	17.04	5.53
MEAN	1.26	4.13	5.86	7.48	2.00	4.73	1.60	1.38	3.57	0.82	0.55	0.18
MAX	8.8	20	71	119	7.0	18	6.6	12	38	3.7	4.7	0.30
MIN	0.46	0.67	1.4	1.2	0.97	1.1	0.53	0.36	0.45	0.25	0.17	0.14
CFSM	0.42	1.38	1.95	2.49	0.67	1.58	0.53	0.46	1.19	0.27	0.18	0.06
IN.	0.48	1.54	2.25	2.87	0.72	1.82	0.59	0.53	1.33	0.31	0.21	0.07

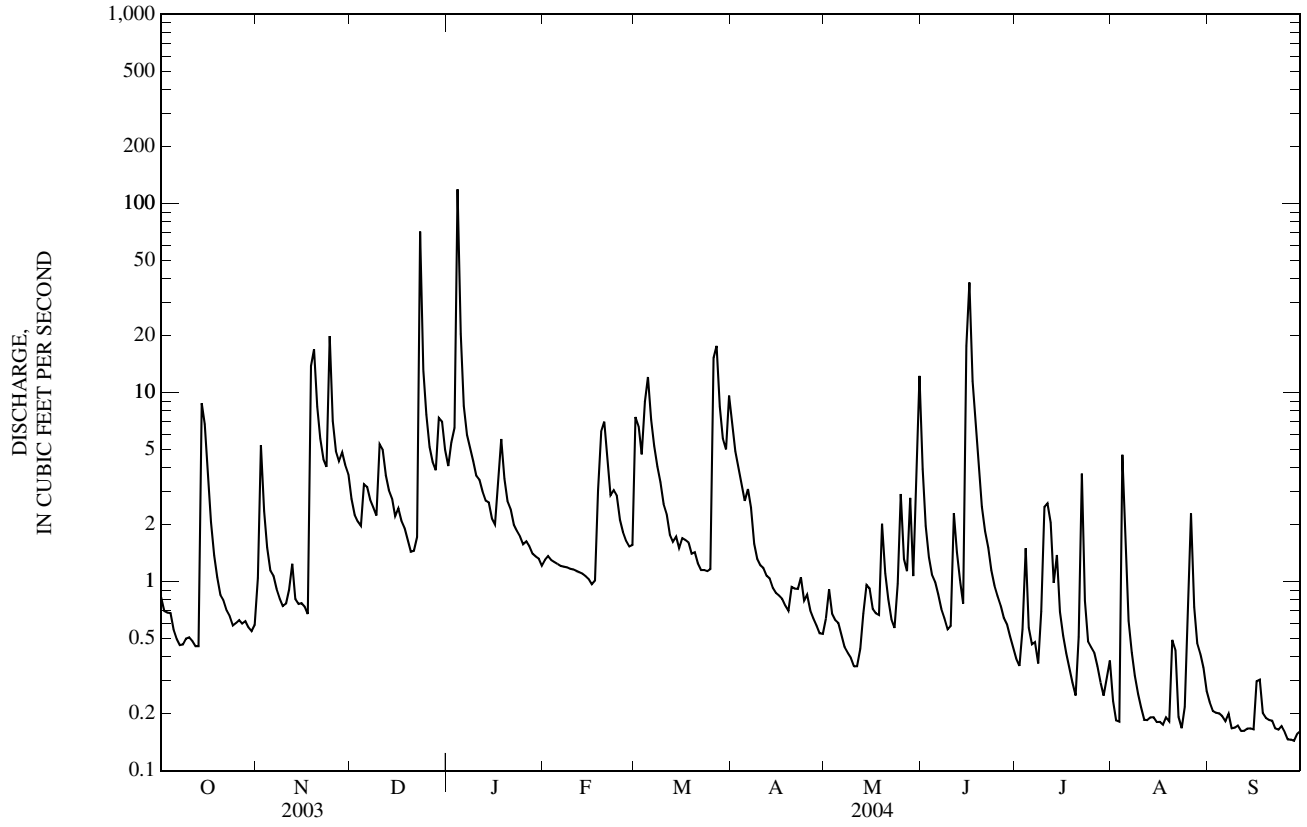
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2004, BY WATER YEAR (WY)

MEAN	1.43	3.61	4.56	3.83	5.47	6.44	5.35	4.34	2.82	2.43	1.07	1.32
MAX	12.5	20.6	18.4	13.5	17.1	19.1	12.7	16.7	13.7	14.1	7.90	12.8
(WY)	(2002)	(1986)	(1991)	(1974)	(1971)	(1978)	(1996)	(2002)	(1998)	(2003)	(1979)	(1989)
MIN	0.00	0.00	0.00	0.00	0.55	1.46	0.92	0.14	0.01	0.02	0.00	0.00
(WY)	(1997)	(1998)	(1998)	(1977)	(1998)	(1981)	(1971)	(1976)	(1988)	(1988)	(1991)	(1988)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1969 - 2004	
ANNUAL TOTAL	1,852.35		1,026.49			
ANNUAL MEAN	5.07		2.80		3.54	
HIGHEST ANNUAL MEAN					5.83	2002
LOWEST ANNUAL MEAN					1.49	2000
HIGHEST DAILY MEAN	279	Sep 1	119	Jan 4	279	Sep 1, 2003
LOWEST DAILY MEAN	0.00	Aug 27	0.14	Sep 28	0.00	Aug 18, 1970
ANNUAL SEVEN-DAY MINIMUM	0.03	Aug 24	0.16	Sep 23	0.00	Aug 26, 1970
MAXIMUM PEAK FLOW			257	Jan 4	940	Sep 14, 1989
MAXIMUM PEAK STAGE			3.74	Jan 4	6.50	Sep 14, 1989
ANNUAL RUNOFF (CFSM)	1.69		0.935		1.18	
ANNUAL RUNOFF (INCHES)	22.97		12.73		16.02	
10 PERCENT EXCEEDS	8.2		5.7		7.2	
50 PERCENT EXCEEDS	1.5		1.1		0.98	
90 PERCENT EXCEEDS	0.28		0.20		0.01	

e Estimated

03357350 PLUM CREEK NEAR BAINBRIDGE, IN—Continued



03357500 BIG WALNUT CREEK NEAR REELSVILLE, IN

LOCATION.--Lat 39°32'09", long 86°58'34", in NW¼SW¼ sec.28, T.13 N., R.5 W., Putnam County, Hydrologic Unit 05120203, (REELSVILLE, IN quadrangle), on left bank at downstream side of county highway bridge, 1.5 mi southwest of Reelsville, 3.8 mi southwest of Manhattan, and 4.1 mi upstream from Mill Creek.

DRAINAGE AREA.--326 mi^2.

PERIOD OF RECORD.--July 1949 to September 2002 (discharge). October 2002 to current year (stage only). Published as Eel River near Reelsville, October 1952 to September 1956.

REVISED RECORDS.--WSP 1335: 1950. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 588.24 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to Dec. 10, 1949, nonrecording gage at same site and datum.

REMARKS.--Flow partly regulated by Soil Conservation Service control structures on tributaries to Little Walnut Creek beginning in 1971.

EXTREMES FOR PERIOD OF RECORD.--(October 2002 to current year) maximum gage height, 18.63 ft, June 28, 1957; mimimum gage height unknown prior to 1988; (since 1988), minimum gage height, 1.62 ft, Oct. 5, 1991. (July 1949 to September 2002) maximum discharge, 30,700 ft^3/s, June 28, 1957, gage height, 18.63 ft; minimum discharge, 1.4 ft^3/s, Sept. 8, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 14.77 ft, Jan. 5; minimum gage height, 2.52 ft, Sept. 30.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.46	3.99	4.65	5.07	4.23	5.51	6.18	3.60	5.25	3.27	3.15	2.86
2	4.34	4.62	4.50	5.22	4.15	5.52	5.43	3.67	4.57	3.26	3.10	2.83
3	4.28	4.64	4.42	5.47	4.19	4.97	5.02	3.60	4.18	4.10	3.05	2.82
4	4.26	4.45	4.39	14.65	4.19	6.08	4.70	3.53	3.94	3.68	3.29	2.80
5	4.18	4.33	4.54	10.90	4.08	7.24	4.50	3.50	3.81	3.67	3.62	2.76
6	4.10	4.26	4.58	7.58	4.07	5.93	4.36	3.47	3.71	3.45	3.27	2.74
7	4.05	4.16	4.50	6.28	3.97	5.26	4.28	3.42	3.63	3.35	3.12	2.99
8	4.00	4.08	---	5.68	3.94	4.88	4.18	3.39	3.54	3.27	3.03	3.47
9	3.97	4.02	---	5.30	3.85	4.65	4.08	3.35	3.48	3.25	2.97	3.49
10	3.94	3.99	5.30	5.02	3.87	4.46	3.99	3.33	3.46	5.12	2.93	3.49
11	3.92	4.04	5.51	4.87	3.93	4.33	3.94	3.31	3.79	6.96	2.89	3.49
12	3.88	4.10	4.99	4.76	3.90	4.23	3.89	3.29	4.78	5.64	2.87	3.49
13	3.86	4.08	4.74	4.63	3.84	4.13	3.85	3.37	4.96	4.96	2.85	3.47
14	5.62	4.03	4.64	4.57	3.89	4.12	3.81	3.47	4.29	5.01	2.83	2.82
15	5.57	4.02	4.51	4.49	3.92	4.05	3.76	3.57	4.87	4.29	2.81	2.72
16	5.03	4.01	4.49	4.40	3.83	4.13	3.72	3.50	8.55	3.95	2.79	2.72
17	4.70	3.98	4.45	5.03	3.82	4.09	3.69	3.45	7.38	3.75	2.78	2.71
18	4.51	6.23	4.41	5.13	3.90	4.04	3.65	4.55	5.64	3.60	2.77	2.69
19	4.40	7.00	4.33	4.72	4.89	3.99	3.62	4.89	5.03	3.49	2.76	2.66
20	4.31	5.80	4.22	4.54	5.71	3.98	3.76	4.42	4.61	3.41	3.11	2.63
21	4.22	5.24	4.17	4.38	5.16	3.93	3.75	4.04	4.28	3.39	3.09	2.61
22	4.18	4.94	4.26	4.27	4.66	3.87	3.84	3.82	4.07	4.21	2.99	2.60
23	4.12	4.88	12.41	4.17	4.58	3.83	3.84	3.72	3.88	3.72	2.87	2.59
24	4.07	7.43	8.12	4.20	4.54	3.83	3.73	3.76	3.74	3.45	2.85	2.58
25	4.06	5.94	6.48	4.09	4.39	3.86	3.77	4.16	3.63	3.36	3.00	2.57
26	4.06	5.35	5.66	4.16	4.27	7.47	3.67	4.02	3.55	3.29	3.61	2.55
27	4.02	5.09	5.24	4.10	4.17	7.30	3.59	3.97	3.47	3.23	3.32	2.55
28	4.02	5.02	5.03	4.10	4.08	5.92	3.55	3.99	3.41	3.19	3.16	2.54
29	4.01	5.03	6.10	4.10	4.06	5.32	3.51	3.79	3.36	3.15	3.04	2.53
30	3.98	4.85	5.80	4.16	---	6.12	3.49	7.38	3.31	3.15	2.97	2.53
31	3.93	---	5.23	4.40	---	7.65	---	6.71	---	3.18	2.90	---
MEAN	4.26	---	---	5.30	4.21	4.99	4.04	3.94	4.34	3.83	3.03	2.84
MAX	5.62	---	---	14.65	5.71	7.65	6.18	7.38	8.55	6.96	3.62	3.49
MIN	3.86	---	---	4.09	3.82	3.83	3.49	3.29	3.31	3.15	2.76	2.53

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, (CATARACT, IN quadrangle), on right bank at downstream side of bridge on U.S. Highway 231, 3 mi east of Cataract, 5.7 mi south of Cloverdale, 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 National Geodetic Vertical Datum of 1929. Prior to Nov. 8, 1949, nonrecording gage, and Nov. 8, 1949, to Sept. 22, 1968, water-stage recorder at site 100 ft upstream at same datum.

REMARKS.--Records fair 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	167	117	341	333	e105	406	581	77	3,270	62	34	9.8
2	134	226	267	1,180	e103	632	377	102	1,500	59	25	8.5
3	115	210	237	1,040	e100	357	292	104	407	58	21	7.9
4	119	171	218	2,650	e98	384	240	83	270	99	23	7.4
5	103	151	283	5,430	e97	984	202	79	213	85	61	7.5
6	88	128	415	4,610	e95	605	184	74	180	63	35	7.1
7	79	120	308	1,680	e94	385	176	66	153	61	24	6.9
8	72	106	265	605	e92	297	168	61	131	57	20	7.1
9	69	97	241	399	e91	254	147	58	115	50	18	6.2
10	67	93	735	311	e90	214	133	55	105	69	16	6.0
11	64	100	1,110	278	e88	198	128	54	137	68	15	5.6
12	60	111	492	280	e87	179	120	51	169	141	13	5.4
13	59	107	343	252	e86	160	116	58	250	94	13	5.2
14	657	88	296	234	e85	159	111	101	551	397	13	5.3
15	1,080	88	253	230	e84	158	100	397	242	190	13	5.2
16	459	96	272	198	e84	159	95	212	1,730	93	12	5.3
17	298	89	372	206	e83	180	93	146	3,220	66	12	5.3
18	228	304	280	706	e100	177	89	137	1,910	52	12	5.3
19	192	1,350	244	414	429	166	83	1,760	678	45	12	4.8
20	160	625	206	e260	838	153	88	1,120	332	39	14	4.5
21	146	377	184	e205	783	153	114	461	236	36	23	4.4
22	129	283	202	e180	413	131	99	290	195	174	21	4.6
23	117	238	1,560	e160	399	126	137	210	156	100	14	4.5
24	106	1,510	2,770	e142	406	124	121	294	131	50	15	4.6
25	110	906	1,120	e133	330	122	116	235	116	37	37	4.6
26	255	479	507	e123	268	284	119	337	104	36	55	4.6
27	232	573	387	e120	230	1,530	97	400	92	33	61	4.5
28	176	909	333	e117	202	663	84	384	82	29	25	4.3
29	153	700	361	e113	189	419	77	233	74	26	15	4.6
30	128	457	625	e110	---	355	72	240	67	26	13	4.9
31	114	---	418	e107	---	564	---	2,730	---	34	11	---
TOTAL	5,936	10,809	15,645	22,806	6,149	10,678	4,559	10,609	16,816	2,429	696	171.9
MEAN	191	360	505	736	212	344	152	342	561	78.4	22.5	5.73
MAX	1,080	1,510	2,770	5,430	838	1,530	581	2,730	3,270	397	61	9.8
MIN	59	88	184	107	83	122	72	51	67	26	11	4.3
CFSM	0.78	1.47	2.06	3.00	0.87	1.41	0.62	1.40	2.29	0.32	0.09	0.02
IN.	0.90	1.64	2.38	3.46	0.93	1.62	0.69	1.61	2.55	0.37	0.11	0.03

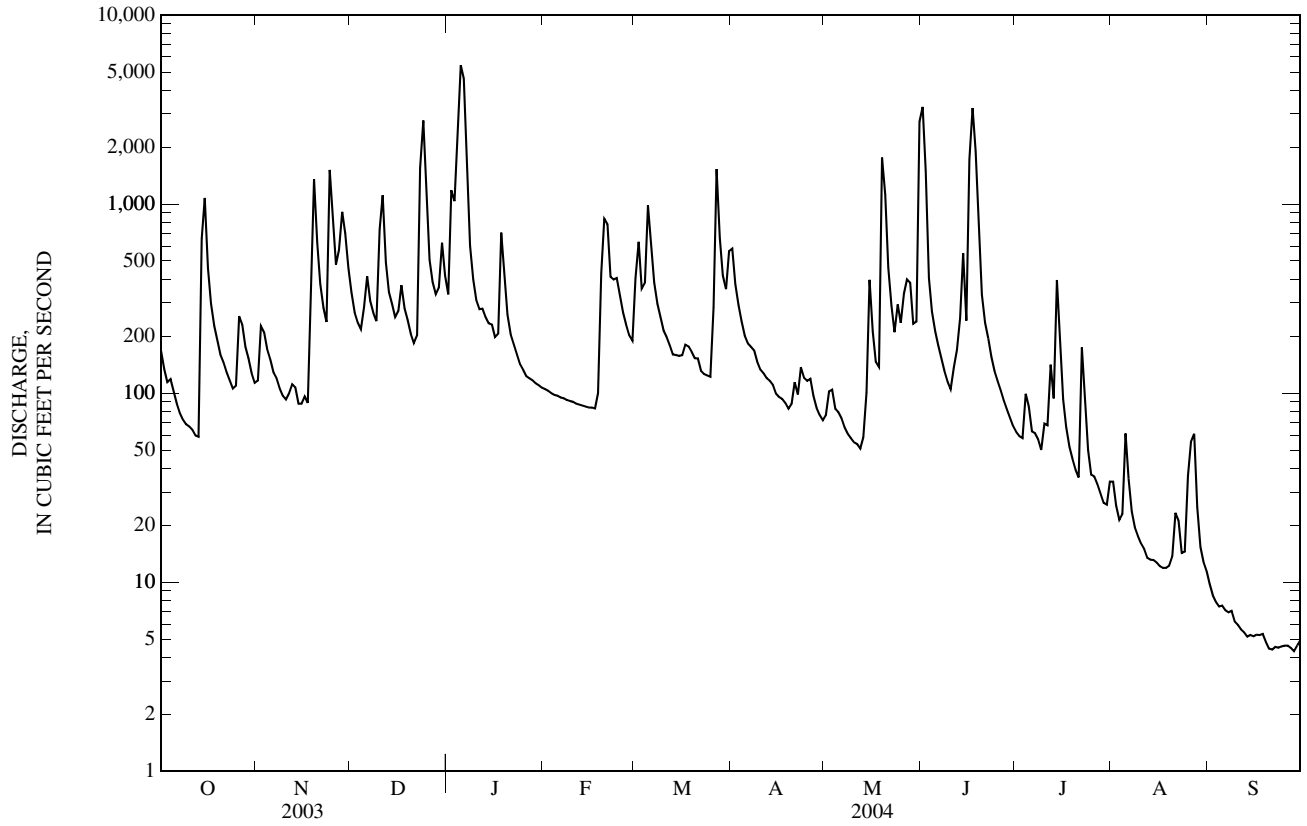
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2004, BY WATER YEAR (WY)

MEAN	82.6	230	311	349	405	491	415	351	247	192	101	92.8
MAX	878	1,576	1,135	2,214	1,088	1,425	1,064	1,522	1,120	1,694	1,092	918
(WY)	(2002)	(1994)	(1958)	(1950)	(1971)	(1963)	(1964)	(1981)	(1957)	(1979)	(1993)	(1989)
MIN	2.88	4.19	4.05	6.55	41.1	108	74.5	35.1	11.2	6.84	3.72	0.91
(WY)	(1965)	(2000)	(1964)	(1977)	(1954)	(1994)	(1971)	(1954)	(1988)	(1954)	(1954)	(1954)

03358000 MILL CREEK NEAR CATARACT, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1950 - 2004	
ANNUAL TOTAL	147,532.7		107,303.9			
ANNUAL MEAN	404		293		272	
HIGHEST ANNUAL MEAN					528	1979
LOWEST ANNUAL MEAN					37.3	1954
HIGHEST DAILY MEAN	5,830	Sep 3	5,430	Jan 5	e 11,500	Dec 30, 1990
LOWEST DAILY MEAN	9.7	Aug 29	4.3	Sep 28	0.10	Sep 7, 1954
ANNUAL SEVEN-DAY MINIMUM	11	Aug 24	4.5	Sep 22	0.20	Sep 2, 1954
MAXIMUM PEAK FLOW			5,680	Jan 5	e 12,200	Dec 30, 1990
MAXIMUM PEAK STAGE			17.27	Jan 5	22.58	Jun 24, 1960
ANNUAL RUNOFF (CFSM)	1.65		1.20		1.11	
ANNUAL RUNOFF (INCHES)	22.40		16.29		15.06	
10 PERCENT EXCEEDS	990		611		587	
50 PERCENT EXCEEDS	171		128		84	
90 PERCENT EXCEEDS	45		13		8.0	

e Estimated



03359000 MILL CREEK NEAR MANHATTAN, IN

LOCATION.--Lat 39°29'15", long 86°55'29", in SE¼SE¼ sec.11, T.12 N., R.5 W., Putnam County, Hydrologic Unit 05120203, (POLAND, IN quadrangle), 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 September 1976 (discharge). October 1976 to September 2001 (discharge provided by U.S. Army Corps of Engineers). October 2001 to current year (stage-only). 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 National Geodetic Vertical Datum of 1929. 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 September 1976 to September 2001.

EXTREMES FOR PERIOD OF RECORD.--(October 2001 to current year) maximum gage height, 14.30 ft, Sept. 2, 2003, minimum gage height, 8.14 ft, Oct. 30, 2001. (October 1938 to September 1976) 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 gage height, 12.65 ft, Jan. 5; minimum gage height, 8.19 ft, Aug. 13-17, Sept 2, 4-7, and 10-13.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.79	8.68	9.87	9.44	10.80	8.93	8.75	8.46	8.66	8.86	8.30	8.25
2	8.88	8.77	10.47	8.69	10.77	9.81	9.48	8.46	8.66	8.60	8.30	8.20
3	8.61	9.04	10.45	8.69	10.75	9.80	9.48	8.36	8.67	8.63	8.30	8.20
4	8.71	9.04	10.43	12.53	10.43	9.42	10.21	8.36	9.51	8.60	8.31	8.19
5	8.71	8.68	10.41	8.77	10.13	8.96	10.45	8.36	10.28	8.60	8.30	8.19
6	8.71	8.97	8.89	8.75	9.78	8.96	10.43	8.35	10.85	8.61	8.30	8.19
7	8.71	8.97	9.42	8.75	9.38	8.97	10.42	8.36	10.83	8.44	8.30	8.20
8	9.00	8.96	9.01	8.75	9.38	8.96	10.39	8.28	10.80	8.37	8.30	8.20
9	9.00	8.67	9.01	8.75	8.92	9.88	10.37	8.28	10.78	8.38	8.30	8.20
10	9.00	8.67	9.44	8.75	8.45	9.87	8.89	8.28	10.75	8.51	8.30	8.19
11	9.00	8.67	9.87	8.74	8.75	9.86	8.65	8.29	10.73	8.69	8.25	8.19
12	9.01	8.67	10.17	9.68	8.75	9.85	8.65	8.29	10.10	8.68	8.25	8.19
13	8.73	8.76	10.16	10.52	9.00	9.42	8.65	8.29	9.37	8.69	8.19	8.20
14	8.74	8.76	10.15	10.81	9.00	8.93	8.65	8.30	8.66	8.69	8.19	8.20
15	9.47	8.76	8.91	11.12	9.00	8.93	8.65	8.30	8.66	9.01	8.19	8.20
16	9.89	8.76	8.97	11.10	9.16	8.93	8.65	8.30	8.67	9.01	8.19	8.21
17	9.88	8.76	9.43	11.09	8.88	8.93	8.65	8.30	8.69	9.01	8.20	8.20
18	9.46	8.78	9.43	10.43	8.71	8.93	8.65	8.31	8.70	8.38	8.21	8.20
19	9.45	8.78	9.84	10.43	8.72	8.93	8.65	8.59	8.71	8.38	8.20	8.21
20	9.45	9.46	8.63	11.05	9.43	8.65	8.65	9.17	8.71	8.38	8.43	8.21
21	9.45	10.18	8.63	11.03	9.43	8.65	8.65	10.18	8.72	8.35	8.30	8.21
22	8.94	10.17	8.93	11.02	10.14	8.94	8.65	10.17	9.51	8.32	8.30	8.22
23	8.94	10.17	8.96	11.00	10.13	8.93	8.65	10.18	10.25	8.98	8.30	8.22
24	8.94	8.91	8.97	10.97	10.12	8.64	8.65	10.16	10.52	8.36	8.31	8.21
25	8.94	8.91	8.97	10.96	10.11	8.64	8.66	10.14	10.79	8.31	8.30	8.21
26	8.94	9.86	8.98	10.93	9.10	8.73	8.66	9.80	10.77	8.31	8.64	8.21
27	9.02	9.87	8.98	10.91	9.10	8.73	8.65	9.44	10.75	8.30	8.63	8.21
28	9.02	9.88	9.42	10.89	8.92	8.73	8.46	9.42	10.73	8.30	8.97	8.21
29	9.02	9.87	9.43	10.87	8.92	8.73	8.46	8.91	10.70	8.30	8.25	8.21
30	8.68	9.87	9.42	10.85	---	8.75	8.46	9.10	9.77	8.31	8.25	8.21
31	8.68	---	9.43	10.82	---	8.75	---	8.65	---	8.30	8.25	---
MEAN	9.06	9.14	9.45	10.23	9.45	9.07	9.04	8.83	9.78	8.54	8.32	8.20
MAX	9.89	10.18	10.47	12.53	10.80	9.88	10.45	10.18	10.85	9.01	8.97	8.25
MIN	8.61	8.67	8.63	8.69	8.45	8.64	8.46	8.28	8.66	8.30	8.19	8.19

CAL YR 2003 MEAN 9.38 MAX 13.98 MIN 8.21
WTR YR 2004 MEAN 9.09 MAX 12.53 MIN 8.19

03359000 MILL CREEK NEAR MANHATTAN, IN—Continued

WATER-QUALITY RECORDS

INSTRUMENTATION.--Temperature recorder.

PERIOD OF RECORD.--

WATER TEMPERATURE.--May 1993 to February 1996, July 1999 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 30.1°C, July 31, 1999; minimum, 1.1°C, Feb. 1-10, 12-14, 1994 and Dec. 10, 1995.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 27.7°C, July 21, minimum, 2.1°C, Jan. 30.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	19.7	19.0	19.4	15.2	14.9	15.0	9.2	8.7	9.0	4.3	3.9	4.1
2	19.0	18.3	18.6	15.2	14.7	14.9	8.7	8.4	8.5	5.0	4.3	4.6
3	18.3	18.0	18.2	15.3	14.8	15.0	8.4	7.9	8.2	5.2	4.8	4.9
4	18.1	17.6	17.9	16.1	14.8	15.3	7.9	7.7	7.8	5.6	5.2	5.4
5	18.1	17.6	17.8	16.0	14.5	15.0	7.7	7.3	7.5	5.4	4.7	4.9
6	18.1	17.5	17.7	14.7	14.3	14.6	7.3	6.8	7.0	4.7	4.3	4.4
7	18.0	17.5	17.7	14.3	13.9	14.2	7.1	6.8	6.9	4.4	4.2	4.3
8	17.9	17.4	17.6	13.9	13.4	13.7	6.9	6.8	6.9	4.5	4.3	4.3
9	17.9	17.5	17.6	13.4	13.0	13.2	7.1	6.9	7.0	4.3	3.7	3.9
10	18.0	17.5	17.7	13.4	12.8	13.1	7.2	6.9	7.1	3.9	3.5	3.7
11	18.1	17.4	17.7	13.4	13.2	13.3	6.9	6.5	6.8	3.9	3.7	3.8
12	17.6	17.3	17.5	13.5	12.3	13.2	6.5	6.2	6.3	3.8	3.6	3.7
13	17.9	17.4	17.7	12.3	11.9	12.1	6.2	5.7	5.9	3.9	3.6	3.8
14	17.5	16.9	17.2	12.0	11.7	11.8	5.7	5.4	5.6	3.9	3.8	3.9
15	17.4	16.9	17.1	11.8	11.6	11.7	5.4	5.1	5.3	3.8	3.7	3.8
16	17.7	17.1	17.4	11.9	11.5	11.7	5.2	4.9	5.1	3.8	3.6	3.7
17	17.5	16.9	17.2	11.9	11.5	11.7	4.9	4.6	4.8	3.9	3.8	3.8
18	16.9	16.6	16.7	12.3	11.9	12.1	4.6	4.5	4.6	3.9	3.9	3.9
19	16.7	16.4	16.6	12.1	11.7	11.9	4.5	4.2	4.4	3.9	3.8	3.8
20	17.3	16.4	16.7	11.9	11.4	11.7	4.2	3.9	4.1	3.8	3.6	3.7
21	17.3	16.2	16.6	11.9	11.8	11.9	4.3	3.8	4.0	3.7	3.7	3.7
22	16.6	15.8	16.3	12.3	11.8	12.0	4.2	4.0	4.1	3.7	3.5	3.6
23	16.7	15.8	16.2	12.4	12.2	12.2	4.5	4.1	4.3	3.5	3.4	3.5
24	16.5	15.8	16.1	12.2	11.3	11.7	4.1	3.9	4.0	3.4	3.2	3.2
25	16.2	15.9	16.1	11.3	11.0	11.1	3.9	3.7	3.8	3.2	2.5	2.8
26	16.0	15.5	15.8	11.0	10.9	10.9	3.9	3.6	3.7	2.7	2.4	2.6
27	15.5	15.2	15.4	11.0	10.8	10.9	4.1	3.8	3.9	2.8	2.4	2.7
28	15.2	15.0	15.2	10.8	9.9	10.4	4.2	3.9	4.0	2.6	2.4	2.5
29	15.0	14.6	14.8	9.9	9.4	9.7	4.2	4.0	4.1	2.4	2.2	2.3
30	15.2	14.5	14.8	9.4	9.2	9.3	4.1	3.9	4.0	2.2	2.1	2.2
31	15.2	14.9	15.1	---	---	---	4.2	4.0	4.0	2.3	2.2	2.2
MONTH	19.7	14.5	16.9	16.1	9.2	12.5	9.2	3.6	5.6	5.6	2.1	3.7

03359000 MILL CREEK NEAR MANHATTAN, IN—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.4	2.2	2.3	5.8	4.8	5.3	10.0	9.2	9.6	17.4	15.8	16.8
2	2.4	2.3	2.3	5.7	5.1	5.4	10.3	9.2	9.7	16.6	15.2	15.8
3	2.4	2.3	2.3	5.9	5.5	5.7	10.7	9.7	10.1	17.1	15.5	16.1
4	2.4	2.3	2.4	6.5	5.9	6.3	10.6	9.8	10.2	16.8	14.9	15.8
5	2.5	2.4	2.5	7.2	6.5	6.9	11.7	10.5	10.9	17.8	15.5	16.5
6	2.6	2.5	2.5	7.2	6.9	7.1	12.0	11.0	11.4	19.8	16.0	17.1
7	2.7	2.5	2.6	7.4	6.9	7.1	12.1	11.5	11.8	18.7	17.5	18.1
8	2.8	2.5	2.6	7.5	6.9	7.1	12.7	11.0	11.7	20.2	17.4	18.7
9	2.9	2.6	2.7	7.4	7.0	7.2	13.0	11.1	12.1	20.5	18.5	19.5
10	3.2	2.6	2.8	7.8	7.1	7.4	13.5	11.4	12.6	20.5	19.2	19.9
11	3.2	2.5	2.8	7.8	7.7	7.7	12.2	11.3	11.7	21.0	19.2	20.3
12	3.2	2.7	2.9	7.7	7.5	7.6	11.9	11.0	11.5	22.5	19.7	21.0
13	3.0	2.7	2.8	8.3	7.5	7.8	11.4	10.6	11.0	22.2	20.9	21.4
14	3.3	2.8	3.0	8.4	7.8	8.0	11.9	10.6	11.1	21.5	20.1	21.0
15	3.3	2.8	3.0	8.9	7.7	8.2	12.6	10.8	11.7	20.1	18.3	18.8
16	3.4	2.9	3.1	8.6	8.1	8.3	13.6	12.2	12.8	20.0	18.3	19.0
17	3.6	3.1	3.3	8.1	7.8	8.0	13.4	12.2	12.9	21.4	19.4	20.2
18	3.9	3.1	3.4	8.3	7.7	7.9	15.0	12.3	13.4	21.0	20.0	20.5
19	4.1	3.3	3.6	9.0	7.5	8.2	15.2	13.1	13.5	20.3	19.1	19.7
20	3.8	3.6	3.7	9.0	8.4	8.8	14.0	12.5	13.3	19.5	17.4	18.4
21	3.7	3.5	3.6	8.4	7.8	8.0	14.3	13.0	13.7	18.9	17.4	18.1
22	3.9	3.5	3.7	8.6	7.5	7.9	13.5	12.7	13.1	19.7	18.2	18.8
23	4.0	3.8	3.9	8.3	7.7	7.9	13.7	12.6	13.2	20.5	18.4	19.3
24	4.0	3.7	3.8	9.2	8.0	8.6	14.6	12.7	13.4	20.0	18.7	19.6
25	4.2	3.6	3.8	9.6	8.5	8.9	14.3	13.0	13.7	20.6	19.6	20.0
26	4.5	3.7	4.0	9.8	9.0	9.4	14.5	12.8	13.5	20.4	19.7	20.1
27	4.6	3.7	4.1	10.4	9.5	9.9	14.1	13.1	13.5	20.6	19.1	19.9
28	5.0	4.3	4.6	11.2	9.5	10.3	16.0	13.5	14.9	19.9	18.7	19.3
29	5.2	4.6	4.8	11.0	9.7	10.2	18.0	15.7	16.5	20.3	18.8	19.4
30	---	---	---	10.6	9.4	10.1	17.7	16.3	16.9	20.5	18.4	19.1
31	---	---	---	10.6	9.1	9.7	---	---	---	20.1	18.2	19.0
MONTH	5.2	2.2	3.2	11.2	4.8	8.0	18.0	9.2	12.5	22.5	14.9	18.9
		JUNE			JULY			AUGUST			SEPTEMBER	
1	19.3	17.7	18.6	24.1	22.8	23.4	26.2	24.5	25.3	25.7	23.9	24.7
2	19.6	18.0	18.7	23.3	22.1	22.8	26.1	24.6	25.4	25.6	23.9	24.8
3	19.8	18.4	18.9	23.2	21.9	22.6	26.2	24.8	25.5	25.3	24.5	24.9
4	20.9	18.4	19.7	23.1	22.2	22.7	26.0	25.1	25.5	25.6	24.3	24.9
5	21.7	20.4	21.0	23.5	22.3	22.7	26.3	24.3	25.2	25.8	24.4	25.1
6	22.5	21.4	21.9	23.4	22.3	22.8	26.1	23.9	24.8	26.2	24.7	25.4
7	22.6	21.9	22.3	25.7	22.2	23.7	26.1	24.2	24.9	26.1	24.9	25.4
8	22.8	22.0	22.4	25.7	24.7	25.1	26.1	24.3	25.1	25.1	23.5	24.3
9	22.6	22.0	22.3	26.4	25.2	25.7	26.7	24.5	25.4	25.0	23.3	24.0
10	23.0	22.3	22.6	26.5	25.6	25.9	26.5	25.0	25.6	24.8	23.0	23.9
11	23.2	22.5	22.8	26.2	22.7	24.7	25.4	24.1	24.6	24.8	23.2	24.0
12	24.2	21.9	23.0	23.4	22.7	23.1	24.4	23.1	23.7	24.9	23.3	24.1
13	23.9	21.0	22.5	23.9	22.6	23.3	24.3	23.0	23.5	25.3	23.7	24.4
14	22.1	20.6	21.5	23.9	22.9	23.5	23.9	22.3	23.1	25.3	24.2	24.6
15	21.4	20.5	20.8	24.6	22.9	23.9	24.2	22.3	23.2	25.7	24.2	24.8
16	21.3	20.4	20.9	24.8	24.0	24.4	24.6	22.4	23.4	25.2	24.7	24.9
17	21.8	20.5	20.9	24.8	24.2	24.5	24.7	22.6	23.6	25.1	23.5	24.3
18	21.5	20.5	21.1	27.1	24.3	25.3	25.5	23.5	24.3	24.6	22.7	23.5
19	21.7	20.8	21.2	27.1	25.5	26.1	25.2	23.7	24.4	24.4	22.5	23.2
20	22.0	20.5	21.2	27.4	25.8	26.6	25.0	23.7	24.3	24.2	22.4	23.1
21	21.9	20.7	21.2	27.7	26.4	27.0	25.1	23.7	24.3	24.2	22.4	23.2
22	22.8	20.9	22.0	27.4	26.5	27.0	25.4	23.4	24.3	24.0	22.5	23.2
23	23.8	22.3	23.1	26.6	24.5	25.5	25.4	24.0	24.6	24.1	22.6	23.3
24	24.0	23.5	23.8	26.4	24.2	25.0	26.0	24.2	24.9	23.7	23.0	23.3
25	24.2	23.6	24.0	26.1	25.3	25.5	25.9	24.9	25.4	24.4	23.0	23.4
26	24.1	23.8	24.0	25.5	24.9	25.2	25.7	23.5	24.5	23.6	22.0	22.7
27	24.3	23.9	24.1	26.0	24.3	25.0	24.5	23.4	23.9	23.6	21.7	22.5
28	24.6	24.2	24.4	25.9	24.1	24.9	24.8	23.4	24.1	22.7	21.6	22.2
29	24.6	24.1	24.4	25.5	24.4	24.9	24.5	24.1	24.3	22.7	21.0	21.7
30	24.5	23.9	24.3	25.1	24.6	24.9	25.7	24.0	24.6	22.3	21.0	21.5
31	---	---	---	25.7	24.8	25.2	25.5	23.7	24.5	---	---	---
MONTH	24.6	17.7	22.0	27.7	21.9	24.6	26.7	22.3	24.5	26.2	21.0	23.8
YEAR	27.7	2.1	14.7									

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,(CENTER POINT, IN quadrangle), on left bank 500 ft downstream from bridge on State Highway 46 at Bowling Green, 0.2 mi downstream from Jordan Creek, 15 mi northwest of Spencer, and at mile 38.4.

DRAINAGE AREA.--830 mi^2.

PERIOD OF RECORD.--January 1931 to current year. Prior to October 1934, published as "near Centerpoint".

REVISED RECORDS.--WSP 893: 1935, 1937-39. WSP 973: 1937-38, 1939(M). WSP 1335: 1931(M). WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 548.02 ft above National Geodetic Vertical Datum of 1929, (levels by U.S. Army Corps of Engineers). See WSP 1725 for history of changes prior to Dec. 1, 1949.

REMARKS.--Records fair 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,300	299	1,300	1,420	e1,560	997	2,480	290	2,940	697	174	146
2	943	340	1,290	2,150	e1,520	1,720	1,690	337	1,260	377	160	137
3	523	500	1,540	1,770	e1,520	1,710	1,550	339	886	332	149	130
4	440	594	1,490	4,620	e1,500	1,500	1,450	291	775	871	149	125
5	437	516	1,490	11,300	e1,370	2,370	1,610	274	1,000	469	179	118
6	402	376	1,430	7,630	e1,210	2,350	1,670	261	1,370	410	233	114
7	374	447	809	2,680	e1,020	1,550	1,620	247	1,680	332	178	110
8	372	435	880	1,790	e817	1,170	1,640	232	1,630	264	151	127
9	424	395	701	1,440	e734	1,080	1,530	212	1,590	238	137	190
10	412	311	929	1,200	e584	1,300	1,320	201	1,550	773	128	200
11	401	305	1,660	1,050	e475	1,220	665	193	1,550	1,010	122	202
12	391	311	1,710	1,010	e557	1,150	541	188	1,730	1,810	114	203
13	380	324	1,560	1,390	e558	1,080	513	195	1,720	1,240	108	202
14	625	337	1,430	1,760	e588	844	489	327	1,550	1,050	101	186
15	1,290	331	1,180	1,930	e606	657	465	575	729	927	97	126
16	1,300	329	691	2,090	e585	651	444	362	1,260	696	94	116
17	1,240	322	732	2,120	e608	678	427	294	2,970	572	92	109
18	1,030	493	856	2,800	e516	649	413	264	2,010	471	90	106
19	786	2,130	905	2,060	586	620	396	2,320	1,230	292	94	101
20	740	1,990	869	1,820	1,140	574	401	1,390	908	258	98	98
21	704	1,630	472	2,120	1,810	500	430	1,110	732	235	173	95
22	624	1,650	476	2,050	1,400	473	420	1,320	690	234	148	93
23	447	1,490	3,060	1,930	1,520	526	460	1,210	997	311	126	91
24	423	2,950	6,090	e1,900	1,500	513	447	1,200	1,260	451	e140	91
25	412	2,320	3,040	e1,800	1,430	439	446	1,220	1,450	251	173	90
26	411	1,580	1,870	e1,750	1,250	844	440	1,350	1,570	213	570	89
27	413	1,690	1,410	e1,700	774	3,380	392	1,150	1,530	194	471	88
28	425	1,590	1,210	e1,680	705	2,350	364	1,210	1,490	179	336	87
29	420	1,530	1,520	e1,600	621	1,510	309	888	1,460	167	355	86
30	398	1,430	2,140	e1,580	---	1,380	293	633	1,290	164	184	85
31	305	---	1,760	e1,570	---	2,190	---	4,850	---	183	158	---
TOTAL	18,792	28,945	46,500	73,710	29,064	37,975	25,315	24,933	42,807	15,671	5,482	3,741
MEAN	606	965	1,500	2,378	1,002	1,225	844	804	1,427	506	177	125
MAX	1,300	2,950	6,090	11,300	1,810	3,380	2,480	4,850	2,970	1,810	570	203
MIN	305	299	472	1,010	475	439	293	188	690	164	90	85
CFSM	0.73	1.16	1.81	2.86	1.21	1.48	1.02	0.97	1.72	0.61	0.21	0.15
IN.	0.84	1.30	2.08	3.30	1.30	1.70	1.13	1.12	1.92	0.70	0.25	0.17

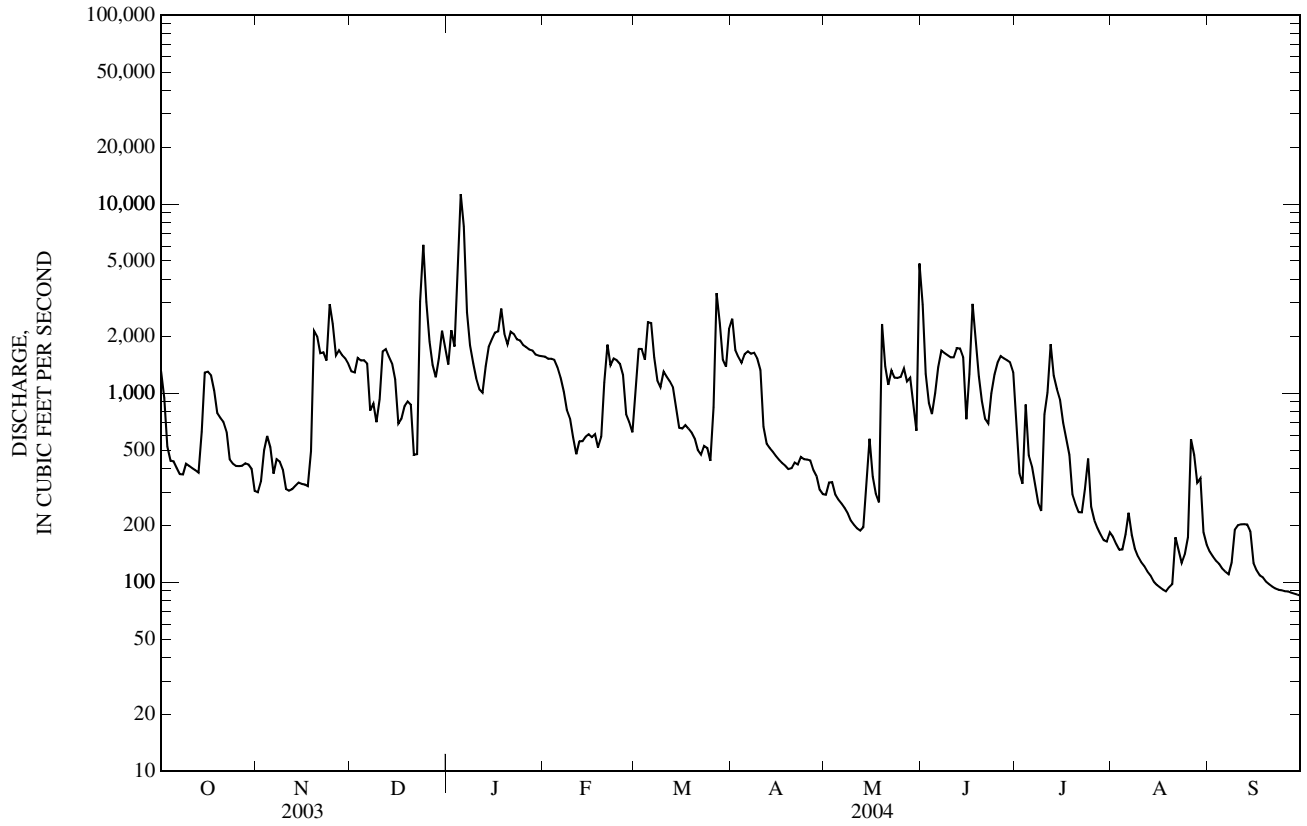
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2004, BY WATER YEAR (WY)

MEAN	306	594	902	1,229	1,295	1,542	1,587	1,244	896	610	326	327
MAX	1,838	3,076	2,960	7,212	3,249	3,843	4,120	5,090	4,077	2,746	2,656	2,682
(WY)	(2002)	(1986)	(1991)	(1950)	(1950)	(1938)	(1944)	(1943)	(1957)	(1987)	(1979)	(2003)
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)

03360000 EEL RIVER AT BOWLING GREEN, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1931 - 2004	
ANNUAL TOTAL	471,361		352,935			
ANNUAL MEAN	1,291		964		906	
HIGHEST ANNUAL MEAN					1,551	1950
LOWEST ANNUAL MEAN					161	1954
HIGHEST DAILY MEAN	13,500	Sep 3	11,300	Jan 5	28,700	Jun 29, 1957
LOWEST DAILY MEAN	142	Jul 5	85	Sep 30	11	Oct 7, 1954
ANNUAL SEVEN-DAY MINIMUM	153	Aug 24	88	Sep 24	12	Oct 2, 1954
MAXIMUM PEAK FLOW			12,100	Jan 5	34,000	Jan 4, 1950
MAXIMUM PEAK STAGE			19.87	Jan 5	23.53	Jan 4, 1950
ANNUAL RUNOFF (CFSM)	1.56		1.16		1.09	
ANNUAL RUNOFF (INCHES)	21.13		15.82		14.83	
10 PERCENT EXCEEDS	2,000		1,810		2,180	
50 PERCENT EXCEEDS	1,150		654		376	
90 PERCENT EXCEEDS	309		139		58	

e Estimated



03360500 WHITE RIVER AT NEWBERRY, IN

LOCATION.--Lat 38°55'39", long 87°00'41", in NE¼NW¼ sec.30, T.6 N., R.5 W., Greene County, Hydrologic Unit 05120202, (LYONS, IN quadrangle), on left bank, 0.4 mi upstream from bridge on State Highway 57 at Newberry, 2.0 mi downstream from Doans Creek, and at mile 112.4.

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. WDR IN-02-1: 1998, 1999 (P).

GAGE.--Water-stage recorder. Datum of gage is 465.59 ft above National Geodetic Vertical Datum of 1929. Nonrecording gage prior to Oct. 21, 1928. Prior to Aug. 5, 1982, recording gage 0.3 mi downstream at same datum.

REMARKS.--Records fair except 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11,100	2,730	11,500	10,200	e4,190	4,610	10,600	2,490	16,100	3,920	2,360	1,850
2	8,380	2,760	10,100	11,300	e4,070	6,260	12,600	2,940	18,200	3,400	2,220	1,690
3	6,390	2,910	8,110	13,400	e4,360	6,970	12,200	2,840	17,800	2,940	2,080	1,610
4	5,130	3,130	7,100	19,700	e4,700	8,350	9,510	2,940	12,500	2,940	1,920	1,510
5	4,270	3,340	6,310	30,600	e4,450	9,910	7,590	2,810	7,400	3,560	1,860	1,430
6	3,920	3,200	6,110	36,400	e4,980	10,700	6,700	2,620	5,360	3,740	2,290	1,490
7	3,640	2,970	6,330	43,700	e4,910	11,500	6,050	2,510	4,700	3,380	2,300	1,470
8	3,390	2,830	5,900	46,900	e4,770	11,500	5,650	2,340	4,440	2,950	1,990	1,350
9	3,160	2,750	5,980	39,100	e4,620	9,500	5,350	2,190	4,110	2,710	1,770	1,290
10	2,990	2,610	5,950	30,800	e4,480	7,250	4,990	2,070	3,790	3,420	1,640	1,280
11	2,840	2,490	7,300	21,000	e4,400	6,360	4,650	1,940	3,590	6,350	1,540	1,300
12	2,710	3,140	7,850	11,400	e4,290	5,620	3,990	1,840	3,700	5,920	1,480	1,270
13	2,570	2,740	7,720	8,730	e4,160	5,080	3,580	1,830	6,220	5,700	1,430	1,250
14	2,670	2,620	7,500	8,010	e4,000	4,710	3,370	1,830	10,500	6,310	1,380	1,240
15	3,770	2,920	6,650	7,680	e3,830	4,330	3,210	2,140	13,400	4,990	1,350	1,230
16	6,180	3,360	6,030	7,210	e3,690	4,020	3,030	2,920	15,600	3,990	1,330	1,210
17	5,810	3,160	5,730	7,030	e3,550	4,000	2,880	3,130	17,100	3,330	1,310	1,160
18	5,910	3,260	5,580	9,230	e3,490	4,080	2,750	2,900	18,600	2,900	1,290	1,140
19	5,470	7,690	5,480	10,800	e3,610	3,940	2,640	2,600	20,500	2,590	1,290	1,110
20	4,560	9,200	5,300	9,090	4,380	3,800	2,580	3,950	21,600	2,330	1,400	1,100
21	4,000	8,750	5,050	e7,470	6,310	3,720	2,610	5,470	18,800	e2,120	1,560	1,080
22	3,600	8,400	4,440	e6,840	8,070	3,580	2,660	4,850	10,500	2,010	1,820	1,050
23	3,300	7,650	5,120	e6,230	9,260	3,580	2,810	4,420	6,870	3,500	2,030	1,070
24	3,000	9,990	10,900	e5,710	9,130	3,670	3,010	3,820	5,990	5,380	1,760	1,070
25	2,810	12,300	15,700	e5,280	7,630	3,550	3,410	3,540	5,540	3,720	1,700	1,060
26	2,770	12,000	18,500	e5,160	6,740	3,420	3,240	3,700	5,150	2,930	2,090	1,040
27	2,920	12,300	18,800	e4,920	6,110	7,050	3,250	6,720	4,880	2,490	3,390	1,020
28	3,270	13,000	16,100	e5,020	5,220	10,900	2,980	15,700	4,570	2,240	3,500	1,010
29	3,110	12,500	10,500	e4,860	4,670	11,700	2,720	9,160	4,320	2,040	2,760	981
30	2,930	11,900	10,100	e4,630	---	10,500	2,520	6,220	4,120	1,950	2,470	965
31	2,840	---	10,500	e4,450	---	10,700	---	11,800	---	2,560	2,170	---
TOTAL	129,410	178,600	264,240	442,850	148,070	204,860	143,130	126,230	295,950	108,310	59,480	37,326
MEAN	4,175	5,953	8,524	14,290	5,106	6,608	4,771	4,072	9,865	3,494	1,919	1,244
MAX	11,100	13,000	18,800	46,900	9,260	11,700	12,600	15,700	21,600	6,350	3,500	1,850
MIN	2,570	2,490	4,440	4,450	3,490	3,420	2,520	1,830	3,590	1,950	1,290	965
CFSM	0.89	1.27	1.82	3.05	1.09	1.41	1.02	0.87	2.10	0.75	0.41	0.27
IN.	1.03	1.42	2.10	3.51	1.17	1.63	1.14	1.00	2.35	0.86	0.47	0.30

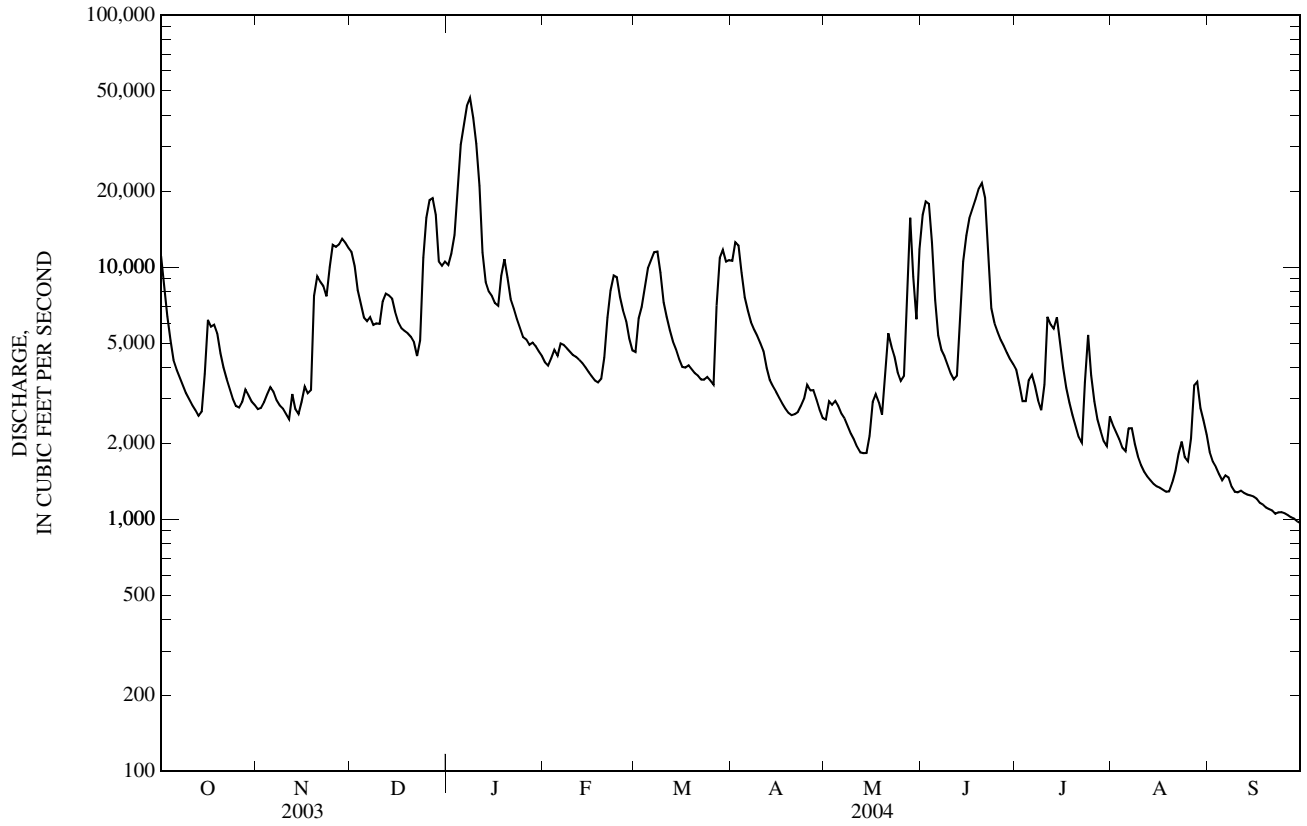
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2004, BY WATER YEAR (WY)

MEAN	1,661	3,097	4,647	6,773	6,941	8,608	8,777	7,072	4,775	3,359	1,970	1,734
MAX	11,310	24,180	16,780	36,920	21,870	19,150	20,340	25,090	19,350	13,270	15,900	13,510
(WY)	(2002)	(1994)	(1958)	(1950)	(1950)	(1963)	(1944)	(1943)	(1998)	(1979)	(1979)	(1989)
MIN	259	408	386	405	705	686	1,539	677	771	536	308	317
(WY)	(1941)	(1945)	(1945)	(1945)	(1931)	(1941)	(1941)	(1941)	(1988)	(1936)	(1941)	(1940)

03360500 WHITE RIVER AT NEWBERRY, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1929 - 2004	
ANNUAL TOTAL	2,602,510		2,138,456			
ANNUAL MEAN	7,130		5,843		4,940	
HIGHEST ANNUAL MEAN					8,752	1950
LOWEST ANNUAL MEAN					958	1941
HIGHEST DAILY MEAN	47,500	Sep 6	46,900	Jan 8	103,000	Nov 18, 1993
LOWEST DAILY MEAN	1,350	Jan 28	965	Sep 30	200	Oct 1, 1941
ANNUAL SEVEN-DAY MINIMUM	1,490	Jan 24	1,020	Sep 24	211	Sep 26, 1941
MAXIMUM PEAK FLOW			48,600	Jan 8	105,000	Nov 18, 1993
MAXIMUM PEAK STAGE			22.82	Jan 8	25.87	Nov 18, 1993
ANNUAL RUNOFF (CFSM)	1.52		1.25		1.05	
ANNUAL RUNOFF (INCHES)	20.65		16.97		14.32	
10 PERCENT EXCEEDS	13,900		11,500		11,600	
50 PERCENT EXCEEDS	4,970		4,000		2,600	
90 PERCENT EXCEEDS	2,020		1,530		638	

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, (CARTHAGE, IN quadrangle), 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 April 2004 (discontinued). Prior to October 1961, published as Blue River at Carthage.

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 859.33 ft above National Geodetic Vertical Datum of 1929. Prior to July 19, 1951, nonrecording gage at site 300 ft downstream at same datum.

REMARKS.--Records good. 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

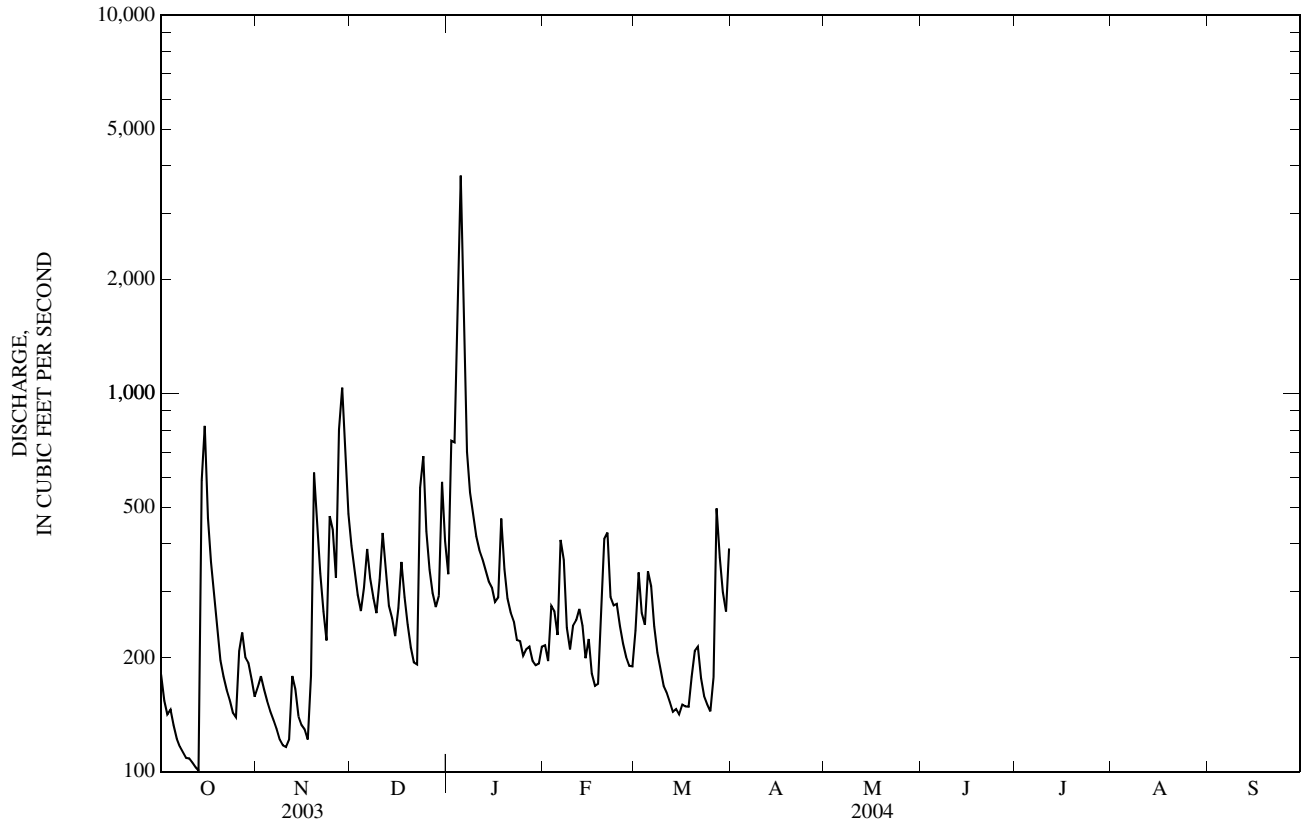
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	181	167	395	333	216	236	---	---	---	---	---	---
2	154	179	337	751	196	336	---	---	---	---	---	---
3	142	165	294	743	274	263	---	---	---	---	---	---
4	146	154	266	1,750	266	244	---	---	---	---	---	---
5	133	144	306	3,770	230	339	---	---	---	---	---	---
6	122	137	388	1,410	410	309	---	---	---	---	---	---
7	116	130	324	702	363	242	---	---	---	---	---	---
8	112	122	288	547	240	206	---	---	---	---	---	---
9	109	117	263	475	211	187	---	---	---	---	---	---
10	108	116	322	419	243	169	---	---	---	---	---	---
11	106	121	428	385	252	162	---	---	---	---	---	---
12	103	179	335	365	269	153	---	---	---	---	---	---
13	101	166	275	340	243	144	---	---	---	---	---	---
14	590	140	255	318	200	146	---	---	---	---	---	---
15	821	133	228	307	224	142	---	---	---	---	---	---
16	469	129	271	281	182	150	---	---	---	---	---	---
17	358	122	359	289	169	149	---	---	---	---	---	---
18	289	179	289	467	171	149	---	---	---	---	---	---
19	238	618	245	343	265	178	---	---	---	---	---	---
20	197	469	213	287	412	209	---	---	---	---	---	---
21	179	335	195	264	429	214	---	---	---	---	---	---
22	165	265	192	249	290	176	---	---	---	---	---	---
23	155	222	564	223	275	159	---	---	---	---	---	---
24	143	474	683	221	278	151	---	---	---	---	---	---
25	139	437	433	203	242	144	---	---	---	---	---	---
26	208	325	342	211	219	178	---	---	---	---	---	---
27	233	804	297	214	201	496	---	---	---	---	---	---
28	200	1,040	272	196	191	368	---	---	---	---	---	---
29	194	693	292	191	190	298	---	---	---	---	---	---
30	175	480	584	193	---	265	---	---	---	---	---	---
31	158	---	407	214	---	389	---	---	---	---	---	---
TOTAL	6,544	8,762	10,342	16,661	7,351	6,951	---	---	---	---	---	---
MEAN	211	292	334	537	253	224	---	---	---	---	---	---
MAX	821	1,040	683	3,770	429	496	---	---	---	---	---	---
MIN	101	116	192	191	169	142	---	---	---	---	---	---
CFSM	1.15	1.59	1.81	2.92	1.38	1.22	---	---	---	---	---	---
IN.	1.32	1.77	2.09	3.37	1.49	1.41	---	---	---	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2004, BY WATER YEAR (WY)

MEAN	100	165	213	233	281	324	326	265	213	157	102	84.0
MAX	579	925	702	619	741	967	829	916	848	581	649	448
(WY)	(1987)	(1994)	(1991)	(1959)	(1951)	(1963)	(1964)	(1996)	(1958)	(1979)	(1979)	(2003)
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)

03361000 BIG BLUE RIVER AT CARTHAGE, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1951 - 2004	
ANNUAL TOTAL	97,390		56,611			
ANNUAL MEAN	267		309		205	
HIGHEST ANNUAL MEAN					324	1973
LOWEST ANNUAL MEAN					78.8	1977
HIGHEST DAILY MEAN	3,870	Sep 2	3,770	Jan 5	6,900	Mar 5, 1963
LOWEST DAILY MEAN	66	Aug 26	101	Oct 13	17	Jan 18, 1977
ANNUAL SEVEN-DAY MINIMUM	72	Aug 20	108	Oct 7	19	Jul 31, 1977
MAXIMUM PEAK FLOW			4,830	Jan 5	12,900	Mar 4, 1963
MAXIMUM PEAK STAGE			10.32	Jan 5	14.62	Mar 4, 1963
INSTANTANEOUS LOW FLOW			70	Aug 16		
ANNUAL RUNOFF (CFSM)	1.45		1.68		1.11	
ANNUAL RUNOFF (INCHES)	19.69		11.45		15.13	
10 PERCENT EXCEEDS	484		478		408	
50 PERCENT EXCEEDS	160		240		118	
90 PERCENT EXCEEDS	89		138		51	



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, (SHELBYVILLE, IN quadrangle), 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 National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1953, nonrecording gage at bridge 0.2 mi upstream at datum 3.5 ft higher.

REMARKS.--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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	379	367	1,050	778	e280	411	1,090	343	1,760	272	560	152
2	324	472	821	1,250	e310	652	787	670	1,010	258	363	144
3	292	446	691	1,690	e340	587	619	741	684	251	268	139
4	280	396	612	3,870	e380	514	513	549	511	291	271	145
5	268	358	616	7,640	441	581	438	446	426	275	376	153
6	245	324	841	7,440	717	658	396	382	377	244	279	135
7	229	301	763	2,530	936	532	377	341	340	230	219	128
8	220	279	654	1,420	560	458	361	309	308	216	190	123
9	210	262	595	1,100	436	411	340	291	285	206	174	118
10	206	251	608	893	488	375	315	276	271	216	165	115
11	203	255	897	780	581	354	302	261	473	213	154	110
12	196	282	799	720	634	340	292	249	2,570	209	146	108
13	189	317	638	661	604	319	291	244	4,110	206	144	106
14	449	281	577	611	464	312	289	259	1,660	189	140	103
15	1,940	265	524	589	492	310	270	315	1,030	175	134	102
16	1,140	258	594	534	404	316	258	336	1,780	164	129	100
17	773	248	876	522	355	324	253	301	4,600	178	124	102
18	586	285	730	1,020	350	315	245	284	2,960	171	126	103
19	482	1,090	601	840	448	359	235	803	1,650	165	122	98
20	406	1,260	519	613	716	401	241	1,080	1,060	156	156	95
21	361	839	466	533	915	447	250	757	797	161	320	94
22	333	630	451	e440	657	399	250	548	728	533	266	93
23	309	520	848	e400	557	359	342	433	627	934	192	93
24	288	922	1,860	e360	559	341	350	429	512	427	167	91
25	280	1,240	1,150	e350	523	323	325	384	457	283	159	93
26	422	828	822	e340	462	328	334	376	409	241	202	89
27	578	1,840	666	e320	423	952	296	364	365	233	227	88
28	496	3,080	600	e310	391	913	268	414	338	221	186	87
29	443	2,370	591	e280	381	686	251	528	314	196	204	85
30	403	1,450	1,190	e260	---	626	267	421	289	191	192	85
31	361	---	1,020	e260	---	955	---	2,040	---	582	169	---
TOTAL	13,291	21,716	23,670	39,354	14,804	14,858	10,845	15,174	32,701	8,287	6,524	3,277
MEAN	429	724	764	1,269	510	479	362	489	1,090	267	210	109
MAX	1,940	3,080	1,860	7,640	936	955	1,090	2,040	4,600	934	560	153
MIN	189	248	451	260	280	310	235	244	271	156	122	85
CFSM	1.02	1.72	1.81	3.02	1.21	1.14	0.86	1.16	2.59	0.63	0.50	0.26
IN.	1.17	1.92	2.09	3.48	1.31	1.31	0.96	1.34	2.89	0.73	0.58	0.29

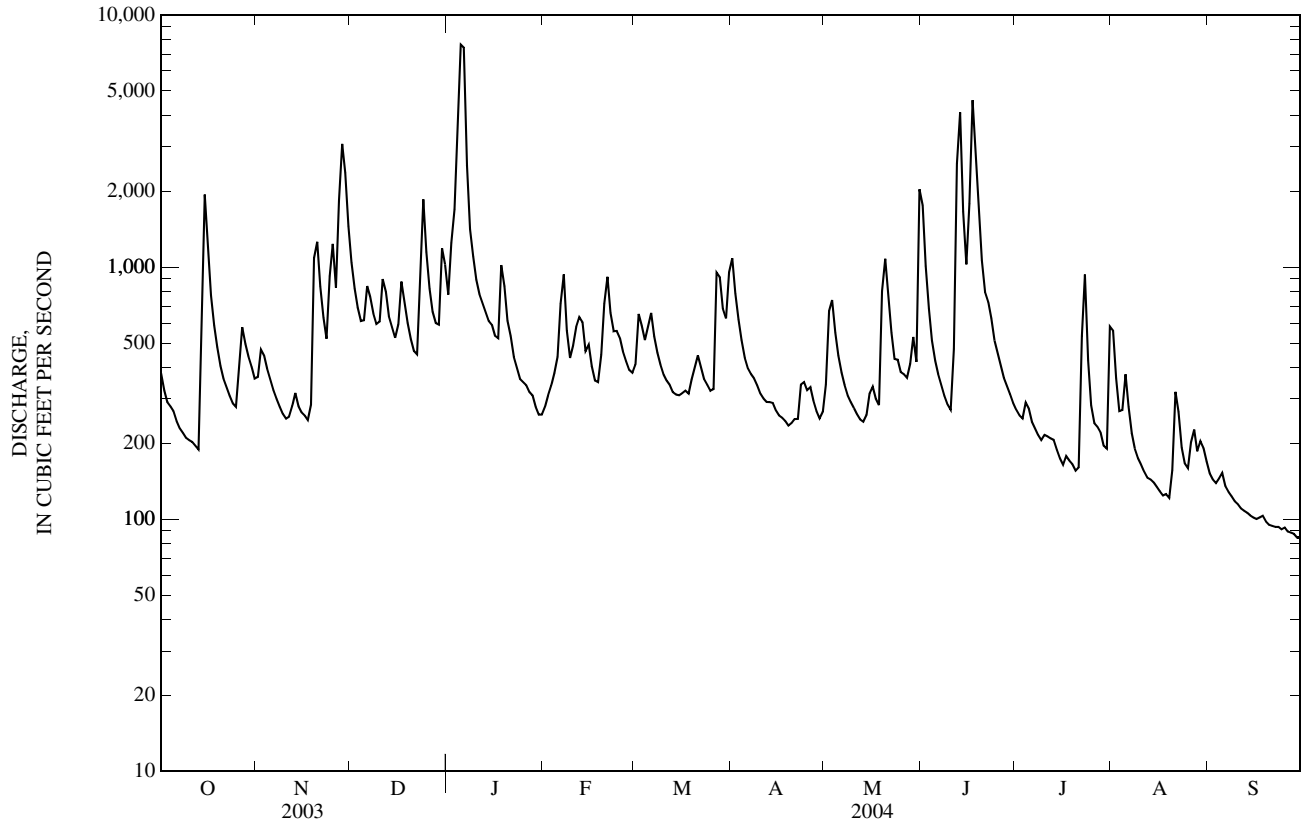
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2004, BY WATER YEAR (WY)

MEAN	184	351	482	630	691	788	775	618	484	330	195	155
MAX	1,199	2,114	1,575	4,319	2,208	1,970	1,973	2,605	1,729	1,363	1,404	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)

03361500 BIG BLUE RIVER AT SHELBYVILLE, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1944 - 2004	
ANNUAL TOTAL	229,285		204,501			
ANNUAL MEAN	628		559		472	
HIGHEST ANNUAL MEAN					908	1950
LOWEST ANNUAL MEAN					166	1954
HIGHEST DAILY MEAN	6,270	Sep 3	7,640	Jan 5	13,800	Mar 5, 1963
LOWEST DAILY MEAN	128	Aug 26	85	Sep 29	27	Jan 18, 1977
ANNUAL SEVEN-DAY MINIMUM	136	Aug 23	88	Sep 24	32	Jan 16, 1977
MAXIMUM PEAK FLOW			8,770	Jan 6	13,800	Nov 15, 1993
MAXIMUM PEAK STAGE			15.82	Jan 6	18.41	Nov 15, 1993
ANNUAL RUNOFF (CFSM)	1.49		1.33		1.12	
ANNUAL RUNOFF (INCHES)	20.26		18.07		15.24	
10 PERCENT EXCEEDS	1,200		1,010		1,010	
50 PERCENT EXCEEDS	383		360		244	
90 PERCENT EXCEEDS	197		150		75	

e Estimated



03361638 LEARY-WEBER DITCH AT MOHAWK, IN

LOCATION.--Lat 39°50'33", long 85°49'30", in NW¼SE¼ sec.11, T.16 N., R.6 E., Hancock County, Hydrologic Unit 05120204, (ACTON, IN quadrangle), 60 ft upstream of bridge on County Road 400N, 0.33 mi upstream of Sugar Creek, 0.70 mi east of Mohawk, and 3.06 mi southwest of Maxwell.

DRAINAGE AREA.--2.4 mi^2.

PERIOD OF RECORD.--July 2002 to current year.

GAGE.--Water-stage recorder. Datum of gage is 841.00 ft above National Geodetic Vertical Datum of 1929.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.84	1.1	3.0	3.4	e0.26	5.9	9.5	0.51	13	0.47	0.00	0.00
2	0.63	1.5	2.2	24	e0.29	4.8	5.1	0.73	5.5	0.42	0.00	0.00
3	0.65	1.6	1.9	16	e0.34	2.8	3.2	0.59	2.8	0.52	0.00	0.00
4	0.62	1.8	1.8	70	e0.38	4.7	2.1	0.53	1.9	0.77	0.00	0.00
5	0.40	1.6	3.6	53	e0.52	9.1	1.5	0.46	1.6	0.45	0.00	0.00
6	0.31	1.3	4.5	20	e1.4	4.4	1.4	0.39	1.3	0.37	0.00	0.00
7	0.28	1.0	3.1	6.8	e0.75	2.8	1.3	0.34	1.1	0.33	0.00	0.00
8	0.27	0.81	2.5	3.7	e0.40	1.9	1.2	0.31	0.89	0.25	0.00	0.00
9	0.31	0.72	2.1	2.5	e0.45	1.6	0.82	0.33	0.81	0.23	0.00	0.00
10	0.46	0.84	3.9	1.8	e0.69	1.2	0.74	0.31	0.86	0.21	0.00	0.00
11	0.79	1.1	4.4	e1.4	1.3	1.2	0.71	e0.34	60	0.25	0.00	0.00
12	1.2	1.9	2.8	e1.2	1.9	0.91	0.73	0.27	45	0.46	0.00	0.00
13	1.3	1.3	2.1	e1.1	e1.2	0.76	0.74	0.31	25	0.25	0.00	0.00
14	21	1.1	1.9	e1.0	e1.0	0.86	0.54	0.72	11	0.20	0.00	0.00
15	16	1.3	1.5	e0.95	e1.3	0.68	0.46	1.4	21	0.12	0.00	0.00
16	6.7	1.2	2.5	0.89	0.63	0.86	0.45	0.81	50	0.07	0.00	0.00
17	3.7	0.99	2.7	1.6	0.62	0.78	0.44	e0.56	e46	0.04	0.00	0.00
18	2.5	7.1	2.1	4.0	1.8	0.82	0.40	e0.59	15	0.01	0.00	0.00
19	1.9	17	1.6	1.6	4.7	1.4	0.42	8.8	7.7	0.00	0.00	0.00
20	1.5	6.7	1.1	1.1	7.9	1.6	0.49	4.9	e4.5	0.00	0.00	0.00
21	1.5	3.8	1.1	e0.91	5.2	1.3	0.57	2.7	e2.9	0.00	0.00	0.00
22	1.1	2.7	1.1	e0.76	2.7	1.0	0.62	1.9	2.1	0.00	0.00	0.00
23	0.96	2.2	32	e0.65	3.1	0.93	2.7	1.5	1.5	0.00	0.00	0.00
24	0.69	19	19	e0.57	3.3	0.89	1.3	e1.3	1.3	0.00	0.00	0.00
25	0.71	7.7	8.3	e0.50	e2.0	0.76	1.2	e1.2	1.1	0.00	0.00	0.00
26	3.4	4.1	4.4	e0.43	e1.6	7.4	0.85	0.95	0.91	0.00	0.00	0.00
27	2.8	12	3.2	e0.36	1.4	14	0.66	0.91	0.76	0.00	0.00	0.00
28	2.1	20	2.7	0.31	1.3	6.6	0.53	0.77	0.70	0.00	0.00	0.00
29	1.4	8.5	7.0	e0.28	1.3	3.7	0.45	0.59	0.59	0.00	0.05	0.00
30	1.2	4.8	9.4	e0.27	---	5.5	0.48	2.7	0.52	0.00	0.00	0.00
31	1.0	---	4.5	e0.26	---	21	---	42	---	0.00	0.00	---
TOTAL	78.22	136.76	144.0	221.34	49.73	112.15	41.60	79.72	327.34	5.42	0.05	0.00
MEAN	2.52	4.56	4.65	7.14	1.71	3.62	1.39	2.57	10.9	0.17	0.00	0.00
MAX	21	20	32	70	7.9	21	9.5	42	60	0.77	0.05	0.00
MIN	0.27	0.72	1.1	0.26	0.26	0.68	0.40	0.27	0.52	0.00	0.00	0.00
CFSM	0.90	1.63	1.66	2.56	0.61	1.30	0.50	0.92	3.91	0.06	0.00	0.00
IN.	1.04	1.82	1.92	2.95	0.66	1.50	0.55	1.06	4.36	0.07	0.00	0.00

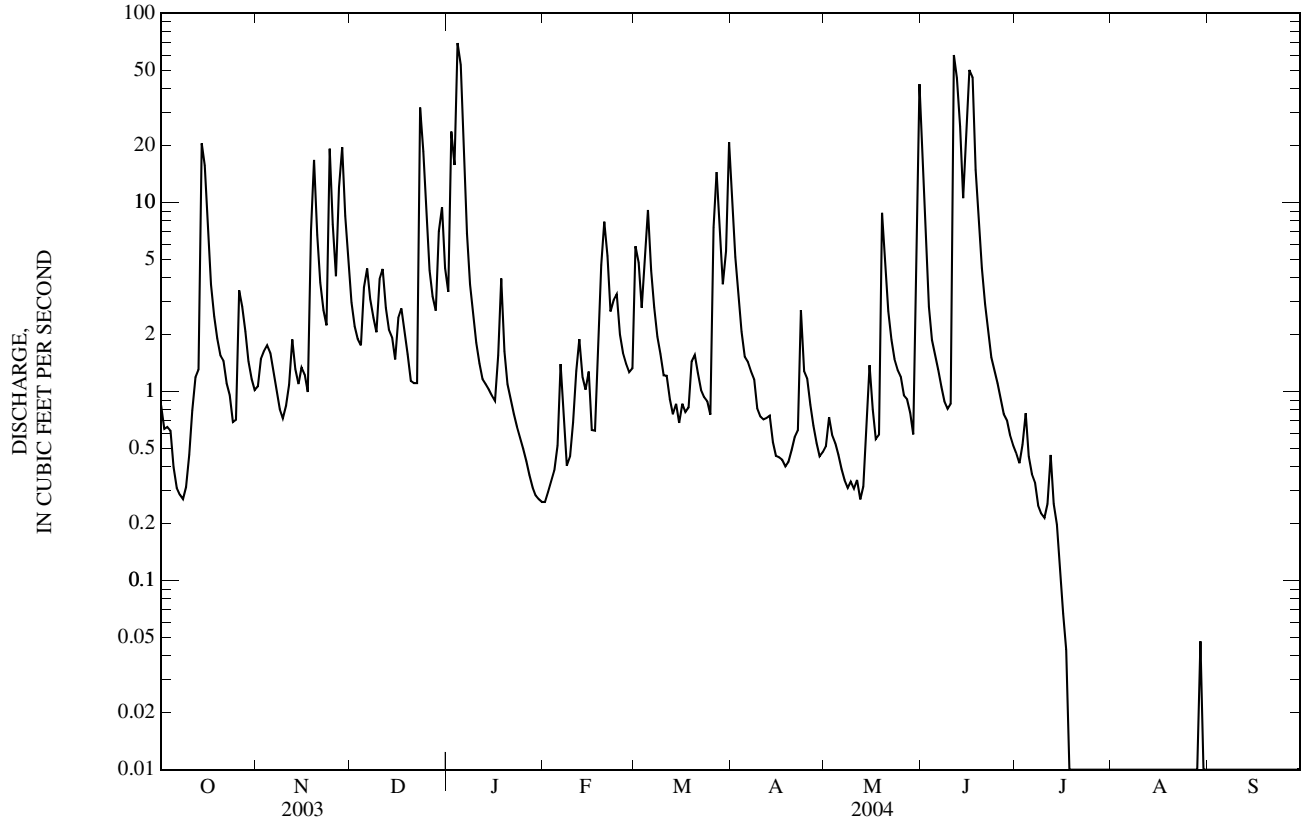
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2004, BY WATER YEAR (WY)

MEAN	1.26	2.47	3.45	5.24	1.82	5.66	1.54	3.73	5.92	4.82	0.01	1.29
MAX	2.52	4.56	4.65	7.14	1.92	7.71	1.69	4.89	10.9	12.6	0.04	3.86
(WY)	(2004)	(2004)	(2004)	(2004)	(2003)	(2003)	(2003)	(2003)	(2004)	(2003)	(2003)	(2003)
MIN	0.00	0.39	2.25	3.34	1.71	3.62	1.39	2.57	0.93	0.17	0.00	0.00
(WY)	(2003)	(2003)	(2003)	(2003)	(2004)	(2004)	(2004)	(2004)	(2003)	(2004)	(2002)	(2002)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2002 - 2004	
ANNUAL TOTAL	1,492.24		1,196.33			
ANNUAL MEAN	4.09		3.27		3.30	
HIGHEST ANNUAL MEAN					3.33	2003
LOWEST ANNUAL MEAN					3.27	2004
HIGHEST DAILY MEAN	109	Jul 5	70	Jan 4	109	Jul 5, 2003
LOWEST DAILY MEAN	0.00	Aug 10	0.00	Jul 19	0.00	Aug 2, 2002
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 10	0.00	Jul 19	0.00	Aug 2, 2002
MAXIMUM PEAK FLOW			167	Jun 11	230	Jul 5, 2003
MAXIMUM PEAK STAGE			6.58	Jun 11	6.93	Jul 5, 2003
ANNUAL RUNOFF (CFSM)	1.47		1.17		1.18	
ANNUAL RUNOFF (INCHES)	19.90		15.95		16.06	
10 PERCENT EXCEEDS	10		7.0		7.7	
50 PERCENT EXCEEDS	1.2		0.90		0.74	
90 PERCENT EXCEEDS	0.05		0.00		0.00	

e Estimated

03361638 LEARY-WEBER DITCH AT MOHAWK, IN—Continued



[(National Water-Quality Assessment Program), White River Basin, Miami River Basin Study Unit]

WATER-QUALITY RECORDS

The data described in the following table were collected and analyzed as part of the National Water Quality Assessment Program (NAWQA) in the White River Basin, Miami River Basin (WHMI) study units. 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 42 river basin and aquifer assessment projects being implemented across the nation on a staggered timeline. During the second decade of sampling, 14 of these projects will be actively collecting data. The period of high-intensity data collection for the WHMI project is in water years 2001-2004.

Water quality data from Leary Weber Ditch at Mohawk, IN are being reported as part of the NAWQA Agricultural Chemical Transport topical study. The key aspect of this study is the investigation of the sources, transport, and fate of selected agricultural chemicals in a variety of agricultural settings across the Nation. The final objective is to interpret study results as to the implications for managing the water and water-quality impacts of agricultural systems. Beginning in October 2002, the WHMI is one of five NAWQA study units engaged in research of selected agricultural settings.

(- - -, no data: <, concentration or value reported is less than that indicated: E, estimated value: K, value is estimated from a non-ideal colony count: M, presence verified, not quantified)

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEDIAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	7.5	7.6	8.0	7.4	8.0	---	---
2	---	---	---	---	---	7.7	7.7	8.1	7.6	8.0	---	---
3	---	---	---	---	---	7.8	7.9	8.2	7.8	7.9	---	---
4	---	---	---	---	---	7.6	8.0	8.2	7.9	8.0	---	---
5	---	---	---	---	---	7.3	8.0	8.1	7.9	8.0	---	---
6	---	---	---	---	---	7.3	8.0	8.1	8.0	7.9	---	---
7	---	---	---	---	---	7.4	8.1	8.1	8.0	8.0	---	---
8	---	---	---	---	---	7.8	8.1	8.1	8.0	---	---	---
9	---	---	---	---	---	8.0	8.1	8.0	8.1	---	---	---
10	---	---	---	---	---	8.0	8.2	8.0	8.0	---	---	---
11	---	---	---	---	---	8.1	8.1	e8.0	7.2	---	---	---
12	---	---	---	---	---	8.2	8.2	8.0	7.2	---	---	---
13	---	---	---	---	---	8.2	8.2	8.0	7.3	---	---	---
14	---	---	---	---	---	8.1	8.2	8.0	7.5	---	---	---
15	---	---	---	---	---	8.2	8.2	8.0	7.5	---	---	---
16	---	---	---	---	---	8.2	8.0	8.1	7.2	---	---	---
17	---	---	---	---	---	8.2	7.9	e8.1	---	---	---	---
18	---	---	---	---	---	8.1	8.0	e8.1	7.3	---	---	---
19	---	---	---	---	---	8.1	8.0	e7.6	7.5	---	---	---
20	---	---	---	---	---	8.0	8.0	---	---	---	---	---
21	---	---	---	---	---	8.2	8.1	---	---	---	---	---
22	---	---	---	---	---	8.2	8.0	---	7.8	---	---	---
23	---	---	---	---	---	8.1	8.0	---	7.9	---	---	---
24	---	---	---	---	---	8.1	8.1	---	7.9	---	---	---
25	---	---	---	---	---	8.0	8.1	---	8.0	---	---	---
26	---	---	---	---	8.0	7.8	8.2	8.1	8.0	---	---	---
27	---	---	---	---	8.0	7.4	8.2	8.1	8.0	---	---	---
28	---	---	---	---	8.0	7.6	8.2	8.2	8.0	---	---	---
29	---	---	---	---	8.1	7.8	8.1	8.1	8.0	---	---	---
30	---	---	---	---	---	7.7	8.0	8.1	8.0	---	---	---
31	---	---	---	---	---	7.3	---	7.2	---	---	---	---

e Estimated

[(National Water-Quality Assessment Program), White River Basin, Miami River Basin Study Unit]—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	11.0	10	8.3	7.1	8.6	---	---
2	---	---	---	---	---	12.5	10.7	10.1	8.6	8.0	---	---
3	---	---	---	---	---	13.2	11.0	10.4	9.3	7.2	---	---
4	---	---	---	---	---	11.6	11.5	10.1	9.3	7.3	---	---
5	---	---	---	---	---	10.6	11.9	9.2	9.3	7.0	---	---
6	---	---	---	---	---	12.1	11.9	8.5	9.2	6.6	---	---
7	---	---	---	---	---	12.4	11.6	8.2	8.8	5.5	---	---
8	---	---	---	---	---	13.3	---	8.3	10.4	---	---	---
9	---	---	---	---	---	13.5	---	7.5	12.3	---	---	---
10	---	---	---	---	---	13.9	---	7.1	12.2	---	---	---
11	---	---	---	---	---	13.3	---	e6.9	e8.5	---	---	---
12	---	---	---	---	---	15.3	---	6.7	---	---	---	---
13	---	---	---	---	---	14.9	---	6.5	---	---	---	---
14	---	---	---	---	---	13.1	---	6.7	---	---	---	---
15	---	---	---	---	---	14.3	---	9.4	---	---	---	---
16	---	---	---	---	---	14.1	---	9.1	---	---	---	---
17	---	---	---	---	---	14.0	---	e8.5	---	---	---	---
18	---	---	---	---	---	14.0	---	e7.8	---	---	---	---
19	---	---	---	---	---	13.7	10.3	e8.3	---	---	---	---
20	---	---	---	---	---	12.5	9.3	---	---	---	---	---
21	---	---	---	---	---	14.7	9.3	---	---	---	---	---
22	---	---	---	---	---	15.4	9.5	---	11.6	---	---	---
23	---	---	---	---	---	15.1	10.6	---	11.7	---	---	---
24	---	---	---	---	---	13.9	10.6	---	11.2	---	---	---
25	---	---	---	---	---	12.6	10.0	---	11.5	---	---	---
26	---	---	---	---	14.2	9.2	10.4	8.2	11.5	---	---	---
27	---	---	---	---	14.1	9.6	11.0	8.3	10.8	---	---	---
28	---	---	---	---	14.4	10.6	10.6	8.4	9.9	---	---	---
29	---	---	---	---	14.2	11.2	9.6	8.7	10.1	---	---	---
30	---	---	---	---	---	10.8	8.6	8.0	9.4	---	---	---
31	---	---	---	---	---	8.5	---	5.5	---	---	---	---

e Estimated

[(National Water-Quality Assessment Program), White River Basin, Miami River Basin Study Unit]—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	5.6	7.4	14.0	16.4	20.1	---	---
2	---	---	---	---	---	5.5	8.0	11.2	15.9	20.9	---	---
3	---	---	---	---	---	5.2	8.4	11.2	16.0	21.8	---	---
4	---	---	---	---	---	5.7	7.4	11.3	16.3	21.4	---	---
5	---	---	---	---	---	7.2	7.8	14.1	16.4	21.7	---	---
6	---	---	---	---	---	5.8	8.6	16.6	17.2	22.3	---	---
7	---	---	---	---	---	5.7	10.5	16.2	18.4	21.4	---	---
8	---	---	---	---	---	4.8	11.0	16.6	19.9	---	---	---
9	---	---	---	---	---	4.7	10.2	18.3	20.1	---	---	---
10	---	---	---	---	---	5.1	11.0	18.4	19.2	---	---	---
11	---	---	---	---	---	5.8	9.8	e19.0	20.6	---	---	---
12	---	---	---	---	---	2.9	7.0	19.6	19.4	---	---	---
13	---	---	---	---	---	4.0	5.8	18.9	19.0	---	---	---
14	---	---	---	---	---	5.5	8.3	17.8	18.9	---	---	---
15	---	---	---	---	---	5.5	11.1	13.3	18.8	---	---	---
16	---	---	---	---	---	4.2	13.8	14.8	20.1	---	---	---
17	---	---	---	---	---	3.8	16.0	e16.0	---	---	---	---
18	---	---	---	---	---	3.7	16.8	e17.8	19.7	---	---	---
19	---	---	---	---	---	5.6	15.8	e14.5	19.1	---	---	---
20	---	---	---	---	---	7.3	13.6	---	---	---	---	---
21	---	---	---	---	---	4.3	14.3	---	---	---	---	---
22	---	---	---	---	---	4.0	12.0	---	19.0	---	---	---
23	---	---	---	---	---	5.6	11.5	---	18.6	---	---	---
24	---	---	---	---	---	8.2	12.0	---	19.1	---	---	---
25	---	---	---	---	---	9.8	13.5	---	17.7	---	---	---
26	---	---	---	---	3.8	9.1	12.6	16.9	17.5	---	---	---
27	---	---	---	---	4.3	7.2	10.9	17.1	18.4	---	---	---
28	---	---	---	---	4.5	8.8	12.0	17.4	19.4	---	---	---
29	---	---	---	---	5.3	8.2	14.3	16.8	18.4	---	---	---
30	---	---	---	---	---	7.6	15.2	17.8	18.9	---	---	---
31	---	---	---	---	---	7.3	---	17.3	---	---	---	---

e Estimated

[(National Water-Quality Assessment Program), White River Basin, Miami River Basin Study Unit]—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	517	476	572	469	571	---	---
2	---	---	---	---	---	---	509	561	539	576	---	---
3	---	---	---	---	---	---	526	568	561	568	---	---
4	---	---	---	---	---	531	536	566	574	557	---	---
5	---	---	---	---	---	512	545	570	577	569	---	---
6	---	---	---	---	---	541	540	564	579	578	---	---
7	---	---	---	---	---	552	533	569	577	581	---	---
8	---	---	---	---	---	551	522	567	575	---	---	---
9	---	---	---	---	---	551	522	577	580	---	---	---
10	---	---	---	---	---	551	520	577	586	---	---	---
11	---	---	---	---	---	542	530	e571	301	---	---	---
12	---	---	---	---	---	546	543	565	306	---	---	---
13	---	---	---	---	---	550	559	574	408	---	---	---
14	---	---	---	---	---	551	528	546	475	---	---	---
15	---	---	---	---	---	536	510	553	420	---	---	---
16	---	---	---	---	---	530	516	572	297	---	---	---
17	---	---	---	---	---	556	527	e575	---	---	---	---
18	---	---	---	---	---	565	529	e575	424	---	---	---
19	---	---	---	---	---	533	---	e505	484	---	---	---
20	---	---	---	---	---	538	---	---	---	---	---	---
21	---	---	---	---	---	545	---	---	---	---	---	---
22	---	---	---	---	---	552	545	---	555	---	---	---
23	---	---	---	---	---	549	529	---	566	---	---	---
24	---	---	---	---	---	540	552	---	564	---	---	---
25	---	---	---	---	---	541	549	---	568	---	---	---
26	---	---	---	---	535	509	554	585	571	---	---	---
27	---	---	---	---	529	469	561	583	573	---	---	---
28	---	---	---	---	525	517	541	578	578	---	---	---
29	---	---	---	---	513	536	547	579	578	---	---	---
30	---	---	---	---	---	513	555	545	584	---	---	---
31	---	---	---	---	---	407	---	318	---	---	---	---

e Estimated

[(National Water-Quality Assessment Program), White River Basin, Miami River Basin Study Unit]—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 deg C (00095)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)
MAR													
22...	1015	1.20	--	564	73.7	24.3	0.72	7.71	25.5	<0.2	4.84	17.5	288
30...	1015	3.30	8.0	553	73.6	24.5	.77	5.80	24.5	<.2	6.28	16.4	306
MAY													
07...	1253	0.63	8.2	573	--	--	--	--	--	--	--	--	--
11...	1030	.75	8.1	585	--	--	--	--	--	--	--	--	--
14...	1545	.63	7.9	503	63.1	21.8	1.17	6.84	25.0	.2	8.77	12.7	275
18...	1000	1.00	E8.1	E573	--	--	--	--	--	--	--	--	--
19...	0315	3.40	7.6	457	60.7	20.6	1.75	5.65	19.9	.2	8.46	9.3	271
MAY													
19-20	0315	--	8.0	524	70.7	22.8	.92	4.07	18.2	.2	9.52	12.1	298
19...	0715	18.00	7.6	480	62.0	19.2	1.37	3.38	18.3	.2	8.87	11.4	279
19...	1100	13.00	7.7	499	66.8	20.6	.88	3.43	19.8	.2	8.79	11.9	292
20...	0330	7.50	E7.8	E540	68.3	22.0	.69	3.78	21.0	.2	8.81	12.9	301
20...	1600	5.20	8.0	554	75.8	24.0	.67	4.40	22.2	.2	9.26	13.2	306
25...	1145	1.60	E8.3	E630	--	--	--	--	--	--	--	--	--
30...	2200	2.90	7.6	397	42.4	14.5	1.30	5.55	19.2	<.2	4.88	11.1	205
MAY 30-JUN 02	2200	--	7.8	337	44.7	12.8	2.42	2.77	11.0	.2	7.37	7.8	196
MAY													
31...	0100	74.00	E6.9	E170	23.5	6.1	3.85	1.49	4.8	.2	4.65	4.8	109
31...	0400	65.00	7.7	230	27.2	7.3	3.01	1.92	6.3	.2	5.97	5.5	131
31...	2045	25.00	7.4	402	50.9	16.7	1.90	3.01	12.8	<.2	9.11	9.8	236
JUN													
01...	1400	12.00	E7.5	E470	60.4	18.5	1.34	3.26	15.1	<.2	8.99	10.6	259
08...	1100	1.00	8.1	581	--	--	--	--	--	--	--	--	--
23...	1330	1.60	E8.0	E570	--	--	--	--	--	--	--	--	--
29...	1145	.69	8.1	E583	--	--	--	--	--	--	--	--	--
30...	1800	.57	--	--	74.9	25.5	.83	9.87	28.9	<.2	7.50	14.8	330
JUL													
06...	1100	.41	7.9	585	--	--	--	--	--	--	--	--	--
13...	1000	.31	7.9	589	--	--	--	--	--	--	--	--	--
20...	1200	.05	E7.5	E671	--	--	--	--	--	--	--	--	--
27...	1000	.03	--	--	--	--	--	--	--	--	--	--	--
AUG													
03...	1230	.00	--	--	--	--	--	--	--	--	--	--	--
10...	1130	.05	--	--	--	--	--	--	--	--	--	--	--
24...	0840	.00	--	--	--	--	--	--	--	--	--	--	--

[(National Water-Quality Assessment Program), White River Basin, Miami River Basin Study Unit]—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Residue on evap. at 180 deg C wat flt mg/L (70300)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Iron, water, fltrd, µg/L (01046)	Manganese, water, fltrd, µg/L (01056)	1-Naphthol, water, fltrd 0.7µm GF µg/L (49295)
MAR													
22...	305	<0.04	4.35	0.013	<0.02	<0.006	0.009	0.3	<0.1	0.2	E5	9.8	<0.09
30...	303	<.04	6.00	.036	.06	<.006	.020	.6	<.1	.6	E5	8.1	<.09
MAY													
07...	--	--	3.96	--	--	--	--	--	--	--	--	--	--
11...	--	--	3.73	--	--	--	--	--	--	--	--	--	--
14...	291	<.04	2.94	.086	.28	<.006	.166	1.5	<.1	1.5	13	1.6	<.09
18...	--	--	4.45	--	--	--	--	--	--	--	--	--	--
19...	301	<.04	7.07	.136	.20	.040	.158	1.6	<.1	1.5	14	4.6	<.09
MAY													
19-20	329	<.04	9.45	.110	.16	.021	.085	1.4	<.1	1.4	<6	3.5	<.09
19...	311	<.04	12.20	.145	.27	.033	.187	1.7	<.1	1.7	9	11.5	<.09
19...	302	<.04	10.70	.105	.15	.026	.081	.6	<.1	.6	11	5.6	<.09
20...	318	<.04	7.96	.038	.04	.012	.037	.6	<.1	.5	<6	2.9	<.09
20...	325	<.04	7.59	.070	.05	.009	.031	<.1	<.1	<.1	<6	2.2	<.09
25...	--	--	6.25	--	--	--	--	--	--	--	--	--	--
30...	233	<.04	3.36	.050	.59	.052	.480	3.6	<.1	3.5	7	1.6	<.09
MAY 30-JUN 02	218	.65	9.77	.113	.67	.092	.360	4.4	.2	4.2	18	1.3	--
MAY													
31...	140	<.04	5.96	.112	.93	.135	.650	5.5	<.1	5.5	16	2.7	<.09
31...	158	E.02	8.39	.132	.60	.137	.390	4.3	<.1	4.2	27	.8	<.09
31...	235	.35	12.70	.144	.28	.079	.190	1.4	<.1	1.4	21	4.8	<.09
JUN													
01...	262	.28	10.70	.096	.27	.049	.114	.7	<.1	.7	9	3.5	--
08...	--	--	7.20	--	--	--	--	--	--	--	--	--	--
23...	--	--	6.66	--	--	--	--	--	--	--	--	--	--
29...	--	--	5.59	--	--	--	--	--	--	--	--	--	--
30...	329	<.04	5.29	.013	.03	.010	.028	1.2	.8	.4	<6	6.3	<.09
JUL													
06...	--	--	3.80	--	--	--	--	--	--	--	--	--	--
13...	--	--	3.34	--	--	--	--	--	--	--	--	--	--
20...	--	--	0.58	--	--	--	--	--	--	--	--	--	--
27...	--	--	.47	--	--	--	--	--	--	--	--	--	--
AUG													
03...	--	--	.17	--	--	--	--	--	--	--	--	--	--
10...	--	--	.09	--	--	--	--	--	--	--	--	--	--
24...	--	--	.13	--	--	--	--	--	--	--	--	--	--

[(National Water-Quality Assessment Program), White River Basin, Miami River Basin Study Unit]—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	2,6-Diethylaniline water fltrd 0.7µm GF µg/L (82660)	2Chloro-2,6'-'diethyl acetanilide wat flt µg/L (61618)	CIAT, water, fltrd, µg/L (04040)	2-Ethyl-6-methylaniline water, fltrd, µg/L (61620)	3,4-Dichloroaniline water fltrd, µg/L (61625)	4Chloro 2methyl phenol, water, fltrd, µg/L (61633)	Acetochlor ESA, water, fltrd 0.7µm GF µg/L (61029)	Acetochlor OA, water, fltrd 0.7µm GF µg/L (61030)	Acetochlor, water, fltrd, µg/L (49260)	Alachlor ESA, water, fltrd 0.7µm GF µg/L (50009)	Alachlor OA, water, fltrd 0.7µm GF µg/L (61031)	Alachlor, water, fltrd, µg/L (46342)	Atrazine, water, fltrd, µg/L (39632)
MAR													
22...	<0.006	<0.005	E0.033	<0.004	<0.004	<0.006	0.07	0.04	<0.006	0.07	0.03	<0.005	0.09
30...	<.006	<.005	E.031	<.004	<.004	<.006	.02	<.02	<.006	.02	<.02	<.005	.09
MAY													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	<.006	<.005	E.087	<.004	<.004	<.006	.04	<.02	.174	.02	<.02	.009	.65
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	<.006	<.005	E.297	<.004	<.004	<.006	.47	.55	1.120	.04	.03	.010	4.89
MAY													
19-20	<.006	<.005	E.225	<.004	<.004	<.006	.75	.85	.601	.05	.03	<.005	3.16
19...	<.006	<.005	E.373	<.004	<.004	<.006	1.73	2.12	2.020	.04	.05	<.005	7.96
19...	<.006	<.005	E.178	<.004	<.004	<.006	.85	1.16	.912	.04	.04	<.005	3.09
20...	<.006	<.005	E.166	<.004	<.004	<.006	.56	.47	.256	.05	.03	<.005	1.52
20...	<.006	<.005	E.099	<.004	<.004	<.006	.34	.21	.083	.04	.02	<.005	.74
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	<.006	<.005	E.116	<.004	<.004	<.006	.15	.12	.353	.02	<.02	.008	.54
MAY 30-JUN 02	<.006	<.005	E.163	<.004	<.004	--	3.72	4.85	1.820	.07	.05	<.007	5.08
MAY													
31...	<.006	<.005	E.578	<.004	<.004	<.006	.93	1.26	.861	.03	.03	.012	4.49
31...	<.006	<.005	E.195	<.004	<.004	<.006	2.63	3.40	.910	.05	.04	<.008	9.83
31...	<.006	<.005	E.227	E.005	<.004	<.006	6.60	8.80	1.980	.08	.06	<.007	8.97
JUN													
01...	<.006	<.005	E.542	E.007	<.004	--	4.04	4.89	.896	.05	.05	<.005	2.77
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	<.006	<.005	E.080	<.004	<.004	<.006	1.50	.66	.016	.06	.02	<.005	.25
JUL													
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--	--

[(National Water-Quality Assessment Program), White River Basin, Miami River Basin Study Unit]—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Azinphos-methyl oxon, water, fltrd, µg/L (61635)	Azinphos-methyl, water, fltrd 0.7µm GF µg/L (82686)	Benfluralin, water, fltrd 0.7µm GF µg/L (82673)	Carbaryl, water, fltrd 0.7µm GF µg/L (82680)	Chlorpyrifos oxon, water, fltrd, µg/L (61636)	Chlorpyrifos water, fltrd, µg/L (38933)	cis-Permethrin water fltrd 0.7µm GF µg/L (82687)	Cyfluthrin, water, fltrd, µg/L (61585)	Cypermethrin water, fltrd, µg/L (61586)	DCPA, water fltrd 0.7µm GF µg/L (82682)	Desulfinyl fipronil, water, fltrd, µg/L (62170)	Diazinon oxon, water, fltrd, µg/L (61638)	Diazinon, water, fltrd, µg/L (39572)
MAR													
22...	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.012	<0.01	<0.005
30...	<.02	<.050	<.010	<.041	<.06	<.005	<.006	<.008	<.009	<.003	<.012	<.01	<.005
MAY													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	<.02	<.050	<.010	<.041	<.06	.006	<.006	<.008	<.009	<.003	<.012	<.01	<.005
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	<.02	<.050	<.010	<.041	<.06	.007	<.006	<.008	<.009	<.003	<.012	<.01	<.005
MAY													
19-20	<.02	<.050	<.010	<.041	<.06	<.005	<.006	<.008	<.009	<.003	<.012	<.01	<.005
19...	<.02	<.050	<.010	<.041	<.06	<.005	<.006	<.008	<.009	<.003	<.012	<.01	<.005
19...	--	<.050	<.010	<.041	<.06	<.005	<.006	<.008	<.009	<.003	<.012	<.01	<.005
20...	<.02	<.050	<.010	<.041	<.06	<.005	<.006	<.008	<.009	<.003	<.012	<.01	<.005
20...	<.02	<.050	<.010	<.041	<.06	<.005	<.006	<.008	<.009	<.003	<.012	<.01	<.005
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	<.02	<.050	<.010	<.041	<.06	.007	<.006	<.008	<.009	<.003	<.012	<.01	<.005
MAY 30-JUN 02	--	<.050	<.010	<.041	<.06	.006	<.006	<.008	<.009	<.003	<.012	<.01	<.005
MAY													
31...	<.02	<.050	<.010	<.041	<.06	.011	<.006	<.008	<.009	<.003	<.012	<.01	<.005
31...	<.02	<.050	<.010	<.041	<.06	.007	<.006	<.008	<.009	<.003	<.012	<.01	<.005
31...	<.02	<.050	<.010	<.041	<.06	.011	<.006	<.008	<.009	<.003	<.012	<.01	<.005
JUN													
01...	--	<.050	<.010	<.041	<.06	<.006	<.006	<.008	<.009	<.003	<.012	<.01	<.005
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	<.02	<.050	<.010	<.041	<.06	<.005	<.006	<.008	<.009	<.003	<.012	<.01	<.005
JUL													
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--	--

[(National Water-Quality Assessment Program), White River Basin, Miami River Basin Study Unit]—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Dieldrin, water, fltrd, µg/L (39381)	Dimethenamid ESA, water, fltrd, µg/L (61951)	Dimethenamid OA, water, fltrd, µg/L (62482)	Dimethoate, water, fltrd 0.7µm GF µg/L (82662)	Ethion monoxon water, fltrd, µg/L (61644)	Ethion, water, fltrd, µg/L (82346)	Fenamiphos sulfone water, fltrd, µg/L (61645)	Fenamiphos sulfoxide, water, fltrd, µg/L (61646)	Fenamiphos, water, fltrd, µg/L (61591)	Desulfinylfipronil amide, wat flt µg/L (62169)	Fipronil sulfide water, fltrd, µg/L (62167)	Fipronil sulfone water, fltrd, µg/L (62168)	Fipronil, water, fltrd, µg/L (62166)
MAR													
22...	<0.009	<0.02	<0.02	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.029	<0.013	<0.024	<0.016
30...	<.009	<.02	<.02	<.006	<.03	<.004	<.008	<.03	<.03	<.029	<.013	<.024	<.016
MAY													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	<.009	<.02	<.02	<.006	<.03	<.004	<.008	<.03	<.03	<.029	<.013	<.024	<.016
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	<.009	<.02	<.02	<.006	<.03	<.004	<.008	<.03	<.03	<.029	<.013	<.024	<.016
MAY													
19-20	<.009	<.02	<.02	<.006	<.03	<.004	<.008	<.03	<.03	<.029	<.013	<.024	<.016
19...	<.009	<.02	<.02	<.006	<.03	<.004	<.030	--	<.03	<.029	<.013	<.024	<.016
19...	<.009	<.02	<.02	<.006	<.03	<.004	<.030	--	<.03	<.029	<.013	<.024	<.016
20...	<.009	<.02	<.02	<.006	<.03	<.004	<.030	--	<.03	<.029	<.013	<.024	<.016
20...	<.009	<.02	<.02	<.006	<.03	<.004	<.008	<.03	<.03	<.029	<.013	<.024	<.016
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	<.009	<.02	<.02	<.006	<.03	<.004	<.008	<.03	<.03	<.029	<.013	<.024	<.016
MAY 30-JUN 02	<.009	.10	.06	<.006	<.03	<.004	<.008	<.03	<.03	<.029	<.013	<.024	<.016
MAY													
31...	<.009	.07	.05	<.006	<.03	<.004	<.008	<.03	<.03	<.029	<.013	<.024	<.016
31...	<.009	.12	.07	<.006	<.03	<.004	<.008	<.03	<.03	<.029	<.013	<.024	<.016
31...	<.009	.13	.06	<.006	<.03	<.004	<.008	<.03	<.03	<.029	<.013	<.024	<.016
JUN													
01...	<.009	.07	.04	<.006	<.03	<.004	<.008	--	<.03	<.029	<.013	<.024	<.016
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	<.009	.06	.03	<.006	<.03	<.004	<.008	<.03	<.03	<.029	<.013	<.024	<.016
JUL													
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--	--

[(National Water-Quality Assessment Program), White River Basin, Miami River Basin Study Unit]—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Flufenacet ESA, water, fltrd, µg/L (61952)	Flufenacet OA, water, fltrd, µg/L (62483)	Fonofos oxon, water, fltrd, µg/L (61649)	Fonofos water, fltrd, µg/L (04095)	Hexazinone, water, fltrd, µg/L (04025)	Iprodione, water, fltrd, µg/L (61593)	Isofenphos, water, fltrd, µg/L (61594)	Malaoxon, water, fltrd, µg/L (61652)	Malathion, water, fltrd, µg/L (39532)	Metalaxyl, water, fltrd, µg/L (61596)	Methialthion water, fltrd, µg/L (61598)	Methyl paraoxon, water, fltrd, µg/L (61664)	Methyl parathion, water, fltrd 0.7µm GF µg/L (82667)
MAR													
22...	<0.02	<0.02	<0.002	<0.003	<0.013	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.015
30...	<.02	<.02	<.002	<.003	<.013	<1	<.003	<.008	<.027	<.005	<.006	<.03	<.015
MAY													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	<.02	<.02	<.002	<.003	<.013	<1	<.003	<.008	<.027	<.005	<.006	<.03	<.015
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	<.02	<.02	<.002	<.003	<.013	<1	<.003	<.008	<.027	<.005	<.006	<.03	<.015
MAY													
19-20	<.02	<.02	<.002	<.003	<.013	<1	<.003	<.008	<.027	<.005	<.006	<.03	<.015
19...	<.02	<.02	<.002	<.003	<.013	<1	<.003	<.008	<.027	<.080	<.006	<.03	<.015
19...	<.02	<.02	<.002	<.003	<.013	<1	<.003	<.008	<.027	<.150	<.006	<.03	<.015
20...	<.02	<.02	<.002	<.003	<.013	<1	<.003	<.008	<.027	<.060	<.006	<.03	<.015
20...	<.02	<.02	<.002	<.003	<.013	<1	<.003	<.008	<.027	<.005	<.006	<.03	<.015
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	<.02	<.02	<.002	<.003	<.013	<1	<.003	<.008	<.027	<.005	<.006	<.03	<.015
MAY 30-JUN 02	<.02	<.02	<.002	<.003	<.013	<1	<.003	<.008	<.027	<.005	<.006	<.03	<.015
MAY													
31...	<.02	<.02	<.002	<.003	<.013	<1	<.003	<.008	<.027	<.005	<.006	<.03	<.015
31...	<.02	<.02	<.002	<.003	<.013	<1	<.003	<.008	<.027	<.005	<.006	<.03	<.015
31...	<.02	<.02	<.002	<.003	<.013	<1	<.003	<.008	<.027	<.005	<.006	<.03	<.015
JUN													
01...	<.02	<.02	<.002	<.003	<.013	<1	<.003	<.008	<.027	<.005	<.006	--	<.015
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	<.02	<.02	<.002	<.003	<.013	<1	<.003	<.008	<.027	<.005	<.006	<.03	<.015
JUL													
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--	--

[(National Water-Quality Assessment Program), White River Basin, Miami River Basin Study Unit]—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Metolachlor ESA, water, fltrd 0.7µm GF µg/L (61043)	Metolachlor OA, water, fltrd 0.7µm GF µg/L (61044)	Metolachlor, water, fltrd, µg/L (39415)	Metribuzin, water, fltrd, µg/L (82630)	Myclobutanil water, fltrd, µg/L (61599)	Pendimethalin, water, fltrd 0.7µm GF µg/L (82683)	Phorate oxon, water, fltrd, µg/L (61666)	Phorate water fltrd 0.7µm GF µg/L (82664)	Phosmet oxon, water, fltrd, µg/L (61668)	Phosmet water, fltrd, µg/L (61601)	Prometon, water, fltrd, µg/L (04037)	Prometryn, water, fltrd, µg/L (04036)	Propyzamide, water, fltrd 0.7µm GF µg/L (82676)
MAR													
22...	0.11	0.05	E0.003	<0.006	<0.008	<0.022	<0.10	<0.011	--	--	M	<0.005	<0.004
30...	.17	.04	E.003	<.006	<.008	<.022	<.10	<.011	--	--	<.01	<.005	<.004
MAY													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	.13	<.02	.124	<.006	<.008	<.022	<.10	<.011	<0.06	<0.008	<.01	<.005	<.004
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	.24	.07	.074	<.006	<.008	<.022	<.10	<.011	<.06	<.008	<.01	<.005	<.004
MAY													
19-20	.23	.12	.225	<.006	<.008	<.022	<.10	<.011	<.06	<.008	<.01	<.005	<.004
19...	.26	.16	.477	.006	<.008	<.022	<.10	<.011	<.06	<.008	<.01	<.005	<.004
19...	.19	.10	.148	E.006	<.008	<.022	<.10	<.011	--	<.008	<.01	<.005	<.004
20...	.27	.10	.065	<.006	<.008	<.022	<.10	<.011	<.06	<.008	<.01	<.005	<.004
20...	.18	.06	.036	<.006	<.008	<.022	<.10	<.011	<.06	<.008	<.01	<.005	<.004
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	.11	.02	.065	<.006	<.008	<.022	<.10	<.011	<.06	<.008	E.01	<.005	<.004
MAY 30-JUN 02	.24	.19	.474	<.006	<.008	<.022	<.10	<.011	--	<.008	<.01	<.005	<.004
MAY													
31...	.31	.25	1.440	<.006	<.008	<.022	<.10	<.011	<.06	<.008	<.01	<.005	<.004
31...	.32	.23	.683	<.006	<.008	<.022	<.10	<.011	<.06	<.008	<.01	<.005	<.004
31...	.29	.18	.340	<.006	<.008	<.022	<.10	<.011	<.06	<.008	<.01	<.005	<.004
JUN													
01...	.27	.17	.221	<.006	<.008	<.022	<.10	<.011	--	<.008	<.01	<.005	<.004
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	.45	.13	.023	<.006	<.008	<.022	<.10	<.011	--	--	<.04	<.005	<.004
JUL													
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--	--

[(National Water-Quality Assessment Program), White River Basin, Miami River Basin Study Unit]—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Simazine, water, fltrd, µg/L (04035)	Tebuthiuron water fltrd 0.7µm GF µg/L (82670)	Terbufos oxon sulfone water, fltrd, µg/L (61674)	Terbufos, water, fltrd 0.7µm GF µg/L (82675)	Terbuthylazine, water, fltrd, µg/L (04022)	Trifluralin, water, fltrd 0.7µm GF µg/L (82661)	Dichlorvos, water fltrd, µg/L (38775)	Suspended sediment concentration mg/L (80154)
MAR								
22...	E0.001	E0.01	<0.07	<0.02	<0.01	<0.009	<0.01	18
30...	<.005	E.01	<.07	<.02	<.01	<.009	<.01	38
MAY								
07...	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--
14...	.025	<.02	<.07	<.02	<.01	E.004	<.01	86
18...	--	--	--	--	--	--	--	--
19...	.027	<.02	<.07	<.02	E.01	<.009	<.01	183
MAY								
19-20	.015	<.02	<.07	<.02	<.01	<.009	<.01	30
19...	.033	<.02	<.07	<.02	M	<.009	<.01	78
19...	.012	<.02	<.07	<.02	<.01	<.009	<.01	46
20...	.011	<.02	<.07	<.02	<.01	<.009	<.01	43
20...	.008	<.02	<.07	<.02	<.01	<.009	<.01	73
25...	--	--	--	--	--	--	--	--
30...	.011	<.02	<.07	<.02	<.01	<.009	<.01	384
MAY 30-JUN 02	.018	<.02	<.07	<.02	E.01	<.009	<.01	184
MAY								
31...	.040	<.02	<.07	<.02	.01	<.009	<.01	384
31...	.029	<.02	<.07	<.02	E.01	<.009	<.01	146
31...	.021	<.02	<.07	<.02	E.01	<.009	<.01	58
JUN								
01...	.019	<.02	<.07	<.02	<.01	<.009	<.01	30
08...	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--
30...	.007	<.02	<.07	<.02	<.01	<.009	<.01	--
JUL								
06...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--
AUG								
03...	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--

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, (ACTON, IN quadrangle), 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 at mile 37.3 mi.

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 National Geodetic Vertical Datum of 1929.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	63	213	191	e51	104	294	41	629	e45	17	13
2	71	62	157	391	e58	166	188	46	326	41	15	12
3	60	59	127	563	e64	158	137	47	164	41	15	11
4	56	56	112	1,020	e76	131	108	53	113	50	22	11
5	51	54	122	1,690	87	209	89	46	85	43	18	10
6	46	51	162	1,620	117	238	78	42	71	41	16	9.3
7	41	48	167	818	153	162	72	38	61	42	13	8.6
8	38	44	137	330	111	121	69	36	52	35	13	8.6
9	36	41	122	227	77	99	62	34	46	34	13	9.0
10	34	40	130	173	73	86	56	33	43	37	12	9.0
11	33	41	173	142	77	76	53	31	235	32	12	8.4
12	33	49	175	131	87	70	51	29	1,040	34	11	7.6
13	32	50	133	120	89	64	50	28	e1,200	31	11	7.2
14	182	50	113	109	75	61	48	33	e1,000	28	11	7.2
15	421	49	100	104	77	58	45	93	490	25	11	7.5
16	458	46	100	95	69	60	43	100	e900	27	11	7.9
17	248	44	121	95	57	60	41	67	e1,120	25	10	8.0
18	163	68	125	162	59	60	41	56	1,000	22	9.7	7.1
19	121	262	104	155	87	65	39	148	522	21	9.5	6.9
20	96	358	88	109	173	71	40	194	246	19	15	6.6
21	81	231	78	90	237	76	41	133	178	24	17	6.6
22	72	155	74	e76	173	73	45	92	161	53	15	6.4
23	65	121	380	e72	131	65	72	73	125	26	12	6.3
24	59	319	638	e70	133	60	70	66	101	22	12	5.8
25	54	388	536	e66	122	58	64	66	86	20	16	6.0
26	73	267	274	e64	101	99	56	71	75	19	27	6.8
27	88	303	188	e62	89	362	50	72	67	19	19	7.7
28	93	513	153	e60	80	326	44	82	60	18	30	5.9
29	85	516	161	e54	77	204	41	313	e56	17	39	5.9
30	71	339	279	e50	---	178	39	217	e50	17	21	5.9
31	61	---	289	e50	---	402	---	661	---	18	16	---
TOTAL	3,114	4,687	5,731	8,959	2,860	4,022	2,126	3,041	10,302	926	489.2	239.2
MEAN	100	156	185	289	98.6	130	70.9	98.1	343	29.9	15.8	7.97
MAX	458	516	638	1,690	237	402	294	661	1,200	53	39	13
MIN	32	40	74	50	51	58	39	28	43	17	9.5	5.8
CFSM	1.07	1.66	1.97	3.08	1.05	1.38	0.75	1.04	3.66	0.32	0.17	0.08
IN.	1.23	1.86	2.27	3.55	1.13	1.59	0.84	1.20	4.08	0.37	0.19	0.09

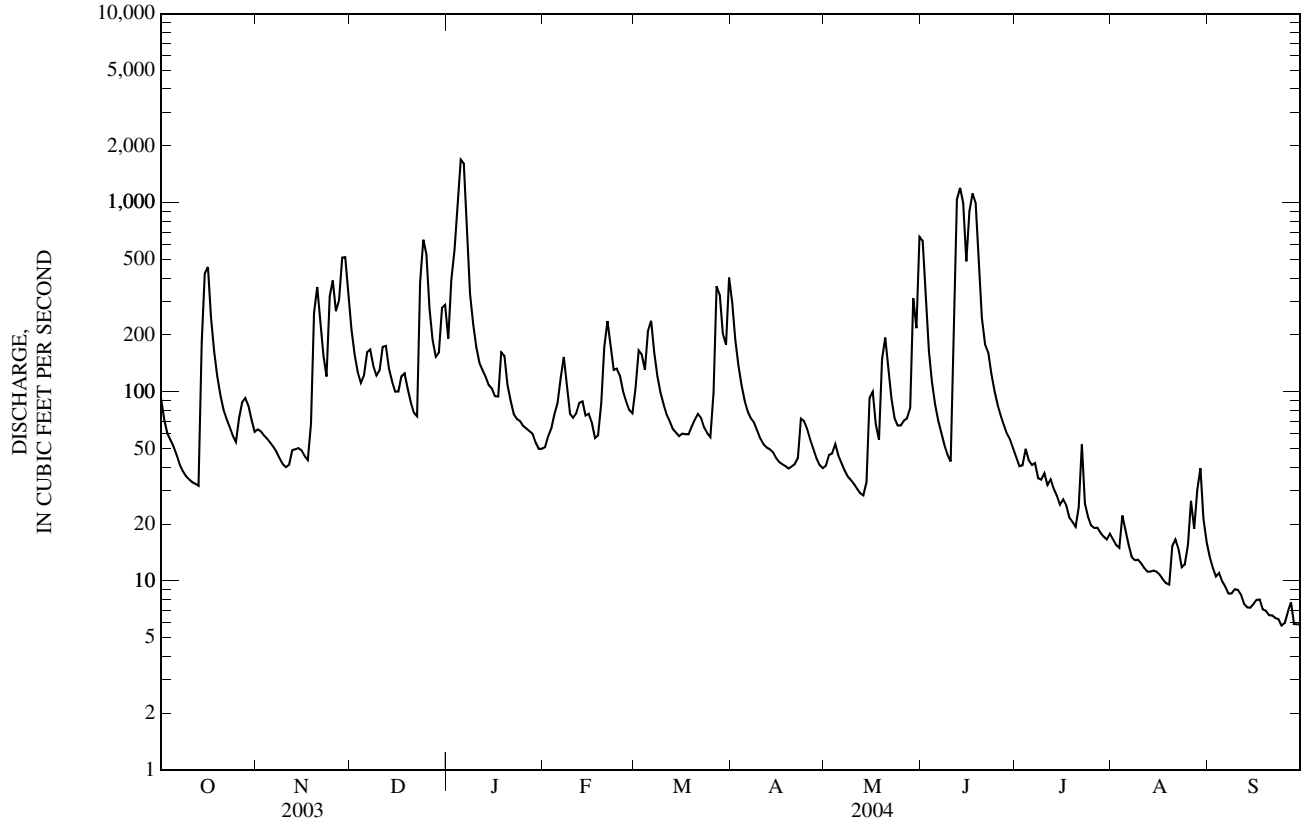
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2004, BY WATER YEAR (WY)

MEAN	44.2	89.9	122	129	157	172	154	137	105	70.8	39.7	31.7
MAX	329	441	352	345	439	413	299	549	469	369	306	314
(WY)	(2002)	(1994)	(1991)	(1969)	(1982)	(1978)	(1996)	(1996)	(1998)	(2003)	(1979)	(1989)
MIN	2.36	3.88	8.95	5.35	35.7	35.0	30.0	23.4	8.47	9.21	3.72	0.65
(WY)	(2000)	(2000)	(2000)	(1977)	(1978)	(1981)	(1971)	(1976)	(1988)	(1977)	(1999)	(1999)

03361650 SUGAR CREEK AT NEW PALESTINE, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1968 - 2004	
ANNUAL TOTAL	53,699		46,496.4			
ANNUAL MEAN	147		127		104	
HIGHEST ANNUAL MEAN					157	2002
LOWEST ANNUAL MEAN					37.7	1977
HIGHEST DAILY MEAN	1,450	Jul 7	1,690	Jan 5	1,930	Nov 15, 1993
LOWEST DAILY MEAN	12	Aug 26	5.8	Sep 24	0.11	Sep 19, 1999
ANNUAL SEVEN-DAY MINIMUM	13	Aug 22	6.3	Sep 24	0.26	Sep 16, 1999
MAXIMUM PEAK FLOW			1,800	Jan 5	2,340	Nov 14, 1993
MAXIMUM PEAK STAGE			9.38	Jan 5	10.34	Feb 23, 1979
ANNUAL RUNOFF (CFSM)	1.57		1.35		1.11	
ANNUAL RUNOFF (INCHES)	21.27		18.42		15.04	
10 PERCENT EXCEEDS	364		282		244	
50 PERCENT EXCEEDS	62		64		46	
90 PERCENT EXCEEDS	23		12		8.4	

e Estimated



03361650 SUGAR CREEK AT NEW PALESTINE, IN—Continued

[(National Water-Quality Assessment Program), White River Basin, Miami River Basin Study Unit]

WATER-QUALITY RECORDS

The data described in the following table were collected and analyzed as part of the National Water Quality Assessment Program (NAWQA) in the White River Basin, Miami River Basin (WHMI) study units. 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 42 river basin and aquifer assessment projects being implemented across the nation on a staggered timeline. During the second decade of sampling, 14 of these projects will be actively collecting data. The period of high-intensity data collection for the WHMI project is in water years 2001-2004.

Water quality data from four stream sites in Indiana and two stream sites in Ohio are being reported as part of the NAWQA study: Big Walnut Creek nr Roachdale, IN (03357330), Little Buck Creek nr Indianapolis, IN (03353637), Sugar Creek at Co. Rd. 400S at New Palestine, IN (394340085524601), White River at Hazleton, IN (03374100), Holes Creek at Huffman Park at Kettering, OH (393944084120700), Mad River at St. Paris Pike near Eagle City, OH (03267900). Additionally, continuous monitor data, water temperature, dissolved oxygen, specific conductance, and pH were collected for all sites except Sugar Creek at Co. Rd. 400S at New Palestine, IN (394340085524601), which were instead collected at Sugar Creek at New Palestine, IN (03361650).

These data can also be obtained electronically at http//in.water.usgs.gov or at http//oh.water.usgs.gov.

(- - -, no data).

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEDIAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	8.1	8.2	8.1	8.0	8.2	---	8.1	7.6	---	8.1	7.8
2	8.0	8.1	8.3	---	8.0	8.2	8.3	8.2	7.7	8.1	8.1	7.8
3	8.1	8.1	8.3	7.9	8.0	8.3	8.4	8.3	7.7	8.1	8.1	7.8
4	8.1	8.1	8.3	7.8	8.0	e8.3	8.4	8.3	8.0	8.0	8.0	7.8
5	8.1	7.9	8.3	7.8	8.1	---	8.4	8.3	8.1	8.0	8.0	7.8
6	8.2	8.0	8.2	7.8	---	---	8.4	8.2	8.1	8.0	8.1	7.7
7	8.2	8.1	8.3	7.8	8.0	---	8.4	8.2	8.1	8.0	8.2	7.8
8	8.2	8.2	8.3	7.9	8.0	---	8.3	8.1	8.1	8.0	8.2	8.1
9	8.2	8.2	8.3	7.9	8.0	8.4	8.3	8.0	8.1	8.0	8.2	8.0
10	8.1	8.2	8.2	8.0	8.0	8.5	8.3	7.9	8.0	8.0	8.2	8.1
11	8.1	8.1	8.2	8.0	8.1	8.4	8.3	7.9	8.0	7.9	8.3	8.1
12	8.0	8.1	8.3	8.0	8.1	8.4	8.3	7.9	7.6	7.9	8.3	8.0
13	8.0	8.2	8.2	7.9	8.1	8.4	8.3	7.8	---	7.9	8.3	8.0
14	7.7	8.2	8.2	7.9	8.1	8.3	8.4	7.7	---	8.0	8.3	8.0
15	e7.6	8.2	8.3	7.9	8.1	8.3	8.3	7.8	7.8	8.0	8.3	7.9
16	7.7	8.2	8.2	7.8	8.1	8.2	8.2	7.9	---	8.0	8.3	7.9
17	7.8	8.2	8.3	8.0	8.2	8.2	8.2	---	e7.5	8.0	8.2	8.1
18	7.9	8.2	8.3	8.0	8.2	8.2	8.1	---	7.6	8.0	8.2	8.2
19	8.0	8.1	8.3	---	8.1	8.2	8.1	7.9	7.7	8.0	7.9	8.2
20	8.0	8.2	8.3	---	7.9	8.1	8.1	8.0	7.9	8.0	7.9	8.2
21	7.9	8.2	8.3	8.1	7.8	8.1	8.1	8.0	7.9	7.9	7.9	8.2
22	8.0	8.3	8.3	8.1	8.0	8.1	8.1	8.0	7.9	7.6	8.0	8.1
23	8.0	8.3	8.0	8.1	8.0	8.1	8.1	7.9	8.0	7.7	8.0	8.0
24	8.0	8.1	7.8	8.1	8.1	8.4	8.2	7.9	8.0	7.9	7.9	8.1
25	8.1	8.2	7.9	8.1	8.4	8.3	8.2	7.9	8.1	7.9	7.9	8.2
26	8.1	8.2	8.0	8.1	8.4	8.2	8.2	8.0	8.1	8.0	7.8	8.3
27	8.2	8.2	8.1	8.1	8.4	7.9	8.3	e8.0	8.1	8.2	7.7	8.2
28	8.2	8.1	8.1	8.2	8.4	---	8.3	8.0	8.1	8.2	7.7	8.2
29	8.2	8.0	---	8.1	8.4	---	8.3	7.8	---	8.2	7.6	8.2
30	8.2	8.1	---	8.1	---	---	8.2	7.8	---	8.2	7.7	8.2
31	8.2	---	8.1	8.0	---	---	---	7.6	---	8.1	7.7	---
MED	8.1	8.2	---	---	---	---	---	---	---	---	8.1	8.1

e Estimated

03361650 SUGAR CREEK AT NEW PALESTINE, IN—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.5	9.5	---	13.5	16.1	11.7	---	7.9	7.2	---	7.9	---
2	12.0	9.4	---	---	16.0	11.6	12.5	9.4	7.6	7.9	7.7	---
3	12.4	9.4	---	11.4	15.8	12.3	12.7	10.6	8.0	7.5	7.5	---
4	12.1	9.3	---	12.0	16.3	e11.6	13.1	10.6	8.0	7.1	6.7	---
5	12.1	8.2	---	13.0	16.3	---	14.0	10.5	8.1	7.2	7.3	---
6	10.8	9.5	---	14.8	---	---	14.0	9.6	8.0	7.2	7.9	---
7	9.9	12.0	---	15.4	16.0	---	13.4	8.7	7.8	7.2	8.1	---
8	9.6	13.4	---	14.9	16.5	---	12.3	8.9	7.5	7.7	8.4	---
9	9.5	14.2	---	14.7	16.3	14.2	12.4	8.3	7.2	7.6	8.4	8.1
10	9.0	14.4	---	15.2	15.9	14.9	12.1	7.5	7.1	7.5	8.1	8.6
11	8.5	11.3	---	15.1	16.1	14.3	11.3	7.5	6.9	7.4	8.6	9.1
12	7.6	11.1	---	14.5	15.6	15.5	12.0	7.0	6.0	7.3	8.7	9.3
13	7.9	12.6	---	14.6	15.9	16.1	12.5	6.3	---	7.2	9.4	9.2
14	6.8	14.4	---	14.7	16.4	14.7	14.2	6.3	---	7.3	9.3	8.9
15	e7.3	13.0	---	15.0	16.2	15.3	13.1	7.9	7.0	7.7	9.3	8.7
16	7.9	13.1	---	15.3	17.0	14.8	11.4	9.2	---	8.0	9.2	8.8
17	e8.6	13.5	---	15.1	17.1	15.0	9.9	---	e6.3	7.7	9.0	9.1
18	---	10	13.7	15.4	16.7	15.4	8.8	---	6.4	8.1	8.5	9.5
19	---	8.7	14.0	---	15.6	15.8	8.2	6.8	6.8	8.2	7.9	9.6
20	---	---	14.7	---	13.7	14.0	7.8	7.2	7.8	8.1	7.1	9.5
21	---	---	15.0	16.1	13.6	14.2	7.9	7.1	7.9	7.8	8.1	9.3
22	---	---	13.9	16.1	14.8	15.9	7.9	6.9	7.9	6.7	8.2	8.6
23	---	---	12.3	16.5	14.8	15.8	9.1	6.7	8.1	6.8	8.2	---
24	---	---	12.4	16.4	14.2	14.0	9.4	6.9	8.0	7.8	8.1	---
25	---	---	13.1	16.5	13.9	12.6	9.1	6.9	8.2	8.1	7.4	---
26	---	---	13.6	16.2	13.1	10.0	9.4	7.1	8.6	8.3	7.1	---
27	---	---	13.8	16.3	13.2	10.1	10.2	e7.3	8.6	8.8	7.1	---
28	---	---	13.5	16.7	13.3	---	10.7	7.4	8.3	8.6	6.6	---
29	---	---	---	16.6	13.3	---	10.1	7.5	---	8.6	---	---
30	11.0	---	---	16.6	---	---	8.8	7.4	---	8.0	---	---
31	10.2	---	13.2	16.5	---	---	---	6.9	---	7.9	---	---

e Estimated

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.3	14.1	5.9	4.8	0.1	7.8	---	16.8	18.8	---	22.1	20.6
2	11.3	14.8	5.0	---	.1	8.1	9.2	14.2	18.7	22.4	22.8	20.8
3	10.5	15.1	5.1	8.7	.1	7.6	10.1	13.1	18.3	23.3	23.6	21.6
4	11.5	15.2	4.9	6.8	.1	e7.9	9.6	13.0	18.5	23.5	23.3	22.0
5	12.2	14.8	5.3	4.4	.1	---	9.1	14.6	18.7	23.7	22.1	22.3
6	12.6	11.8	5.4	1.1	e.1	---	10.0	17.2	19.4	24.0	20.6	22.5
7	12.9	9.1	5.5	0.3	.0	---	12.3	18.6	20.4	23.6	19.8	21.9
8	14.2	7.1	5.6	1.5	.0	---	14.0	18.4	22.1	22.2	20.0	20.0
9	14.6	5.8	7.0	2.4	.1	6.1	13.3	20.0	23.1	22.6	20.6	19.8
10	15.7	6.4	8.1	1.5	.4	5.7	13.8	20.8	22.8	22.8	21.3	19.4
11	16.5	9.2	6.6	2.0	1.1	6.8	13.3	21.2	22.1	23.4	20.0	19.4
12	16.7	11.3	4.3	3.2	2.2	5.0	10.6	21.9	22.2	24.0	17.7	19.7
13	15.1	8.3	3.0	3.2	1.7	4.7	8.4	21.5	---	24.5	17.1	20.4
14	14.4	6.0	2.7	2.9	1.4	6.1	9.0	20.7	---	23.5	17.4	20.6
15	e13.8	6.3	3.0	2.5	1.6	6.5	11.8	17.6	22.3	22.6	17.9	20.6
16	13.3	7.5	3.6	2.4	.7	6.0	14.6	16.7	---	22.2	18.2	21.1
17	13.3	8.4	3.1	2.4	1.3	4.9	17.2	---	e23.1	22.1	18.9	19.8
18	12.4	10.6	2.6	1.5	2.0	4.5	19.0	---	23.6	21.6	20.2	17.8
19	12.7	11.8	2.6	---	3.2	5.7	18.5	19.4	22.6	21.5	21.6	17.2
20	13.5	10.9	1.5	---	4.1	7.4	16.9	19.5	20.4	22.2	20.9	16.9
21	14.5	10.5	1.4	.9	3.4	6.3	16.6	20.5	20.3	23.1	19.8	16.8
22	13.0	11.0	3.1	.8	3.7	4.9	15.2	21.7	20.4	23.3	20.1	17.4
23	12.0	12.3	4.9	.0	4.9	5.9	14.0	21.9	19.9	23.8	20.6	18.2
24	11.1	9.7	4.4	.1	5.1	8.7	14.5	21.2	20.6	21.8	21.3	18.7
25	11.4	7.1	3.2	.1	4.4	10.8	15.8	20.9	19.9	20.0	22.0	18.8
26	11.5	6.7	3.1	.1	4.5	11.7	15.3	20.5	19.0	18.9	22.2	17.3
27	e10.0	8.1	3.5	.1	5.0	11.0	14.0	e20.4	19.3	18.9	23.2	17.2
28	9.4	8.1	4.6	.0	5.3	---	13.7	20.3	20.3	19.6	23.4	16.5
29	9.4	6.1	---	.0	6.3	---	15.7	18.8	---	20.1	21.9	15.4
30	10.3	5.7	---	.0	---	---	17.0	18.9	---	20.7	20.9	14.8
31	12.9	---	4.9	.0	---	---	---	19.3	---	21.7	20.4	---

e Estimated

03361650 SUGAR CREEK AT NEW PALESTINE, IN—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	579	651	841	554	719	595	---	650	354	---	668	680
2	602	651	906	---	712	603	582	639	431	637	667	684
3	622	658	959	468	731	587	591	652	517	631	670	685
4	629	658	1,000	381	731	e595	599	644	579	608	639	687
5	637	662	1,030	249	675	---	593	632	623	629	619	700
6	644	664	1,030	236	---	---	553	642	656	625	653	695
7	647	663	1,060	318	569	---	473	639	674	612	659	587
8	650	663	1,070	446	558	---	413	641	684	614	664	602
9	648	664	1,110	497	551	612	417	640	694	634	669	629
10	649	665	1,140	530	576	617	445	640	706	621	669	641
11	651	667	1,130	556	591	619	497	637	615	643	664	648
12	650	667	1,160	576	594	618	542	640	247	650	663	---
13	651	667	1,170	591	599	598	582	652	---	651	661	---
14	520	664	1,220	606	610	568	594	643	---	647	663	---
15	e490	667	1,270	616	598	586	550	603	400	648	666	---
16	458	672	1,300	626	594	591	517	619	---	631	666	---
17	525	668	981	632	613	629	522	---	e310	618	669	---
18	567	658	667	607	620	636	539	---	327	648	671	---
19	593	601	666	---	595	635	596	581	418	650	672	---
20	616	625	669	---	555	608	642	618	491	646	625	---
21	634	632	679	610	503	640	667	623	524	629	629	---
22	644	692	683	633	495	655	664	641	536	506	637	---
23	650	744	548	665	532	638	654	655	560	604	645	---
24	652	648	432	657	566	617	666	667	574	648	653	---
25	653	686	436	676	582	627	662	660	585	655	634	---
26	640	699	511	676	590	612	666	672	598	657	597	---
27	636	726	555	674	597	533	658	e676	613	660	599	---
28	641	707	584	687	601	---	627	678	623	659	603	---
29	644	687	---	694	597	---	e631	491	---	660	525	---
30	651	747	---	700	---	---	633	465	---	667	620	---
31	655	---	544	723	---	---	---	360	---	660	664	---

e Estimated

394340085524601 SUGAR CREEK AT CO. RD. 400S AT NEW PALESTINE, IN—Continued

[(National Water-Quality Assessment Program), White River Basin, Miami River Basin Study Unit]

LOCATION.--Lat 39°43'40", long 85°52'45", in $SW^1/_4SE^1/_4$ sec. 20, T.15 N., R.6 E., Hancock County, Hydrologic Unit 05120204 (ACTON, IN quadrangle), 1.1 mi upstream from Sugar Creek at New Palestine, 4.2 mi upstream from Little Sugar Creek and at mi 38.4

DRAINAGE AREA.--92.6 mi^2.

WATER-QUALITY RECORDS

The data described in the following table were collected and analyzed as part of the National Water Quality Assessment Program (NAWQA)in the White River Basin, Miami River Basin (WHMI) study units. 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 42 river basin and aquifer assessment projects being implemented across the nation on a staggered timeline. During the second decade of sampling, 14 of these projects will be actively collecting data. The period of high-intensity data collection for the WHMI project is in water years 2001-2004.

Water quality data from four stream sites in Indiana and two stream sites in Ohio are being reported as part of the NAWQA study: Big Walnut Creek nr Roachdale, IN (03357330), Little Buck Creek nr Indianapolis, IN (03353637), Sugar Creek at Co. Rd. 400S at New Palestine, IN (394340085524601), White River at Hazleton, IN (03374100), Holes Creek at Huffman Park at Kettering, OH (393944084120700), Mad River at St. Paris Pike near Eagle City, OH (03267900). Additionally, continuous monitor data, water temperature, dissolved oxygen, specific conductance, and pH were collected for all sites except Sugar Creek at Co. Rd. 400S at New Palestine, IN (394340085524601), which were instead collected at Sugar Creek at New Palestine, IN (03361650).

These data can also be obtained electronically at http//in.water.usgs.gov or at http//oh.water.usgs.gov.

(- - -, no data: <, concentration or value reported is less than that indicated: E, estimated value: K, value is estimated from a non-ideal colony count: M, presence verified, not quantified).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 deg C (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt fxd end field, mg/L as CaCO3 (39036)
OCT													
15...	1400	447	743	8.1	7.7	510	18.0	13.6	65.2	22.4	4.68	8.8	--
NOV													
18...	1320	51	729	10.3	8.1	663	6.0	10.7	--	--	--	--	270
DEC													
17...	1330	121	744	13.3	8.3	664	-3.0	3.0	92.3	29.6	1.42	15.1	--
JAN													
20...	1140	169	756	14.5	8.3	603	-4.0	.4	--	--	--	--	240
FEB													
11...	1030	68	751	15.0	8.2	582	4.0	.8	76.5	24.8	2.72	17.0	--
MAR													
09...	1120	94	747	14.2	8.6	601	4.0	5.9	--	--	--	--	230
24...	1130	55	749	14.6	8.3	620	19.0	8.2	80.1	30.5	1.26	14.6	--
APR													
01...	1040	293	742	10.8	8.1	546	9.0	8.2	--	--	--	--	180
20...	1040	43	740	7.7	8.0	632	16.0	16.0	80.0	30.0	1.52	13.2	--
MAY													
05...	1240	46	740	13.6	8.4	625	24.0	14.8	--	--	--	--	250
17...	1030	68	742	8.0	7.9	594	24.0	17.3	75.7	27.9	1.85	10.5	--
JUN													
03...	1040	165	740	8.2	7.7	525	22.0	17.9	--	--	--	--	190
28...	1200	60	735	8.1	8.1	614	25.0	20.1	81.9	26.7	1.93	11.2	--
JUL													
06...	0850	42	730	7.3	8.1	619	28.0	23.0	--	--	--	--	260
26...	1010	19	740	8.1	8.1	650	19.0	19.0	51.8	19.0	1.23	8.9	--
AUG													
18...	1020	10	730	8.6	8.1	646	24.0	19.8	80.3	31.7	1.98	13.8	--
SEP													
08...	1230	9	733	7.5	8.1	646	21.0	20.5	78.1	32.3	2.22	15.4	250

394340085524601 SUGAR CREEK AT CO. RD. 400S AT NEW PALESTINE, IN—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)
OCT													
15...	--	--	--	21.7	0.2	8.11	22.4	--	282	--	<0.04	1.93	0.070
NOV													
18...	267	E325	<1	31.2	--	--	37.3	--	--	--	<.04	0.84	.010
DEC													
17...	--	--	--	36.1	.2	8.20	33.8	--	368	--	<.04	2.92	E.007
JAN													
20...	237	284	2	30.4	--	--	31.1	--	--	--	E.03	2.48	.009
FEB													
11...	--	--	--	38.7	.2	7.26	32.4	--	354	--	<.04	1.59	.066
MAR													
09...	231	E281	<1	30.9	--	--	31.6	--	--	--	<.04	2.78	.051
24...	--	--	--	34.1	.2	1.27	36.4	--	345	--	<.04	1.68	.014
APR													
01...	180	E218	E1	19.6	--	--	20.5	--	--	--	<.04	4.43	.016
20...	--	--	--	32.0	.2	1.63	34.8	--	358	--	<.04	.72	.022
MAY													
05...	246	E297	E1	32.0	--	--	34.8	--	--	--	<.04	1.00	.020
17...	--	--	--	28.7	.3	10.10	28.3	--	390	--	<.04	5.60	.155
JUN													
03...	188	227	1	21.9	--	--	20.4	--	--	--	<.04	5.61	.091
28...	--	--	--	26.0	.2	8.62	32.7	--	356	--	<.04	2.02	.009
JUL													
06...	260	312	3	28.3	--	--	36.5	--	--	--	<.04	1.40	E.007
26...	--	--	--	32.1	.3	6.12	42.5	--	380	--	<.04	.59	E.006
AUG													
18...	--	--	--	31.3	.3	9.39	45.2	--	380	--	<.04	.19	.013
SEP													
08...	246	295	2	34.2	.3	11.20	38.5	361	385	0.29	<.04	.25	E.004

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Iron, water, fltrd, µg/L (01046)	Manganese, water, fltrd, µg/L (01056)	1-Naphthol, water, fltrd 0.7µm GF µg/L (49295)	2,6-Diethylaniline water fltrd 0.7µm GF µg/L (82660)	2-[(2-Et-6-Me-Ph)--amino] propan-1-ol, µg/L (61615)	2Chloro-2,6'-'diethyl acetanilide wat flt µg/L (61618)
OCT													
15...	0.31	0.145	0.270	2.2	<0.1	2.2	--	103	11.1	<0.09	<0.006	<0.1	<0.005
NOV													
18...	.12	<.006	.034	0.9	<.1	0.8	2.9	--	--	--	<.006	--	--
DEC													
17...	.06	<.006	.036	.5	<.1	.5	--	9	22.7	<.09	<.006	<.1	<.005
JAN													
20...	.11	.007	.070	.7	<.1	.7	2.9	--	--	--	<.006	--	--
FEB													
11...	.06	.030	.082	.6	<.1	.6	--	21	30.1	<.09	<.006	<.1	<.005
MAR													
09...	.04	<.006	.022	.2	<.1	.2	2.4	--	--	--	<.006	--	--
24...	.04	<.006	.019	.6	<.1	.6	--	79	40.9	<.09	<.006	--	<.005
APR													
01...	1.11	<.006	.680	15.2	1.9	13.3	5.9	--	--	--	<.006	--	--
20...	.10	<.006	.046	1.0	<.1	1.0	--	31	67.8	<.09	<.006	--	<.005
MAY													
05...	.08	<.006	.029	.5	<.1	.5	2.5	--	--	--	<.006	--	--
17...	.14	.012	.060	.8	<.1	.8	--	10	18.4	<.09	<.006	--	<.005
JUN													
03...	.23	.049	.161	2.1	<.1	2.1	4.0	--	--	--	<.006	--	--
28...	.07	.023	.066	.8	<.1	.8	--	8	9.4	<.09	<.006	--	<.005
JUL													
06...	<.02	.035	.079	.4	<.1	.4	3.0	--	--	--	<.006	--	--
26...	.05	.039	.064	.8	<.1	.8	--	<6	13.3	<.09	<.006	--	<.005
AUG													
18...	<.02	.036	.063	.5	<.1	.5	--	11	20.3	<.09	<.006	--	<.005
SEP													
08...	.04	.030	.076	.5	<.1	.5	2.6	17	34.6	--	<.006	--	--

394340085524601 SUGAR CREEK AT CO. RD. 400S AT NEW PALESTINE, IN—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	CIAT, water, fltrd, µg/L (04040)	2-Ethyl -6- methyl- aniline water, fltrd, µg/L (61620)	3,4-Di- chloro- aniline water fltrd, µg/L (61625)	4Chloro 2methyl phenol, water, fltrd, µg/L (61633)	Aceto- chlor ESA, water, fltrd 0.7µm GF µg/L (61029)	Aceto- chlor OA, water, fltrd 0.7µm GF µg/L (61030)	Aceto- chlor, water, fltrd, µg/L (49260)	Ala- chlor ESA, water, fltrd 0.7µm GF µg/L (50009)	Ala- chlor OA, water, fltrd 0.7µm GF µg/L (61031)	Ala- chlor, water, fltrd, µg/L (46342)	alpha- HCH, water, fltrd, µg/L (34253)	Atra- zine, water, fltrd, µg/L (39632)	Azin- phos- methyl oxon, water, fltrd, µg/L (61635)
OCT													
15...	E0.056	<0.004	<0.004	<0.006	0.25	0.13	0.016	0.08	0.02	<0.005	--	0.171	<0.03
NOV													
18...	E.007	--	--	--	--	--	<.006	--	--	<.005	<0.005	.077	--
DEC													
17...	E.022	<.004	<.004	<.006	.10	.06	<.006	.05	.02	<.005	--	.090	<.03
JAN													
20...	E.020	--	--	--	--	--	<.006	--	--	<.005	<.005	.059	--
FEB													
11...	E.011	<.004	<.004	<.006	.03	.02	.010	.04	<.02	<.005	--	.076	<.02
MAR													
09...	E.018	--	--	--	--	--	<.006	--	--	<.005	<.005	.089	--
24...	E.010	<.004	<.004	<.006	.05	.03	<.006	.05	.02	<.005	--	.062	<.03
APR													
01...	E.029	--	--	--	--	--	.012	--	--	<.005	<.005	.148	--
20...	E.017	<.004	<.004	<.006	.02	<.02	.012	.05	<.02	<.005	--	.180	<.02
MAY													
05...	E.020	--	--	--	--	--	.058	--	--	<.005	<.005	.712	--
17...	E.346	E.002	<.004	<.006	.24	.31	2.060	.05	.02	<.005	--	9.020	<.02
JUN													
03...	E.360	--	--	--	--	--	.420	--	--	E.004	<.005	3.790	--
28...	E.106	<.004	<.004	<.006	.37	.31	.021	.06	<.02	<.005	--	.382	<.02
JUL													
06...	E.047	--	--	--	--	--	.012	--	--	<.005	<.005	.269	--
26...	E.020	<.004	<.004	<.006	.08	.06	.007	.06	.02	<.005	--	.107	<.07
AUG													
18...	E.006	<.004	<.004	<.006	--	--	<.006	--	--	<.005	--	.070	<.07
SEP													
08...	E.011	--	--	--	--	--	<.006	--	--	<.005	<.005	.133	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Azin- phos- methyl, water, fltrd 0.7µm GF µg/L (82686)	Ben- flur- alin, water, fltrd 0.7µm GF µg/L (82673)	Butyl- ate, water, fltrd, µg/L (04028)	Car- baryl, water, fltrd 0.7µm GF µg/L (82680)	Carbo- furan, water, fltrd 0.7µm GF µg/L (82674)	Chlor- pyrifos oxon, water, fltrd, µg/L (61636)	Chlor- pyrifos water, fltrd, µg/L (38933)	cis- Per- methrin water fltrd 0.7µm GF µg/L (82687)	Cyana- zine, water, fltrd, µg/L (04041)	Cyflu- thrin, water, fltrd, µg/L (61585)	Cyper- methrin water, fltrd, µg/L (61586)	DCPA, water fltrd 0.7µm GF µg/L (82682)	Desulf- inyl fipro- nil, water, fltrd, µg/L (62170)
OCT													
15...	<0.050	<0.010	--	<0.041	--	<0.06	<0.005	<0.006	--	<0.008	<0.009	<0.003	<0.012
NOV													
18...	<.050	<.010	<0.004	<.041	<0.020	--	<.005	<.006	<0.018	--	--	<.003	<.012
DEC													
17...	<.050	<.010	--	<.041	--	<.06	<.005	<.006	--	<.008	<.009	<.003	<.012
JAN													
20...	<.050	<.010	<.004	<.041	<.020	--	<.005	<.006	<.018	--	--	<.003	<.012
FEB													
11...	<.050	<.010	--	<.041	--	<.06	<.005	<.006	--	<.008	<.009	<.003	<.012
MAR													
09...	<.050	<.010	<.004	<.041	<.020	--	<.005	<.006	<.018	--	--	<.003	<.012
24...	<.050	<.010	--	<.041	--	<.06	<.005	<.006	--	<.008	<.009	<.003	<.012
APR													
01...	<.050	<.010	<.004	<.041	<.020	--	<.005	<.006	<.018	--	--	<.003	<.012
20...	<.050	<.010	--	<.041	--	<.06	<.005	<.006	--	<.008	<.009	<.003	<.012
MAY													
05...	<.050	<.010	<.004	<.041	<.020	--	<.005	<.006	<.018	--	--	<.003	E.004
17...	<.050	<.010	--	<.041	--	<.06	E.001	<.006	--	<.008	<.009	<.003	<.012
JUN													
03...	<.050	<.010	<.004	<.041	<.020	--	.007	<.006	E.009	--	--	<.003	<.012
28...	<.050	<.010	--	<.041	--	<.06	<.005	<.006	--	<.030	<.030	<.003	<.012
JUL													
06...	<.050	<.010	<.004	<.041	<.020	--	<.005	<.006	<.018	--	--	<.003	<.012
26...	<.050	<.010	--	<.041	--	<.06	<.005	<.006	--	<.008	<.009	<.003	<.012
AUG													
18...	<.050	<.010	--	<.041	--	<.06	<.005	<.006	--	<.008	<.009	<.003	<.012
SEP													
08...	<.050	<.010	<.004	<1	<.020	--	<.5	<.006	<.018	--	--	<.003	<.012

394340085524601 SUGAR CREEK AT CO. RD. 400S AT NEW PALESTINE, IN—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Diazinon, water, fltrd, µg/L (39572)	Dicrotophos, water fltrd, µg/L (38454)	Dieldrin, water, fltrd, µg/L (39381)	Dimethenamid ESA, water, fltrd, µg/L (61951)	Dimethenamid OA, water, fltrd, µg/L (62482)	Dimethoate, water, fltrd 0.7µm GF µg/L (82662)	Disulfoton, water, fltrd 0.7µm GF µg/L (82677)	EPTC, water, fltrd 0.7µm GF µg/L (82668)	Ethalfluralin, water, fltrd 0.7µm GF µg/L (82663)	Ethion monoxon water, fltrd, µg/L (61644)	Ethion, water, fltrd, µg/L (82346)	Ethoprop, water, fltrd 0.7µm GF µg/L (82672)	Fenamiphos sulfone water, fltrd, µg/L (61645)
OCT													
15...	<0.005	<0.08	<0.009	0.03	0.02	<0.006	--	--	--	<0.030	<0.004	--	<0.008
NOV													
18...	<.005	--	<.009	--	--	--	<0.02	<0.004	<0.009	--	--	<0.005	--
DEC													
17...	<.005	<.08	<.009	<.02	<.02	<.006	--	--	--	<.030	<.004	--	<.008
JAN													
20...	<.005	--	<.009	--	--	--	<.02	<.004	<.009	--	--	<.005	--
FEB													
11...	<.005	<.08	<.009	<.02	<.02	<.006	--	--	--	<.030	<.004	--	<.008
MAR													
09...	<.005	--	<.009	--	--	--	<.02	<.004	<.009	--	--	<.005	--
24...	<.005	<.08	<.009	.02	<.02	<.006	--	--	--	<.030	<.004	--	<.008
APR													
01...	<.005	--	<.009	--	--	--	<.02	<.004	<.009	--	--	<.005	--
20...	<.005	<.08	<.009	<.02	<.02	<.006	--	--	--	<.030	<.004	--	<.008
MAY													
05...	<.005	--	<.009	--	--	--	<.02	<.004	<.009	--	--	<.005	--
17...	<.005	<.08	<.009	.06	<.02	<.006	--	--	--	<.030	<.004	--	<.008
JUN													
03...	<.005	--	<.009	--	--	--	<.02	<.004	<.009	--	--	<.005	--
28...	<.005	<.08	<.009	.03	<.02	<.006	--	--	--	<.030	<.004	--	<.008
JUL													
06...	<.005	--	<.009	--	--	--	<.02	<.004	<.009	--	--	<.005	--
26...	<.005	<.08	<.009	<.02	<.02	<.006	--	--	--	<.002	<.004	--	<.049
AUG													
18...	<.005	<.08	<.009	--	--	<.006	--	--	--	<.002	<.004	--	<.049
SEP													
08...	<.500	--	<.009	--	--	--	<.02	<.004	<.009	--	--	<.005	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Fenamiphos sulfoxide, water, fltrd, µg/L (61646)	Fenamiphos, water, fltrd, µg/L (61591)	Desulfinylfipronil amide, wat flt µg/L (62169)	Fipronil sulfide water, fltrd, µg/L (62167)	Fipronil sulfone water, fltrd, µg/L (62168)	Fipronil, water, fltrd, µg/L (62166)	Flufenacet ESA, water, fltrd, µg/L (61952)	Flufenacet OA, water, fltrd, µg/L (62483)	Fonofos oxon, water, fltrd, µg/L (61649)	Fonofos water, fltrd, µg/L (04095)	Hexazinone, water, fltrd, µg/L (04025)	Iprodione, water, fltrd, µg/L (61593)	Isofenphos, water, fltrd, µg/L (61594)
OCT													
15...	<0.03	<0.03	<0.029	<0.013	<0.024	E0.010	<0.02	<0.02	<0.002	<0.003	<0.013	<1.0	<0.003
NOV													
18...	--	--	<.029	<.013	<.024	<.016	--	--	--	<.003	--	--	--
DEC													
17...	<.03	<.03	<.029	<.013	<.024	<.016	<.02	<.02	<.002	<.003	<.013	<1.0	<.003
JAN													
20...	--	--	<.029	<.013	<.024	<.016	--	--	--	<.003	--	--	--
FEB													
11...	<.03	<.03	<.029	<.013	<.024	<.016	<.02	<.02	<.002	<.003	<.013	<1.0	<.003
MAR													
09...	--	--	<.029	<.013	<.024	<.016	--	--	--	<.003	--	--	--
24...	<.03	<.03	<.029	<.013	<.024	<.016	<.02	<.02	<.002	<.003	<.013	<1.0	<.003
APR													
01...	--	--	<.029	<.013	<.024	<.016	--	--	--	<.003	--	--	--
20...	<.03	<.03	<.029	<.013	<.024	<.016	<.02	<.02	<.002	<.003	<.013	<1.0	<.003
MAY													
05...	--	--	<.029	<.013	<.024	<.016	--	--	--	<.003	--	--	--
17...	<.03	<.03	<.029	<.013	<.024	E.006	<.02	<.02	<.002	<.003	<.013	<1.0	<.003
JUN													
03...	--	--	<.029	<.013	E.005	E.014	--	--	--	<.003	--	--	--
28...	<.03	<.03	<.029	<.013	<.024	<.016	<.02	<.02	<.002	<.003	<.013	<1.0	<.003
JUL													
06...	--	--	<.029	<.013	<.024	<.016	--	--	--	<.003	--	--	--
26...	<.04	<.03	<.029	<.013	<.024	<.016	<.02	<.02	<.003	<.003	<.013	<.4	<.003
AUG													
18...	<.04	<.03	<.029	<.013	<.024	<.016	--	--	<.003	<.003	<.013	<.4	<.003
SEP													
08...	--	--	<.029	<.013	<.024	<.016	--	--	--	<.003	--	--	--

394340085524601 SUGAR CREEK AT CO. RD. 400S AT NEW PALESTINE, IN—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Lindane water, fltrd, µg/L (39341)	Linuron water fltrd 0.7µm GF µg/L (82666)	Mala-oxon, water, fltrd, µg/L (61652)	Mala-thion, water, fltrd, µg/L (39532)	Meta-laxyl, water, fltrd, µg/L (61596)	Methi-althion water, fltrd, µg/L (61598)	Methyl para-oxon, water, fltrd, µg/L (61664)	Methyl para-thion, water, fltrd 0.7µm GF µg/L (82667)	Metola-chlor ESA, water, fltrd 0.7µm GF µg/L (61043)	Metola-chlor OA, water, fltrd 0.7µm GF µg/L (61044)	Metola-chlor, water, fltrd, µg/L (39415)	Metri-buzin, water, fltrd, µg/L (82630)	Moli-nate, water, fltrd 0.7µm GF µg/L (82671)
OCT													
15...	--	--	<0.008	<0.027	<0.005	<0.006	<0.03	<0.015	0.69	0.33	0.176	0.051	--
NOV													
18...	<0.004	<0.035	--	<.027	--	--	--	<.015	--	--	.018	<.006	<0.003
DEC													
17...	--	--	<.008	<.027	<.005	<.006	<.03	<.015	.29	.11	.017	<.006	--
JAN													
20...	<.004	<.035	--	<.027	--	--	--	<.015	--	--	.027	<.006	<.003
FEB													
11...	--	--	<.008	<.027	<.005	<.006	<.03	<.015	.20	.06	.024	<.006	--
MAR													
09...	<.004	<.035	--	<.027	--	--	--	<.015	--	--	.017	<.006	<.003
24...	--	--	<.008	<.027	<.005	<.006	<.03	<.015	.30	.10	.015	<.006	--
APR													
01...	<.004	<.035	--	<.027	--	--	--	<.015	--	--	.074	.009	<.003
20...	--	--	<.008	<.027	<.005	<.006	<.03	<.015	.21	.06	.079	<.006	--
MAY													
05...	<.004	<.035	--	<.027	--	--	--	<.015	--	--	.557	<.006	<.003
17...	--	--	<.008	<.027	<.006	<.006	<.03	<.015	.47	.27	1.970	.026	--
JUN													
03...	<.004	<.035	--	<.027	--	--	--	<.015	--	--	.999	<.008	<.003
28...	--	--	<.008	<.027	<.005	<.006	<.03	<.015	.54	.28	.115	<.006	--
JUL													
06...	<.004	<.035	--	<.027	--	--	--	<.015	--	--	.096	<.006	<.003
26...	--	--	<.030	<.027	<.005	<.006	<.03	<.015	.27	.09	.024	<.006	--
AUG													
18...	--	--	<.030	<.027	<.005	<.006	<.03	<.015	--	--	.034	<.006	--
SEP													
08...	<.004	<.035	--	<.027	--	--	--	<.015	--	--	E.100	<.006	<.003

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Myclo-butanil water, fltrd, µg/L (61599)	Naprop-amide, water, fltrd 0.7µm GF µg/L (82684)	p,p-' DDE, water, fltrd, µg/L (34653)	Para-thion, water, fltrd, µg/L (39542)	Peb-ulate, water, fltrd 0.7µm GF µg/L (82669)	Pendi-meth-alin, water, fltrd 0.7µm GF µg/L (82683)	Phorate oxon, water, fltrd, µg/L (61666)	Phorate water fltrd 0.7µm GF µg/L (82664)	Phosmet oxon, water, fltrd, µg/L (61668)	Phosmet water, fltrd, µg/L (61601)	Prome-ton, water, fltrd, µg/L (04037)	Prome-tryn, water, fltrd, µg/L (04036)	Propy-zamide, water, fltrd 0.7µm GF µg/L (82676)
OCT													
15...	<0.008	--	--	--	--	<0.022	<0.10	<0.011	<0.06	<0.008	0.01	<0.005	<0.004
NOV													
18...	--	<0.007	<0.003	<0.010	<0.004	<.022	--	<.011	--	--	M	--	<.004
DEC													
17...	<.008	--	--	--	--	<.022	<.10	<.011	<.06	<.008	.01	<.005	<.004
JAN													
20...	--	<.007	<.003	<.010	<.004	<.022	--	<.011	--	--	.01	--	<.004
FEB													
11...	<.008	--	--	--	--	<.022	<.10	<.011	<.06	<.008	.01	<.005	<.004
MAR													
09...	--	<.007	<.003	<.010	<.004	<.022	--	<.011	--	--	.01	--	<.004
24...	<.008	--	--	--	--	<.022	<.10	<.011	--	--	M	<.005	<.004
APR													
01...	--	<.007	<.003	<.010	<.004	<.022	--	<.011	--	--	.01	--	<.004
20...	<.008	--	--	--	--	<.022	<.10	<.011	<.06	<.008	M	<.005	<.004
MAY													
05...	--	<.007	<.003	<.010	<.004	<.022	--	<.011	--	--	.01	--	<.004
17...	<.008	--	--	--	--	<.022	<.10	<.011	<.06	<.008	.01	<.005	<.004
JUN													
03...	--	<.007	<.003	<.010	<.004	<.022	--	<.011	--	--	.05	--	<.004
28...	<.008	--	--	--	--	<.022	<.10	<.011	<.06	<.008	.01	<.005	<.004
JUL													
06...	--	<.007	<.003	<.010	<.004	<.022	--	<.011	--	--	.02	--	<.004
26...	<.008	--	--	--	--	<.022	<.10	<.011	<.05	<.008	.01	<.005	<.004
AUG													
18...	<.008	--	--	--	--	<.022	<.10	<.011	<.05	<.008	.02	<.005	<.004
SEP													
08...	--	<.007	<.003	<.010	<.004	<.022	--	<.011	--	--	E.1	--	<.004

394340085524601 SUGAR CREEK AT CO. RD. 400S AT NEW PALESTINE, IN—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Propachlor, water, fltrd, µg/L (04024)	Propanil, water, fltrd 0.7µm GF µg/L (82679)	Propargite, water, fltrd 0.7µm GF µg/L (82685)	Simazine, water, fltrd, µg/L (04035)	Tebuthiuron water fltrd 0.7µm GF µg/L (82670)	Terbacil, water, fltrd 0.7µm GF µg/L (82665)	Terbufos oxon sulfone water, fltrd, µg/L (61674)	Terbufos, water, fltrd 0.7µm GF µg/L (82675)	Terbuthylazine, water, fltrd, µg/L (04022)	Thiobencarb water fltrd 0.7µm GF µg/L (82681)	Triallate, water, fltrd 0.7µm GF µg/L (82678)	Trifluralin, water, fltrd 0.7µm GF µg/L (82661)	Dichlorvos, water fltrd, µg/L (38775)
OCT													
15...	--	--	--	0.011	<0.02	--	<0.07	<0.02	<0.01	--	--	<0.009	<0.01
NOV													
18...	<0.025	<0.011	<0.02	.015	<.02	<0.034	--	<.02	--	<0.010	<0.002	<.009	--
DEC													
17...	--	--	--	.204	<.02	--	<.07	<.02	<.01	--	--	<.009	<.01
JAN													
20...	<.025	<.011	<.02	.068	<.02	<.034	--	<.02	--	<.010	<.002	<.009	--
FEB													
11...	--	--	--	.092	<.02	--	<.07	<.02	<.01	--	--	<.009	<.01
MAR													
09...	<.025	<.011	<.02	.022	<.02	<.034	--	<.02	--	<.010	<.002	<.009	--
24...	--	--	--	.014	<.02	--	<.07	<.02	<.01	--	--	<.009	<.01
APR													
01...	<.025	<.011	<.02	.056	E.01	<.034	--	<.02	--	<.010	<.002	E.005	--
20...	--	--	--	.015	<.02	--	<.07	<.02	<.01	--	--	<.009	<.01
MAY													
05...	<.025	<.011	<.02	.151	<.02	<.034	--	<.02	--	<.010	<.002	<.009	--
17...	--	--	--	1.210	<.02	--	<.07	<.02	E.01	--	--	<.009	<.01
JUN													
03...	<.025	<.011	<.02	.056	<.02	<.034	--	<.02	--	<.010	<.002	<.009	--
28...	--	--	--	.016	<.02	--	<.07	<.02	<.01	--	--	<.009	<.01
JUL													
06...	<.025	<.011	<.02	.013	<.02	<.034	--	<.02	--	<.010	<.002	<.009	--
26...	--	--	--	.006	<.02	--	<.07	<.02	<.01	--	--	<.009	<.01
AUG													
18...	--	--	--	<.005	<.02	--	<.07	<.02	<.01	--	--	<.009	<.01
SEP													
08...	<.025	<.011	<.02	<.010	<.02	<.040	--	<.02	--	<.010	<.002	<.009	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Suspended sediment concentration mg/L (80154)
OCT	
15...	60
NOV	
18...	66
DEC	
17...	23
JAN	
20...	35
FEB	
11...	19
MAR	
09...	36
24...	17
APR	
01...	59
20...	32
MAY	
05...	25
17...	27
JUN	
03...	68
28...	27
JUL	
06...	50
26...	23
AUG	
18...	11
SEP	
08...	21

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, (ACTON, IN quadrangle), 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 National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Low flow is affected by regulation.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	43	123	121	e31	80	310	30	344	26	20	20
2	27	52	100	373	31	127	162	41	165	18	12	19
3	20	43	86	380	e40	92	113	42	105	23	10	15
4	18	43	76	1,320	e42	85	88	34	73	56	32	18
5	16	39	95	2,300	43	156	66	28	58	40	46	19
6	14	35	146	652	66	136	60	26	46	32	23	16
7	18	28	113	243	73	97	52	24	45	28	19	8.2
8	14	23	95	151	52	73	52	27	36	27	10	9.7
9	18	21	85	113	45	63	43	20	33	20	7.9	4.7
10	17	19	109	90	52	51	42	20	32	55	13	4.4
11	11	25	157	78	53	50	36	24	83	51	6.5	7.8
12	8.7	34	116	74	60	43	35	19	234	93	9.9	2.9
13	16	31	90	67	66	39	38	17	252	52	5.6	2.1
14	201	33	76	66	53	39	36	20	166	37	4.0	5.5
15	295	29	68	64	60	41	30	53	136	31	3.4	7.0
16	144	23	77	59	55	46	29	39	649	22	7.6	3.0
17	88	24	97	60	48	48	31	31	696	26	9.5	8.3
18	66	49	86	147	48	48	25	32	311	25	4.1	4.0
19	47	280	72	105	82	59	28	125	177	16	7.8	2.2
20	42	196	63	77	132	53	27	127	108	13	15	5.4
21	40	115	55	64	154	50	34	71	85	12	49	6.3
22	32	76	57	53	106	48	31	50	82	319	21	2.7
23	28	65	500	e46	92	41	75	39	60	94	11	1.9
24	25	389	572	e44	95	42	54	48	52	44	14	6.1
25	27	273	244	e42	88	37	47	53	43	29	23	8.5
26	47	146	151	e40	74	78	46	48	41	24	85	3.9
27	60	261	115	e38	65	445	36	43	32	25	59	2.2
28	54	471	98	e36	58	208	35	37	33	22	55	5.4
29	49	299	119	e34	52	130	28	29	26	20	105	6.8
30	39	168	260	e30	---	102	26	61	27	20	46	5.3
31	36	---	166	e30	---	432	---	1,050	---	22	27	---
TOTAL	1,547.7	3,333	4,267	6,997	1,916	3,039	1,715	2,308	4,230	1,322	761.3	231.3
MEAN	49.9	111	138	226	66.1	98.0	57.2	74.5	141	42.6	24.6	7.71
MAX	295	471	572	2,300	154	445	310	1,050	696	319	105	20
MIN	8.7	19	55	30	31	37	25	17	26	12	3.4	1.9
CFSM	0.63	1.41	1.75	2.86	0.84	1.24	0.73	0.94	1.79	0.54	0.31	0.10
IN.	0.73	1.57	2.01	3.30	0.90	1.43	0.81	1.09	2.00	0.62	0.36	0.11

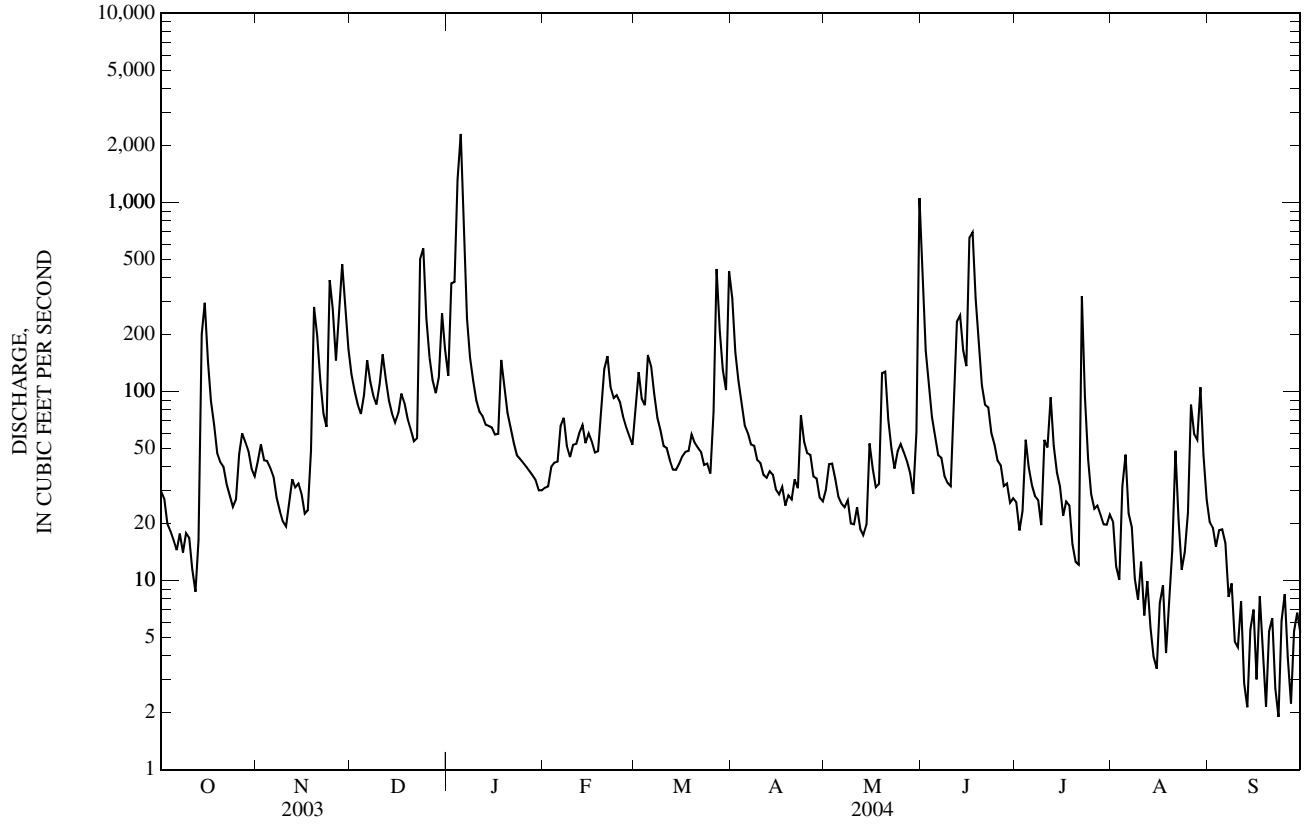
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2004, BY WATER YEAR (WY)

MEAN	39.0	94.4	112	115	132	155	135	122	87.2	68.6	34.7	26.7
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)	(2003)
MIN	2.96	5.90	8.11	4.09	18.8	27.8	18.5	17.4	6.04	5.97	2.83	1.24
(WY)	(1998)	(2000)	(1977)	(1977)	(1978)	(1969)	(1971)	(1976)	(1988)	(1991)	(1999)	(1999)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1968 - 2004	
ANNUAL TOTAL	43,053.2		31,667.3			
ANNUAL MEAN	118		86.5		93.2	
HIGHEST ANNUAL MEAN					146	2002
LOWEST ANNUAL MEAN					36.7	1977
HIGHEST DAILY MEAN	1,880	Sep 2	2,300	Jan 5	3,570	Nov 14, 1993
LOWEST DAILY MEAN	4.5	Aug 24	1.9	Sep 23	0.60	Oct 1, 1967
ANNUAL SEVEN-DAY MINIMUM	6.4	Aug 21	4.1	Sep 18	0.98	Sep 22, 1999
MAXIMUM PEAK FLOW			3,180	Jan 5	7,140	Jul 20, 1969
MAXIMUM PEAK STAGE			11.60	Jan 5	14.99	Jul 20, 1969
ANNUAL RUNOFF (CFSM)	1.50		1.10		1.18	
ANNUAL RUNOFF (INCHES)	20.32		14.95		16.07	
10 PERCENT EXCEEDS	297		163		206	
50 PERCENT EXCEEDS	48		44		34	
90 PERCENT EXCEEDS	16		10		5.9	

e Estimated

03361850 BUCK CREEK AT ACTON, IN—Continued



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, (FRANKLIN, IN quadrangle), on right bank at downstream side of County Road 400S 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 National Geodetic Vertical Datum of 1929. Prior to June 30, 1955, 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	68	222	162	e29	112	281	43	557	41	41	15
2	51	104	163	331	e30	171	208	83	285	38	25	12
3	46	89	133	541	e35	124	152	74	202	36	19	12
4	45	75	117	2,170	e37	117	117	55	148	55	42	13
5	40	66	138	3,840	41	184	96	47	115	51	60	11
6	35	56	210	946	105	189	87	43	97	44	29	9.3
7	31	51	164	401	129	124	83	37	82	37	19	8.6
8	29	44	134	284	68	100	80	34	72	35	15	8.3
9	27	39	116	227	55	89	71	31	65	35	13	8.2
10	26	37	141	164	71	78	63	30	60	57	12	7.9
11	25	37	193	128	101	73	61	30	66	52	11	7.9
12	23	41	145	120	126	68	58	32	91	38	10	7.6
13	21	39	115	102	132	62	58	31	105	35	9.7	7.4
14	163	34	107	89	91	60	56	32	351	30	9.4	7.3
15	448	34	95	85	175	60	50	59	173	26	8.6	7.0
16	220	36	130	68	107	66	46	68	935	23	8.3	7.6
17	136	36	224	72	91	80	45	53	2,560	22	8.2	8.0
18	102	65	159	334	110	81	44	48	718	21	8.2	7.0
19	84	379	125	223	274	88	41	359	337	19	8.0	6.9
20	71	271	102	121	449	90	45	276	246	17	27	7.1
21	63	163	89	87	479	92	53	164	178	16	67	6.9
22	56	117	88	73	292	76	47	109	146	151	31	6.5
23	50	97	339	e46	271	69	59	85	115	105	19	6.3
24	45	431	538	e40	260	66	56	182	94	49	13	7.0
25	41	376	286	e37	220	63	48	135	83	30	24	6.8
26	108	230	204	e36	168	70	48	119	72	25	36	6.2
27	144	663	158	e34	135	460	41	234	62	24	42	6.5
28	101	755	135	e32	114	283	37	384	56	20	27	6.5
29	84	501	148	e30	104	205	34	209	50	17	34	6.2
30	68	301	317	e28	---	163	34	221	45	18	30	6.6
31	56	---	220	e28	---	203	---	1,730	---	80	22	---
TOTAL	2,500	5,235	5,455	10,879	4,299	3,766	2,199	5,037	8,166	1,247	728.4	244.6
MEAN	80.6	174	176	351	148	121	73.3	162	272	40.2	23.5	8.15
MAX	448	755	538	3,840	479	460	281	1,730	2,560	151	67	15
MIN	21	34	88	28	29	60	34	30	45	16	8.0	6.2
CFSM	0.75	1.63	1.64	3.28	1.39	1.14	0.69	1.52	2.54	0.38	0.22	0.08
IN.	0.87	1.82	1.90	3.78	1.49	1.31	0.76	1.75	2.84	0.43	0.25	0.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2004, BY WATER YEAR (WY)

MEAN	32.5	85.5	120	157	174	207	182	156	104	72.2	29.0	26.4
MAX	359	593	470	837	441	498	516	606	463	492	231	228
(WY)	(2002)	(1994)	(1991)	(1950)	(1971)	(1963)	(1964)	(2002)	(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 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1944 - 2004	
ANNUAL TOTAL	52,703.2		49,756.0			
ANNUAL MEAN	144		136		112	
HIGHEST ANNUAL MEAN					219	2002
LOWEST ANNUAL MEAN					20.3	1954
HIGHEST DAILY MEAN	1,860	Sep 2	3,840	Jan 5	6,260	May 24, 1968
LOWEST DAILY MEAN	8.0	Aug 27	6.2	Sep 26	0.50	Sep 29, 1953
ANNUAL SEVEN-DAY MINIMUM	9.0	Aug 22	6.5	Sep 23	0.73	Oct 19, 1953
MAXIMUM PEAK FLOW			4,930	Jan 5	10,700	Jan 27, 1952
MAXIMUM PEAK STAGE			10.82	Jan 5	13.40	Jan 27, 1952
ANNUAL RUNOFF (CFSM)	1.35		1.27		1.04	
ANNUAL RUNOFF (INCHES)	18.32		17.30		14.19	
10 PERCENT EXCEEDS	323		278		252	
50 PERCENT EXCEEDS	81		66		38	
90 PERCENT EXCEEDS	27		12		4.9	

03362000 YOUNGS CREEK NEAR EDINBURGH, IN—Continued

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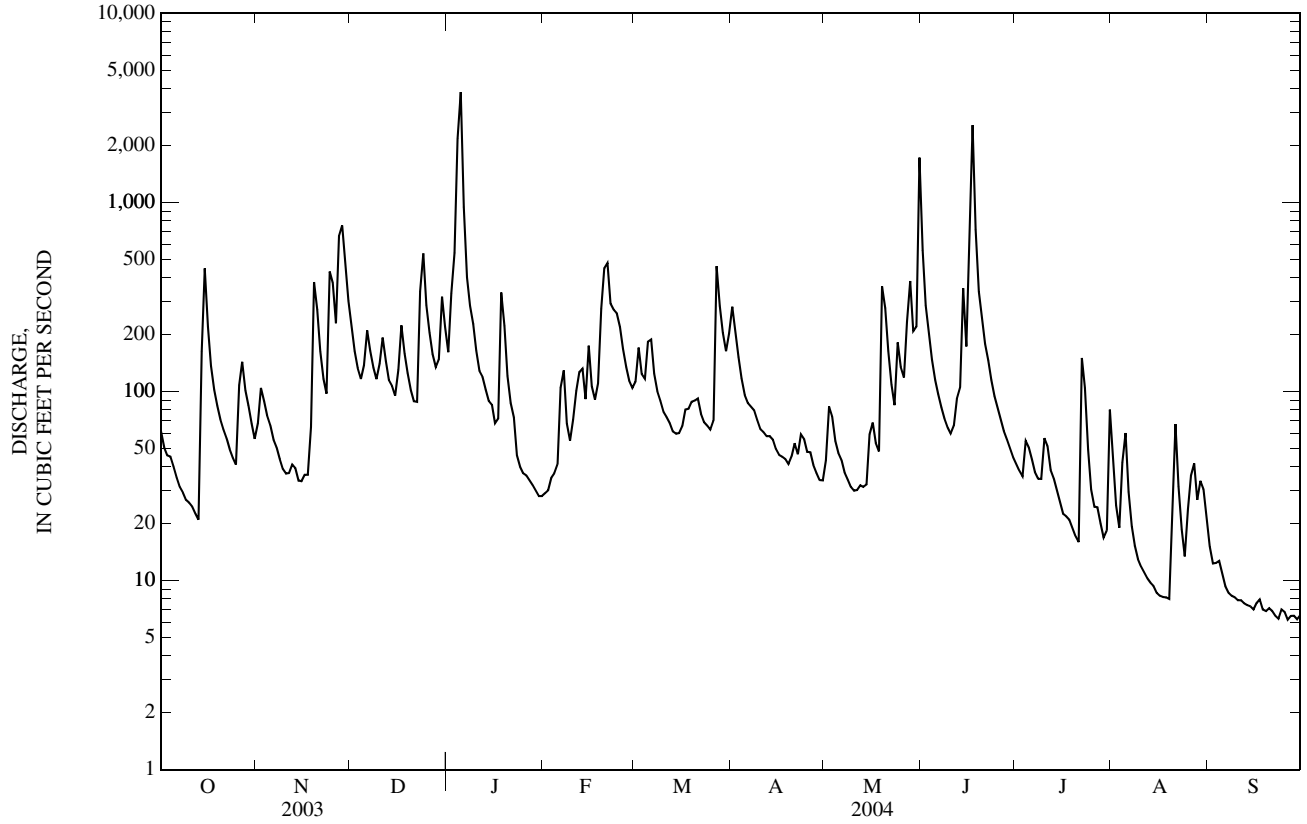


03362500 SUGAR CREEK NEAR EDINBURGH, IN

LOCATION.--Lat 39°21'39", long 85°59'51", in SW¼SE¼ sec.29, T.11 N., R.5 E., Johnson County, Hydrologic Unit 05120204, (EDINBURGH, IN quadrangle), 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 National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1952, nonrecording gage on downstream side of old highway bridge, 100 ft downstream at same datum.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	333	284	983	815	e240	430	1,710	212	3,380	200	173	129
2	271	403	718	1,160	e270	639	1,080	286	1,510	189	131	110
3	238	382	581	2,050	e290	646	742	310	862	178	113	102
4	220	330	503	4,270	350	563	568	265	603	200	119	94
5	206	303	494	9,370	349	655	458	245	472	237	187	90
6	191	274	772	9,350	408	850	396	222	393	199	161	88
7	180	251	725	e5,380	608	696	366	204	337	181	120	83
8	176	228	600	1,880	499	552	342	191	300	171	108	77
9	166	211	519	1,160	398	467	316	185	267	161	97	72
10	166	201	510	882	396	412	285	175	249	176	92	71
11	164	201	747	741	476	375	271	172	257	211	89	67
12	155	211	706	681	535	354	255	171	706	187	85	67
13	148	217	561	623	582	325	251	166	1,420	211	82	66
14	234	203	481	571	486	311	249	176	1,990	168	80	63
15	1,860	205	425	548	533	307	234	226	1,130	144	76	60
16	1,260	203	426	503	460	316	220	329	2,140	131	74	64
17	878	193	663	479	392	340	214	291	5,850	127	72	65
18	598	210	588	860	390	342	211	248	6,240	143	74	61
19	465	871	498	911	558	364	200	757	2,420	121	73	62
20	375	1,300	418	667	847	393	206	1,190	1,210	109	82	58
21	324	901	362	547	1,150	388	217	787	790	103	160	56
22	293	634	346	488	915	360	221	522	629	557	158	58
23	262	499	720	e400	765	336	248	393	537	773	110	58
24	241	1,080	2,800	e380	729	318	328	428	429	304	92	56
25	227	1,880	1,840	e360	691	307	281	431	363	192	97	54
26	289	1,150	1,140	e330	593	299	268	403	317	156	124	56
27	468	1,740	781	e310	518	1,380	242	490	281	143	214	57
28	414	2,750	629	e290	463	1,490	218	679	252	133	165	53
29	367	2,530	571	e270	429	1,000	206	495	235	122	251	52
30	326	1,470	1,220	e250	---	754	205	593	213	119	288	52
31	285	---	1,100	e240	---	1,010	---	3,350	---	198	176	---
TOTAL	11,780	21,315	23,427	46,766	15,320	16,979	11,008	14,592	35,782	6,244	3,923	2,101
MEAN	380	710	756	1,509	528	548	367	471	1,193	201	127	70.0
MAX	1,860	2,750	2,800	9,370	1,150	1,490	1,710	3,350	6,240	773	288	129
MIN	148	193	346	240	240	299	200	166	213	103	72	52
CFSM	0.80	1.50	1.59	3.18	1.11	1.16	0.77	0.99	2.52	0.42	0.27	0.15
IN.	0.92	1.67	1.84	3.67	1.20	1.33	0.86	1.15	2.81	0.49	0.31	0.16

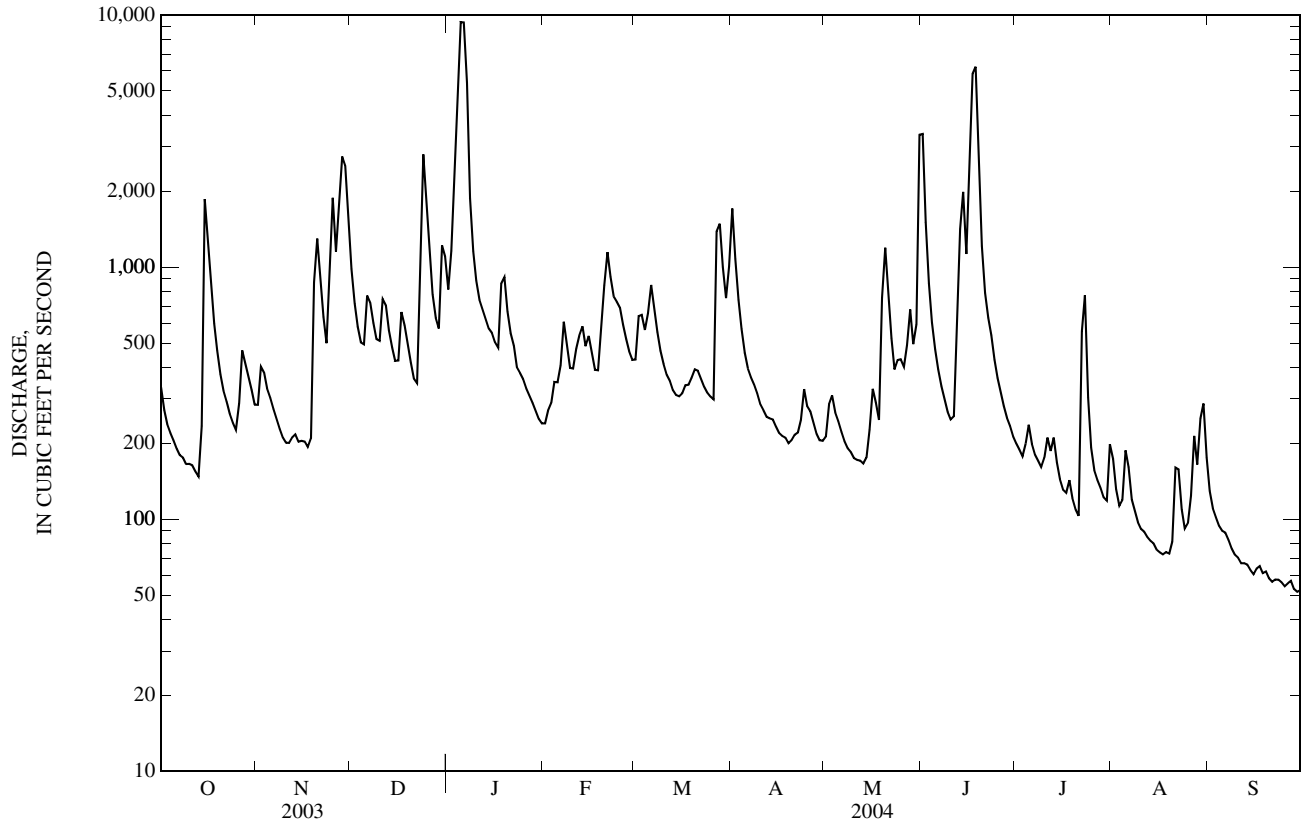
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2004, BY WATER YEAR (WY)

MEAN	152	375	515	704	769	927	834	708	495	329	172	136
MAX	983	2,591	1,742	4,000	2,192	2,281	2,076	2,878	2,381	1,564	1,348	1,295
(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)

03362500 SUGAR CREEK NEAR EDINBURGH, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1943 - 2004	
ANNUAL TOTAL	234,917		209,237			
ANNUAL MEAN	644		572		508	
HIGHEST ANNUAL MEAN					849	1950
LOWEST ANNUAL MEAN					160	1954
HIGHEST DAILY MEAN	5,290	Sep 3	9,370	Jan 5	19,200	May 29, 1956
LOWEST DAILY MEAN	86	Aug 27	52	Sep 29	9.2	Sep 18, 1954
ANNUAL SEVEN-DAY MINIMUM	88	Aug 23	54	Sep 24	10	Sep 13, 1954
MAXIMUM PEAK FLOW			10,200	Jan 5	27,600	May 29, 1956
MAXIMUM PEAK STAGE			14.18	Jan 5	18.38	May 29, 1956
ANNUAL RUNOFF (CFSM)	1.36		1.21		1.07	
ANNUAL RUNOFF (INCHES)	18.44		16.42		14.56	
10 PERCENT EXCEEDS	1,430		1,130		1,150	
50 PERCENT EXCEEDS	362		316		215	
90 PERCENT EXCEEDS	157		91		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, (WALDRON, IN quadrangle), 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 National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to Oct. 21, 1938, nonrecording gage at site 500 ft upstream at same datum.

REMARKS.--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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	241	239	885	620	e170	258	632	219	1,950	143	569	51
2	197	382	677	935	e180	387	471	644	1,420	134	225	44
3	170	346	546	2,370	e210	376	371	748	530	125	143	41
4	163	291	471	6,320	e350	332	314	480	384	122	193	41
5	151	257	498	9,820	e320	344	264	362	313	125	360	39
6	133	220	687	4,690	e800	382	236	296	269	118	189	37
7	122	195	607	1,830	e700	323	228	249	231	105	123	e35
8	114	176	505	857	e390	276	220	217	202	98	99	e33
9	107	160	441	668	e290	245	203	198	181	92	86	30
10	105	152	442	527	476	216	180	180	168	92	77	29
11	103	158	695	448	601	199	172	169	183	92	70	28
12	99	195	641	411	543	191	165	160	1,100	87	61	27
13	95	215	482	370	466	174	172	156	2,290	91	56	25
14	235	187	429	337	304	167	188	156	1,330	78	52	24
15	907	173	365	330	334	166	161	175	541	69	49	23
16	761	168	407	297	255	175	149	217	1,170	62	46	22
17	465	158	744	304	211	177	145	204	2,050	103	43	22
18	342	226	589	865	205	168	141	183	2,700	118	41	e22
19	281	1,050	447	607	293	197	135	1,210	1,340	74	40	21
20	231	1,160	361	387	538	253	145	1,360	738	63	45	21
21	200	751	311	321	714	303	156	704	502	57	78	19
22	186	537	299	293	470	265	153	469	422	225	134	18
23	169	421	496	e240	372	226	159	353	370	413	88	17
24	156	706	1,110	e220	375	207	173	307	297	183	71	e16
25	144	877	808	e210	351	192	176	276	279	108	58	e16
26	236	625	559	e200	298	182	180	247	250	90	59	15
27	517	2,350	440	e220	266	241	170	307	209	88	77	15
28	378	3,570	389	e210	239	365	152	344	185	83	72	16
29	304	2,820	419	e200	229	316	138	330	170	77	67	15
30	278	1,430	1,050	e190	---	309	157	297	154	70	64	15
31	236	---	874	e180	---	454	---	1,550	---	481	58	---
TOTAL	7,826	20,195	17,674	35,477	10,950	8,066	6,306	12,767	21,928	3,866	3,393	777
MEAN	252	673	570	1,144	378	260	210	412	731	125	109	25.9
MAX	907	3,570	1,110	9,820	800	454	632	1,550	2,700	481	569	51
MIN	95	152	299	180	170	166	135	156	154	57	40	15
CFSM	0.83	2.22	1.88	3.78	1.25	0.86	0.69	1.36	2.41	0.41	0.36	0.09
IN.	0.96	2.48	2.17	4.36	1.34	0.99	0.77	1.57	2.69	0.47	0.42	0.10

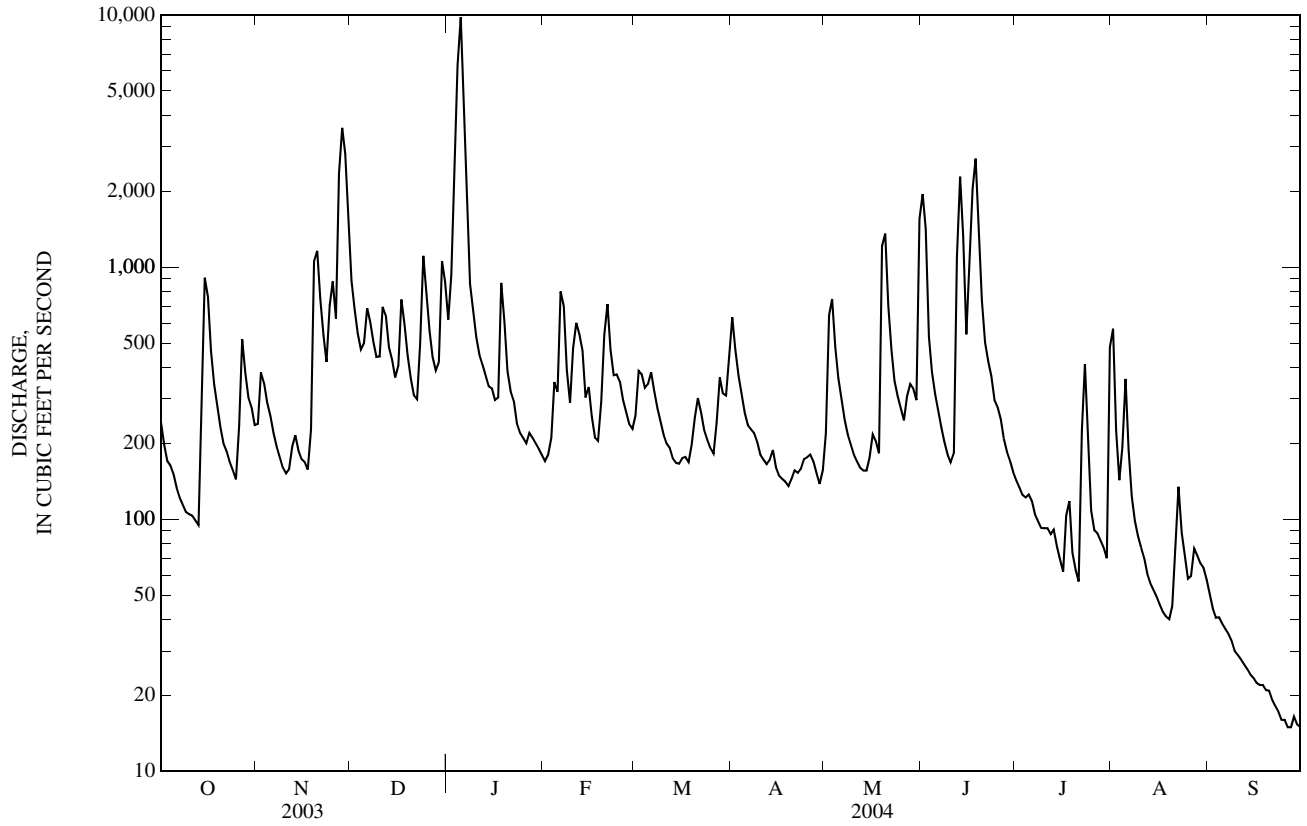
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2004, BY WATER YEAR (WY)

MEAN	92.0	218	348	493	512	579	580	463	306	191	90.8	69.8
MAX	600	1,342	1,567	3,450	1,808	1,605	1,576	1,968	1,502	915	716	447
(WY)	(2002)	(1994)	(1991)	(1937)	(1950)	(1961)	(2002)	(1996)	(1998)	(1979)	(1979)	(2003)
MIN	1.96	6.97	9.98	15.1	27.7	41.8	51.9	42.9	19.7	9.28	4.06	1.36
(WY)	(1964)	(2000)	(1964)	(1977)	(1935)	(1941)	(1941)	(1934)	(1934)	(1936)	(1988)	(1999)

03363500 FLATROCK RIVER AT ST. PAUL, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1931 - 2004	
ANNUAL TOTAL	161,348		149,225			
ANNUAL MEAN	442		408		328	
HIGHEST ANNUAL MEAN					642	1950
LOWEST ANNUAL MEAN					40.6	1941
HIGHEST DAILY MEAN	3,570	Nov 28	9,820	Jan 5	16,500	Jan 5, 1949
LOWEST DAILY MEAN	38	Aug 27	15	Sep 26	0.60	Aug 7, 1931
ANNUAL SEVEN-DAY MINIMUM	43	Aug 23	e 15	Sep 24	0.80	Oct 12, 1963
MAXIMUM PEAK FLOW			12,500	Jan 5	18,500	Jan 5, 1949
MAXIMUM PEAK STAGE			10.62	Jan 5	12.37	May 24, 1968
ANNUAL RUNOFF (CFSM)	1.46		1.35		1.08	
ANNUAL RUNOFF (INCHES)	19.81		18.32		14.69	
10 PERCENT EXCEEDS	1,040		749		753	
50 PERCENT EXCEEDS	251		220		137	
90 PERCENT EXCEEDS	104		52		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, (COLUMBUS, IN quadrangle), 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 National Geodetic Vertical Datum of 1929.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	420	407	1,510	941	e350	432	742	376	2,510	282	968	99
2	352	499	1,150	1,020	e370	498	702	756	1,980	271	467	95
3	312	594	951	1,800	e400	573	576	1,120	1,270	256	295	91
4	286	519	838	6,710	e720	527	502	853	1,050	253	233	88
5	274	466	789	16,400	e690	515	447	680	928	243	373	84
6	257	423	953	13,800	847	548	409	590	857	237	358	82
7	236	379	966	5,420	1,490	533	391	533	803	228	250	80
8	223	347	845	1,870	848	475	383	498	756	213	197	78
9	212	320	762	1,300	593	437	370	477	717	203	169	77
10	204	299	728	1,050	621	413	351	467	688	201	151	74
11	198	295	896	895	884	390	336	458	713	198	138	71
12	193	331	995	831	879	378	328	451	942	191	127	71
13	186	354	824	785	831	365	326	451	1,920	183	120	70
14	202	353	738	724	656	352	338	459	2,360	184	113	69
15	619	325	677	690	607	347	330	488	1,310	170	108	68
16	962	316	635	655	565	352	310	575	1,670	162	104	67
17	711	307	1,000	618	471	358	301	600	3,440	161	99	65
18	554	312	974	1,040	437	355	294	570	3,650	177	95	63
19	464	969	798	1,180	458	355	286	1,440	2,550	189	93	62
20	409	1,530	682	820	603	387	289	2,060	1,270	159	94	61
21	362	1,160	598	680	881	419	296	1,430	832	149	99	59
22	333	863	563	615	809	423	300	1,080	656	184	115	59
23	314	718	612	e520	636	394	298	909	581	313	145	58
24	292	871	1,250	e480	613	372	299	813	493	403	121	57
25	279	1,310	1,210	e440	599	359	310	785	432	270	109	56
26	312	1,030	907	e420	543	350	314	756	416	216	105	55
27	632	1,560	753	e440	494	361	313	800	379	194	101	55
28	675	6,230	673	e420	456	450	298	1,080	347	183	111	54
29	552	5,760	635	e400	431	482	287	988	321	173	113	54
30	477	2,750	1,010	e380	---	451	304	931	300	170	106	53
31	434	---	1,220	e370	---	504	---	1,790	---	742	102	---
TOTAL	11,936	31,597	27,142	63,714	18,782	13,155	11,030	25,264	36,141	7,158	5,779	2,075
MEAN	385	1,053	876	2,055	648	424	368	815	1,205	231	186	69.2
MAX	962	6,230	1,510	16,400	1,490	573	742	2,060	3,650	742	968	99
MIN	186	295	563	370	350	347	286	376	300	149	93	53
CFSM	0.72	1.97	1.64	3.85	1.21	0.79	0.69	1.53	2.26	0.43	0.35	0.13
IN.	0.83	2.20	1.89	4.44	1.31	0.92	0.77	1.76	2.52	0.50	0.40	0.14

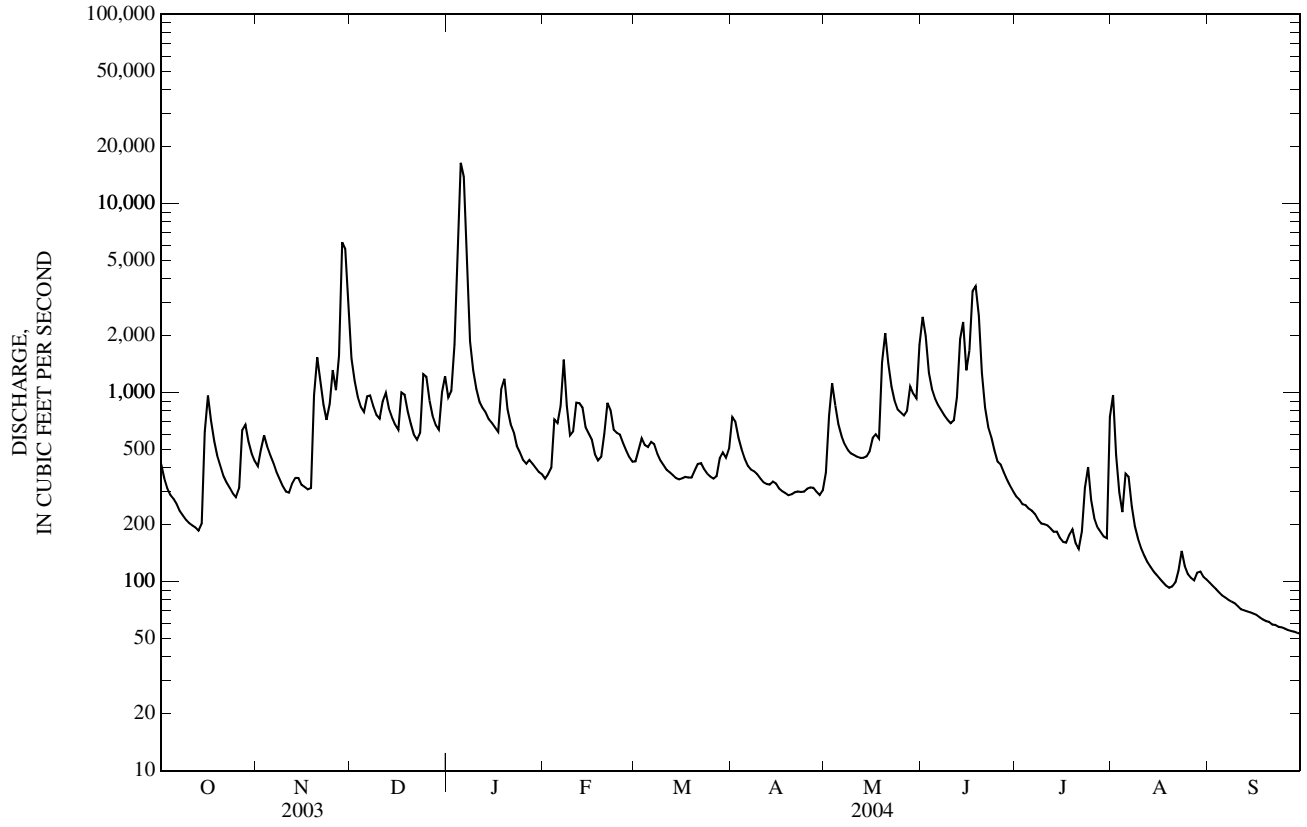
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2004, BY WATER YEAR (WY)

MEAN	191	445	684	756	906	942	994	939	628	396	242	153
MAX	912	2,336	2,092	2,055	2,524	2,223	2,301	3,871	2,728	1,556	1,296	837
(WY)	(1994)	(1994)	(1991)	(2004)	(1982)	(1978)	(1996)	(1996)	(1998)	(1979)	(1979)	(1989)
MIN	25.6	30.2	44.8	30.6	189	204	251	132	77.2	50.8	35.0	17.0
(WY)	(2000)	(2000)	(1977)	(1977)	(1992)	(1992)	(1976)	(1976)	(1988)	(1988)	(1988)	(1999)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1968 - 2004	
ANNUAL TOTAL	249,803		253,773			
ANNUAL MEAN	684		693		605	
HIGHEST ANNUAL MEAN					949	1996
LOWEST ANNUAL MEAN					271	1977
HIGHEST DAILY MEAN	6,230	Nov 28	16,400	Jan 5	18,200	Dec 31, 1990
LOWEST DAILY MEAN	121	Aug 29	53	Sep 30	13	Sep 18, 1999
ANNUAL SEVEN-DAY MINIMUM	129	Aug 24	55	Sep 24	13	Sep 18, 1999
MAXIMUM PEAK FLOW			18,900	Jan 5	20,000	May 25, 1968
MAXIMUM PEAK STAGE			15.42	Jan 5	15.87	May 25, 1968
ANNUAL RUNOFF (CFSM)	1.28		1.30		1.13	
ANNUAL RUNOFF (INCHES)	17.40		17.68		15.38	
10 PERCENT EXCEEDS	1,360		1,130		1,310	
50 PERCENT EXCEEDS	466		432		320	
90 PERCENT EXCEEDS	230		102		60	

e Estimated

03363900 FLATROCK RIVER AT COLUMBUS, IN—Continued



03364000 EAST FORK WHITE RIVER AT COLUMBUS, IN—Continued

WABASH RIVER BASIN

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, (COLUMBUS, IN quadrangle), 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 National Geodetic Vertical Datum of 1929. Prior to Oct. 22, 1952, nonrecording gage 600 ft upstream at same datum.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,570	1,370	5,070	3,450	e1,000	1,710	4,120	1,340	9,330	1,060	2,110	487
2	1,320	1,550	3,730	3,670	e1,100	2,000	3,550	2,150	6,350	1,010	1,380	429
3	1,150	1,790	3,060	6,740	e1,200	2,380	2,710	2,680	3,450	953	975	402
4	1,040	1,650	2,660	14,100	1,850	2,230	2,240	2,210	2,470	990	801	383
5	983	1,500	2,530	31,400	1,900	2,200	1,920	1,790	2,000	1,030	1,040	363
6	921	1,370	2,980	34,700	2,130	2,560	1,700	1,550	1,710	960	1,140	361
7	844	1,280	3,220	22,300	3,580	2,440	1,590	1,350	1,510	881	830	348
8	785	1,180	2,820	11,000	2,680	2,090	1,510	1,210	1,370	811	662	337
9	738	1,080	2,510	5,190	1,990	1,840	1,430	1,110	1,240	767	570	325
10	707	1,020	2,400	3,800	1,880	1,680	1,320	1,040	1,140	800	514	317
11	683	994	2,840	3,120	2,360	1,540	1,250	966	1,180	817	473	310
12	656	1,240	3,260	2,810	2,510	1,460	1,190	919	2,120	762	441	306
13	626	1,150	2,750	2,590	2,560	1,370	1,160	885	5,940	765	415	300
14	721	1,140	2,410	2,380	2,220	1,300	1,170	912	8,110	733	398	297
15	2,940	1,080	2,200	2,240	2,040	1,270	1,140	1,140	5,330	647	389	288
16	4,540	1,050	2,140	2,110	1,960	1,300	1,070	1,400	5,070	593	374	287
17	3,230	1,010	3,010	1,980	1,650	1,350	1,020	1,370	10,500	596	360	284
18	2,360	1,120	3,040	2,900	1,540	1,380	990	1,210	13,200	600	354	274
19	1,920	2,870	2,570	3,840	1,720	1,390	956	2,860	12,200	594	353	271
20	1,660	5,030	2,210	2,770	2,420	1,520	982	4,940	5,770	527	360	263
21	1,460	4,020	1,970	2,260	3,650	1,610	999	3,700	3,500	487	431	261
22	1,330	2,960	1,830	2,040	3,430	1,620	1,010	2,560	2,800	670	642	260
23	1,230	2,390	2,080	1,760	2,700	1,490	1,040	2,000	2,460	2,070	587	257
24	1,140	2,940	5,460	e1,600	2,520	1,390	1,240	1,700	2,070	1,760	470	257
25	1,080	5,350	5,930	e1,500	2,440	1,340	1,280	1,690	1,790	1,100	432	256
26	1,190	4,310	4,040	e1,400	2,210	1,290	1,240	1,580	1,630	846	449	251
27	1,850	5,690	3,020	e1,300	2,000	2,070	1,160	1,730	1,470	733	563	248
28	2,020	11,500	2,570	e1,200	1,810	3,570	1,040	2,270	1,320	675	627	248
29	1,770	12,300	2,370	e1,100	1,700	2,890	964	1,990	1,230	623	635	245
30	1,590	8,900	3,400	e1,050	---	2,370	1,130	2,120	1,130	583	785	237
31	1,460	---	4,410	e1,000	---	2,390	---	5,420	---	1,450	599	---
TOTAL	45,514	90,834	94,490	179,300	62,750	57,040	44,121	59,792	119,390	26,893	20,159	9,152
MEAN	1,468	3,028	3,048	5,784	2,164	1,840	1,471	1,929	3,980	868	650	305
MAX	4,540	12,300	5,930	34,700	3,650	3,570	4,120	5,420	13,200	2,070	2,110	487
MIN	626	994	1,830	1,000	1,000	1,270	956	885	1,130	487	353	237
CFSM	0.86	1.77	1.79	3.39	1.27	1.08	0.86	1.13	2.33	0.51	0.38	0.18
IN.	0.99	1.98	2.06	3.91	1.37	1.24	0.96	1.30	2.60	0.59	0.44	0.20

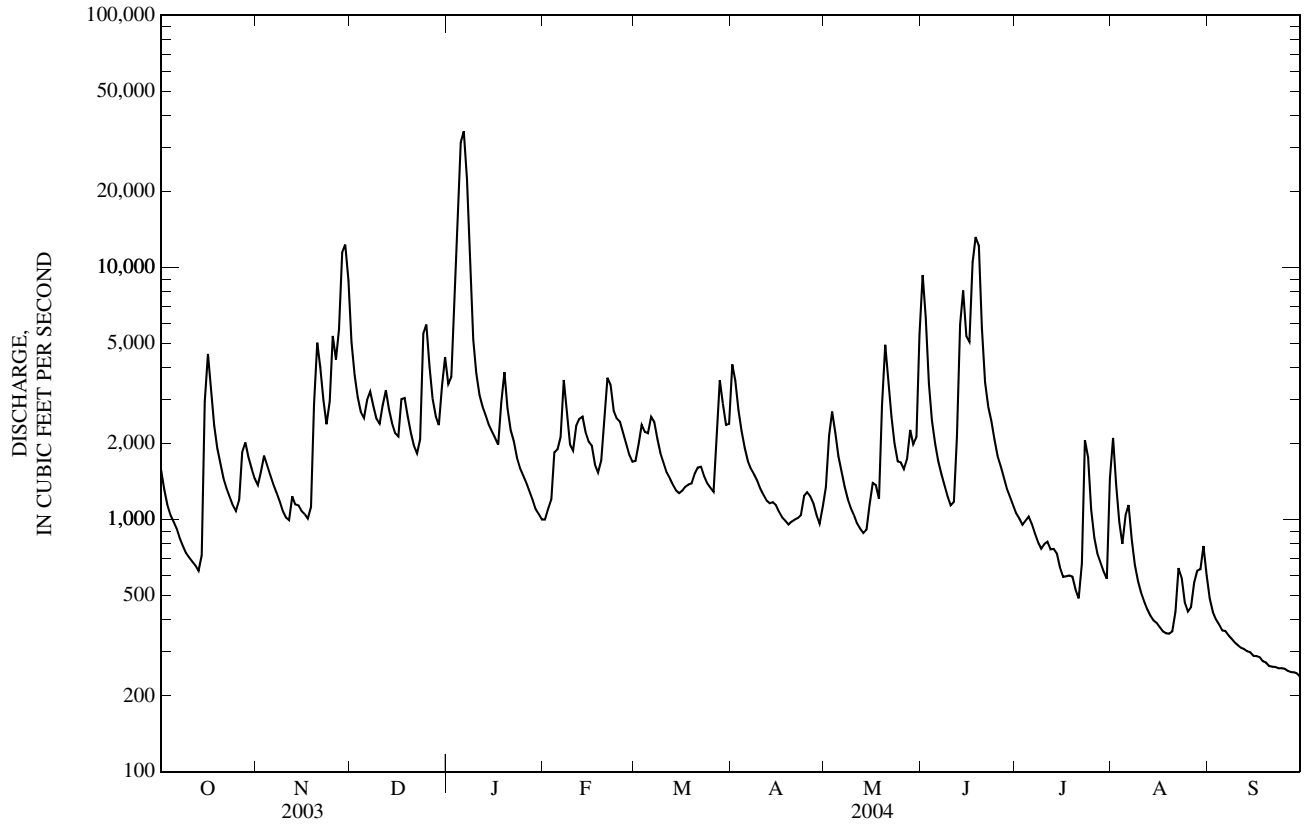
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2004, BY WATER YEAR (WY)

MEAN	637	1,365	2,002	2,634	2,932	3,203	3,063	2,637	1,820	1,309	743	551
MAX	4,096	8,137	6,004	14,400	8,640	8,014	7,466	10,960	8,272	4,990	5,185	3,696
(WY)	(2002)	(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)

03364000 EAST FORK WHITE RIVER AT COLUMBUS, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1949 - 2004	
ANNUAL TOTAL	888,391		809,435			
ANNUAL MEAN	2,434		2,212		1,903	
HIGHEST ANNUAL MEAN					3,304	1950
LOWEST ANNUAL MEAN					534	1954
HIGHEST DAILY MEAN	12,300	Nov 29	34,700	Jan 6	49,000	Mar 6, 1963
LOWEST DAILY MEAN	378	Aug 28	237	Sep 30	85	Sep 22, 1994
ANNUAL SEVEN-DAY MINIMUM	405	Aug 24	249	Sep 24	90	Sep 28, 1954
MAXIMUM PEAK FLOW			37,900	Jan 6	52,300	Mar 6, 1963
MAXIMUM PEAK STAGE			13.79	Jan 6	16.23	Mar 6, 1963
ANNUAL RUNOFF (CFSM)	1.43		1.30		1.11	
ANNUAL RUNOFF (INCHES)	19.36		17.64		15.14	
10 PERCENT EXCEEDS	5,390		3,750		4,260	
50 PERCENT EXCEEDS	1,590		1,460		994	
90 PERCENT EXCEEDS	731		425		253	

e Estimated



03364500 CLIFTY CREEK AT HARTSVILLE, IN

LOCATION.--Lat 39°16'29", long 85°42'06", in NW¼NW¼ sec.36, T.10 N., R.7 E., Bartholomew County, Hydrologic Unit 05120206, (HARTSVILLE, IN quadrangle), 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 National Geodetic Vertical Datum of 1929. Prior to Sept. 24, 1952, nonrecording gage at same site and datum.

REMARKS.--Records fair except those below 1.0 ft^3/s and estimated daily discharges, which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1913 reached an elevation of 702.4 ft above National Geodetic Vertical Datum of 1929, from floodmarks, upstream from bridge.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	25	169	159	e35	67	158	70	283	18	12	3.1
2	17	27	122	508	e39	91	108	365	150	16	12	2.7
3	15	33	101	1,550	297	79	84	256	101	16	7.2	2.3
4	14	30	89	4,690	259	81	70	141	80	15	8.0	2.1
5	13	28	103	4,610	145	105	58	104	67	14	32	1.9
6	12	26	152	514	595	106	52	82	59	13	23	1.5
7	10	23	120	258	333	81	51	69	52	11	12	1.2
8	9.2	21	100	174	108	68	50	59	46	9.8	7.2	1.1
9	8.6	19	91	134	83	60	45	54	42	12	5.2	1.2
10	8.7	18	109	104	195	54	41	49	39	17	4.2	1.1
11	8.5	19	181	91	300	50	39	46	39	12	3.2	1.0
12	9.7	265	142	86	233	49	38	44	77	9.8	2.6	1.1
13	10	148	108	76	175	44	43	42	62	12	2.2	1.1
14	36	79	96	70	93	42	79	41	60	14	2.0	1.0
15	200	64	83	70	125	42	67	46	52	11	1.9	0.96
16	88	60	124	60	71	44	52	52	229	8.8	1.9	0.94
17	51	51	303	66	63	47	47	48	391	8.1	1.6	0.88
18	36	134	165	395	66	45	43	127	148	9.9	1.4	0.86
19	30	960	119	171	99	50	41	720	88	7.9	1.3	0.78
20	26	412	94	100	151	55	42	812	65	6.6	2.6	0.73
21	23	208	79	86	210	52	44	275	53	6.3	4.1	0.67
22	22	138	79	72	117	45	43	160	47	49	4.5	0.61
23	21	105	184	48	108	42	45	112	39	90	3.6	0.52
24	20	284	378	e47	109	41	50	85	34	44	2.8	0.47
25	18	226	187	e44	96	39	46	74	30	17	4.5	0.41
26	28	140	128	e43	80	38	48	72	28	12	5.2	0.35
27	56	893	105	e41	70	44	43	117	25	11	3.5	0.31
28	47	1,080	96	e39	62	44	39	470	23	9.4	9.3	0.25
29	37	490	129	e36	60	45	35	193	21	7.7	14	0.21
30	30	260	500	e33	---	47	42	165	19	6.5	6.4	0.16
31	25	---	245	e33	---	150	---	799	---	7.0	4.4	---
TOTAL	951.7	6,266	4,681	14,408	4,377	1,847	1,643	5,749	2,449	501.8	205.8	31.51
MEAN	30.7	209	151	465	151	59.6	54.8	185	81.6	16.2	6.64	1.05
MAX	200	1,080	500	4,690	595	150	158	812	391	90	32	3.1
MIN	8.5	18	79	33	35	38	35	41	19	6.3	1.3	0.16
CFSM	0.34	2.29	1.65	5.09	1.65	0.65	0.60	2.03	0.89	0.18	0.07	0.01
IN.	0.39	2.55	1.91	5.86	1.78	0.75	0.67	2.34	1.00	0.20	0.08	0.01

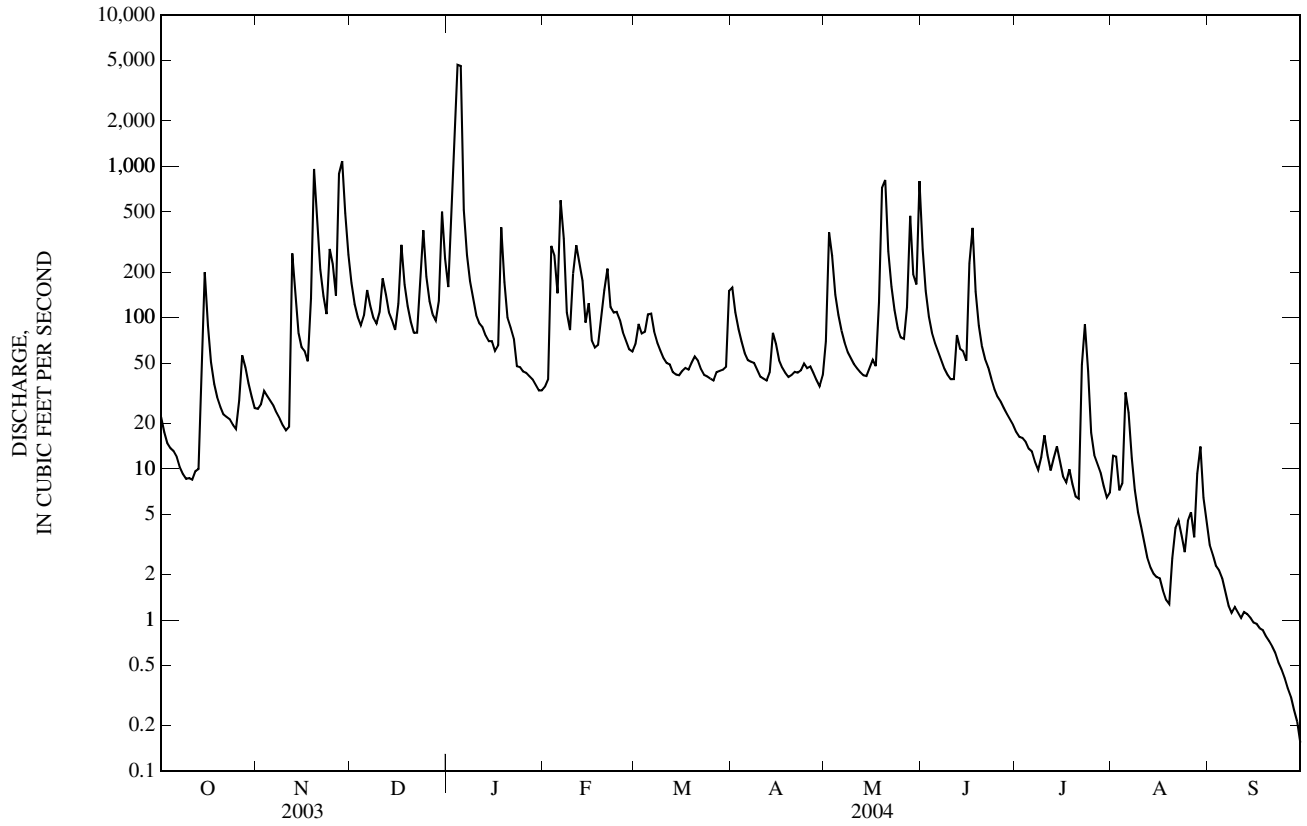
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2004, BY WATER YEAR (WY)

MEAN	25.7	73.1	119	160	164	178	158	141	83.5	55.4	30.4	18.2
MAX	196	431	515	874	551	465	572	482	487	242	264	261
(WY)	(2002)	(1986)	(1991)	(1949)	(1950)	(1961)	(1996)	(1996)	(1998)	(1992)	(1995)	(1974)
MIN	0.00	0.00	0.13	1.47	7.17	21.1	17.7	10.9	1.16	0.00	0.00	0.00
(WY)	(1954)	(1954)	(1954)	(1977)	(1954)	(1954)	(1976)	(1976)	(1988)	(1954)	(1954)	(1953)

03364500 CLIFTY CREEK AT HARTSVILLE, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1949 - 2004	
ANNUAL TOTAL	43,565.1		43,110.81			
ANNUAL MEAN	119		118		100	
HIGHEST ANNUAL MEAN					197	1950
LOWEST ANNUAL MEAN					9.00	1954
HIGHEST DAILY MEAN	1,860	Jun 15	4,690	Jan 4	6,230	Apr 29, 1996
LOWEST DAILY MEAN	4.3	Aug 28	0.16	Sep 30	0.00	Oct 14, 1948
ANNUAL SEVEN-DAY MINIMUM	4.9	Aug 24	0.31	Sep 24	0.00	Sep 2, 1951
MAXIMUM PEAK FLOW			8,330	Jan 4	11,300	Jan 21, 1959
MAXIMUM PEAK STAGE			12.32	Jan 4	14.29	Jan 21, 1959
ANNUAL RUNOFF (CFSM)	1.31		1.29		1.10	
ANNUAL RUNOFF (INCHES)	17.73		17.55		14.90	
10 PERCENT EXCEEDS	253		215		220	
50 PERCENT EXCEEDS	51		47		33	
90 PERCENT EXCEEDS	12		2.6		0.90	

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, (SEYMOUR, IN quadrangle), on left bank 1,700 ft downstream from county road highway bridge, 1 mi north of Seymour, 9.5 mi downstream from Sand Creek, and at mile 214.6.

DRAINAGE AREA.--2,341 mi^2.

PERIOD OF RECORD.--October 1927 to current year. Yearly maximum discharge only for water years 1924-27 published in WSP 1305. Daily gage heights from May 1923 to September 1927 are available in the district office.

REVISED RECORDS.--WSP 743: 1928-29, 1931-32. WSP 783: 1934. WSP 873: 1938. WSP 1335: 1928(M), 1929-30, 1932-33(M), 1937(M), 1942. WSP 1435: 1949. WSP 1705: 1958. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 550.67 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1927 to July 2, 1931, nonrecording gage 1,700 ft upstream at datum 7.61 ft higher. July 3, 1931 to July 16, 1934, nonrecording gage at site 100 ft downstream at present datum.

REMARKS.--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 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,970	1,460	9,420	5,510	e1,100	2,000	4,730	2,110	8,390	1,790	2,340	796
2	1,600	1,420	6,240	5,680	e1,300	2,210	5,070	7,480	8,940	1,690	2,270	703
3	1,350	1,720	4,830	7,550	1,830	2,660	3,850	5,980	6,630	1,670	1,600	677
4	1,210	1,760	4,050	18,200	3,190	3,030	3,020	4,260	4,330	1,570	1,250	636
5	1,110	1,610	3,680	54,800	2,900	3,180	2,510	3,230	3,330	1,590	1,180	594
6	1,050	1,460	4,010	47,700	4,020	3,220	2,140	2,640	2,780	1,590	1,570	576
7	984	1,340	4,480	36,300	6,560	3,170	1,920	2,210	2,410	1,460	1,340	559
8	923	1,230	4,120	25,100	4,950	2,700	1,810	1,900	2,120	1,340	1,070	537
9	872	1,130	3,620	11,100	3,190	2,340	1,680	1,690	1,900	1,300	943	518
10	839	1,060	3,390	6,380	3,000	2,040	1,520	1,530	1,730	1,280	863	501
11	805	1,010	3,980	4,920	4,230	1,850	1,390	1,400	1,630	1,800	807	487
12	772	2,360	4,530	4,130	4,330	1,710	1,290	1,310	2,600	1,420	761	474
13	740	3,050	4,070	3,680	4,000	1,590	1,250	1,240	7,310	1,270	723	464
14	786	1,860	3,490	3,290	3,440	1,490	1,750	1,220	7,240	1,270	695	457
15	1,910	1,550	3,130	3,010	2,930	1,420	1,790	1,340	8,030	1,190	672	446
16	4,570	1,460	2,950	2,820	2,800	1,430	1,410	1,720	8,850	1,080	649	435
17	4,270	1,340	4,570	2,610	2,360	1,540	1,240	1,840	8,300	1,090	629	426
18	3,110	1,410	4,730	3,160	2,070	1,570	1,150	1,780	10,700	1,030	615	415
19	2,410	6,550	3,970	5,500	2,070	1,550	1,070	2,310	15,000	1,040	596	404
20	1,980	8,220	3,310	4,270	2,630	1,590	1,060	6,170	14,400	973	636	399
21	1,700	6,570	2,840	3,170	4,240	1,690	1,150	6,020	6,810	907	628	394
22	1,470	4,800	2,600	2,710	4,760	1,700	1,160	4,270	6,340	919	734	388
23	1,330	3,630	2,670	2,340	3,760	1,590	1,300	3,180	4,660	1,800	837	383
24	1,210	4,030	5,360	2,080	3,270	1,460	1,370	2,550	3,720	2,480	754	379
25	1,140	6,360	7,230	2,050	3,110	1,370	1,480	2,320	3,130	1,860	690	376
26	1,180	6,310	6,330	1,770	2,860	1,300	1,670	2,190	2,780	1,380	713	370
27	1,720	5,790	4,650	1,880	2,550	1,360	1,420	4,030	2,520	1,180	762	366
28	2,280	12,100	3,730	1,910	2,290	3,050	1,220	5,120	2,270	1,070	894	361
29	2,090	19,100	3,320	1,700	2,080	3,390	1,080	4,610	2,080	1,010	1,050	357
30	1,820	15,300	5,500	1,550	---	2,840	1,140	3,460	1,930	948	1,100	354
31	1,620	---	6,360	e1,200	---	3,240	---	5,690	---	1,120	965	---
TOTAL	50,821	126,990	137,160	278,070	91,820	65,280	54,640	96,800	162,860	42,117	30,336	14,232
MEAN	1,639	4,233	4,425	8,970	3,166	2,106	1,821	3,123	5,429	1,359	979	474
MAX	4,570	19,100	9,420	54,800	6,560	3,390	5,070	7,480	15,000	2,480	2,340	796
MIN	740	1,010	2,600	1,200	1,100	1,300	1,060	1,220	1,630	907	596	354
CFSM	0.70	1.81	1.89	3.83	1.35	0.90	0.78	1.33	2.32	0.58	0.42	0.20
IN.	0.81	2.02	2.18	4.42	1.46	1.04	0.87	1.54	2.59	0.67	0.48	0.23

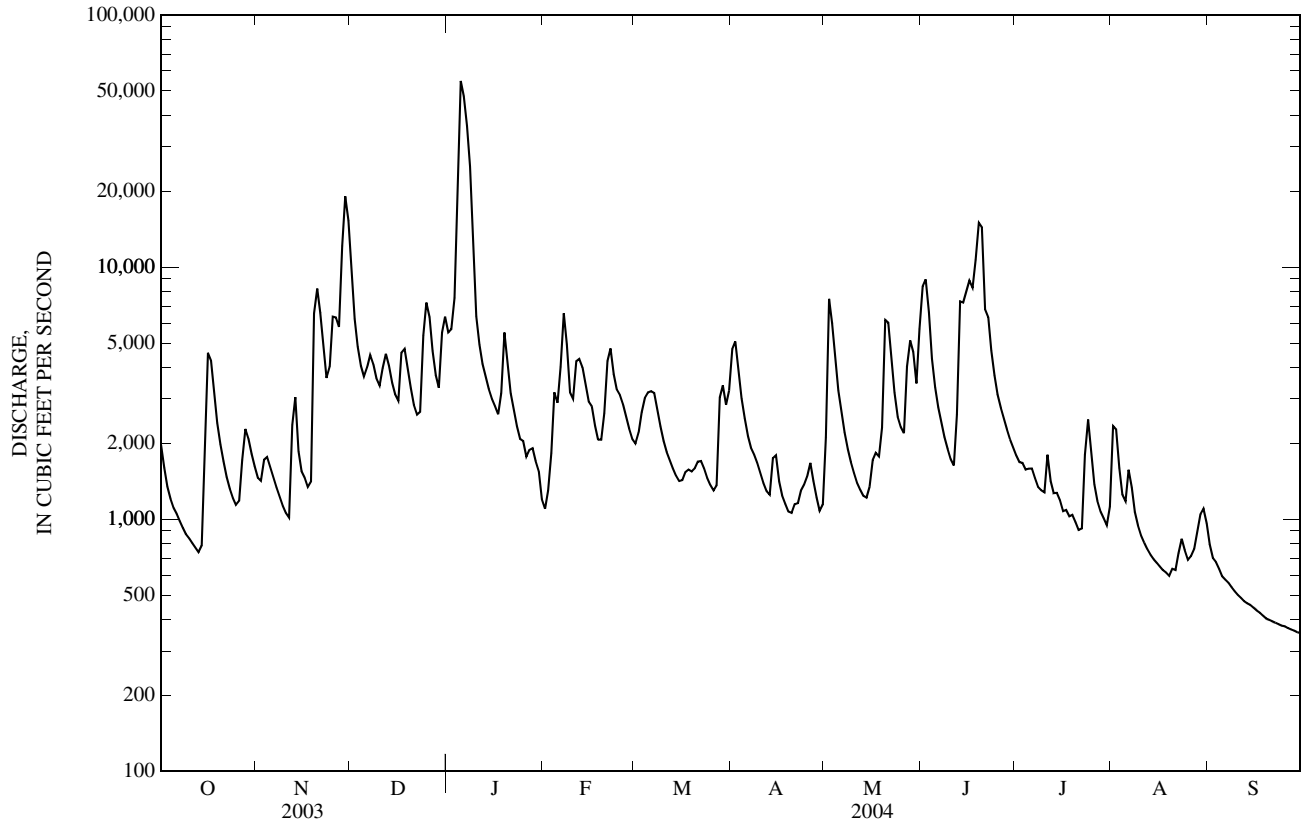
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2004, BY WATER YEAR (WY)

MEAN	819	1,650	2,624	3,831	3,936	4,514	4,332	3,614	2,417	1,633	956	671
MAX	6,426	11,570	9,245	19,560	12,290	10,690	9,523	17,020	12,630	6,040	8,795	4,244
(WY)	(2002)	(1994)	(1928)	(1950)	(1950)	(1963)	(2002)	(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)

03365500 EAST FORK WHITE RIVER AT SEYMOUR, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1928 - 2004	
ANNUAL TOTAL	1,254,410		1,151,126			
ANNUAL MEAN	3,437		3,145		2,576	
HIGHEST ANNUAL MEAN					4,870	2002
LOWEST ANNUAL MEAN					287	1941
HIGHEST DAILY MEAN	27,700	Jul 11	54,800	Jan 5	63,500	Jan 6, 1949
LOWEST DAILY MEAN	540	Aug 29	354	Sep 30	86	Sep 28, 1941
ANNUAL SEVEN-DAY MINIMUM	572	Aug 24	366	Sep 24	93	Sep 25, 1941
MAXIMUM PEAK FLOW			62,400	Jan 5	78,500	Jan 5, 1949
MAXIMUM PEAK STAGE			19.02	Jan 5	19.67	Jan 5, 1949
ANNUAL RUNOFF (CFSM)	1.47		1.34		1.10	
ANNUAL RUNOFF (INCHES)	19.93		18.29		14.95	
10 PERCENT EXCEEDS	7,220		6,190		5,860	
50 PERCENT EXCEEDS	2,240		1,840		1,250	
90 PERCENT EXCEEDS	977		694		302	

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, (DEPUTY, IN quadrangle), on left bank approximately 100 ft downstream 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 National Geodetic Vertical Datum of 1929. Prior to June 22, 1955, nonrecording gage at same site. Prior to Aug. 25, 1983, at datum 1.17 ft higher.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	156	436	405	e140	174	404	2,770	1,210	41	95	26
2	53	137	319	1,760	e160	204	287	6,710	416	42	67	19
3	46	125	258	1,390	2,450	242	204	1,950	251	40	45	26
4	42	117	227	7,700	2,210	2,240	166	636	184	40	37	36
5	38	110	233	12,100	1,620	1,410	141	397	147	39	41	23
6	35	109	311	1,810	3,540	712	126	287	123	38	37	16
7	33	108	289	706	1,780	426	119	219	106	41	27	12
8	32	106	230	482	661	298	115	177	94	38	23	9.7
9	30	108	203	394	443	236	110	150	86	34	22	8.0
10	29	105	295	336	480	201	104	130	87	132	18	6.9
11	26	103	1,040	290	666	179	99	120	86	103	16	6.0
12	25	2,440	541	270	531	163	96	112	130	67	14	5.5
13	24	2,160	326	254	449	148	155	104	2,270	67	13	5.1
14	51	555	272	240	351	142	2,260	98	677	78	12	4.7
15	117	420	243	229	294	133	952	132	524	58	11	4.2
16	114	506	319	215	266	174	402	166	3,430	46	11	3.8
17	87	359	719	208	233	276	265	157	780	416	10	3.6
18	65	423	428	449	213	261	204	135	284	98	9.6	2.7
19	56	2,730	346	540	208	213	169	314	174	59	9.1	2.3
20	47	1,160	296	319	230	186	153	1,830	133	45	9.4	2.2
21	41	488	249	259	348	170	197	461	107	37	11	2.1
22	36	340	242	234	338	160	264	217	89	32	13	2.0
23	34	271	396	195	258	144	2,160	146	156	29	13	1.9
24	33	964	1,440	203	242	136	785	113	93	26	11	1.9
25	43	986	608	173	229	128	1,270	99	69	24	10	1.6
26	875	446	370	200	212	123	1,370	266	61	22	56	1.5
27	692	1,010	283	201	192	120	475	3,260	54	22	83	1.4
28	326	3,780	245	198	181	120	295	5,290	50	22	52	1.3
29	249	1,870	241	190	171	121	219	1,090	47	20	81	1.1
30	216	676	1,370	e170	---	132	298	2,350	44	19	51	0.99
31	183	---	706	e156	---	213	---	4,440	---	119	38	---
TOTAL	3,741	22,868	13,481	32,276	19,096	9,585	13,864	34,326	11,962	1,894	946.1	238.49
MEAN	121	762	435	1,041	658	309	462	1,107	399	61.1	30.5	7.95
MAX	875	3,780	1,440	12,100	3,540	2,240	2,260	6,710	3,430	416	95	36
MIN	24	103	203	156	140	120	96	98	44	19	9.1	0.99
CFSM	0.41	2.60	1.48	3.55	2.25	1.06	1.58	3.78	1.36	0.21	0.10	0.03
IN.	0.47	2.90	1.71	4.10	2.42	1.22	1.76	4.36	1.52	0.24	0.12	0.03

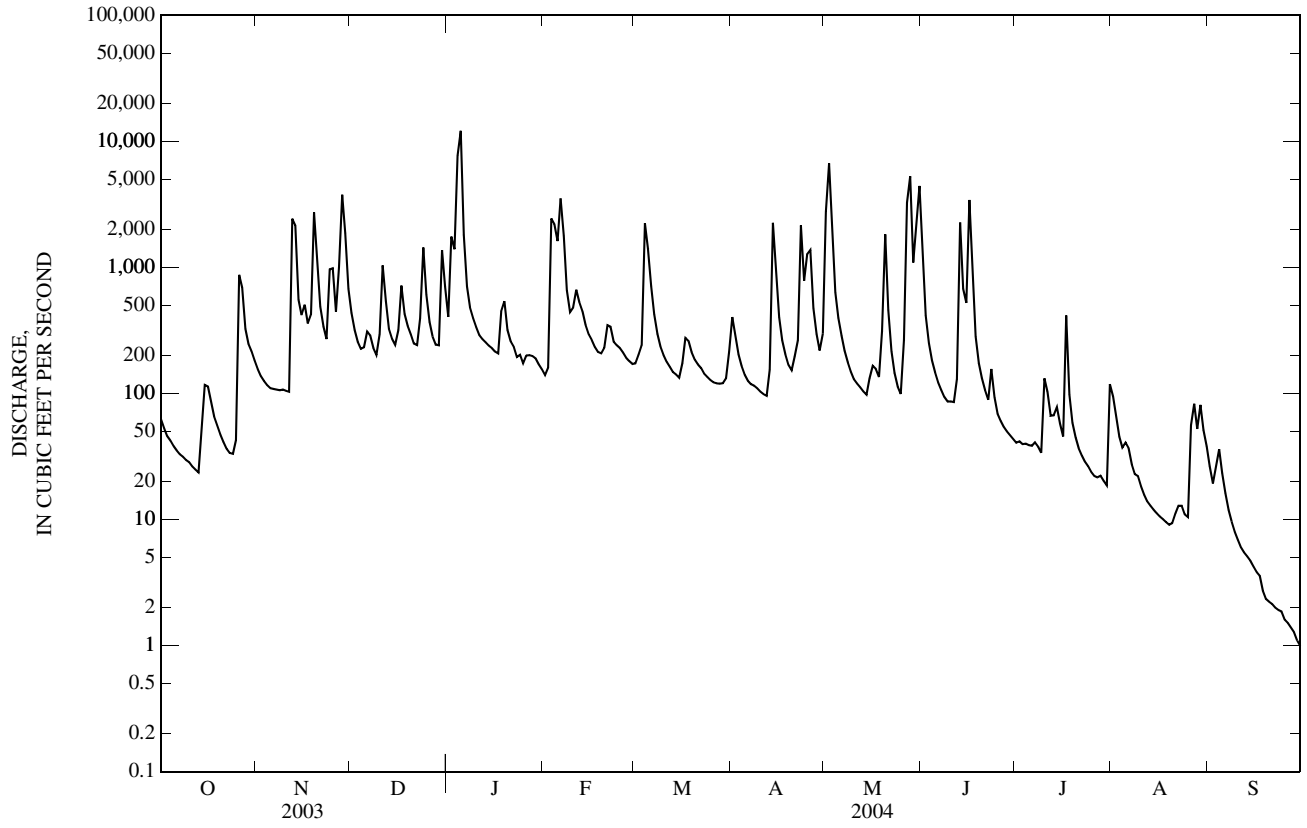
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2004, BY WATER YEAR (WY)

MEAN	75.5	259	457	613	640	701	579	496	252	156	92.8	65.8
MAX	912	1,438	1,723	2,896	1,826	2,055	1,957	1,967	1,552	661	748	480
(WY)	(2002)	(1980)	(1991)	(1950)	(1950)	(1964)	(1996)	(1983)	(1997)	(1958)	(1992)	(1974)
MIN	0.00	0.15	0.21	9.24	18.1	65.2	68.8	23.8	9.46	0.42	0.00	0.00
(WY)	(1954)	(1964)	(1964)	(1977)	(1954)	(1954)	(2001)	(1976)	(1988)	(1954)	(1954)	(1954)

03366500 MUSCATATUCK RIVER NEAR DEPUTY, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1949 - 2004	
ANNUAL TOTAL	178,760		164,277.59			
ANNUAL MEAN	490		449		364	
HIGHEST ANNUAL MEAN					687	2002
LOWEST ANNUAL MEAN					25.3	1954
HIGHEST DAILY MEAN	7,770	May 10	12,100	Jan 5	32,400	Jan 21, 1959
LOWEST DAILY MEAN	17	Aug 26	0.99	Sep 30	0.00	Oct 1, 1948
ANNUAL SEVEN-DAY MINIMUM	22	Aug 20	1.4	Sep 24	0.00	Oct 1, 1948
MAXIMUM PEAK FLOW			19,900	Jan 5	52,200	Jan 21, 1959
MAXIMUM PEAK STAGE			25.82	Jan 5	34.27	Jan 21, 1959
ANNUAL RUNOFF (CFSM)	1.67		1.53		1.24	
ANNUAL RUNOFF (INCHES)	22.70		20.86		16.89	
10 PERCENT EXCEEDS	973		1,060		760	
50 PERCENT EXCEEDS	225		162		80	
90 PERCENT EXCEEDS	48		13		3.6	

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, (HOLTON, IN quadrangle), 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 National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to November 1988 at site 100 ft upstream at same datum.

REMARKS.--Records fair except those for Apr. 1-6 and 14-22 and estimated daily discharges and below 2.5 ft^3/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.38	0.94	10	11	3.1	8.7	17	110	11	0.38	0.61	0.26
2	0.36	0.84	7.8	114	6.6	9.9	10	160	6.4	0.34	0.25	0.20
3	0.41	0.77	6.5	28	e105	7.7	7.5	25	4.6	0.31	0.16	0.18
4	0.50	0.72	5.8	752	e28	e56	5.8	14	3.8	0.28	1.6	0.18
5	0.46	0.69	11	155	e52	29	4.9	11	3.2	0.29	0.55	e0.17
6	0.43	0.91	11	26	e120	17	4.2	7.8	2.7	0.32	0.19	e0.15
7	0.41	1.1	7.3	14	e26	12	4.0	5.7	2.4	0.35	0.12	e0.14
8	0.37	0.83	5.8	11	e12	8.7	4.0	4.5	2.1	0.23	0.09	e0.12
9	0.35	0.79	5.1	9.6	e17	e7.0	3.4	3.6	2.2	1.9	0.07	e0.10
10	0.35	0.77	19	7.3	e32	e6.2	3.1	3.1	2.5	0.98	0.06	0.08
11	0.35	1.8	23	6.6	22	5.4	3.2	2.9	2.0	0.36	0.04	0.08
12	0.35	130	e18	6.2	16	4.7	3.0	2.4	344	0.30	0.03	0.07
13	0.35	16	e13	5.6	12	4.2	15	2.3	95	0.23	0.03	0.06
14	2.8	9.0	e9.8	5.0	8.9	4.3	40	2.4	51	0.20	0.03	0.05
15	2.4	12	e8.8	4.8	8.3	3.9	14	4.6	168	0.13	0.03	0.04
16	0.94	11	e12	4.1	5.8	6.8	9.4	3.9	66	0.11	0.02	0.04
17	0.72	7.4	17	5.3	5.1	7.8	7.3	2.9	21	0.10	0.03	0.03
18	0.63	77	10	21	4.8	6.3	5.8	2.4	14	0.10	0.02	0.03
19	0.57	106	8.6	9.8	5.9	5.9	5.0	30	10	0.08	0.03	0.03
20	0.57	20	6.5	6.2	13	6.5	6.8	15	7.5	0.07	19	0.02
21	0.83	12	5.9	5.3	18	6.3	7.4	6.5	6.4	0.06	1.8	0.02
22	1.2	8.8	9.8	4.5	10	4.9	33	4.1	151	0.21	0.37	0.02
23	1.3	6.8	60	3.8	11	4.4	31	2.8	7.8	0.15	0.20	0.02
24	1.3	58	31	3.8	11	4.4	13	2.2	2.9	0.12	0.16	0.02
25	1.6	17	14	2.8	8.1	3.9	29	1.9	1.7	0.09	0.22	0.02
26	25	11	9.6	3.7	6.2	3.6	15	18	1.2	0.11	5.7	0.02
27	4.6	102	7.5	5.5	5.4	3.9	9.8	146	0.86	0.18	1.0	0.02
28	2.1	116	6.8	4.3	4.9	3.7	7.1	91	0.69	0.12	2.7	0.01
29	1.8	25	42	3.7	4.8	3.9	5.6	16	0.54	0.09	4.2	0.01
30	1.3	15	47	3.6	---	6.3	29	11	0.43	3.2	0.81	0.01
31	1.1	---	15	e3.4	---	28	---	51	---	9.1	0.42	---
TOTAL	55.83	770.16	464.6	1,246.9	582.9	291.3	353.3	764.0	992.92	20.49	40.54	2.20
MEAN	1.80	25.7	15.0	40.2	20.1	9.40	11.8	24.6	33.1	0.66	1.31	0.07
MAX	25	130	60	752	120	56	40	160	344	9.1	19	0.26
MIN	0.35	0.69	5.1	2.8	3.1	3.6	3.0	1.9	0.43	0.06	0.02	0.01
CFSM	0.16	2.25	1.31	3.53	1.76	0.82	1.03	2.16	2.90	0.06	0.11	0.01
IN.	0.18	2.51	1.52	4.07	1.90	0.95	1.15	2.49	3.24	0.07	0.13	0.01

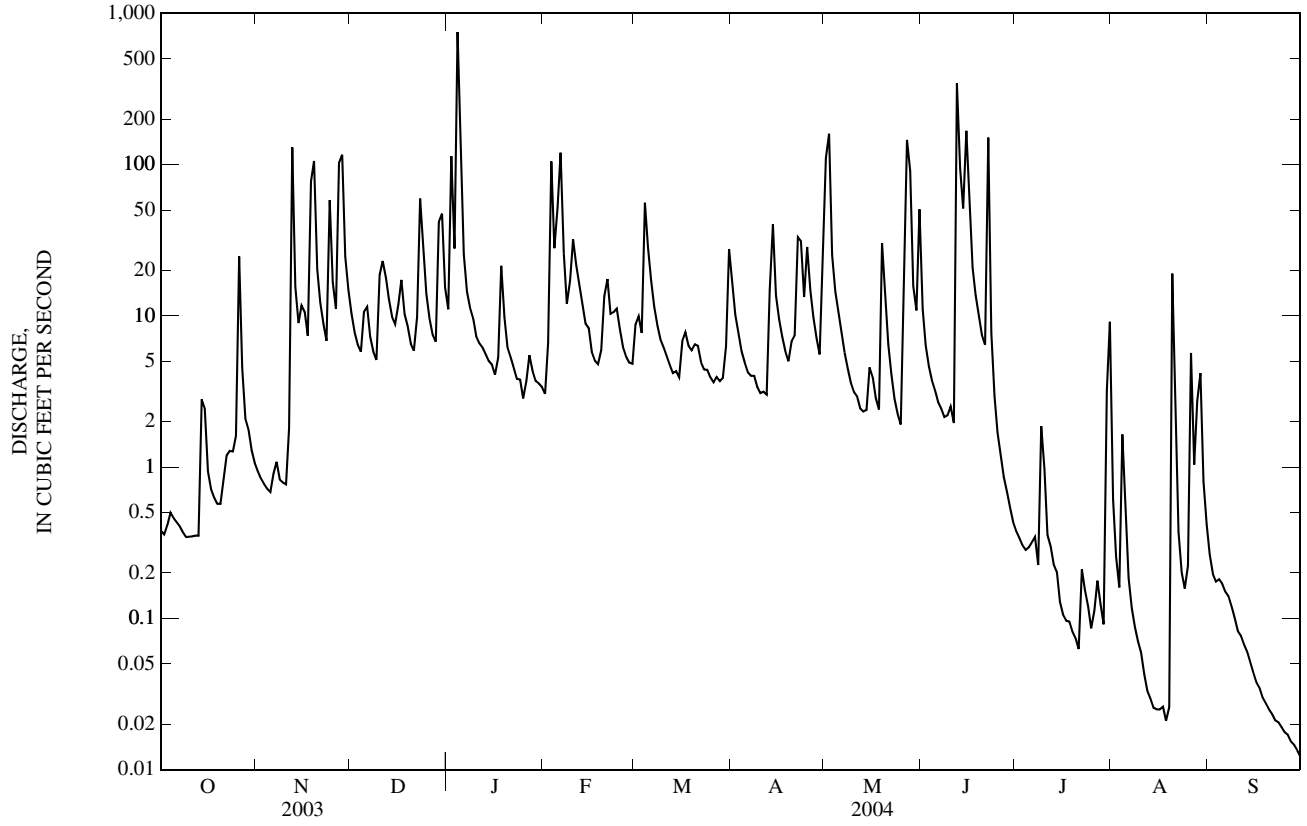
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 2004, BY WATER YEAR (WY)

MEAN	3.78	10.4	17.8	19.9	22.1	27.0	25.3	21.6	10.3	7.76	4.41	2.11
MAX	58.5	64.5	86.9	70.4	51.8	89.6	79.9	88.8	45.6	72.0	41.9	22.4
(WY)	(2002)	(1986)	(1991)	(1959)	(1971)	(1963)	(1998)	(2002)	(1997)	(1962)	(1978)	(2001)
MIN	0.00	0.00	0.00	0.06	1.44	4.22	2.12	0.76	0.12	0.02	0.00	0.00
(WY)	(1958)	(1964)	(1964)	(1977)	(1964)	(1969)	(1976)	(1976)	(1965)	(1970)	(1964)	(1957)

03368000 BRUSH CREEK NEAR NEBRASKA, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1956 - 2004	
ANNUAL TOTAL	5,757.69		5,585.14			
ANNUAL MEAN	15.8		15.3		14.3	
HIGHEST ANNUAL MEAN					31.2	2002
LOWEST ANNUAL MEAN					5.92	1977
HIGHEST DAILY MEAN	977	Jul 10	752	Jan 4	1,460	Jan 21, 1959
LOWEST DAILY MEAN	0.00	Aug 19	0.01	Sep 28	0.00	Oct 4, 1955
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 19	0.02	Sep 24	0.00	Aug 6, 1956
MAXIMUM PEAK FLOW			1,670	Jun 12	9,360	Jun 10, 1981
MAXIMUM PEAK STAGE			8.66	Jun 12	12.99	Jun 10, 1981
ANNUAL RUNOFF (CFSM)	1.38		1.34		1.26	
ANNUAL RUNOFF (INCHES)	18.79		18.23		17.09	
10 PERCENT EXCEEDS	26		28		25	
50 PERCENT EXCEEDS	4.4		4.4		2.3	
90 PERCENT EXCEEDS	0.34		0.09		0.00	

e Estimated



03369500 VERNON FORK MUSCATATUCK RIVER AT VERNON, IN

LOCATION.--Lat 38°58'35", long 85°37'11", in NW¼SE¼ sec.10, T.6 N., R.8 E., Jennings County, Hydrologic Unit 05120207, (VERNON, IN quadrangle), 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 National Geodetic Vertical Datum of 1929, (levels by State of Indiana, Department of Natural Resources). Prior to Jan. 14, 1940, and June 23 to Nov. 13, 1967, nonrecording gage, and Jan. 14, 1940, to June 22, 1967, water-stage recorder at site on right bank. Prior to Aug. 8, 1983, datum 2.30 ft higher.

REMARKS.--Records fair 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.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	70	268	257	61	125	429	1,150	326	54	115	30
2	19	65	211	1,490	68	185	230	3,660	177	53	40	24
3	16	60	181	634	1,110	165	197	821	124	54	24	44
4	15	58	163	6,710	535	794	166	392	123	53	24	25
5	14	58	171	5,280	424	538	145	295	106	48	41	20
6	13	63	228	835	1,880	400	133	224	94	67	46	e14
7	12	64	185	436	795	256	124	181	86	43	24	e11
8	12	61	160	321	322	197	121	151	79	27	17	e8.8
9	12	57	150	253	250	151	110	132	73	41	14	e7.8
10	13	53	186	204	388	129	100	123	77	101	13	e6.8
11	15	55	481	184	531	114	94	113	83	109	12	e6.2
12	20	1,830	267	170	388	105	88	106	2,330	85	e11	e5.6
13	23	472	192	160	299	93	115	97	1,190	49	e11	e5.2
14	51	195	178	142	217	87	753	96	1,280	103	e10	e4.7
15	183	174	165	140	222	85	276	128	1,980	40	e9.8	e4.3
16	75	174	234	128	174	99	177	142	2,030	26	e9.4	e3.9
17	45	132	489	124	158	137	139	116	569	38	e9.0	e3.5
18	36	280	246	322	144	130	117	101	288	23	e8.8	e3.2
19	30	2,350	207	268	151	121	100	664	192	19	e8.6	e2.7
20	27	579	177	164	204	115	104	558	139	18	57	e2.7
21	26	288	148	153	366	120	163	228	114	17	55	e2.4
22	26	206	169	136	238	109	226	155	1,170	24	36	e2.3
23	24	166	429	100	205	95	644	123	282	69	23	e2.2
24	24	719	863	121	203	88	281	105	147	33	20	e2.1
25	25	424	319	87	194	84	375	90	109	20	36	e2.1
26	539	261	231	109	158	80	377	186	90	17	78	e1.8
27	274	1,300	193	126	143	81	211	2,090	77	18	67	e1.7
28	127	2,250	174	119	130	83	157	2,250	69	16	43	e1.6
29	97	769	219	106	120	82	129	403	62	15	121	e1.5
30	89	377	1,150	71	---	89	262	248	58	14	71	e1.5
31	79	---	365	70	---	523	---	1,030	---	123	42	---
TOTAL	1,985	13,610	8,799	19,420	10,078	5,460	6,543	16,158	13,524	1,417	1,096.6	252.6
MEAN	64.0	454	284	626	348	176	218	521	451	45.7	35.4	8.42
MAX	539	2,350	1,150	6,710	1,880	794	753	3,660	2,330	123	121	44
MIN	12	53	148	70	61	80	88	90	58	14	8.6	1.5
CFSM	0.32	2.29	1.43	3.16	1.76	0.89	1.10	2.63	2.28	0.23	0.18	0.04
IN.	0.37	2.56	1.65	3.65	1.89	1.03	1.23	3.04	2.54	0.27	0.21	0.05

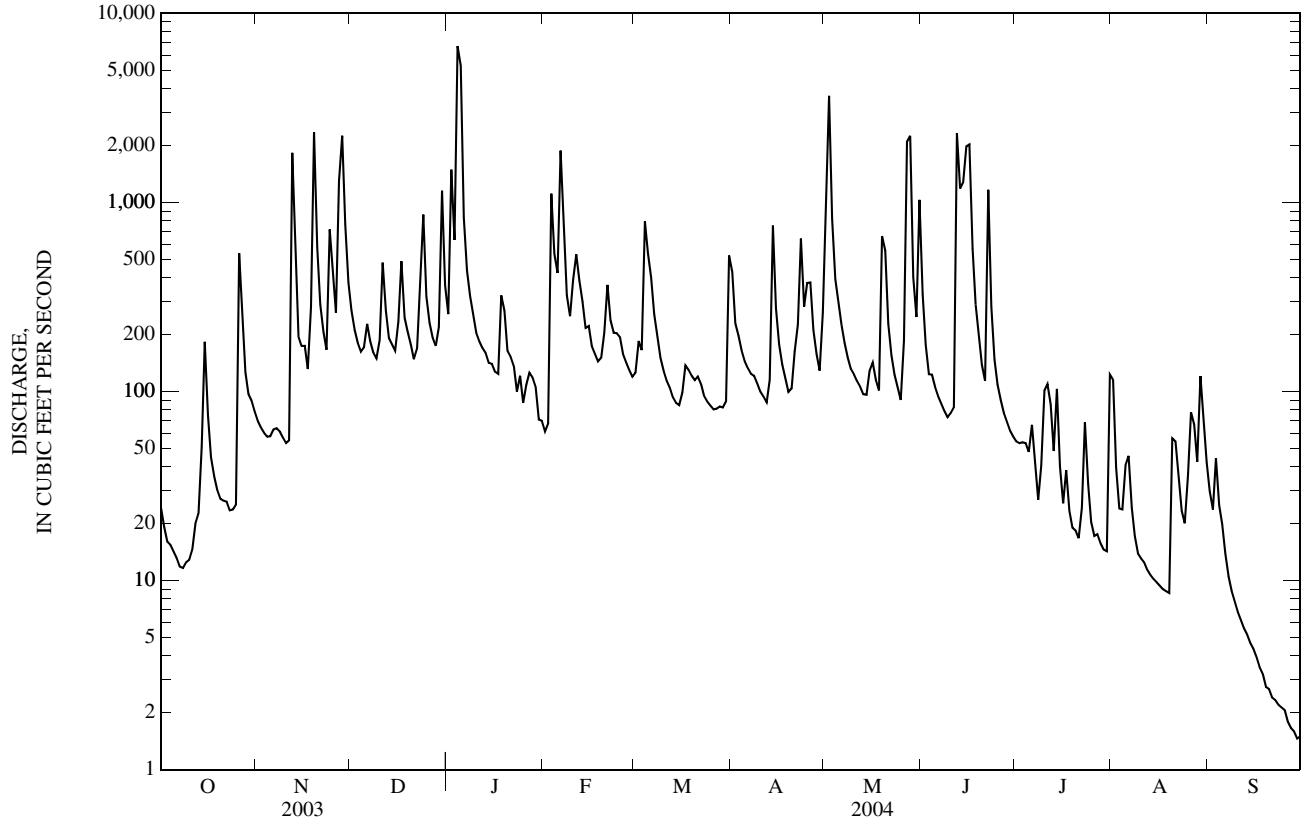
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2004, BY WATER YEAR (WY)

MEAN	50.3	147	262	353	386	459	411	316	174	105	65.2	37.1
MAX	771	986	962	2,049	1,188	1,798	1,402	1,440	963	581	639	284
(WY)	(2002)	(1986)	(1991)	(1950)	(1950)	(1945)	(1998)	(1968)	(1960)	(1962)	(1978)	(1974)
MIN	0.22	0.61	1.03	4.23	24.4	19.0	37.3	8.77	1.80	0.63	0.00	0.19
(WY)	(1941)	(1954)	(1944)	(1977)	(1964)	(1941)	(1941)	(1941)	(1988)	(1954)	(1940)	(1943)

03369500 VERNON FORK MUSCATATUCK RIVER AT VERNON, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1940 - 2004	
ANNUAL TOTAL	103,096		98,343.2			
ANNUAL MEAN	282		269		230	
HIGHEST ANNUAL MEAN					468	1950
LOWEST ANNUAL MEAN					32.8	1954
HIGHEST DAILY MEAN	11,300	Jul 10	6,710	Jan 4	31,900	Jan 21, 1959
LOWEST DAILY MEAN	11	Sep 12	e 1.5	Sep 29	0.00	Aug 2, 1940
ANNUAL SEVEN-DAY MINIMUM	13	Sep 9	e 1.8	Sep 24	0.00	Aug 2, 1940
MAXIMUM PEAK FLOW			11,700	Jan 4	56,800	Jan 21, 1959
MAXIMUM PEAK STAGE			17.99	Jan 4	32.83	Jan 21, 1959
INSTANTANEOUS LOW FLOW			1.5	Sep 30		
ANNUAL RUNOFF (CFSM)	1.43		1.36		1.16	
ANNUAL RUNOFF (INCHES)	19.37		18.48		15.77	
10 PERCENT EXCEEDS	539		538		465	
50 PERCENT EXCEEDS	126		120		50	
90 PERCENT EXCEEDS	25		13		2.8	

e Estimated



03371500 EAST FORK WHITE RIVER NEAR BEDFORD, IN

LOCATION.--Lat 38°46'13", long 86°24'35", in SW¼NE¼ sec.21, T.4 N., R.1 E., Lawrence County, Hydrologic Unit 05120208, (BEDFORD EAST, IN quadrangle), 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 National Geodetic Vertical Datum of 1929. Prior to Feb. 6, 1940, nonrecording gage, and Feb. 6, 1940 to Sept. 24, 1957, water-stage recorder, at site 9.8 mi downstream at datum 4.39 ft lower.

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

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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,440	2,930	16,900	8,100	e2,500	3,520	4,220	3,690	e14,600	2,500	1,440	1,890
2	2,940	2,650	18,800	9,080	e2,800	3,440	5,200	6,550	14,900	2,330	1,920	1,590
3	2,500	2,450	17,600	9,190	e2,750	3,500	6,030	8,860	15,600	2,220	2,600	1,330
4	2,190	2,410	13,800	12,400	e4,070	5,270	5,600	10,300	15,900	2,190	2,350	1,180
5	1,960	2,530	9,850	20,400	e5,200	7,170	4,700	e11,600	14,300	2,090	1,950	1,100
6	1,790	2,480	6,930	30,900	e6,280	7,530	4,010	e11,800	10,800	2,060	1,740	1,040
7	1,670	2,340	5,780	53,500	e7,400	7,460	3,540	e11,700	7,490	2,130	1,720	970
8	1,640	2,220	5,760	56,000	e8,470	7,360	3,230	e10,000	4,910	2,000	1,800	909
9	1,560	2,100	5,590	51,100	e9,090	6,730	3,010	e8,000	3,770	1,870	1,620	860
10	1,500	2,000	5,110	40,800	e9,270	5,380	2,840	5,220	3,310	1,890	1,430	816
11	1,450	1,910	4,970	29,800	e9,160	4,370	2,680	3,570	3,100	2,020	1,290	778
12	1,380	2,300	5,360	21,400	e8,970	3,810	2,520	2,940	3,190	2,310	1,190	748
13	1,310	4,030	6,140	14,600	e8,770	3,440	2,410	2,650	3,730	2,340	1,120	726
14	1,380	6,240	6,100	9,770	e8,400	3,200	2,720	2,470	6,190	2,150	1,060	702
15	1,640	6,310	5,270	6,990	e7,800	3,000	3,950	2,410	8,340	2,420	1,010	686
16	1,950	6,020	4,680	5,390	e7,000	2,900	5,050	2,570	9,800	2,340	964	665
17	3,500	5,500	4,820	4,800	e5,800	2,930	4,990	2,780	10,600	5,510	929	645
18	4,650	4,630	5,650	4,730	e4,800	3,090	4,260	2,930	11,000	5,090	895	622
19	4,220	5,770	6,640	e4,700	e4,500	3,230	3,350	2,890	11,200	4,470	866	603
20	3,490	8,240	6,290	e4,900	e4,200	3,190	2,870	2,910	11,900	3,820	855	590
21	2,960	9,990	5,370	e5,300	e4,800	3,090	2,740	4,910	12,900	2,930	867	579
22	2,600	11,300	4,570	e4,700	e5,400	3,020	2,690	6,860	13,500	2,240	880	568
23	2,340	11,300	4,090	e4,300	e6,000	2,970	2,900	6,370	10,800	1,910	884	557
24	2,130	10,300	4,100	e3,900	5,820	2,900	3,660	4,810	7,810	1,810	991	547
25	2,020	9,200	5,470	e3,500	5,140	2,780	4,580	3,790	5,890	2,380	1,090	538
26	2,060	9,210	7,680	e3,200	4,700	2,650	4,860	3,330	4,520	2,500	1,220	523
27	2,520	10,600	8,590	e3,100	4,420	2,540	4,950	6,530	3,760	2,120	1,240	517
28	3,590	12,100	7,530	e3,000	4,080	2,490	4,900	e12,000	3,310	1,820	1,460	508
29	4,220	12,400	5,790	e3,100	3,760	2,970	4,290	e14,000	2,990	1,640	1,920	500
30	3,920	13,900	5,330	e2,900	---	3,890	3,520	e14,200	2,710	1,530	2,470	494
31	3,350	---	6,270	e2,600	---	3,980	---	e14,400	---	1,470	2,120	---
TOTAL	77,870	185,360	226,830	438,150	171,350	123,800	116,270	207,040	252,820	76,100	43,891	23,781
MEAN	2,512	6,179	7,317	14,130	5,909	3,994	3,876	6,679	8,427	2,455	1,416	793
MAX	4,650	13,900	18,800	56,000	9,270	7,530	6,030	14,400	15,900	5,510	2,600	1,890
MIN	1,310	1,910	4,090	2,600	2,500	2,490	2,410	2,410	2,710	1,470	855	494
CFSM	0.65	1.60	1.90	3.66	1.53	1.03	1.00	1.73	2.18	0.64	0.37	0.21
IN.	0.75	1.79	2.19	4.22	1.65	1.19	1.12	1.99	2.44	0.73	0.42	0.23

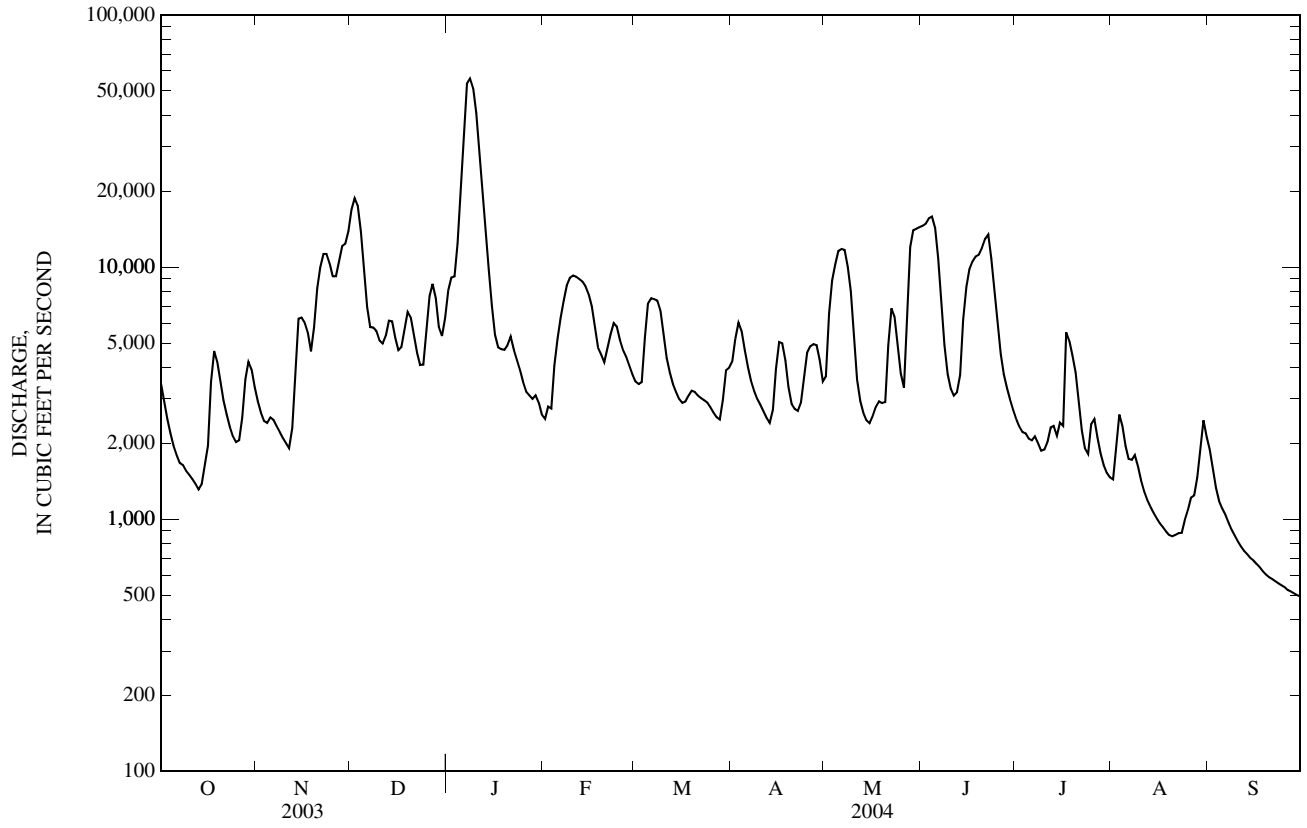
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2004, BY WATER YEAR (WY)

MEAN	1,247	2,500	4,635	5,151	6,414	7,929	7,388	6,778	4,055	2,570	1,805	1,156
MAX	8,436	15,520	18,290	15,010	15,610	18,710	15,180	30,650	16,310	9,649	11,280	5,234
(WY)	(2002)	(1994)	(2002)	(1991)	(1982)	(1964)	(1989)	(1996)	(1997)	(1958)	(1979)	(1989)
MIN	228	284	272	300	712	450	730	382	622	603	291	244
(WY)	(1941)	(2000)	(1964)	(1977)	(1941)	(1941)	(1941)	(1941)	(1988)	(1941)	(1941)	(1941)

03371500 EAST FORK WHITE RIVER NEAR BEDFORD, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1940 - 2004	
ANNUAL TOTAL	2,136,937		1,943,262			
ANNUAL MEAN	5,855		5,309		4,292	
HIGHEST ANNUAL MEAN					8,192	2002
LOWEST ANNUAL MEAN					643	1941
HIGHEST DAILY MEAN	20,200	May 11	56,000	Jan 8	e 78,200	May 1, 1996
LOWEST DAILY MEAN	766	Aug 28	494	Sep 30	138	Sep 7, 1941
ANNUAL SEVEN-DAY MINIMUM	819	Aug 23	518	Sep 24	196	Sep 5, 1941
MAXIMUM PEAK FLOW			57,200	Jan 8	e 80,500	May 1, 1996
MAXIMUM PEAK STAGE			32.81	Jan 8	e 36.32	May 1, 1996
ANNUAL RUNOFF (CFSM)	1.52		1.38		1.11	
ANNUAL RUNOFF (INCHES)	20.59		18.72		15.10	
10 PERCENT EXCEEDS	12,100		10,900		10,500	
50 PERCENT EXCEEDS	4,570		3,510		2,230	
90 PERCENT EXCEEDS	1,700		1,080		490	

e Estimated



03372500 SALT CREEK NEAR HARRODSBURG, IN

LOCATION.--Lat 39°00'16", long 86°30'31", in NE¼NW¼ sec.34, T.7 N., R.1 W., Monroe County, Hydrologic Unit 05120208, (CLEAR CREEK, IN quadrangle), 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 September 1976 (discharge). October 1976 to September 2001 (discharge provided by U.S. Army Corps of Engineers). October 2001 to current year (stage-only).

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 National Geodetic Vertical Datum of 1929, (levels by U.S. Army Corps of Engineers). Oct. 1, 1960, to Sept. 30, 1974, water-stage recorder 0.1 mi upstream from 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 October 1976 to September 2001.

EXTREMES FOR PERIOD OF RECORD.--(October 2001 to current year) maximum gage height, 24.08 ft, Dec. 17, 2001; minimum gage height, 5.21 ft, Aug. 21, 2002. (May 1955 to September 1976) maximum discharge, 22,000 ft^3/s, June 25, 1960, maximum gage height, 35.35 ft, May 9, 1961. No flow Sept. 29 to Dec. 2, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 26.21 ft, Jan. 5; minimum gage height, 5.53 ft, Sept. 16.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.77	6.17	15.61	12.31	16.19	12.36	10.90	8.52	9.00	7.21	5.75	5.63
2	5.73	6.01	15.55	13.44	16.23	10.49	12.36	8.40	8.33	7.22	5.65	5.61
3	5.75	5.97	15.45	12.74	16.53	10.59	12.29	12.18	8.05	7.25	5.61	5.60
4	5.77	5.94	15.29	25.97	16.33	8.81	12.19	13.56	7.91	7.33	5.61	5.57
5	5.74	5.92	15.33	22.21	14.14	8.63	12.09	14.88	10.49	7.99	5.61	5.58
6	---	5.89	15.15	16.75	14.52	8.27	12.04	15.92	12.21	7.52	5.57	5.56
7	5.73	5.83	15.06	16.28	14.19	12.29	12.01	15.96	13.60	9.25	5.57	5.54
8	5.73	5.81	13.81	17.36	15.20	13.74	11.99	15.89	14.77	10.24	5.55	5.53
9	5.73	5.78	10.53	17.03	16.43	14.92	10.25	14.72	14.77	10.49	5.53	5.54
10	5.76	5.77	11.12	15.62	16.68	12.32	7.57	13.38	14.75	12.59	5.53	5.55
11	5.77	5.93	8.20	13.23	16.72	7.84	7.53	11.89	14.72	10.96	5.53	5.55
12	5.84	10.28	10.59	10.11	16.70	7.68	7.52	7.52	15.39	10.72	5.53	5.55
13	5.85	9.50	10.58	8.24	16.57	7.64	7.53	10.04	13.57	10.65	5.53	5.53
14	7.44	10.61	10.54	8.05	16.53	7.65	7.50	7.81	13.43	10.75	5.53	5.53
15	6.19	10.80	10.49	14.03	14.13	7.60	7.48	8.10	15.14	10.48	5.53	5.53
16	6.00	10.62	11.41	16.54	13.81	7.82	7.44	10.15	14.48	7.73	5.52	5.57
17	6.11	7.88	14.05	16.83	13.74	10.25	6.39	12.04	9.61	7.68	5.52	5.57
18	5.93	11.52	14.08	17.14	13.77	10.21	6.36	8.05	8.51	7.62	5.53	5.57
19	5.88	13.38	12.52	16.86	12.61	7.63	6.35	8.18	8.28	7.53	5.69	5.57
20	5.88	14.64	12.29	16.75	14.61	7.59	6.56	10.28	7.92	7.55	6.68	5.55
21	5.88	15.56	7.91	16.69	14.32	7.55	6.41	10.18	7.88	7.27	5.86	5.55
22	5.87	15.44	7.87	16.61	14.04	7.54	7.53	10.09	8.05	6.46	5.65	5.56
23	5.86	15.36	9.21	16.54	13.94	7.53	7.56	7.48	7.78	6.44	5.57	5.56
24	5.85	16.57	10.94	16.48	10.89	7.53	7.50	7.44	11.96	6.33	5.59	5.56
25	5.89	15.72	10.74	16.43	6.61	7.52	7.64	7.44	13.44	6.35	5.99	5.56
26	6.45	15.37	10.63	16.43	10.36	8.52	7.52	8.21	13.44	6.58	7.35	5.56
27	6.07	16.60	12.24	16.39	12.06	8.25	7.49	18.58	13.39	6.40	6.16	5.57
28	6.00	13.91	12.21	16.32	12.05	7.98	7.48	14.49	13.36	5.66	5.92	5.57
29	5.99	12.01	12.61	16.29	12.02	7.88	7.46	8.94	11.85	5.61	5.88	5.60
30	5.94	14.44	12.49	16.24	---	9.17	7.52	11.76	7.29	5.67	5.75	5.59
31	5.93	---	12.36	16.21	---	8.84	---	11.10	---	6.07	5.69	---
MEAN	---	10.51	12.16	15.75	14.20	9.12	8.62	11.07	11.45	7.99	5.74	5.56
MAX	---	16.60	15.61	25.97	16.72	14.92	12.36	18.58	15.39	12.59	7.35	5.63
MIN	---	5.77	7.87	8.05	6.61	7.52	6.35	7.44	7.29	5.61	5.52	5.53

03372500 SALT CREEK NEAR HARRODSBURG, IN—Continued

WATER-QUALITY RECORDS

INSTRUMENTATION.--Temperature recorder.

PERIOD OF RECORD.--

WATER TEMPERATURE.--August 1966 to September 1967; October 1968 to September 1976 and September 1988 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 28.9°C, July 10-11, 1973 and July 30, 1975; minimum, 0.7°C, Feb. 3-5, 1996.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE:

NO DATA AVAILABLE FOR WATER YEAR 2004.

03373500 EAST FORK WHITE RIVER AT SHOALS, IN

LOCATION.--Lat 38°40'01", long 86°47'31", in SW¼NW¼ sec.30, T.3 N., R.3 W., Martin County, Hydrologic Unit 05120208, (SHOALS, IN quadrangle), on upstream left bank, 30 ft upstream of Highway 50 bridge at Shoals, 1.0 mi upstream from Beaver Creek, 6.5 mi downstream from Indian Creek, and at mile 105.4.

DRAINAGE AREA.--4,927 mi^2.

PERIOD OF RECORD.--June 1903 to July 1906, October 1908 to September 1916, June 1923 to current year. Monthly discharge only for some periods, published in WSP 1305. Published as East Branch White River at Shoals, 1903-06, 1908-16. Gage-height records collected at same site since May 1908 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 353: 1912. WSP 1335: 1903-6. WSP 2109: Drainage area. WDR IN-91-1: Location.

GAGE.--Water-stage recorder. Datum of gage is 442.25 ft above National Geodetic Vertical Datum of 1929. Oct. 26, 1932 to Dec. 12, 1989 and Aug. 9, 1999 to present, at current site. Water-stage recorder, located 440 ft downstream of U.S. Highway bridge, Dec. 13, 1989 to Aug. 9, 1999. 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,600	3,410	16,800	9,690	e3,780	e5,330	6,050	4,530	20,200	3,730	1,780	2,410
2	3,460	3,040	19,000	11,500	e4,500	e5,280	6,630	7,170	18,800	3,060	1,770	2,110
3	3,000	2,790	20,000	13,000	e4,360	5,130	7,960	11,100	18,300	2,830	2,320	1,800
4	2,620	2,600	18,800	16,000	e4,790	6,940	8,450	12,500	18,400	2,840	2,830	1,540
5	2,320	2,590	15,400	27,500	e5,530	10,400	7,410	14,000	18,100	2,770	2,650	1,370
6	2,110	2,660	11,900	32,300	e6,860	10,800	6,330	15,000	16,200	2,860	2,290	1,270
7	1,950	2,580	9,450	34,800	e8,470	10,400	5,600	15,100	12,600	3,060	2,010	1,190
8	1,840	2,450	8,630	42,400	e10,600	10,200	5,090	14,100	9,050	2,900	1,990	1,100
9	1,740	2,320	8,450	49,700	e12,600	10,200	4,750	12,000	6,650	2,860	1,990	1,030
10	1,660	2,210	7,680	52,100	e13,900	9,140	4,350	9,450	5,740	3,060	1,810	979
11	1,610	2,140	7,220	49,400	14,200	7,330	3,850	6,710	5,320	3,660	1,600	931
12	1,560	2,650	7,050	e41,700	13,800	5,730	3,420	5,080	e5,500	3,910	1,460	889
13	1,480	4,600	7,460	33,000	13,500	4,730	3,200	4,080	6,440	4,170	1,350	855
14	1,480	5,970	8,210	20,800	13,000	4,270	3,160	3,540	6,880	4,450	1,270	826
15	1,650	7,270	7,720	12,400	11,900	3,980	3,750	3,570	9,780	4,110	1,200	797
16	1,970	7,190	6,950	9,060	10,300	3,790	5,260	3,570	12,300	3,720	1,140	782
17	2,400	6,840	7,210	8,200	8,500	3,720	6,070	3,780	14,900	4,630	1,090	747
18	3,970	6,070	7,910	8,360	7,510	3,970	5,720	4,120	14,200	7,320	1,050	727
19	4,640	7,680	9,130	8,770	6,820	4,300	4,720	e4,260	14,000	5,910	1,020	706
20	4,150	11,000	9,410	9,100	6,490	4,290	3,880	e3,890	13,900	5,120	1,010	689
21	3,510	11,500	8,390	10,200	7,240	3,960	3,540	4,320	14,500	4,310	1,030	671
22	3,030	12,900	6,890	9,860	7,990	3,790	3,450	7,280	15,400	3,470	1,060	656
23	2,690	13,700	5,970	8,530	8,600	3,700	3,490	8,650	15,100	3,090	1,040	646
24	2,420	13,800	6,130	e7,560	8,980	3,630	3,930	7,200	11,700	2,680	1,030	637
25	2,250	13,600	6,570	e5,710	8,000	3,540	4,910	5,340	e9,530	2,440	1,170	627
26	2,240	e12,300	8,620	e4,810	6,510	3,400	5,780	4,470	e7,210	2,870	1,350	610
27	2,370	e13,200	10,400	e4,490	5,870	3,370	5,930	8,090	6,000	2,870	1,560	596
28	2,990	e15,200	10,800	e4,350	5,850	3,650	e5,980	21,400	5,250	2,530	1,830	579
29	3,970	16,500	e9,280	e4,420	5,600	3,540	5,700	23,000	4,800	2,200	2,450	484
30	4,310	e15,700	8,070	e4,130	---	4,320	4,910	19,600	4,330	1,960	2,840	518
31	3,920	---	8,300	e4,030	---	5,790	---	19,800	---	1,830	2,790	---
TOTAL	82,910	226,460	303,800	557,870	246,050	172,620	153,270	286,700	341,080	107,220	51,780	28,772
MEAN	2,675	7,549	9,800	18,000	8,484	5,568	5,109	9,248	11,370	3,459	1,670	959
MAX	4,640	16,500	20,000	52,100	14,200	10,800	8,450	23,000	20,200	7,320	2,840	2,410
MIN	1,480	2,140	5,970	4,030	3,780	3,370	3,160	3,540	4,330	1,830	1,010	484
CFSM	0.54	1.53	1.99	3.65	1.72	1.13	1.04	1.88	2.31	0.70	0.34	0.19
IN.	0.63	1.71	2.29	4.21	1.86	1.30	1.16	2.16	2.58	0.81	0.39	0.22

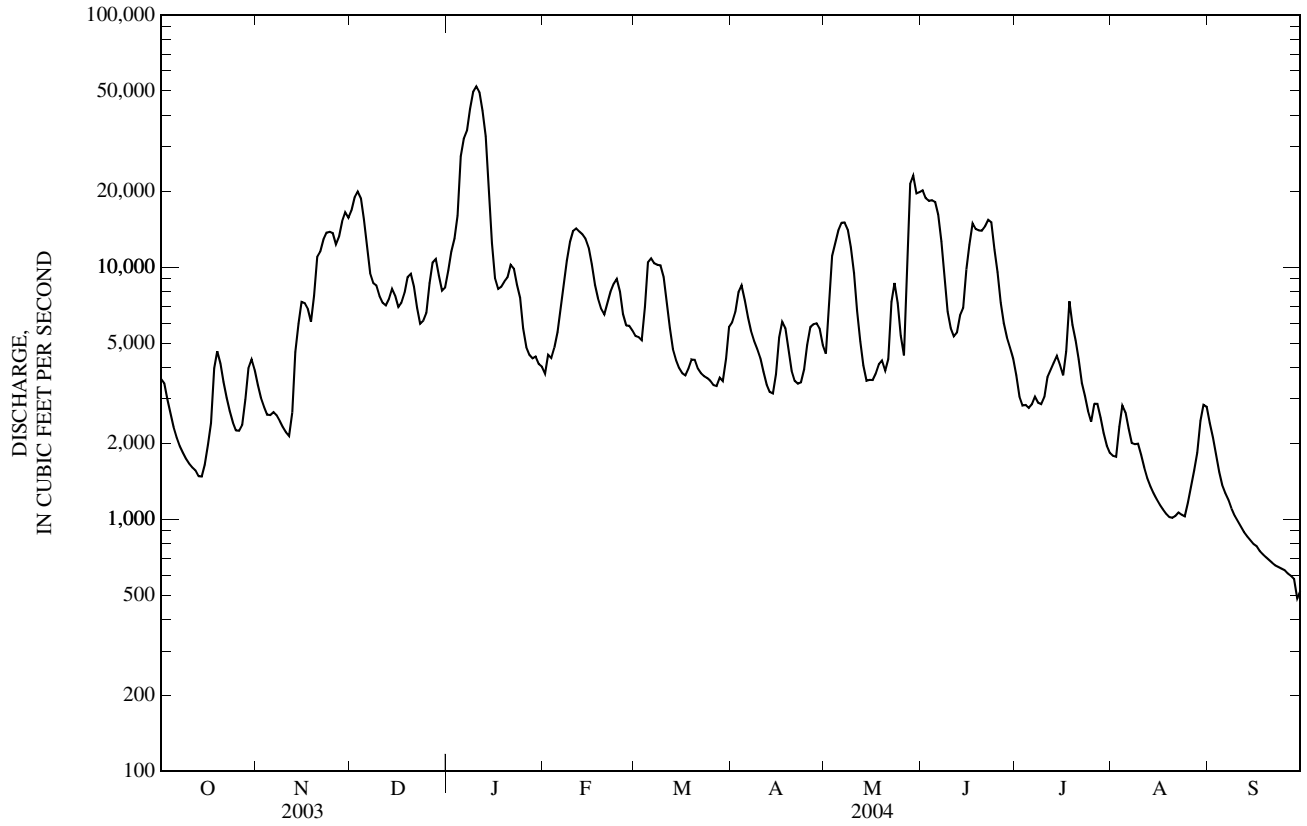
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 2004, BY WATER YEAR (WY)

MEAN	1,698	2,998	5,515	8,658	8,663	10,930	10,060	7,896	4,775	3,039	1,969	1,400
MAX	12,520	18,370	21,600	47,640	30,880	34,300	24,000	35,120	19,290	13,520	15,220	9,154
(WY)	(1911)	(1994)	(2002)	(1937)	(1950)	(1945)	(1913)	(1996)	(1997)	(1958)	(1979)	(1926)
MIN	262	293	305	432	589	562	1,029	529	696	365	265	233
(WY)	(1941)	(1955)	(1964)	(1931)	(1931)	(1941)	(1915)	(1941)	(1936)	(1954)	(1936)	(1954)

03373500 EAST FORK WHITE RIVER AT SHOALS, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1904 - 2004	
ANNUAL TOTAL	2,708,520		2,558,532			
ANNUAL MEAN	7,421		6,991		5,615	
HIGHEST ANNUAL MEAN					10,370	1950
LOWEST ANNUAL MEAN					855	1941
HIGHEST DAILY MEAN	28,500	May 11	52,100	Jan 10	155,000	Mar 28, 1913
LOWEST DAILY MEAN	1,030	Aug 28	484	Sep 29	64	Oct 6, 1935
ANNUAL SEVEN-DAY MINIMUM	1,130	Aug 23	579	Sep 24	168	Oct 3, 1935
MAXIMUM PEAK FLOW			52,500	Jan 10	160,000	Mar 28, 1913
MAXIMUM PEAK STAGE			27.85	Jan 10	42.20	Mar 28, 1913
ANNUAL RUNOFF (CFSM)	1.51		1.42		1.14	
ANNUAL RUNOFF (INCHES)	20.45		19.32		15.48	
10 PERCENT EXCEEDS	16,000		14,200		14,600	
50 PERCENT EXCEEDS	5,970		4,740		2,720	
90 PERCENT EXCEEDS	1,950		1,270		535	

e Estimated



03373980 WHITE RIVER ABOVE PETERSBURG, IN

LOCATION.--Lat 38°31'42", long 87°15'14", in NE$^1/_4$SW$^1/_4$ sec.12, T.1 N., R.8 W., Pike County, Hydrologic Unit 05120202, (MONROE CITY, IN quadrangle), 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 National Geodetic Vertical Datum of 1929.

REMARKS.--Discharges below 1,500 ft^3/s only, published. Records good. For a complete record of White River in this vicinity use records of White River at Petersburg, IN (03374000), 2.3 mi downstream.

DISCHARGE, CUBIC FEET PER SECOND

WATERYEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

(No daily discharges below 1,500 ft^3/s)

03373980 WHITE RIVER ABOVE PETERSBURG, IN—Continued

WATER-QUALITY RECORDS

INSTRUMENTATION.--Temperature recorder.

PERIOD OF RECORD.--

WATER TEMPERATURE.--September 1988 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 33.3°C, July 30, 1999; minimum, -0.4°C, Dec. 16, 21, 1989; Jan. 1, 2, 1990; Jan. 15, 16, 18, 19, 1994.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 28.4°C, Aug. 4, minimum, 0.8°C, Jan. 31, and Feb. 2.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	16.9	16.3	16.6	14.9	14.5	14.8	8.4	7.3	7.9	5.7	4.9	5.2
2	16.3	15.7	16.1	15.6	14.7	15.1	7.3	6.5	6.8	7.2	5.7	6.4
3	15.9	15.2	15.4	15.9	14.9	15.4	6.5	6.3	6.4	7.9	7.2	7.5
4	15.8	15.0	15.4	16.3	15.1	15.7	6.3	6.0	6.1	8.5	7.9	8.2
5	16.0	14.9	15.5	16.2	15.5	16.0	6.0	5.9	6.0	8.4	8.1	8.2
6	16.7	15.4	16.1	15.5	14.4	14.9	6.2	5.9	6.1	8.1	6.6	7.3
7	17.3	16.0	16.7	14.4	13.1	13.7	6.5	6.1	6.3	6.6	5.2	5.7
8	17.8	16.6	17.2	13.1	12.1	12.5	6.9	6.3	6.5	5.2	3.7	4.4
9	17.5	17.0	17.3	12.1	11.3	11.8	7.5	6.9	7.2	3.7	2.6	3.1
10	18.5	17.3	17.8	12.6	11.5	12.0	7.8	7.5	7.7	2.6	1.7	2.0
11	19.1	17.9	18.5	13.5	12.6	13.0	7.5	6.8	7.1	2.0	1.4	1.7
12	19.3	18.3	18.8	14.5	13.5	14.0	6.8	6.2	6.4	2.3	1.8	2.0
13	18.8	17.5	18.2	13.5	11.6	12.3	6.2	5.8	6.0	2.6	1.9	2.2
14	18.4	16.5	17.6	11.6	10.4	10.9	5.8	5.5	5.7	3.3	2.1	2.6
15	16.9	15.7	16.3	10.6	10.1	10.3	5.6	5.4	5.5	3.4	2.9	3.2
16	16.6	15.5	16.2	11.0	10.6	10.8	5.4	4.9	5.3	3.8	3.4	3.6
17	16.4	15.7	16.1	11.6	10.9	11.2	4.9	4.5	4.6	4.5	3.8	4.1
18	15.8	15.1	15.5	11.8	11.6	11.7	4.5	4.2	4.4	4.7	4.4	4.6
19	16.3	15.3	15.8	11.8	11.4	11.6	4.3	4.0	4.2	4.4	4.0	4.2
20	16.1	15.3	15.8	11.6	11.2	11.4	4.0	3.7	3.9	4.0	3.7	3.9
21	16.1	15.6	15.8	12.3	11.4	11.8	3.8	3.4	3.6	4.1	3.8	3.9
22	15.7	15.2	15.4	13.0	12.3	12.6	4.2	3.7	3.8	3.8	3.0	3.5
23	16.2	14.8	15.3	13.4	13.0	13.1	4.6	4.2	4.4	3.0	2.5	2.6
24	15.9	15.0	15.5	13.1	11.7	12.3	4.5	4.3	4.4	2.7	2.4	2.6
25	15.7	15.3	15.5	11.7	11.2	11.4	4.4	4.0	4.2	2.7	2.0	2.3
26	15.5	14.9	15.2	11.2	10.9	11.0	4.6	4.1	4.3	2.3	2.0	2.2
27	14.9	14.0	14.4	10.9	10.3	10.7	4.6	4.2	4.4	2.3	2.0	2.2
28	14.2	13.5	13.8	10.3	9.0	9.7	5.1	4.6	4.8	2.0	1.4	1.7
29	13.5	12.8	13.1	9.0	8.6	8.8	5.1	4.9	5.0	1.7	1.4	1.5
30	14.0	12.7	13.4	8.6	8.4	8.5	4.9	4.6	4.8	1.4	0.9	1.1
31	14.9	14.0	14.5	---	---	---	5.0	4.6	4.8	1.1	0.8	0.9
MONTH	19.3	12.7	16.0	16.3	8.4	12.3	8.4	3.4	5.4	8.5	0.8	3.7

03373980 WHITE RIVER ABOVE PETERSBURG, IN—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.3	0.8	1.1	9.1	7.9	8.4	13.8	13.0	13.4	19.0	18.5	18.7
2	1.8	1.2	1.4	9.7	8.6	9.2	13.6	12.8	13.2	18.5	17.6	18.0
3	1.8	1.5	1.7	9.6	9.2	9.4	13.7	12.7	13.2	17.7	16.8	17.1
4	1.6	1.2	1.4	10.0	9.2	9.5	13.4	12.6	13.0	17.0	16.4	16.7
5	2.0	1.5	1.7	11.2	10.0	10.6	13.0	12.3	12.7	17.1	16.0	16.5
6	2.3	2.0	2.2	11.5	11.0	11.2	13.3	12.3	12.8	17.1	16.1	16.6
7	2.5	2.2	2.3	11.5	11.1	11.3	13.8	12.7	13.2	18.1	16.7	17.4
8	2.6	2.2	2.4	11.2	10.7	11.0	14.8	13.4	14.1	19.5	18.0	18.7
9	2.6	2.3	2.5	11.1	10.8	11.0	15.2	13.8	14.6	20.8	19.4	20.1
10	2.6	2.2	2.4	11.1	10.5	10.8	15.1	14.6	14.9	21.5	20.7	21.1
11	2.6	2.2	2.4	10.7	10.1	10.4	15.4	14.5	15.0	22.7	21.5	22.1
12	3.0	2.5	2.7	10.1	9.3	9.6	15.2	13.8	14.5	23.4	22.0	22.7
13	3.1	2.9	3.0	9.7	8.8	9.3	13.8	12.4	13.1	---	---	---
14	3.5	3.0	3.2	9.8	9.2	9.5	13.7	11.9	12.8	---	---	---
15	3.5	3.1	3.3	10.1	9.0	9.6	15.0	12.9	13.9	---	---	---
16	3.5	2.9	3.2	10.0	9.2	9.5	16.2	14.6	15.4	---	---	---
17	3.7	3.1	3.4	9.5	9.0	9.3	16.9	15.6	16.2	---	---	---
18	4.1	3.3	3.7	10.4	9.3	9.8	17.7	15.9	16.7	---	---	---
19	4.8	3.8	4.3	10.9	9.4	10.1	17.4	16.3	16.8	---	---	---
20	5.4	4.7	5.0	10.8	10.4	10.6	17.9	16.6	17.2	---	---	---
21	5.4	5.2	5.2	10.4	9.4	9.7	18.6	17.6	18.0	---	---	---
22	5.8	5.0	5.4	9.8	8.8	9.3	18.5	18.2	18.4	---	---	---
23	6.5	5.7	6.1	9.7	8.9	9.3	18.3	18.0	18.1	---	---	---
24	6.7	6.2	6.5	11.0	9.6	10.2	18.2	17.7	18.0	---	---	---
25	6.7	6.3	6.5	12.3	10.9	11.5	18.9	18.0	18.4	---	---	---
26	6.7	6.0	6.4	12.9	12.3	12.7	18.9	17.8	18.4	---	---	---
27	7.2	6.2	6.7	13.9	12.8	13.3	18.3	17.3	17.8	23.2	22.4	22.8
28	7.6	6.5	7.1	15.0	13.7	14.3	18.1	16.7	17.5	22.9	21.9	22.1
29	8.1	7.1	7.6	15.2	14.5	14.8	18.5	16.9	17.7	21.9	20.8	21.2
30	---	---	---	15.1	14.5	14.8	19.3	18.0	18.6	21.9	21.1	21.4
31	---	---	---	14.5	13.4	13.8	---	---	---	22.4	21.6	21.9
MONTH	8.1	0.8	3.8	15.2	7.9	10.8	19.3	11.9	15.6	23.4	16.0	19.7
		JUNE			JULY			AUGUST			SEPTEMBER	
1	22.2	21.7	21.9	25.4	24.7	25.1	26.3	24.1	25.1	26.0	24.2	25.0
2	22.5	21.5	21.9	25.9	24.9	25.4	27.1	25.1	26.1	25.9	24.3	25.1
3	22.7	21.9	22.3	26.1	25.3	25.7	27.9	25.9	26.8	25.6	24.9	25.2
4	22.8	22.0	22.4	27.0	25.3	26.0	28.4	26.9	27.6	26.4	24.6	25.4
5	22.9	22.1	22.4	26.4	25.5	26.0	27.9	26.6	27.3	27.2	25.2	26.1
6	22.9	22.3	22.6	26.8	25.2	25.9	27.1	25.5	26.3	27.4	25.4	26.3
7	23.3	22.7	23.0	26.7	25.4	26.0	26.6	24.9	25.8	26.5	25.2	25.8
8	24.0	23.1	23.5	26.6	25.6	26.0	26.5	24.7	25.6	25.2	23.8	24.3
9	24.3	23.6	23.9	27.0	25.6	26.3	26.9	25.1	25.9	24.9	22.8	23.8
10	24.9	23.9	24.4	28.0	26.0	27.0	27.1	25.6	26.3	25.2	22.7	23.9
11	25.9	24.4	25.1	28.3	27.0	27.6	26.1	24.8	25.3	25.1	23.2	24.2
12	25.6	25.0	25.3	27.7	26.6	27.0	24.8	23.0	23.8	25.4	23.4	24.4
13	25.0	24.1	24.5	27.9	26.4	27.0	23.4	22.1	22.8	25.8	23.7	24.7
14	25.5	24.1	24.8	27.1	26.3	26.7	23.1	21.5	22.4	25.0	23.6	24.4
15	25.3	24.8	25.0	26.9	26.1	26.5	24.1	21.6	22.8	25.6	23.6	24.6
16	25.9	24.8	25.4	26.6	25.5	26.0	24.4	21.9	23.1	25.5	24.6	25.0
17	25.9	25.1	25.5	26.6	25.6	26.1	24.7	22.4	23.5	25.2	23.6	24.5
18	25.7	25.3	25.5	26.8	25.7	26.3	26.0	23.3	24.5	24.5	22.5	23.4
19	26.1	25.2	25.6	26.6	25.6	26.2	26.9	24.6	25.7	23.9	21.9	22.8
20	26.0	25.2	25.6	25.6	24.1	24.8	26.1	24.5	25.2	23.7	21.1	22.4
21	25.8	25.3	25.6	26.4	24.4	25.3	25.8	23.4	24.6	23.7	21.2	22.4
22	25.8	25.4	25.6	26.8	25.3	26.0	26.1	23.8	24.9	24.1	21.4	22.7
23	25.7	25.1	25.4	26.6	25.6	26.0	26.3	24.4	25.4	23.7	21.8	22.8
24	25.7	25.0	25.4	26.1	24.9	25.5	26.7	25.2	25.9	23.2	22.2	22.7
25	25.4	24.9	25.1	25.7	24.0	24.8	27.0	25.1	26.0	23.9	22.1	22.8
26	24.9	24.1	24.5	24.0	22.9	23.4	26.5	24.9	25.8	23.3	21.2	22.2
27	24.8	23.8	24.3	23.9	22.1	23.0	26.9	25.8	26.3	23.0	20.6	21.8
28	24.6	23.9	24.3	24.9	22.8	23.8	26.8	25.9	26.4	22.3	20.4	21.3
29	25.2	23.6	24.4	25.0	23.9	24.4	25.9	25.0	25.4	20.8	19.2	20.1
30	25.5	24.0	24.8	24.7	24.2	24.5	25.5	24.4	24.9	20.9	18.4	19.6
31	---	---	---	25.0	23.9	24.4	25.7	24.2	25.0	---	---	---
MONTH	26.1	21.5	24.3	28.3	22.1	25.6	28.4	21.5	25.2	27.4	18.4	23.7
YEAR	28.4	0.8	15.4									

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, (MONROE CITY, IN quadrangle), 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, 2.0 mi west of Arda 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 National Geodetic Vertical Datum of 1929. See WSP 1725 for history of changes prior to Apr. 1, 1941.

REMARKS.--Records good. Flow partially regulated by upstream 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

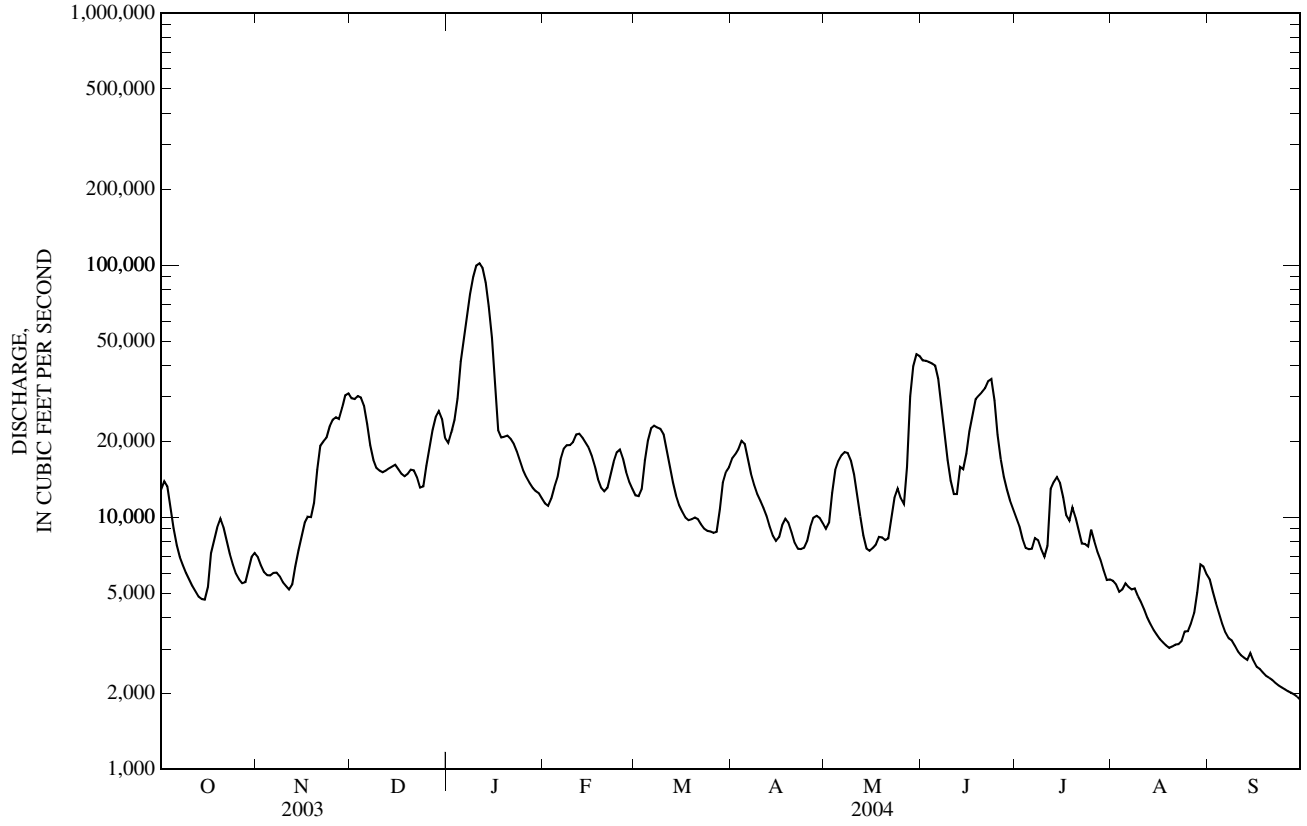
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12,800	6,960	29,700	19,700	11,300	12,200	17,100	8,980	41,900	9,980	5,590	5,670
2	13,900	6,450	29,500	21,700	11,100	12,100	17,800	9,520	41,800	9,210	5,410	5,060
3	13,300	6,060	30,300	24,400	11,900	12,900	18,700	12,400	41,300	8,220	5,060	4,570
4	10,900	5,890	29,900	29,600	13,100	16,800	20,100	15,400	40,700	7,550	5,170	4,140
5	9,050	5,880	27,700	41,500	14,400	20,200	19,500	16,700	40,000	7,470	5,460	3,790
6	7,760	6,020	23,400	51,100	17,000	22,500	17,000	17,600	35,500	7,500	5,290	3,490
7	6,960	6,030	19,300	62,600	18,700	23,100	14,900	18,100	27,800	8,260	5,160	3,310
8	6,440	5,830	16,900	76,700	19,300	22,700	13,400	18,000	21,400	8,100	5,220	3,250
9	6,020	5,530	15,700	90,000	19,300	22,400	12,400	16,800	16,800	7,480	4,860	3,090
10	5,660	5,340	15,300	99,600	19,900	21,300	11,600	14,800	14,000	6,980	4,610	2,940
11	5,340	5,170	15,100	102,000	21,300	18,700	10,900	12,400	12,400	7,700	4,310	2,830
12	5,080	5,420	15,300	97,600	21,400	16,000	10,100	10,100	12,400	13,000	4,000	2,770
13	4,850	6,390	15,600	85,200	20,700	13,800	9,190	8,470	15,900	13,800	3,760	2,710
14	4,740	7,400	15,900	68,500	19,800	12,200	8,440	7,510	15,500	14,400	3,570	2,890
15	4,710	8,370	16,100	51,600	18,800	11,200	8,060	7,360	17,900	13,700	3,420	2,690
16	5,290	9,520	15,500	33,600	17,600	10,500	8,350	7,550	22,000	12,000	3,290	2,550
17	7,200	10,000	14,900	22,200	15,900	9,980	9,300	7,770	25,500	10,200	3,190	2,500
18	8,140	10,000	14,500	20,700	14,200	9,730	9,860	8,360	29,400	9,700	3,100	2,420
19	9,110	11,400	14,800	20,900	13,100	9,820	9,520	8,330	30,400	10,900	3,030	2,350
20	9,870	15,400	15,400	21,100	12,700	9,980	8,710	8,110	31,300	9,960	3,070	2,310
21	9,130	19,200	15,400	20,500	13,100	9,820	7,910	8,230	32,500	8,870	3,130	2,260
22	8,040	20,000	14,400	19,500	14,700	9,360	7,500	10,000	34,700	7,870	3,140	2,200
23	7,180	20,700	13,100	18,200	16,600	9,010	7,480	12,000	35,300	7,830	3,230	2,150
24	6,490	22,900	13,200	16,700	18,100	8,840	7,570	13,000	29,000	7,650	3,520	2,110
25	5,970	24,300	16,000	15,400	18,600	8,780	8,050	11,900	21,200	8,920	3,530	2,080
26	5,670	24,900	19,100	14,400	17,100	8,670	9,140	11,300	17,000	8,030	3,790	2,040
27	5,470	24,500	22,200	13,700	15,100	8,740	9,960	15,800	14,500	7,310	4,170	2,010
28	5,530	27,200	25,000	13,100	13,800	10,700	10,100	30,200	12,800	6,770	5,030	1,980
29	6,180	30,400	26,400	12,700	12,900	13,700	9,950	39,700	11,600	6,160	6,500	1,940
30	6,960	31,000	24,500	12,500	---	15,100	9,460	44,400	10,700	5,640	6,370	1,890
31	7,210	---	20,600	11,900	---	15,800	---	43,600	---	5,660	5,930	---
TOTAL	230,950	394,160	600,700	1,208,900	471,500	426,630	342,050	474,390	753,200	276,820	134,910	85,990
MEAN	7,450	13,140	19,380	39,000	16,260	13,760	11,400	15,300	25,110	8,930	4,352	2,866
MAX	13,900	31,000	30,300	102,000	21,400	23,100	20,100	44,400	41,900	14,400	6,500	5,670
MIN	4,710	5,170	13,100	11,900	11,100	8,670	7,480	7,360	10,700	5,640	3,030	1,890
CFSM	0.67	1.18	1.74	3.51	1.46	1.24	1.02	1.38	2.26	0.80	0.39	0.26
IN.	0.77	1.32	2.01	4.04	1.58	1.43	1.14	1.59	2.52	0.93	0.45	0.29

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2004, BY WATER YEAR (WY)

MEAN	3,556	6,743	11,360	17,290	18,210	22,320	21,880	18,270	11,700	7,667	4,786	3,572
MAX	18,630	46,800	43,000	86,440	67,080	55,340	42,900	70,110	38,550	25,620	39,590	19,640
(WY)	(2002)	(1994)	(2002)	(1950)	(1950)	(1945)	(1944)	(1996)	(1998)	(1958)	(1979)	(1989)
MIN	653	884	861	981	1,388	1,597	3,767	1,597	1,950	1,118	870	878
(WY)	(1941)	(1954)	(1964)	(1977)	(1931)	(1941)	(1941)	(1941)	(1988)	(1954)	(1936)	(1936)

03374000 WHITE RIVER AT PETERSBURG, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1928 - 2004	
ANNUAL TOTAL	5,958,390		5,400,200			
ANNUAL MEAN	16,320		14,750		12,260	
HIGHEST ANNUAL MEAN					22,760	1950
LOWEST ANNUAL MEAN					2,138	1941
HIGHEST DAILY MEAN	54,200	May 18	102,000	Jan 11	182,000	Jan 22, 1937
LOWEST DAILY MEAN	3,120	Aug 29	1,890	Sep 30	573	Oct 1, 1941
ANNUAL SEVEN-DAY MINIMUM	3,360	Aug 25	2,010	Sep 24	598	Sep 26, 1941
MAXIMUM PEAK FLOW			103,000	Jan 11	183,000	Jan 22, 1937
MAXIMUM PEAK STAGE			25.11	Jan 11	28.30	Jan 22, 1937
ANNUAL RUNOFF (CFSM)	1.47		1.33		1.10	
ANNUAL RUNOFF (INCHES)	19.92		18.06		14.97	
10 PERCENT EXCEEDS	30,600		28,200		30,000	
50 PERCENT EXCEEDS	12,900		11,300		6,680	
90 PERCENT EXCEEDS	5,510		3,560		1,540	



03374100 WHITE RIVER AT HAZLETON, IN—Continued

[(National Water-Quality Assessment Program), White River Basin, Miami River Basin Study Unit]

LOCATION.--Lat 38°29'23", long 87°33'00", in SE¼NW¼ sec 29, T.1 N., R. 10 W., Gibson County, Hydrologic Unit 05120202, (PATOKA, IN quadrangle), on county road bridge 18.7 mi upstream from mouth, 26.8 mi downstream from Petersburg.

DRAINAGE AREA.--11,305 mi^2.

PERIOD OF RECORD.--
CHEMICAL ANALYSES: February 1973 to September 1986, October 2001 to current year.
WATER TEMPERATURE: October 1973 to September 1981, October 2001 to current year.
SEDIMENT DISCHARGE: October 1973 to September 1983.
WATER DISCHARGE: October 1927 to September 1938.

REMARKS.--Water discharge obtained from station White River at Petersburg (See station 03374000).

WATER-QUALITY RECORDS

The data described in the following table were collected and analyzed as part of the National Water Quality Assessment Program (NAWQA) in the White River Basin, Miami River Basin (WHMI) study units. 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 42 river basin and aquifer assessment projects being implemented across the nation on a staggered timeline. During the second decade of sampling, 14 of these projects will be actively collecting data. The period of high-intensity data collection for the WHMI project is in water years 2001-2004.

Water quality data from four stream sites in Indiana and two stream sites in Ohio are being reported as part of the NAWQA study: Big Walnut Creek nr Roachdale, IN (03357330), Little Buck Creek nr Indianapolis, IN (03353637), Sugar Creek at Co. Rd. 400S at New Palestine, IN (394340085524601), White River at Hazleton, IN (03374100), Holes Creek at Huffman Park at Kettering, OH (393944084120700), Mad River at St. Paris Pike near Eagle City, OH (03267900). Additionally, continuous monitor data, water temperature, dissolved oxygen, specific conductance, and pH were collected for all sites except Sugar Creek at Co. Rd. 400S at New Palestine, IN (394340085524601), which were instead collected at Sugar Creek at New Palestine, IN (03361650).

These data can also be obtained electronically at http//in.water.usgs.gov or at http//oh.water.usgs.gov.

(- - -, no data: <, concentration or value reported is less than that indicated: E, estimated value: K, value is estimated from a non-ideal colony count: M, presence verified, not quantified).

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEDIAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	7.5	6.7	---	7.2	7.8	---	---	---	---	---	---
2	7.7	7.5	6.7	---	7.2	7.9	---	---	---	---	---	---
3	7.8	7.4	6.7	---	7.3	7.9	---	---	---	---	---	---
4	7.9	7.4	6.7	---	7.3	7.8	---	---	---	---	---	---
5	7.8	7.4	6.7	---	7.4	7.6	---	---	---	---	---	---
6	7.9	7.4	6.7	---	7.4	7.6	---	---	---	---	---	---
7	7.8	7.4	6.7	---	7.5	7.7	---	---	---	---	---	---
8	6.9	7.4	6.8	6.7	7.5	7.7	---	---	---	---	---	---
9	6.9	7.4	6.8	6.7	7.6	7.6	---	---	---	---	---	---
10	7.0	7.4	6.9	6.8	7.6	---	---	---	---	---	---	---
11	7.1	7.3	6.8	6.8	7.7	---	---	---	---	---	---	---
12	7.2	7.3	6.8	6.8	7.7	---	---	---	---	---	---	---
13	7.3	7.3	6.8	6.8	7.7	---	---	---	---	---	---	---
14	7.3	7.2	6.8	6.8	7.6	---	---	---	---	---	---	---
15	7.3	7.1	6.8	7.0	7.6	---	---	---	---	---	---	---
16	7.4	7.0	6.9	7.0	7.7	---	---	---	---	---	---	---
17	7.4	6.9	7.2	7.0	7.7	---	---	---	---	---	---	---
18	7.2	---	7.2	7.1	7.7	---	---	---	---	---	---	---
19	7.1	---	7.3	7.1	7.7	---	---	---	---	---	---	---
20	7.2	7.0	7.3	7.1	7.7	---	---	---	---	---	---	---
21	7.3	6.8	7.3	7.2	7.7	---	---	---	---	---	---	---
22	7.3	6.7	7.3	7.2	7.8	---	---	---	---	---	---	---
23	7.2	6.8	7.4	7.2	7.8	---	---	---	---	---	---	---
24	7.2	6.8	7.4	7.3	7.8	---	---	---	---	---	---	---
25	7.4	6.8	7.4	7.3	7.8	---	---	---	---	---	---	---
26	7.4	6.8	7.4	7.4	7.8	---	---	---	---	---	---	---
27	7.4	6.7	---	7.4	7.8	---	---	---	---	---	---	---
28	7.4	6.8	---	7.4	7.8	---	---	---	---	---	---	---
29	7.5	6.7	---	7.0	7.7	---	---	---	---	---	---	---
30	7.5	6.8	---	7.1	---	---	---	---	---	---	---	---
31	7.6	---	---	7.1	---	---	---	---	---	---	---	---

03374100 WHITE RIVER AT HAZLETON, IN—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	11.0	---	13.9	11.7	10.1	e8.8	---	7.3	---	---
2	---	---	11.4	---	13.7	11.5	10.5	---	---	7.1	---	---
3	---	---	11.7	---	13.5	11.2	10.5	---	---	7.1	---	---
4	---	---	11.6	---	13.5	10.7	10.3	---	---	6.9	---	---
5	---	---	11.7	---	13.6	10.1	10.7	---	---	6.7	---	---
6	---	---	11.7	---	13.6	10.1	e10.8	---	---	6.6	---	---
7	---	9.4	11.7	---	13.4	10.2	---	---	---	7.4	---	---
8	9.9	10.1	11.8	---	13.5	10.2	---	---	---	6.5	---	---
9	10	10.8	11.6	---	13.4	10.1	12.0	---	---	7.1	---	---
10	10.2	11.2	11.4	---	13.7	10.3	12.2	---	---	7.0	---	12.6
11	10.9	10.7	11.5	---	13.8	10.2	12.2	---	---	---	---	12.1
12	11.1	10.1	11.6	---	13.7	10.5	12.2	---	---	---	---	10
13	11.6	10.0	11.8	---	13.6	11.0	12.0	---	---	---	---	9.0
14	10.4	e9.8	11.9	---	13.5	11.3	13.1	---	---	---	---	7.3
15	10.3	---	12.2	---	13.6	11.7	14.7	---	---	---	---	6.7
16	11.3	---	12.3	---	13.6	11.8	15.4	---	---	---	---	6.3
17	e10.6	e10.2	11.4	---	13.6	12.0	15.5	---	---	---	---	6.6
18	---	---	10.5	---	13.5	12.4	15.0	---	---	---	---	6.4
19	---	---	10.5	---	13.2	13.0	13.1	---	---	6.7	---	6.6
20	---	9.3	10.6	---	12.8	12.6	11.2	---	---	6.4	---	6.6
21	---	---	10.7	---	12.7	12.6	9.9	---	---	---	---	6.8
22	9.2	9.2	10.7	---	12.7	13.7	8.5	---	---	---	---	6.6
23	9.1	9.1	10.6	---	12.7	14.2	8.3	---	---	---	---	6.1
24	9.6	9.2	10.4	---	12.6	14.4	8.7	---	---	---	---	4.8
25	9.6	9.4	10.2	---	12.6	14.5	9.4	---	---	---	---	4.2
26	9.7	9.7	10.0	---	12.4	13.7	10.1	---	---	---	---	4.5
27	10.3	10.0	---	---	12.0	13.0	10.6	---	---	---	---	---
28	10.2	10.4	---	---	11.9	13.2	10.6	---	---	---	---	---
29	10.3	10.8	---	13.3	11.8	10.4	10.3	---	---	---	---	---
30	10.6	10.9	---	13.6	---	9.2	9.7	---	7.3	---	---	---
31	---	---	---	13.8	---	9.1	---	---	---	---	---	---

e Estimated

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.1	14.8	7.4	---	0.5	8.3	13.6	19.4	22.1	25.9	---	---
2	16.5	15.1	6.6	---	1.2	9.4	13.1	18.2	22.1	26.2	---	---
3	15.9	15.8	6.0	---	1.6	9.8	12.7	17.6	22.2	26.6	---	---
4	15.8	16.2	5.8	---	1.6	e10.0	12.5	16.9	22.4	26.9	---	---
5	16.1	16.3	5.5	---	1.8	10.6	12.5	17.0	22.4	27.0	---	---
6	16.5	15.3	5.5	---	2.0	11.0	e12.8	17.4	22.5	26.7	---	---
7	17.2	14.0	5.8	---	2.0	11.0	---	17.8	23.1	26.7	---	---
8	17.9	12.7	6.1	2.8	2.0	10.6	---	18.6	23.9	26.9	---	---
9	18.0	11.6	6.7	2.2	2.2	10.5	14.8	19.9	24.6	27.4	---	---
10	18.4	11.6	7.4	1.5	2.4	10.0	15.3	20.9	25.2	28.0	---	25.5
11	19.1	12.5	6.9	1.1	2.4	e10.0	15.2	21.8	26.0	28.6	---	26.1
12	19.5	13.5	6.3	1.4	2.6	9.4	14.7	22.9	26.3	28.5	---	26.2
13	19.0	12.4	5.8	1.7	2.7	9.1	13.3	23.3	25.6	27.6	---	26.4
14	18.4	11.0	5.3	2.0	2.9	9.4	12.8	23.2	25.4	27.4	---	26.8
15	17.0	10.1	4.9	2.5	3.0	9.6	13.9	22.2	26.3	27.2	---	26.8
16	16.9	10.0	4.8	2.8	3.0	9.8	15.4	21.5	26.0	27.4	---	26.6
17	16.9	10.6	4.4	3.6	3.3	9.5	17.0	21.5	26.1	27.1	---	26.4
18	16.0	---	4.3	4.2	3.8	10.0	17.9	22.5	26.1	27.3	---	25.5
19	15.8	---	4.0	3.8	4.5	10.5	18.1	23.2	25.9	27.3	---	25.0
20	16.1	11.8	3.6	3.4	5.3	10.9	18.4	e23.9	25.4	27.2	---	24.6
21	16.4	11.8	3.4	3.3	5.3	10.2	18.8	---	25.3	---	---	24.7
22	16.3	12.1	3.6	3.1	5.5	9.7	19.2	---	25.2	---	---	25.0
23	16.0	12.7	4.3	2.5	6.0	9.9	18.8	---	25.2	---	---	25.3
24	15.6	11.9	4.3	2.4	6.4	10.5	18.4	---	25.3	---	---	25.4
25	15.4	10.6	4.1	2.2	6.3	11.9	18.7	---	25.2	---	---	25.5
26	15.0	10.0	4.3	2.0	6.2	13.0	18.8	24.5	24.9	---	---	24.9
27	14.4	9.6	---	1.9	6.3	13.9	18.6	23.2	24.7	---	---	e23.9
28	13.8	8.8	---	1.6	6.9	15.0	18.2	22.5	24.9	---	---	---
29	13.0	7.9	---	1.5	7.5	15.3	18.5	22.0	25.2	---	---	---
30	13.0	7.6	---	0.9	---	14.9	19.1	22.0	25.6	---	---	---
31	14.0	---	---	0.5	---	14.2	---	22.3	---	---	---	---

e Estimated

03374100 WHITE RIVER AT HAZLETON, IN—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	489	646	390	---	529	553	---	466	287	533	---	---
2	481	592	389	---	545	576	---	470	319	534	---	---
3	466	586	394	---	554	585	---	457	299	537	---	---
4	482	611	397	---	532	560	---	428	314	540	---	---
5	507	630	403	---	501	501	---	402	357	547	---	---
6	531	639	419	---	490	478	---	360	371	567	---	---
7	550	654	437	---	461	438	---	356	386	586	---	---
8	572	651	459	---	464	420	---	357	416	573	---	---
9	606	643	482	---	455	456	518	347	448	593	---	---
10	624	647	507	---	447	---	524	358	475	567	---	569
11	631	658	524	---	431	---	530	382	489	537	---	572
12	640	663	537	---	409	395	535	406	500	512	---	602
13	647	659	523	---	394	409	545	431	471	411	---	629
14	649	640	516	---	399	426	552	460	429	399	---	634
15	662	580	531	---	411	446	555	489	511	397	---	643
16	672	577	536	---	430	464	553	513	454	456	---	631
17	686	539	529	---	450	484	534	536	420	447	---	664
18	655	---	519	---	460	496	512	565	395	464	---	678
19	564	---	511	---	472	505	501	568	375	468	---	694
20	570	486	514	---	493	507	484	e590	350	471	---	695
21	581	---	513	---	509	506	480	---	345	---	---	698
22	592	405	508	---	506	515	505	---	354	---	---	714
23	558	418	522	---	484	518	527	---	391	---	---	681
24	565	407	542	---	472	485	544	---	421	---	---	670
25	579	420	550	---	---	506	560	---	451	---	---	682
26	592	400	481	---	---	---	553	492	481	---	---	701
27	609	389	---	---	472	---	544	447	501	---	---	e704
28	627	409	---	---	490	---	529	392	510	---	---	---
29	646	393	---	524	522	---	486	316	528	---	---	---
30	653	387	---	530	---	---	459	283	534	---	---	---
31	657	---	---	526	---	---	---	277	---	---	---	---

e Estimated

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 deg C (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Alkalinity, wat flt fxd end field, mg/L as CaCO3 (39036)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)
NOV													
19...	1100	11,100	748	11.2	8.1	491	15.0	11.7	160	164	196	<1	30.1
JAN													
28...	1500	12,800	767	13.6	8.1	527	1.0	1.5	180	178	215	1	25.9
MAR													
10...	1420	18,300	766	10.6	8.1	475	11.0	10.0	150	141	E172	<1	29.7
APR													
21...	1320	7,600	740	10.1	8.2	490	24.0	18.7	150	151	182	<1	27.9
MAY													
25...	1230	11,700	742	6.5	7.9	497	27.0	25.5	150	152	182	2	29.9
JUN													
29...	1430	11,500	750	9.4	7.8	533	30.0	25.4	190	187	225	1	26.4
JUL													
21...	1230	8,850	741	8.3	8.2	419	31.0	26.8	140	140	167	2	20.4
SEP													
09...	1130	3,100	753	11.9	8.3	569	32.0	24.2	140	141	140	<1	46.5

03374100 WHITE RIVER AT HAZLETON, IN—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	2,6-Diethylaniline water fltrd 0.7µ GF µg/L (82660)	CIAT, water, fltrd, µg/L (04040)
NOV													
19...	40.7	<0.04	0.97	<0.008	0.34	0.101	0.24	2.3	<0.1	2.2	5.6	<0.006	E0.009
JAN													
28...	42.0	<.04	1.94	.123	.12	.042	.13	.8	<.1	0.8	2.7	<.006	E.027
MAR													
10...	36.6	<.04	2.26	.065	.29	.022	.05	2.5	.3	2.2	3.6	<.006	E.021
APR													
21...	39.9	<.04	.77	.025	.64	<.006	.14	5.3	<.1	5.3	3.8	<.006	E.025
MAY													
25...	36.7	<.04	2.71	.045	.42	.071	.24	4.2	<.1	4.2	4.4	<.006	E.345
JUN													
29...	37.4	<.04	1.86	.010	.50	.047	.24	3.8	.2	3.6	3.2	<.006	E.191
JUL													
21...	35.9	<.04	.77	.009	.70	.031	.23	5.2	.1	5.1	3.4	<.006	E.047
SEP													
09...	66.8	<.04	<.06	<.008	1.29	<.006	.20	10.8	<.1	10.8	3.2	<.006	E.021

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Acetochlor, water, fltrd, µg/L (49260)	Alachlor, water, fltrd, µg/L (46342)	alpha-HCH, water, fltrd, µg/L (34253)	Atrazine, water, fltrd, µg/L (39632)	Azinphosmethyl, water, fltrd 0.7µm GF µg/L (82686)	Benfluralin, water, fltrd 0.7µ GF µg/L (82673)	Butylate, water, fltrd, µg/L (04028)	Carbaryl, water, fltrd 0.7µm GF µg/L (82680)	Carbofuran, water, fltrd 0.7µm GF µg/L (82674)	Chlorpyrifos water, fltrd, µg/L (38933)	cis-Permethrin water fltrd 0.7µm GF µg/L (82687)	Cyanazine, water, fltrd, µg/L (04041)	DCPA, water fltrd 0.7µm GF µg/L (82682)
NOV													
19...	0.009	<0.005	<0.005	0.18	<0.050	<0.010	<0.004	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003
JAN													
28...	.007	<.005	<.005	.10	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003
MAR													
10...	.008	<.005	<.005	.09	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003
APR													
21...	.052	<.005	<.005	.87	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003
MAY													
25...	.869	.041	<.005	6.23	<.050	<.010	<.004	<.041	<.020	<.010	<.006	<.018	<.003
JUN													
29...	.049	.007	<.005	1.07	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003
JUL													
21...	.036	<.005	<.005	.39	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003
SEP													
09...	E.006	<.005	<.005	.20	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Desulfinyl fipronil, water, fltrd, µg/L (62170)	Diazinon, water, fltrd, µg/L (39572)	Dieldrin, water, fltrd, µg/L (39381)	Disulfoton, water, fltrd 0.7µm GF µg/L (82677)	EPTC, water, fltrd 0.7µm GF µg/L (82668)	Ethalfluralin, water, fltrd 0.7µm GF µg/L (82663)	Ethoprop, water, fltrd 0.7µm GF µg/L (82672)	Desulfinyl-fipronil amide, wat flt µg/L (62169)	Fipronil sulfide water, fltrd, µg/L (62167)	Fipronil sulfone water, fltrd, µg/L (62168)	Fipronil, water, fltrd, µg/L (62166)	Fonofos water, fltrd, µg/L (04095)	Lindane water, fltrd, µg/L (39341)
NOV													
19...	<0.012	E0.003	<0.009	<0.02	<0.004	<0.009	<0.005	<0.029	<0.013	<0.024	<0.016	<0.003	<0.004
JAN													
28...	<.012	.007	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004
MAR													
10...	<.012	.006	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004
APR													
21...	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004
MAY													
25...	E.003	.006	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004
JUN													
29...	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004
JUL													
21...	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004
SEP													
09...	<.012	E.005	<.020	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004

03374100 WHITE RIVER AT HAZLETON, IN—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Linuron water fltrd 0.7µm GF µg/L (82666)	Malathion, water, fltrd, µg/L (39532)	Methyl parathion, water, fltrd 0.7µm GF µg/L (82667)	Metolachlor, water, fltrd, µg/L (39415)	Metribuzin, water, fltrd, µg/L (82630)	Molinate, water, fltrd 0.7µm GF µg/L (82671)	Napropamide, water, fltrd 0.7µm GF µg/L (82684)	p,p-' DDE, water, fltrd, µg/L (34653)	Parathion, water, fltrd, µg/L (39542)	Pebulate, water, fltrd 0.7µm GF µg/L (82669)	Pendimethalin, water, fltrd 0.7µm GF µg/L (82683)	Phorate water fltrd 0.7µm GF µg/L (82664)	Prometon, water, fltrd, µg/L (04037)
NOV 19...	<0.035	<0.027	<0.015	0.046	0.020	<0.003	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011	0.01
JAN 28...	<.035	<.027	<.015	.023	E.005	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.01
MAR 10...	<.035	<.027	<.015	.029	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.01
APR 21...	<.035	<.027	<.015	.036	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.03
MAY 25...	<.035	<.027	<.015	.823	<.015	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.05
JUN 29...	<.035	<.027	<.015	.377	.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.02
JUL 21...	<.035	<.027	<.015	.125	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.04
SEP 09...	<.035	<.027	<.015	.039	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.06

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Propyzamide, water, fltrd 0.7µm GF µg/L (82676)	Propachlor, water, fltrd, µg/L (04024)	Propanil, water, fltrd 0.7µm GF µg/L (82679)	Propargite, water, fltrd 0.7µm GF µg/L (82685)	Simazine, water, fltrd, µg/L (04035)	Tebuthiuron water fltrd 0.7µm GF µg/L (82670)	Terbacil, water, fltrd 0.7µm GF µg/L (82665)	Terbufos, water, fltrd 0.7µm GF µg/L (82675)	Thiobencarb water fltrd 0.7µm GF µg/L (82681)	Triallate, water, fltrd 0.7µm GF µg/L (82678)	Trifluralin, water, fltrd 0.7µm GF µg/L (82661)	Suspended sediment concentration mg/L (80154)
NOV 19...	<0.004	<0.025	<0.011	<0.02	1.56	<0.02	<0.034	<0.02	<0.010	<0.002	<0.009	98
JAN 28...	<.004	<.025	<.011	<.02	.21	<.02	<.034	<.02	<.010	<.002	<.009	48
MAR 10...	<.004	<.025	<.011	<.02	.15	<.02	<.034	<.02	<.010	<.002	<.009	138
APR 21...	<.004	<.025	<.011	<.02	.14	<.02	<.034	<.02	<.010	<.002	<.009	68
MAY 25...	<.004	<.025	<.011	<.02	.94	E.01	<.034	<.02	<.010	<.002	<.009	173
JUN 29...	<.004	<.025	<.011	<.02	.11	<.02	<.034	<.02	<.010	<.002	<.009	164
JUL 21...	<.004	<.025	<.011	<.02	.06	<.02	<.034	<.02	<.010	<.002	<.009	160
SEP 09...	<.004	<.025	<.011	.03	.03	M	<.034	<.02	<.010	<.002	<.009	72

03374500 PATOKA RIVER NEAR CUZCO, IN

LOCATION.--Lat 38°26'31", long 86°42'51", in SW¼SW¼ sec.11, T.1 S., R.3 W., Dubois County, Hydrologic Unit 05120209 (CUZCO, IN quadrangle), 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 September 1981 (discharge). October 1981 to September 2001 (discharge provided by U.S. Army Corps of Engineers). October 2001 to current year (stage only).

GAGE.--Water-stage recorder. Datum of gage is 477.00 ft above National Geodetic Vertical Datum of 1929, (levels by State of Indiana, Department of Natural Resources). Prior to Oct. 1, 1961, nonrecording gage on downstream side of bridge, 1.7 mi downstream at same datum. Oct. 1, 1961 to Sept. 30, 1981, water-stage recorder at site described above. Prior to October 1979, published as "near Ellsworth".

REMARKS.--Flow regulated by U.S. Army Corps of Engineers from Patoka Lake since February 1978.

COOPERATION.--Records of discharge provided by U.S. Army Corps of Engineers October 1981 to September 2001.

EXTREMES FOR PERIOD OF RECORD.--(October 2001 to current year) maximum gage height, 10.63 ft, Jan. 20, 21, 2002, minimum gage height, 2.12 ft, June 20, 2002. (June 1961 to September 1981) 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 gage height, 9.03 ft, Jan. 2; minimum gage height, 3.24 ft, Nov. 7.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.80	5.29	5.86	7.42	8.26	3.61	4.38	4.09	3.50	5.59	4.62	5.71
2	4.80	5.29	5.85	4.85	7.65	3.60	4.37	3.65	3.48	5.04	4.61	5.70
3	4.80	5.29	5.85	4.41	7.46	4.64	4.36	3.55	3.47	5.04	4.61	5.70
4	4.80	5.29	5.85	7.27	5.69	3.81	4.35	3.53	3.47	5.06	4.61	5.70
5	4.81	5.29	5.86	4.46	5.76	3.72	4.35	4.38	4.66	5.06	5.25	5.69
6	4.80	5.30	5.85	4.37	5.54	3.66	4.35	3.52	5.17	5.09	5.76	5.69
7	4.80	5.87	5.84	4.35	5.43	3.65	4.35	3.51	5.17	5.06	5.75	5.69
8	4.81	5.86	5.83	5.23	7.39	3.64	4.35	3.50	5.18	5.57	5.75	5.69
9	4.81	5.85	5.83	7.50	7.30	4.36	4.34	4.36	5.18	5.57	5.75	5.69
10	4.82	5.83	5.86	7.56	8.38	4.35	4.34	4.35	5.19	5.61	5.75	5.68
11	4.83	5.84	5.69	8.43	8.29	4.35	4.34	4.35	5.19	5.65	5.75	5.68
12	4.85	5.87	5.44	8.37	8.35	4.35	4.34	4.81	5.20	4.55	5.75	5.68
13	4.86	5.86	6.05	8.50	8.35	4.35	4.39	4.81	5.20	4.82	5.74	5.68
14	4.91	5.87	5.60	8.47	8.27	4.35	4.36	4.88	5.19	4.66	5.74	5.67
15	4.90	5.86	6.24	8.41	8.30	4.35	4.35	4.88	5.18	4.64	5.73	5.67
16	4.90	5.85	6.50	8.37	8.24	4.36	4.35	4.82	5.17	5.28	5.73	4.50
17	4.90	5.85	6.47	8.53	8.19	4.35	4.34	4.80	5.21	5.27	5.73	4.50
18	4.90	5.89	6.49	5.64	8.25	4.35	4.33	4.80	5.19	5.27	5.73	4.50
19	4.89	5.87	6.47	5.51	8.20	4.35	3.47	4.79	5.17	5.27	5.73	4.50
20	4.90	5.84	6.46	7.44	8.29	4.36	3.47	4.79	5.16	5.26	5.76	4.49
21	5.32	5.83	6.45	7.37	8.21	4.35	3.47	4.79	5.15	5.37	5.75	4.50
22	4.36	5.81	6.45	8.33	8.14	4.34	3.52	4.79	5.15	5.39	5.74	3.70
23	4.36	5.87	7.43	7.39	8.25	4.34	3.52	4.78	5.14	5.38	5.74	3.69
24	4.36	5.87	7.32	5.59	5.34	4.34	3.49	4.78	5.13	5.37	5.76	3.69
25	4.38	5.84	7.24	5.48	5.22	4.34	3.56	4.96	5.59	5.37	5.76	3.69
26	4.38	5.82	7.40	7.47	3.62	4.34	3.50	5.30	5.59	5.36	4.61	3.69
27	4.37	5.97	7.32	8.30	3.60	4.34	3.48	5.80	5.60	5.90	4.59	3.69
28	5.29	5.92	7.35	8.25	3.60	4.34	3.47	3.88	5.60	5.89	4.60	3.70
29	5.28	5.88	7.32	8.30	3.59	4.35	3.46	3.48	5.60	5.88	4.59	3.70
30	5.30	5.86	7.21	8.38	---	4.59	3.66	4.59	5.59	4.64	5.72	3.70
31	5.29	---	7.42	8.31	---	4.42	---	3.57	---	4.63	5.71	---
MEAN	4.83	5.75	6.41	7.04	6.94	4.21	4.01	4.42	5.02	5.24	5.43	4.85
MAX	5.32	5.97	7.43	8.53	8.38	4.64	4.39	5.80	5.60	5.90	5.76	5.71
MIN	4.36	5.29	5.44	4.35	3.59	3.60	3.46	3.48	3.47	4.55	4.59	3.69

WTR YR 2004 MEAN 5.34 MAX 8.53 MIN 3.46

03374500 Patoka River near Cuzco, IN—Continued

WATER-QUALITY RECORDS

INSTRUMENTATION.--Temperature recorder.

PERIOD OF RECORD.--

WATER TEMPERATURE.--October 1987 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 32.6°C, July 31, 1999; minimum, 0.4°C, Jan. 18, 19, 1994, and Jan. 11, 1996.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 29.1°C, July 3, minimum, 1.8°C, Feb. 3, and 4.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.7	19.9	20.3	17.0	16.7	16.9	11.2	10.7	10.9	5.7	5.4	5.5
2	20.2	19.6	19.9	17.4	16.7	17.0	10.8	10.5	10.6	6.9	5.7	6.3
3	19.9	19.3	19.6	17.9	16.9	17.2	10.5	10.1	10.3	7.1	6.5	6.8
4	19.6	19.0	19.3	17.8	16.9	17.4	10.1	10.0	10.0	8.1	6.9	7.4
5	19.7	18.8	19.2	17.6	16.7	17.2	10.0	9.6	9.8	7.5	6.0	6.4
6	19.8	18.9	19.2	16.7	16.4	16.6	9.6	9.3	9.5	6.0	5.4	5.6
7	20.1	19.1	19.6	16.4	15.9	16.1	9.7	9.2	9.4	5.5	5.1	5.3
8	20.4	19.3	20.0	15.9	15.6	15.8	9.4	9.2	9.3	5.1	5.0	5.1
9	20.6	20.0	20.3	15.6	15.2	15.4	9.4	9.3	9.3	5.1	5.0	5.0
10	20.8	20.1	20.4	15.5	15.0	15.2	9.4	9.1	9.3	5.1	4.8	4.9
11	20.9	20.3	20.6	15.2	15.1	15.1	9.1	8.7	9.0	4.8	4.6	4.7
12	20.7	19.6	20.2	15.3	14.7	15.1	8.7	8.5	8.6	4.6	4.5	4.6
13	20.6	19.3	20.0	14.7	14.3	14.5	8.5	7.8	8.2	4.6	4.5	4.5
14	20.4	19.0	19.8	14.3	14.0	14.1	7.9	7.6	7.7	4.6	4.3	4.5
15	19.4	18.7	19.0	14.0	13.7	13.8	7.6	7.3	7.4	4.5	4.3	4.4
16	19.3	18.6	18.9	13.8	13.6	13.7	7.4	7.1	7.3	4.4	4.2	4.3
17	18.8	18.4	18.6	14.0	13.6	13.8	7.1	6.9	7.0	4.3	4.1	4.2
18	18.9	18.3	18.5	14.1	13.9	14.0	6.9	6.6	6.8	4.3	4.1	4.2
19	19.0	18.1	18.4	14.0	13.5	13.7	6.6	6.3	6.5	4.2	3.9	4.0
20	19.3	18.2	18.7	14.0	13.5	13.7	6.3	6.0	6.2	4.1	3.8	3.9
21	18.7	18.1	18.3	14.0	13.5	13.7	6.1	5.8	6.0	3.9	3.5	3.6
22	18.5	17.8	18.1	14.1	13.5	13.7	6.2	5.9	6.0	3.6	3.4	3.5
23	18.5	17.7	18.0	14.0	13.8	13.9	6.2	5.9	6.1	3.4	3.1	3.3
24	18.3	17.5	17.9	13.8	12.9	13.2	5.9	5.7	5.8	3.5	3.2	3.3
25	18.2	17.6	17.8	12.9	12.7	12.8	5.7	5.4	5.6	3.2	2.6	2.8
26	17.6	17.1	17.4	12.7	12.5	12.6	5.7	5.4	5.5	2.6	2.6	2.6
27	17.4	16.8	17.1	12.5	12.3	12.5	5.6	5.3	5.4	2.7	2.4	2.6
28	16.9	16.7	16.8	12.4	11.7	12.0	5.7	5.4	5.6	2.4	2.2	2.3
29	16.7	16.5	16.6	11.8	11.4	11.6	5.7	5.5	5.6	2.3	2.1	2.2
30	17.1	16.4	16.7	11.6	11.2	11.4	5.6	5.4	5.5	2.2	2.1	2.1
31	17.2	16.6	16.8	---	---	---	5.6	5.3	5.5	2.1	1.9	2.0
MONTH	20.9	16.4	18.8	17.9	11.2	14.5	11.2	5.3	7.6	8.1	1.9	4.3

03374500 Patoka River near Cuzco, IN—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.2	2.0	2.1	6.5	5.4	5.8	11.3	10.1	10.5	18.3	16.4	17.3
2	2.1	1.9	1.9	7.1	5.5	6.1	10.9	9.9	10.3	16.9	15.2	16.0
3	1.9	1.8	1.8	7.5	5.5	6.0	11.2	10.0	10.5	17.4	15.9	16.5
4	2.1	1.8	2.0	9.6	7.4	8.3	11.2	9.8	10.4	18.2	16.0	16.9
5	2.3	2.1	2.2	9.2	8.3	8.8	12.7	10.2	11.2	18.3	16.6	17.4
6	2.3	2.3	2.3	8.3	7.3	7.9	13.4	10.8	12.3	19.6	17.6	18.5
7	2.4	2.2	2.3	8.6	7.2	7.6	13.7	12.3	13.0	20.0	18.2	19.0
8	2.3	2.2	2.2	8.2	7.1	7.5	13.3	10.9	12.4	21.4	18.5	20.0
9	2.4	2.2	2.3	7.9	7.1	7.4	13.5	11.3	12.3	21.6	19.2	20.3
10	2.5	2.3	2.4	8.7	7.2	7.9	13.9	12.2	13.3	21.9	19.4	20.8
11	2.7	2.4	2.5	8.6	7.4	7.9	13.9	13.3	13.5	23.4	20.3	22.0
12	2.8	2.6	2.7	8.2	7.3	7.6	13.6	13.0	13.3	24.4	22.4	23.4
13	2.8	2.7	2.8	8.6	7.3	7.9	13.0	11.8	12.5	23.9	23.1	23.5
14	2.9	2.7	2.8	8.5	7.7	8.1	13.1	11.4	12.1	24.1	20.7	23.3
15	3.0	2.8	2.9	9.4	7.7	8.4	14.5	11.9	13.1	21.0	19.2	20.3
16	3.1	2.8	3.0	8.7	8.1	8.4	15.3	13.1	14.1	22.1	20.9	21.5
17	3.3	3.0	3.1	8.8	8.1	8.3	16.2	14.1	15.1	22.7	21.5	22.0
18	3.4	3.1	3.3	9.6	8.1	8.6	17.4	15.1	16.1	22.7	21.4	22.0
19	3.7	3.3	3.5	9.9	8.1	8.9	16.9	15.7	16.2	23.0	21.4	22.3
20	3.7	3.6	3.6	9.8	8.8	9.5	17.6	15.7	16.6	23.1	22.0	22.6
21	3.6	3.4	3.4	9.0	8.4	8.6	17.2	16.6	16.8	23.5	22.3	22.9
22	3.7	3.3	3.5	9.4	8.3	8.7	16.8	16.4	16.6	23.9	22.3	23.2
23	3.9	3.5	3.7	9.5	8.5	9.0	17.3	16.1	16.5	24.8	23.0	24.0
24	4.0	3.8	3.9	10.1	9.0	9.5	17.3	15.9	16.6	24.9	23.7	24.1
25	4.2	3.8	4.0	10.8	9.5	10.0	18.3	16.3	17.1	24.9	23.1	24.3
26	4.9	3.8	4.2	11.0	10.0	10.5	17.9	15.7	16.6	24.4	20.0	23.3
27	5.4	3.8	4.5	11.6	10.0	10.8	17.4	15.3	16.1	24.8	20.0	23.0
28	5.9	4.0	4.9	13.6	11.2	12.4	17.7	15.1	16.3	24.1	20.3	22.1
29	6.4	5.1	5.6	13.1	11.3	12.2	18.4	16.1	17.2	25.2	22.6	23.9
30	---	---	---	13.0	11.4	12.5	19.1	16.9	17.9	24.8	22.7	24.3
31	---	---	---	11.5	10.0	10.6	---	---	---	24.2	20.1	22.5
MONTH	6.4	1.8	3.1	13.6	5.4	8.8	19.1	9.8	14.2	25.2	15.2	21.4
		JUNE			JULY			AUGUST			SEPTEMBER	
1	23.6	20.2	22.6	27.2	26.2	26.6	27.1	25.8	26.4	26.9	25.9	26.5
2	24.6	21.1	23.0	27.6	26.2	26.8	27.4	26.3	26.8	27.1	26.1	26.6
3	24.4	21.1	23.0	29.1	27.4	28.2	27.5	26.5	27.0	26.7	26.4	26.6
4	24.2	22.8	23.4	28.3	25.0	27.1	27.4	25.9	27.0	27.1	26.1	26.5
5	24.6	22.7	23.7	27.6	26.4	27.1	27.5	25.9	26.8	27.3	26.2	26.8
6	24.7	23.8	24.2	27.5	26.1	26.9	27.2	26.5	26.9	27.8	26.9	27.2
7	25.5	24.1	24.8	26.8	25.2	26.1	27.2	26.2	26.6	27.2	26.3	26.5
8	25.6	24.7	25.2	26.9	25.3	26.4	27.2	26.2	26.7	26.4	25.6	26.0
9	25.7	24.6	25.0	27.4	26.7	27.0	27.2	26.5	26.8	25.6	25.0	25.3
10	26.1	25.1	25.5	27.8	27.1	27.5	26.7	25.5	26.2	25.9	24.8	25.3
11	25.6	23.4	24.6	28.1	26.2	27.2	25.9	25.4	25.7	26.1	25.1	25.6
12	26.6	24.2	25.6	27.3	24.8	26.5	25.5	25.1	25.3	26.4	25.4	25.9
13	26.8	25.1	26.0	28.0	25.2	27.1	25.1	24.7	24.8	27.0	25.9	26.3
14	26.1	25.1	25.5	27.6	25.2	26.6	25.1	24.5	24.8	26.7	26.2	26.4
15	26.5	25.5	25.9	27.8	25.6	26.9	25.3	24.4	24.8	26.9	26.1	26.5
16	27.1	26.4	26.7	28.1	27.1	27.6	25.4	24.4	24.9	26.9	26.1	26.4
17	26.6	24.7	25.9	27.9	27.3	27.7	25.8	24.8	25.3	26.4	25.6	26.1
18	26.2	24.7	25.8	28.1	27.4	27.8	26.0	25.1	25.5	26.0	25.0	25.4
19	26.1	23.8	25.1	28.0	27.2	27.5	25.8	25.1	25.4	25.4	24.5	24.9
20	26.4	23.8	25.5	28.2	27.3	27.8	25.6	25.1	25.5	25.0	24.0	24.5
21	27.1	25.6	26.2	29.0	27.9	28.4	25.8	24.9	25.3	25.0	24.0	24.5
22	26.2	24.9	25.6	28.7	26.7	28.1	26.3	25.2	25.8	25.3	23.8	24.4
23	26.6	24.9	25.7	28.3	27.4	27.9	26.8	25.8	26.3	25.3	23.9	24.6
24	26.6	25.8	26.1	28.6	27.9	28.2	27.6	26.3	26.9	25.2	24.2	24.6
25	26.5	25.4	26.1	28.1	27.1	27.6	27.8	26.6	27.1	24.8	24.1	24.4
26	25.9	25.0	25.5	27.1	26.0	26.5	27.5	26.1	27.0	24.7	23.6	24.1
27	26.4	25.4	25.9	26.0	25.5	25.7	27.7	27.0	27.3	24.5	23.3	23.8
28	26.4	25.4	25.9	26.3	25.3	25.7	27.9	27.0	27.3	24.1	22.9	23.4
29	26.4	25.3	25.8	26.7	26.0	26.3	27.1	26.1	26.6	23.0	22.2	22.6
30	26.7	25.5	26.2	26.9	26.1	26.4	26.5	26.0	26.2	23.2	21.8	22.4
31	---	---	---	26.6	25.9	26.2	26.7	25.8	26.2	---	---	---
MONTH	27.1	20.2	25.2	29.1	24.8	27.1	27.9	24.4	26.2	27.8	21.8	25.3
YEAR	29.1	1.8	16.4									

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, (JASPER, IN quadrangle), on left bank 0.3 mi upstream from unnamed outlet of Idlewild Lake, 1.2 mi downstream from county road 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 National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Nonrecording gage at bridge 5.6 mi downstream, used for high-water periods when flow exceeds about 2,500 ft^3/s, at datum 0.15 ft lower. Prior to Sept. 18, 1956, nonrecording gage at bridge 5.6 mi downstream at datum 0.15 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

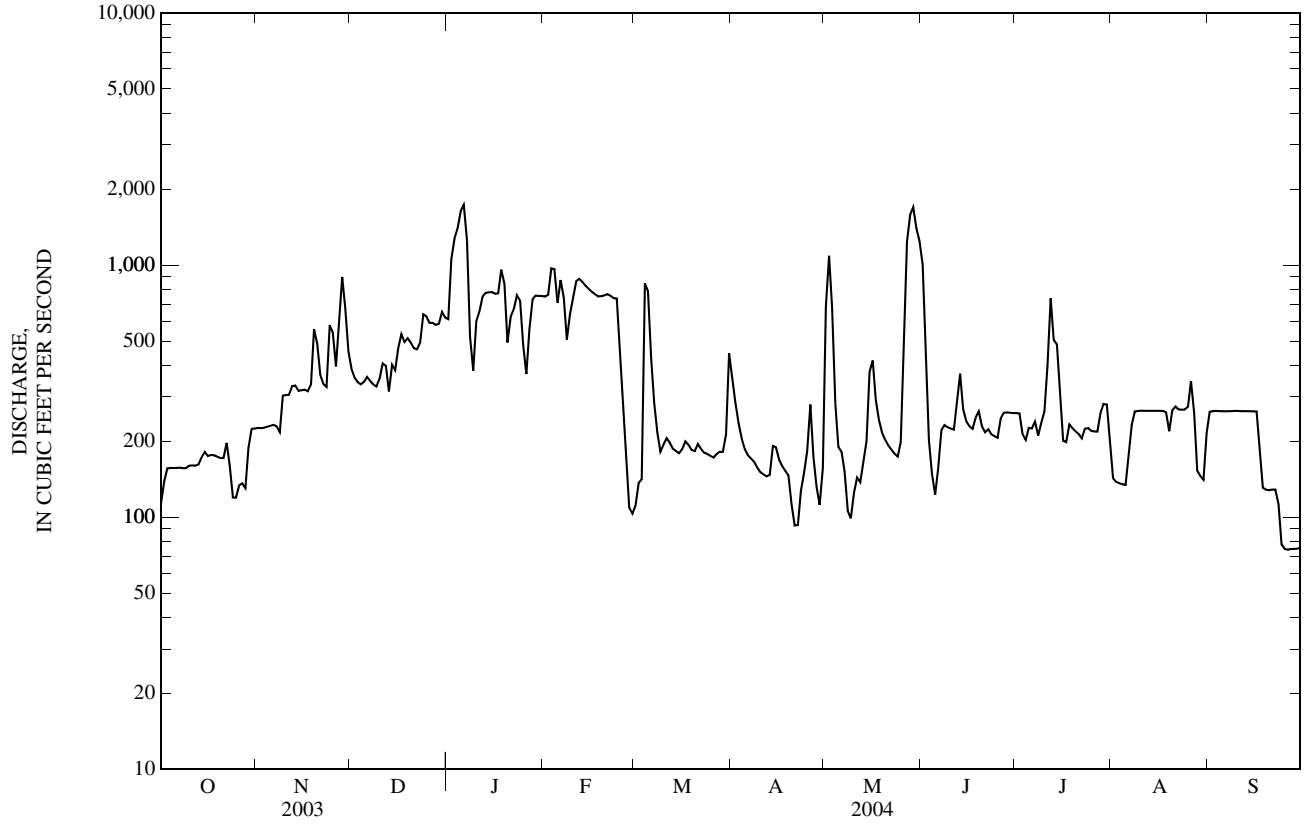
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114	226	388	611	751	111	357	685	1,000	259	143	262
2	139	226	358	1,060	762	137	286	1,090	397	258	138	263
3	156	226	343	1,270	971	141	237	677	202	214	136	264
4	157	229	336	1,400	965	847	207	283	149	203	135	263
5	157	230	344	1,640	708	791	187	190	123	226	134	263
6	157	233	360	1,730	872	427	176	182	157	225	172	263
7	157	229	347	1,250	742	284	171	152	222	239	233	263
8	156	217	336	520	507	216	166	106	232	211	263	263
9	157	304	330	382	641	182	157	99	227	237	264	264
10	160	306	355	596	736	194	151	125	225	263	265	264
11	161	306	407	655	864	205	148	144	222	398	264	264
12	160	332	398	749	881	197	145	138	288	739	264	263
13	162	333	316	776	857	187	147	163	371	505	264	263
14	173	317	403	781	829	183	192	200	268	485	264	263
15	182	319	382	781	805	180	189	377	240	322	264	263
16	175	320	472	770	784	186	169	418	230	201	264	263
17	177	316	533	773	767	200	160	292	224	199	264	186
18	176	336	495	959	752	194	153	242	248	233	261	131
19	174	557	513	844	754	185	146	217	263	226	219	129
20	172	487	492	493	758	183	112	203	230	219	265	128
21	172	367	468	623	767	195	93	193	217	214	274	129
22	197	338	464	670	756	187	93	185	223	205	268	129
23	160	329	493	759	739	180	127	179	213	224	267	113
24	120	578	638	722	738	178	151	174	209	226	268	78
25	120	542	627	484	484	175	183	199	206	220	274	75
26	134	397	589	370	290	173	280	629	247	219	347	74
27	136	589	591	556	174	178	174	1,240	260	219	258	75
28	131	898	579	732	109	182	132	1,590	260	260	153	75
29	188	676	584	757	103	181	112	1,690	260	281	146	75
30	224	455	653	755	---	213	156	1,400	259	280	141	76
31	225	---	620	755	---	447	---	1,250	---	200	216	---
TOTAL	5,029	11,218	14,214	25,223	19,866	7,519	5,157	14,712	7,872	8,410	7,088	5,684
MEAN	162	374	459	814	685	243	172	475	262	271	229	189
MAX	225	898	653	1,730	971	847	357	1,690	1,000	739	347	264
MIN	114	217	316	370	103	111	93	99	123	199	134	74
CFSM	0.62	1.43	1.75	3.11	2.61	0.93	0.66	1.81	1.00	1.04	0.87	0.72
IN.	0.71	1.59	2.02	3.58	2.82	1.07	0.73	2.09	1.12	1.19	1.01	0.81

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2004, BY WATER YEAR (WY)

MEAN	103	230	432	633	666	756	590	429	208	125	103	92.7
MAX	494	800	1,506	2,742	1,898	2,543	1,574	2,034	1,044	787	530	484
(WY)	(1980)	(1975)	(1952)	(1950)	(1950)	(1964)	(1972)	(1996)	(1996)	(1958)	(1977)	(1979)
MIN	0.00	0.00	0.17	17.5	27.7	144	54.1	29.8	8.66	0.07	0.00	0.00
(WY)	(1949)	(1954)	(1954)	(1964)	(1964)	(1992)	(2001)	(2001)	(1953)	(1954)	(1952)	(1953)

03375500 PATOKA RIVER AT JASPER, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1949 - 2004	
ANNUAL TOTAL	130,104		131,992			
ANNUAL MEAN	356		361		363	
HIGHEST ANNUAL MEAN					673	1950
LOWEST ANNUAL MEAN					63.6	1954
HIGHEST DAILY MEAN	1,730	Feb 24	1,730	Jan 6	13,500	Mar 11, 1964
LOWEST DAILY MEAN	68	Jul 7	74	Sep 26	0.00	Oct 1, 1948
ANNUAL SEVEN-DAY MINIMUM	70	Aug 23	75	Sep 24	0.00	Oct 1, 1948
MAXIMUM PEAK FLOW			1,770	Jan 6	14,100	Mar 11, 1964
MAXIMUM PEAK STAGE			14.55	Jan 6	21.20	Mar 11, 1964
ANNUAL RUNOFF (CFSM)	1.36		1.38		1.38	
ANNUAL RUNOFF (INCHES)	18.47		18.74		18.81	
10 PERCENT EXCEEDS	821		758		1,040	
50 PERCENT EXCEEDS	226		260		139	
90 PERCENT EXCEEDS	76		138		8.1	



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, (WINSLOW, IN quadrangle), 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 National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to Nov. 21, 1963, nonrecording gage on downstream side of bridge 65 ft downstream at same datum.

REMARKS.--Records fair. 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

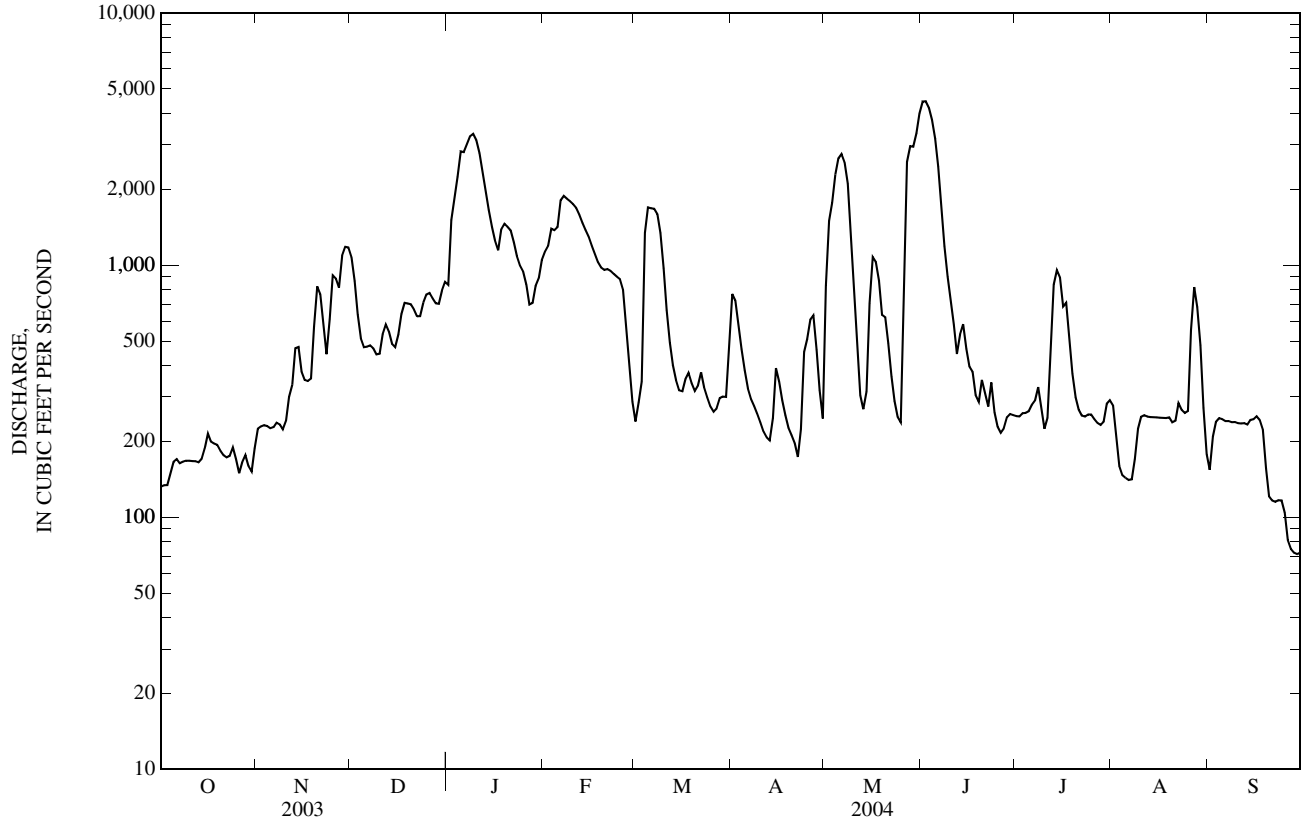
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	132	224	1,080	835	1,130	240	768	828	4,450	252	277	154
2	134	229	863	1,510	1,190	286	724	1,500	4,470	251	208	209
3	134	232	638	1,860	1,390	345	582	1,760	4,210	258	160	239
4	150	230	512	2,240	1,380	1,340	464	2,290	3,780	260	147	247
5	166	225	473	2,830	1,420	1,690	382	2,650	3,170	263	143	245
6	170	228	475	2,810	1,810	1,680	324	2,760	2,460	279	141	241
7	164	237	480	3,030	1,880	1,670	295	2,560	1,750	290	141	241
8	166	233	468	3,240	1,840	1,590	276	2,100	1,190	328	170	238
9	168	223	443	3,320	1,790	1,340	257	1,500	900	271	225	239
10	167	242	445	3,140	1,750	972	238	961	723	224	250	236
11	167	301	532	2,780	1,690	663	219	562	580	248	254	236
12	167	336	582	2,370	1,590	492	207	305	444	435	251	236
13	165	468	545	1,980	1,470	401	202	268	531	837	250	233
14	170	474	487	1,650	1,380	349	247	315	583	956	249	243
15	188	379	473	1,420	1,300	319	391	705	465	896	249	245
16	215	350	531	1,250	1,200	316	345	1,080	396	684	248	251
17	200	347	639	1,140	1,110	352	291	1,030	378	709	248	243
18	196	355	708	1,390	1,030	374	254	868	306	524	247	223
19	194	570	705	1,460	977	341	227	636	287	370	249	156
20	183	824	700	1,420	957	317	212	622	351	299	238	121
21	176	768	669	1,370	965	332	197	490	310	267	241	116
22	173	576	627	1,230	949	376	174	363	275	253	284	115
23	175	444	628	1,090	923	327	223	289	342	251	267	117
24	189	610	710	993	900	298	453	249	261	256	259	117
25	171	912	764	943	879	275	509	238	229	256	264	104
26	149	884	775	836	800	262	608	1,100	216	245	553	81
27	165	815	738	698	586	270	632	2,570	225	237	817	75
28	176	1,090	706	708	418	297	462	2,960	249	232	681	72
29	160	1,180	702	827	287	301	319	2,950	257	239	481	71
30	152	1,180	794	889	---	300	246	3,340	254	282	271	72
31	188	---	859	1,050	---	497	---	4,000	---	291	178	---
TOTAL	5,270	15,166	19,751	52,309	34,991	18,612	10,728	43,849	34,042	11,443	8,641	5,416
MEAN	170	506	637	1,687	1,207	600	358	1,414	1,135	369	279	181
MAX	215	1,180	1,080	3,320	1,880	1,690	768	4,000	4,470	956	817	251
MIN	132	223	443	698	287	240	174	238	216	224	141	71
CFSM	0.28	0.84	1.06	2.80	2.00	1.00	0.59	2.35	1.88	0.61	0.46	0.30
IN.	0.33	0.94	1.22	3.23	2.16	1.15	0.66	2.71	2.10	0.71	0.53	0.33

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2004, BY WATER YEAR (WY)

MEAN	167	388	833	1,088	1,353	1,535	1,357	1,189	580	300	188	182
MAX	653	2,218	3,175	2,576	2,832	5,126	3,426	4,863	2,958	1,305	865	708
(WY)	(2002)	(1994)	(2002)	(1991)	(1991)	(1964)	(1972)	(1996)	(1996)	(1969)	(2000)	(1996)
MIN	2.84	6.83	13.8	56.3	45.5	428	131	85.7	13.4	13.5	7.46	0.94
(WY)	(1965)	(1964)	(1964)	(1964)	(1964)	(1969)	(2001)	(1988)	(1972)	(1966)	(1965)	(1972)

03376300 PATOKA RIVER AT WINSLOW, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1964 - 2004	
ANNUAL TOTAL	269,608		260,218			
ANNUAL MEAN	739		711		760	
HIGHEST ANNUAL MEAN					1,332	1997
LOWEST ANNUAL MEAN					224	1992
HIGHEST DAILY MEAN	4,340	Feb 27	4,470	Jun 2	15,200	Mar 13, 1964
LOWEST DAILY MEAN	88	Aug 27	71	Sep 29	0.50	Aug 5, 1964
ANNUAL SEVEN-DAY MINIMUM	89	Aug 21	85	Sep 24	0.61	Sep 8, 1972
MAXIMUM PEAK FLOW			4,640	Jun 2	15,500	Mar 13, 1964
MAXIMUM PEAK STAGE			23.60	Jun 2	28.84	Mar 13, 1964
ANNUAL RUNOFF (CFSM)	1.22		1.18		1.26	
ANNUAL RUNOFF (INCHES)	16.63		16.05		17.12	
10 PERCENT EXCEEDS	1,880		1,680		2,010	
50 PERCENT EXCEEDS	475		359		312	
90 PERCENT EXCEEDS	118		170		28	



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, (OAKLAND CITY, IN quadrangle), 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 current year.

GAGE.--Water-stage recorder. Datum of gage is 420.88 ft above National Geodetic Vertical Datum of 1929 (Indiana Flood Control and Water Resources Commission bench mark).

REMARKS.--Records fair except for estimated daily discharges and those below 80 ft^3/s, which are poor. Runoff affected by un-reclaimed surface mined lands.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e8.0	20	18	19	39	30	31	757	84	13	10	16
2	e6.8	24	15	648	59	28	27	186	68	14	9.5	13
3	e6.0	27	14	117	222	58	25	71	40	13	11	16
4	e5.6	14	14	510	e57	429	22	43	40	14	9.8	13
5	e5.4	14	18	353	e74	109	19	34	34	11	9.2	12
6	e5.2	14	15	86	e151	74	19	29	27	13	8.9	11
7	e5.0	14	14	56	e70	51	19	24	23	18	8.7	11
8	e5.0	14	13	45	50	40	18	21	21	12	8.4	10
9	e5.2	14	13	40	49	35	15	19	19	11	8.2	11
10	e5.0	19	20	35	55	29	16	16	20	10	8.1	10
11	e6.8	24	17	33	50	28	17	15	21	21	7.6	10
12	e6.3	48	15	32	45	26	15	14	26	25	7.8	10
13	e12	13	13	29	37	24	16	38	22	22	7.9	10
14	e13	8.8	15	29	35	24	18	47	20	35	7.8	21
15	e11	10	15	27	33	24	15	121	21	12	7.8	13
16	e13	9.7	22	26	28	31	15	71	41	12	7.6	12
17	e12	9.0	21	57	26	30	15	56	22	23	7.1	11
18	e11	34	19	183	25	26	14	49	18	11	7.2	9.8
19	e10	64	20	67	28	23	14	334	18	9.5	7.8	9.8
20	e10	20	16	47	33	33	14	139	15	10	9.5	8.9
21	e9.8	13	24	36	30	43	14	55	14	10	11	9.1
22	e8.6	11	16	34	26	30	25	36	13	11	7.5	8.9
23	8.2	11	31	45	26	26	38	31	13	13	7.5	8.7
24	7.5	117	24	29	25	25	29	25	12	11	7.7	9.2
25	8.2	26	18	27	25	24	33	207	12	9.6	10	9.2
26	14	20	15	33	22	24	25	416	14	10	381	10
27	11	123	14	36	21	28	20	838	11	11	35	8.3
28	9.5	87	14	45	20	27	16	541	10	13	28	7.6
29	9.6	33	33	58	21	28	14	102	10	9.7	22	8.0
30	9.1	23	40	e69	---	30	19	99	10	10	14	8.0
31	14	---	24	42	---	33	---	237	---	13	12	---
TOTAL	271.8	878.5	580	2,893	1,382	1,470	597	4,671	719	430.8	705.6	325.5
MEAN	8.77	29.3	18.7	93.3	47.7	47.4	19.9	151	24.0	13.9	22.8	10.8
MAX	14	123	40	648	222	429	38	838	84	35	381	21
MIN	5.0	8.8	13	19	20	23	14	14	10	9.5	7.1	7.6
CFSM	0.20	0.68	0.44	2.18	1.11	1.11	0.46	3.52	0.56	0.32	0.53	0.25
IN.	0.24	0.76	0.50	2.51	1.20	1.28	0.52	4.06	0.62	0.37	0.61	0.28

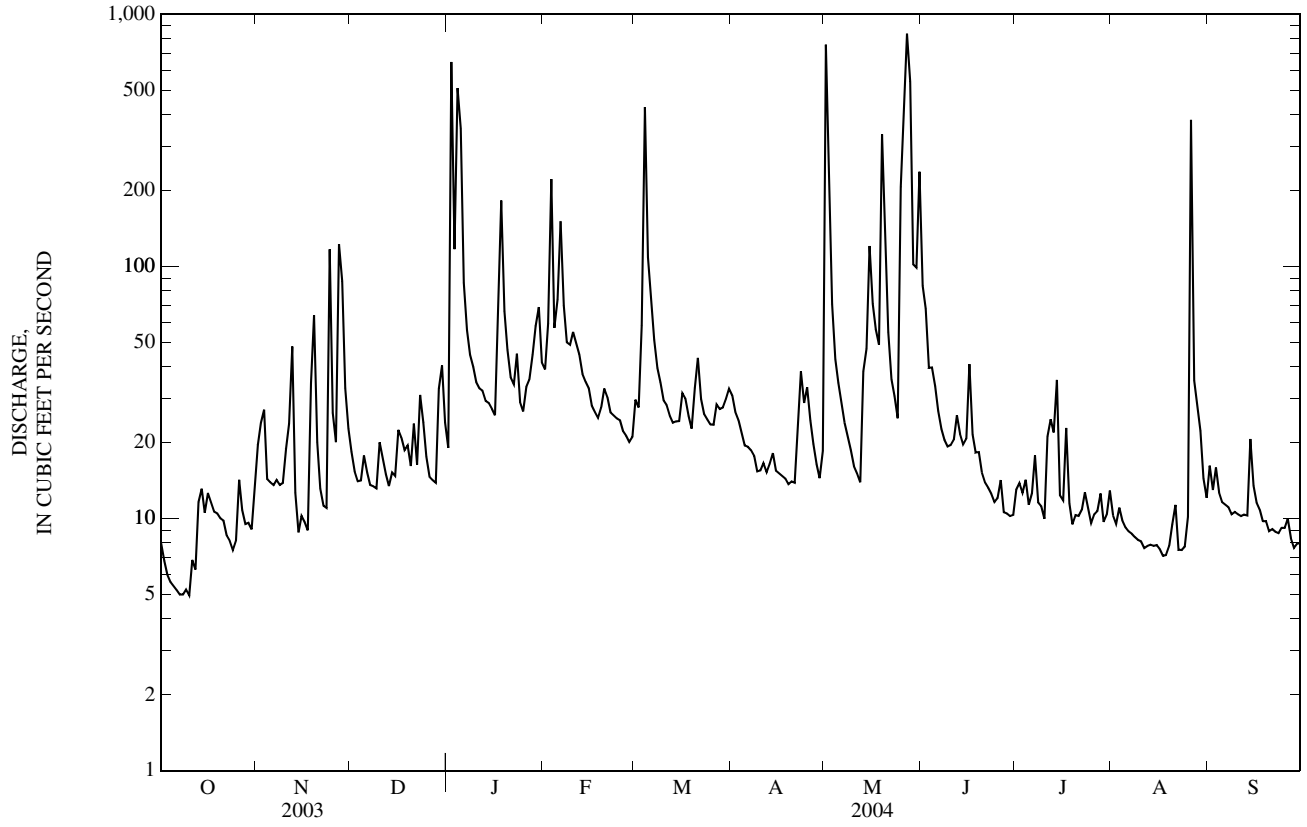
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2004, BY WATER YEAR (WY)

MEAN	15.7	38.1	59.8	60.3	81.5	91.4	84.5	75.6	43.1	30.7	23.0	16.8
MAX	39.0	136	164	186	229	188	223	263	227	283	127	72.7
(WY)	(2002)	(1986)	(2002)	(1982)	(1985)	(1975)	(1983)	(1983)	(1979)	(1979)	(1979)	(1982)
MIN	3.35	5.51	4.84	0.81	26.1	21.2	19.4	12.5	11.0	6.02	6.83	5.00
(WY)	(1965)	(2000)	(1977)	(1977)	(1978)	(1981)	(2001)	(1965)	(1972)	(1966)	(1999)	(1972)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1965 - 2004	
ANNUAL TOTAL	17,651.7		14,924.2			
ANNUAL MEAN	48.4		40.8		51.6	
HIGHEST ANNUAL MEAN					118	1979
LOWEST ANNUAL MEAN					25.3	1981
HIGHEST DAILY MEAN	1,160	Feb 22	838	May 27	3,640	Jun 9, 1979
LOWEST DAILY MEAN	5.0	Oct 7	e 5.0	Oct 7	0.00	Jan 20, 1977
ANNUAL SEVEN-DAY MINIMUM	5.2	Oct 4	e 5.2	Oct 4	0.00	Jan 20, 1977
MAXIMUM PEAK FLOW			2,340	May 27	5,900	Jun 9, 1979
MAXIMUM PEAK STAGE			11.25	May 27	15.07	Jun 9, 1979
ANNUAL RUNOFF (CFSM)	1.13		0.953		1.20	
ANNUAL RUNOFF (INCHES)	15.34		12.97		16.37	
10 PERCENT EXCEEDS	97		60		110	
50 PERCENT EXCEEDS	20		19		22	
90 PERCENT EXCEEDS	7.9		8.7		6.5	

e Estimated

03376350 SOUTH FORK PATOKA RIVER NEAR SPURGEON, IN—Continued



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, (PATOKA, IN quadrangle), 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 National Geodetic Vertical Datum of 1929. Jan. 21, 1941 to Oct. 23, 1986, water-stage recorder at dam 0.1 mi downstream and at datum 4.14 ft higher. See WSP 1725 for history of changes prior to Jan. 21, 1941.

REMARKS.--Records good except those for June 3 to Sept. 30, which are poor. Flow regulated by Patoka Lake.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	139	218	1,350	999	1,080	353	796	671	3,220	316	345	285
2	138	241	1,190	1,410	1,050	377	912	1,560	3,500	319	299	279
3	138	243	905	1,720	1,390	428	777	1,690	e3,750	317	230	355
4	144	245	655	2,020	1,650	1,560	609	1,770	e3,840	336	196	365
5	169	239	543	2,280	1,640	1,840	492	1,880	e3,800	344	180	342
6	179	237	525	2,340	1,850	1,920	414	1,990	e3,730	357	180	336
7	178	248	526	2,480	1,930	1,950	371	2,110	e3,660	369	168	328
8	175	251	518	2,600	1,970	1,950	351	2,200	e3,400	400	176	313
9	174	244	496	2,710	2,010	1,910	321	2,220	e3,120	370	228	308
10	175	235	480	2,840	2,050	1,780	297	2,150	2,750	308	264	310
11	175	285	535	2,960	2,070	1,380	277	1,790	2,270	310	278	310
12	178	338	622	3,050	2,050	927	261	911	1,440	397	281	307
13	178	441	619	3,060	2,010	617	248	554	931	802	277	299
14	184	534	571	3,000	1,930	494	249	496	899	1,240	279	305
15	205	458	512	2,850	1,840	438	366	683	718	1,110	273	336
16	229	389	556	2,660	1,710	420	414	1,250	577	916	272	337
17	231	375	657	2,440	1,580	435	357	1,350	538	841	273	318
18	220	382	771	2,310	1,460	471	313	1,240	459	732	276	290
19	215	545	803	2,130	1,360	444	277	962	400	506	272	251
20	204	839	790	2,030	1,300	439	261	963	416	374	281	198
21	193	919	767	1,930	1,250	488	244	806	429	320	273	164
22	191	759	723	1,830	1,200	480	224	575	409	321	301	158
23	183	546	706	1,680	1,160	455	253	433	419	369	305	160
24	188	724	777	1,500	1,120	403	406	362	399	332	291	167
25	201	979	841	1,350	1,080	371	610	346	332	307	299	163
26	177	1,070	881	1,210	1,030	355	628	1,200	287	292	1,840	134
27	170	981	863	1,010	839	375	734	2,380	273	279	1,470	107
28	187	1,210	815	846	590	401	610	2,500	286	266	1,210	96
29	188	1,370	797	905	433	410	425	2,580	303	265	1,370	92
30	167	1,380	887	1,050	---	419	315	2,760	301	316	705	90
31	163	---	989	1,070	---	474	---	3,030	---	378	411	---
TOTAL	5,636	16,925	22,670	62,270	42,632	24,764	12,812	45,412	46,856	14,109	13,503	7,503
MEAN	182	564	731	2,009	1,470	799	427	1,465	1,562	455	436	250
MAX	231	1,380	1,350	3,060	2,070	1,950	912	3,030	3,840	1,240	1,840	365
MIN	138	218	480	846	433	353	224	346	273	265	168	90
CFSM	0.22	0.69	0.89	2.44	1.79	0.97	0.52	1.78	1.90	0.55	0.53	0.30
IN.	0.26	0.77	1.03	2.82	1.93	1.12	0.58	2.06	2.12	0.64	0.61	0.34

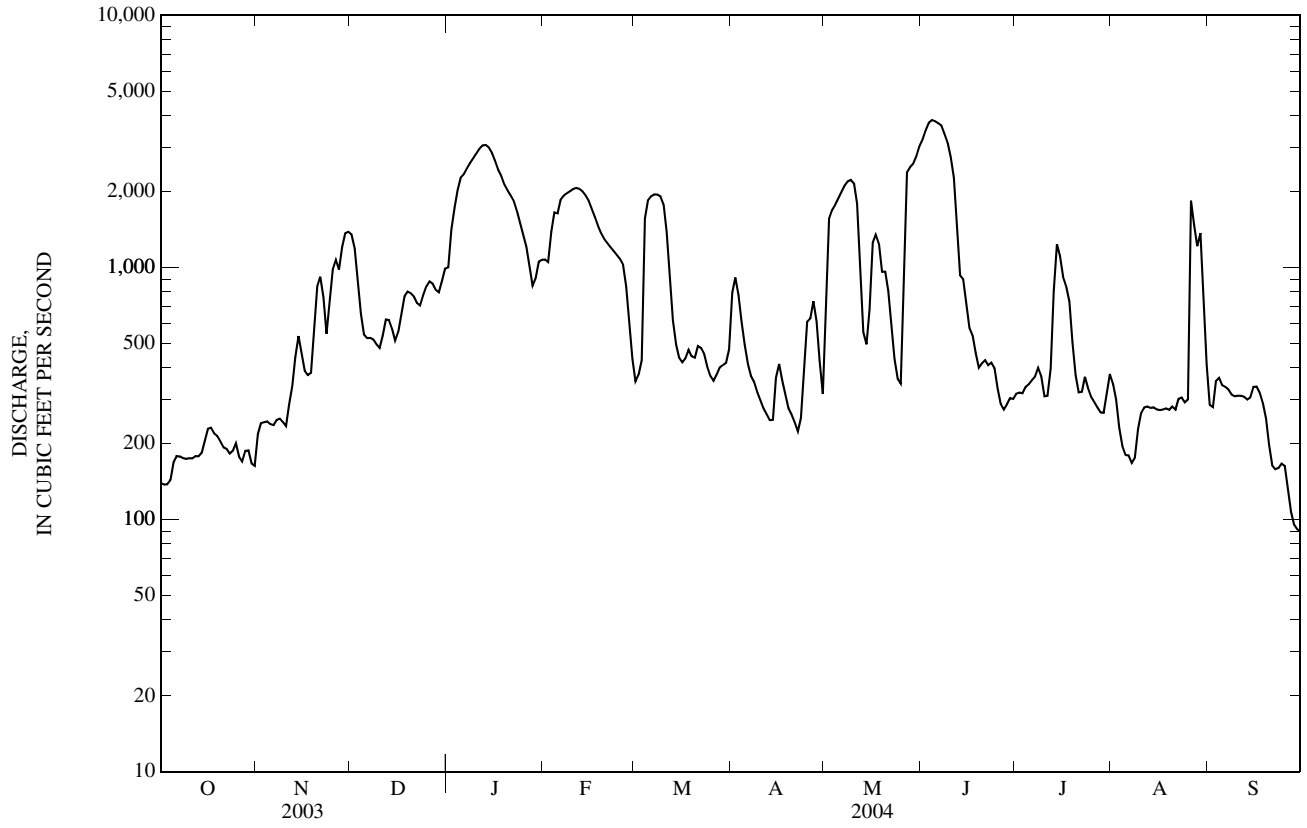
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2004, BY WATER YEAR (WY)

MEAN	255	516	1,014	1,524	1,793	2,174	1,922	1,540	824	443	314	229
MAX	2,573	2,978	4,232	8,365	5,570	8,531	4,664	6,810	4,322	3,075	3,915	1,125
(WY)	(1946)	(1994)	(2002)	(1937)	(1950)	(1945)	(1989)	(1961)	(1996)	(1958)	(1979)	(1979)
MIN	1.53	9.83	10.2	44.3	64.2	61.5	240	117	7.93	15.0	4.60	8.12
(WY)	(1943)	(1944)	(1944)	(1944)	(1964)	(1941)	(2001)	(1941)	(1936)	(1944)	(1936)	(1942)

03376500 PATOKA RIVER NEAR PRINCETON, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1935 - 2004	
ANNUAL TOTAL	354,889		315,092			
ANNUAL MEAN	972		861		1,042	
HIGHEST ANNUAL MEAN					2,080	1950
LOWEST ANNUAL MEAN					151	1954
HIGHEST DAILY MEAN	3,920	Mar 3	e 3,840	Jun 4	18,500	Jan 26, 1937
LOWEST DAILY MEAN	88	Aug 28	90	Sep 30	0.00	Aug 29, 1936
ANNUAL SEVEN-DAY MINIMUM	91	Aug 24	121	Sep 24	0.00	Aug 29, 1936
MAXIMUM PEAK FLOW			unknown		18,700	Jan 26, 1937
MAXIMUM PEAK STAGE			unknown		26.80	Jan 26, 1937
ANNUAL RUNOFF (CFSM)	1.18		1.05		1.27	
ANNUAL RUNOFF (INCHES)	16.06		14.26		17.22	
10 PERCENT EXCEEDS	2,340		2,060		2,830	
50 PERCENT EXCEEDS	633		472		391	
90 PERCENT EXCEEDS	137		190		30	

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, (MOUNT CARMEL, IL-IN quadrangle), on right bank on downstream side of Southern Railway bridge at Mount Carmel, 0.2 mi downstream from Patoka River, 0.2 mi upstream of State Road 64 bridge, 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 National Geodetic Vertical Datum of 1929. Oct. 1, 1949, to Feb. 8, 1977, at datum 2.00 ft higher. See WSP 1725 for history of changes prior to Sept. 30, 1949.

REMARKS.--Records fair 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39,000	15,500	57,600	59,100	22,500	27,700	51,900	18,000	70,100	33,100	13,900	21,400
2	40,700	15,300	53,700	59,200	21,500	27,900	54,500	18,400	71,400	29,300	12,500	24,500
3	42,400	14,700	51,700	61,000	21,800	30,500	56,200	19,200	71,200	26,500	11,500	25,800
4	42,800	14,300	51,500	64,700	23,600	35,800	57,300	23,000	71,600	24,300	10,700	24,600
5	40,900	14,000	50,400	75,100	25,400	43,900	57,800	26,900	71,700	24,600	10,300	21,500
6	e36,600	13,800	47,000	86,900	27,600	52,100	55,500	28,700	70,500	24,800	10,300	19,000
7	e30,500	13,800	41,100	96,600	30,200	57,400	47,600	29,400	68,100	24,100	10,400	17,600
8	e25,300	13,900	35,400	107,000	31,000	59,500	38,800	29,700	58,600	24,000	10,600	16,800
9	e22,000	13,600	32,100	119,000	31,300	60,400	33,100	29,600	42,700	22,600	10,800	15,700
10	e20,200	13,300	30,600	133,000	31,400	60,200	29,400	28,100	34,700	21,300	11,000	14,000
11	e19,000	13,200	30,100	149,000	33,000	58,200	26,800	25,100	29,700	20,600	10,700	12,200
12	e18,100	13,300	30,600	157,000	34,800	54,500	24,500	21,500	26,700	25,500	9,940	11,100
13	e17,100	13,700	32,100	157,000	35,300	50,300	22,500	18,500	29,800	35,900	9,190	10,600
14	e16,400	14,200	35,000	147,000	33,800	43,900	20,600	17,100	39,500	38,700	8,610	10,000
15	e15,700	15,100	37,700	131,000	31,900	36,200	19,100	16,300	43,900	38,300	8,180	9,630
16	e16,100	16,400	38,500	114,000	30,300	30,800	18,300	16,700	48,800	33,400	7,890	8,970
17	e16,800	17,800	36,400	91,700	28,500	27,400	18,200	17,300	54,200	32,500	7,650	8,250
18	e18,000	19,200	33,400	71,300	26,200	25,400	18,600	18,200	60,200	27,200	7,370	7,910
19	e19,200	22,100	31,200	62,700	24,300	24,100	18,700	19,000	66,200	23,500	7,160	7,540
20	e20,600	31,500	30,000	58,100	23,700	23,400	18,000	19,400	71,200	22,100	7,160	7,320
21	e21,700	42,000	29,400	51,700	24,500	22,900	17,000	20,500	77,200	20,800	7,100	7,030
22	e21,100	47,200	28,100	45,700	26,000	21,800	16,000	22,800	85,900	19,100	7,550	6,790
23	e19,300	48,400	26,600	41,000	29,300	20,900	15,800	24,100	90,800	17,600	9,100	6,610
24	17,900	51,200	29,800	37,000	33,300	20,100	15,900	24,700	92,300	17,900	10,700	6,420
25	16,800	56,200	40,500	33,500	37,500	19,500	16,400	25,100	87,100	17,600	11,900	6,230
26	16,000	58,800	47,900	31,000	38,900	19,000	17,300	26,600	76,200	17,200	18,100	6,030
27	15,300	59,800	51,800	29,100	36,800	21,500	18,600	34,500	66,700	16,200	20,400	5,800
28	14,700	59,300	53,900	27,100	33,200	31,600	19,300	49,400	58,600	15,700	20,200	5,700
29	14,400	59,800	55,900	25,800	30,100	41,300	19,100	63,000	49,800	14,600	18,800	5,620
30	14,900	60,000	58,700	24,900	---	47,600	18,600	66,300	40,000	13,400	18,000	5,480
31	15,400	---	60,000	23,900	---	50,000	---	68,500	---	14,000	18,400	---
TOTAL	704,900	861,400	1,268,700	2,371,100	857,700	1,145,800	861,400	865,600	1,825,400	736,400	356,100	356,130
MEAN	22,740	28,710	40,930	76,490	29,580	36,960	28,710	27,920	60,850	23,750	11,490	11,870
MAX	42,800	60,000	60,000	157,000	38,900	60,400	57,800	68,500	92,300	38,700	20,400	25,800
MIN	14,400	13,200	26,600	23,900	21,500	19,000	15,800	16,300	26,700	13,400	7,100	5,480
CFSM	0.79	1.00	1.43	2.67	1.03	1.29	1.00	0.98	2.12	0.83	0.40	0.41
IN.	0.92	1.12	1.65	3.08	1.11	1.49	1.12	1.12	2.37	0.96	0.46	0.46

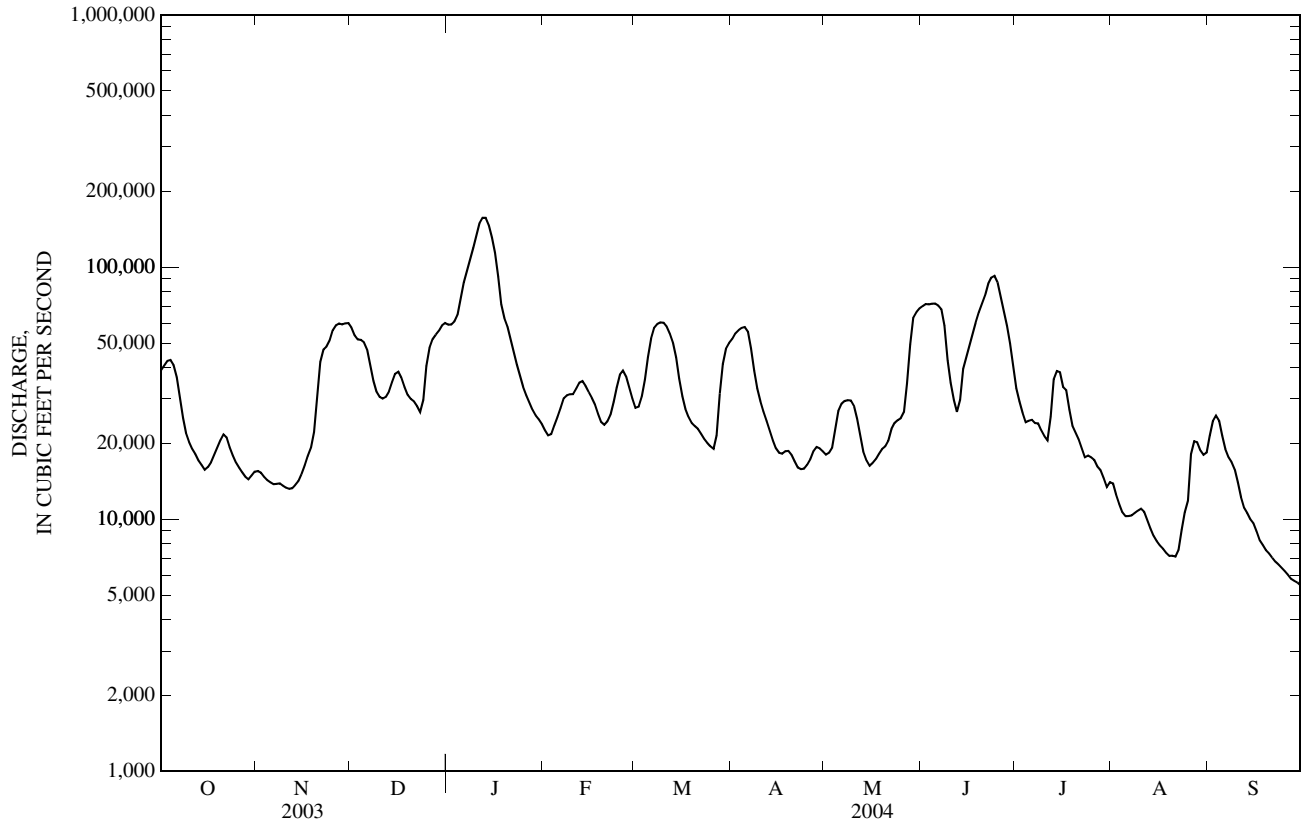
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2004, BY WATER YEAR (WY)

MEAN	9,916	15,730	25,900	37,430	40,800	49,650	49,650	42,870	29,320	19,860	12,170	9,359
MAX	42,230	87,950	92,340	199,300	147,100	108,700	106,400	148,200	80,120	73,580	75,530	50,670
(WY)	(2002)	(1994)	(1986)	(1950)	(1950)	(1985)	(1938)	(2002)	(1998)	(1958)	(1979)	(1989)
MIN	2,465	2,632	2,266	2,861	3,758	4,815	11,900	5,805	5,035	3,366	2,372	2,572
(WY)	(1941)	(1931)	(1964)	(1977)	(1931)	(1941)	(1941)	(1934)	(1988)	(1936)	(1936)	(1940)

03377500 WABASH RIVER AT MOUNT CARMEL, IL—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1928 - 2004	
ANNUAL TOTAL	12,603,210		12,210,630			
ANNUAL MEAN	34,530		33,360		28,490	
HIGHEST ANNUAL MEAN					56,740	1950
LOWEST ANNUAL MEAN					6,144	1941
HIGHEST DAILY MEAN	116,000	Jul 20	157,000	Jan 12	302,000	May 25, 1943
LOWEST DAILY MEAN	9,590	Aug 30	5,480	Sep 30	1,650	Sep 27, 1941
ANNUAL SEVEN-DAY MINIMUM	10,300	Aug 25	5,900	Sep 24	1,700	Dec 19, 1963
MAXIMUM PEAK FLOW			159,000	Jan 12	305,000	May 25, 1943
MAXIMUM PEAK STAGE			28.06	Jan 12	31.75	Jan 7, 1991
ANNUAL RUNOFF (CFSM)	1.21		1.17		0.995	
ANNUAL RUNOFF (INCHES)	16.37		15.86		13.52	
10 PERCENT EXCEEDS	60,400		60,600		67,900	
50 PERCENT EXCEEDS	29,400		25,600		16,900	
90 PERCENT EXCEEDS	13,200		10,700		4,430	

e Estimated



03378500 WABASH RIVER AT NEW HARMONY, IN

LOCATION.--Lat 38°07'53", long 87°56'32"in SE¼SE¼ sec.35, T.4 S., R.14 W., Posey County, Hydrologic Unit 05120113, (NEW HARMONY, IN quadrangle), at bridge on State Highway 66 at New Harmony, at Indiana-Illinois state line, 2.3 mi downstream from (Wabash River including Black River, Hoggatt 1975), and at mile 53.1.

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 National Geodetic Vertical Datum of 1929. (Prior to October 1992, erroneously published as 353.30 ft above National Geodetic Vertical Datum of 1929).

REMARKS.--Water-quality data collected (by USGS Kentucky district) October 1974 to 1986; 1999 to current year.

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, 19.56 ft, Jan. 14; mimimum gage height, 1.45 ft, Sept. 30.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.80	3.80	12.46	12.74	---	6.72	11.52	4.94	14.82	7.88	3.62	5.18
2	9.19	3.76	11.85	12.86	---	6.74	11.92	4.74	15.00	7.00	3.28	5.83
3	9.51	3.63	11.47	13.08	---	7.31	12.16	4.90	14.98	6.35	3.02	6.06
4	9.47	3.55	11.39	13.82	---	8.66	12.38	5.64	15.02	5.82	2.84	5.73
5	9.01	3.49	11.16	14.89	---	10.04	12.42	6.34	14.92	5.90	2.75	5.14
6	8.06	3.43	10.58	15.76	6.73	11.51	11.94	6.67	14.60	5.94	2.75	4.60
7	6.87	3.42	9.46	16.39	---	12.44	10.67	6.80	13.90	5.76	2.75	4.28
8	5.93	3.45	8.34	17.08	---	12.84	9.00	6.86	12.36	5.71	2.79	4.13
9	5.33	3.40	7.60	17.59	---	12.96	7.80	6.77	10.20	5.41	2.84	3.90
10	4.99	3.33	7.22	17.93	---	12.88	7.00	6.46	8.36	5.24	2.88	3.54
11	4.73	3.31	7.07	18.58	---	12.57	6.42	---	7.12	4.98	2.82	3.16
12	4.54	3.27	7.14	19.29	---	11.99	5.92	5.16	6.47	6.08	2.64	2.91
13	4.33	3.37	7.44	19.48	---	11.30	5.48	4.59	7.02	8.02	2.49	2.80
14	4.19	3.49	7.99	19.38	---	10.12	5.06	4.24	8.82	8.59	2.34	2.66
15	4.03	3.67	8.56	18.83	---	8.62	4.75	4.07	9.66	8.43	2.24	2.58
16	4.18	3.93	8.72	18.20	---	7.46	4.55	4.16	10.60	7.56	2.17	2.43
17	4.36	4.26	8.38	17.24	---	6.68	4.50	4.26	11.56	8.40	2.10	2.26
18	4.67	4.63	7.78	15.66	---	6.22	4.58	4.46	12.61	7.10	2.02	2.17
19	4.93	5.13	7.32	---	---	5.90	4.58	4.62	13.52	5.94	1.94	2.08
20	5.31	7.03	7.04	---	---	5.84	4.47	4.67	14.26	5.42	1.96	2.02
21	5.45	9.09	6.90	---	6.04	5.67	4.24	5.03	14.86	5.08	1.94	1.92
22	5.11	10.13	6.64	---	6.28	5.42	4.04	5.48	15.57	4.84	2.04	1.86
23	4.69	10.54	6.32	---	6.91	5.16	3.98	5.78	16.07	4.50	2.46	1.79
24	4.35	11.11	6.91	---	7.74	4.99	4.00	5.90	16.26	4.46	2.84	1.74
25	4.11	12.01	9.00	---	8.58	4.84	4.10	6.27	16.08	4.36	3.18	1.68
26	3.92	12.49	10.46	---	8.86	4.76	4.28	7.26	15.32	4.25	7.36	1.63
27	3.78	12.72	11.30	---	8.54	5.28	4.56	9.12	14.21	4.02	6.57	1.56
28	3.63	12.70	11.74	---	7.86	7.39	4.70	11.74	12.97	3.91	6.00	1.50
29	3.56	12.83	12.14	---	7.24	9.44	4.64	13.50	11.43	3.68	5.34	1.48
30	3.64	12.83	12.66	---	---	10.70	4.53	14.23	9.42	3.62	4.92	1.45
31	3.77	---	12.90	---	---	11.18	---	14.51	---	3.74	4.79	---
MEAN	5.43	6.46	9.22	---	---	8.50	6.67	---	12.60	5.74	3.22	3.00
MAX	9.51	12.83	12.90	---	---	12.96	12.42	---	16.26	8.59	7.36	6.06
MIN	3.56	3.27	6.32	---	---	4.76	3.98	---	6.47	3.62	1.94	1.45

03378500 WABASH RIVER AT NEW HARMONY, IN—Continued

(National Stream-Quality Accounting Network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL ANALYSES.--October 1974 to 1986. 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. October 1999 to current year.

SEDIMENT DISCHARGE.--Partial record station--October 1974 to 1985.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE.--October 1974 to September 1980.

WATER TEMPERATURES.--October 1974 to September 1980.

REMARKS.--Water discharge obtained from station Wabash River at Mount Carmel, IL. (03377500). Water quality data obtained from USGS Kentucky district office.

(---, no data; Other QA, grab sample at center vertical (surface only); E, laboratory estimated value; M, presence of material verified but not quantified; <, numeric result is less than the value shown)

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Turbidity, wat unf lab, Hach 2100AN NTU (99872)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 deg C (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)
NOV												
04...	1230	Environmental	14,400	22	0.097	0.073	--	8.4	623	16.5	290	78.0
04...	1240	Replicate	--	22	.101	.076	--	--	--	--	290	77.9
DEC												
02...	1220	Environmental	53,700	29	.136	.103	11.2	7.9	467	7.0	240	64.3
02...	1228	Field Blank	--	--	--	--	--	--	--	--	--	.03
02...	1230	Replicate	--	--	--	--	--	--	--	--	--	--
JAN												
09...	1100	Environmental	120,000	200	.159	.124	--	7.5	290	2.0	130	35.1
20...	1340	Environmental	62,200	82	.121	.092	12.1	7.8	464	2.5	210	57.1
FEB												
03...	1320	Environmental	22,700	12	.059	.043	13.8	8.0	599	1.5	290	77.4
MAR												
09...	1240	Environmental	58,200	140	.131	.099	11.6	7.8	448	10.0	190	51.6
23...	1340	Environmental	22,900	22	.073	.054	13.7	8.4	607	9.5	300	79.5
23...	1348	Field Blank	--	--	<.004	<.004	--	--	--	--	--	--
APR												
19...	1230	Environmental	20,900	28	.061	.045	12.4	8.2	539	18.0	240	56.8
26...	1220	Environmental	17,200	20	.073	.054	11.6	8.3	597	18.5	280	69.5
MAY												
18...	1200	Environmental	18,100	65	.097	.073	9.7	8.2	563	22.0	260	63.8
18...	1210	Replicate	--	59	.097	.073	--	--	--	--	260	63.3
25...	1210	Environmental	25,000	100	.096	.071	7.3	8.0	562	25.0	270	69.1
25...	1218	Field Blank	--	--	--	--	--	--	--	--	--	.02
JUN												
02...	1420	Environmental	71,100	180	.180	.137	5.8	7.5	366	22.5	150	41.5
22...	1330	Environmental	73,800	51	.171	.129	6.2	7.7	366	25.5	170	45.9
22...	1340	Replicate	--	48	.171	.128	--	--	--	--	160	45.2
JUL												
20...	1200	Environmental	25,400	83	.115	.085	8.1	8.0	477	27.0	230	62.9
AUG												
24...	1210	Environmental	10,500	19	.084	.063	11.8	8.3	556	26.5	230	50.2
31...	1300	Environmental	18,200	65	.171	.130	6.2	7.7	510	25.5	230	59.2
31...	1308	Field Blank	--	--	<.004	<.004	--	--	--	--	--	--

03378500 WABASH RIVER AT NEW HARMONY, IN—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180 deg C wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)
NOV													
04...	23.6	3.87	20.2	220	268	31.8	0.2	5.68	53.7	378	0.33	0.79	<0.04
04...	23.7	3.87	20.3	--	--	31.4	.2	5.67	53.5	379	.33	.79	<.04
DEC													
02...	19.9	3.52	10.1	160	195	23.4	.2	9.24	35.9	270	.40	.77	<.04
02...	<0.008	--	E0.08	--	--	--	--	E0 .03	--	--	--	--	<.010
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
09...	10.2	3.66	6.18	80	97	12.1	<.2	6.59	24.5	169	.38	1.1	<.04
20...	17.4	3.67	11.2	148	181	20.5	<.2	8.19	41.8	277	.51	.93	.07
FEB													
03...	22.3	2.55	17.1	205	250	27.6	.2	8.84	53.1	357	.27	.42	E.03
MAR													
09...	16.0	3.31	12.0	139	169	24.8	.2	6.90	37.0	271	.43	1.1	<.04
23...	25.5	2.63	19.3	202	225	32.5	.2	4.96	58.8	381	.27	.72	<.04
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
19...	24.1	2.27	19.6	180	220	32.1	.2	<.04	53.4	315	.33	1.4	<.04
26...	25.5	2.72	22.6	199	218	32.3	.2	.69	65.7	350	.26	1.1	<.04
MAY													
18...	24.5	3.26	20.5	175	214	31.6	.2	2.64	64.7	340	.34	1.0	E.02
18...	24.5	3.21	20.3	173	203	31.1	.2	2.61	64.9	337	.31	1.2	E.02
25...	23.4	2.85	18.9	181	221	31.5	.2	6.93	46.0	333	.32	1.1	<.04
25...	<.008	--	E.08	--	--	--	--	.07	--	--	--	--	<.010
JUN													
02...	11.5	4.60	8.41	94	115	15.0	.2	7.89	28.6	204	.47	1.2	<.04
22...	12.6	4.36	7.12	130	159	14.8	.2	7.56	20.4	216	.39	.87	<.04
22...	12.2	4.31	6.99	125	152	14.6	.2	7.48	20.3	236	.40	.82	<.04
JUL													
20...	18.8	3.52	14.0	162	198	22.3	.2	6.38	42.5	286	.33	1.1	<.04
AUG													
24...	25.6	3.24	27.6	157	192	39.8	.2	.09	65.0	308	--	1.5	--
31...	19.6	4.96	22.4	149	182	29.5	.2	6.89	56.0	299	--	1.1	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--

03378500 WABASH RIVER AT NEW HARMONY, IN—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Pheophytin a, phytoplankton, µg/L (62360)	Chlorophyll a phytoplankton, fluoro, µg/L (70953)	Aluminum, water, fltrd, µg/L (01106)
NOV													
04...	2.00	E0.004	0.47	0.047	0.063	0.16	3.4	<0.1	3.4	3.5	35.2	36.0	--
04...	2.01	E.005	.49	.048	.064	.16	3.4	<.1	3.3	3.5	34.7	45.0	--
DEC													
02...	3.52	.011	.29	.079	.099	.24	2.8	<.1	2.7	4.3	5.0	3.1	--
02...	<0.016	<.002	--	<.006	--	--	--	--	--	--	--	--	E1
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
09...	1.97	.024	.45	.080	.097	.38	4.0	<.1	3.9	6.6	3.4	1.6	--
20...	2.98	.011	.42	.108	.123	.30	3.8	<.1	3.8	4.4	2.0	2.6	5
FEB													
03...	3.02	.010	.12	.058	.066	.12	1.3	<.1	1.3	2.3	1.2	2.2	2
MAR													
09...	3.50	.017	.22	.081	.101	.36	2.1	<.1	2.1	4.6	3.4	3.6	4
23...	3.18	E.006	.27	.025	.036	.14	1.7	<.1	1.7	3.0	11.7	19.6	3
23...	--	--	<.02	--	--	--	<.1	<.1	<0.1	0.3	--	--	--
APR													
19...	1.88	.009	1.05	<.006	.013	.16	11.4	1.2	10.2	2.8	53.7	92.7	5
26...	1.70	.009	.77	<.006	.012	.11	5.9	<.1	5.8	3.1	48.0	55.2	--
MAY													
18...	2.30	.027	.89	.010	.025	.20	6.6	.2	6.4	3.6	58.8	60.0	7
18...	2.29	.022	.80	.011	.024	.19	6.2	.9	5.3	5.2	53.7	53.3	5
25...	4.72	.043	.74	.058	.080	.30	8.0	1.9	6.1	3.3	32.8	27.0	4
25...	<.016	E.001	--	<.006	--	--	--	--	--	--	--	--	<2
JUN													
02...	3.58	.077	.68	.084	.105	.39	6.0	<.1	5.9	6.1	6.6	7.6	--
22...	3.78	.071	.41	.100	.117	.22	3.3	<.1	3.3	5.2	13.8	19.1	3
22...	3.78	.069	.44	.099	.117	.24	3.6	<.1	3.5	5.2	13.9	19.1	4
JUL													
20...	1.69	E.007	.68	.060	.075	.24	5.6	.3	5.3	3.4	36.4	36.6	5
AUG													
24...	--	--	1.35	--	--	.17	9.5	.6	8.8	3.2	75.3	123	6
31...	--	--	.76	--	--	.26	6.7	.2	6.5	4.9	30.1	42.1	4
31...	--	--	<.02	--	--	--	<.1	<.1	<.1	.9	--	--	--

03378500 WABASH RIVER AT NEW HARMONY, IN—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Anti-mony, water, fltrd, µg/L (01095)	Arsenic water, fltrd, µg/L (01000)	Barium, water, fltrd, µg/L (01005)	Beryll-ium, water, fltrd, µg/L (01010)	Boron, water, fltrd, µg/L (01020)	Cadmium water, fltrd, µg/L (01025)	Chrom-ium, water, fltrd, µg/L (01030)	Cobalt water, fltrd, µg/L (01035)	Copper, water, fltrd, µg/L (01040)	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Lithium water, fltrd, µg/L (01130)	Mangan-ese, water, fltrd, µg/L (01056)
NOV													
04...	--	1.5	--	--	89	--	--	--	--	E4	--	2.9	--
04...	--	1.5	--	--	98	--	--	--	--	<6	--	3.1	--
DEC													
02...	--	0.9	--	--	47	--	--	--	--	13	--	1.7	--
02...	<0.20	<.2	<0.2	<0.06	<8	<0.04	<0.8	<0.014	<0.4	<6	<0.08	<0.6	<0.2
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
09...	--	.7	--	--	32	--	--	--	--	22	--	1.1	--
20...	E.12	.8	43	<.06	54	E.02	<.8	.276	1.8	17	<.08	1.9	6.5
FEB													
03...	E.15	.9	50	<.06	80	E.02	<.8	.286	1.3	E4	<.08	2.4	22.2
MAR													
09...	<.20	.7	36	<.06	35	E.02	<.8	.199	1.8	10	<.08	1.7	1.1
23...	E.14	1.0	52	<.06	76	E.03	<.8	.317	1.4	E5	<.08	2.6	2.8
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
19...	E.19	.6	49	<.06	77	E.02	<.8	.252	1.2	E4	<.08	3.2	1.0
26...	--	.8	--	--	93	--	--	--	--	E6	--	3.6	--
MAY													
18...	E.19	.9	50	<.06	90	E.03	<.8	.316	1.9	E3	<.08	3.2	.5
18...	E.19	1.0	50	<.06	92	E.03	<.8	.312	1.8	<6	<.08	3.3	.4
25...	.23	1.3	52	<.06	70	.04	<.8	.307	2.1	E4	<.08	2.5	.3
25...	<.20	<.2	<.2	<.06	<8	<.04	<.8	<.014	<.4	<6	<.08	<.6	<.2
JUN													
02...	--	1.1	--	--	44	--	--	--	--	7	--	1.4	--
22...	E.17	1.3	42	<.06	41	<.04	<.8	.201	2.3	E5	<.08	1.2	.4
22...	E.18	1.2	41	<.06	42	<.04	<.8	.212	2.2	E4	<.08	1.2	.4
JUL													
20...	.20	1.5	45	<.06	85	<.04	<.8	.267	2.0	<6	<.08	2.4	.4
AUG													
24...	.26	1.1	47	<.06	138	E.03	<.8	.361	1.8	E4	<.08	3.5	.7
31...	.27	1.8	50	<.06	112	E.04	<.8	.316	2.3	E4	<.08	3.1	.9
31...	--	--	--	--	--	--	--	--	--	--	--	--	--

03378500 WABASH RIVER AT NEW HARMONY, IN—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Molybdenum, water, fltrd, µg/L (01060)	Nickel, water, fltrd, µg/L (01065)	Selenium, water, fltrd, µg/L (01145)	Silver, water, fltrd, µg/L (01075)	Strontium, water, fltrd, µg/L (01080)	Vanadium, water, fltrd, µg/L (01085)	Zinc, water, fltrd, µg/L (01090)	2,6-Diethylaniline water fltrd 0.7µm GF µg/L (82660)	CIAT, water, fltrd, µg/L (04040)	Acetochlor, water, fltrd, µg/L (49260)	Alachlor, water, fltrd, µg/L (46342)	alpha-HCH, water, fltrd, µg/L (34253)	Atrazine, water, fltrd, µg/L (39632)
NOV													
04...	--	--	0.5	--	238	2.2	--	<0.006	E0.017	0.011	<0.005	<0.005	0.167
04...	--	--	.5	--	240	2.2	--	<.006	E.020	.011	<.005	<.005	.173
DEC													
02...	--	--	E.4	--	171	0.9	--	<.006	E.014	.010	<.005	<.005	.149
02...	<0.4	<0.06	<.4	<0.2	<0.40	<.1	<0.6	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
09...	--	--	E.4	--	85.8	.7	--	<.006	E.033	.017	<.007	<.005	.103
20...	2.1	2.45	.7	<.2	149	1.0	.9	<.006	E.036	.015	.007	<.005	.121
FEB													
03...	2.7	2.38	.7	<.2	195	1.1	.8	<.006	E.036	.008	<.005	<.005	.091
MAR													
09...	1.9	2.28	E.3	<.2	148	1.5	E.5	<.006	E.029	.017	.006	<.005	.147
23...	3.4	2.61	.7	<.2	211	3.7	1.2	<.006	E.027	.010	<.005	<.005	.142
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
19...	3.7	1.51	.6	<.2	205	.8	E.6	<.006	E.029	.020	<.005	<.005	.167
26...	--	--	.8	--	232	2.8	--	<.006	E.027	.051	<.005	<.005	.484
MAY													
18...	4.1	2.47	.7	<.2	224	1.3	.7	<.006	E.187	.446	.009	<.005	4.00
18...	4.1	2.35	.6	<.2	225	1.3	.7	<.006	E.198	.456	.009	<.005	4.05
25...	4.1	2.49	.5	<.2	195	1.6	.8	<.006	E.085	.402	.014	<.005	7.07
25...	<.4	<.06	<.4	<.2	<.40	<.1	<.6	--	--	--	--	--	--
JUN													
02...	--	--	.4	--	108	1.4	--	<.006	E.500	.639	.061	<.005	4.98
22...	2.5	2.02	.5	<.2	103	1.2	E.4	<.006	E.248	.314	.031	<.005	2.80
22...	2.5	1.99	.4	<.2	102	1.2	E.4	<.006	E.289	.313	.030	<.005	2.85
JUL													
20...	3.4	2.00	.6	<.2	164	1.6	.8	<.006	E.090	.034	<.005	<.005	.480
AUG													
24...	6.7	2.61	.6	<.2	222	.9	.8	<.006	E.042	.009	<.005	<.005	.266
31...	5.3	2.72	.8	<.2	197	1.8	.6	<.006	E.021	.021	<.005	<.005	.156
31...	--	--	--	--	--	--	--	--	--	--	--	--	--

03378500 WABASH RIVER AT NEW HARMONY, IN—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Azinphos-methyl, water, fltrd 0.7µm GF µg/L (82686)	Benfluralin, water, fltrd 0.7µm GF µg/L (82673)	Butylate, water, fltrd, µg/L (04028)	Carbaryl, water, fltrd 0.7µm GF µg/L (82680)	Carbofuran, water, fltrd 0.7µm GF µg/L (82674)	Chlorpyrifos water, fltrd, µg/L (38933)	cis-Permethrin water fltrd 0.7µm GF µg/L (82687)	Cyanazine, water, fltrd, µg/L (04041)	DCPA, water fltrd 0.7µm GF µg/L (82682)	Diazinon, water, fltrd, µg/L (39572)	Dieldrin, water, fltrd, µg/L (39381)	Disulfoton, water, fltrd 0.7µm GF µg/L (82677)	EPTC, water, fltrd 0.7µm GF µg/L (82668)
NOV													
04...	<0.050	<0.010	<0.004	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	E0.004	<0.02	<0.004
04...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
DEC													
02...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
09...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
20...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
FEB													
03...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
MAR													
09...	<.050	<.010	<.004	E.004	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
23...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
19...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
26...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
MAY													
18...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
18...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
25...	<.050	<.010	<.004	<.041	<.020	.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
02...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
22...	<.050	<.010	<.004	E.006	<.020	E.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
22...	<.050	<.010	<.004	E.005	E.015	E.005	<.006	<.018	<.003	<.005	E.008	<.02	<.004
JUL													
20...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
AUG													
24...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
31...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
31...	--	--	--	--	--	--	--	--	--	--	--	--	--

03378500 WABASH RIVER AT NEW HARMONY, IN—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ethal-flur-alin, water, fltrd 0.7µm GF µg/L (82663)	Etho-prop, water, fltrd 0.7µm GF µg/L (82672)	Fonofos water, fltrd, µg/L (04095)	Lindane water, fltrd, µg/L (39341)	Linuron water fltrd 0.7µm GF µg/L (82666)	Mala-thion, water, fltrd, µg/L (39532)	Methyl para-thion, water, fltrd 0.7µm GF µg/L (82667)	Metola-chlor, water, fltrd, µg/L (39415)	Metri-buzin, water, fltrd, µg/L (82630)	Moli-nate, water, fltrd 0.7µm GF µg/L (82671)	Naprop-amide, water, fltrd 0.7µm GF µg/L (82684)	p,p-' DDE, water, fltrd, µg/L (34653)	Para-thion, water, fltrd, µg/L (39542)
NOV													
04...	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.015	0.048	<0.006	<0.003	<0.007	<0.003	<0.010
04...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.051	<.006	<.003	<.007	<.003	<.010
DEC													
02...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.048	.009	<.003	<.007	<.003	<.010
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
09...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.041	.011	<.003	<.007	<.003	<.010
20...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.048	.011	<.003	<.007	<.003	<.010
FEB													
03...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.028	<.006	<.003	<.007	<.003	<.010
MAR													
09...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.056	.007	<.003	<.007	<.003	<.010
23...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.032	<.006	<.003	<.007	<.003	<.010
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
19...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.043	<.006	<.003	<.007	<.003	<.010
26...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.075	<.010	<.003	<.007	<.003	<.010
MAY													
18...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.508	<.010	<.003	<.007	<.003	<.010
18...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.528	.007	<.003	<.007	<.003	<.010
25...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	1.14	<.007	<.003	<.007	<.003	<.010
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
02...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	1.49	.035	<.003	<.007	<.003	<.010
22...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	1.04	.014	<.003	<.007	<.003	<.010
22...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	1.06	.015	<.003	<.007	<.003	<.010
JUL													
20...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.162	<.006	<.003	<.007	<.003	<.010
AUG													
24...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.051	<.006	<.003	<.007	<.003	<.010
31...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.043	<.006	<.003	<.007	<.003	<.010
31...	--	--	--	--	--	--	--	--	--	--	--	--	--

03378500 WABASH RIVER AT NEW HARMONY, IN—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Pebulate, water, fltrd 0.7µ GF µg/L (82669)	Pendimethalin, water, fltrd 0.7µ GF µg/L (82683)	Phorate water fltrd 0.7µm GF µg/L (82664)	Prometon, water, fltrd, µg/L (04037)	Propyzamide, water, fltrd 0.7µm GF µg/L (82676)	Propachlor, water, fltrd, µg/L (04024)	Propanil, water, fltrd 0.7µm GF µg/L (82679)	Propargite, water, fltrd 0.7µm GF µg/L (82685)	Simazine, water, fltrd, µg/L (04035)	Tebuthiuron water fltrd 0.7µm GF µg/L (82670)	Terbacil, water, fltrd 0.7µm GF µg/L (82665)	Terbufos, water, fltrd 0.7µm GF µg/L (82675)	Thiobencarb water fltrd 0.7µm GF µg/L (82681)
NOV													
04...	<0.004	<0.022	<0.011	0.01	<0.004	<0.025	<0.011	<0.02	0.052	<0.02	<0.034	<0.02	<0.010
04...	<.004	<.022	<.011	.02	<.004	<.025	<.011	<.02	.058	E.01	<.034	<.02	<.010
DEC													
02...	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	.558	<.02	<.034	<.02	<.010
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
09...	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	.764	<.02	<.034	<.02	<.010
20...	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	.674	M	<.034	<.02	<.010
FEB													
03...	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	.269	<.02	<.034	<.02	<.010
MAR													
09...	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	.373	<.02	<.034	<.02	<.010
23...	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	.143	M	<.034	<.02	<.010
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
19...	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	.102	<.02	<.034	<.02	<.010
26...	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	.129	<.02	<.034	<.02	<.010
MAY													
18...	<.004	<.022	<.011	.02	<.004	<.025	<.011	<.02	.494	<.02	<.034	<.02	<.010
18...	<.004	<.022	<.011	.02	<.004	<.025	<.011	<.02	.509	<.02	<.034	<.02	<.010
25...	<.004	<.022	<.011	.03	<.004	<.025	<.011	<.02	.329	<.02	<.034	<.02	<.010
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
02...	<.004	E.011	<.011	.03	<.004	<.025	<.011	<.02	.833	E.01	<.034	<.02	<.010
22...	<.004	<.022	<.011	.03	<.004	<.025	<.011	<.02	.127	E.01	<.034	<.02	<.010
22...	<.004	<.022	<.011	.03	<.004	<.025	<.011	<.02	.128	E.01	<.034	<.02	<.010
JUL													
20...	<.004	<.022	<.011	.05	<.004	<.025	<.011	<.02	.055	<.02	<.034	<.02	<.010
AUG													
24...	<.004	<.022	<.011	.03	<.004	<.025	<.011	<.02	.029	<.02	<.034	<.02	<.010
31...	<.004	<.022	<.011	<.02	<.004	<.025	<.011	<.02	.028	<.02	<.034	<.02	<.010
31...	--	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Tri-allate, water, fltrd 0.7µm GF µg/L (82678)	Tri-flur-alin, water, fltrd 0.7µm GF µg/L (82661)	Uranium natural water, fltrd, µg/L (22703)	Suspnd. sedi-ment, sieve diametr percent <.063mm (70331)	Sus-pended sedi-ment concen-tration mg/L (80154)
NOV					
04...	<0.002	<0.009	--	97	45
04...	<.002	<.009	--	96	44
DEC					
02...	<.002	<.009	--	83	115
02...	--	--	<0.04	--	--
02...	--	--	--	83	120
JAN					
09...	<.002	<.009	--	74	222
20...	<.002	<.009	.89	85	141
FEB					
03...	<.002	<.009	1.05	91	30
MAR					
09...	<.002	<.009	.92	93	260
23...	<.002	<.009	1.34	97	51
23...	--	--	--	--	--
APR					
19...	<.002	<.009	1.12	98	96
26...	<.002	<.009	--	98	74
MAY					
18...	<.002	<.009	.91	96	106
18...	<.002	<.009	.91	97	105
25...	<.002	<.009	.91	98	204
25...	--	--	<.04	--	--
JUN					
02...	<.002	<.009	--	66	402
22...	<.002	<.009	.56	82	117
22...	<.002	<.009	.55	84	112
JUL					
20...	<.002	<.009	.87	98	154
AUG					
24...	<.002	<.009	.98	97	52
31...	<.002	<.009	.90	99	140
31...	--	--	--	--	--

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, (WADESVILLE, IN quadrangle), on left bank at downstream side of bridge on State Highway 66, 0.6 mi northwest of Blairsville, 0.8 mi upstream from County Road 250 North, 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 National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except for estimated daily discharges and those below 1.0 ft^3/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.59	0.69	4.5	15	19	31	36	4,520	106	2.0	27	7.1
2	0.43	0.59	2.9	387	40	43	30	1,740	69	2.0	16	5.5
3	0.39	0.50	2.3	94	256	43	26	366	45	2.5	12	4.1
4	0.72	0.47	2.3	496	85	695	23	159	35	2.4	11	3.7
5	0.62	0.44	2.7	581	104	210	19	103	29	4.3	8.5	2.9
6	0.49	0.38	3.4	101	436	121	18	76	25	8.0	6.1	2.4
7	0.43	0.34	3.3	59	134	90	19	54	21	19	4.9	1.9
8	0.36	0.30	2.5	52	82	70	19	41	17	16	5.2	1.6
9	0.32	0.25	2.0	44	79	61	16	32	31	6.0	4.3	1.3
10	0.38	0.20	2.1	35	90	46	14	26	25	4.0	3.7	1.2
11	0.39	0.30	3.5	28	95	42	14	23	16	73	4.7	1.3
12	0.49	0.62	4.3	26	84	36	14	20	70	69	2.6	1.2
13	0.76	0.99	3.3	23	73	29	13	73	84	22	2.1	1.2
14	1.1	2.1	3.2	21	68	28	13	44	28	9.2	1.8	0.93
15	1.3	1.9	3.0	21	62	26	11	55	90	e5.7	2.0	0.72
16	2.0	1.5	3.6	19	49	30	10	75	34	4.5	2.4	0.52
17	1.8	1.4	8.1	50	44	34	10	58	23	7,000	2.1	0.73
18	1.3	1.7	8.6	491	41	29	9.3	59	15	4,960	1.9	0.71
19	1.3	76	6.4	133	42	24	8.6	101	14	555	2.0	0.89
20	1.2	21	5.0	74	58	64	9.0	90	10	34	4.4	0.68
21	0.93	3.9	4.0	57	66	211	11	45	8.8	17	4.0	0.57
22	0.70	1.4	3.4	51	52	70	15	33	8.0	50	5.8	0.66
23	0.52	0.84	3.9	39	47	52	65	26	7.3	291	2.8	0.52
24	0.38	213	12	37	46	45	52	23	5.7	85	2.6	0.83
25	0.32	29	10	31	40	37	69	120	4.6	28	22	1.0
26	0.45	7.5	7.4	33	36	32	52	881	4.7	21	5,300	0.73
27	0.77	24	5.8	35	32	34	36	1,590	3.6	17	4,600	0.54
28	1.7	85	4.8	35	28	34	27	555	2.7	13	518	0.47
29	1.2	26	5.1	30	27	32	21	133	2.5	12	203	0.44
30	0.93	8.4	28	24	---	36	18	93	2.2	95	23	0.64
31	0.78	---	25	22	---	39	---	280	---	98	11	---
TOTAL	25.05	510.71	186.4	3,144	2,315	2,374	697.9	11,494	837.1	13,525.6	10,816.9	46.98
MEAN	0.81	17.0	6.01	101	79.8	76.6	23.3	371	27.9	436	349	1.57
MAX	2.0	213	28	581	436	695	69	4,520	106	7,000	5,300	7.1
MIN	0.32	0.20	2.0	15	19	24	8.6	20	2.2	2.0	1.8	0.44
CFSM	0.01	0.16	0.06	0.98	0.77	0.74	0.22	3.57	0.27	4.20	3.36	0.02
IN.	0.01	0.18	0.07	1.12	0.83	0.85	0.25	4.11	0.30	4.84	3.87	0.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2004, BY WATER YEAR (WY)

MEAN	24.1	81.5	135	140	188	209	191	169	91.7	79.8	50.2	25.3
MAX	228	513	710	559	727	581	702	742	347	436	349	233
(WY)	(2002)	(1986)	(1983)	(1982)	(1990)	(1975)	(1996)	(1990)	(1996)	(2004)	(2004)	(1982)
MIN	0.02	0.61	0.30	0.13	9.15	14.3	8.73	2.98	0.62	0.33	0.18	0.00
(WY)	(1969)	(2000)	(1966)	(1977)	(1992)	(1981)	(1981)	(1988)	(1988)	(1994)	(1988)	(1983)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1966 - 2004	
ANNUAL TOTAL	29,126.01		45,973.64			
ANNUAL MEAN	79.8		126		115	
HIGHEST ANNUAL MEAN					207	2002
LOWEST ANNUAL MEAN					38.7	1987
HIGHEST DAILY MEAN	2,940	Feb 22	7,000	Jul 17	9,400	Apr 29, 1996
LOWEST DAILY MEAN	0.20	Nov 10	0.20	Nov 10	0.00	Jul 22, 1966
ANNUAL SEVEN-DAY MINIMUM	0.32	Nov 5	0.32	Nov 5	0.00	Jul 29, 1966
MAXIMUM PEAK FLOW			9,710	Jul 17	10,400	Apr 29, 1996
MAXIMUM PEAK STAGE			19.79	Jul 17	20.35	Apr 29, 1996
ANNUAL RUNOFF (CFSM)	0.767		1.21		1.11	
ANNUAL RUNOFF (INCHES)	10.42		16.44		15.02	
10 PERCENT EXCEEDS	147		99		206	
50 PERCENT EXCEEDS	12		18		17	
90 PERCENT EXCEEDS	0.90		0.70		0.27	

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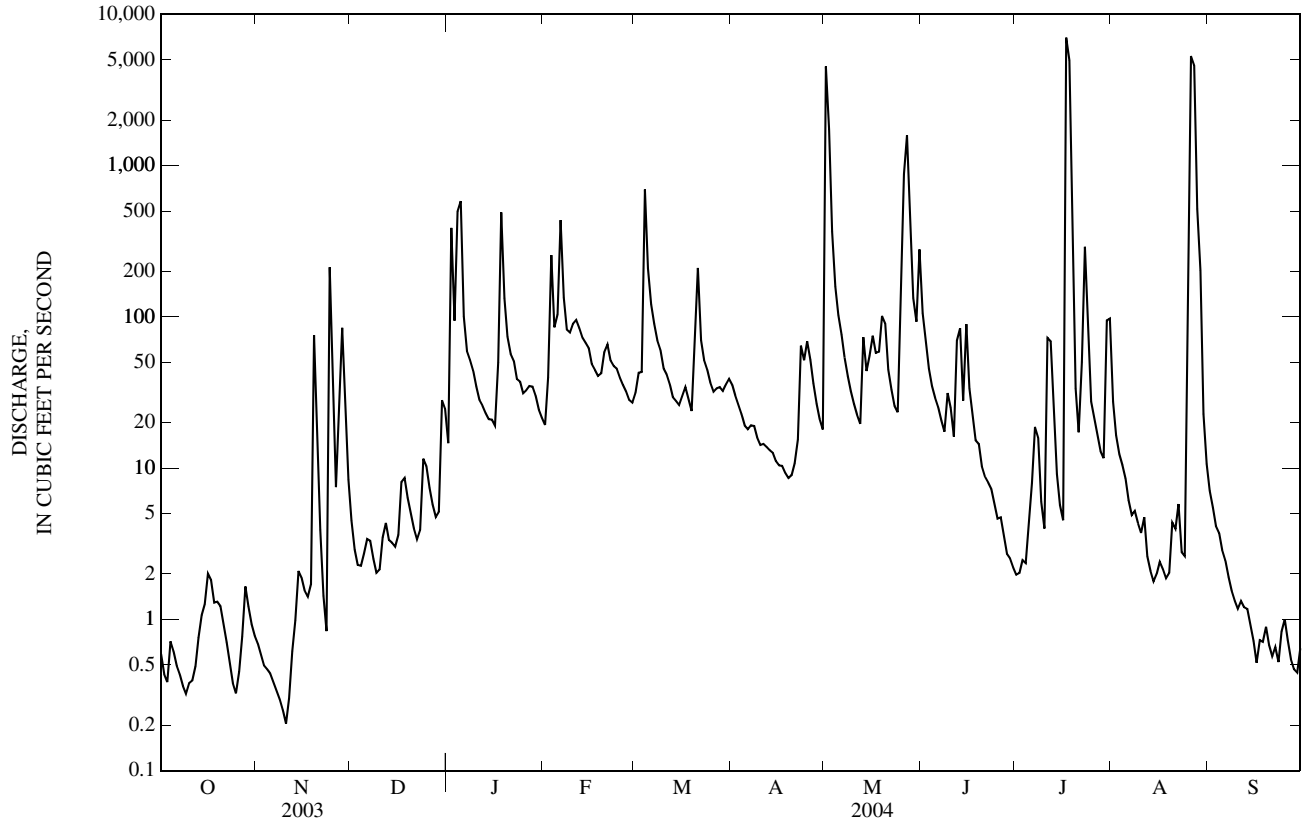
03378550 BIG CREEK NEAR WADESVILLE, IN—Continued



04092677 GRAND CALUMET RIVER AT INDUSTRIAL HWY AT GARY, IN

LOCATION.--Lat 41°36'28", long 87°23'39",in NW¼NW¼ sec.6, T.37 N., R.8W., Lake County, Hydrologic Unit 04040001, (HIGHLAND, IN quadrangle), 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 Doppler Velocity Meter. Datum of gage is 580.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Discharge is primarily from industrial and city effluent. Gage sensors were removed and gage temporarily shutdown from May 2, 2001 through December 5, 2001, due to bridge replacement.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

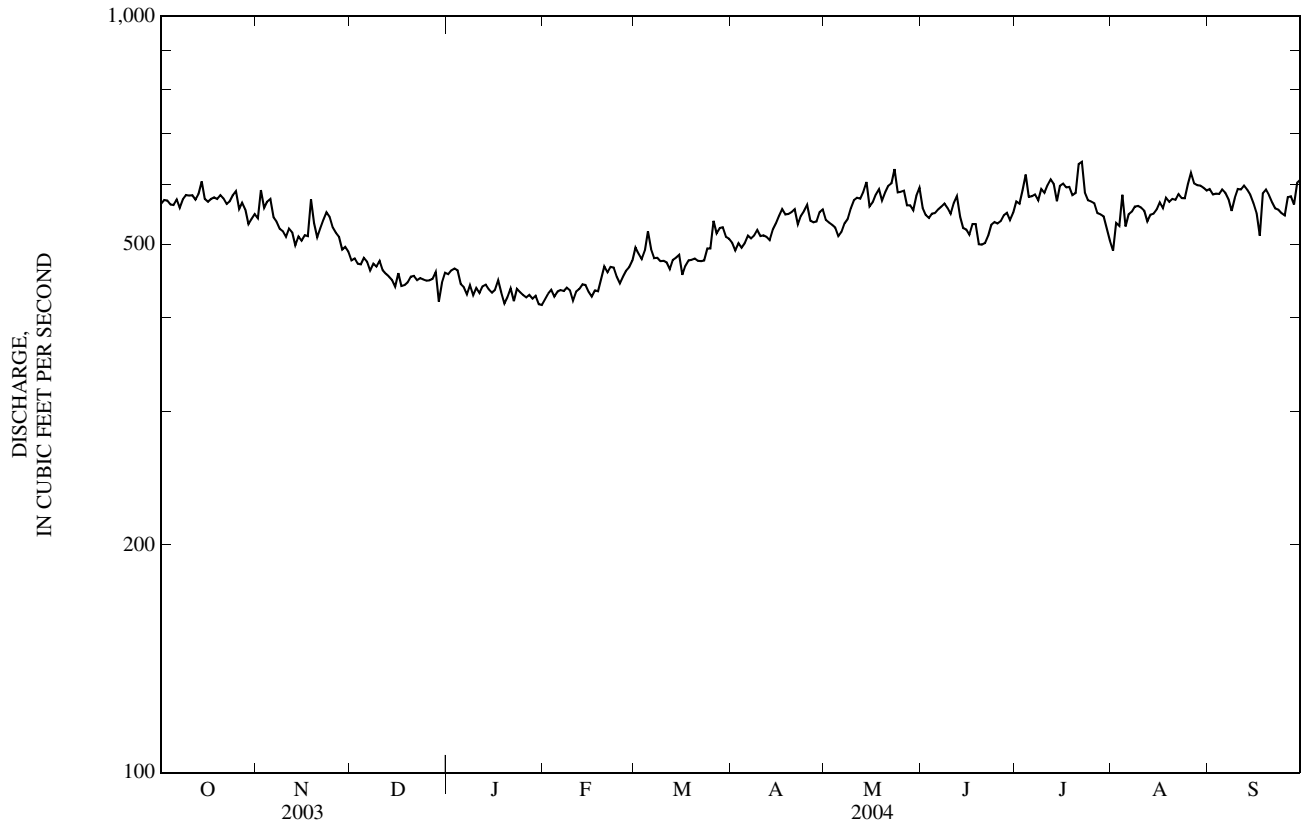
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	565	541	476	456	423	495	502	538	558	569	490	591
2	572	589	479	461	430	485	490	534	546	565	533	582
3	571	558	471	464	435	477	501	530	541	589	528	583
4	564	569	470	462	426	490	494	526	549	618	581	582
5	563	573	479	443	433	520	501	512	549	577	528	590
6	573	542	474	439	434	492	513	519	556	578	547	584
7	558	535	461	429	433	479	509	532	560	582	552	573
8	573	524	471	441	438	479	513	540	566	571	561	553
9	580	520	467	428	434	475	522	557	558	591	561	575
10	580	511	475	437	421	475	512	571	548	584	559	591
11	580	524	462	431	433	473	513	576	567	598	553	590
12	572	518	457	439	436	463	511	574	578	609	535	597
13	582	498	453	442	442	477	506	586	543	600	547	590
14	605	512	448	436	441	480	523	604	525	570	548	581
15	574	505	439	431	432	484	533	560	522	597	555	566
16	569	513	458	435	426	455	545	568	514	601	567	550
17	573	512	440	448	434	468	556	581	531	594	557	513
18	576	573	441	432	433	476	547	591	531	595	576	583
19	573	533	445	417	450	476	548	571	500	580	569	590
20	580	510	453	425	467	478	551	585	499	584	574	580
21	575	524	454	437	459	475	556	597	501	638	572	567
22	565	538	448	420	466	475	531	601	513	642	582	557
23	569	551	451	436	465	475	545	628	530	585	575	555
24	580	543	449	432	453	493	553	585	535	571	575	549
25	587	526	447	428	443	493	563	586	532	569	601	546
26	556	517	448	425	452	537	537	588	536	566	621	576
27	567	511	450	428	461	516	534	562	546	549	601	578
28	555	492	459	424	466	525	535	562	550	547	598	564
29	531	496	420	427	476	526	551	554	538	544	597	603
30	540	488	445	416	---	511	555	580	550	524	594	608
31	548	---	458	415	---	508	---	593	---	505	588	---
TOTAL	17,656	15,846	14,148	13,484	12,842	15,131	15,850	17,591	16,172	17,992	17,525	17,247
MEAN	570	528	456	435	443	488	528	567	539	580	565	575
MAX	605	589	479	464	476	537	563	628	578	642	621	608
MIN	531	488	420	415	421	455	490	512	499	505	490	513

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2004, BY WATER YEAR (WY)

MEAN	511	489	467	458	474	490	509	523	544	550	548	542
MAX	591	528	523	515	534	548	579	608	662	711	711	625
(WY)	(2003)	(2004)	(2000)	(1999)	(1999)	(1999)	(1999)	(2002)	(2002)	(2002)	(2003)	(2002)
MIN	454	438	425	416	419	404	381	400	459	434	469	478
(WY)	(1995)	(1996)	(1996)	(2002)	(1996)	(1996)	(1996)	(1996)	(1995)	(1995)	(1995)	(1995)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1995 - 2004	
ANNUAL TOTAL	200,865		191,484			
ANNUAL MEAN	550		523		509	
HIGHEST ANNUAL MEAN					556	2002
LOWEST ANNUAL MEAN					444	1996
HIGHEST DAILY MEAN	783	Jul 27	642	Jul 22	783	Jul 27, 2003
LOWEST DAILY MEAN	414	Feb 16	415	Jan 31	305	Apr 27, 1996
ANNUAL SEVEN-DAY MINIMUM	424	Feb 12	423	Jan 26	361	Apr 25, 1996
MAXIMUM PEAK FLOW			934	Jul 21	1,130	Jul 27, 2003
MAXIMUM PEAK STAGE			4.26	Jul 21	4.81	Jun 13, 1994
10 PERCENT EXCEEDS	700		588		598	
50 PERCENT EXCEEDS	542		535		502	
90 PERCENT EXCEEDS	436		437		432	

04092677 GRAND CALUMET RIVER AT INDUSTRIAL HWY AT GARY, IN—Continued



04092750 INDIANA HARBOR CANAL AT EAST CHICAGO, IN

LOCATION.--Lat 41°38'57", long 87°28'07", in NE¼NE¼ sec.20, T.37N., R.9W., Lake County, Hydrologic Unit 04040001, (WHITING, IN quadrangle), on left bank at the site of the former Canal Street drawbridge, 3,200 ft east of U.S. Highway 20, 3,500 ft north of U.S. Highway 12, 4,300 ft south of 129th Street, and 1,000 ft west of the crossing of the centerlines of Cline Avenue and the Indiana Harbor Canal.

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 Doppler Velocity Meter. Datum of gage not established. Prior to Sept. 22, 2000, gage was located 0.8 mi downstream.

REMARKS.--Records fair. Positive discharges indicate flow towards Lake Michigan; negative discharges indicate flow away from Lake Michigan.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	460	512	620	540	484	601	518	536	567	327	418	443
2	529	854	512	553	485	597	502	441	522	440	427	421
3	562	735	518	601	562	585	454	429	506	470	502	469
4	486	627	491	590	528	636	505	394	454	568	633	462
5	430	809	574	561	530	797	440	428	435	524	546	441
6	446	626	585	536	523	671	475	536	387	449	512	513
7	427	549	525	503	505	591	502	587	388	483	393	517
8	468	460	501	495	578	603	444	607	405	391	426	563
9	460	464	479	543	522	563	480	543	415	568	443	545
10	490	541	593	550	495	596	442	449	497	511	513	452
11	458	584	604	543	503	532	516	482	585	402	537	449
12	658	513	562	530	489	512	474	394	721	442	490	419
13	547	576	535	544	534	511	541	581	555	475	487	412
14	735	541	493	491	424	542	428	666	576	552	404	416
15	547	444	570	576	442	536	421	e572	565	519	454	486
16	527	438	578	521	456	539	390	508	484	431	417	641
17	526	444	551	522	482	515	631	471	404	480	465	464
18	564	799	489	534	571	540	600	667	437	394	552	529
19	637	764	514	484	519	580	483	518	487	400	549	429
20	526	e639	640	502	559	519	508	547	358	391	506	460
21	551	599	550	547	585	549	517	674	381	550	494	434
22	585	551	517	526	484	503	461	885	430	625	422	476
23	592	697	511	551	461	441	402	813	372	527	401	465
24	600	787	516	518	516	541	419	633	584	500	528	481
25	729	645	581	508	540	544	527	642	473	445	638	490
26	550	529	494	541	511	518	425	611	385	502	612	453
27	582	532	529	514	548	482	449	467	363	448	633	421
28	562	597	571	547	515	538	493	447	373	405	830	498
29	502	671	530	541	513	579	397	461	330	426	712	538
30	485	585	553	556	---	521	391	644	317	468	545	519
31	500	---	498	506	---	582	---	750	---	475	484	---
TOTAL	16,721	18,112	16,784	16,574	14,864	17,364	14,235	17,383	13,756	14,588	15,973	14,306
MEAN	539	604	541	535	513	560	474	561	459	471	515	477
MAX	735	854	640	601	585	797	631	885	721	625	830	641
MIN	427	438	479	484	424	441	390	394	317	327	393	412

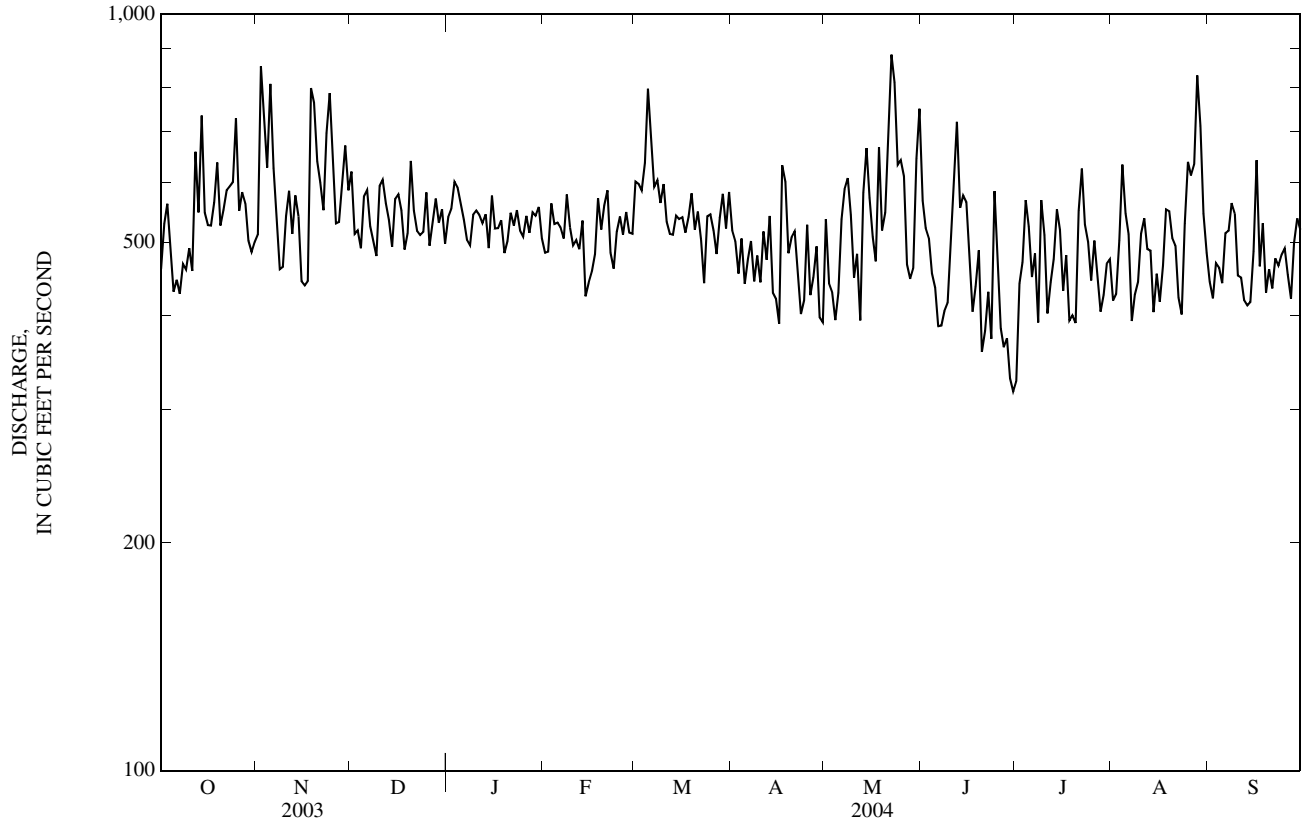
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2004, BY WATER YEAR (WY)

MEAN	583	592	614	613	615	636	605	630	585	571	583	562
MAX	752	916	1,094	963	843	1,111	922	1,016	724	761	759	759
(WY)	(1997)	(1997)	(1997)	(1997)	(1997)	(1999)	(1999)	(1999)	(1996)	(1996)	(1996)	(1996)
MIN	418	407	429	467	470	481	474	508	439	471	467	416
(WY)	(1998)	(1998)	(1998)	(1998)	(2003)	(2003)	(2004)	(1998)	(1998)	(2004)	(1998)	(1997)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1994 - 2004	
ANNUAL TOTAL	195,000		190,660			
ANNUAL MEAN	534		521		599	
HIGHEST ANNUAL MEAN					727	1999
LOWEST ANNUAL MEAN					462	1998
HIGHEST DAILY MEAN	938	Jul 27	885	May 22	2,120	Mar 21, 1999
LOWEST DAILY MEAN	332	Mar 17	317	Jun 30	-641	Oct 21, 1993
ANNUAL SEVEN-DAY MINIMUM	420	Apr 23	362	Jun 26	-180	Oct 15, 1993
MAXIMUM PEAK FLOW			7,070	May 8	8,970	Jun 3, 2002
MAXIMUM PEAK STAGE			10.51	Jul 14	14.41	Mar 9, 1998
10 PERCENT EXCEEDS	653		626		756	
50 PERCENT EXCEEDS	524		516		571	
90 PERCENT EXCEEDS	433		421		441	

e Estimated

04092750 INDIANA HARBOR CANAL AT EAST CHICAGO, IN—Continued



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, (GARY, IN quadrangle), 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, 3.3 mi north of Ainsworth, IN.

DRAINAGE AREA.--124 mi^2.

PERIOD OF RECORD.--April 1947 to current year.

REVISED RECORDS.--WSP 1337: 1953. WSP 1507: 1956. WDR IN-72-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 588.17 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to July 29, 1952, nonrecording gage, and July 30, 1952, to July 20, 1955, water-stage recorder at site 400 ft upstream at datum 11.80 ft higher.

REMARKS.--Records fair. Flow subject to regulation by operation of Lake George Dam.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

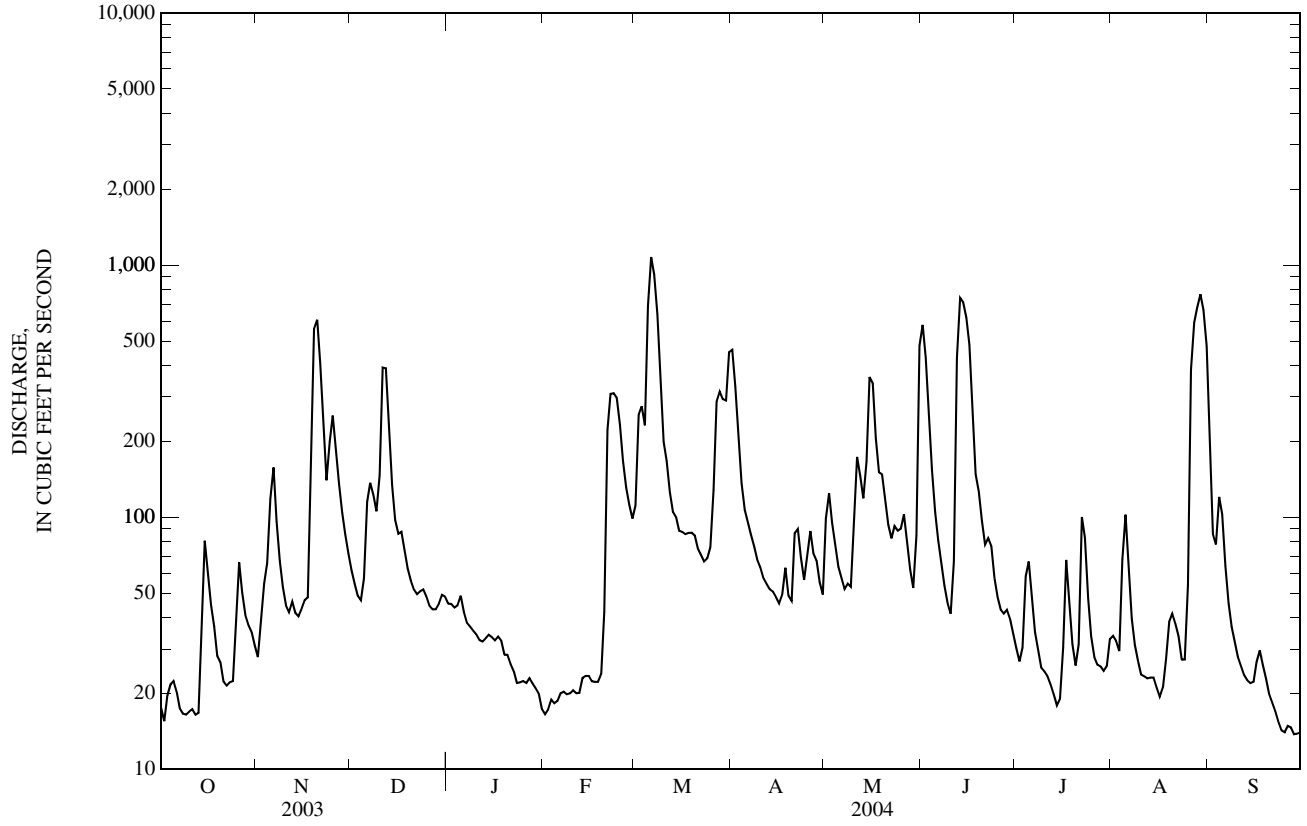
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	28	62	45	17	111	461	99	579	30	34	167
2	16	39	54	45	17	255	329	125	431	27	32	86
3	20	54	49	44	19	275	207	95	270	30	29	78
4	22	66	47	45	18	231	136	77	154	58	68	120
5	22	118	57	49	19	689	107	64	105	67	102	103
6	20	158	115	42	20	1,080	95	57	81	47	60	64
7	17	96	137	38	20	917	85	52	65	35	39	46
8	17	67	122	37	20	637	77	55	54	29	31	37
9	16	53	106	35	20	350	68	53	46	25	27	32
10	17	45	147	34	21	199	63	88	41	24	24	28
11	17	42	392	33	20	167	57	174	67	23	23	26
12	16	46	390	32	20	125	54	145	428	22	23	24
13	17	42	238	33	23	105	52	119	741	20	23	23
14	43	40	134	34	23	100	51	166	713	18	23	22
15	81	43	98	33	23	88	48	360	619	19	21	22
16	61	47	86	32	22	87	45	340	484	30	19	27
17	45	48	87	34	22	86	49	206	256	68	21	30
18	37	129	74	32	22	87	63	151	148	47	27	26
19	28	558	63	29	24	87	49	148	126	31	39	23
20	27	607	56	28	42	85	47	118	97	26	41	20
21	22	404	52	26	223	75	86	93	78	31	38	18
22	21	219	50	24	309	71	90	82	83	100	34	17
23	22	140	51	22	311	67	69	92	77	83	27	15
24	22	199	52	22	298	69	56	88	57	48	27	14
25	39	253	49	22	233	76	70	90	48	34	54	14
26	66	186	45	22	167	128	88	102	43	28	385	15
27	50	136	43	23	131	287	72	82	41	26	592	15
28	41	104	43	22	112	315	67	62	43	26	680	14
29	37	86	45	21	99	294	55	52	40	25	766	14
30	35	72	49	20	---	290	49	85	34	26	663	14
31	31	---	48	17	---	451	---	479	---	33	477	---
TOTAL	943	4,125	3,041	975	2,315	7,884	2,845	3,999	6,049	1,136	4,449	1,154
MEAN	30.4	138	98.1	31.5	79.8	254	94.8	129	202	36.6	144	38.5
MAX	81	607	392	49	311	1,080	461	479	741	100	766	167
MIN	16	28	43	17	17	67	45	52	34	18	19	14
CFSM	0.25	1.11	0.79	0.25	0.64	2.05	0.76	1.04	1.63	0.30	1.16	0.31
IN.	0.28	1.24	0.91	0.29	0.69	2.37	0.85	1.20	1.81	0.34	1.33	0.35

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2004, BY WATER YEAR (WY)

MEAN	57.2	90.8	108	115	149	213	208	153	118	68.1	50.5	46.6
MAX	433	499	393	475	456	688	477	454	557	394	427	312
(WY)	(1955)	(1986)	(1983)	(1993)	(1997)	(1979)	(1950)	(1970)	(1993)	(2003)	(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)

04093000 DEEP RIVER AT LAKE GEORGE OUTLET AT HOBART, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1948 - 2004	
ANNUAL TOTAL	39,088		38,915			
ANNUAL MEAN	107		106		115	
HIGHEST ANNUAL MEAN					234	1993
LOWEST ANNUAL MEAN					35.3	1963
HIGHEST DAILY MEAN	1,560	Jul 22	1,080	Mar 6	3,900	Nov 28, 1990
LOWEST DAILY MEAN	12	Sep 20	14	Sep 24	0.00	Nov 5, 1978
ANNUAL SEVEN-DAY MINIMUM	14	Jan 23	14	Sep 24	0.04	Aug 29, 1996
MAXIMUM PEAK FLOW			1,160	Mar 6	4,230	Nov 28, 1990
MAXIMUM PEAK STAGE			10.35	Mar 6	19.48	Oct 11, 1954
ANNUAL RUNOFF (CFSM)	0.864		0.857		0.924	
ANNUAL RUNOFF (INCHES)	11.73		11.67		12.55	
10 PERCENT EXCEEDS	274		279		272	
50 PERCENT EXCEEDS	42		50		48	
90 PERCENT EXCEEDS	18		20		14	



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, (CHESTERTON, IN quadrangle), 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 mi^2.

PERIOD OF RECORD.--May 1945 to current year.

REVISED RECORDS.--WSP 1084: 1945. WSP 1337: 1946-47. WDR IN-72-1: Drainage area. WDR IN-83-1: 1982.

GAGE.--Water-stage recorder. Datum of gage is 603.48 ft above National Geodetic Vertical Datum of 1929. Prior to June 26, 1952, nonrecording gage at same site and datum.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	46	42	45	e30	77	157	53	513	30	33	62
2	27	59	41	46	e30	163	98	52	255	29	30	51
3	28	64	40	45	e30	147	82	49	104	31	28	46
4	30	63	39	43	e30	99	69	45	74	51	54	43
5	32	94	46	44	e30	325	61	41	62	40	51	40
6	29	91	63	42	e29	494	e57	40	53	34	36	38
7	30	70	60	44	e29	192	53	38	50	30	32	38
8	33	64	57	40	e29	113	51	40	45	29	31	36
9	34	61	51	39	e29	91	48	37	42	28	29	35
10	28	52	73	37	e29	77	46	37	41	29	28	33
11	27	51	114	37	e29	71	45	40	65	30	27	31
12	28	52	89	39	e29	63	45	40	142	29	32	30
13	30	52	63	41	e28	61	44	42	292	29	40	30
14	47	49	53	41	e28	62	43	73	116	31	36	29
15	65	51	49	40	e28	61	42	125	94	32	32	29
16	51	54	49	38	e28	57	43	88	68	28	29	33
17	42	50	49	38	e28	55	44	60	57	29	34	32
18	39	71	49	38	e28	57	45	78	53	28	84	29
19	39	160	49	34	e28	57	41	113	46	26	61	28
20	37	119	45	e33	50	55	40	76	46	26	47	28
21	36	74	42	e33	135	54	44	62	44	35	41	27
22	39	59	43	e33	137	50	42	58	44	127	36	26
23	38	54	45	e33	152	49	40	71	39	224	33	26
24	40	92	47	e32	153	51	40	108	35	93	37	25
25	48	94	44	e32	116	58	55	110	35	49	91	25
26	54	71	42	e32	87	78	55	98	33	39	467	26
27	49	63	43	e31	72	113	47	68	32	36	393	26
28	49	52	43	e31	64	89	43	54	32	33	133	29
29	48	47	51	e31	61	85	41	45	32	31	140	32
30	50	44	55	e31	---	90	40	84	30	31	127	33
31	49	---	49	e31	---	223	---	563	---	33	78	---
TOTAL	1,205	2,023	1,625	1,154	1,576	3,317	1,601	2,488	2,574	1,350	2,350	996
MEAN	38.9	67.4	52.4	37.2	54.3	107	53.4	80.3	85.8	43.5	75.8	33.2
MAX	65	160	114	46	153	494	157	563	513	224	467	62
MIN	27	44	39	31	28	49	40	37	30	26	27	25
CFSM	0.59	1.02	0.79	0.56	0.82	1.62	0.81	1.21	1.30	0.66	1.15	0.50
IN.	0.68	1.14	0.91	0.65	0.89	1.86	0.90	1.40	1.45	0.76	1.32	0.56

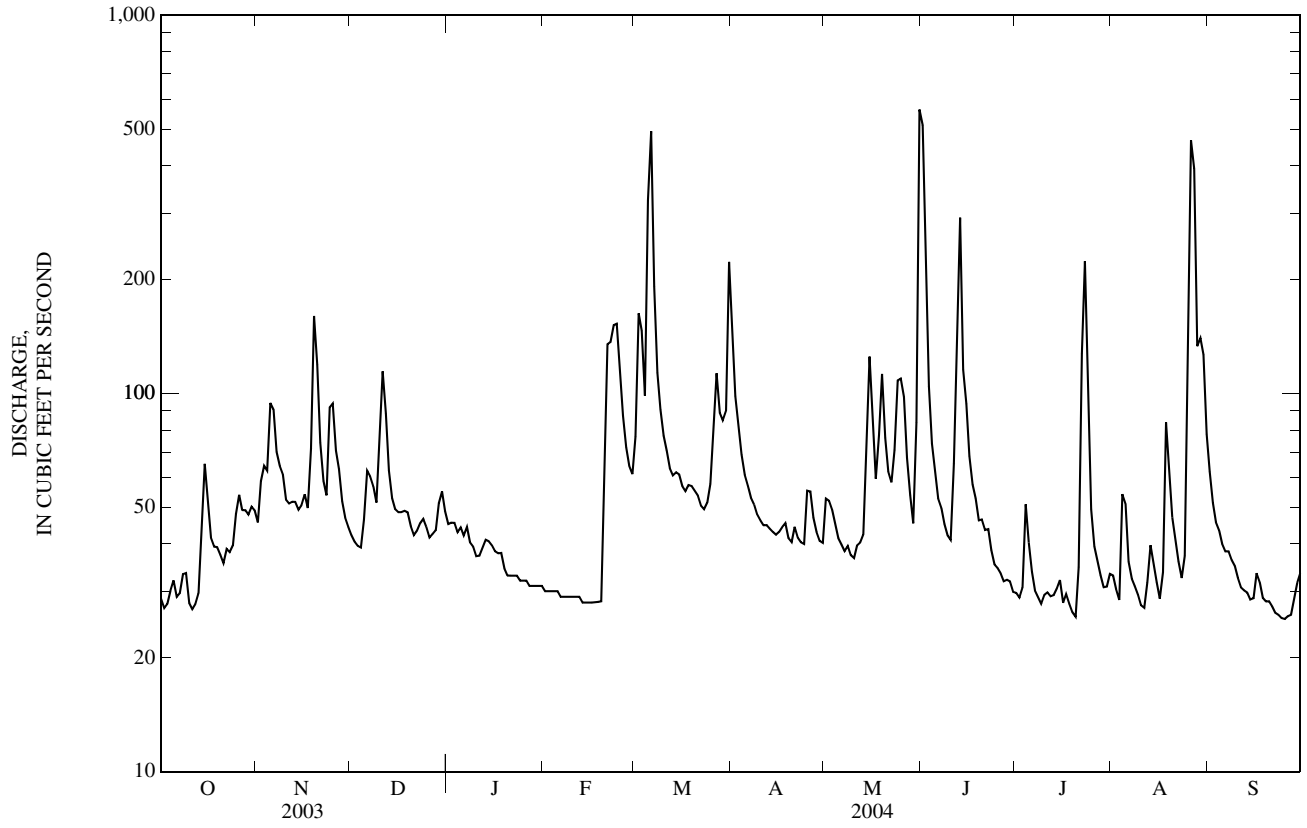
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2004, BY WATER YEAR (WY)

MEAN	58.7	74.8	78.1	78.6	94.7	119	115	88.7	73.9	47.9	43.0	42.7
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	48.3	44.6	33.5	25.6	22.2	23.1	21.4
(WY)	(1964)	(1954)	(1964)	(1977)	(1964)	(2003)	(1963)	(1958)	(1965)	(1988)	(1964)	(1953)

04094000 LITTLE CALUMET RIVER AT PORTER, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1946 - 2004	
ANNUAL TOTAL	19,319		22,259			
ANNUAL MEAN	52.9		60.8		76.2	
HIGHEST ANNUAL MEAN					124	1991
LOWEST ANNUAL MEAN					36.5	1964
HIGHEST DAILY MEAN	609	May 10	563	May 31	3,040	Nov 28, 1990
LOWEST DAILY MEAN	25	Sep 19	25	Sep 24	17	Aug 24, 1965
ANNUAL SEVEN-DAY MINIMUM	27	Sep 16	26	Sep 21	19	Aug 20, 1965
MAXIMUM PEAK FLOW			740	May 31	3,880	Nov 28, 1990
MAXIMUM PEAK STAGE			7.75	May 31	11.66	Oct 10, 1954
ANNUAL RUNOFF (CFSM)	0.800		0.919		1.15	
ANNUAL RUNOFF (INCHES)	10.86		12.51		15.63	
10 PERCENT EXCEEDS	75		98		138	
50 PERCENT EXCEEDS	43		44		49	
90 PERCENT EXCEEDS	29		29		28	

e Estimated



04095090 BURNS DITCH AT PORTAGE, IN

LOCATION.--Lat 41°37'20", long 87°10'35", in NE¼NW¼ sec. 36, T.37 N., R.7 W., Porter County, Hydrologic Unit 04040001, (PORTAGE, IN quadrangle), on right bank at an industrial road bridge, 1,300 feet north of U.S. Highway 12, 0.7 mi south of the mouth, 1.2 mi west of the State Road 249 overpass over U.S. Highway 12, 2.4 mi east of County Line Road, 3.2 mi north of the intersection of Central Avenue and Willow Creek Road in Portage.

DRAINAGE AREA.--331 mi^2.

PERIOD OF RECORD.--February 2, 1995 to current year.

REVISED RECORDS.--WDR IN-01-1: 1998-2000 (M).

GAGE.--Water-stage recorder and Acoustic Doppler Velocity Meter. Datum of gage is 575 ft above National Geodetic Vertical Datum of 1929 from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Peak stage and peak flow for the period of record probably occured on May 10, 1996 during period of missing record.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	216	e316	e460	e412	325	628	1,270	502	1,990	321	293	665
2	e274	e446	412	489	334	837	1,060	570	e1,550	313	308	506
3	e271	543	472	388	338	872	785	543	1,070	370	218	492
4	e316	565	460	359	312	797	699	487	837	523	372	463
5	258	673	460	397	343	1,580	664	412	675	490	475	461
6	263	750	625	e467	391	2,420	595	543	606	448	443	400
7	e315	e594	669	e398	372	2,100	539	524	571	413	341	312
8	321	e490	643	e310	e361	1,540	523	744	532	371	329	292
9	305	e490	599	366	e355	1,180	519	597	477	e461	298	342
10	289	e322	647	e382	e349	859	471	548	494	e398	268	318
11	e294	e389	938	e387	e308	758	451	616	568	e298	267	304
12	e188	e419	959	383	e344	693	383	538	1,230	e333	270	260
13	e368	e434	806	348	e308	638	403	610	1,800	e364	319	283
14	359	e393	664	e396	e312	e587	400	750	1,600	e445	289	296
15	e534	e361	e614	331	316	537	450	1,090	1,370	e408	277	294
16	e430	367	e554	370	e326	539	437	1,000	1,150	e322	284	303
17	e400	403	560	355	e308	539	524	829	929	e374	282	311
18	e401	590	518	295	e345	533	569	786	715	e282	314	305
19	299	1,190	437	309	e382	568	434	844	657	e290	371	283
20	e348	e1,300	e502	339	428	479	371	791	583	e281	349	274
21	267	1,090	e459	e353	744	415	435	874	525	380	329	248
22	e223	908	e419	331	867	e480	443	1,010	458	752	314	244
23	273	816	411	e292	915	e478	422	799	495	744	264	263
24	297	e888	448	344	931	483	396	811	602	541	302	259
25	e296	e846	421	340	837	528	521	770	437	379	538	234
26	400	e804	e432	332	725	657	524	761	420	340	1,240	240
27	e410	709	e437	359	655	896	487	644	385	298	1,610	237
28	e356	628	e447	354	635	916	464	613	368	287	1,320	223
29	e370	e649	414	289	624	861	438	534	396	317	1,350	272
30	e392	e462	e470	e313	---	865	385	736	325	303	1,320	286
31	343	---	e387	e320	---	1,270	---	1,670	---	291	997	---
TOTAL	10,076	18,835	16,744	11,108	13,790	26,533	16,062	22,546	23,815	12,137	15,951	9,670
MEAN	325	628	540	358	476	856	535	727	794	392	515	322
MAX	534	1,300	959	489	931	2,420	1,270	1,670	1,990	752	1,610	665
MIN	188	316	387	289	308	415	371	412	325	281	218	223

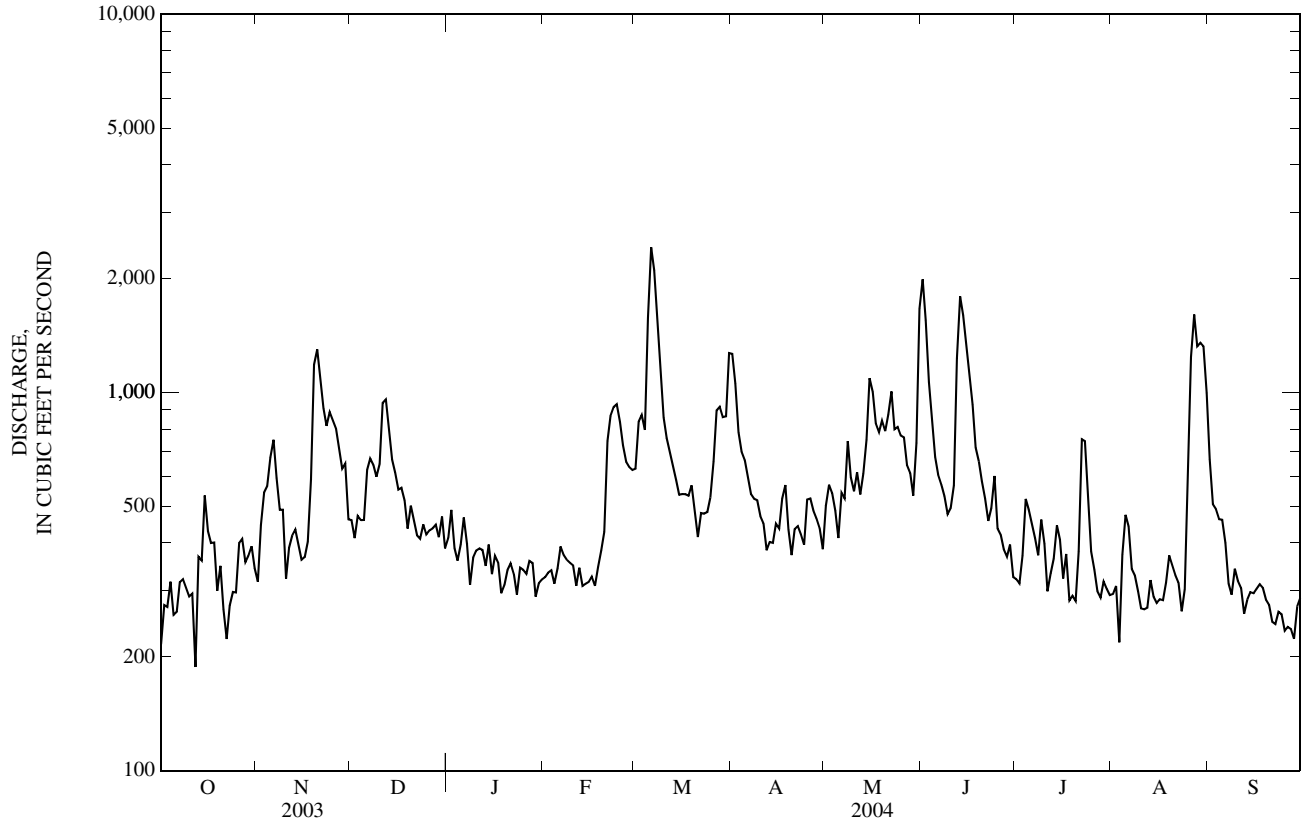
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2004, BY WATER YEAR (WY)

MEAN	353	388	414	409	568	578	603	736	645	457	377	277
MAX	976	628	569	587	1,305	981	1,094	1,539	1,187	1,041	515	398
(WY)	(2002)	(2004)	(2002)	(1998)	(2001)	(2002)	(2002)	(2002)	(2000)	(2003)	(2004)	(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 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1995 - 2004	
ANNUAL TOTAL	187,708		197,267			
ANNUAL MEAN	514		539		483	
HIGHEST ANNUAL MEAN					702	2002
LOWEST ANNUAL MEAN					288	1999
HIGHEST DAILY MEAN	2,780	May 10	2,420	Mar 6	e 8,000	May 10, 1996
LOWEST DAILY MEAN	183	Feb 16	e 188	Oct 12	83	Oct 16, 1995
ANNUAL SEVEN-DAY MINIMUM	256	Jan 16	243	Sep 22	95	Oct 13, 1995
MAXIMUM PEAK FLOW			3,160	May 22	unknown	
MAXIMUM PEAK STAGE			5.53	Aug 5	unknown	
10 PERCENT EXCEEDS	941		900		831	
50 PERCENT EXCEEDS	371		437		380	
90 PERCENT EXCEEDS	281		289		198	

e Estimated

04095090 BURNS DITCH AT PORTAGE, IN—Continued



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, (MICHIGAN CITY WEST, IN quadrangle), on right bank in the northeast drawbridge tower, 2000 ft north of Michigan Street, 2,600 ft southeast of lake end of west breakwater, 0.5 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 National Geodetic Vertical Datum of 1929 from topographic map.

REMARKS.--Records poor. Positive discharges indicate flow towards Lake Michigan; negative discharges indicate flow away from Lake Michigan.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

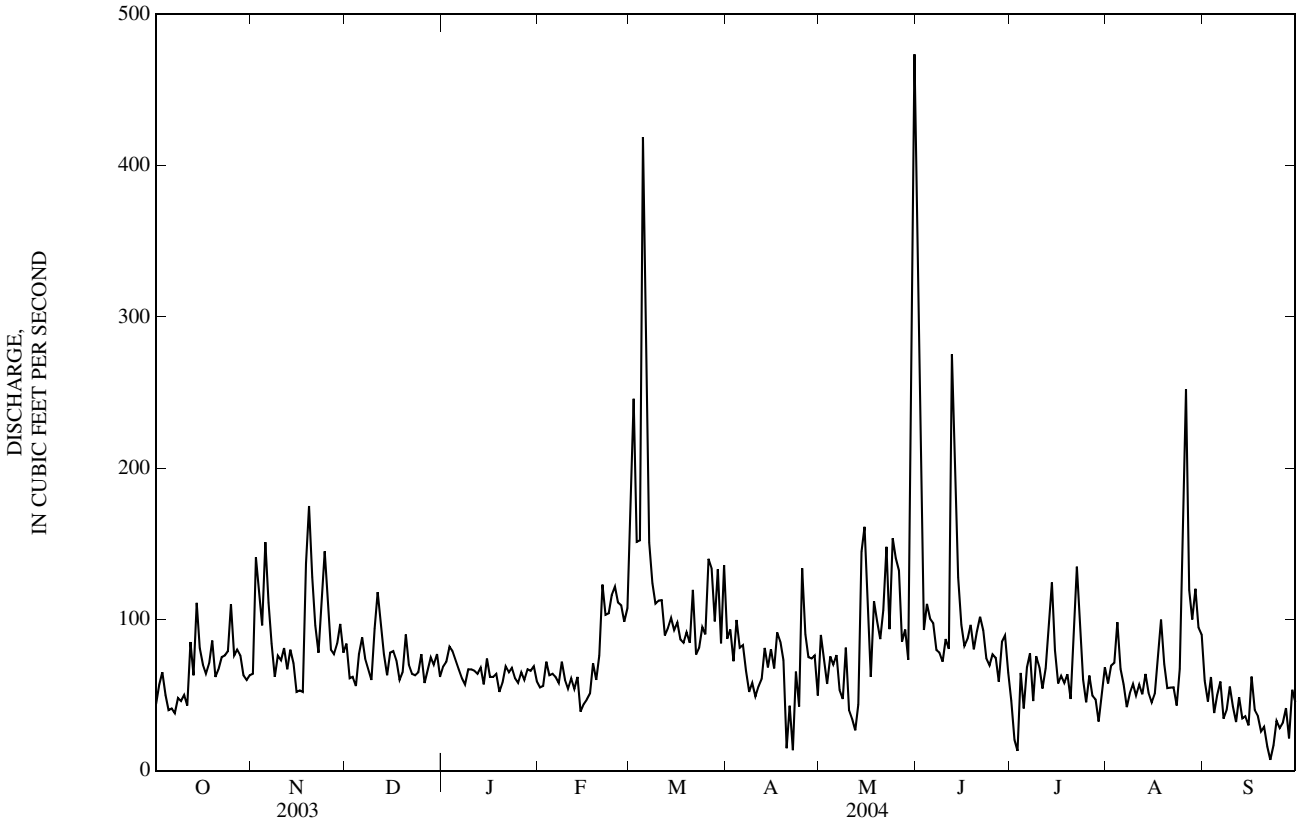
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e44	e64	e84	e69	e55	170	87	90	304	46	58	59
2	e57	e141	e61	e72	e56	246	93	73	e174	20	69	46
3	e65	e120	e62	e82	e72	151	72	57	e93	13	71	62
4	e50	e96	e56	e79	e63	152	100	75	110	65	98	38
5	e40	e151	e77	e73	e64	419	81	70	100	41	67	50
6	e41	e111	e88	e67	e62	270	83	76	98	68	57	59
7	e38	e84	e74	e61	e58	151	e66	53	80	78	42	34
8	e48	e62	e67	e57	e72	124	e52	47	78	46	51	40
9	e46	e76	e60	e67	e60	110	e58	81	72	76	57	55
10	e50	e73	e94	e67	e54	112	e49	40	87	68	49	43
11	e43	e81	e118	e66	e61	113	56	34	81	54	57	32
12	e85	e67	e96	e64	e54	89	61	27	275	68	50	49
13	e63	e80	e77	e68	e62	94	81	44	180	96	64	34
14	e111	e71	e63	e57	e39	101	68	145	128	124	52	36
15	e81	e52	e78	e74	e44	93	80	161	96	80	45	30
16	e70	e53	e79	e62	e47	98	68	107	82	58	51	62
17	e64	e52	e73	e62	e51	87	91	e62	87	63	78	40
18	e71	e137	e60	e64	e71	84	85	e112	96	58	100	36
19	e86	e175	e65	e52	e60	91	73	e99	80	64	70	26
20	e62	e128	e90	e58	e76	85	15	e87	92	47	55	29
21	e67	e96	e70	e69	e123	120	43	e106	102	91	55	16
22	e75	e78	e64	e65	e103	77	14	e148	93	135	55	7.2
23	e76	e106	e63	e68	e104	81	65	93	74	102	43	17
24	e79	e145	e65	e61	e116	95	42	154	70	60	67	33
25	e110	e116	e77	e58	122	90	134	141	77	45	147	28
26	e76	e80	e58	e65	111	140	90	132	75	63	252	32
27	e80	e77	e66	e60	109	134	75	85	59	50	119	41
28	e76	e84	e75	e67	98	99	74	93	85	47	100	21
29	e63	e97	e70	e66	107	133	76	73	89	33	120	54
30	e60	e78	e77	e69	---	84	50	240	65	51	95	45
31	e63	---	e62	e59	---	136	---	474	---	68	90	---
TOTAL	2,040	2,831	2,269	2,028	2,174	4,029	2,082	3,279	3,182	1,978	2,384	1,154.2
MEAN	65.8	94.4	73.2	65.4	75.0	130	69.4	106	106	63.8	76.9	38.5
MAX	111	175	118	82	123	419	134	474	304	135	252	62
MIN	38	52	56	52	39	77	14	27	59	13	42	7.2

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2004, BY WATER YEAR (WY)

MEAN	101	110	117	117	127	134	140	141	116	99.4	91.6	82.0
MAX	127	173	185	176	208	191	201	216	192	150	126	113
(WY)	(1998)	(1995)	(1997)	(1995)	(2001)	(2002)	(2002)	(2002)	(2000)	(1998)	(1995)	(2000)
MIN	50.7	49.4	61.8	59.4	61.8	58.0	69.4	106	60.3	57.1	63.9	38.5
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2004)	(2004)	(2003)	(2003)	(2003)	(2004)

e Estimated

04095380 TRAIL CREEK AT MICHIGAN CITY HARBOR, IN—Continued



04099510 PIGEON CREEK NEAR ANGOLA, IN

LOCATION.--Lat 41°38'04", long 85°06'35", in NW¼SE¼ sec.26, T.37 N., R.12 E., Steuben County, Hydrologic Unit 04050001, (ANGOLA WEST, IN quadrangle), 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 National Geodetic Vertical Datum of 1929. Prior to October 1947, nonrecording gage at site 0.3 mi downstream at different (unknown) 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 good.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

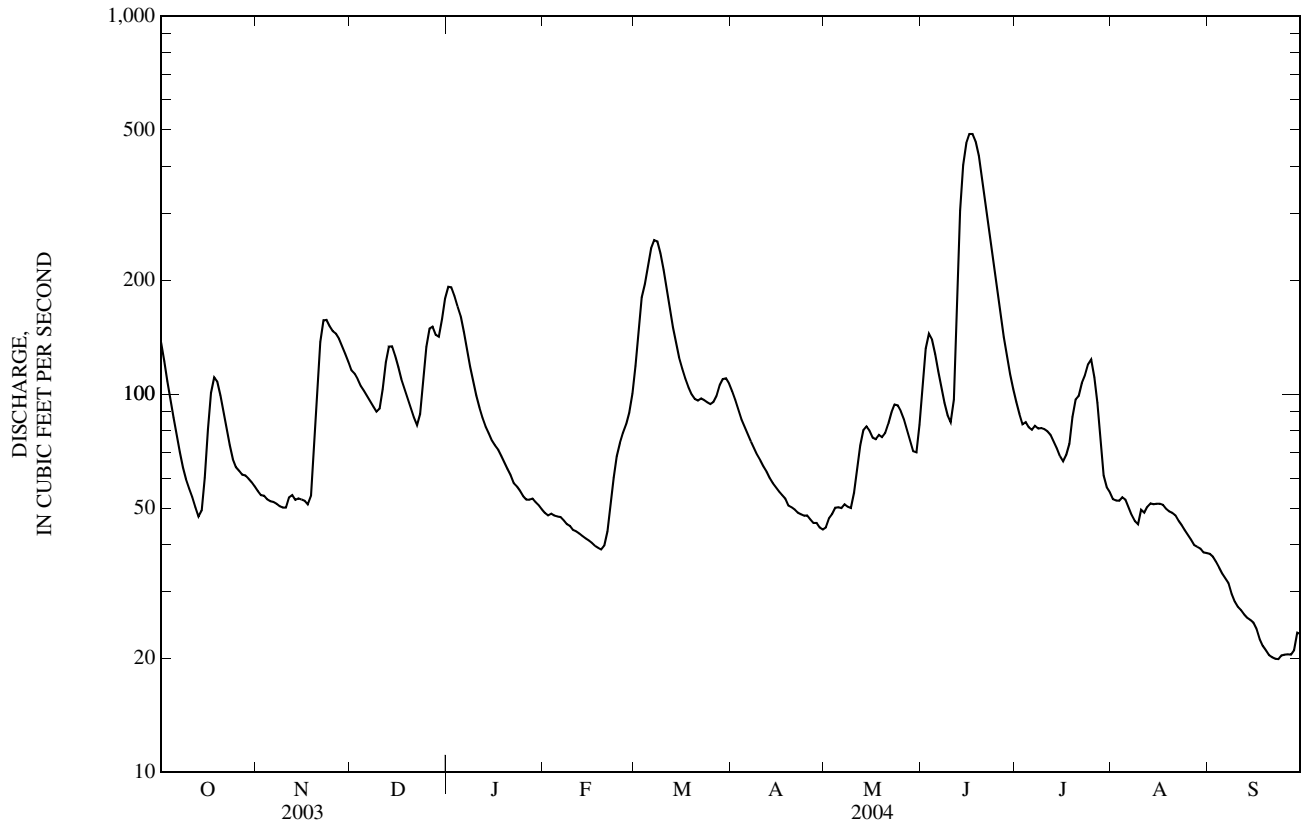
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	55	116	192	49	119	102	44	106	95	53	38
2	122	54	113	192	48	149	97	47	132	89	52	37
3	108	54	110	182	48	180	91	48	145	83	52	36
4	97	53	105	171	48	196	86	50	140	84	53	35
5	87	52	102	161	47	218	82	50	128	82	53	34
6	78	52	99	146	47	243	78	50	115	81	50	33
7	70	51	96	131	46	255	75	51	104	82	48	32
8	64	51	93	118	45	253	72	50	95	81	46	30
9	60	50	90	108	45	236	69	50	88	81	45	28
10	56	50	92	99	44	213	67	55	84	81	49	27
11	53	53	103	92	43	189	64	63	97	80	49	27
12	50	54	122	87	43	167	62	73	165	78	50	26
13	47	53	134	82	42	150	60	80	306	75	51	26
14	49	53	134	79	42	137	58	82	403	72	51	25
15	60	53	126	75	41	125	57	80	461	69	51	25
16	81	52	118	73	40	117	55	77	488	66	51	24
17	101	51	110	71	40	110	54	76	488	69	51	22
18	111	54	103	69	39	104	53	78	466	74	50	22
19	108	71	97	66	39	100	51	77	428	87	49	21
20	99	103	92	63	40	97	50	79	382	97	49	20
21	90	137	87	61	43	96	50	83	335	99	48	20
22	81	157	83	58	51	97	49	90	289	107	46	20
23	73	157	89	57	60	96	48	94	248	112	45	20
24	67	151	108	55	69	95	48	93	213	120	44	20
25	64	147	133	54	74	94	48	90	185	124	42	20
26	63	145	149	53	79	95	47	86	161	111	41	21
27	61	140	151	53	83	99	46	81	142	95	40	20
28	61	134	144	53	89	106	46	75	126	75	40	21
29	60	128	142	52	100	110	44	71	113	61	39	23
30	59	122	158	51	---	110	44	70	103	57	38	23
31	57	---	179	50	---	107	---	83	---	55	38	---
TOTAL	2,374	2,537	3,578	2,854	1,524	4,463	1,853	2,176	6,736	2,622	1,464	776
MEAN	76.6	84.6	115	92.1	52.6	144	61.8	70.2	225	84.6	47.2	25.9
MAX	137	157	179	192	100	255	102	94	488	124	53	38
MIN	47	50	83	50	39	94	44	44	84	55	38	20
CFSM	0.92	1.01	1.38	1.10	0.63	1.72	0.74	0.84	2.69	1.01	0.57	0.31
IN.	1.06	1.13	1.59	1.27	0.68	1.99	0.83	0.97	3.00	1.17	0.65	0.35

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2004, BY WATER YEAR (WY)

MEAN	37.4	54.0	76.4	92.7	109	157	162	117	83.9	50.7	39.2	33.4
MAX	181	195	195	385	343	437	491	423	362	164	126	119
(WY)	(2002)	(1993)	(1968)	(1993)	(2001)	(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)

04099510 PIGEON CREEK NEAR ANGOLA, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1946 - 2004	
ANNUAL TOTAL	29,010		32,957			
ANNUAL MEAN	79.5		90.0		84.2	
HIGHEST ANNUAL MEAN					151	1950
LOWEST ANNUAL MEAN					19.5	1964
HIGHEST DAILY MEAN	399	May 13	488	Jun 16	996	May 21, 1996
LOWEST DAILY MEAN	18	Feb 1	20	Sep 20	3.4	Oct 25, 1964
ANNUAL SEVEN-DAY MINIMUM	19	Feb 16	20	Sep 19	3.5	Oct 22, 1964
MAXIMUM PEAK FLOW			492	Jun 16	1,000	May 21, 1996
MAXIMUM PEAK STAGE			9.76	Jun 16	13.90	Mar 22, 1982
ANNUAL RUNOFF (CFSM)	0.952		1.08		1.01	
ANNUAL RUNOFF (INCHES)	12.92		14.68		13.71	
10 PERCENT EXCEEDS	150		150		188	
50 PERCENT EXCEEDS	60		74		54	
90 PERCENT EXCEEDS	21		40		17	



04099750 PIGEON RIVER NEAR SCOTT, IN

LOCATION.--Lat 41°44'56", long 85°34'35", in SE¼NW¼ sec.14, T.38 N., R.8 E., Lagrange County, Hydrologic Unit 04050001, (SHIPSHEWANA, IN quadrangle), 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 National Geodetic Vertical Datum of 1929.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	291	250	399	595	e250	428	405	226	638	349	236	170
2	291	263	379	597	e247	536	392	259	543	328	212	162
3	288	258	353	607	e243	565	378	269	491	319	210	157
4	292	268	338	591	e240	566	360	238	491	376	218	153
5	280	288	342	580	e238	646	347	225	475	408	231	151
6	247	292	351	555	e236	752	336	225	444	359	234	148
7	240	280	339	507	e234	758	313	241	385	364	208	147
8	235	265	321	e470	e232	750	318	243	382	354	193	146
9	227	248	312	e450	e230	760	307	252	359	322	175	136
10	216	237	321	e420	e229	735	298	278	374	298	213	135
11	210	254	341	e390	e228	703	291	292	492	284	284	134
12	204	255	339	e374	e227	656	284	265	716	295	242	135
13	199	250	332	e360	e226	603	269	283	1,090	301	208	133
14	216	244	337	e350	e225	565	265	309	1,330	255	197	130
15	281	239	345	e340	e224	531	263	321	1,360	231	211	130
16	289	234	359	e330	e223	501	257	309	1,380	230	203	131
17	275	235	350	e325	e222	475	254	300	1,350	252	194	128
18	287	262	323	e320	e221	455	251	e350	1,330	289	185	126
19	321	396	313	e312	e220	443	242	e370	1,280	285	195	126
20	322	464	308	e305	219	432	238	385	1,210	261	207	123
21	331	424	294	e300	266	424	235	387	1,140	254	204	120
22	320	418	285	e293	285	409	237	481	1,040	398	193	121
23	286	452	326	e289	298	386	238	529	929	476	178	122
24	274	504	417	e284	311	389	229	486	804	418	174	123
25	289	525	436	e280	322	395	229	464	690	326	170	124
26	304	485	442	e275	335	425	223	438	605	318	176	125
27	294	450	456	e270	362	439	219	410	542	290	174	126
28	285	447	471	e265	374	432	216	370	478	291	173	127
29	281	433	523	e260	385	427	209	358	444	261	192	138
30	272	416	613	e257	---	422	207	383	404	249	201	140
31	260	---	619	e252	---	414	---	572	---	251	184	---
TOTAL	8,407	10,036	11,684	11,803	7,552	16,422	8,310	10,518	23,196	9,692	6,275	4,067
MEAN	271	335	377	381	260	530	277	339	773	313	202	136
MAX	331	525	619	607	385	760	405	572	1,380	476	284	170
MIN	199	234	285	252	219	386	207	225	359	230	170	120
CFSM	0.88	1.09	1.23	1.24	0.85	1.73	0.90	1.11	2.52	1.02	0.66	0.44
IN.	1.02	1.22	1.42	1.43	0.92	1.99	1.01	1.27	2.81	1.17	0.76	0.49

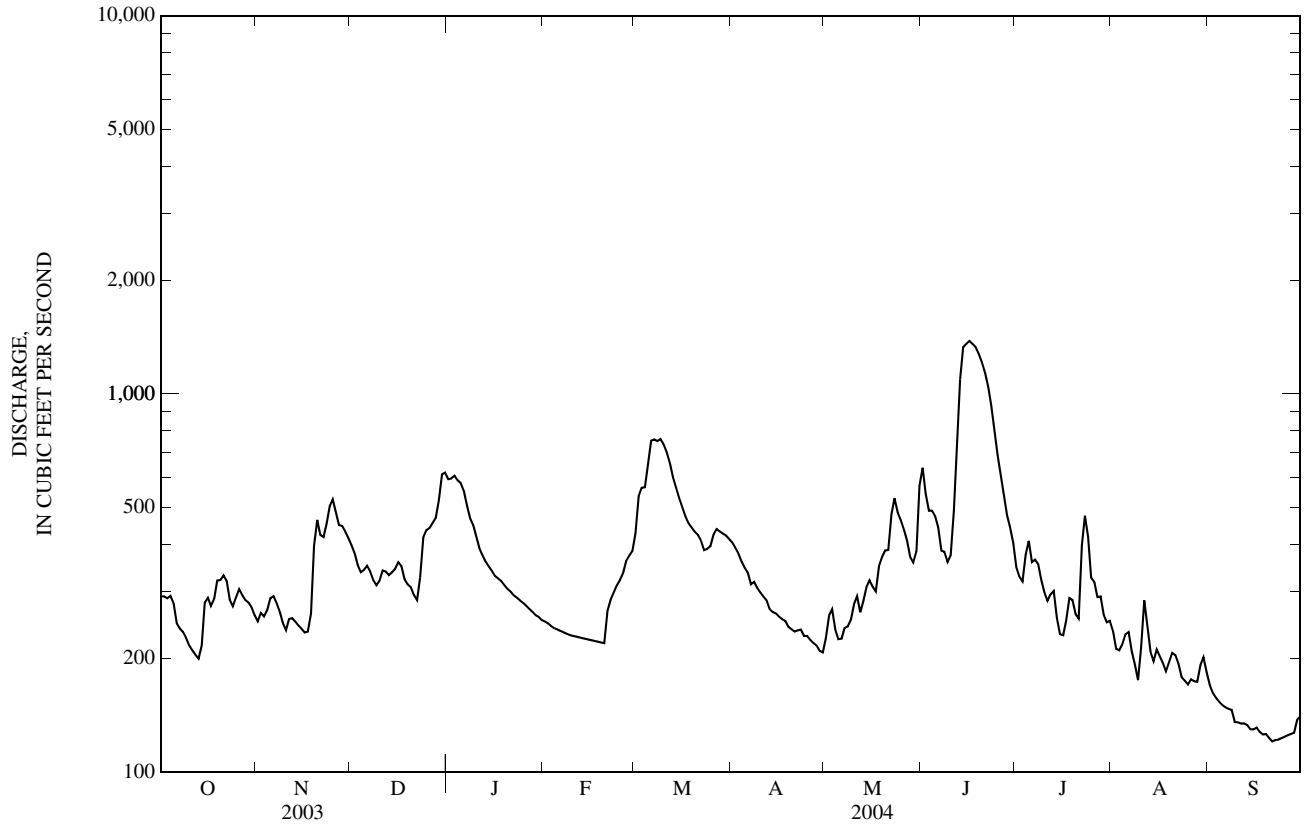
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2004, BY WATER YEAR (WY)

MEAN	224	291	354	383	438	578	579	462	392	258	219	201
MAX	575	684	719	1,169	875	1,389	1,089	976	1,103	654	516	538
(WY)	(1987)	(1993)	(1983)	(1993)	(2001)	(1982)	(1978)	(1996)	(1981)	(1981)	(1981)	(1981)
MIN	96.3	96.7	134	113	124	218	277	233	132	104	92.5	85.8
(WY)	(1972)	(1972)	(2003)	(2003)	(2003)	(2003)	(2004)	(1971)	(1988)	(1988)	(1988)	(1971)

04099750 PIGEON RIVER NEAR SCOTT, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1968 - 2004	
ANNUAL TOTAL	96,179		127,962			
ANNUAL MEAN	264		350		363	
HIGHEST ANNUAL MEAN					545	1993
LOWEST ANNUAL MEAN					207	1972
HIGHEST DAILY MEAN	884	May 16	1,380	Jun 16	2,340	Mar 21, 1982
LOWEST DAILY MEAN	66	Mar 5	120	Sep 21	42	Oct 21, 1971
ANNUAL SEVEN-DAY MINIMUM	68	Mar 2	123	Sep 20	e 68	Mar 2, 2003
MAXIMUM PEAK FLOW			1,390	Jun 16	2,370	Mar 21, 1982
MAXIMUM PEAK STAGE			6.33	Jun 16	7.85	Mar 21, 1982
ANNUAL RUNOFF (CFSM)	0.858		1.14		1.18	
ANNUAL RUNOFF (INCHES)	11.65		15.51		16.08	
10 PERCENT EXCEEDS	429		558		676	
50 PERCENT EXCEEDS	237		292		290	
90 PERCENT EXCEEDS	120		177		145	

e Estimated



04100222 NORTH BRANCH ELKHART RIVER AT COSPERVILLE, IN

LOCATION.--Lat 41°28'54", long 85°28'32", in NE¼NW¼ sec.22, T.35 N., R.9 E., Noble County, Hydrologic Unit 04050001, (ALBION, IN quadrangle), 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 National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to August 14, 1975 datum of gage was 880.00 ft above National Geodetic Vertical Datum of 1929.

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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	90	160	222	e88	141	126	55	137	136	92	43
2	102	89	161	222	e86	154	123	62	137	124	87	41
3	99	90	159	222	e84	160	118	64	136	114	81	39
4	99	89	156	223	e81	169	115	e65	133	121	82	37
5	98	87	154	222	e79	212	111	e65	130	127	80	35
6	95	87	153	e210	e76	240	108	e64	126	119	75	33
7	90	86	151	e190	e74	248	105	e63	123	137	71	32
8	86	83	149	e175	e72	250	101	62	119	125	67	30
9	82	81	146	e164	e71	250	98	61	116	117	61	28
10	77	78	149	e154	e69	246	96	70	117	109	60	26
11	75	77	151	e151	e66	235	93	77	132	104	54	24
12	78	76	153	e152	e64	225	91	83	191	102	51	23
13	77	69	152	e151	e61	218	88	86	228	97	47	22
14	80	72	150	e149	e58	204	84	89	261	91	45	21
15	88	73	146	e145	e57	196	82	79	291	85	42	20
16	90	73	142	e139	e56	189	78	68	307	80	41	19
17	90	73	139	e136	e54	178	75	88	312	77	39	19
18	90	81	138	e132	e54	167	72	106	313	74	38	18
19	90	109	134	e128	e55	160	67	110	307	71	39	17
20	90	125	131	e124	68	156	69	109	297	67	42	17
21	90	133	127	e120	83	152	67	114	294	65	44	16
22	89	137	124	e117	97	149	66	123	284	119	44	16
23	87	139	142	e113	111	144	64	127	266	123	43	15
24	84	148	165	e109	119	141	63	129	248	123	42	14
25	86	155	176	e105	123	139	61	130	230	120	40	13
26	87	157	179	e102	126	138	57	129	211	116	40	13
27	90	157	178	e99	128	138	55	128	193	114	39	12
28	91	157	177	e96	129	137	54	125	177	110	40	12
29	91	159	196	e94	132	134	50	121	162	106	45	12
30	91	159	215	e92	---	132	50	122	149	102	46	11
31	90	---	221	e90	---	129	---	133	---	97	45	---
TOTAL	2,757	3,189	4,874	4,548	2,421	5,531	2,487	2,907	6,127	3,272	1,662	678
MEAN	88.9	106	157	147	83.5	178	82.9	93.8	204	106	53.6	22.6
MAX	105	159	221	223	132	250	126	133	313	137	92	43
MIN	75	69	124	90	54	129	50	55	116	65	38	11
CFSM	0.63	0.75	1.11	1.03	0.59	1.26	0.58	0.66	1.44	0.74	0.38	0.16
IN.	0.72	0.84	1.28	1.19	0.63	1.45	0.65	0.76	1.61	0.86	0.44	0.18

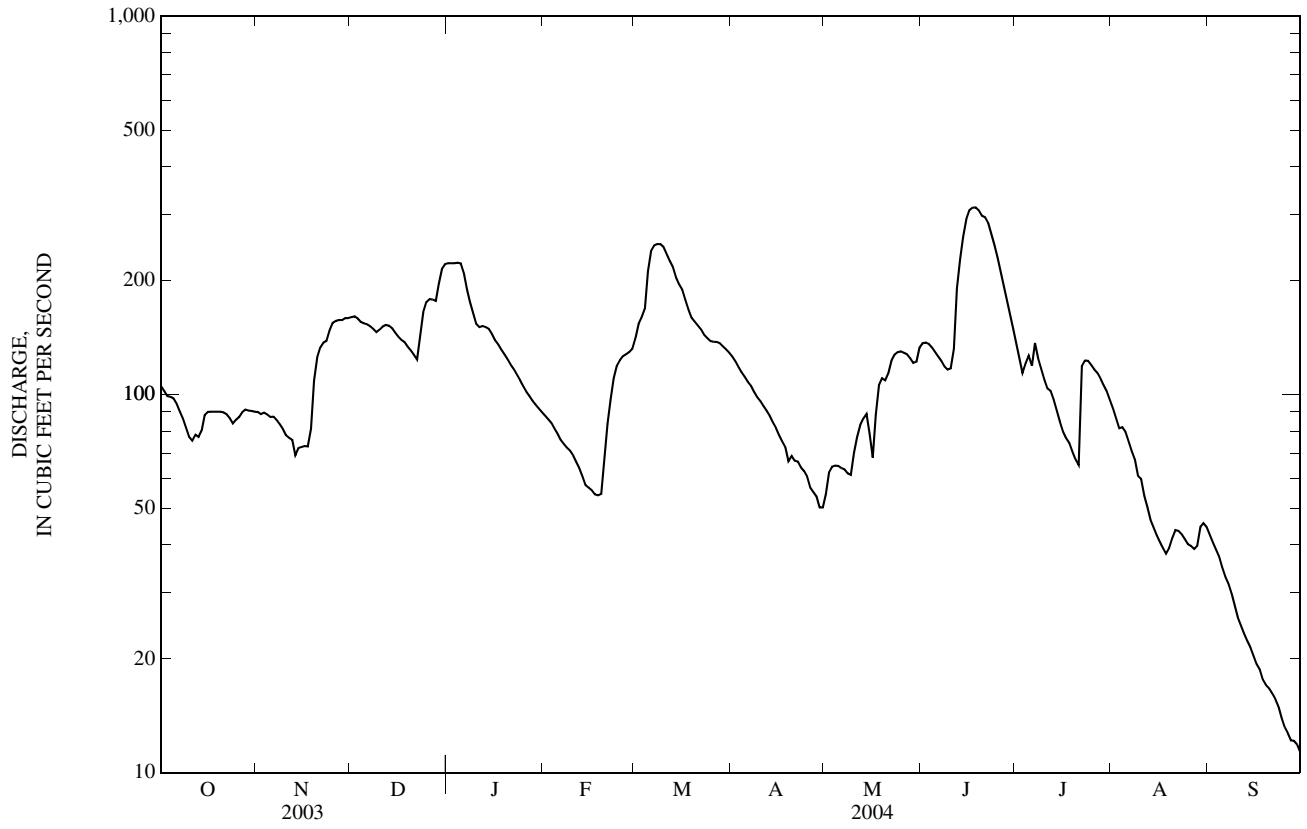
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2004, BY WATER YEAR (WY)

MEAN	79.7	111	136	153	157	242	233	170	142	82.3	60.3	61.3
MAX	272	314	341	542	307	553	530	354	405	211	171	161
(WY)	(1987)	(1973)	(1986)	(1993)	(2001)	(1985)	(1985)	(1996)	(1996)	(1981)	(1997)	(1972)
MIN	17.8	17.8	40.1	42.2	41.2	87.2	82.9	67.2	18.1	16.4	18.3	9.59
(WY)	(1975)	(1972)	(2003)	(1977)	(2003)	(2000)	(2004)	(1988)	(1988)	(1988)	(1978)	(1999)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1972 - 2004	
ANNUAL TOTAL	33,447		40,453			
ANNUAL MEAN	91.6		111		136	
HIGHEST ANNUAL MEAN					222	1993
LOWEST ANNUAL MEAN					69.4	2003
HIGHEST DAILY MEAN	266	May 16	313	Jun 18	916	Mar 22, 1982
LOWEST DAILY MEAN	23	Aug 21	11	Sep 30	2.2	Jul 7, 1988
ANNUAL SEVEN-DAY MINIMUM	28	Aug 20	12	Sep 24	2.8	Jul 3, 1988
MAXIMUM PEAK FLOW			316	Jun 18	919	Mar 23, 1982
MAXIMUM PEAK STAGE			5.63	Jun 18	8.12	Mar 23, 1982
ANNUAL RUNOFF (CFSM)	0.645		0.778		0.955	
ANNUAL RUNOFF (INCHES)	8.76		10.60		12.98	
10 PERCENT EXCEEDS	158		190		287	
50 PERCENT EXCEEDS	81		99		105	
90 PERCENT EXCEEDS	38		41		29	

e Estimated

04100222 NORTH BRANCH ELKHART RIVER AT COSPERVILLE, IN—Continued



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, (GOSHEN, IN quadrangle), on right bank 20 ft downstream from River Avenue bridge at Goshen, 0.4 mi upstream from Rock Run, 9.1 mi northwest of Millersburg and at mile 16.1.

DRAINAGE AREA.--594 mi^2.

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

REVISED RECORDS.--WSP 1337: 1939(M). WSP 1557: 1954. WSP 2111: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 769.43 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 20, 1931, nonrecording gage at same site and datum.

REMARKS.--Records fair except estimated daily discharges, which are poor. Occasional low-flow regulation at Goshen Dam, 3.4 mi upstream.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	425	384	656	1,040	e290	829	500	240	2,000	443	326	e343
2	433	382	645	981	e285	1,190	490	275	1,370	408	297	e330
3	439	377	623	958	e285	1,050	474	258	950	380	264	e322
4	459	391	600	939	e280	904	429	245	689	424	297	e319
5	460	435	608	926	e280	1,260	412	241	586	465	319	e308
6	432	489	619	855	e275	1,530	405	244	533	436	291	e296
7	424	452	601	661	e275	1,210	401	247	491	505	275	e298
8	420	427	582	704	e270	1,060	395	254	460	496	261	e282
9	369	416	588	e710	e270	1,020	379	245	449	418	248	e269
10	362	416	650	e660	e265	1,000	365	313	472	382	258	e260
11	347	428	790	e610	e265	992	364	338	751	361	251	e250
12	329	395	694	e570	e265	958	359	309	2,260	354	241	e242
13	324	332	623	e540	e260	900	352	317	3,510	346	236	e237
14	347	317	604	e505	e260	863	341	361	2,670	341	221	e232
15	413	322	590	e480	e255	821	333	422	2,060	326	214	e231
16	430	333	585	e460	e255	772	324	387	1,700	300	208	e228
17	376	343	585	e430	e260	711	301	338	1,410	306	203	e223
18	373	401	563	e410	e270	678	294	418	1,250	e300	219	e214
19	375	936	533	e390	e285	651	275	406	1,150	e280	242	e206
20	382	1,090	528	e370	324	626	271	377	1,080	e256	278	e201
21	366	724	507	e360	498	617	278	385	1,040	233	308	e197
22	345	577	502	e350	521	592	279	557	996	1,020	290	e187
23	337	549	701	e340	578	567	269	591	913	1,030	278	e183
24	339	828	1,190	e330	615	550	268	780	819	612	280	e177
25	371	1,020	1,030	e325	599	549	256	691	755	468	283	e169
26	395	784	822	e320	648	582	249	542	686	418	312	e165
27	415	713	749	e315	665	613	241	485	625	398	301	e162
28	436	687	747	e310	672	592	232	448	575	383	343	e160
29	428	676	1,020	e305	703	548	219	406	532	365	405	e165
30	415	668	1,470	e300	---	512	212	503	487	351	e413	e164
31	397	---	1,280	e295	---	508	---	1,680	---	347	e368	---
TOTAL	12,163	16,292	22,285	16,749	10,973	25,255	9,967	13,303	33,269	13,152	8,730	7,020
MEAN	392	543	719	540	378	815	332	429	1,109	424	282	234
MAX	460	1,090	1,470	1,040	703	1,530	500	1,680	3,510	1,030	413	343
MIN	324	317	502	295	255	508	212	240	449	233	203	160
CFSM	0.66	0.91	1.21	0.91	0.64	1.37	0.56	0.72	1.87	0.71	0.47	0.39
IN.	0.76	1.02	1.40	1.05	0.69	1.58	0.62	0.83	2.08	0.82	0.55	0.44

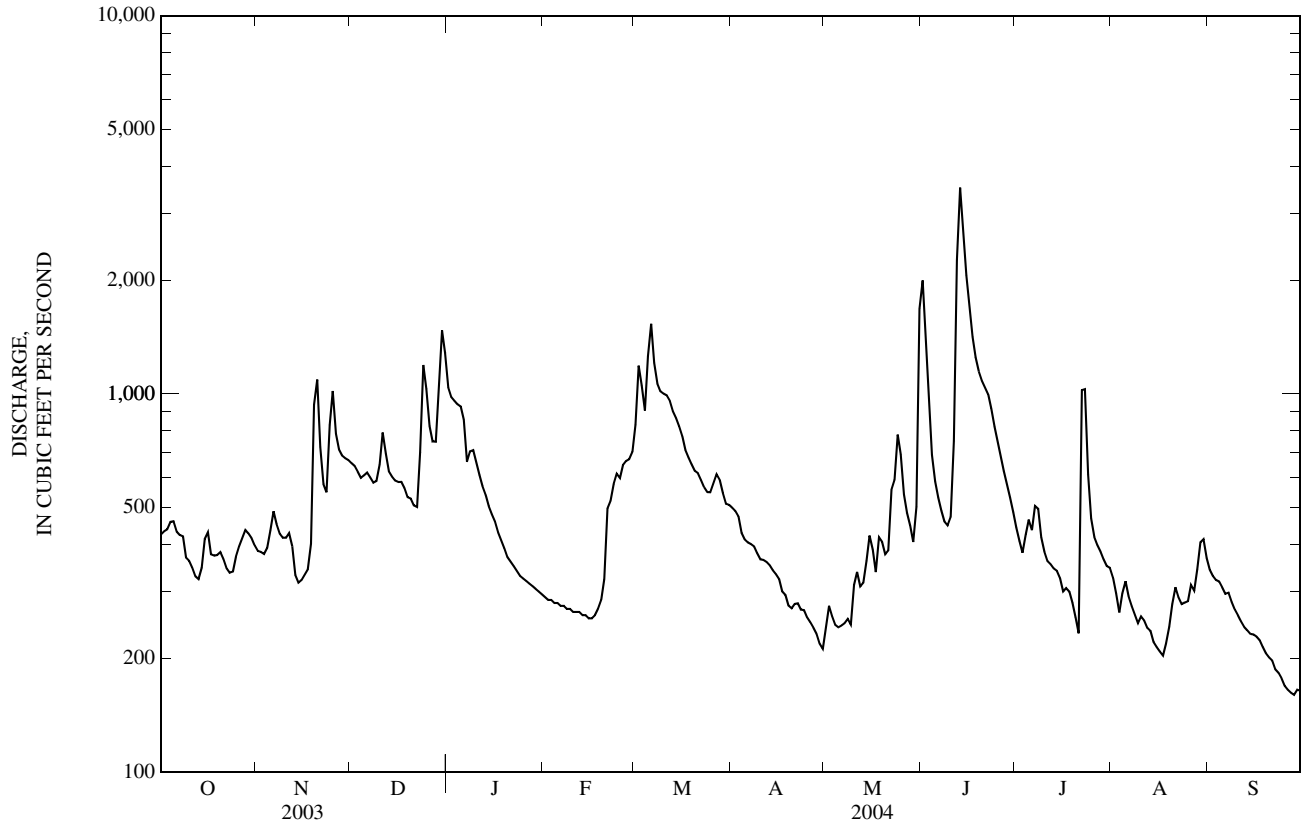
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2004, BY WATER YEAR (WY)

MEAN	319	394	498	589	697	929	933	715	522	358	271	253
MAX	1,652	1,132	1,276	2,058	1,657	2,497	2,424	2,354	1,521	1,079	712	784
(WY)	(1955)	(1973)	(1983)	(1993)	(1959)	(1982)	(1950)	(1943)	(1996)	(1951)	(1958)	(1958)
MIN	75.9	95.9	122	122	108	301	332	222	101	94.0	73.0	58.5
(WY)	(1965)	(1965)	(1964)	(1963)	(1963)	(1964)	(2004)	(1958)	(1934)	(1934)	(1941)	(1941)

04100500 ELKHART RIVER AT GOSHEN, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1932 - 2004	
ANNUAL TOTAL	148,278		189,158			
ANNUAL MEAN	406		517		539	
HIGHEST ANNUAL MEAN					1,005	1950
LOWEST ANNUAL MEAN					197	1964
HIGHEST DAILY MEAN	1,470	Dec 30	3,510	Jun 13	6,010	Feb 24, 1985
LOWEST DAILY MEAN	115	Jul 4	e 160	Sep 28	7.0	Aug 11, 1964
ANNUAL SEVEN-DAY MINIMUM	138	Feb 25	e 166	Sep 24	50	Sep 21, 1941
MAXIMUM PEAK FLOW			3,610	Jun 13	6,360	Feb 24, 1985
MAXIMUM PEAK STAGE			8.24	Jun 13	11.94	Mar 14, 1982
INSTANTANEOUS LOW FLOW					7.0	Aug 11, 1964
ANNUAL RUNOFF (CFSM)	0.684		0.870		0.907	
ANNUAL RUNOFF (INCHES)	9.29		11.85		12.33	
10 PERCENT EXCEEDS	703		952		1,110	
50 PERCENT EXCEEDS	362		406		390	
90 PERCENT EXCEEDS	155		245		156	

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, (ELKHART, IN quadrangle), 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 National Geodetic Vertical Datum of 1929.

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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,230	2,080	3,840	4,550	3,360	3,800	4,360	2,320	6,170	3,150	2,670	2,270
2	2,120	2,050	3,700	4,600	3,080	4,700	4,210	2,430	5,800	3,070	2,680	2,140
3	2,100	2,250	3,580	4,700	3,030	4,900	3,900	2,480	5,240	2,980	2,480	1,950
4	2,160	2,370	3,540	4,440	2,950	4,980	3,670	2,530	4,680	3,040	2,460	2,130
5	1,910	2,690	3,470	4,390	2,830	5,770	3,610	2,540	4,060	3,170	2,500	1,870
6	1,960	2,860	3,370	4,270	2,870	6,140	3,530	2,500	3,870	3,330	2,330	1,750
7	2,070	2,870	3,310	3,580	2,870	5,930	3,420	2,590	3,690	3,450	2,300	1,890
8	1,970	2,800	3,390	3,550	2,740	5,850	3,110	2,520	3,280	3,510	2,230	1,730
9	1,870	2,720	3,440	3,820	2,600	5,680	3,190	2,460	3,290	3,470	2,250	1,700
10	1,810	2,670	3,460	3,620	2,570	5,550	3,140	2,580	3,470	3,390	2,080	1,670
11	1,680	2,600	3,660	3,620	2,610	5,370	2,990	2,910	4,130	3,220	2,150	1,640
12	1,600	2,580	3,490	3,750	2,540	5,190	2,890	3,210	6,550	3,370	2,150	1,580
13	1,670	2,550	3,380	3,640	2,540	4,890	2,840	3,320	8,990	3,220	2,120	1,550
14	2,020	2,360	3,280	3,530	2,520	4,600	2,820	3,730	8,840	3,130	2,040	1,530
15	2,180	2,310	3,220	3,410	2,430	4,420	2,820	3,750	8,410	2,750	1,980	1,500
16	2,240	2,320	3,190	3,220	2,230	4,250	2,750	3,620	7,910	2,710	1,960	1,630
17	2,230	2,260	3,200	2,970	2,380	4,130	2,660	3,540	7,550	2,670	1,850	1,540
18	2,170	2,550	3,190	3,170	2,360	4,070	2,570	3,370	7,340	2,720	1,890	1,540
19	2,190	3,800	3,190	3,100	2,490	3,960	2,580	3,530	7,020	2,620	1,990	1,500
20	2,250	4,150	3,130	3,010	2,600	3,770	2,470	3,440	6,610	e2,720	1,910	1,550
21	2,280	3,880	3,000	2,670	2,890	3,750	2,530	3,160	6,110	2,860	1,790	1,550
22	2,150	3,770	2,980	2,520	2,730	3,590	2,520	3,840	5,980	4,210	1,740	1,440
23	2,070	3,680	3,340	2,430	3,070	3,620	2,400	4,170	5,710	4,550	1,900	1,450
24	2,030	4,330	3,990	2,690	3,230	3,820	2,420	4,420	5,340	3,970	1,910	1,420
25	2,120	4,460	3,950	2,480	3,180	3,900	2,320	4,920	4,980	3,650	1,900	1,420
26	2,150	4,290	3,750	2,460	3,310	4,230	2,410	4,260	4,560	3,440	1,740	1,400
27	2,230	4,230	3,700	2,780	3,340	4,440	2,360	3,930	4,350	3,260	1,560	1,390
28	2,250	4,140	3,640	e3,090	3,380	4,540	2,230	3,680	4,090	3,120	1,970	1,440
29	2,170	3,990	4,150	e2,890	3,470	4,530	2,210	3,490	3,890	2,840	2,310	1,490
30	2,120	3,900	4,820	2,990	---	4,470	2,230	3,590	3,540	2,590	2,390	1,460
31	2,070	---	4,770	3,270	---	4,440	---	5,320	---	2,660	2,300	---
TOTAL	64,070	93,510	110,120	105,210	82,200	143,280	87,160	104,150	165,450	98,840	65,530	49,120
MEAN	2,067	3,117	3,552	3,394	2,834	4,622	2,905	3,360	5,515	3,188	2,114	1,637
MAX	2,280	4,460	4,820	4,700	3,470	6,140	4,360	5,320	8,990	4,550	2,680	2,270
MIN	1,600	2,050	2,980	2,430	2,230	3,590	2,210	2,320	3,280	2,590	1,560	1,390
CFSM	0.61	0.92	1.05	1.01	0.84	1.37	0.86	1.00	1.64	0.95	0.63	0.49
IN.	0.71	1.03	1.22	1.16	0.91	1.58	0.96	1.15	1.83	1.09	0.72	0.54

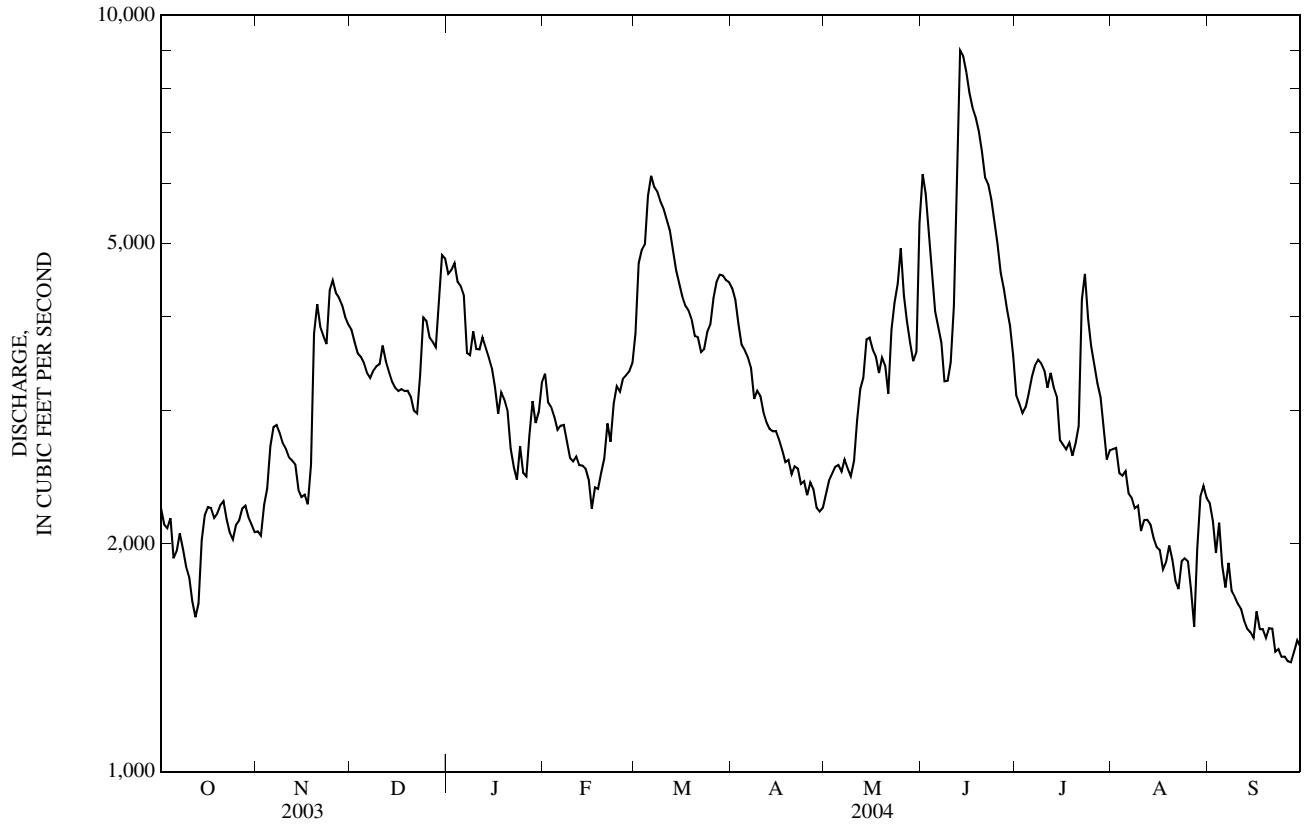
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2004, BY WATER YEAR (WY)

MEAN	2,195	2,623	3,171	3,542	3,866	5,022	5,113	4,122	3,299	2,365	1,958	1,881
MAX	5,752	5,883	5,795	9,270	7,039	10,760	12,690	7,725	7,535	4,409	4,180	3,855
(WY)	(1987)	(1993)	(1991)	(1993)	(1968)	(1982)	(1950)	(1956)	(1989)	(1968)	(1981)	(1981)
MIN	791	856	958	1,127	1,120	1,679	2,633	1,911	1,280	898	737	721
(WY)	(1964)	(1965)	(1964)	(1964)	(1963)	(1964)	(1958)	(1958)	(1988)	(1988)	(1964)	(1964)

04101000 ST. JOSEPH RIVER AT ELKHART, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1948 - 2004	
ANNUAL TOTAL	837,480		1,168,640			
ANNUAL MEAN	2,294		3,193		3,259	
HIGHEST ANNUAL MEAN					5,264	1950
LOWEST ANNUAL MEAN					1,283	1964
HIGHEST DAILY MEAN	5,630	May 10	8,990	Jun 13	18,500	Mar 21, 1982
LOWEST DAILY MEAN	1,020	Jan 18	1,390	Sep 27	336	Aug 5, 1964
ANNUAL SEVEN-DAY MINIMUM	1,140	Jan 15	1,420	Sep 22	561	Aug 2, 1964
MAXIMUM PEAK FLOW			9,970	Jun 13	18,800	Feb 27, 1985
MAXIMUM PEAK STAGE			23.46	Jun 13	27.91	Mar 21, 1982
ANNUAL RUNOFF (CFSM)	0.681		0.947		0.967	
ANNUAL RUNOFF (INCHES)	9.24		12.90		13.14	
10 PERCENT EXCEEDS	3,810		4,600		5,780	
50 PERCENT EXCEEDS	2,100		3,000		2,780	
90 PERCENT EXCEEDS	1,200		1,890		1,380	

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, (SOUTH BEND WEST, IN quadrangle), 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, 0.5 mi northeast of intersection of St. Joseph River and Interstate 80/90, 0.6 mi from mouth.

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 National Geodetic Vertical Datum of 1929.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	8.3	16	13	e6.7	15	14	11	21	e16	e10	11
2	4.4	7.5	15	13	e6.8	17	14	11	19	e15	e9.8	10
3	4.6	7.1	15	12	e6.9	16	13	10	17	e15	e9.6	11
4	4.8	7.2	15	12	e6.8	17	13	9.8	15	e16	e12	12
5	4.4	13	16	12	e6.7	27	13	9.2	14	e16	e14	11
6	4.3	16	15	e10	e6.8	24	12	8.7	14	e15	e12	10
7	4.1	14	15	e9.0	e6.7	21	12	8.2	13	e15	e12	9.9
8	3.8	14	14	e8.2	e6.6	19	12	8.2	12	e16	e11	9.1
9	3.4	13	14	e8.1	e6.5	17	11	8.0	13	e16	e11	8.8
10	3.3	13	16	e8.1	e6.4	16	11	7.9	18	e15	e10	8.4
11	3.2	13	18	e8.2	e6.6	16	11	7.7	32	e15	9.8	7.9
12	3.0	12	16	e8.3	e6.5	15	10	7.0	69	e15	9.5	7.5
13	3.2	11	15	e8.4	e6.4	14	10	9.7	73	e14	9.0	7.2
14	7.4	11	14	e8.5	e6.3	12	10	13	52	e14	8.6	6.9
15	9.7	11	13	e8.3	e6.2	12	9.8	13	46	e14	8.3	6.5
16	9.1	11	13	e8.1	e6.1	12	9.5	11	42	e13	7.9	7.3
17	8.3	11	13	e8.0	e6.2	12	9.4	11	38	e14	8.0	6.6
18	8.0	17	12	e7.9	e6.3	12	9.4	11	36	e14	8.4	6.3
19	7.7	31	12	e7.8	e6.6	11	9.4	10	34	e13	8.9	6.1
20	7.2	27	12	e7.7	7.7	11	9.5	11	32	e13	8.3	5.8
21	6.9	22	11	e7.8	11	11	10	14	32	e12	8.2	5.6
22	6.9	19	11	e7.7	11	11	9.7	15	32	e14	7.6	5.4
23	6.9	20	13	e7.6	11	11	9.7	15	e29	e16	7.4	5.1
24	6.7	31	14	e7.5	12	11	9.4	14	e27	e17	7.3	4.8
25	8.8	27	14	e7.4	13	11	10	15	e25	e15	10	4.7
26	7.9	22	13	e7.3	14	15	9.6	15	e23	e14	14	4.6
27	7.9	20	13	e7.2	14	18	9.6	14	e21	e13	11	4.6
28	8.8	18	12	e7.1	14	16	9.6	13	e19	e12	13	4.7
29	8.8	17	13	e7.0	13	15	9.1	13	e18	e11	15	4.7
30	8.7	16	14	e6.9	---	14	8.9	18	e17	e10	13	4.8
31	8.7	---	14	e6.8	---	15	---	23	---	e11	12	---
TOTAL	195.6	480.1	431	266.9	244.8	464	318.6	365.4	853	439	316.6	218.3
MEAN	6.31	16.0	13.9	8.61	8.44	15.0	10.6	11.8	28.4	14.2	10.2	7.28
MAX	9.7	31	18	13	14	27	14	23	73	17	15	12
MIN	3.0	7.1	11	6.8	6.1	11	8.9	7.0	12	10	7.3	4.6

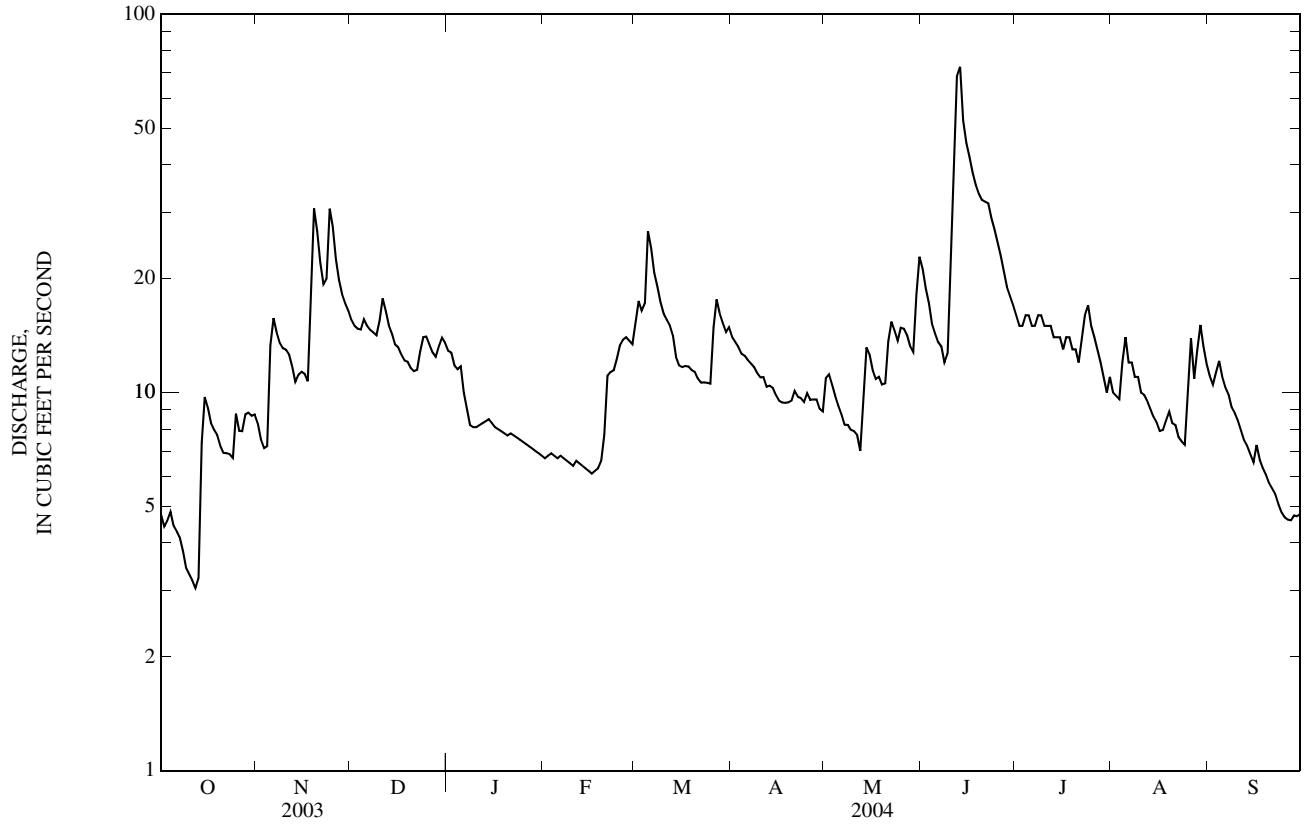
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2004, BY WATER YEAR (WY)

MEAN	12.4	15.7	15.2	17.6	18.2	21.4	24.0	22.3	21.7	14.8	13.2	10.6
MAX	27.3	31.6	23.6	38.3	30.5	33.8	47.0	32.7	44.9	28.6	36.4	24.0
(WY)	(1994)	(1994)	(1993)	(1993)	(1997)	(1993)	(1998)	(2002)	(1993)	(1996)	(1995)	(1993)
MIN	3.41	3.32	4.49	5.42	5.12	5.79	10.4	11.3	10.0	7.18	3.52	3.54
(WY)	(2003)	(2000)	(2000)	(2003)	(2003)	(2003)	(2003)	(2001)	(2003)	(2001)	(2003)	(2003)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1993 - 2004	
ANNUAL TOTAL	3,470.8		4,593.3			
ANNUAL MEAN	9.51		12.6		17.3	
HIGHEST ANNUAL MEAN					27.7	1993
LOWEST ANNUAL MEAN					7.54	2003
HIGHEST DAILY MEAN	46	May 12	73	Jun 13	163	Jun 9, 1993
LOWEST DAILY MEAN	1.9	Aug 25	3.0	Oct 12	1.9	Aug 25, 2003
ANNUAL SEVEN-DAY MINIMUM	2.2	Aug 20	3.4	Oct 7	2.2	Aug 20, 2003
MAXIMUM PEAK FLOW			116	Jun 12	226	Jun 9, 1993
MAXIMUM PEAK STAGE			5.36	Jan 23	5.36	Jan 23, 2004
10 PERCENT EXCEEDS	18		18		30	
50 PERCENT EXCEEDS	7.0		11		16	
90 PERCENT EXCEEDS	3.3		6.6		5.8	

e Estimated

04101370 JUDAY CREEK NEAR SOUTH BEND, IN—Continued



04177720 FISH CREEK AT HAMILTON, IN

LOCATION.--Lat 41°31'56", long 84°54'13", in SE¼SW¼ sec.34, T.36 N., R.14 E., Steuben County, Hydrologic Unit 04100003, (HAMILTON, IN quadrangle), 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 National Geodetic Vertical Datum of 1929.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	20	41	63	e12	84	29	12	116	9.6	14	6.5
2	27	20	33	58	e12	140	26	26	74	8.8	12	5.4
3	23	19	27	56	e12	116	23	23	55	7.9	10	5.0
4	26	18	24	52	e11	90	21	16	40	18	13	5.6
5	22	20	27	53	e11	194	16	15	31	17	12	5.0
6	19	18	32	e41	e11	192	15	14	25	14	8.6	4.3
7	17	15	28	e32	e11	127	16	19	21	46	6.3	5.0
8	16	13	25	e27	e11	97	16	16	19	31	5.3	3.4
9	15	11	25	e24	e10	76	15	19	19	21	4.7	2.6
10	15	11	48	e22	e10	60	14	96	25	18	5.5	2.2
11	15	15	115	e20	e10	52	14	88	113	17	4.0	2.2
12	15	17	76	e19	e10	42	13	112	261	18	3.2	2.4
13	12	15	52	e18	e10	35	13	72	279	14	3.1	2.3
14	28	7.2	42	e17	e10	35	11	59	225	12	3.4	2.6
15	69	7.7	36	e17	e11	33	10	52	239	7.9	3.9	2.5
16	52	10	34	e16	e10	31	10	38	160	7.5	4.1	2.5
17	40	11	34	e16	e10	29	11	36	137	20	3.6	2.2
18	33	29	28	e15	10	28	11	41	110	21	3.5	2.0
19	29	114	24	e15	10	31	11	46	79	15	7.0	2.0
20	25	82	22	e15	13	34	8.8	36	55	12	9.6	2.0
21	24	58	20	e14	36	40	11	40	44	11	10	2.1
22	20	45	20	e14	35	31	12	56	36	67	7.5	2.1
23	18	38	86	e14	44	27	11	47	29	52	6.1	2.1
24	16	69	151	e14	43	27	10	79	25	30	5.3	2.5
25	19	60	106	e13	38	31	10	53	20	20	5.3	2.6
26	25	44	74	e13	45	39	11	38	17	16	6.3	2.5
27	23	40	57	e13	46	44	9.2	30	14	26	5.8	2.5
28	22	39	47	e13	56	41	6.6	25	13	20	6.8	4.1
29	21	39	65	e13	62	40	6.8	20	12	16	15	8.9
30	19	37	113	e12	---	36	6.3	47	10	15	12	4.6
31	19	---	83	e12	---	34	---	166	---	17	8.5	---
TOTAL	760	941.9	1,595	741	620	1,916	397.7	1,437	2,303	625.7	225.4	101.7
MEAN	24.5	31.4	51.5	23.9	21.4	61.8	13.3	46.4	76.8	20.2	7.27	3.39
MAX	69	114	151	63	62	194	29	166	279	67	15	8.9
MIN	12	7.2	20	12	10	27	6.3	12	10	7.5	3.1	2.0
CFSM	0.65	0.84	1.37	0.64	0.57	1.65	0.35	1.24	2.05	0.54	0.19	0.09
IN.	0.75	0.93	1.58	0.74	0.62	1.90	0.39	1.43	2.28	0.62	0.22	0.10

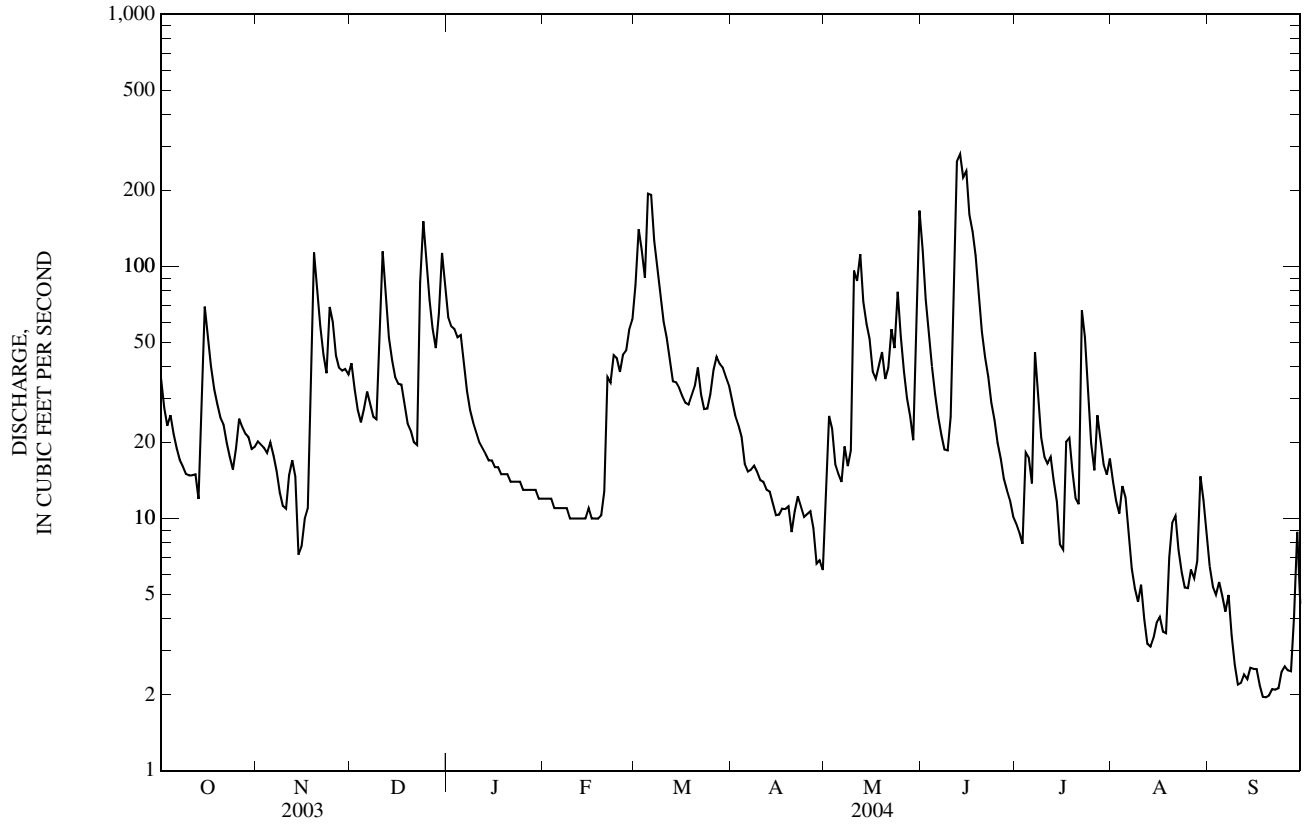
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2004, BY WATER YEAR (WY)

MEAN	14.6	27.2	36.7	36.5	48.3	67.9	59.8	41.0	31.0	15.1	14.0	11.8
MAX	76.8	117	91.3	161	130	219	112	174	118	64.3	64.9	49.4
(WY)	(2002)	(1993)	(1991)	(1993)	(2001)	(1982)	(1978)	(1996)	(1981)	(1992)	(2003)	(2003)
MIN	2.14	2.46	4.69	5.96	7.84	21.6	13.3	8.24	2.05	2.02	1.89	1.88
(WY)	(1995)	(1972)	(2000)	(1977)	(1979)	(2000)	(2004)	(1985)	(1988)	(1988)	(1970)	(1988)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1970 - 2004	
ANNUAL TOTAL	12,293.1		11,664.4			
ANNUAL MEAN	33.7		31.9		33.6	
HIGHEST ANNUAL MEAN					54.7	1993
LOWEST ANNUAL MEAN					17.8	1972
HIGHEST DAILY MEAN	537	Aug 2	279	Jun 13	1,220	May 17, 1996
LOWEST DAILY MEAN	2.8	Jul 3	2.0	Sep 18	0.52	Aug 31, 1971
ANNUAL SEVEN-DAY MINIMUM	3.5	Jun 28	2.1	Sep 17	0.82	Aug 26, 1971
MAXIMUM PEAK FLOW			344	Jun 12	1,510	May 17, 1996
MAXIMUM PEAK STAGE			7.58	Jun 12	14.49	May 17, 1996
ANNUAL RUNOFF (CFSM)	0.898		0.850		0.895	
ANNUAL RUNOFF (INCHES)	12.19		11.57		12.16	
10 PERCENT EXCEEDS	75		70		79	
50 PERCENT EXCEEDS	19		19		16	
90 PERCENT EXCEEDS	5.9		5.3		3.0	

e Estimated

04177720 FISH CREEK AT HAMILTON, IN—Continued



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, (BUTLER EAST, IN-OH quadrangle), on right bank 3 ft upstream from bridge on County Road 79, 0.6 mi south of Artic, 0.8 mi upstream from Indiana-Ohio state line and 3.8 mi 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 National Geodetic Vertical Datum of 1929.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	52	91	190	e32	245	96	26	365	32	32	23
2	76	53	80	144	e31	355	85	44	231	29	28	19
3	60	51	66	143	e31	397	77	59	143	27	e27	17
4	57	49	57	133	e31	297	71	48	105	32	e26	17
5	56	48	54	123	e30	418	63	40	82	46	26	16
6	50	52	68	96	e30	531	56	35	67	41	24	16
7	43	48	70	e90	e30	453	54	37	56	59	20	15
8	39	44	61	e78	e29	281	52	38	48	78	18	15
9	36	39	58	e68	e29	214	51	36	42	54	16	14
10	34	35	105	e60	e29	176	48	174	46	40	16	13
11	33	35	239	e54	e28	149	46	197	145	36	18	13
12	32	39	264	e50	e28	129	44	238	484	34	18	13
13	32	44	159	e47	e28	107	42	195	752	32	16	13
14	48	44	105	e45	e28	101	41	133	772	28	15	13
15	168	34	84	e43	e29	99	38	130	609	24	15	13
16	206	32	75	e41	e28	96	36	103	515	21	15	13
17	155	35	76	e40	e28	90	36	82	356	26	15	12
18	107	49	72	e39	e27	86	35	94	283	52	15	12
19	85	196	60	e38	e27	90	34	142	300	44	16	12
20	72	305	54	e37	e34	96	33	106	190	33	20	12
21	64	272	45	e36	e90	119	31	90	136	28	22	12
22	59	150	48	e35	e86	115	34	111	111	64	20	12
23	51	107	166	e35	e115	94	33	117	94	104	18	12
24	46	139	374	e34	e110	86	31	226	78	79	16	12
25	43	188	390	e34	e100	91	29	152	e64	51	15	12
26	54	160	238	e34	e110	121	30	103	e54	38	17	12
27	64	113	148	e33	e130	164	28	79	e48	39	16	12
28	67	97	112	e33	166	154	26	66	e42	46	17	13
29	67	94	122	e33	196	129	24	54	e38	38	33	17
30	60	91	258	e32	---	117	23	78	35	32	36	19
31	54	---	301	e32	---	107	---	350	---	31	30	---
TOTAL	2,116	2,695	4,100	1,930	1,690	5,707	1,327	3,383	6,291	1,318	636	424
MEAN	68.3	89.8	132	62.3	58.3	184	44.2	109	210	42.5	20.5	14.1
MAX	206	305	390	190	196	531	96	350	772	104	36	23
MIN	32	32	45	32	27	86	23	26	35	21	15	12
CFSM	0.70	0.92	1.35	0.64	0.59	1.88	0.45	1.11	2.14	0.43	0.21	0.14
IN.	0.80	1.02	1.56	0.73	0.64	2.17	0.50	1.28	2.39	0.50	0.24	0.16

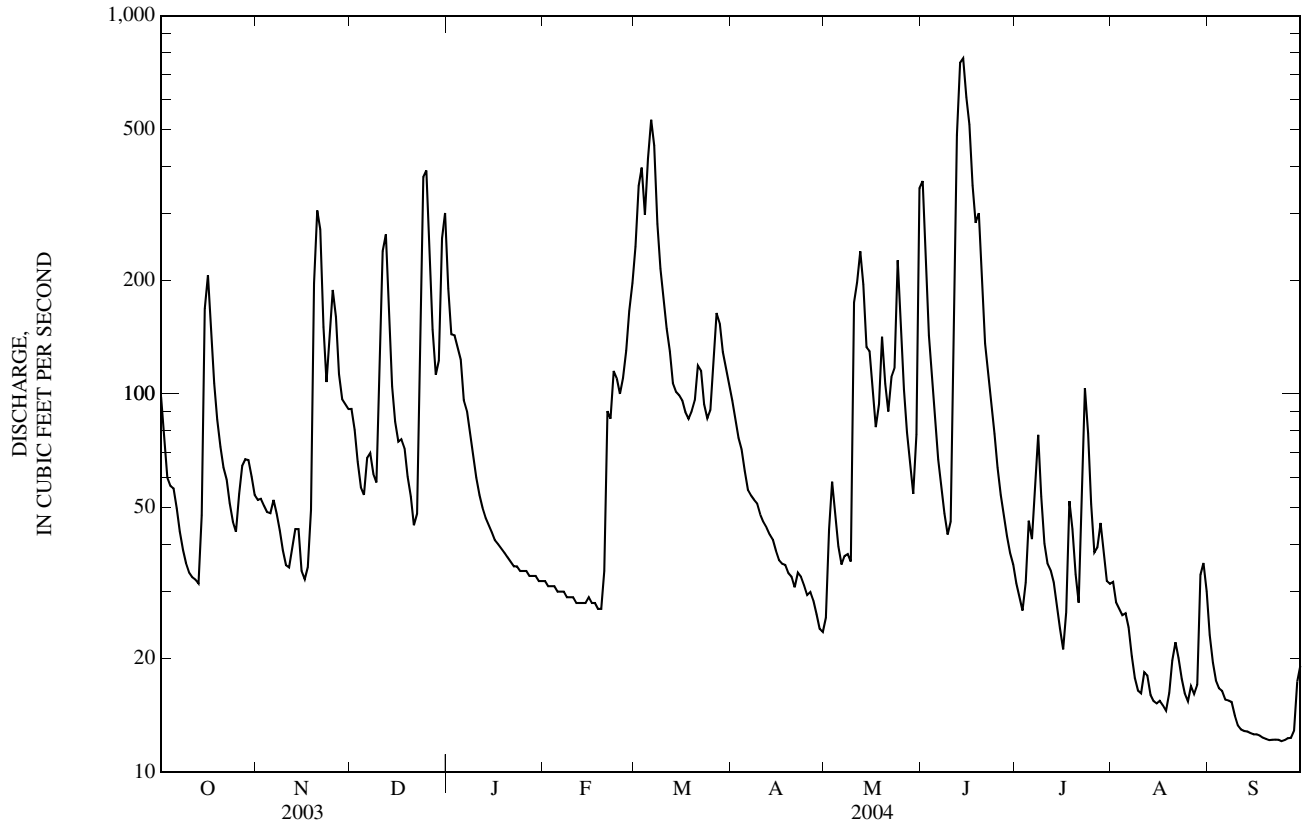
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2004, BY WATER YEAR (WY)

MEAN	66.6	50.4	75.2	66.8	136	135	162	126	101	29.5	42.8	31.1
MAX	260	89.8	187	189	384	184	306	222	221	52.7	110	113
(WY)	(2002)	(2004)	(2002)	(1999)	(2001)	(2004)	(1999)	(2002)	(2000)	(2003)	(1998)	(2003)
MIN	5.73	7.33	11.9	9.41	14.6	66.8	44.2	61.2	25.6	14.2	7.82	4.32
(WY)	(2000)	(2000)	(2003)	(2003)	(2003)	(2000)	(2004)	(1998)	(1998)	(1999)	(1999)	(1999)

04177810 FISH CREEK NEAR ARTIC, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1998 - 2004	
ANNUAL TOTAL	31,432.4		31,617			
ANNUAL MEAN	86.1		86.4		86.0	
HIGHEST ANNUAL MEAN					129	2002
LOWEST ANNUAL MEAN					62.9	2000
HIGHEST DAILY MEAN	813	Aug 3	772	Jun 14	1,360	May 13, 2002
LOWEST DAILY MEAN	6.8	Jan 25	12	Sep 17	3.6	Sep 12, 1999
ANNUAL SEVEN-DAY MINIMUM	7.0	Jan 24	12	Sep 17	3.8	Sep 10, 1999
MAXIMUM PEAK FLOW			796	Jun 14	1,690	May 13, 2002
MAXIMUM PEAK STAGE			9.55	Jun 14	11.60	May 13, 2002
ANNUAL RUNOFF (CFSM)	0.879		0.881		0.878	
ANNUAL RUNOFF (INCHES)	11.93		12.00		11.92	
10 PERCENT EXCEEDS	218		192		217	
50 PERCENT EXCEEDS	48		48		37	
90 PERCENT EXCEEDS	11		17		8.3	

e Estimated



04177810 FISH CREEK NEAR ARTIC, IN—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY)
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Day	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)
		OCTOBER			NOVEMBER			DECEMBER	
1	98	10	2.6	52	14	2.0	91	7	1.8
2	76	7	1.4	53	8	1.1	80	8	1.8
3	60	6	1.0	51	4	0.6	66	5	0.9
4	57	7	1.1	49	7	.9	57	4	.6
5	56	7	1.1	48	19	2.5	54	8	1.1
6	50	8	1.0	52	12	1.6	68	7	1.3
7	43	8	0.9	48	9	1.2	70	4	.8
8	39	11	1.1	44	15	1.8	61	6	.9
9	36	12	1.1	39	17	1.7	58	12	1.9
10	34	18	1.6	35	16	1.5	105	25	7.7
11	33	17	1.5	35	10	1.0	239	41	26.0
12	32	10	.9	39	24	2.6	264	28	21.0
13	32	11	1.0	44	13	1.5	159	13	5.7
14	48	16	3.1	44	14	1.7	105	8	2.2
15	168	39	18.0	34	5	.5	84	7	1.6
16	206	24	13.0	32	7	.6	75	13	2.6
17	155	16	6.9	35	10	.9	76	13	2.6
18	107	8	2.2	49	27	4.0	72	8	1.6
19	85	6	1.4	196	44	23.0	60	19	3.1
20	72	13	2.6	305	34	28.0	54	19	2.8
21	64	15	2.6	272	22	17.0	45	13	1.6
22	59	10	1.6	150	12	5.1	48	7	.9
23	51	7	1.0	107	9	2.6	166	89	44.0
24	46	15	1.9	139	31	13.0	374	49	49.0
25	43	12	1.3	188	27	14.0	390	28	30.0
26	54	12	1.8	160	19	8.6	238	15	9.7
27	64	5	.8	113	10	3.0	148	10	4.1
28	67	5	1.0	97	12	3.2	112	9	2.8
29	67	9	1.6	94	10	2.6	122	12	4.4
30	60	4	.7	91	7	1.6	258	33	23.0
31	54	10	1.5	---	---	---	301	26	22.0
TOTAL	2,116	---	79.1	2,695	---	149.4	4,100	---	279.6
		JANUARY			FEBRUARY			MARCH	
1	190	14	7.5	e32	6	0.5	245	28	19.0
2	144	11	4.1	e31	6	.5	355	40	38.0
3	143	12	4.5	e31	6	.5	397	28	30.0
4	133	10	3.6	e31	6	.5	297	19	16.0
5	123	6	2.1	e30	6	.5	418	57	65.0
6	96	6	1.6	e30	6	.5	531	39	55.0
7	e90	6	1.5	e30	6	.5	453	20	24.0
8	e78	6	1.3	e29	6	.5	281	14	11.0
9	e68	6	1.1	e29	6	.5	214	12	6.7
10	e60	6	1.0	e29	6	.5	176	10	4.8
11	e54	6	0.9	e28	6	.5	149	10	3.9
12	e50	6	.8	e28	6	.5	129	8	2.8
13	e47	6	.8	e28	6	.5	107	7	2.1
14	e45	6	.7	e28	6	.5	101	7	1.9
15	e43	6	.7	e29	6	.7	99	6	1.7
16	e41	6	.7	e28	6	.5	96	7	1.9
17	e40	6	.7	e28	6	.5	90	5	1.3
18	e39	6	.6	e27	6	.4	86	4	1.0
19	e38	6	.6	e27	6	.4	90	7	1.6
20	e37	6	.6	e34	6	.6	96	12	3.1
21	e36	6	.6	e90	7	1.7	119	18	5.7
22	e35	6	.6	e86	8	1.9	115	11	3.2
23	e35	6	.6	e115	9	2.9	94	22	5.6
24	e34	6	.6	e110	10	3.1	86	18	4.1
25	e34	6	.6	e100	11	3.1	91	13	3.2
26	e34	6	.6	e110	13	3.7	121	23	7.9
27	e33	6	.5	e130	14	4.8	164	28	12.0
28	e33	6	.5	166	15	6.7	154	30	12.0
29	e33	6	.5	196	20	11.0	129	28	9.7
30	e32	6	.5	---	---	---	117	22	7.1
31	e32	6	.5	---	---	---	107	18	5.2
TOTAL	1,930	---	41.3	1,690	---	48.4	5,707	---	366.5

04177810 FISH CREEK NEAR ARTIC, IN—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY)—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Day	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)
		APRIL			MAY			JUNE	
1	96	14	3.8	26	55	3.8	365	69	68.0
2	85	11	2.5	44	51	5.9	231	58	36.0
3	77	17	3.5	59	27	4.3	143	57	22.0
4	71	12	2.4	48	20	2.6	105	56	16.0
5	63	8	1.3	40	13	1.3	82	53	12.0
6	56	7	1.0	35	37	3.5	67	57	10.0
7	54	11	1.5	37	32	3.2	56	62	9.5
8	52	15	2.1	38	46	4.7	48	53	6.9
9	51	15	2.0	36	55	5.5	42	54	6.2
10	48	12	1.5	174	207	93.0	46	55	6.8
11	46	12	1.5	197	95	51.0	145	108	49.0
12	44	29	3.5	238	117	77.0	484	114	142.0
13	42	28	3.3	195	68	36.0	752	43	87.0
14	41	32	3.5	133	53	19.0	772	22	47.0
15	38	41	4.2	130	54	19.0	609	20	33.0
16	36	38	3.7	103	43	12.0	515	20	28.0
17	36	46	4.4	82	36	8.0	356	24	23.0
18	35	60	5.7	94	49	13.0	283	37	28.0
19	34	51	4.6	142	91	35.0	300	35	29.0
20	33	73	6.5	106	55	16.0	190	36	19.0
21	31	58	4.8	90	49	12.0	136	38	14.0
22	34	65	5.9	111	68	20.0	111	36	11.0
23	33	55	4.9	117	93	34.0	94	43	11.0
24	31	51	4.3	226	166	100.0	78	65	14.0
25	29	56	4.4	152	72	30.0	e64	71	12.0
26	30	65	5.3	103	54	15.0	e54	42	6.1
27	28	56	4.3	79	52	11.0	e48	46	6.0
28	26	40	2.8	66	58	10.0	e42	57	6.5
29	24	62	4.0	54	62	9.1	e38	62	6.3
30	23	73	4.6	78	74	20.0	35	58	5.5
31	---	---	---	350	152	140.0	---	---	---
TOTAL	1,327	---	107.8	3,383	---	814.9	6,291	---	770.8

04177810 FISH CREEK NEAR ARTIC, IN—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY)—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Day	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)
		JULY			AUGUST			SEPTEMBER	
1	32	66	5.6	32	47	4.0	23	20	1.2
2	29	75	5.9	28	62	4.7	19	24	1.3
3	27	60	4.3	e27	58	4.3	17	26	1.2
4	32	124	11.0	e26	61	4.3	17	27	1.2
5	46	118	15.0	26	28	2.0	16	21	0.9
6	41	50	5.6	24	29	1.9	16	23	2.0
7	59	76	13.0	20	38	2.1	15	29	1.2
8	78	59	12.0	18	39	1.9	15	29	1.2
9	54	43	6.3	16	39	1.7	14	18	.7
10	40	40	4.4	16	44	1.9	13	22	.8
11	36	45	4.4	18	41	2.0	13	42	1.5
12	34	54	5.0	18	41	2.0	13	39	1.3
13	32	80	6.9	16	60	2.6	13	57	2.0
14	28	70	5.2	15	50	2.1	13	64	2.2
15	24	89	5.8	15	42	1.7	13	51	1.7
16	21	38	2.2	15	47	1.9	13	46	1.6
17	26	70	5.3	15	51	2.0	12	46	1.5
18	52	60	8.3	15	64	2.5	12	33	1.1
19	44	41	4.9	16	46	2.0	12	53	1.8
20	33	31	2.8	20	38	2.0	12	51	1.7
21	28	26	2.0	22	41	2.4	12	53	1.7
22	64	89	17.0	20	31	1.7	12	54	1.8
23	104	62	17.0	18	27	1.3	12	52	1.7
24	79	44	9.5	16	35	1.5	12	63	2.0
25	51	35	4.8	15	40	1.7	12	62	2.0
26	38	31	3.1	17	28	1.3	12	44	1.5
27	39	37	3.9	16	24	1.1	12	46	1.5
28	46	41	5.1	17	40	2.1	13	50	1.7
29	38	52	5.3	33	107	9.8	17	39	1.8
30	32	51	4.4	36	61	5.9	19	36	1.8
31	31	50	4.2	30	28	2.3	---	---	---
TOTAL	1,318	---	210.2	636	---	80.7	424	---	44.6
YEAR	31,617	2,993.31							

e Estimated

04178000 ST. JOSEPH RIVER NEAR NEWVILLE, IN

LOCATION.--Lat 41°23'07", long 84°48'06", in SW¼SW¼ sec.18, T.5 N., R.1 E., Defiance County, Ohio, Hydrologic Unit 04100003, (BUTLER EAST, IN-OH quadrangle), on left downstream side at bridge on Ohio State Highway 249, 3.5 mi northeast of Newville, 6.5 mi northwest of Hicksville, OH, and at mile 42.3.

DRAINAGE AREA.--610 mi^2.

PERIOD OF RECORD.--October 1946 to current year. Monthly discharge only for some periods, published in WSP 1307.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 795.40 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 22, 1947, 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	967	284	649	1,140	e196	1,120	736	182	1,500	232	177	157
2	669	278	563	1,110	e193	1,360	632	325	1,380	211	156	123
3	479	277	489	1,120	e203	1,460	553	352	1,170	192	149	104
4	396	257	425	1,050	e199	1,490	490	337	943	191	142	95
5	352	246	388	960	e196	1,830	444	308	678	212	134	87
6	328	288	399	878	e194	2,060	399	268	504	225	133	82
7	301	340	420	693	e192	2,010	367	261	409	399	137	81
8	273	339	409	e609	e190	1,820	347	250	347	320	127	81
9	245	315	393	e545	e188	1,680	333	228	305	296	113	78
10	228	282	578	e507	e190	1,530	309	449	296	299	106	74
11	214	256	1,030	e473	e186	1,260	293	746	495	269	99	72
12	207	245	1,060	469	e182	956	286	894	1,390	241	99	69
13	195	254	997	407	e179	759	286	778	2,110	209	97	66
14	244	280	879	e369	e177	641	277	632	2,490	187	92	62
15	824	285	700	e345	e175	569	269	528	2,820	166	88	59
16	995	247	561	e320	e172	534	259	487	2,890	152	86	58
17	988	227	494	e300	e170	501	248	455	2,620	151	85	57
18	954	261	461	e283	e167	478	239	420	2,120	178	84	56
19	887	780	440	e268	e171	474	231	464	1,720	263	96	54
20	716	1,050	404	e252	e191	490	224	514	1,570	306	108	53
21	531	1,110	371	e238	e393	571	227	481	1,460	258	130	52
22	418	1,130	342	e227	581	599	234	542	1,330	344	108	52
23	357	1,110	692	e221	786	628	221	544	1,040	353	98	51
24	306	1,120	1,370	e216	855	592	216	1,220	715	342	90	51
25	274	1,100	1,450	e213	e702	547	206	1,330	537	295	84	51
26	264	982	1,410	e211	871	566	199	1,100	437	230	80	51
27	283	908	1,320	e208	919	768	193	851	366	208	79	51
28	306	830	1,210	e205	950	947	190	621	315	225	80	52
29	326	753	1,020	e203	1,010	1,000	178	480	277	225	109	65
30	325	688	1,110	e200	---	973	164	447	250	208	180	72
31	305	---	1,150	e197	---	866	---	1,290	---	209	210	---
TOTAL	14,157	16,522	23,184	14,437	10,778	31,079	9,250	17,784	34,484	7,596	3,556	2,116
MEAN	457	551	748	466	372	1,003	308	574	1,149	245	115	70.5
MAX	995	1,130	1,450	1,140	1,010	2,060	736	1,330	2,890	399	210	157
MIN	195	227	342	197	167	474	164	182	250	151	79	51
CFSM	0.75	0.90	1.23	0.76	0.61	1.64	0.51	0.94	1.88	0.40	0.19	0.12
IN.	0.86	1.01	1.41	0.88	0.66	1.90	0.56	1.08	2.10	0.46	0.22	0.13

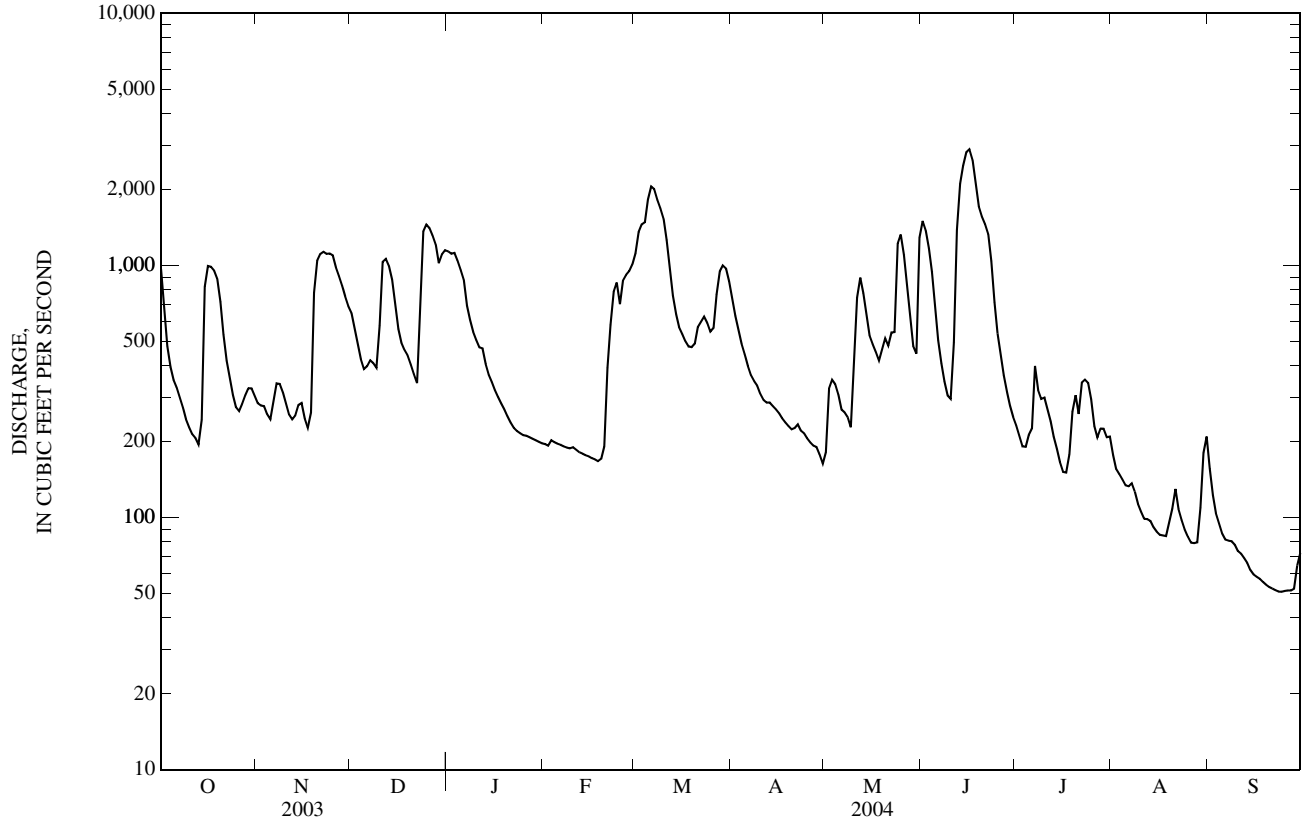
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2004, BY WATER YEAR (WY)

MEAN	204	373	582	646	850	1,177	1,055	655	430	237	156	144
MAX	1,537	1,756	2,085	2,545	2,302	3,512	3,102	2,499	1,864	1,045	921	671
(WY)	(2002)	(1993)	(1968)	(1950)	(1976)	(1982)	(1950)	(1956)	(1989)	(1951)	(1998)	(1997)
MIN	21.0	30.5	31.1	38.3	41.4	312	308	148	51.4	32.2	29.1	20.3
(WY)	(1964)	(1965)	(1964)	(1963)	(1963)	(1964)	(2004)	(1988)	(1988)	(1988)	(1967)	(1963)

04178000 ST. JOSEPH RIVER NEAR NEWVILLE, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1947 - 2004	
ANNUAL TOTAL	175,025		184,943			
ANNUAL MEAN	480		505		539	
HIGHEST ANNUAL MEAN					1,008	1950
LOWEST ANNUAL MEAN					132	1964
HIGHEST DAILY MEAN	2,530	May 12	2,890	Jun 16	9,790	May 18, 1996
LOWEST DAILY MEAN	57	Jan 26	51	Sep 23	14	Sep 10, 1964
ANNUAL SEVEN-DAY MINIMUM	58	Jan 23	51	Sep 21	15	Sep 10, 1964
MAXIMUM PEAK FLOW			2,920	Jun 16	10,400	May 18, 1996
MAXIMUM PEAK STAGE			13.03	Jun 16	17.96	Mar 17, 1982
ANNUAL RUNOFF (CFSM)	0.786		0.828		0.884	
ANNUAL RUNOFF (INCHES)	10.67		11.28		12.01	
10 PERCENT EXCEEDS	1,250		1,120		1,470	
50 PERCENT EXCEEDS	279		315		240	
90 PERCENT EXCEEDS	71		94		50	

e Estimated



04179520 CEDAR CREEK AT 18TH STREET AT AUBURN, IN

LOCATION.--Lat 41°21'36", long 85°02'57", in NW¼SE¼ sec.32, T.34 N., R.13 E., Dekalb County, Hydrologic Unit 04100003, (AUBURN, IN quadrangle), on top of right upstream wingwall of the bridge on 18th Street, 0.3 mi east of downtown Auburn, 1.46 mi above John Diehl Ditch and at mile 20.94.

DRAINAGE AREA.--90.6 mi^2.

PERIOD OF RECORD.--September 2001 to current year.

GAGE.--Water-stage recorder. Datum of gage is 844.02 ft above National Geodetic Vertical Datum of 1929.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	43	e115	139	e22	267	64	36	334	32	e32	32
2	70	42	77	125	e22	353	60	64	209	29	e27	26
3	62	42	67	129	e22	244	55	55	140	30	e24	21
4	64	41	60	113	e22	225	52	44	103	36	38	20
5	56	42	62	110	e22	627	48	39	83	46	33	18
6	49	39	67	e88	e22	397	44	35	71	40	30	16
7	44	36	64	e77	e22	264	42	42	60	54	28	19
8	39	33	59	71	e22	205	41	35	52	41	24	15
9	36	32	65	65	e22	167	38	48	e46	35	23	14
10	35	32	220	e59	e21	135	36	157	e91	30	25	13
11	31	36	318	54	e21	116	35	159	e271	44	21	12
12	29	36	179	55	e21	99	35	247	917	51	19	12
13	28	36	117	52	e20	84	34	142	733	33	19	12
14	91	33	92	51	e20	81	33	110	529	29	18	12
15	223	34	77	e47	e19	78	31	108	428	26	18	12
16	139	e33	73	43	e18	76	31	75	289	61	20	12
17	98	e36	70	41	e19	72	30	70	246	149	18	11
18	78	e50	62	41	20	71	29	78	186	125	17	10
19	63	e306	57	e37	23	78	31	94	e137	83	38	9.9
20	57	e262	51	e35	48	91	32	65	106	62	44	11
21	53	e154	48	e32	178	108	33	180	90	e46	40	11
22	47	e110	49	e29	125	84	33	283	80	e349	28	11
23	43	e98	375	e26	183	75	33	223	68	e512	23	11
24	40	e151	422	e25	137	71	32	392	59	198	20	11
25	43	e185	255	e24	114	69	33	191	53	129	19	11
26	50	e159	173	e24	146	88	34	122	47	91	19	10
27	53	e113	130	e23	147	102	33	91	42	75	18	11
28	52	e98	103	e23	162	88	32	75	39	62	22	14
29	54	e129	188	e23	170	81	29	61	37	52	96	16
30	49	e100	294	e23	---	76	29	146	34	e41	66	13
31	46	---	191	e23	---	70	---	637	---	e37	43	---
TOTAL	1,909	2,541	4,180	1,707	1,810	4,642	1,122	4,104	5,580	2,628	910	426.9
MEAN	61.6	84.7	135	55.1	62.4	150	37.4	132	186	84.8	29.4	14.2
MAX	223	306	422	139	183	627	64	637	917	512	96	32
MIN	28	32	48	23	18	69	29	35	34	26	17	9.9
CFSM	0.68	0.94	1.49	0.61	0.69	1.66	0.41	1.47	2.06	0.94	0.33	0.16
IN.	0.79	1.05	1.72	0.70	0.75	1.91	0.46	1.69	2.30	1.08	0.38	0.18

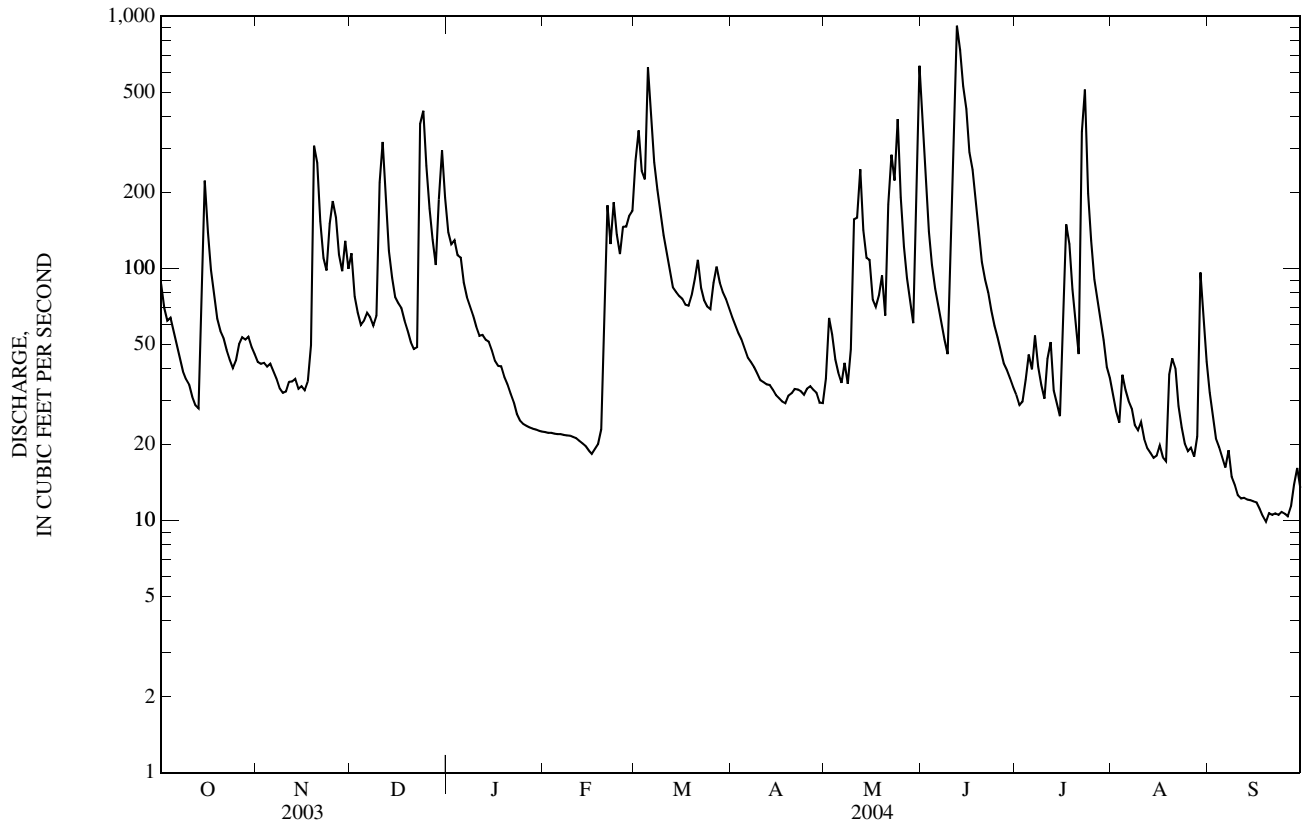
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2004, BY WATER YEAR (WY)

MEAN	109	58.9	106	45.6	78.3	148	112	158	87.5	60.6	36.1	45.9
MAX	260	84.7	168	65.8	158	160	200	185	186	84.8	68.2	116
(WY)	(2002)	(2004)	(2002)	(2002)	(2002)	(2002)	(2002)	(2003)	(2004)	(2004)	(2003)	(2003)
MIN	5.75	11.9	16.1	15.9	15.1	135	37.4	132	37.2	18.6	10.9	7.36
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2004)	(2004)	(2002)	(2002)	(2002)	(2002)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2001 - 2004	
ANNUAL TOTAL	31,666.5		31,559.9			
ANNUAL MEAN	86.8		86.2		87.4	
HIGHEST ANNUAL MEAN					110	2002
LOWEST ANNUAL MEAN					65.9	2003
HIGHEST DAILY MEAN	841	May 10	917	Jun 12	934	Feb 1, 2002
LOWEST DAILY MEAN	6.6	Jan 25	9.9	Sep 19	3.8	Oct 12, 2002
ANNUAL SEVEN-DAY MINIMUM	7.0	Jan 23	11	Sep 17	4.0	Oct 8, 2002
MAXIMUM PEAK FLOW			1,250	Jun 12	1,250	Jun 12, 2004
MAXIMUM PEAK STAGE			8.55	Jun 12	8.55	Jun 12, 2004
ANNUAL RUNOFF (CFSM)	0.962		0.956		0.969	
ANNUAL RUNOFF (INCHES)	13.06		13.02		13.17	
10 PERCENT EXCEEDS	211		189		211	
50 PERCENT EXCEEDS	48		49		43	
90 PERCENT EXCEEDS	12		19		8.9	

e Estimated

04179520 CEDAR CREEK AT 18TH STREET AT AUBURN, IN—Continued



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, (CEDARVILLE, IN quadrangle), 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 National Geodetic Vertical Datum of 1929. Prior to Nov. 4, 1947, 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	311	103	428	543	e109	970	213	87	1,870	121	103	85
2	242	100	316	479	e108	1,430	193	175	929	112	94	73
3	198	112	246	486	e108	1,020	178	170	586	104	88	66
4	192	94	207	487	e108	794	164	123	413	139	101	76
5	177	92	199	542	e107	1,940	150	102	313	144	109	68
6	151	94	241	e414	e106	1,880	142	85	253	127	91	60
7	132	87	236	e362	e106	1,060	140	136	212	177	81	71
8	116	79	208	e322	e104	751	135	263	183	155	73	63
9	103	74	214	291	e102	591	128	154	169	117	68	54
10	92	68	575	e255	e98	473	119	224	325	102	70	51
11	83	73	1,200	e228	e94	404	113	295	797	106	65	47
12	71	79	732	226	e91	345	109	463	2,190	141	60	45
13	65	70	437	222	e89	288	107	340	3,510	104	57	44
14	105	62	317	211	e86	268	103	237	2,510	87	55	44
15	680	65	256	e193	e85	258	97	247	1,950	79	53	43
16	473	67	227	e175	e83	241	108	187	1,250	70	58	42
17	306	64	232	169	e82	237	99	148	1,000	253	56	40
18	224	101	203	165	e84	230	89	172	759	262	58	38
19	182	1,130	181	e144	85	240	85	220	557	203	98	37
20	152	896	161	e131	118	250	82	171	429	151	154	37
21	133	518	142	e123	668	302	87	356	353	119	237	38
22	116	348	143	e117	519	261	88	1,400	306	751	134	37
23	105	264	869	e114	743	231	83	837	264	1,060	97	37
24	97	544	1,880	e112	621	218	78	1,730	229	585	82	37
25	97	624	1,120	e111	485	217	74	1,000	207	354	76	37
26	120	374	715	e110	666	249	73	598	187	247	75	35
27	128	298	524	e110	674	359	68	409	166	198	69	35
28	125	309	420	e110	748	319	64	307	153	164	85	37
29	126	451	491	e110	757	283	62	234	142	138	126	49
30	115	373	1,070	e110	---	263	59	316	131	119	149	42
31	105	---	754	e109	---	239	---	2,310	---	115	106	---
TOTAL	5,322	7,613	14,944	7,281	7,834	16,611	3,290	13,496	22,343	6,604	2,828	1,468
MEAN	172	254	482	235	270	536	110	435	745	213	91.2	48.9
MAX	680	1,130	1,880	543	757	1,940	213	2,310	3,510	1,060	237	85
MIN	65	62	142	109	82	217	59	85	131	70	53	35
CFSM	0.64	0.94	1.79	0.87	1.00	1.98	0.41	1.61	2.76	0.79	0.34	0.18
IN.	0.73	1.05	2.06	1.00	1.08	2.29	0.45	1.86	3.08	0.91	0.39	0.20

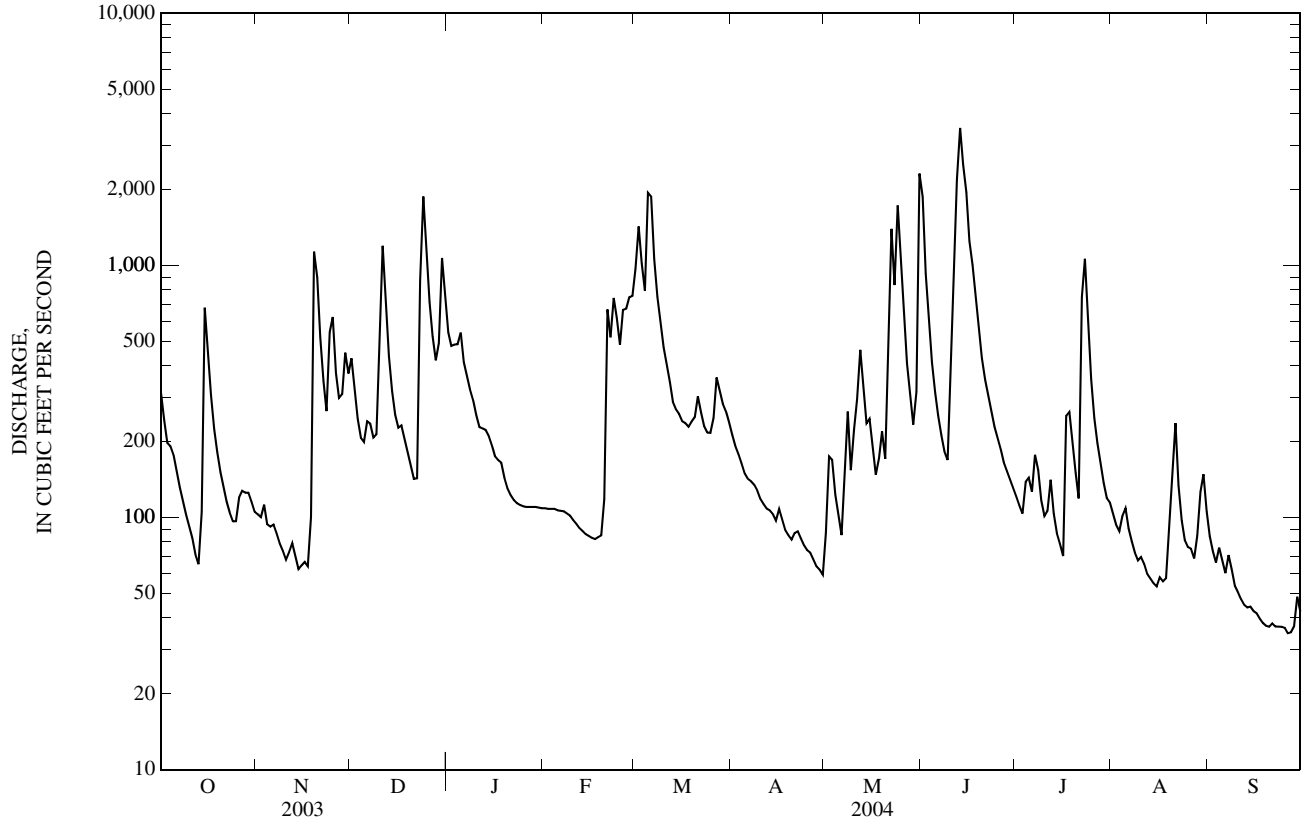
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2004, BY WATER YEAR (WY)

MEAN	122	182	281	312	398	504	464	296	222	125	87.8	93.1
MAX	814	936	908	1,393	1,290	1,724	1,130	947	1,046	515	331	532
(WY)	(2002)	(1993)	(1967)	(1950)	(1959)	(1982)	(1950)	(1956)	(1981)	(1986)	(1997)	(2003)
MIN	19.8	24.0	24.7	25.9	28.5	146	110	68.6	44.0	35.1	22.0	20.9
(WY)	(1965)	(1965)	(1964)	(1963)	(1963)	(1957)	(2004)	(1958)	(1988)	(1953)	(1964)	(1964)

04180000 CEDAR CREEK NEAR CEDARVILLE, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1947 - 2004	
ANNUAL TOTAL	113,814		109,634			
ANNUAL MEAN	312		300		257	
HIGHEST ANNUAL MEAN					485	1950
LOWEST ANNUAL MEAN					85.3	1964
HIGHEST DAILY MEAN	2,870	May 10	3,510	Jun 13	5,220	Dec 31, 1990
LOWEST DAILY MEAN	25	Jul 3	35	Sep 26	13	Oct 3, 1949
ANNUAL SEVEN-DAY MINIMUM	33	Jun 28	36	Sep 22	18	Sep 27, 1949
MAXIMUM PEAK FLOW			3,720	Jun 13	5,580	Dec 30, 1990
MAXIMUM PEAK STAGE			9.80	Jun 13	13.38	Dec 30, 1990
ANNUAL RUNOFF (CFSM)	1.15		1.11		0.951	
ANNUAL RUNOFF (INCHES)	15.68		15.11		12.92	
10 PERCENT EXCEEDS	811		735		603	
50 PERCENT EXCEEDS	144		150		116	
90 PERCENT EXCEEDS	45		65		32	

e Estimated



04180500 ST. JOSEPH RIVER NEAR FORT WAYNE, IN

LOCATION.--Lat 41°10'38", long 85°03'21", in NW¼NE¼ sec.3, T.31 N., R.13 E., Allen County, Hydrologic Unit 04100003, (CEDARVILLE, IN quadrangle), on left bank 0.8 mi downstream from Ely Run, 1.3 mi upstream from Mayhew Road bridge, 8.0 mi northeast of the Fort Wayne Court House, and at mile 10.71.

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 754.00 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana).

REMARKS.--Records fair 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,680	462	1,290	1,870	e327	2,510	1,160	297	5,050	461	303	370
2	1,250	452	1,020	1,720	e336	3,430	918	752	3,190	464	304	317
3	861	462	830	1,890	e352	2,940	809	745	2,460	356	297	274
4	856	404	844	1,860	e339	2,630	785	577	1,940	498	293	418
5	576	417	597	1,970	e327	4,690	669	454	1,370	398	259	270
6	633	374	670	1,640	e327	4,990	604	441	1,160	421	249	174
7	618	391	936	1,120	e317	3,730	547	477	654	1,030	252	241
8	442	458	678	e973	e315	3,240	523	607	731	974	223	243
9	680	438	683	e856	e321	2,900	482	483	554	429	204	220
10	364	419	1,300	e776	e310	2,460	508	463	677	520	181	203
11	246	407	2,840	e734	e312	2,200	488	1,020	1,550	539	139	180
12	413	392	2,240	794	e299	1,710	410	1,650	5,520	586	192	163
13	355	350	1,600	755	e290	1,240	389	1,540	7,180	413	184	190
14	364	334	1,500	e634	e283	1,060	403	1,220	6,820	358	218	181
15	1,520	367	1,220	e544	e281	943	418	840	5,100	464	167	161
16	1,610	386	901	e478	e277	917	409	691	4,560	170	203	170
17	1,400	377	924	e455	e275	824	399	706	4,220	597	139	126
18	1,370	405	799	e455	e271	745	385	673	3,680	554	150	148
19	1,170	2,030	737	e426	e303	795	335	710	3,110	373	250	193
20	1,010	2,180	682	e405	e339	851	353	745	2,390	520	367	133
21	814	1,800	657	e421	e913	893	511	1,220	2,250	609	537	151
22	704	1,650	589	e421	e1,390	892	367	2,860	1,990	1,370	395	161
23	519	1,540	2,050	e388	e1,720	909	365	1,830	1,790	2,310	252	111
24	516	1,890	4,100	e377	e1,880	903	329	4,700	1,310	1,100	215	177
25	509	2,220	3,070	e371	1,550	896	301	3,210	932	744	218	141
26	486	1,500	2,420	e366	1,850	880	307	2,380	812	639	292	159
27	452	1,350	2,110	e360	2,000	1,200	305	1,850	579	483	208	176
28	467	1,270	1,920	e358	2,070	1,510	292	1,340	533	474	244	143
29	498	1,690	1,820	e352	2,070	1,470	290	907	574	404	273	136
30	503	1,250	2,810	e343	---	1,430	263	898	457	386	308	149
31	512	---	1,690	e336	---	1,340	---	6,320	---	482	354	---
TOTAL	23,398	27,665	45,527	24,448	21,644	57,128	14,324	42,606	73,143	19,126	7,870	5,879
MEAN	755	922	1,469	789	746	1,843	477	1,374	2,438	617	254	196
MAX	1,680	2,220	4,100	1,970	2,070	4,990	1,160	6,320	7,180	2,310	537	418
MIN	246	334	589	336	271	745	263	297	457	170	139	111
CFSM	0.72	0.88	1.40	0.75	0.71	1.76	0.45	1.31	2.32	0.59	0.24	0.19
IN.	0.83	0.98	1.61	0.87	0.77	2.02	0.51	1.51	2.59	0.68	0.28	0.21

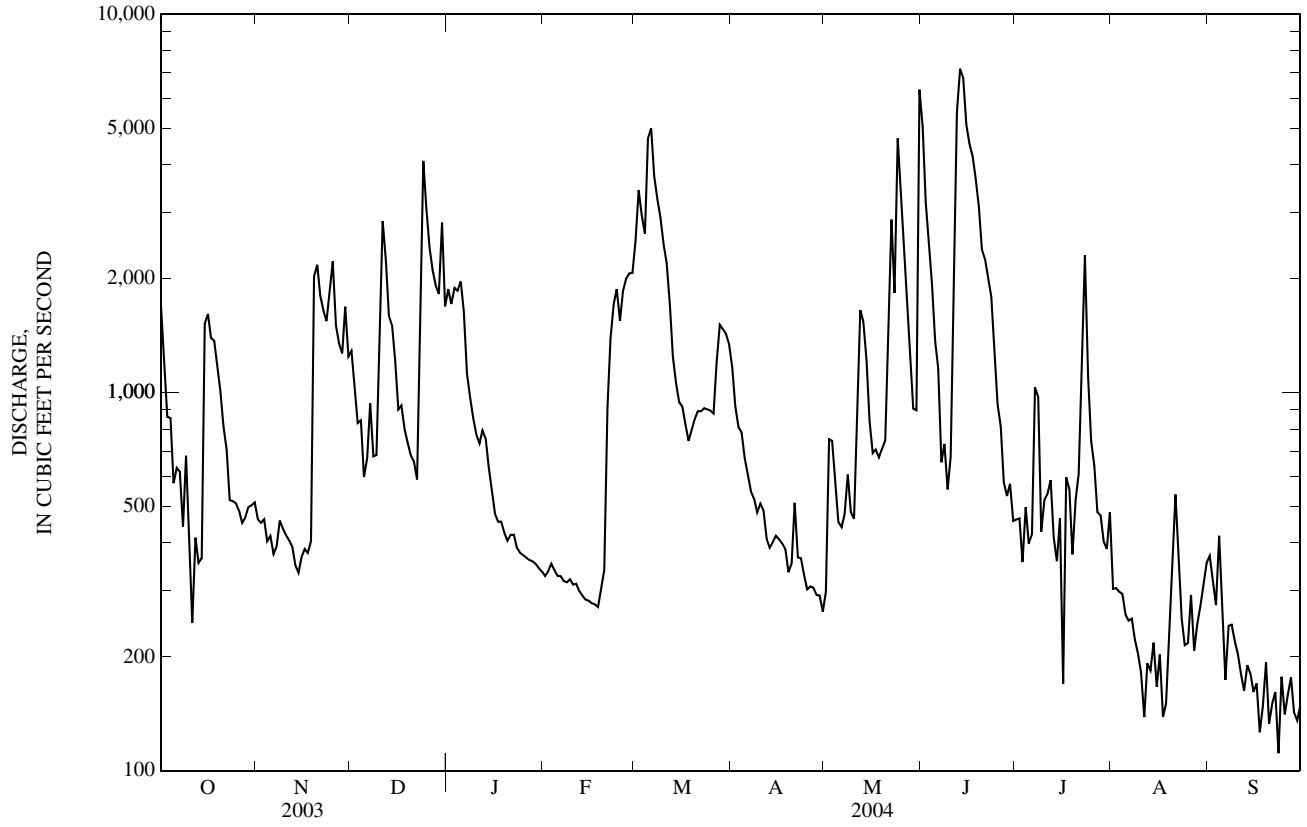
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2004, BY WATER YEAR (WY)

MEAN	595	904	1,150	1,289	1,600	1,847	1,762	1,205	1,034	472	386	402
MAX	2,797	3,330	2,421	4,615	3,728	3,612	3,071	3,675	2,915	1,413	1,157	1,517
(WY)	(2002)	(1993)	(1991)	(1993)	(2001)	(1985)	(1999)	(1996)	(1989)	(1986)	(1998)	(2003)
MIN	78.6	98.8	155	145	183	689	477	272	153	122	111	81.5
(WY)	(1995)	(2000)	(2003)	(2000)	(2003)	(2000)	(2004)	(1988)	(1988)	(1988)	(2002)	(1994)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1984 - 2004	
ANNUAL TOTAL	364,409		362,758			
ANNUAL MEAN	998		991		1,050	
HIGHEST ANNUAL MEAN					1,532	1993
LOWEST ANNUAL MEAN					642	1995
HIGHEST DAILY MEAN	6,230	May 10	7,180	Jun 13	13,100	Feb 26, 1985
LOWEST DAILY MEAN	115	Jan 26	111	Sep 23	35	Oct 2, 2002
ANNUAL SEVEN-DAY MINIMUM	116	Jan 23	146	Sep 17	45	Sep 13, 2002
MAXIMUM PEAK FLOW			8,590	Jun 14	13,400	Jan 5, 1993
MAXIMUM PEAK STAGE			13.96	Jun 14	18.40	Jan 5, 1993
ANNUAL RUNOFF (CFSM)	0.942		0.935		0.991	
ANNUAL RUNOFF (INCHES)	12.79		12.73		13.46	
10 PERCENT EXCEEDS	2,510		2,210		2,670	
50 PERCENT EXCEEDS	519		550		504	
90 PERCENT EXCEEDS	142		219		141	

e Estimated

04180500 ST. JOSEPH RIVER NEAR FORT WAYNE, IN—Continued



04181500 ST. MARYS RIVER AT DECATUR, IN

LOCATION.--Lat 40°50'53", long 84°56'16", in SW¼SW¼ sec.27, T.28 N., R.14 E., Adams County, Hydrologic Unit 04100004, (DECATUR, IN quadrangle), on left downstream side of 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 National Geodetic Vertical Datum of 1929. 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,650	172	1,890	705	e91	792	580	136	1,460	128	1,300	2,670
2	864	165	1,960	737	e92	1,930	413	182	925	118	541	883
3	412	173	1,460	716	e93	1,360	320	407	992	115	348	343
4	274	200	916	2,490	e91	1,350	264	356	921	260	568	1,620
5	228	191	583	e5,000	e89	3,050	222	411	572	288	944	1,900
6	201	173	438	e5,100	e90	2,930	196	384	303	149	416	1,310
7	197	157	407	3,960	e87	2,020	183	315	207	120	264	885
8	190	145	480	3,020	e85	1,520	171	291	167	110	188	599
9	172	135	916	2,590	e87	1,100	161	235	145	100	136	281
10	155	127	2,680	1,950	e84	680	147	208	130	97	103	176
11	140	123	2,770	1,040	e85	425	138	198	1,120	92	85	132
12	125	160	1,750	602	e83	306	133	193	4,120	105	73	107
13	115	230	1,170	370	e83	232	127	177	5,600	106	67	92
14	183	250	996	257	e82	206	126	163	6,450	92	63	84
15	706	289	775	e214	e81	192	119	259	5,660	89	62	78
16	539	292	531	e184	e80	176	115	246	4,640	84	60	72
17	527	251	461	e171	e81	175	116	234	4,530	83	60	71
18	603	235	387	e161	e101	180	115	303	4,110	81	66	67
19	670	733	384	e153	e128	223	110	910	2,860	80	85	65
20	551	635	378	e144	764	301	107	568	1,800	81	254	63
21	351	475	313	e136	2,050	608	108	1,560	1,050	90	1,290	59
22	235	528	275	e130	1,390	539	147	1,460	578	590	836	57
23	185	574	1,760	e123	1,350	513	308	789	340	460	376	55
24	159	732	3,390	e119	1,480	500	382	920	239	359	230	54
25	143	713	2,870	e114	1,090	412	341	925	201	356	155	52
26	153	458	2,480	e108	731	502	309	783	176	257	113	52
27	170	552	2,180	e105	564	1,240	239	466	170	180	89	52
28	158	1,630	1,500	e101	419	881	191	280	182	179	309	53
29	179	2,040	961	e98	366	753	159	203	166	181	2,340	58
30	213	1,530	1,320	e95	---	833	140	273	143	176	3,800	72
31	191	---	873	e92	---	797	---	1,890	---	1,210	3,870	---
TOTAL	10,639	14,068	39,254	30,785	11,897	26,726	6,187	15,725	49,957	6,416	19,091	12,062
MEAN	343	469	1,266	993	410	862	206	507	1,665	207	616	402
MAX	1,650	2,040	3,390	5,100	2,050	3,050	580	1,890	6,450	1,210	3,870	2,670
MIN	115	123	275	92	80	175	107	136	130	80	60	52
CFSM	0.55	0.76	2.04	1.60	0.66	1.39	0.33	0.82	2.68	0.33	0.99	0.65
IN.	0.64	0.84	2.35	1.84	0.71	1.60	0.37	0.94	2.99	0.38	1.14	0.72

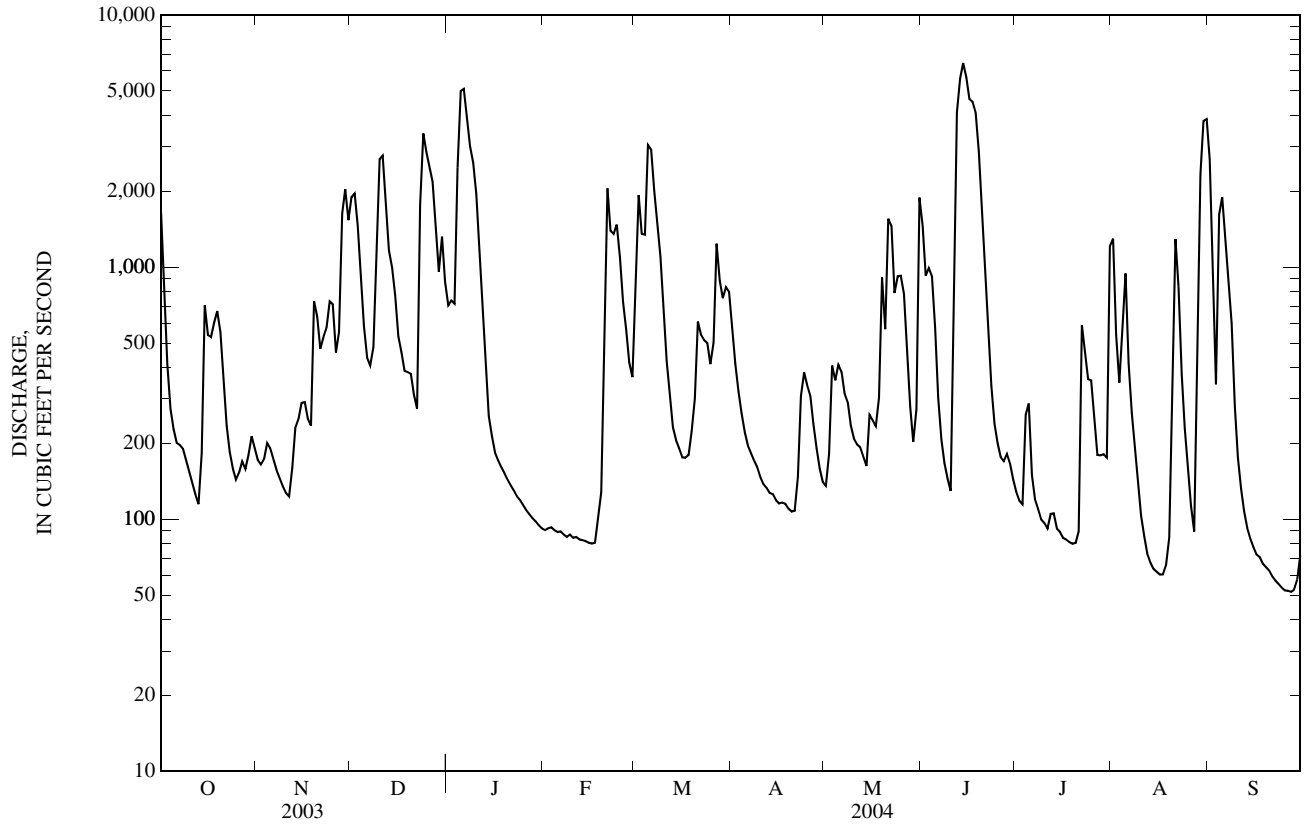
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2004, BY WATER YEAR (WY)

MEAN	143	302	571	721	864	1,083	940	527	484	376	166	131
MAX	1,250	1,988	2,079	3,834	2,546	3,263	3,409	2,140	2,075	3,760	1,263	1,301
(WY)	(2002)	(1993)	(1991)	(1950)	(1950)	(1978)	(1957)	(2003)	(1981)	(2003)	(2003)	(2003)
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)

04181500 ST. MARYS RIVER AT DECATUR, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1947 - 2004	
ANNUAL TOTAL	468,745		242,807			
ANNUAL MEAN	1,284		663		520	
HIGHEST ANNUAL MEAN					1,151	2003
LOWEST ANNUAL MEAN					140	1966
HIGHEST DAILY MEAN	14,800	Jul 9	6,450	Jun 14	14,800	Jul 9, 2003
LOWEST DAILY MEAN	58	Feb 1	52	Sep 25	5.4	Oct 18, 1960
ANNUAL SEVEN-DAY MINIMUM	60	Jan 27	54	Sep 22	6.2	Oct 12, 1963
MAXIMUM PEAK FLOW			6,590	Jun 14	15,000	Jul 9, 2003
MAXIMUM PEAK STAGE			20.63	Jun 14	26.92	Jul 9, 2003
ANNUAL RUNOFF (CFSM)	2.07		1.07		0.838	
ANNUAL RUNOFF (INCHES)	28.08		14.54		11.39	
10 PERCENT EXCEEDS	3,710		1,770		1,510	
50 PERCENT EXCEEDS	463		252		133	
90 PERCENT EXCEEDS	87		85		23	

e Estimated



04182000 ST. MARYS RIVER NEAR FORT WAYNE, IN

LOCATION.--Lat 40°59'16", long 85°06'43", in NE¼NE¼ sec.12, T.29 N., R.12 E., Allen County, Hydrologic Unit 04100004, (POE, IN quadrangle), 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. Period of record computations do not include 1934 water year.

REVISED RECORDS.--WSP 974: 1942. WSP 1337: 1933, 1947. WSP 1912: 1954, 1955, 1960, drainage area. WDR IN- 82-1: 1973, 1974, 1978, 1979.

GAGE.--Water-stage recorder. Datum of gage is 748.97 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to Apr. 13, 1939, nonrecording gage on upstream highway bridge at same datum.

REMARKS.--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.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,070	202	2,060	910	e143	1,020	857	163	2,450	142	1,670	3,750
2	1,200	178	2,300	887	e146	2,460	628	303	1,310	120	897	1,730
3	663	171	1,940	900	e149	2,020	485	490	1,140	109	521	644
4	418	194	1,290	2,370	e146	1,650	395	507	1,110	148	648	1,210
5	315	218	843	5,310	e142	3,510	329	508	832	363	1,220	2,240
6	257	196	612	5,910	e147	3,840	275	531	490	237	748	1,690
7	222	171	508	5,160	e144	2,840	245	545	308	163	414	1,560
8	217	150	536	4,120	e141	1,970	224	520	222	e117	301	964
9	200	134	849	3,290	e143	1,500	205	398	175	e107	216	540
10	176	122	3,280	2,730	e140	1,020	186	311	149	e102	155	312
11	152	114	3,830	1,720	e142	663	168	279	900	e99	117	218
12	131	143	2,680	981	e139	478	157	249	4,640	e99	94	168
13	112	220	1,560	634	e137	361	151	262	6,540	e116	78	136
14	177	263	1,260	445	e136	294	144	216	8,140	e107	69	115
15	800	291	1,040	e345	e135	265	136	237	7,380	e99	63	101
16	853	328	760	e267	e134	240	126	359	5,880	e95	60	92
17	672	309	620	e223	e134	228	121	300	4,830	e94	57	82
18	687	323	533	e200	e152	232	120	299	4,870	e91	69	78
19	778	751	470	e185	e176	262	114	847	3,940	e89	128	72
20	747	940	475	e175	676	362	110	890	2,480	e91	558	66
21	542	609	423	e169	3,260	589	113	1,450	1,430	e102	1,490	64
22	350	579	366	e163	2,800	734	121	2,140	850	939	1,340	59
23	241	639	1,810	e158	2,410	638	244	1,160	503	814	646	56
24	187	890	4,040	e154	2,610	640	475	1,330	331	483	391	55
25	159	1,010	3,870	e151	2,230	579	455	1,110	259	440	261	53
26	162	654	3,090	e149	1,570	594	423	989	234	382	192	52
27	182	543	2,720	e147	1,090	1,530	356	698	195	268	138	51
28	191	1,460	2,060	e146	692	1,320	275	430	194	210	118	51
29	173	2,590	1,350	e146	582	980	218	285	197	200	1,620	53
30	218	1,970	1,650	e145	---	1,010	178	587	171	205	3,530	61
31	231	---	1,330	e145	---	1,130	---	4,140	---	669	4,040	---
TOTAL	13,483	16,362	50,155	38,435	20,646	34,959	8,034	22,533	62,150	7,300	21,849	16,323
MEAN	435	545	1,618	1,240	712	1,128	268	727	2,072	235	705	544
MAX	2,070	2,590	4,040	5,910	3,260	3,840	857	4,140	8,140	939	4,040	3,750
MIN	112	114	366	145	134	228	110	163	149	89	57	51
CFSM	0.57	0.72	2.12	1.63	0.93	1.48	0.35	0.95	2.72	0.31	0.92	0.71
IN.	0.66	0.80	2.45	1.88	1.01	1.71	0.39	1.10	3.03	0.36	1.07	0.80

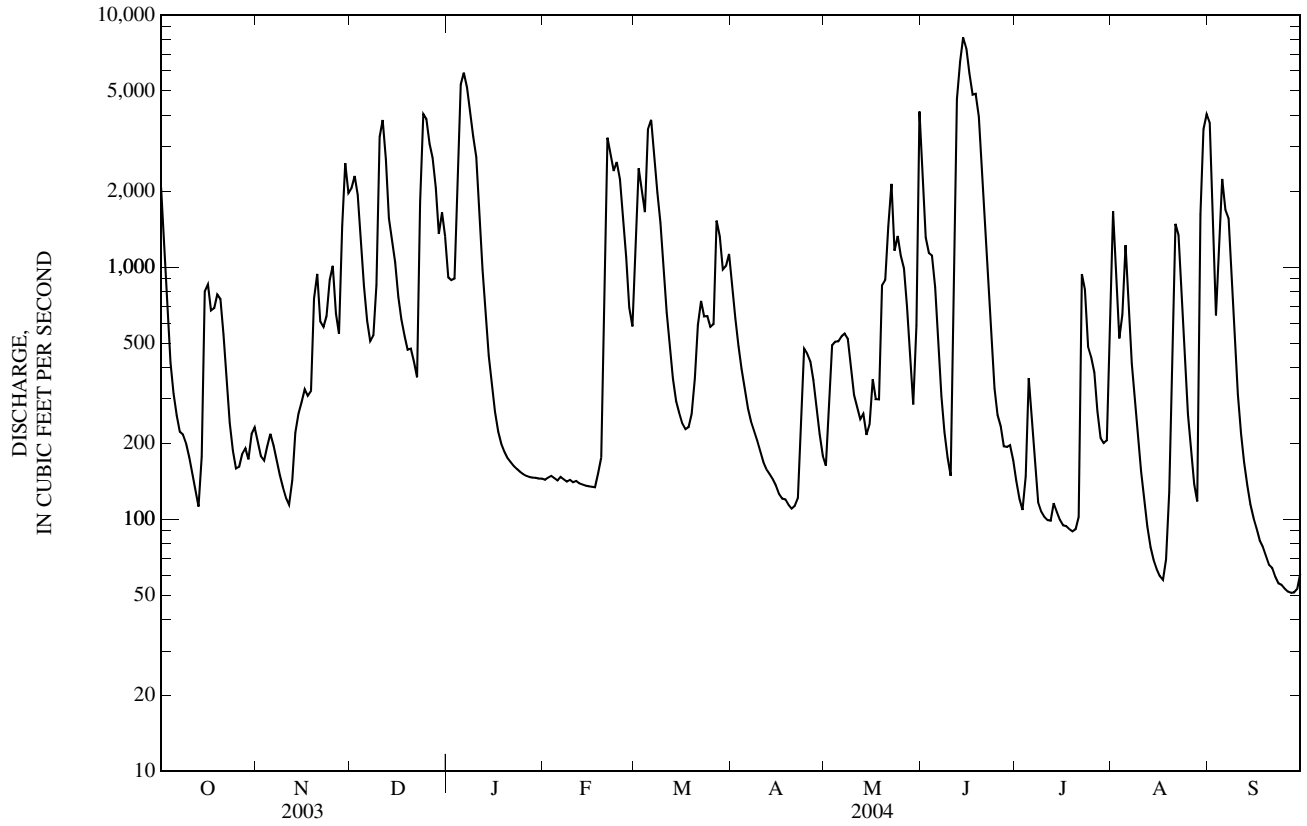
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2004, BY WATER YEAR (WY)

MEAN	168	325	637	860	1,025	1,313	1,135	676	559	396	184	138
MAX	1,595	2,612	2,349	4,897	3,404	4,070	4,119	3,866	2,545	4,174	1,440	1,453
(WY)	(2002)	(1973)	(1978)	(1950)	(1959)	(1978)	(1957)	(1943)	(1981)	(2003)	(2003)	(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)

04182000 ST. MARYS RIVER NEAR FORT WAYNE, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1931 - 2004	
ANNUAL TOTAL	536,997		312,229			
ANNUAL MEAN	1,471		853		627	
HIGHEST ANNUAL MEAN					1,295	2003
LOWEST ANNUAL MEAN					174	1966
HIGHEST DAILY MEAN	14,800	Jul 9	8,140	Jun 14	14,800	Jul 9, 2003
LOWEST DAILY MEAN	69	Sep 21	51	Sep 27	3.4	Oct 19, 1934
ANNUAL SEVEN-DAY MINIMUM	75	Jan 27	53	Sep 23	4.9	Oct 15, 1934
MAXIMUM PEAK FLOW			8,310	Jun 14	16,000	Jul 9, 2003
MAXIMUM PEAK STAGE			15.48	Jun 14	21.20	Jul 9, 2003
ANNUAL RUNOFF (CFSM)	1.93		1.12		0.822	
ANNUAL RUNOFF (INCHES)	26.22		15.24		11.17	
10 PERCENT EXCEEDS	4,050		2,380		1,800	
50 PERCENT EXCEEDS	536		338		154	
90 PERCENT EXCEEDS	113		110		25	

e Estimated



04182900 MAUMEE RIVER AT FORT WAYNE, IN

LOCATION.--Lat 41°04'57", long 85°06'55", in SE¼NE¼ sec. 1, T.30 N., R.12 E., Allen County, Hydrologic Unit 04100005, (FORT WAYNE EAST, IN quadrangle), 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 National Geodetic Vertical Datum of 1929. 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, 21.24 ft, July 10, 2003; minimum gage height, 0.75 ft, Sept. 29, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 20.87 ft, June 14; minimum gage height, 1.12 ft, Sept. 24.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.20	2.49	7.40	6.10	1.68	9.70	4.86	2.74	11.44	1.96	4.83	8.15
2	5.03	2.39	6.91	6.22	1.70	10.79	4.23	3.70	8.33	2.64	3.31	4.39
3	4.30	2.41	5.96	6.27	1.71	8.94	3.73	3.97	7.14	1.78	2.93	6.40
4	3.79	2.37	5.09	---	1.70	10.18	3.51	3.18	6.28	2.71	4.89	5.90
5	2.29	2.38	4.00	---	1.72	14.48	3.19	3.18	5.05	1.99	4.32	5.98
6	2.82	2.19	4.26	12.32	1.69	13.52	2.91	3.12	3.98	3.77	2.90	4.74
7	3.02	2.25	4.16	10.24	1.59	10.65	2.73	5.08	3.01	5.58	2.52	4.92
8	2.27	2.30	3.57	9.14	1.69	9.41	2.58	3.54	3.05	2.91	2.26	3.48
9	3.49	2.24	5.30	7.95	1.63	8.33	2.47	3.00	2.56	1.59	2.19	2.38
10	2.17	2.15	10.96	6.95	1.74	7.28	2.48	2.82	3.00	2.71	1.69	2.11
11	2.63	2.17	11.52	4.97	1.79	6.17	2.39	4.17	8.39	2.75	1.33	1.87
12	2.18	2.19	8.54	3.98	1.78	5.09	2.20	4.82	18.36	2.70	1.98	1.57
13	1.85	2.24	6.67	2.97	1.70	4.16	2.17	4.36	20.63	2.32	1.27	1.66
14	3.11	2.31	6.32	2.75	1.60	3.84	2.18	3.89	19.58	1.98	1.76	1.63
15	6.90	2.52	5.18	2.45	1.63	3.57	2.17	3.26	17.52	1.94	1.17	1.65
16	5.49	2.59	4.72	2.04	1.64	3.57	2.16	3.30	15.64	1.18	1.78	1.57
17	5.12	2.46	4.31	2.08	1.61	3.33	2.13	3.23	14.50	2.83	1.96	1.29
18	5.15	4.36	3.94	2.19	1.59	3.29	2.09	3.16	13.52	2.07	1.55	1.20
19	4.89	7.60	3.68	1.97	1.67	3.36	1.93	4.88	11.31	2.18	2.33	1.48
20	4.35	6.51	3.62	1.83	2.71	3.77	3.26	4.31	8.64	1.74	6.26	1.30
21	3.83	5.54	3.44	1.84	8.07	4.49	2.52	8.27	7.30	4.49	5.82	1.20
22	3.08	5.36	3.22	1.81	7.18	4.40	2.17	8.48	5.85	7.41	4.13	1.50
23	2.63	5.36	12.95	1.80	7.91	4.27	2.46	---	4.91	6.49	2.67	1.21
24	2.51	7.03	13.46	1.71	7.42	4.34	2.79	---	3.99	4.03	2.20	1.28
25	2.63	6.67	11.38	1.89	6.69	4.15	2.61	---	3.59	3.73	1.97	1.14
26	2.46	4.74	9.73	1.83	6.63	5.05	2.53	6.66	3.82	3.32	2.41	1.24
27	2.43	4.84	8.95	1.89	6.65	6.90	2.35	5.39	2.53	2.27	1.72	1.41
28	2.50	7.59	7.60	1.82	6.29	6.23	2.20	4.10	2.06	2.55	5.80	1.21
29	2.42	8.34	7.28	1.76	6.18	5.77	2.08	3.32	2.82	1.94	6.58	1.49
30	2.62	6.89	9.82	1.78	---	6.15	1.96	9.99	2.18	2.89	8.33	1.13
31	2.73	---	7.06	1.73	---	5.90	---	16.31	---	4.58	8.78	---
TOTAL	107.89	120.48	211.00	---	97.59	201.08	79.04	---	240.98	93.03	103.64	76.48
MEAN	3.48	4.02	6.81	---	3.37	6.49	2.63	---	8.03	3.00	3.34	2.55
MAX	7.20	8.34	13.46	---	8.07	14.48	4.86	---	20.63	7.41	8.78	8.15
MIN	1.85	2.15	3.22	---	1.59	3.29	1.93	---	2.06	1.18	1.17	1.13

04182950 MAUMEE RIVER AT COLISEUM BLVD AT FORT WAYNE, IN

LOCATION.--Lat 41°04'47", long 85°05'15", in NW¼SW¼SE¼ sec. 5, T.30 N., R.13 E., Allen County, Hydrologic Unit 04100003, (FORT WAYNE EAST, IN quadrangle), on left bank and downstream side of Coliseum Blvd bridge, 0.4 mi north of intersection of State Road 14 and Coliseum Blvd, 1.5 mi downstream of Anthony Blvd, 2.7 mi below confluence of St. Joseph and St. Marys Rivers, and at mile 133.4.

DRAINAGE AREA.--1,930 mi^2.

PERIOD OF RECORD.--November 28, 2003 to September 30, 2004.

GAGE.--Water-stage recorder. Datum of gage is 728.50 ft. (Provided by Indiana Department of Transportation).

REMARKS.--Records good except those for September 18-30 and estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	e2,830	e468	e3,240	e2,050	e680	e10,100	e539	e2,020	e4,500
2	---	---	---	e2,470	e461	e5,870	e1,590	e1,280	e5,090	e586	e1,370	e2,520
3	---	---	---	e2,660	e467	e5,300	e1,320	e1,250	e3,560	e570	e971	e1,370
4	---	---	e2,030	e4,090	e458	e4,270	e1,180	e1,220	e2,950	e809	e1,660	e2,310
5	---	---	e1,720	e7,210	e451	e8,220	e1,040	e1,000	e2,230	e754	e1,740	e2,650
6	---	---	e1,320	e7,820	e447	e9,630	e914	e1,020	e1,690	e700	e1,220	e2,010
7	---	---	e1,510	e6,300	e441	e7,440	e840	e1,950	e1,090	e1,380	e816	e2,220
8	---	---	e1,380	e5,310	e438	e5,330	e794	e1,470	e940	e1,220	e702	e1,380
9	---	---	e1,390	e4,120	e434	e4,440	e725	e1,060	e839	e656	e605	e720
10	---	---	e4,200	e3,390	e428	e3,560	e723	e869	e756	e634	e527	e503
11	---	---	e7,170	e2,540	e438	e2,840	e697	e1,250	e2,620	e696	e373	e348
12	---	---	e5,620	e1,810	e435	e2,130	e645	e1,630	e10,400	e818	e309	e345
13	---	---	e3,410	e1,430	e433	e1,590	e590	e1,710	e15,200	e573	e448	e245
14	---	---	e2,790	e1,180	e427	e1,360	e589	e1,430	e17,600	e614	e315	e277
15	---	---	e2,400	e995	e421	e1,140	e601	e1,160	e15,000	e583	e356	e477
16	---	---	e1,810	e807	e418	e1,160	e576	e1,060	e12,600	e304	e340	e281
17	---	---	e1,600	e717	e412	e1,110	e567	e1,030	e10,400	e501	e400	e252
18	---	---	e1,420	e668	e409	e1,020	e554	e1,000	e9,420	e654	e476	e172
19	---	---	e1,290	e622	e417	e1,100	e517	e1,340	e7,830	e595	e675	e191
20	---	---	e1,220	e588	e628	e1,150	e555	e1,670	e5,350	e454	e1,170	e231
21	---	---	e1,150	e572	e2,990	e1,320	e895	e2,090	e3,800	e795	e2,280	e191
22	---	---	e1,070	e551	e3,450	e1,570	e640	e4,940	e2,840	e2,540	e2,030	e180
23	---	---	e3,660	e539	e3,250	e1,480	e630	e3,330	e2,170	e3,260	e1,140	e220
24	---	---	e8,670	e524	e3,790	e1,510	e807	e6,330	e1,640	e2,010	e709	e206
25	---	---	e7,720	e519	e3,010	e1,480	e796	e4,600	e1,310	e1,160	e569	e150
26	---	---	e5,810	e505	e2,860	e1,530	e764	e3,450	e1,170	e1,190	e646	e152
27	---	---	e4,820	e501	e2,780	e2,450	e713	e2,490	e1,040	e786	e497	e169
28	---	---	e4,110	e496	e2,680	e2,780	e642	e1,830	e735	e748	e634	e168
29	---	---	e3,230	e488	e2,520	e2,420	e582	e1,270	e675	e655	e2,140	e197
30	---	---	e4,090	e481	---	e2,310	e544	e1,630	e862	e662	e3,780	e158
31	---	---	e3,390	e472	---	e2,480	---	e11,300	---	e1,020	e4,360	---
TOTAL	---	---	90,000	63,205	36,261	93,230	24,080	68,339	151,907	28,466	35,278	24,793
MEAN	---	---	3,214	2,039	1,250	3,007	803	2,204	5,064	918	1,138	826
MAX	---	---	8,670	7,820	3,790	9,630	2,050	11,300	17,600	3,260	4,360	4,500
MIN	---	---	1,070	472	409	1,020	517	680	675	304	309	150

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2004, BY WATER YEAR (WY)

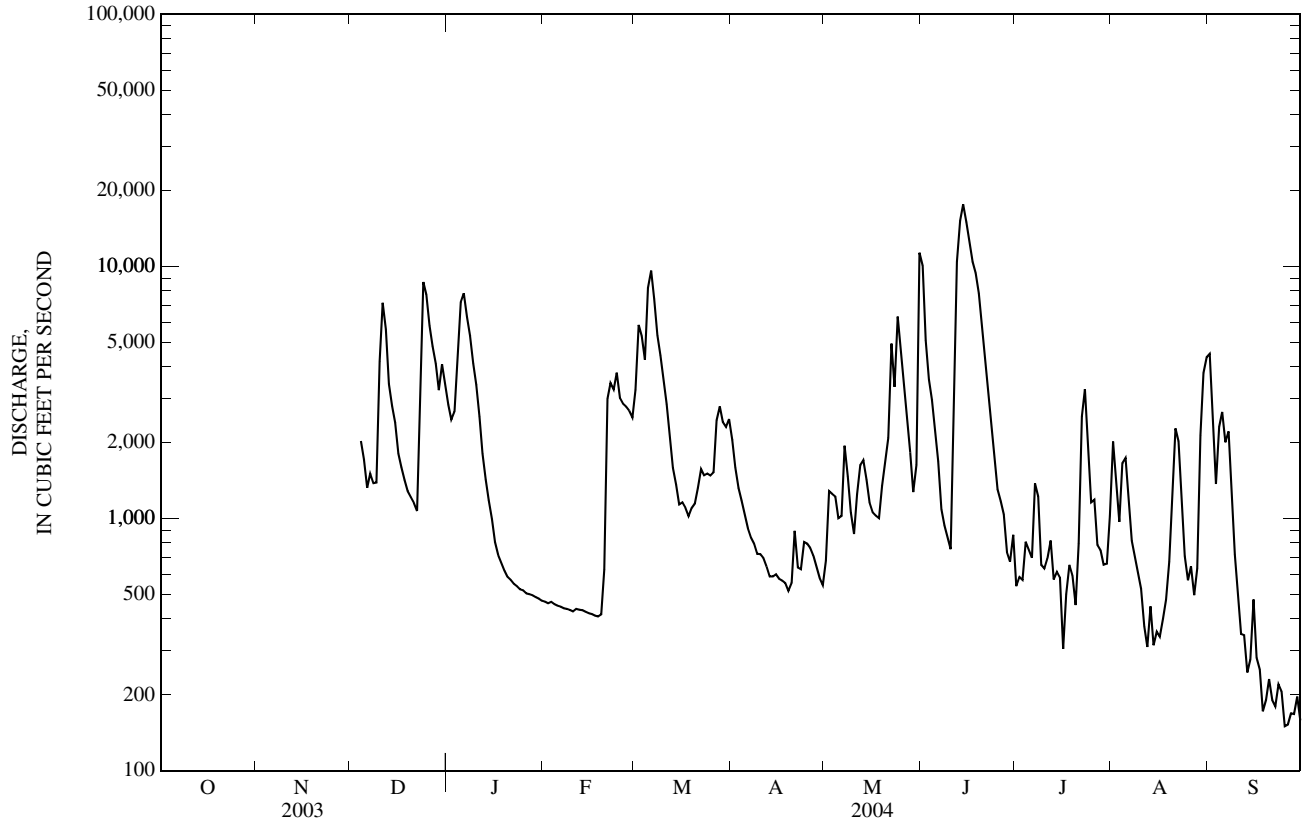
MEAN	---	---	3,214	2,039	1,250	3,007	803	2,204	5,064	918	1,138	826
MAX	---	---	3,214	2,039	1,250	3,007	803	2,204	5,064	918	1,138	826
(WY)	---	---	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)
MIN	---	---	3,214	2,039	1,250	3,007	803	2,204	5,064	918	1,138	826
(WY)	---	---	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)

SUMMARY STATISTICS FOR 2004 WATER YEAR

ANNUAL TOTAL	615,559	
ANNUAL MEAN	2,038	
HIGHEST DAILY MEAN	17,600	Jun 14
LOWEST DAILY MEAN	150	Sep 25
ANNUAL SEVEN-DAY MINIMUM	171	Sep 24
MAXIMUM PEAK FLOW	18,100	Jun 14
MAXIMUM PEAK STAGE	21.33	Jun 14
10 PERCENT EXCEEDS	4,750	
50 PERCENT EXCEEDS	1,150	
90 PERCENT EXCEEDS	419	

e Estimated

04182950 MAUMEE RIVER AT COLISEUM BLVD AT FORT WAYNE, IN—Continued



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, (FORT WAYNE EAST, IN quadrangle), 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 National Geodetic Vertical Datum of 1929. 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,110	764	3,270	3,250	e509	3,700	2,230	625	10,700	536	e2,540	4,590
2	e2,450	690	3,480	2,830	e497	6,380	1,710	1,330	5,650	538	e1,560	2,800
3	e1,560	669	2,930	3,030	e501	5,960	1,410	1,290	3,850	571	950	1,580
4	e1,300	638	2,320	e4,650	e488	4,810	1,240	1,280	3,210	753	1,840	2,940
5	e988	674	1,790	e7,550	e477	8,440	1,060	969	2,450	756	1,930	2,840
6	e912	644	1,330	8,280	e478	9,930	898	992	1,860	634	1,330	2,290
7	e851	578	1,520	6,920	e476	8,110	814	2,490	1,190	1,480	804	2,760
8	e776	633	1,400	5,870	e473	5,920	770	1,790	939	1,360	688	1,730
9	e1,060	621	1,440	4,650	e469	4,930	703	1,130	849	683	590	946
10	e669	594	4,550	3,990	e466	3,970	693	856	746	553	522	647
11	e485	585	7,510	2,990	e476	3,180	672	1,220	2,860	675	337	473
12	e590	594	6,210	2,160	e471	2,380	625	1,680	10,200	792	218	453
13	e590	615	3,900	1,740	e466	1,760	569	1,800	15,300	583	430	299
14	e661	621	3,150	1,450	e461	1,470	565	1,500	18,700	579	227	345
15	1,720	661	2,770	1,250	e456	1,200	575	1,220	16,100	561	323	555
16	2,690	737	2,130	1,000	e449	1,210	553	1,060	13,000	281	250	373
17	2,050	738	1,890	843	e443	1,160	544	1,010	10,800	374	369	336
18	1,970	876	1,690	e759	e445	1,050	530	981	9,740	660	469	190
19	1,910	2,570	1,540	e709	445	1,110	499	1,290	8,310	562	640	175
20	1,820	3,420	1,450	e671	711	1,190	486	1,760	5,910	446	1,240	260
21	1,380	2,480	1,390	e649	3,320	1,370	896	2,090	4,180	672	2,610	185
22	1,180	2,170	1,310	e630	4,020	1,660	638	5,160	3,120	2,700	2,260	175
23	e891	2,100	3,900	e617	3,780	1,570	595	3,640	2,380	3,560	1,250	240
24	746	2,700	8,900	e604	4,330	1,590	758	6,620	1,780	2,240	710	166
25	e665	3,320	8,230	e586	3,500	1,570	769	5,060	1,410	1,210	562	158
26	e647	2,530	6,380	e579	3,310	1,650	733	3,700	1,230	1,250	603	130
27	e641	1,940	5,340	e569	3,230	2,610	683	2,680	1,090	828	515	157
28	e709	2,380	4,610	e555	3,120	3,020	610	1,990	726	701	559	208
29	729	4,270	3,680	e546	2,940	2,600	550	1,360	623	e612	2,220	230
30	713	3,660	4,470	e537	---	2,440	507	1,710	847	e612	3,880	192
31	780	---	3,960	e523	---	2,680	---	11,100	---	e1,140	4,440	---
TOTAL	38,243	45,472	108,440	70,987	41,207	100,620	23,885	71,383	159,750	28,902	36,866	28,423
MEAN	1,234	1,516	3,498	2,290	1,421	3,246	796	2,303	5,325	932	1,189	947
MAX	4,110	4,270	8,900	8,280	4,330	9,930	2,230	11,100	18,700	3,560	4,440	4,590
MIN	485	578	1,310	523	443	1,050	486	625	623	281	218	130
CFSM	0.63	0.77	1.78	1.16	0.72	1.65	0.40	1.17	2.71	0.47	0.60	0.48
IN.	0.72	0.86	2.05	1.34	0.78	1.90	0.45	1.35	3.02	0.55	0.70	0.54

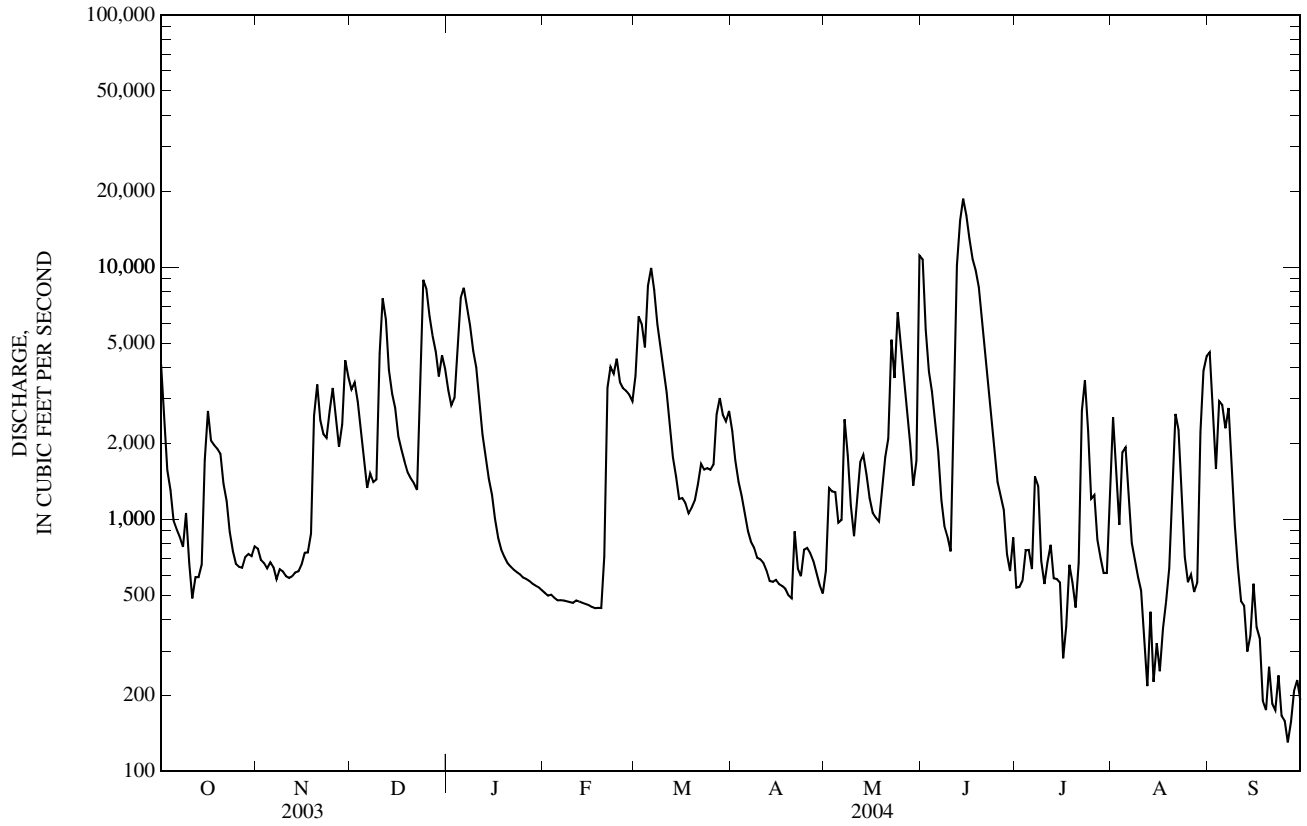
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2004, BY WATER YEAR (WY)

MEAN	643	1,217	2,086	1,938	2,674	3,673	3,384	2,025	1,732	1,100	627	585
MAX	5,219	6,523	6,292	7,203	7,649	11,460	7,955	6,914	6,480	5,989	2,687	3,264
(WY)	(2002)	(1993)	(1968)	(1993)	(1976)	(1982)	(1957)	(1996)	(1981)	(2003)	(2003)	(2003)
MIN	62.3	102	96.4	119	161	1,181	789	382	122	197	99.1	91.2
(WY)	(1964)	(1965)	(1964)	(1963)	(1964)	(1981)	(1971)	(1988)	(1988)	(1964)	(1962)	(1963)

04183000 MAUMEE RIVER AT NEW HAVEN, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1957 - 2004	
ANNUAL TOTAL	1,021,496		754,178			
ANNUAL MEAN	2,799		2,061		1,801	
HIGHEST ANNUAL MEAN					2,975	1993
LOWEST ANNUAL MEAN					669	1963
HIGHEST DAILY MEAN	19,300	Jul 10	18,700	Jun 14	26,300	Mar 17, 1982
LOWEST DAILY MEAN	155	Sep 21	130	Sep 26	48	Oct 6, 1963
ANNUAL SEVEN-DAY MINIMUM	176	Jan 27	173	Sep 21	55	Oct 4, 1963
MAXIMUM PEAK FLOW			19,000	Jun 14	26,600	Mar 17, 1982
MAXIMUM PEAK STAGE			21.33	Jun 14	25.49	Mar 17, 1982
ANNUAL RUNOFF (CFSM)	1.42		1.05		0.916	
ANNUAL RUNOFF (INCHES)	19.32		14.26		12.44	
10 PERCENT EXCEEDS	7,730		4,600		4,860	
50 PERCENT EXCEEDS	1,370		1,180		782	
90 PERCENT EXCEEDS	352		468		158	

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, (KINGSFORD HEIGHTS, IN quadrangle), 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 and Acoustic Doppler Velocity meter. Datum of gage is 664.68 ft above National Geodetic Vertical Datum of 1929. July 13, 1905, to July 21, 1906, nonrecording gage at site 50 ft downstream at different datum. July 28, 1925, to May 18, 1929, nonrecording gage on bridge 0.5 mi downstream at different datum. Apr. 19, 1931, to Nov. 3, 1953, nonrecording gage at present site and datum.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	261	323	529	600	e399	608	528	374	542	315	252	763
2	254	308	502	571	e423	757	503	393	516	304	242	643
3	256	308	478	545	449	772	484	384	464	302	233	576
4	258	311	469	519	443	714	472	367	426	322	269	565
5	261	354	467	504	434	898	459	365	404	322	319	532
6	257	525	475	470	398	1,090	455	359	385	308	287	489
7	254	455	486	434	379	1,000	455	353	365	316	271	459
8	251	410	476	493	356	899	451	347	350	314	255	435
9	251	373	473	467	347	813	445	343	343	295	244	414
10	245	356	512	431	346	752	421	390	343	301	241	400
11	244	350	611	424	342	692	420	411	409	297	239	385
12	235	350	616	420	340	653	413	395	595	300	233	368
13	236	334	545	420	333	618	410	379	980	286	231	357
14	261	324	456	413	333	600	406	e408	960	288	235	349
15	346	322	405	407	333	576	408	e522	905	287	251	344
16	375	318	408	397	321	562	404	e523	777	269	231	354
17	349	314	420	392	328	545	408	e472	675	279	231	347
18	334	340	411	400	326	544	395	e442	607	294	442	334
19	323	620	412	386	334	547	387	e436	555	282	483	326
20	321	769	426	380	352	540	385	424	508	272	427	316
21	320	683	415	375	476	521	405	419	484	264	390	311
22	311	586	421	375	546	502	396	424	482	373	359	305
23	304	523	445	344	570	494	383	442	450	398	331	300
24	296	651	552	409	611	502	376	424	427	361	314	295
25	311	865	561	419	625	502	385	419	403	328	353	293
26	344	782	519	423	622	530	386	418	380	307	584	290
27	345	690	487	417	595	612	373	400	370	294	725	288
28	344	636	477	378	578	622	358	385	362	273	833	289
29	346	584	564	e372	565	590	356	365	354	252	1,090	288
30	337	556	701	e379	---	557	355	367	329	246	1,090	290
31	331	---	669	e386	---	546	---	463	---	257	924	---
TOTAL	9,161	14,320	15,388	13,350	12,504	20,158	12,482	12,613	15,150	9,306	12,609	11,705
MEAN	296	477	496	431	431	650	416	407	505	300	407	390
MAX	375	865	701	600	625	1,090	528	523	980	398	1,090	763
MIN	235	308	405	344	321	494	355	343	329	246	231	288
CFSM	0.55	0.89	0.92	0.80	0.80	1.21	0.77	0.76	0.94	0.56	0.76	0.73
IN.	0.63	0.99	1.07	0.92	0.87	1.40	0.86	0.87	1.05	0.64	0.87	0.81

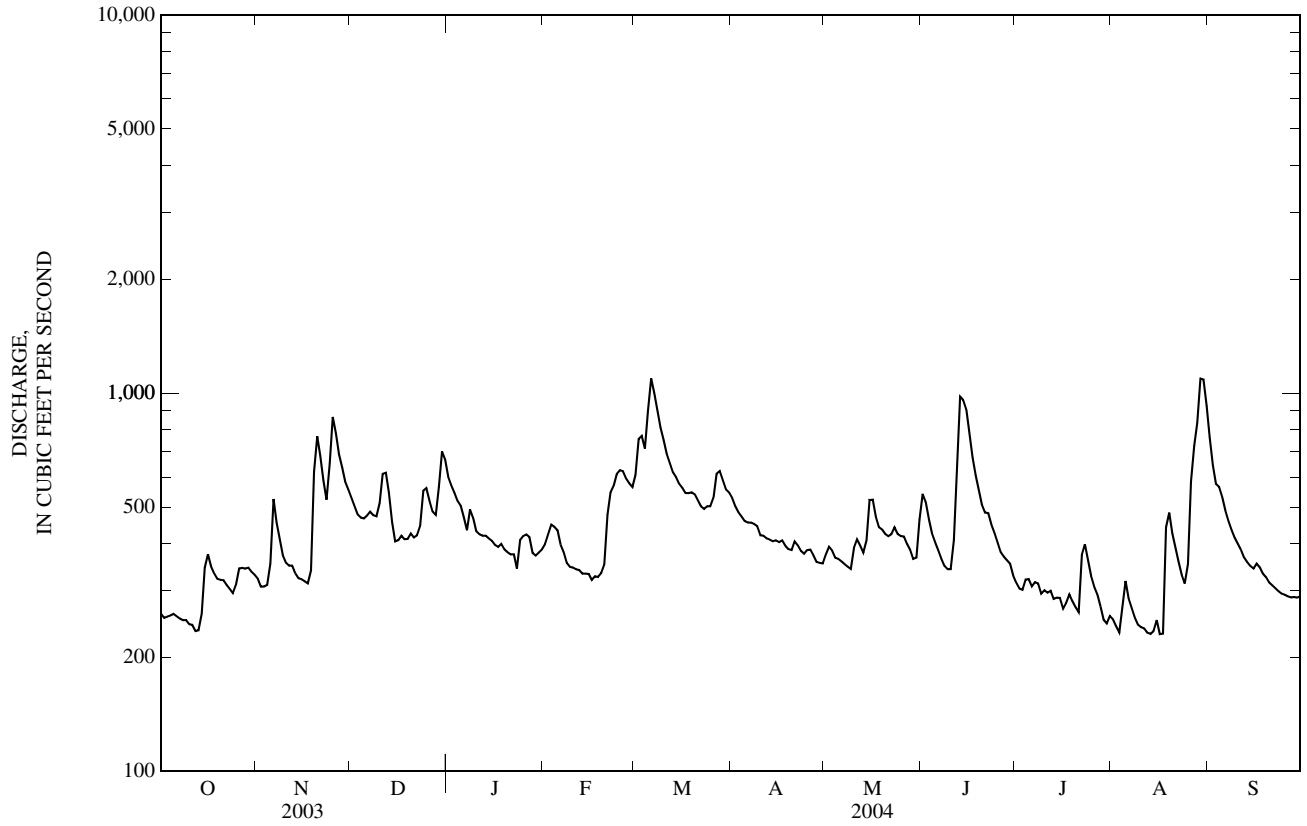
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 2004, BY WATER YEAR (WY)

MEAN	409	475	516	542	583	714	732	629	532	424	360	345
MAX	1,162	988	1,191	1,275	990	1,376	1,218	1,067	1,076	983	804	718
(WY)	(1955)	(1991)	(1928)	(1993)	(1991)	(1985)	(1982)	(1983)	(1996)	(1996)	(1996)	(1972)
MIN	198	230	236	235	236	325	397	296	248	205	174	179
(WY)	(1964)	(1965)	(1964)	(1963)	(1964)	(1934)	(2003)	(1934)	(1934)	(1934)	(1941)	(1941)

05515500 KANKAKEE RIVER AT DAVIS, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1926 - 2004	
ANNUAL TOTAL	140,067		158,746			
ANNUAL MEAN	384		434		521	
HIGHEST ANNUAL MEAN					823	1991
LOWEST ANNUAL MEAN					293	1964
HIGHEST DAILY MEAN	1,550	May 10	1,090	Mar 6	1,920	Mar 20, 1982
LOWEST DAILY MEAN	175	Aug 25	231	Aug 13	154	Aug 30, 1941
ANNUAL SEVEN-DAY MINIMUM	186	Aug 20	236	Aug 11	156	Aug 28, 1941
MAXIMUM PEAK FLOW			1,160	Aug 29	1,920	Mar 20, 1982
MAXIMUM PEAK STAGE			10.47	Aug 29	13.79	Jul 19, 1996
ANNUAL RUNOFF (CFSM)	0.715		0.808		0.970	
ANNUAL RUNOFF (INCHES)	9.70		11.00		13.18	
10 PERCENT EXCEEDS	563		619		885	
50 PERCENT EXCEEDS	337		400		449	
90 PERCENT EXCEEDS	242		277		276	

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, (PLYMOUTH, IN quadrangle), 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 mi^2, of which 22 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--July 1948 to current year.

REVISED RECORDS.--WSP 1338: 1950-51. WSP 2115: Drainage area. WDR IN-73-1: l972(M).

GAGE.--Water-stage recorder. Datum of gage is 764.78 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to Aug. 27, 1959, nonrecording gage at same site and datum.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112	123	290	626	e92	532	220	94	1,440	120	100	260
2	97	115	249	419	e91	906	200	117	1,530	116	93	183
3	90	116	225	375	e90	964	187	118	1,210	113	87	264
4	92	119	210	337	e90	630	176	105	627	129	124	892
5	88	229	214	315	e89	878	159	99	333	130	119	1,000
6	81	471	219	270	e89	1,260	150	97	255	127	99	537
7	77	328	211	237	e89	1,230	143	119	214	478	87	335
8	74	232	205	267	e88	758	138	131	187	342	80	262
9	70	184	231	233	e87	462	131	134	172	193	78	203
10	68	163	351	205	e86	373	122	535	169	159	76	166
11	65	158	555	200	e86	330	118	400	417	137	69	143
12	64	157	458	203	e85	289	115	264	991	125	66	128
13	64	145	306	197	e83	248	112	254	1,480	115	64	116
14	83	128	255	192	e83	233	110	393	1,910	158	64	109
15	206	121	226	187	e83	224	105	692	2,140	164	74	105
16	235	118	207	169	e82	210	102	460	2,010	123	70	130
17	169	115	202	163	e81	205	103	293	1,580	121	78	116
18	137	244	192	e149	e81	200	100	270	997	127	110	105
19	123	892	176	e138	e80	194	97	237	479	177	133	97
20	110	1,260	163	e131	127	190	99	208	339	129	147	91
21	103	1,360	152	e125	418	189	106	215	282	121	146	87
22	99	1,050	161	e118	399	171	103	490	251	489	114	83
23	92	608	400	e110	534	165	95	414	217	815	93	81
24	86	865	874	e109	543	170	93	558	192	554	82	77
25	112	1,190	860	e107	523	185	93	456	175	268	86	74
26	213	1,160	485	e104	525	249	95	330	161	192	175	73
27	215	776	346	e102	491	345	90	256	149	160	210	70
28	181	503	319	e100	457	299	87	209	142	138	488	70
29	166	398	609	e98	435	261	84	174	134	122	860	72
30	147	338	1,050	e95	---	233	84	212	127	114	741	70
31	133	---	1,060	e94	---	233	---	949	---	109	384	---
TOTAL	3,652	13,666	11,461	6,175	6,087	12,816	3,617	9,283	20,310	6,365	5,197	5,999
MEAN	118	456	370	199	210	413	121	299	677	205	168	200
MAX	235	1,360	1,060	626	543	1,260	220	949	2,140	815	860	1,000
MIN	64	115	152	94	80	165	84	94	127	109	64	70
CFSM	0.40	1.55	1.26	0.68	0.71	1.41	0.41	1.02	2.30	0.70	0.57	0.68
IN.	0.46	1.73	1.45	0.78	0.77	1.62	0.46	1.17	2.57	0.81	0.66	0.76

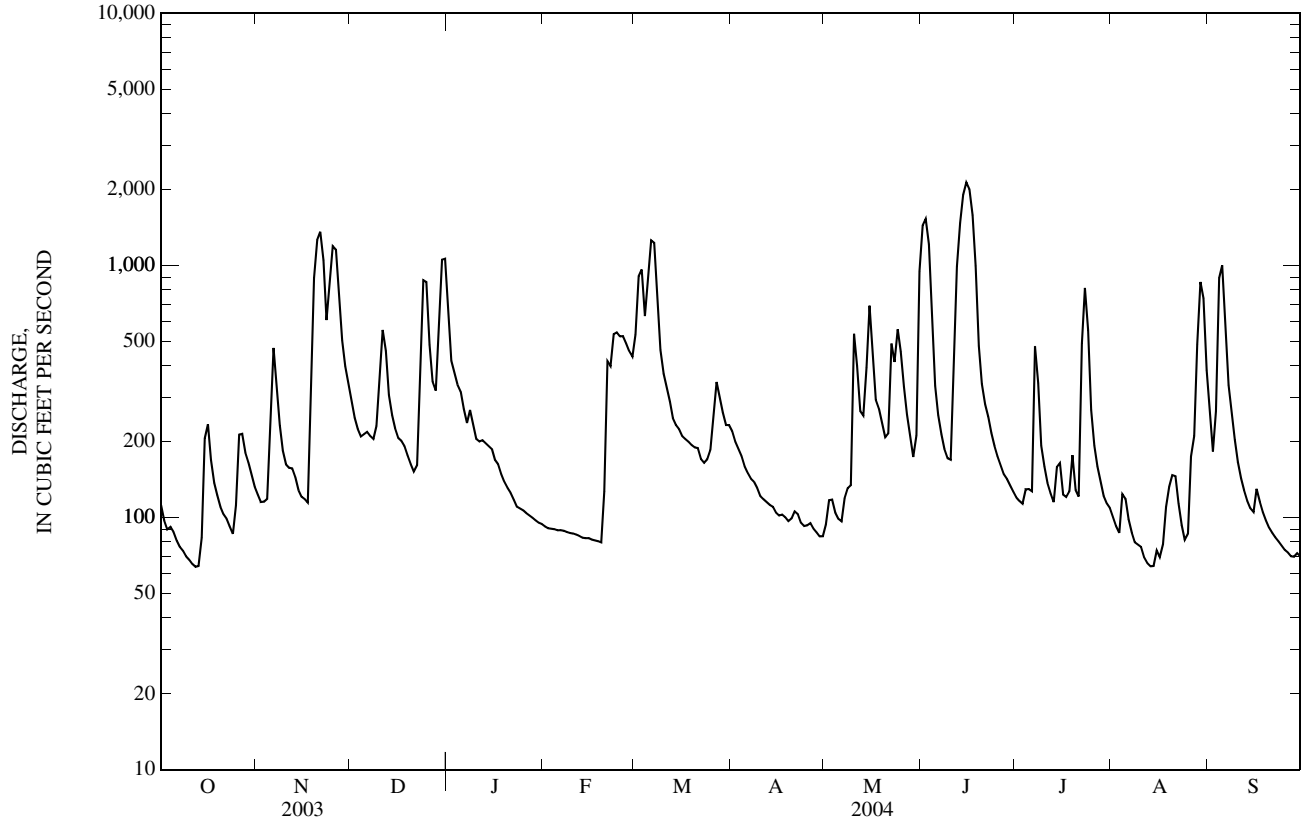
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2004, BY WATER YEAR (WY)

MEAN	153	193	267	301	378	514	488	306	264	175	109	94.3
MAX	1,583	689	733	1,244	1,132	1,586	1,190	1,098	850	711	494	536
(WY)	(1955)	(1993)	(1983)	(1993)	(2001)	(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)

05516500 YELLOW RIVER AT PLYMOUTH, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1949 - 2004	
ANNUAL TOTAL	69,165		104,628			
ANNUAL MEAN	189		286		269	
HIGHEST ANNUAL MEAN					453	1993
LOWEST ANNUAL MEAN					119	1957
HIGHEST DAILY MEAN	1,570	May 11	2,140	Jun 15	5,310	Oct 13, 1954
LOWEST DAILY MEAN	34	Jan 7	64	Oct 12	13	Dec 3, 1964
ANNUAL SEVEN-DAY MINIMUM	38	Jan 24	69	Oct 7	15	Dec 2, 1964
MAXIMUM PEAK FLOW			2,160	Jun 15	5,390	Oct 12, 1954
MAXIMUM PEAK STAGE			12.38	Jun 15	17.13	Oct 12, 1954
ANNUAL RUNOFF (CFSM)	0.645		0.972		0.916	
ANNUAL RUNOFF (INCHES)	8.75		13.24		12.45	
10 PERCENT EXCEEDS	453		628		671	
50 PERCENT EXCEEDS	98		166		131	
90 PERCENT EXCEEDS	42		84		40	

e Estimated



05517000 YELLOW RIVER AT KNOX, IN

LOCATION.--Lat 41°18'10", long 86°37'14", in SW¼SW¼ sec.14, T.33 N., R.2 W., Starke County, Hydrologic Unit 07120001, (KNOX EAST, IN quadrangle), on right bank 40 ft upstream from bridge on U.S. Highway 35 in Knox, 0.3 mi north of 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 National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). August 1905 to July 1906, nonrecording gage at same site at different datum. August 1943 to July 17, 1952, nonrecording gage at same site and datum.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	217	228	603	1,210	e215	680	432	194	1,170	261	203	653
2	198	216	539	922	e214	843	405	216	1,400	245	185	503
3	182	205	490	710	e212	1,030	374	228	1,540	235	168	424
4	174	208	457	649	e209	1,100	344	226	1,440	244	218	602
5	174	237	448	601	e207	982	325	209	957	259	272	965
6	165	390	451	563	e205	1,100	307	199	606	253	237	1,080
7	157	580	445	557	e203	1,270	299	203	500	323	203	771
8	150	465	432	492	e201	1,360	295	240	437	636	186	568
9	145	365	430	486	e200	1,050	285	244	391	461	175	478
10	140	310	487	481	e198	737	272	317	363	332	174	405
11	135	287	647	414	e197	634	259	645	439	293	171	353
12	127	280	779	407	e196	571	254	532	807	266	162	319
13	124	267	673	407	e194	514	249	407	1,190	240	155	292
14	141	252	537	396	e192	472	243	480	1,410	218	150	274
15	169	235	481	387	e191	452	240	666	1,780	264	143	259
16	306	227	444	370	e190	432	231	832	2,090	259	156	259
17	332	222	420	353	e190	416	234	631	2,130	227	160	271
18	265	257	403	342	e192	407	229	481	1,870	219	224	252
19	224	625	387	335	e193	396	219	436	1,360	229	269	236
20	203	994	363	e325	211	385	219	391	789	274	293	222
21	185	1,170	342	e311	342	378	228	358	611	230	328	212
22	175	1,340	332	e300	643	363	228	441	535	365	319	205
23	171	1,260	397	e287	632	339	221	653	480	723	262	197
24	161	1,040	734	e273	754	334	210	640	428	904	227	191
25	176	1,110	991	e260	756	340	209	748	390	697	218	185
26	234	1,240	1,020	e251	739	381	206	627	361	440	282	177
27	333	1,310	733	e241	738	485	201	504	333	344	401	175
28	333	1,070	600	e229	706	546	196	418	311	293	537	173
29	296	799	647	e221	673	499	188	351	295	254	892	173
30	271	676	948	e218	---	457	186	333	280	229	1,070	172
31	247	---	1,150	e216	---	441	---	740	---	217	976	---
TOTAL	6,310	17,865	17,810	13,214	9,993	19,394	7,788	13,590	26,693	10,434	9,416	11,046
MEAN	204	596	575	426	345	626	260	438	890	337	304	368
MAX	333	1,340	1,150	1,210	756	1,360	432	832	2,130	904	1,070	1,080
MIN	124	205	332	216	190	334	186	194	280	217	143	172
CFSM	0.47	1.37	1.32	0.98	0.79	1.44	0.60	1.01	2.05	0.77	0.70	0.85
IN.	0.54	1.53	1.52	1.13	0.85	1.66	0.67	1.16	2.28	0.89	0.81	0.94

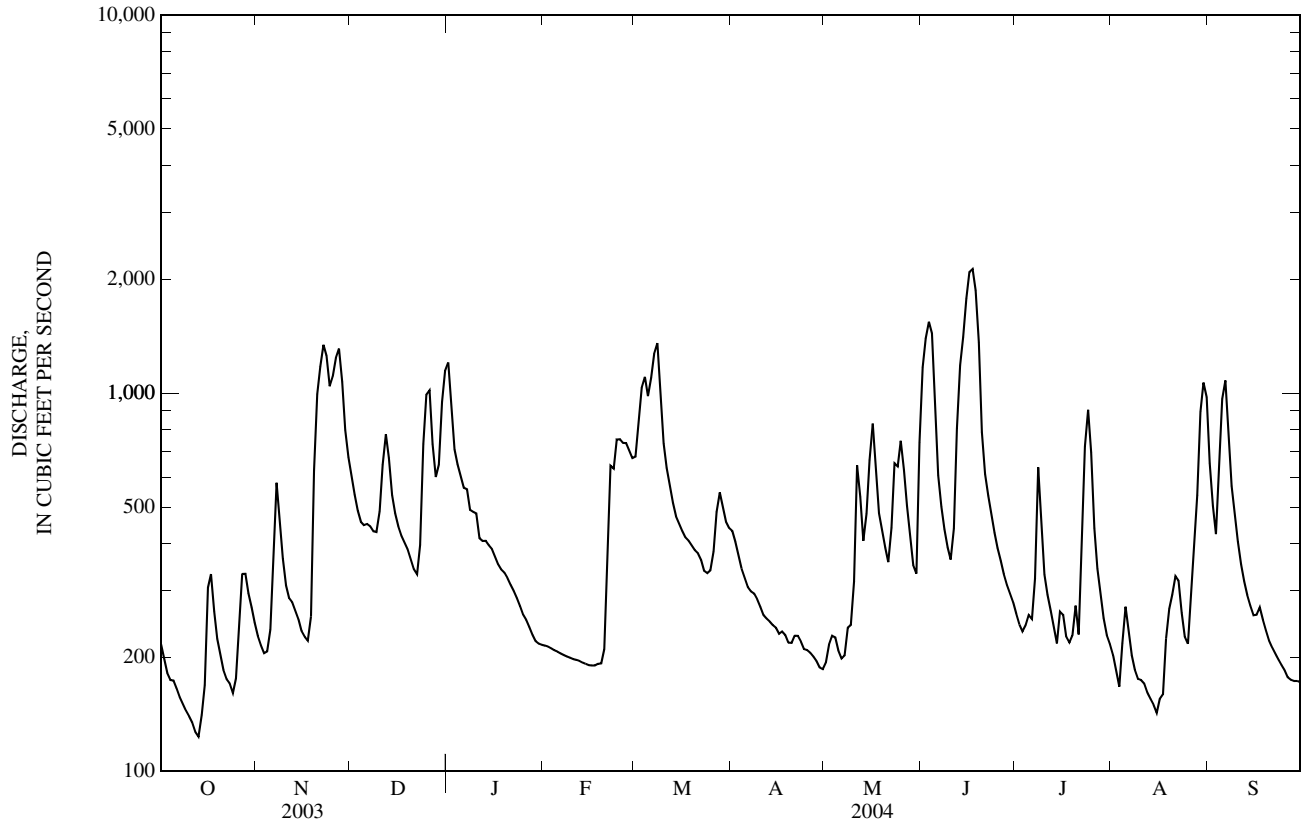
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2004, BY WATER YEAR (WY)

MEAN	256	301	388	440	524	708	706	511	426	289	207	181
MAX	1,939	883	1,070	1,580	1,289	2,127	1,714	1,154	1,113	955	652	692
(WY)	(1955)	(1973)	(1967)	(1993)	(2001)	(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)

05517000 YELLOW RIVER AT KNOX, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1944 - 2004	
ANNUAL TOTAL	113,758		163,553			
ANNUAL MEAN	312		447		411	
HIGHEST ANNUAL MEAN					661	1950
LOWEST ANNUAL MEAN					180	1964
HIGHEST DAILY MEAN	1,490	May 13	2,130	Jun 17	5,600	Oct 15, 1954
LOWEST DAILY MEAN	81	Jul 3	124	Oct 13	47	Jan 2, 1999
ANNUAL SEVEN-DAY MINIMUM	92	Jan 25	137	Oct 8	50	Jan 21, 1963
MAXIMUM PEAK FLOW			2,160	Jun 17	5,660	Oct 15, 1954
MAXIMUM PEAK STAGE			8.91	Jun 17	13.75	Oct 15, 1954
ANNUAL RUNOFF (CFSM)	0.716		1.03		0.944	
ANNUAL RUNOFF (INCHES)	9.73		13.99		12.82	
10 PERCENT EXCEEDS	656		951		882	
50 PERCENT EXCEEDS	208		332		267	
90 PERCENT EXCEEDS	109		186		113	

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, (SAN PIERRE, IN quadrangle), 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 National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to July 17, 1956, nonrecording gage, and July 17, 1956 to Oct. 31 1998, water-stage recorder 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	597	718	1,760	2,130	e971	1,550	1,400	844	1,890	878	697	2,550
2	588	703	1,640	2,140	e997	1,690	1,360	865	2,100	833	660	2,210
3	582	714	1,530	1,930	e1,050	1,890	1,300	879	2,190	797	621	1,880
4	586	710	1,430	1,770	e1,100	2,030	1,250	858	2,210	811	688	1,700
5	576	762	1,380	1,670	e1,100	2,210	1,180	839	2,140	825	820	1,780
6	544	908	1,360	1,550	e1,080	2,380	1,140	811	1,790	819	805	1,930
7	540	1,040	1,350	1,430	e1,010	2,530	1,130	807	1,460	833	724	1,950
8	537	1,050	1,340	1,290	e963	2,640	1,130	819	1,260	970	678	1,680
9	532	992	1,340	1,380	e916	2,640	1,120	829	1,190	1,050	644	1,440
10	523	947	1,370	1,310	e896	2,430	1,090	860	1,130	904	626	1,290
11	512	923	1,490	1,260	866	2,150	1,060	1,060	1,240	834	628	1,130
12	502	935	1,630	1,250	855	1,950	1,020	1,230	1,540	797	606	1,050
13	494	920	1,670	1,220	833	1,800	1,010	1,100	2,030	754	599	973
14	532	878	1,590	1,200	820	1,710	995	1,050	2,370	709	581	e898
15	647	849	1,500	1,170	807	1,620	977	1,210	2,560	671	571	e872
16	753	834	1,440	1,140	765	1,550	956	1,460	2,690	695	565	e851
17	819	811	1,380	1,120	768	1,490	987	1,510	2,840	675	541	e836
18	789	850	1,330	1,100	778	1,440	962	1,310	2,940	676	729	e822
19	748	1,170	1,300	1,050	782	1,410	917	1,200	2,910	691	1,060	e810
20	709	1,680	1,250	1,040	835	1,400	902	1,150	2,680	754	1,130	e792
21	682	1,940	1,220	985	962	1,370	922	1,100	2,230	726	1,130	e769
22	653	2,070	1,240	959	1,200	1,320	926	1,070	1,870	1,120	1,060	747
23	616	2,210	1,300	945	1,370	1,280	898	1,200	1,610	1,370	976	734
24	580	2,320	1,430	886	1,460	1,250	881	1,310	1,410	1,500	879	710
25	589	2,380	1,690	1,020	1,560	1,250	892	1,320	1,290	1,520	929	705
26	639	2,430	1,840	1,020	1,590	1,310	871	1,360	1,190	1,240	1,130	691
27	687	2,470	1,810	1,060	1,590	1,440	869	1,240	1,110	1,000	1,540	687
28	745	2,450	1,630	e1,030	1,570	1,550	847	1,130	1,070	896	1,770	670
29	764	2,240	1,620	e969	1,540	1,560	830	1,030	999	793	2,170	668
30	762	1,940	1,780	e945	---	1,500	829	1,000	939	731	2,510	668
31	738	---	2,010	e953	---	1,450	---	1,410	---	718	2,640	---
TOTAL	19,565	40,844	46,650	38,922	31,034	53,790	30,651	33,861	54,878	27,590	30,707	34,493
MEAN	631	1,361	1,505	1,256	1,070	1,735	1,022	1,092	1,829	890	991	1,150
MAX	819	2,470	2,010	2,140	1,590	2,640	1,400	1,510	2,940	1,520	2,640	2,550
MIN	494	703	1,220	886	765	1,250	829	807	939	671	541	668
CFSM	0.47	1.01	1.11	0.93	0.79	1.28	0.76	0.81	1.35	0.66	0.73	0.85
IN.	0.54	1.12	1.28	1.07	0.85	1.48	0.84	0.93	1.51	0.76	0.84	0.95

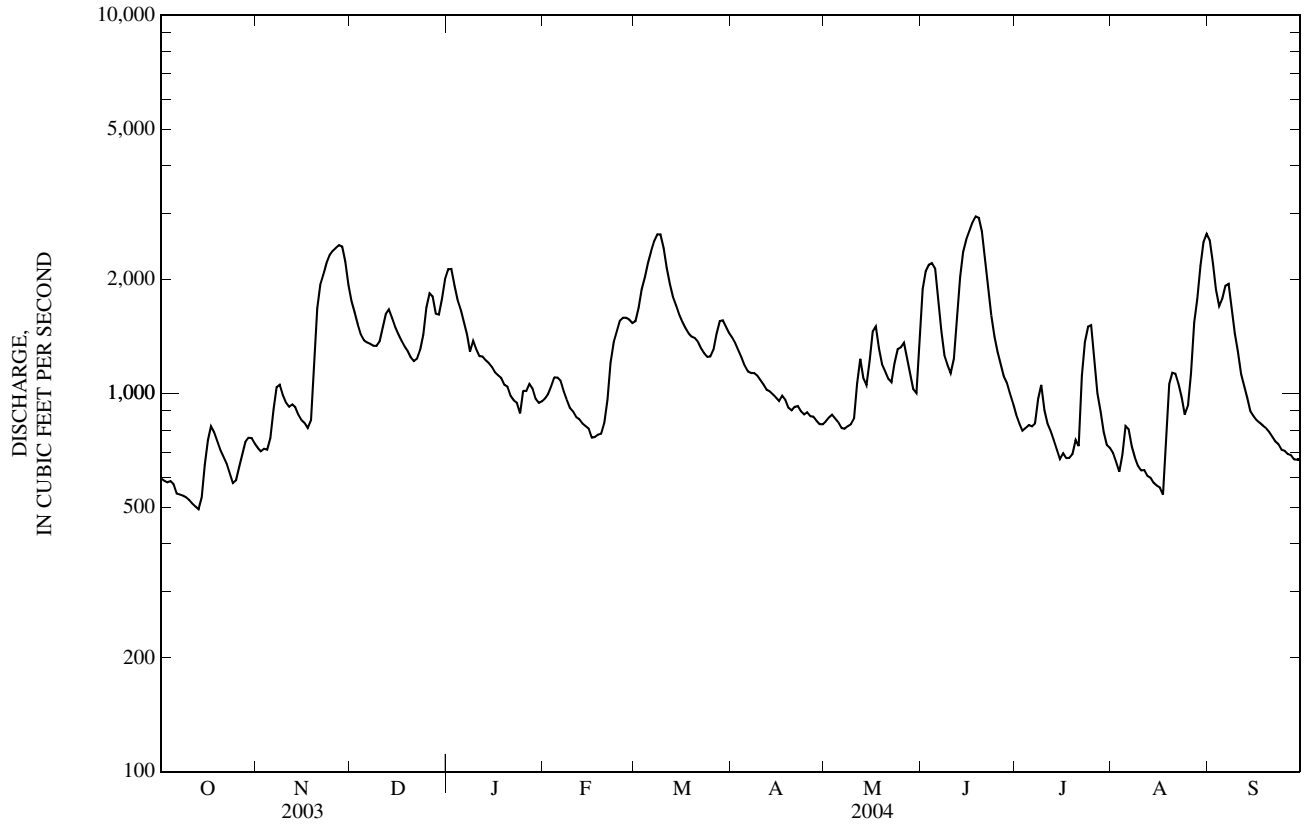
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2004, BY WATER YEAR (WY)

MEAN	929	1,130	1,349	1,452	1,581	2,045	2,159	1,758	1,464	1,099	838	732
MAX	3,378	2,562	2,816	3,845	2,874	4,229	4,376	3,231	3,360	2,622	2,316	1,924
(WY)	(1955)	(1973)	(1983)	(1991)	(1968)	(1985)	(1950)	(1983)	(1996)	(1996)	(1990)	(1993)
MIN	350	398	447	449	391	719	962	767	657	419	371	360
(WY)	(1964)	(1965)	(1964)	(1963)	(1963)	(1957)	(2003)	(1958)	(1988)	(1988)	(1964)	(1964)

05517500 KANKAKEE RIVER AT DUNNS BRIDGE, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1949 - 2004	
ANNUAL TOTAL	361,802		442,985			
ANNUAL MEAN	991		1,210		1,377	
HIGHEST ANNUAL MEAN					2,161	1991
LOWEST ANNUAL MEAN					618	1964
HIGHEST DAILY MEAN	2,940	May 14	2,940	Jun 18	5,850	Mar 23, 1982
LOWEST DAILY MEAN	375	Aug 26	494	Oct 13	280	Jan 25, 1963
ANNUAL SEVEN-DAY MINIMUM	405	Aug 22	519	Oct 8	283	Jan 24, 1963
MAXIMUM PEAK FLOW			2,960	Jun 18	5,870	Mar 23, 1982
MAXIMUM PEAK STAGE			9.20	Jun 18	13.38	Mar 23, 1982
ANNUAL RUNOFF (CFSM)	0.733		0.895		1.02	
ANNUAL RUNOFF (INCHES)	9.95		12.19		13.83	
10 PERCENT EXCEEDS	1,740		2,020		2,630	
50 PERCENT EXCEEDS	812		1,060		1,140	
90 PERCENT EXCEEDS	541		676		533	

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, (KOUTS, IN quadrangle), 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 National Geodetic Vertical Datum of 1929.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	582	695	1,700	2,040	e1,050	1,520	1,410	851	1,800	880	708	2,570
2	575	656	1,580	2,070	e1,080	1,640	1,370	867	2,020	838	674	2,240
3	584	683	1,470	1,930	e1,130	1,830	1,280	874	2,130	776	636	1,890
4	588	679	1,380	1,780	e1,180	1,980	1,230	858	2,140	782	683	1,670
5	591	706	1,340	1,690	e1,180	2,200	1,170	831	2,070	802	800	1,670
6	545	857	1,310	1,580	e1,160	2,370	1,140	812	1,760	810	809	1,800
7	551	973	1,310	1,430	e1,100	2,510	1,120	806	1,430	834	713	1,850
8	536	1,000	1,290	1,350	e1,040	2,610	1,110	816	1,220	940	685	1,620
9	509	958	1,290	1,400	e1,000	2,610	1,100	806	1,140	1,040	627	1,360
10	503	929	1,330	1,330	e974	2,440	1,090	831	1,090	902	631	1,210
11	485	909	1,470	1,280	e953	2,180	1,060	1,010	1,190	830	601	1,060
12	472	910	1,590	1,260	e931	1,960	1,040	1,200	1,520	808	597	974
13	441	929	1,640	1,240	e895	1,790	1,030	1,090	2,040	752	587	901
14	516	871	1,580	1,230	e870	1,680	1,010	1,050	2,350	724	570	827
15	639	853	1,480	1,200	e860	1,590	1,010	1,170	2,550	672	597	792
16	738	815	1,440	1,160	e825	1,530	972	1,410	2,670	693	603	807
17	793	810	1,370	1,150	e830	1,470	983	1,460	2,770	690	573	797
18	788	816	1,320	1,140	e840	1,410	965	1,290	2,870	661	719	798
19	709	1,090	1,270	1,110	e850	1,380	915	1,180	2,850	657	1,040	770
20	684	1,590	1,210	1,110	910	1,380	893	1,130	2,650	731	1,140	757
21	651	1,840	1,180	1,070	995	1,330	938	1,080	2,240	712	1,140	757
22	634	1,980	1,190	1,030	1,180	1,290	935	1,040	1,870	1,130	1,080	706
23	625	2,120	1,250	982	1,350	1,260	932	1,130	1,610	1,370	1,000	714
24	576	2,240	1,360	914	1,420	1,230	886	1,250	1,420	1,460	928	667
25	596	2,330	1,600	e1,020	1,520	1,220	891	1,260	1,290	1,510	908	667
26	644	2,360	1,750	e1,040	1,540	1,270	870	1,280	1,180	1,280	1,160	649
27	685	2,400	1,740	e1,130	1,550	1,410	876	1,200	1,090	1,040	1,560	635
28	739	2,390	1,570	e1,100	1,520	1,520	889	1,070	1,040	917	1,840	620
29	765	2,210	1,560	e1,050	1,480	1,570	857	999	966	819	2,240	613
30	751	1,900	1,700	e1,030	---	1,520	848	958	912	754	2,540	612
31	737	---	1,900	e1,030	---	1,450	---	1,350	---	736	2,640	---
TOTAL	19,232	39,499	45,170	39,876	32,213	53,150	30,820	32,959	53,878	27,550	31,029	33,003
MEAN	620	1,317	1,457	1,286	1,111	1,715	1,027	1,063	1,796	889	1,001	1,100
MAX	793	2,400	1,900	2,070	1,550	2,610	1,410	1,460	2,870	1,510	2,640	2,570
MIN	441	656	1,180	914	825	1,220	848	806	912	657	570	612
CFSM	0.45	0.96	1.06	0.93	0.81	1.25	0.75	0.77	1.31	0.65	0.73	0.80
IN.	0.52	1.07	1.22	1.08	0.87	1.44	0.83	0.89	1.46	0.74	0.84	0.89

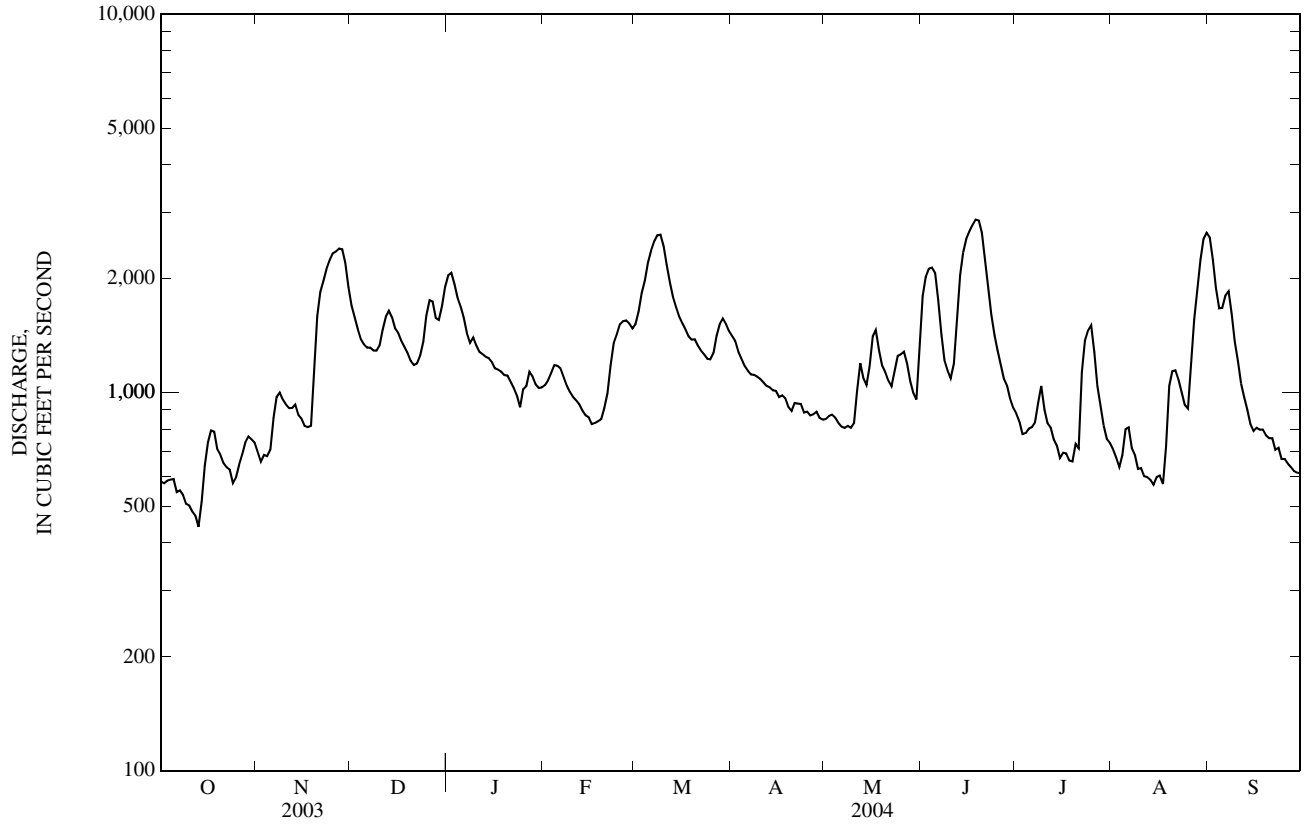
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2004, BY WATER YEAR (WY)

MEAN	977	1,231	1,509	1,488	1,627	2,246	2,306	1,863	1,688	1,197	924	806
MAX	2,770	2,392	2,889	3,787	2,784	4,613	4,229	3,255	3,403	2,642	2,432	2,014
(WY)	(1991)	(1991)	(1991)	(1991)	(2001)	(1985)	(1985)	(1983)	(1996)	(1996)	(1990)	(1993)
MIN	435	437	568	634	697	792	926	1,063	619	411	398	350
(WY)	(2003)	(2000)	(2003)	(1977)	(2003)	(2003)	(2003)	(2004)	(1988)	(1988)	(1988)	(1999)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1975 - 2004	
ANNUAL TOTAL	357,742		438,379			
ANNUAL MEAN	980		1,198		1,487	
HIGHEST ANNUAL MEAN					2,160	1991
LOWEST ANNUAL MEAN					818	2003
HIGHEST DAILY MEAN	2,880	May 14	2,870	Jun 18	6,410	Mar 24, 1982
LOWEST DAILY MEAN	348	Aug 26	441	Oct 13	281	Sep 12, 1999
ANNUAL SEVEN-DAY MINIMUM	382	Aug 22	495	Oct 8	306	Sep 11, 1999
MAXIMUM PEAK FLOW			2,890	Jun 18	6,420	Mar 24, 1982
MAXIMUM PEAK STAGE			9.97	Jun 18	14.52	Mar 24, 1982
ANNUAL RUNOFF (CFSM)	0.712		0.870		1.08	
ANNUAL RUNOFF (INCHES)	9.67		11.85		14.68	
10 PERCENT EXCEEDS	1,710		1,970		2,810	
50 PERCENT EXCEEDS	807		1,080		1,250	
90 PERCENT EXCEEDS	536		654		585	

e Estimated

05517530 KANKAKEE RIVER NEAR KOUTS, IN—Continued



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, (SHELBY, IN quadrangle), on right bank at upstream side 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 National Geodetic Vertical Datum of 1929. 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 fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	731	931	2,480	2,410	e1,370	1,880	2,030	1,130	2,240	1,060	863	3,520
2	719	861	2,280	2,520	e1,390	1,990	1,960	1,130	2,490	1,010	816	3,330
3	713	902	2,110	2,520	e1,450	2,140	1,860	1,140	2,600	937	763	3,010
4	731	904	1,950	2,410	e1,500	2,310	1,740	1,140	2,650	937	824	2,730
5	726	946	1,890	2,300	e1,500	2,690	1,680	1,120	2,650	969	946	2,500
6	709	1,040	1,860	2,160	e1,470	3,070	1,620	1,090	2,500	964	999	2,470
7	679	1,190	1,830	1,990	e1,440	3,120	1,580	1,090	2,150	999	929	2,490
8	694	1,250	1,840	1,900	e1,390	3,180	1,530	1,080	1,820	1,010	847	2,420
9	658	1,230	1,830	1,940	e1,350	3,210	1,510	1,060	1,590	1,140	793	2,150
10	641	1,200	1,880	1,920	e1,310	3,170	1,470	1,060	1,450	1,110	742	1,900
11	638	1,190	2,030	1,830	e1,290	3,010	1,450	1,130	1,570	995	749	1,690
12	613	1,170	2,120	1,760	e1,270	2,770	1,400	1,370	2,270	958	701	1,520
13	603	1,190	2,200	1,720	e1,260	2,560	1,380	1,410	3,050	895	707	1,390
14	653	1,150	2,200	1,680	e1,240	2,390	1,370	1,370	3,150	839	699	1,290
15	788	1,120	2,100	1,660	e1,220	2,260	1,340	1,480	3,320	782	688	1,220
16	864	1,090	2,020	1,600	e1,210	2,140	1,310	1,660	3,400	750	691	1,230
17	941	1,060	1,940	1,570	e1,200	2,050	1,270	1,790	3,460	850	683	1,190
18	966	1,100	1,870	1,550	e1,190	1,980	1,270	1,730	3,500	829	822	1,170
19	956	1,370	1,830	1,500	e1,190	1,910	1,240	1,580	3,540	746	1,260	1,160
20	888	1,800	1,780	1,490	e1,270	1,860	1,200	1,500	3,470	758	1,660	1,110
21	846	2,130	1,730	1,510	1,390	1,820	1,230	1,420	3,250	788	1,660	1,100
22	832	2,300	1,710	1,490	1,490	1,770	1,240	1,370	2,900	1,330	1,580	1,070
23	819	2,450	1,730	e1,460	1,690	1,710	1,220	1,360	2,510	1,790	1,450	1,020
24	785	2,660	1,780	e1,290	1,790	1,670	1,210	1,490	2,170	1,800	1,320	993
25	790	2,830	1,930	e1,420	1,860	1,650	1,210	1,540	1,890	1,830	1,270	956
26	848	2,890	2,110	e1,430	1,910	1,710	1,190	1,570	1,690	1,720	1,900	952
27	908	2,920	2,200	e1,460	1,920	1,850	1,160	1,550	1,520	1,390	2,570	938
28	941	2,950	2,150	e1,430	1,920	1,960	1,160	1,430	1,410	1,160	2,740	905
29	994	2,910	2,080	e1,390	1,890	2,040	1,150	1,290	1,270	1,040	3,180	871
30	985	2,720	2,110	e1,360	---	2,040	1,120	1,240	1,160	950	3,470	880
31	968	---	2,260	e1,350	---	2,070	---	1,690	---	903	3,550	---
TOTAL	24,627	49,454	61,830	54,020	42,370	69,980	42,100	42,010	72,640	33,239	41,872	49,175
MEAN	794	1,648	1,995	1,743	1,461	2,257	1,403	1,355	2,421	1,072	1,351	1,639
MAX	994	2,950	2,480	2,520	1,920	3,210	2,030	1,790	3,540	1,830	3,550	3,520
MIN	603	861	1,710	1,290	1,190	1,650	1,120	1,060	1,160	746	683	871
CFSM	0.45	0.93	1.12	0.98	0.82	1.27	0.79	0.76	1.36	0.60	0.76	0.92
IN.	0.51	1.03	1.29	1.13	0.89	1.46	0.88	0.88	1.52	0.70	0.88	1.03

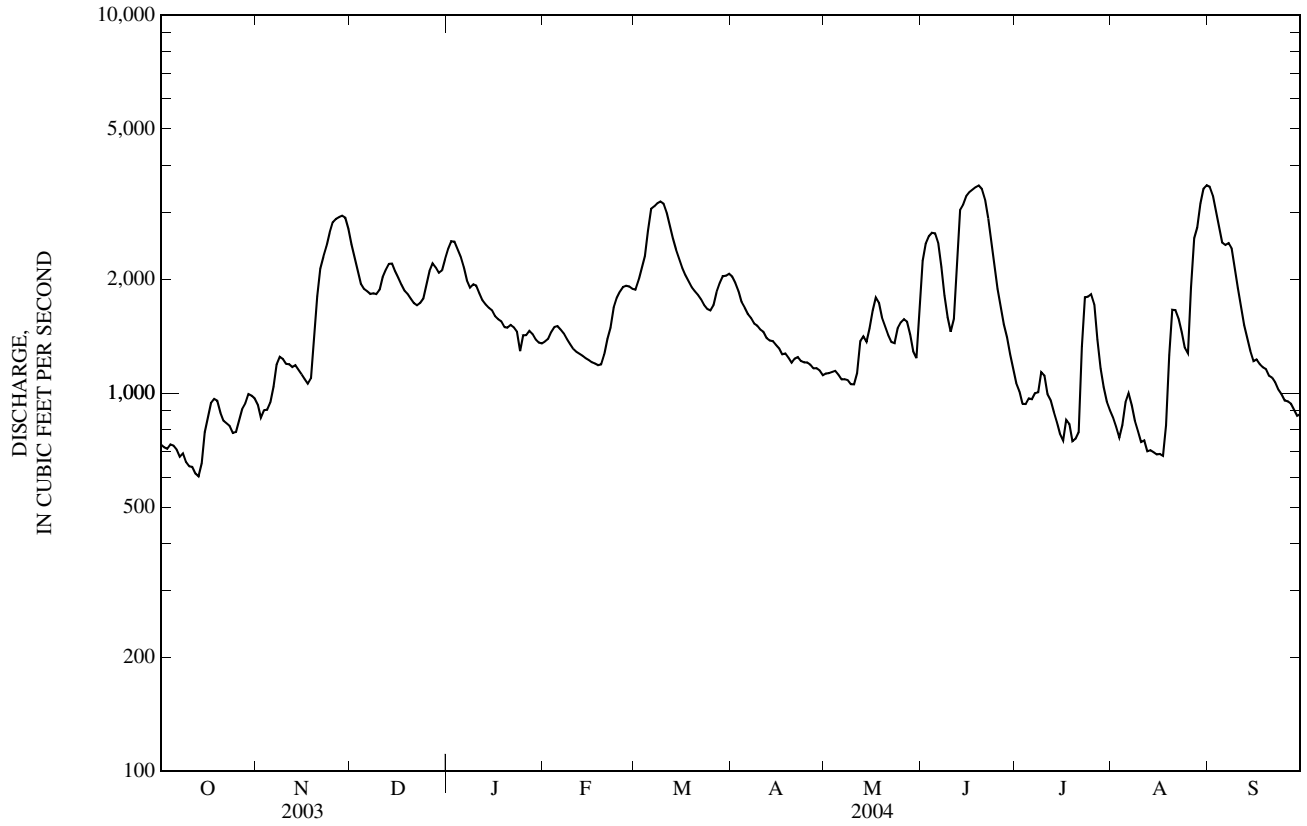
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2004, BY WATER YEAR (WY)

MEAN	1,073	1,336	1,616	1,803	1,969	2,533	2,734	2,303	1,832	1,294	974	876
MAX	3,529	3,413	4,502	4,867	3,658	5,570	5,365	4,409	4,347	3,228	3,058	2,843
(WY)	(1991)	(1973)	(1928)	(1991)	(1950)	(1985)	(1982)	(1943)	(1981)	(1996)	(1990)	(1993)
MIN	455	500	540	460	462	848	1,226	789	569	441	402	356
(WY)	(1954)	(2000)	(1964)	(1940)	(1963)	(1934)	(1925)	(1934)	(1934)	(1988)	(1988)	(1941)

05518000 KANKAKEE RIVER AT SHELBY, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1924 - 2004	
ANNUAL TOTAL	495,086		583,317			
ANNUAL MEAN	1,356		1,594		1,693	
HIGHEST ANNUAL MEAN					2,767	1993
LOWEST ANNUAL MEAN					775	1964
HIGHEST DAILY MEAN	4,390	Jul 22	3,550	Aug 31	7,650	Mar 26, 1982
LOWEST DAILY MEAN	404	Aug 27	603	Oct 13	260	Jan 13, 1954
ANNUAL SEVEN-DAY MINIMUM	445	Aug 23	643	Oct 8	298	Aug 2, 1988
MAXIMUM PEAK FLOW			3,570	Jun 19	7,650	Mar 26, 1982
MAXIMUM PEAK STAGE			9.53	Jun 19	12.98	Mar 24, 1982
ANNUAL RUNOFF (CFSM)	0.762		0.896		0.952	
ANNUAL RUNOFF (INCHES)	10.35		12.20		12.93	
10 PERCENT EXCEEDS	2,460		2,580		3,340	
50 PERCENT EXCEEDS	1,050		1,450		1,350	
90 PERCENT EXCEEDS	693		828		630	

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, (RENSSELAER, IN quadrangle), 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 National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to July 8, 1949, nonrecording gage at same site and datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Streamflow affected by irrigation.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	110	200	547	e63	164	579	84	1,230	58	27	917
2	53	104	165	446	e61	315	489	94	1,200	54	23	701
3	52	103	150	e382	e59	293	388	96	1,020	51	23	779
4	52	102	144	e326	e56	266	312	86	753	e58	131	958
5	49	210	154	e294	e54	594	250	84	513	e54	188	861
6	53	290	164	e257	e55	727	219	77	338	e52	96	701
7	55	218	173	e233	e56	617	202	86	230	e48	59	537
8	51	165	207	e216	e54	476	188	119	181	e46	45	399
9	52	135	278	e194	e56	370	168	104	e160	51	39	305
10	46	124	365	e178	e57	304	153	93	e142	55	44	236
11	45	129	465	e162	e58	262	145	e116	e390	53	56	194
12	47	129	414	e151	e57	212	135	122	e642	50	51	169
13	44	114	312	e142	e56	190	134	115	e729	44	39	154
14	57	93	236	e135	e55	178	122	117	632	41	35	137
15	125	90	194	e129	e56	173	118	136	513	37	33	126
16	120	89	175	e121	e58	166	111	135	392	42	30	129
17	95	87	159	e118	e62	162	109	121	e310	193	28	123
18	86	170	138	e112	e65	160	102	115	270	128	41	111
19	83	624	131	e109	95	151	99	114	217	75	301	101
20	91	662	112	e103	159	149	98	112	179	56	563	95
21	94	528	96	e98	205	141	110	107	e161	48	606	89
22	80	387	119	e95	140	126	101	99	e133	48	509	83
23	66	288	292	e91	135	120	92	94	e118	46	364	78
24	59	544	464	e86	135	125	89	93	e102	42	221	76
25	109	592	411	e82	124	155	104	85	e95	37	216	73
26	308	492	318	e78	115	351	100	83	e88	34	808	71
27	275	397	238	e75	112	536	87	76	e81	34	1,030	71
28	197	341	225	e73	110	498	79	71	e73	32	1,040	67
29	163	284	618	e70	113	431	75	66	e67	30	1,180	67
30	135	235	800	e67	---	e404	74	108	64	29	1,230	63
31	123	---	690	e65	---	545	---	944	---	29	1,120	---
TOTAL	2,920	7,836	8,607	5,235	2,481	9,361	5,032	3,952	11,023	1,655	10,176	8,471
MEAN	94.2	261	278	169	85.6	302	168	127	367	53.4	328	282
MAX	308	662	800	547	205	727	579	944	1,230	193	1,230	958
MIN	44	87	96	65	54	120	74	66	64	29	23	63
CFSM	0.46	1.29	1.37	0.83	0.42	1.49	0.83	0.63	1.81	0.26	1.62	1.39
IN.	0.54	1.44	1.58	0.96	0.45	1.72	0.92	0.72	2.02	0.30	1.86	1.55

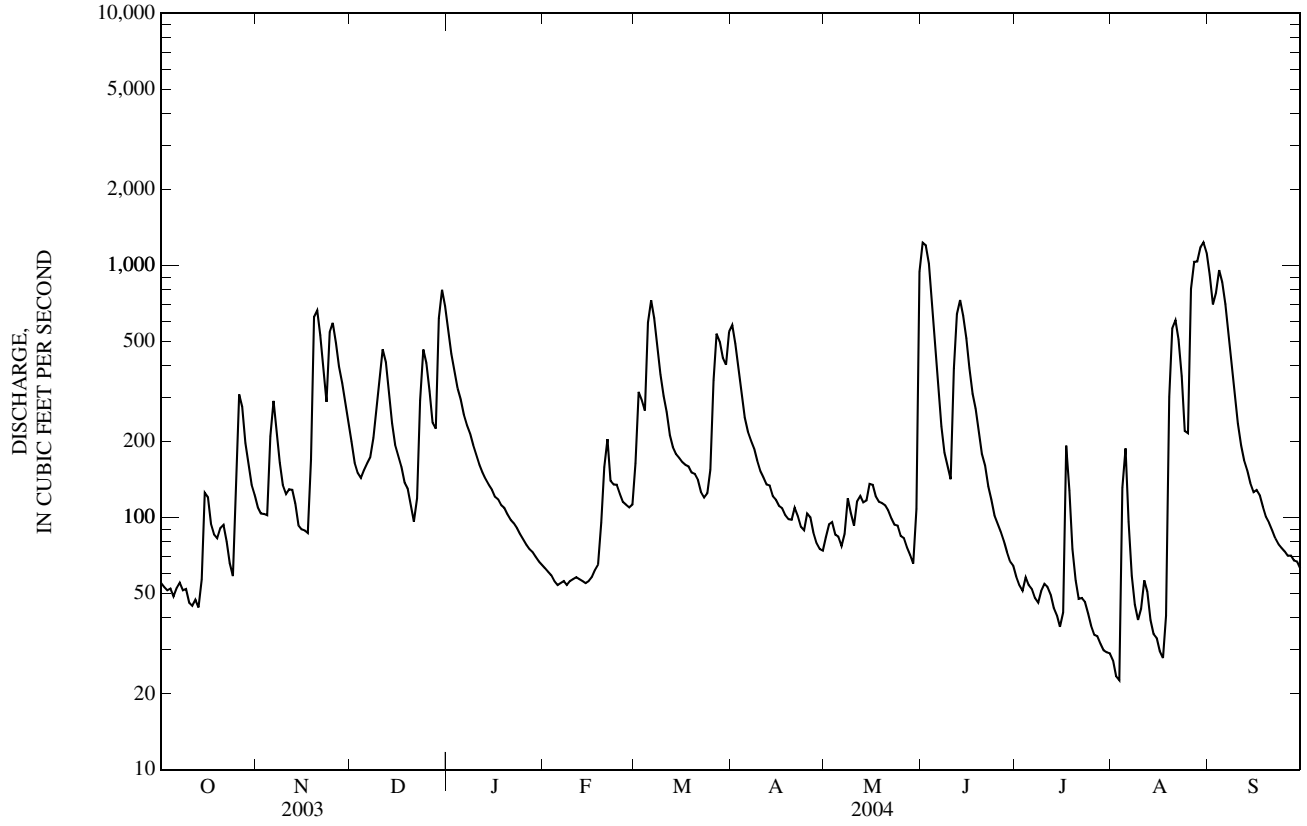
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2004, BY WATER YEAR (WY)

MEAN	92.4	121	177	200	250	328	334	248	213	128	60.1	68.2
MAX	921	561	559	774	660	935	886	766	863	1,418	328	641
(WY)	(1994)	(1993)	(1991)	(1950)	(1997)	(1982)	(1950)	(1974)	(1958)	(2003)	(2004)	(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)

05522500 IROQUOIS RIVER AT RENSSELAER, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1949 - 2004	
ANNUAL TOTAL	90,110		76,749			
ANNUAL MEAN	247		210		184	
HIGHEST ANNUAL MEAN					415	1993
LOWEST ANNUAL MEAN					29.7	1964
HIGHEST DAILY MEAN	2,610	Jul 10	1,230	Jun 1	2,610	Jul 10, 2003
LOWEST DAILY MEAN	26	Jan 28	23	Aug 2	2.2	Sep 9, 1964
ANNUAL SEVEN-DAY MINIMUM	27	Jan 24	28	Jul 28	2.8	Sep 9, 1964
MAXIMUM PEAK FLOW			1,250	Jun 1	2,620	Jul 10, 2003
MAXIMUM PEAK STAGE			11.37	Jun 1	16.59	Jul 10, 2003
ANNUAL RUNOFF (CFSM)	1.22		1.03		0.909	
ANNUAL RUNOFF (INCHES)	16.51		14.06		12.35	
10 PERCENT EXCEEDS	555		536		460	
50 PERCENT EXCEEDS	93		120		92	
90 PERCENT EXCEEDS	37		51		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, (GOODLAND, IN quadrangle), 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 and Acoustic Doppler Velocity meter. Datum of gage is 624.00 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 7, 1955 nonrecording gage 2.5 mi upstream at datum 3.54 ft higher.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	173	240	549	1,260	e147	296	966	173	1,820	146	63	1,850
2	156	226	458	1,110	e142	548	917	187	1,970	135	57	1,570
3	148	223	410	e858	e138	563	788	193	1,830	128	51	1,400
4	150	223	387	e777	e127	522	630	186	1,580	146	188	1,600
5	141	348	393	e696	e124	912	495	179	1,300	151	325	1,580
6	134	511	421	e594	e129	1,210	429	171	1,010	134	227	1,420
7	137	450	444	e534	e128	1,220	389	192	693	134	148	1,220
8	130	364	493	e488	e127	1,110	365	287	465	128	112	985
9	126	301	607	e441	e131	941	330	271	353	117	95	717
10	118	272	706	e398	e133	698	297	237	298	123	91	491
11	115	272	881	e367	e135	557	281	301	654	129	98	360
12	112	273	893	e343	e133	459	264	370	1,440	126	102	298
13	110	253	796	e324	e133	383	255	323	3,060	114	87	268
14	131	221	654	e308	e134	357	242	309	3,290	105	78	240
15	290	209	535	e297	e134	344	230	352	2,770	98	72	228
16	302	208	478	e286	e136	326	222	349	2,210	93	66	224
17	252	201	435	e275	e144	328	218	310	1,720	191	62	219
18	218	286	388	e262	e146	322	211	288	1,340	236	59	207
19	201	939	356	e249	182	310	202	329	1,040	165	180	192
20	193	1,160	320	e239	304	301	200	352	762	127	435	180
21	195	1,220	284	e229	435	292	220	305	513	107	527	171
22	184	1,080	301	e218	321	264	213	274	401	106	511	161
23	161	917	584	e206	271	250	193	257	319	107	421	155
24	148	991	961	e198	272	256	183	248	268	97	292	150
25	200	1,150	987	e190	255	328	197	221	239	85	253	148
26	443	1,120	888	e180	239	654	205	212	221	79	757	141
27	462	1,020	740	e175	233	970	185	196	200	77	1,060	139
28	384	914	629	e169	230	1,010	169	183	182	73	1,310	135
29	338	788	912	e163	236	981	161	163	171	68	1,590	132
30	290	653	1,280	e156	---	909	158	165	158	66	2,020	129
31	261	---	1,360	e152	---	921	---	1,110	---	66	2,040	---
TOTAL	6,403	17,033	19,530	12,142	5,399	18,542	9,815	8,693	32,277	3,657	13,377	16,710
MEAN	207	568	630	392	186	598	327	280	1,076	118	432	557
MAX	462	1,220	1,360	1,260	435	1,220	966	1,110	3,290	236	2,040	1,850
MIN	110	201	284	152	124	250	158	163	158	66	51	129
CFSM	0.46	1.26	1.40	0.87	0.41	1.33	0.73	0.62	2.40	0.26	0.96	1.24
IN.	0.53	1.41	1.62	1.01	0.45	1.54	0.81	0.72	2.67	0.30	1.11	1.38

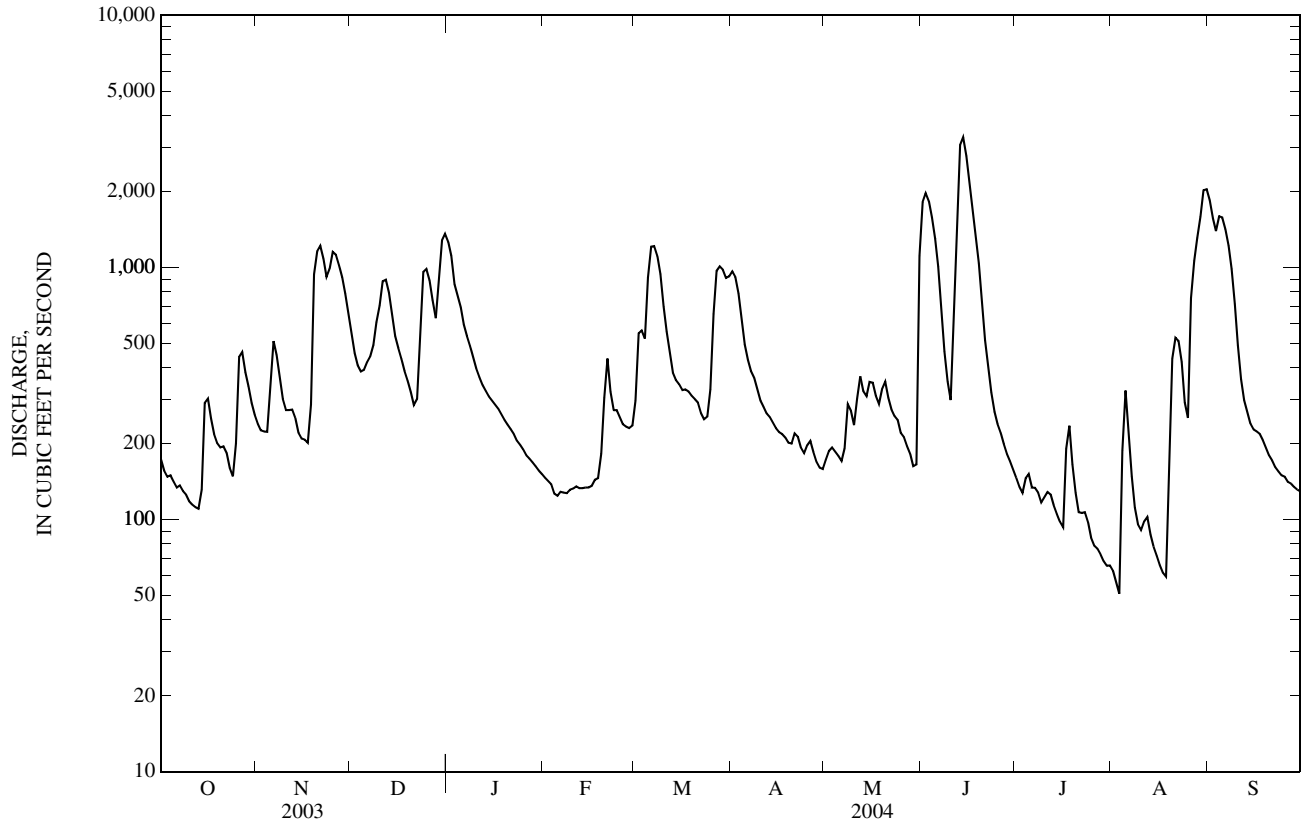
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2004, BY WATER YEAR (WY)

MEAN	189	255	391	424	555	727	744	566	495	305	114	143
MAX	1,792	1,218	1,274	1,736	1,490	2,266	1,672	1,440	2,314	2,814	435	1,387
(WY)	(1994)	(1993)	(1968)	(1993)	(1968)	(1982)	(1950)	(2002)	(1958)	(2003)	(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)

05524500 IROQUOIS RIVER NEAR FORESMAN, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1950 - 2004	
ANNUAL TOTAL	187,853		163,578			
ANNUAL MEAN	515		447		408	
HIGHEST ANNUAL MEAN					891	1993
LOWEST ANNUAL MEAN					77.6	1964
HIGHEST DAILY MEAN	5,350	Jul 11	3,290	Jun 14	5,930	Jun 14, 1958
LOWEST DAILY MEAN	45	Jan 28	51	Aug 3	6.3	Sep 10, 1964
ANNUAL SEVEN-DAY MINIMUM	47	Jan 24	63	Jul 28	8.0	Sep 5, 1964
MAXIMUM PEAK FLOW			3,510	Jun 14	5,930	Jun 14, 1958
MAXIMUM PEAK STAGE			19.96	Jun 14	24.87	Jul 11, 2003
ANNUAL RUNOFF (CFSM)	1.15		0.995		0.909	
ANNUAL RUNOFF (INCHES)	15.56		13.55		12.34	
10 PERCENT EXCEEDS	1,100		1,070		1,080	
50 PERCENT EXCEEDS	204		268		195	
90 PERCENT EXCEEDS	58		125		30	

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, (CALUMET CITY, IL-IN quadrangle), on right bank, 50 ft upstream from 213th Street in Dyer, 0.8 mi upstream from Dyer Ditch, 0.8 mi east of Illinois state line, 3.5 mi east of intersection of U.S. Highway 30 and Interstate 394.

DRAINAGE AREA.--37.6 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 607.38 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Low-flow affected by sewage effluent.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

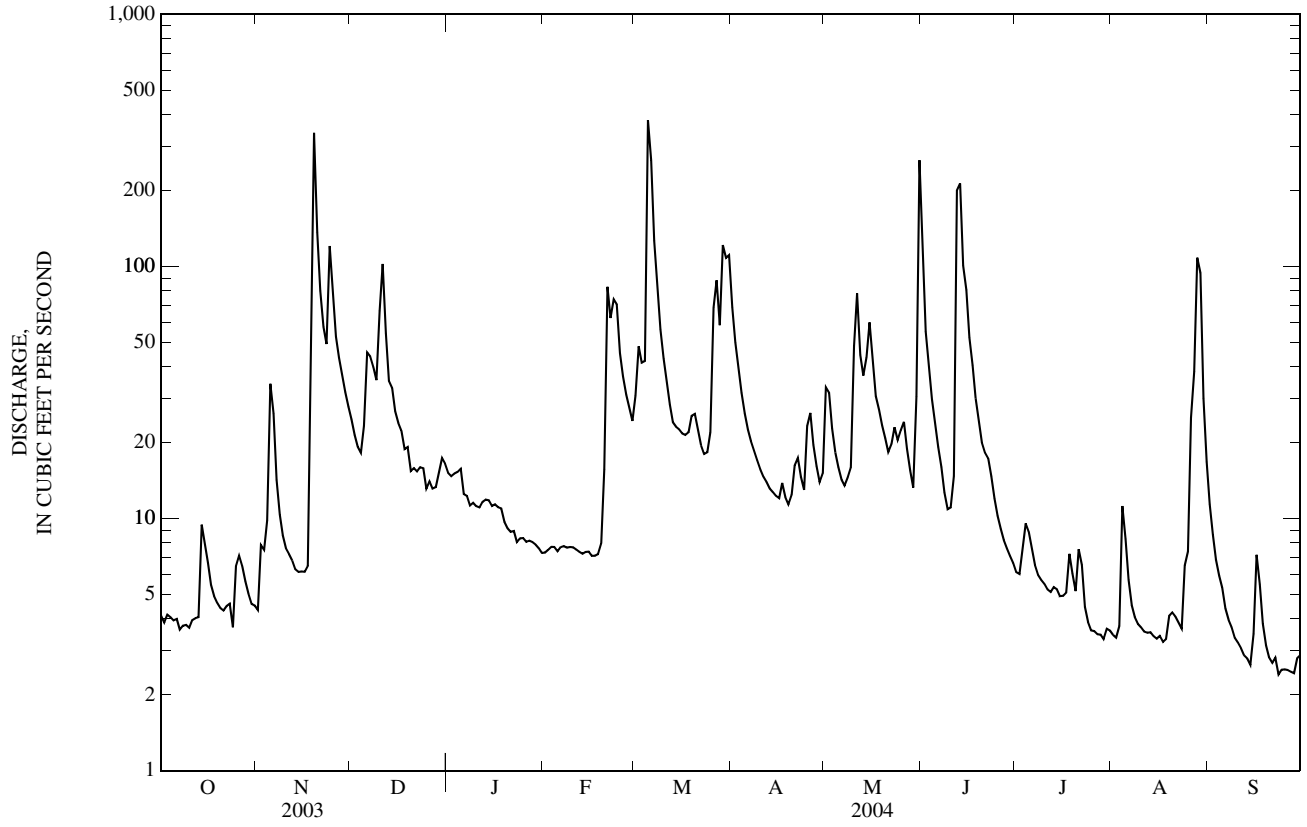
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	4.3	25	15	7.3	31	69	33	114	6.1	3.5	11
2	3.9	7.8	21	15	7.5	48	50	32	55	6.0	3.4	8.6
3	4.2	7.5	19	15	7.7	42	39	23	40	7.4	3.7	6.9
4	4.1	9.8	18	15	7.7	42	32	18	30	9.6	11	5.9
5	3.9	34	23	16	7.4	380	26	16	23	8.9	8.3	5.3
6	4.0	26	46	13	7.7	264	23	14	19	7.5	5.7	4.4
7	3.6	14	44	12	7.8	126	20	14	16	6.5	4.5	4.0
8	3.8	10	40	11	7.7	81	19	15	13	6.0	4.1	3.7
9	3.8	8.6	35	12	7.7	56	17	16	11	5.7	3.8	3.4
10	3.7	7.6	67	11	7.7	43	16	48	11	5.5	3.7	3.2
11	4.0	7.2	102	11	7.5	35	15	78	15	5.2	3.6	3.1
12	4.0	6.8	54	12	7.4	28	14	45	200	5.1	3.5	2.9
13	4.1	6.3	35	12	7.3	24	13	37	213	5.3	3.5	2.8
14	9.5	6.1	33	12	7.4	23	13	44	101	5.2	3.4	2.6
15	8.0	6.2	27	11	7.4	23	12	60	81	4.9	3.3	3.5
16	6.7	6.1	24	11	7.1	22	12	42	52	4.9	3.4	7.2
17	5.5	6.5	22	11	7.1	21	14	31	41	5.1	3.2	5.5
18	4.9	114	19	11	7.2	22	12	27	30	7.2	3.3	3.8
19	4.6	339	19	9.7	8.0	26	11	23	25	6.1	4.1	3.1
20	4.4	137	15	9.2	16	26	12	21	20	5.2	4.2	2.8
21	4.3	80	16	8.9	83	23	16	18	18	7.6	4.1	2.7
22	4.5	58	15	8.9	62	20	17	20	17	6.5	3.9	2.8
23	4.6	49	16	8.1	74	18	15	23	15	4.5	3.7	2.4
24	3.7	120	16	8.3	71	18	13	20	12	3.9	6.5	2.5
25	6.5	81	13	8.4	45	22	23	22	10	3.6	7.4	2.5
26	7.1	53	14	8.1	37	69	26	24	9.1	3.6	25	2.5
27	6.5	43	13	8.2	31	88	20	19	8.2	3.5	38	2.5
28	5.6	37	13	8.1	28	58	16	15	7.6	3.5	108	2.4
29	5.0	32	15	7.9	24	122	14	13	7.1	3.3	94	2.8
30	4.6	28	17	7.6	---	108	15	30	6.7	3.7	30	2.9
31	4.5	---	17	7.3	---	111	---	264	---	3.6	17	---
TOTAL	151.7	1,345.8	853	334.7	613.6	2,020	614	1,105	1,220.7	170.7	424.8	119.7
MEAN	4.89	44.9	27.5	10.8	21.2	65.2	20.5	35.6	40.7	5.51	13.7	3.99
MAX	9.5	339	102	16	83	380	69	264	213	9.6	108	11
MIN	3.6	4.3	13	7.3	7.1	18	11	13	6.7	3.3	3.2	2.4
CFSM	0.13	1.19	0.73	0.29	0.56	1.73	0.54	0.95	1.08	0.15	0.36	0.11
IN.	0.15	1.33	0.84	0.33	0.61	2.00	0.61	1.09	1.21	0.17	0.42	0.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2004, BY WATER YEAR (WY)

MEAN	20.9	42.0	33.5	43.3	54.5	63.2	53.5	56.5	51.2	23.9	20.0	13.5
MAX	113	195	106	136	183	169	138	140	182	93.2	74.1	106
(WY)	(1994)	(1991)	(1991)	(1993)	(1997)	(1991)	(1999)	(1996)	(1993)	(2003)	(1998)	(1993)
MIN	2.77	3.55	4.86	3.71	3.94	7.00	16.6	7.48	4.21	4.46	3.87	2.41
(WY)	(1996)	(2000)	(2003)	(2003)	(2003)	(2000)	(2001)	(1992)	(1992)	(1991)	(2002)	(1994)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1990 - 2004	
ANNUAL TOTAL	9,895.4		8,973.7			
ANNUAL MEAN	27.1		24.5		39.6	
HIGHEST ANNUAL MEAN					76.6	1993
LOWEST ANNUAL MEAN					19.1	2000
HIGHEST DAILY MEAN	653	Jul 21	380	Mar 5	2,580	Nov 28, 1990
LOWEST DAILY MEAN	2.8	Jan 24	2.4	Sep 23	0.61	Oct 23, 1995
ANNUAL SEVEN-DAY MINIMUM	3.0	Jan 23	2.5	Sep 22	0.95	Sep 17, 1994
MAXIMUM PEAK FLOW			453	Mar 5	3,010	Nov 28, 1990
MAXIMUM PEAK STAGE			5.62	Mar 5	15.33	Nov 28, 1990
ANNUAL RUNOFF (CFSM)	0.721		0.652		1.05	
ANNUAL RUNOFF (INCHES)	9.79		8.88		14.29	
10 PERCENT EXCEEDS	61		54		91	
50 PERCENT EXCEEDS	8.6		12		12	
90 PERCENT EXCEEDS	3.8		3.7		3.8	

05536179 HART DITCH AT DYER, IN—Continued



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, (HIGHLAND, IN quadrangle), on left bank, 0.2 mi downstream from Ridge Road, 0.4 mi upstream from mouth, and 0.9 mi south of intersection of Interstate 80/90 and U.S. Highway 41.

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 National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources).

REMARKS.--Records fair except for daily discharges above 170 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	18	55	38	e19	106	205	91	432	17	11	51
2	16	124	50	39	e20	106	120	66	180	17	11	41
3	21	57	45	38	e21	89	90	48	110	51	20	37
4	19	60	46	39	e21	209	69	38	75	95	149	29
5	16	283	109	43	e20	1,280	59	34	58	36	33	26
6	16	95	119	34	e20	890	52	31	47	28	19	24
7	14	56	101	33	e20	418	45	32	39	23	14	22
8	13	41	89	31	e20	251	41	29	33	21	13	21
9	13	34	85	30	e21	148	38	36	29	20	12	20
10	13	32	204	30	e21	93	36	131	54	18	10	19
11	13	31	261	30	e20	74	34	204	65	17	11	18
12	15	29	117	34	e20	60	32	101	769	16	11	18
13	15	27	76	34	e20	50	31	219	627	15	12	18
14	171	26	74	35	e20	51	30	217	351	15	11	17
15	45	25	63	33	e20	50	29	181	211	15	12	46
16	31	28	60	32	e19	46	27	114	129	17	11	148
17	24	29	55	32	e19	48	48	84	90	15	13	34
18	21	785	48	32	e20	52	29	130	66	17	14	24
19	23	1,180	48	28	30	53	26	81	54	16	27	21
20	22	530	40	27	86	51	39	64	44	13	18	19
21	20	259	42	25	174	43	59	50	53	139	14	17
22	21	142	42	24	132	39	43	120	44	53	12	16
23	23	173	43	23	161	35	34	132	36	25	11	15
24	22	410	42	24	154	54	32	131	29	16	55	15
25	64	227	37	24	97	56	90	117	25	13	65	16
26	27	122	37	23	81	191	61	76	23	12	97	16
27	24	95	36	e22	70	202	45	55	21	11	134	16
28	22	81	39	e22	62	146	36	42	21	11	477	14
29	20	71	42	e21	57	289	32	34	19	11	324	13
30	18	62	42	e20	---	322	56	297	19	14	112	13
31	17	---	41	e20	---	409	---	879	---	11	70	---
TOTAL	815	5,132	2,188	920	1,465	5,911	1,568	3,864	3,753	798	1,803	804
MEAN	26.3	171	70.6	29.7	50.5	191	52.3	125	125	25.7	58.2	26.8
MAX	171	1,180	261	43	174	1,280	205	879	769	139	477	148
MIN	13	18	36	20	19	35	26	29	19	11	10	13
CFSM	0.37	2.42	1.00	0.42	0.71	2.70	0.74	1.76	1.77	0.36	0.82	0.38
IN.	0.43	2.70	1.15	0.48	0.77	3.11	0.83	2.03	1.97	0.42	0.95	0.42

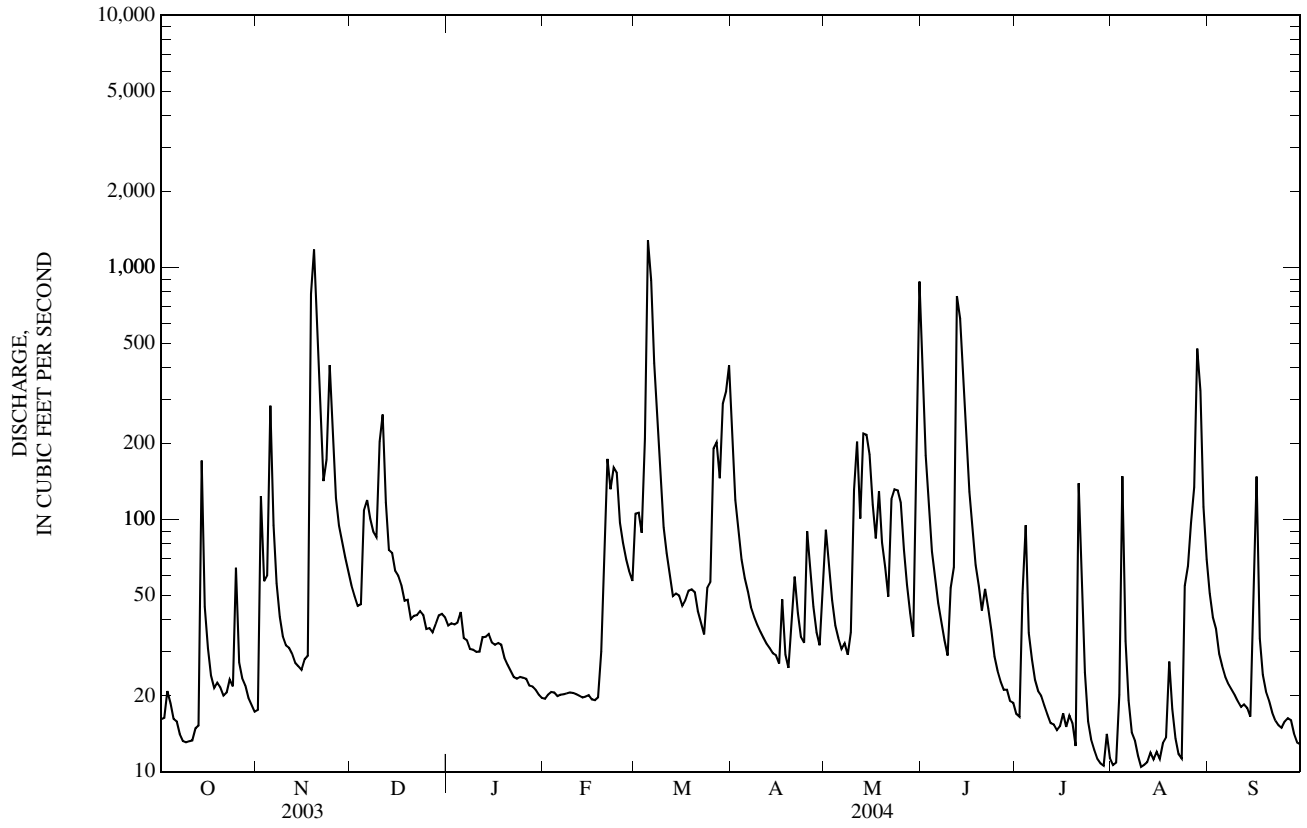
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2004, BY WATER YEAR (WY)

MEAN	33.0	52.8	63.9	67.0	88.1	136	131	106	75.1	41.8	31.7	28.1
MAX	282	287	279	335	479	429	430	373	423	346	156	219
(WY)	(1955)	(1986)	(1983)	(1999)	(1997)	(1979)	(1999)	(1996)	(1993)	(2003)	(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)

05536190 HART DITCH AT MUNSTER, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1943 - 2004	
ANNUAL TOTAL	34,090.1		29,021			
ANNUAL MEAN	93.4		79.3		71.0	
HIGHEST ANNUAL MEAN					160	1993
LOWEST ANNUAL MEAN					19.2	1964
HIGHEST DAILY MEAN	2,120	Jul 21	1,280	Mar 5	e 2,600	Nov 28, 1990
LOWEST DAILY MEAN	9.1	Feb 12	10	Aug 10	1.6	Dec 24, 1963
ANNUAL SEVEN-DAY MINIMUM	11	Feb 11	11	Aug 10	1.7	Sep 3, 1964
MAXIMUM PEAK FLOW			1,440	Mar 5	e 3,010	Nov 28, 1990
MAXIMUM PEAK STAGE			4.95	Mar 5	8.72	Nov 28, 1990
ANNUAL RUNOFF (CFSM)	1.32		1.12		1.00	
ANNUAL RUNOFF (INCHES)	17.94		15.27		13.65	
10 PERCENT EXCEEDS	211		172		151	
50 PERCENT EXCEEDS	32		36		24	
90 PERCENT EXCEEDS	14		15		6.2	

e Estimated



05536195 LITTLE CALUMET RIVER AT MUNSTER, IN

LOCATION.--Lat 41°34'38", long 87°31'17", in SE¼NW¼ sec.13, T.36 N., R.10 W., Lake County, Hydrologic Unit 07120003, (CALUMET CITY, IL-IN quadrangle), 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 National Geodetic Vertical Datum of 1929.

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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	23	41	28	e14	79	125	73	272	24	8.7	54
2	14	86	37	28	e14	93	93	51	150	24	8.7	42
3	17	51	34	28	e14	73	76	40	104	35	9.8	40
4	18	49	33	29	e14	90	64	32	77	72	108	36
5	14	162	66	e29	e14	355	54	29	63	22	28	32
6	13	77	83	e24	e14	318	48	29	54	18	17	30
7	13	48	74	e23	e14	182	42	29	45	16	12	28
8	12	36	66	e21	e14	130	37	27	39	15	9.7	28
9	12	30	61	e21	e14	104	33	27	34	17	9.6	28
10	12	27	103	e20	e14	84	31	58	41	15	8.1	26
11	13	26	130	e21	e14	73	29	125	78	14	8.0	26
12	15	25	83	e22	e14	60	27	80	291	14	8.1	25
13	16	23	55	e23	e14	51	26	126	290	15	9.9	24
14	111	24	54	e23	e14	46	25	198	180	14	11	19
15	52	24	45	e22	e14	43	24	144	134	14	8.2	21
16	29	26	42	e22	e13	41	23	95	97	16	7.6	120
17	22	27	39	e21	e13	40	40	72	75	16	7.3	33
18	20	279	32	e20	e14	42	26	123	61	15	11	22
19	19	397	35	e19	e19	42	22	74	50	15	19	19
20	19	271	28	e18	46	42	26	62	42	13	13	17
21	19	157	30	e17	105	38	46	51	44	73	11	15
22	18	99	29	e17	99	35	35	85	44	76	9.8	14
23	19	104	31	e16	111	31	29	154	36	25	11	13
24	19	180	31	e16	117	42	25	115	31	17	55	12
25	52	128	27	e16	85	42	64	102	28	13	48	12
26	32	86	27	e16	69	87	46	75	26	13	64	12
27	27	70	26	e16	60	112	37	59	25	11	88	13
28	25	60	27	e15	54	89	29	48	25	9.8	248	12
29	24	52	30	e15	49	145	26	41	24	9.0	201	11
30	23	46	31	e14	---	142	31	135	24	12	116	12
31	22	---	31	e14	---	179	---	322	---	10	73	---
TOTAL	735	2,693	1,461	634	1,064	2,930	1,239	2,681	2,484	672.8	1,247.5	796
MEAN	23.7	89.8	47.1	20.5	36.7	94.5	41.3	86.5	82.8	21.7	40.2	26.5
MAX	111	397	130	29	117	355	125	322	291	76	248	120
MIN	12	23	26	14	13	31	22	27	24	9.0	7.3	11
CFSM	0.26	1.00	0.52	0.23	0.41	1.05	0.46	0.96	0.92	0.24	0.45	0.29
IN.	0.30	1.11	0.60	0.26	0.44	1.21	0.51	1.11	1.03	0.28	0.52	0.33

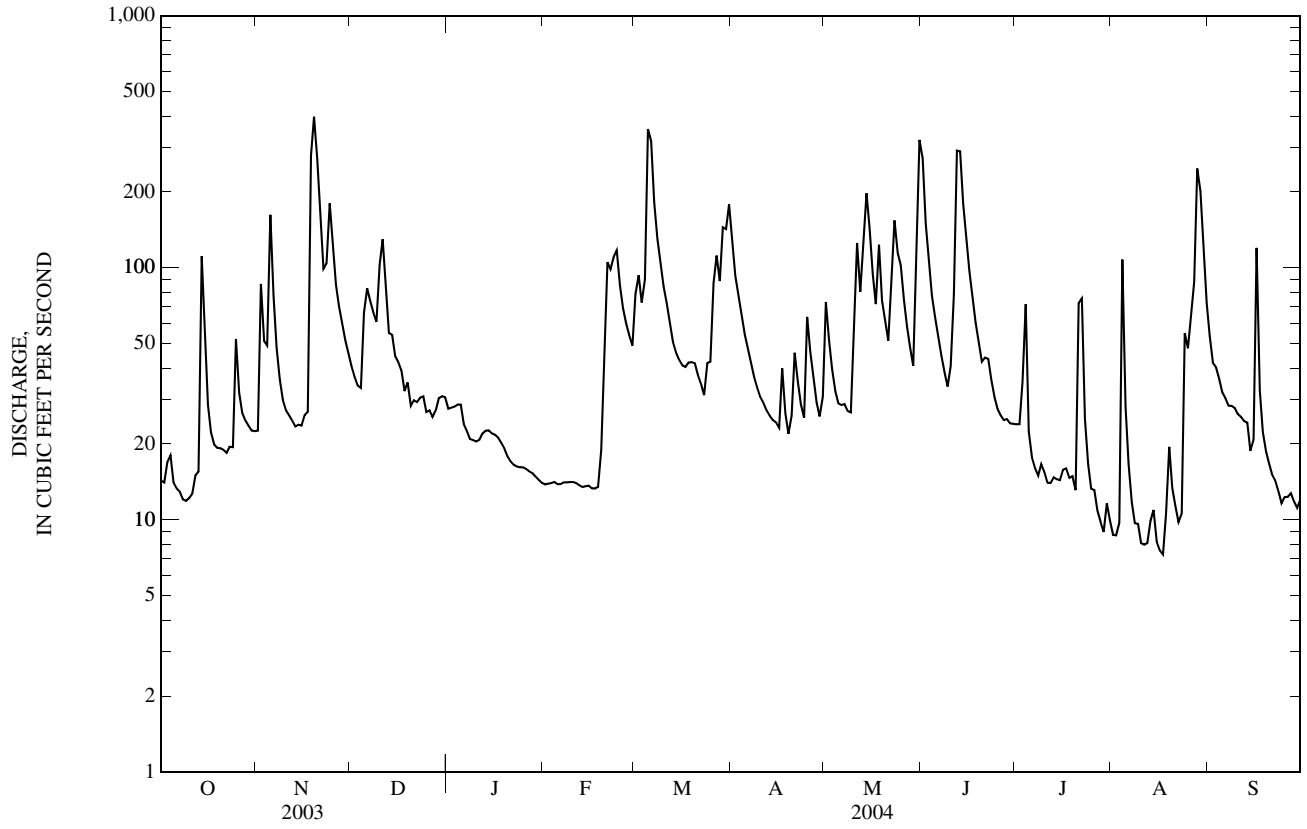
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2004, BY WATER YEAR (WY)

MEAN	34.8	58.3	71.5	61.6	81.6	123	123	94.0	70.9	42.1	37.5	38.8
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	18.2	21.3	18.1	11.2	9.56	7.28	5.54
(WY)	(1969)	(1972)	(1961)	(1961)	(1963)	(2000)	(1963)	(1992)	(1965)	(1991)	(1964)	(1966)

05536195 LITTLE CALUMET RIVER AT MUNSTER, IN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1959 - 2004	
ANNUAL TOTAL	17,999.1		18,637.3			
ANNUAL MEAN	49.3		50.9		69.6	
HIGHEST ANNUAL MEAN					121	1973
LOWEST ANNUAL MEAN					23.5	1964
HIGHEST DAILY MEAN	529	Jul 21	397	Nov 19	1,160	Apr 28, 1959
LOWEST DAILY MEAN	6.7	Jun 25	7.3	Aug 17	1.9	Aug 16, 1964
ANNUAL SEVEN-DAY MINIMUM	7.5	Jun 22	8.6	Aug 11	2.2	Sep 2, 1964
MAXIMUM PEAK FLOW			428	Nov 18	1,510	Apr 28, 1959
MAXIMUM PEAK STAGE			11.07	Nov 18	17.03	Nov 28, 1990
ANNUAL RUNOFF (CFSM)	0.548		0.566		0.774	
ANNUAL RUNOFF (INCHES)	7.44		7.70		10.51	
10 PERCENT EXCEEDS	131		113		173	
50 PERCENT EXCEEDS	21		29		31	
90 PERCENT EXCEEDS	10		13		9.0	

e Estimated



05536357 GRAND CALUMET RIVER AT HOHMAN AVE AT HAMMOND, IN

LOCATION.--Lat 41°37'28", long 87°31'04", in NE¼NW¼sec. 36, T37 N., R10 W., Lake County, Hydrologic Unit 07120003, (CALUMET CITY, IL-IN quadrangle), on left bank, 20 feet upstream of Hohman Avenue, 1,000 feet east of Indiana-Illinois State line, 0.57 mi downstream of U.S. Highway 41, and 0.7 mi north of St. Margaret's Hospital (Hohman Avenue).

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1991 to current year.

GAGE.--Water-stage recorder. Datum of gage is 575.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	0.73	4.3	1.4	e0.92	4.9	9.4	17	49	35	13	6.8
2	2.5	39	3.8	1.5	e0.72	2.8	5.5	8.7	34	33	11	3.8
3	3.8	12	3.8	1.6	e0.61	0.91	5.0	8.4	31	41	14	4.7
4	5.3	13	4.0	1.8	e0.55	7.0	4.8	7.1	28	61	63	2.2
5	1.9	41	16	2.3	e0.54	30	3.9	7.0	28	34	34	1.9
6	1.4	15	12	1.0	e0.57	22	2.6	8.0	25	27	19	1.0
7	1.0	6.8	8.3	0.91	e0.59	9.0	2.5	12	25	26	16	1.4
8	0.77	4.4	5.3	1.2	e0.56	3.1	3.1	9.7	26	23	13	3.4
9	0.84	4.0	5.6	1.0	e0.59	4.5	2.1	9.2	27	25	9.1	5.3
10	1.8	2.6	18	0.82	e0.61	1.7	2.0	9.7	35	28	12	4.1
11	2.7	1.7	14	0.79	e0.61	1.4	2.9	12	53	22	7.2	0.68
12	1.6	5.2	7.1	1.3	e0.60	1.3	2.7	14	104	e21	8.0	1.4
13	0.80	1.8	5.3	0.97	e0.56	1.1	2.8	39	55	e20	15	1.6
14	50	1.1	5.0	0.93	e0.61	2.0	2.6	55	52	e20	10	0.67
15	12	0.89	4.3	1.7	e0.59	0.89	1.5	28	49	e20	9.3	5.3
16	4.2	1.4	4.8	0.83	e0.62	1.2	2.5	22	45	e22	7.8	41
17	2.6	1.6	3.9	0.88	e0.61	1.4	4.6	19	45	e19	9.8	4.7
18	1.5	75	3.4	1.2	e0.69	1.7	1.8	36	46	e22	15	0.92
19	2.0	58	3.3	0.47	e1.0	1.5	1.8	25	45	e20	13	1.6
20	1.8	22	2.7	0.61	e2.5	1.7	3.2	21	42	e17	8.1	0.85
21	1.5	14	2.2	0.83	e3.0	1.8	4.2	22	44	45	7.2	0.39
22	1.5	12	2.4	e0.64	e1.6	1.3	2.5	34	48	52	5.8	1.5
23	1.5	20	2.6	e0.63	e4.8	1.1	2.1	49	44	29	3.5	0.73
24	1.6	24	3.0	e0.63	e2.5	3.4	1.9	33	44	23	29	0.22
25	14	12	2.0	e0.60	e1.7	1.7	13	37	44	18	29	0.19
26	3.8	9.8	1.5	e0.62	1.4	3.3	7.8	30	44	17	15	1.0
27	1.9	10	1.9	e0.69	0.64	4.1	5.4	26	42	15	9.3	0.23
28	1.1	9.6	2.2	e0.60	0.47	6.7	3.7	26	43	14	56	4.7
29	1.1	7.5	1.7	e0.60	0.44	21	3.5	21	41	12	32	4.1
30	1.5	4.8	1.3	e0.69	---	11	8.0	47	38	15	12	1.1
31	1.3	---	1.5	e0.84	---	14	---	77	---	12	6.7	---
TOTAL	133.51	430.92	157.2	30.58	31.20	169.50	119.4	769.8	1,276	788	512.8	107.48
MEAN	4.31	14.4	5.07	0.99	1.08	5.47	3.98	24.8	42.5	25.4	16.5	3.58
MAX	50	75	18	2.3	4.8	30	13	77	104	61	63	41
MIN	0.77	0.73	1.3	0.47	0.44	0.89	1.5	7.0	25	12	3.5	0.19

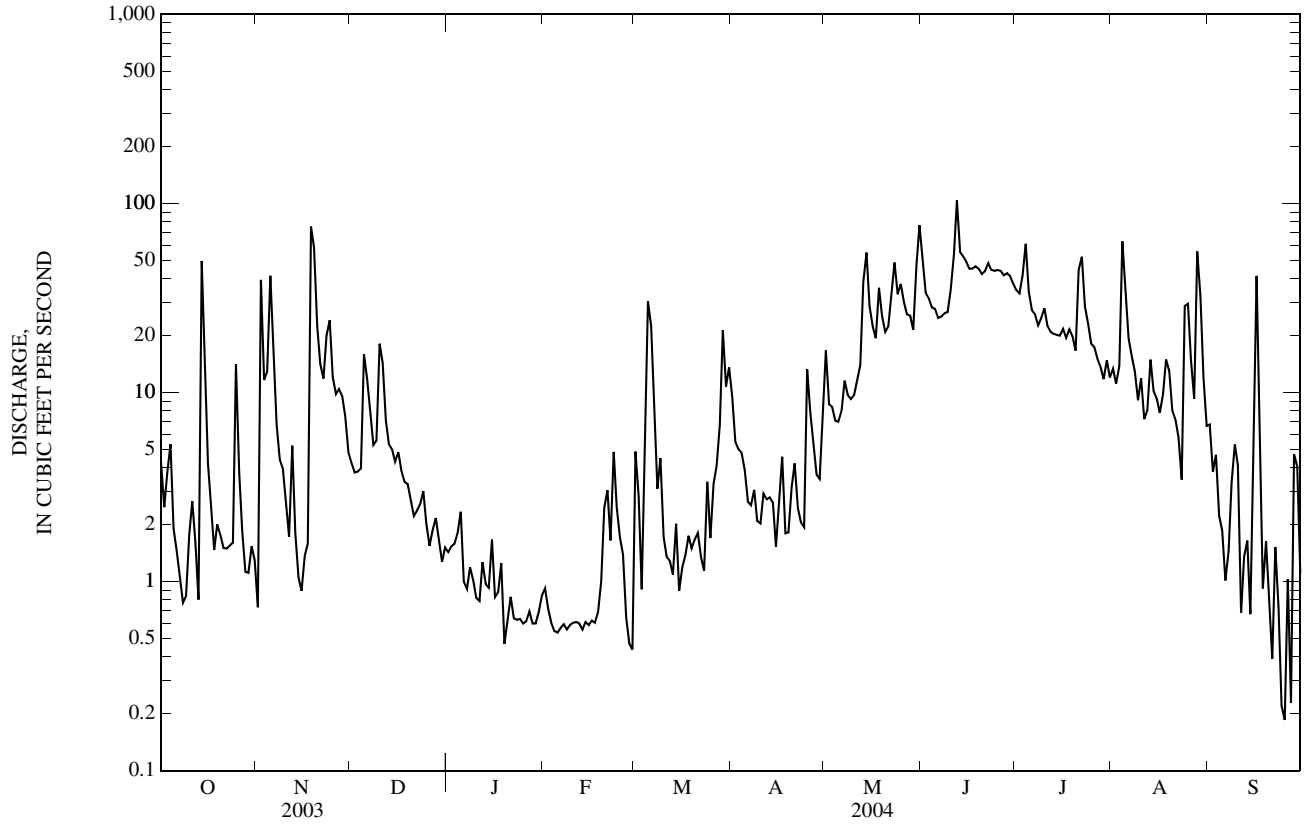
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2004, BY WATER YEAR (WY)

MEAN	28.8	28.0	24.0	23.3	27.4	29.6	34.3	38.2	40.9	42.8	34.9	29.8
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	2.37	2.09	2.03	0.99	1.08	5.47	3.98	9.98	4.92	6.06	4.54	1.22
(WY)	(2003)	(2003)	(2003)	(2004)	(2004)	(2004)	(2004)	(2001)	(2003)	(2002)	(2002)	(2002)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1991 - 2004	
ANNUAL TOTAL	3,630.80		4,526.39			
ANNUAL MEAN	9.95		12.4		31.8	
HIGHEST ANNUAL MEAN					76.2	1997
LOWEST ANNUAL MEAN					8.21	2002
HIGHEST DAILY MEAN	85	Jul 21	104	Jun 12	464	Feb 21, 1997
LOWEST DAILY MEAN	0.57	Mar 22	0.19	Sep 25	0.19	Sep 25, 2004
ANNUAL SEVEN-DAY MINIMUM	0.77	Apr 23	e 0.57	Feb 3	e 0.57	Feb 3, 2004
MAXIMUM PEAK FLOW			149	Jun 12	701	Feb 21, 1997
MAXIMUM PEAK STAGE			6.12	Jun 12	8.76	Jul 18, 1996
10 PERCENT EXCEEDS	26		39		72	
50 PERCENT EXCEEDS	4.8		4.6		23	
90 PERCENT EXCEEDS	1.3		0.71		3.9	

e Estimated

05536357 GRAND CALUMET RIVER AT HOHMAN AVE AT HAMMOND, IN—Continued



DISCHARGE AT MISCELLANEOUS SITES

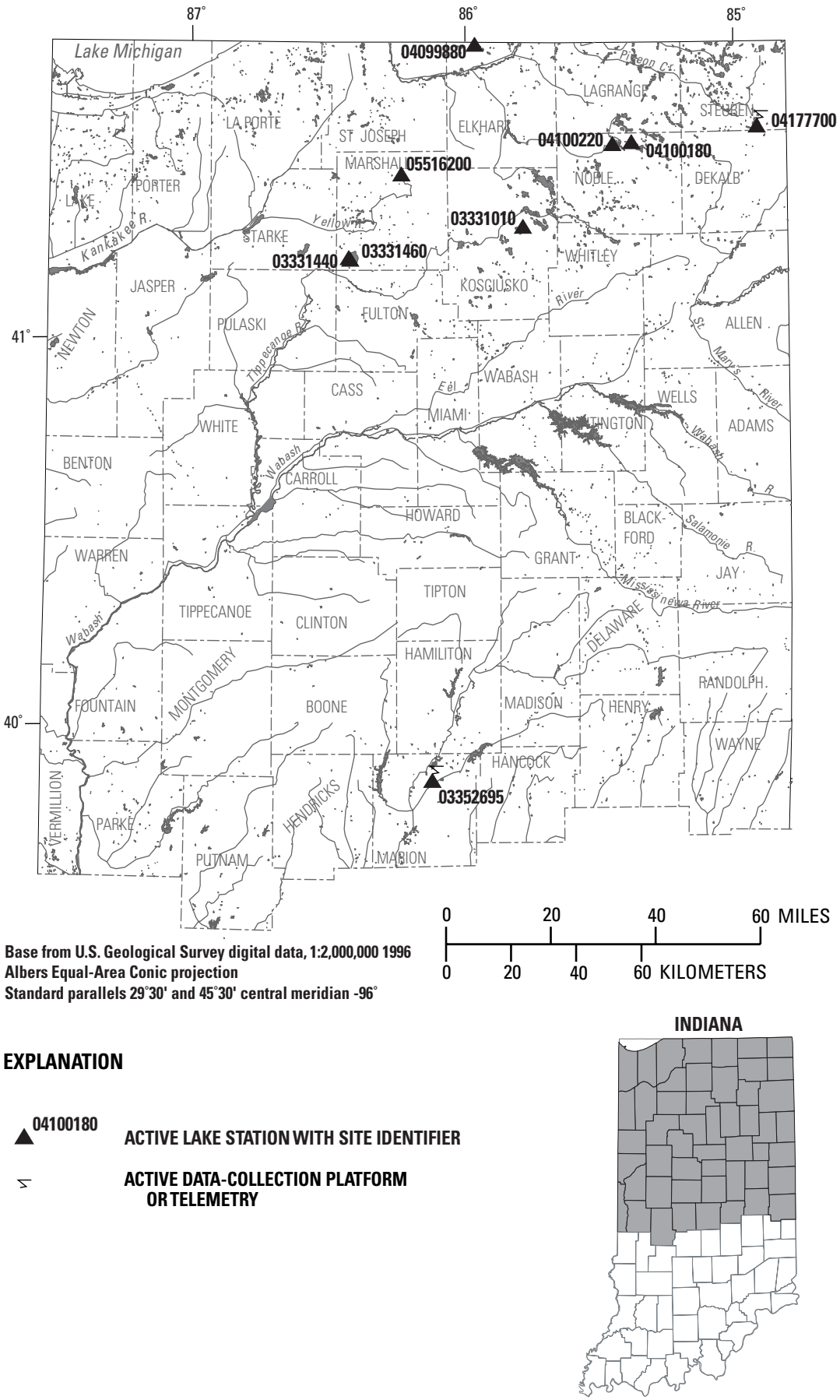
Special study and miscellaneous sites

STREAMS TRIBUTARY TO OHIO RIVER BASIN

Great Miami River Basin

Streamflow was measured at points other than continuous gaging stations at one site in the Great Miami River Basin. This data was collected as a part of an investigation to measure streamflow in the historic Whitewater Canal in support of the Indiana Department of Natural Resources.

Stream	Tributary to	Location	Measurement date	Discharge (ft^3/s)
Whitewater Canal	Whitewater River	Lat 39°26'50"N, long 85°08'11W NAD27 at footbridge over Whitewater Canal mill-bypass in Metamora, IN.	05-11-04	14.7



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

INDIANA

EXPLANATION

▲ 04100180 — ACTIVE LAKE STATION WITH SITE IDENTIFIER

ACTIVE DATA-COLLECTION PLATFORM OR TELEMETRY

Figure 8.--Locations of lakes having water-level records for Water Year 2004.

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.--1945-1971, 1976-2002, August 2003 to current year.

REVISED RECORDS.--WDR IN-03-1: 1990 - 2002.

DATUM OF GAGE.--820.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--7.75 ft gage datum or 827.75 ft above National Geodetic Vertical Datum of 1929 as established on October 18, 1949, by the Kosciusko County Circuit Court. Little Chapman Lake has the same control structure and established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest at the outlet channel downstream from Little Chapman Lake.

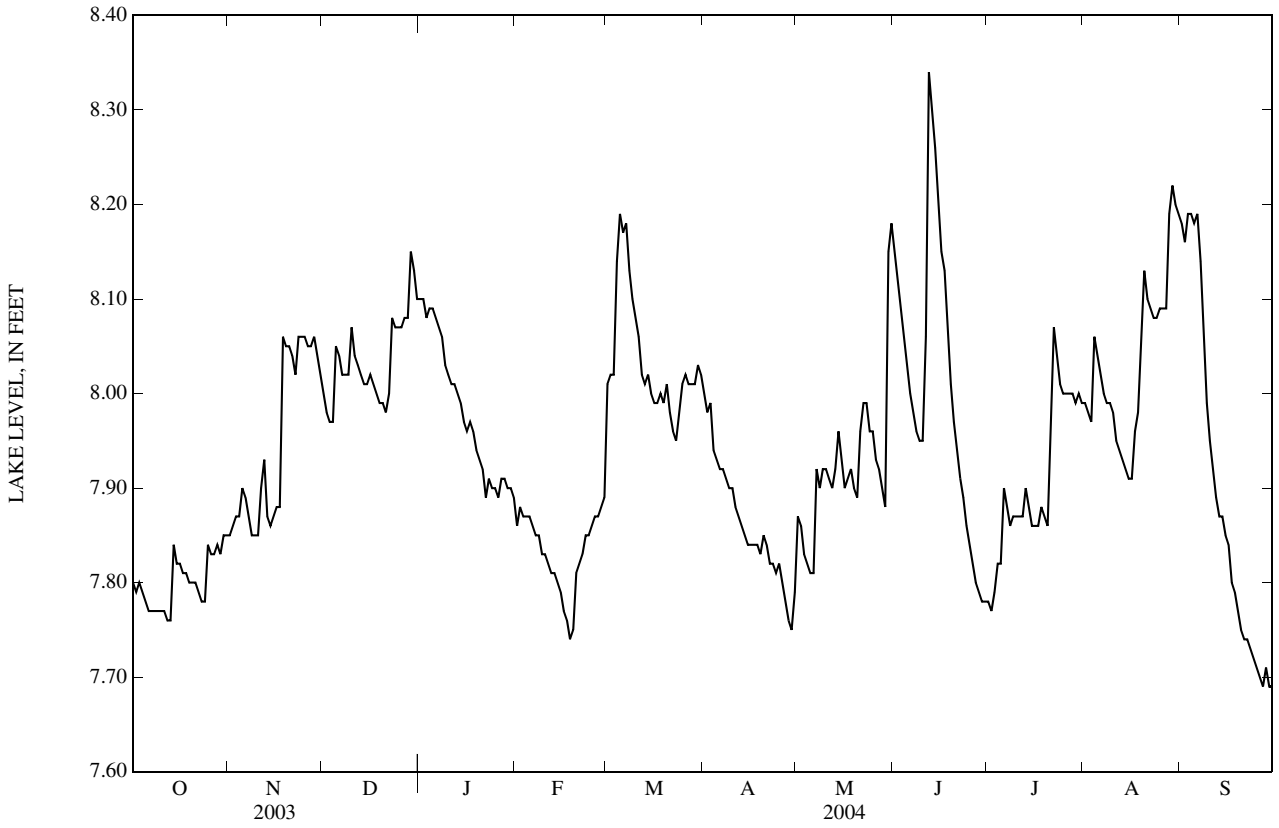
INLET AND OUTLET.--Several small ditches enter the lake at various points. The outlet flows into Little Chapman Lake to the south, then into Deeds Creek, and eventually into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.37 ft Oct. 11, 1954; minimum stage, 6.75 ft Oct. 20, 1953.

LAKE LEVEL, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.78	7.90	8.05	8.09	7.87	8.19	7.93	7.81	8.03	7.82	8.04	8.18
10	7.77	7.85	8.07	8.02	7.83	8.08	7.90	7.92	7.95	7.87	7.98	7.95
15	7.82	7.87	8.01	7.97	7.79	8.00	7.84	7.93	8.20	7.86	7.91	7.85
20	7.80	8.05	7.99	7.93	7.81	8.01	7.85	7.89	7.97	7.86	8.13	7.75
25	7.84	8.06	8.07	7.90	7.86	8.01	7.82	7.96	7.84	8.00	8.09	7.71
EOM	7.85	8.02	8.10	7.89	7.89	8.02	7.79	8.18	7.78	7.99	8.19	7.69
MEAN	7.80	7.95	8.03	7.98	7.83	8.04	7.86	7.92	8.01	7.91	8.04	7.89
MAX	7.85	8.06	8.15	8.10	7.89	8.19	8.00	8.18	8.34	8.07	8.22	8.19
MIN	7.76	7.85	7.97	7.89	7.74	7.95	7.75	7.81	7.78	7.77	7.91	7.69

WTR YR 2004 MEAN 7.94 MAX 8.34 MIN 7.69



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.--1943-2002, June 2003 to current year.

DATUM OF GAGE.--890.12 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels of Indiana Department of Natural Resources, 1978.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--8.83 ft gage datum or 898.83 ft above National Geodetic Vertical Datum of 1929 as decreed on July 3, 1947, by the Steuben County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 8.83 ft gage datum or 898.95 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by two dams. The northernmost dam is concrete and steel sheet piling with a fixed crest. The southern dam has a fixed concrete sill.

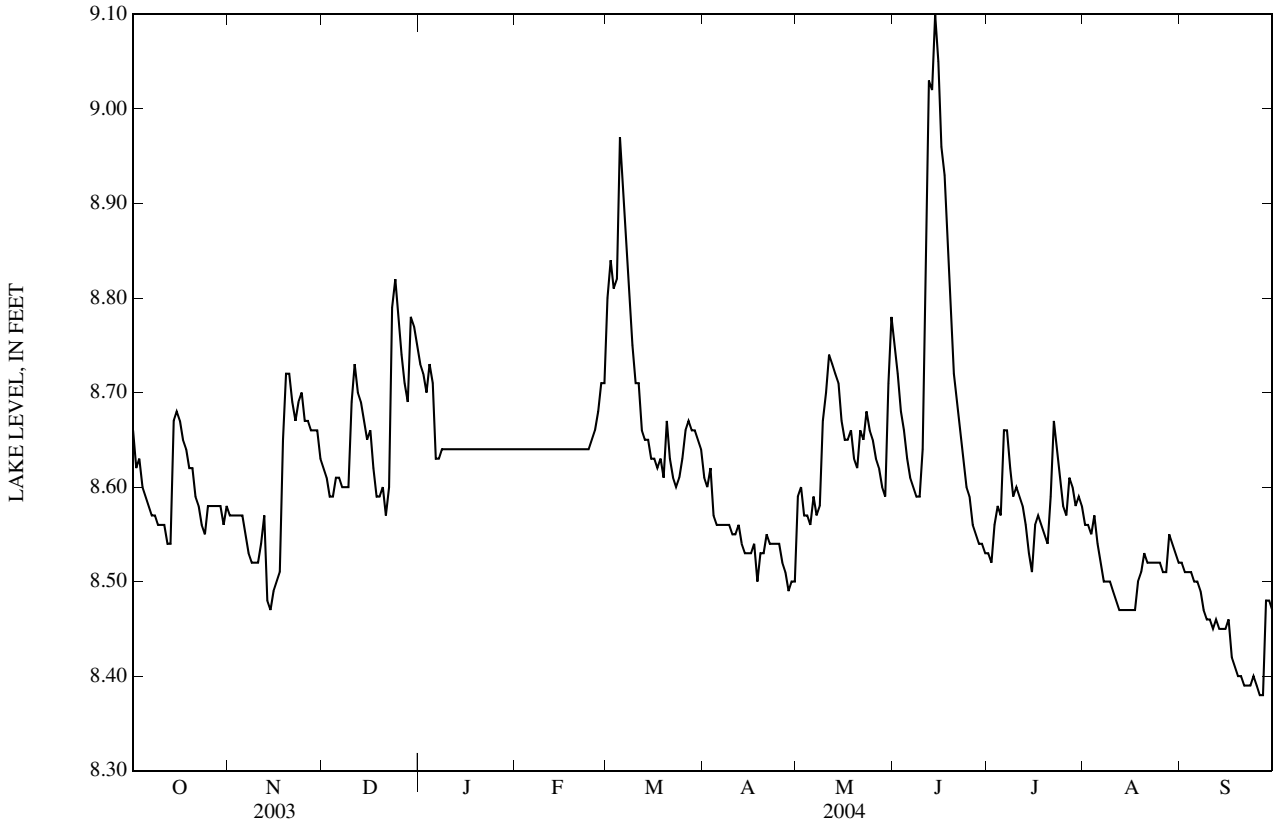
INLET AND OUTLET.--Black Creek enters the lake on the northeast shore. Two small ditches enter from the east and the north. There are two outlets, both on the southern lobe, that flow into Fish Creek thence into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.14 ft Dec. 30, 1965; minimum stage, 7.27 ft Jan. 4-9, 1953.

LAKE LEVEL, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.59	8.57	8.61	8.71	8.64	8.97	8.56	8.56	8.63	8.57	8.54	8.50
10	8.56	8.52	8.69	8.64	8.64	8.71	8.55	8.70	8.64	8.60	8.49	8.46
15	8.68	8.49	8.65	8.64	8.64	8.63	8.53	8.67	9.05	8.51	8.47	8.45
20	8.62	8.72	8.60	8.64	8.64	8.67	8.53	8.62	8.72	8.54	8.53	8.40
25	8.58	8.67	8.78	8.64	8.65	8.63	8.54	8.65	8.59	8.58	8.52	8.39
EOM	8.58	8.63	8.75	8.64	8.71	8.64	8.50	8.78	8.53	8.58	8.52	8.47
MEAN	8.60	8.59	8.67	8.65	8.65	8.70	8.54	8.65	8.72	8.58	8.51	8.45
MAX	8.68	8.72	8.82	8.73	8.71	8.97	8.62	8.78	9.10	8.67	8.57	8.52
MIN	8.54	8.47	8.57	8.63	8.64	8.60	8.49	8.56	8.53	8.51	8.47	8.38

WTR YR 2004 MEAN 8.61 MAX 9.10 MIN 8.38



03352695 HERON LAKE AT INDIANAPOLIS, IN

LOCATION.--Lat 39°50'50", long 86°06'49", in NE¼NE¼SW¼ sec.8, T.16 N., R.4 E., Marion County, Hydrologic Unit 05120201 (INDIANAPOLIS EAST, IN quadrangle). The gage is on the south side of 52nd Street, the lake, 0.5 mi east of Keystone Avenue in Indianapolis, IN.

SURFACE AREA.--19 acres.

DRAINAGE AREA.--1.44 mi^2.

PERIOD OF RECORD.--April 1, 2004 to September 30, 2004.

DATUM OF GAGE.--735.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter with a gas purged pressure transducer with an orifice line.

ESTABLISHED LEGAL LEVEL.--Not estabilished.

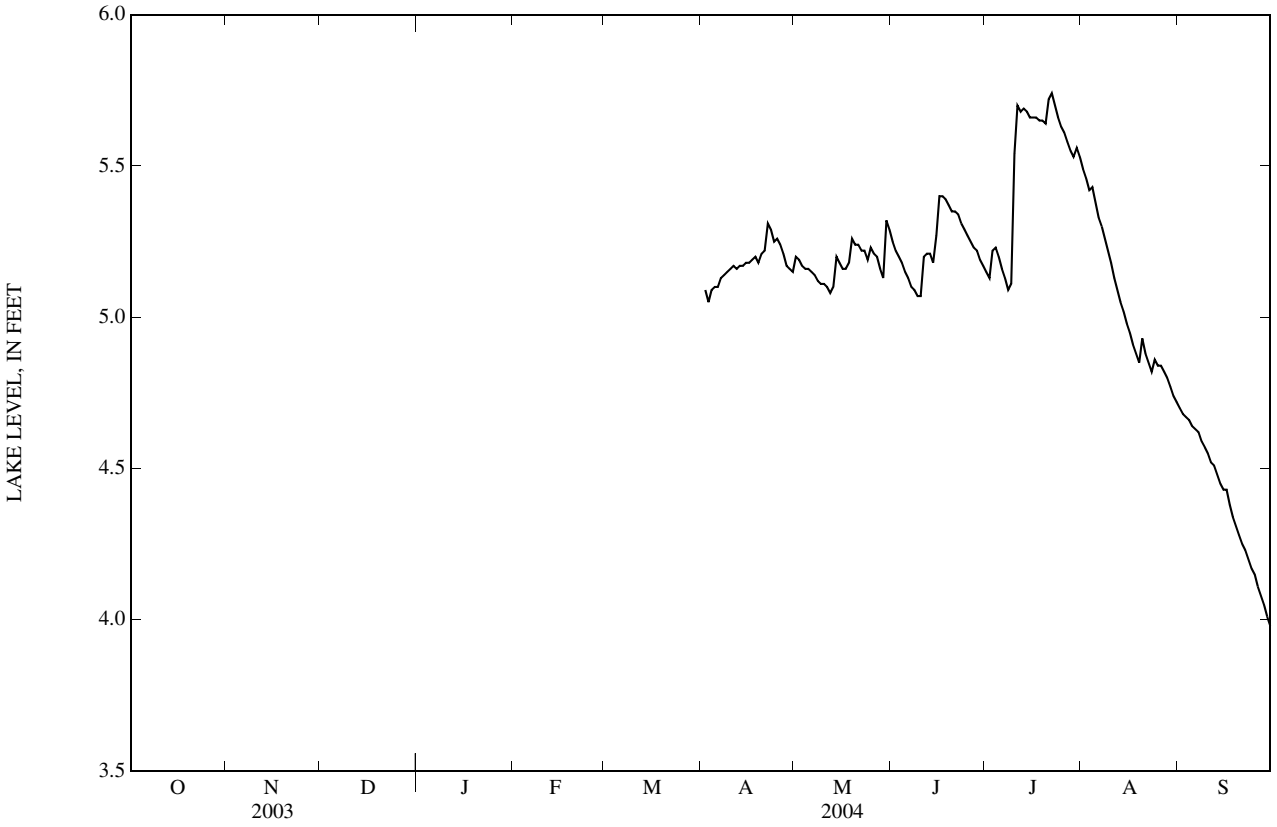
LAKE-LEVEL CONTROL.--The level of the lake is controlled by inlet and outlet culverts.

INLET AND OUTLET.--The inlet is a small culvert that enters on the north side of the lake at with flows from Lake Maxinhall. The outlet leaves the lake on the southwest edge through a culvert that flows into Willow Creek which flows into Fall Creek and eventually into the White River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.75 ft July 22, 2004; minimum stage, 3.98 ft September 30, 2004.

LAKE LEVEL, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	5.10	5.16	5.15	5.20	5.38	4.64
10	---	---	---	---	---	---	5.16	5.11	5.07	5.54	5.18	4.55
15	---	---	---	---	---	---	5.18	5.18	5.27	5.66	4.98	4.43
20	---	---	---	---	---	---	5.21	5.24	5.35	5.64	4.93	4.28
25	---	---	---	---	---	---	5.26	5.23	5.27	5.63	4.84	4.15
EOM	---	---	---	---	---	---	5.15	5.29	5.17	5.53	4.72	3.98
MEAN	---	---	---	---	---	---	---	5.18	5.24	5.50	5.04	4.39
MAX	---	---	---	---	---	---	---	5.32	5.40	5.74	5.49	4.70
MIN	---	---	---	---	---	---	---	5.08	5.07	5.09	4.72	3.98



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, 50 ft north of boat ramp, 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 National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--3.12 ft gage datum or 733.12 ft above National Geodetic Vertical Datum of 1929 as decreed on August 9, 1948, by the Marshall County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest at the outlet channel.

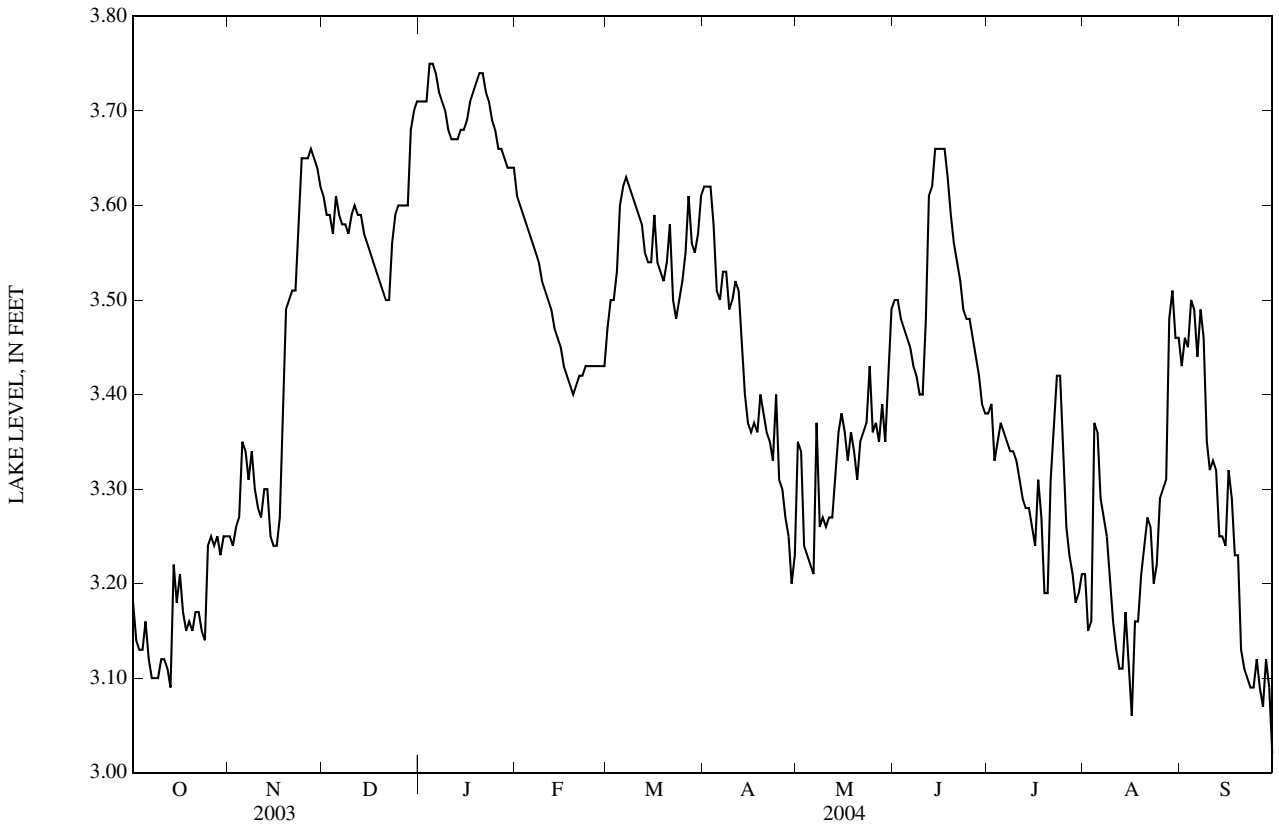
INLET AND OUTLET.--Wilson Ditch enters the lake at the northeast corner, Curtiss Ditch enters at the east center, and Norris Inlet enters at the southeast corner. The outlet leaves the lake at the western shore, north of the point, and flows into Lost Lake 1,600 ft downstream, thence into the Tippecanoe 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, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.16	3.35	3.61	3.75	3.57	3.60	3.51	3.22	3.46	3.37	3.36	3.49
10	3.12	3.28	3.59	3.68	3.51	3.60	3.50	3.26	3.40	3.33	3.16	3.32
15	3.18	3.24	3.56	3.68	3.45	3.54	3.37	3.38	3.66	3.26	3.11	3.24
20	3.15	3.50	3.51	3.74	3.41	3.54	3.38	3.31	3.56	3.19	3.24	3.13
25	3.24	3.65	3.60	3.68	3.43	3.52	3.31	3.36	3.48	3.34	3.29	3.12
EOM	3.25	3.62	3.71	3.64	3.43	3.61	3.23	3.49	3.38	3.21	3.46	3.02
MEAN	3.17	3.41	3.58	3.70	3.48	3.56	3.42	3.33	3.51	3.30	3.25	3.26
MAX	3.25	3.66	3.71	3.75	3.61	3.63	3.62	3.49	3.66	3.42	3.51	3.50
MIN	3.09	3.24	3.50	3.64	3.40	3.47	3.20	3.21	3.38	3.18	3.06	3.02

WTR YR 2004 MEAN 3.41 MAX 3.75 MIN 3.02



05516200 LAKE OF THE WOODS NEAR BREMEN, IN

LOCATION.--Lat 41°25'02", long 86°13'43", 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 access 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 National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is driven into the outlet channel.

ESTABLISHED LEGAL LEVEL.--3.85 ft gage datum or 803.85 ft above National Geodetic Vertical Datum of 1929 as decreed on August 9, 1948, by the Marshall County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a 13 ft by 1 ft notch. The dam is equipped with a lift gate.

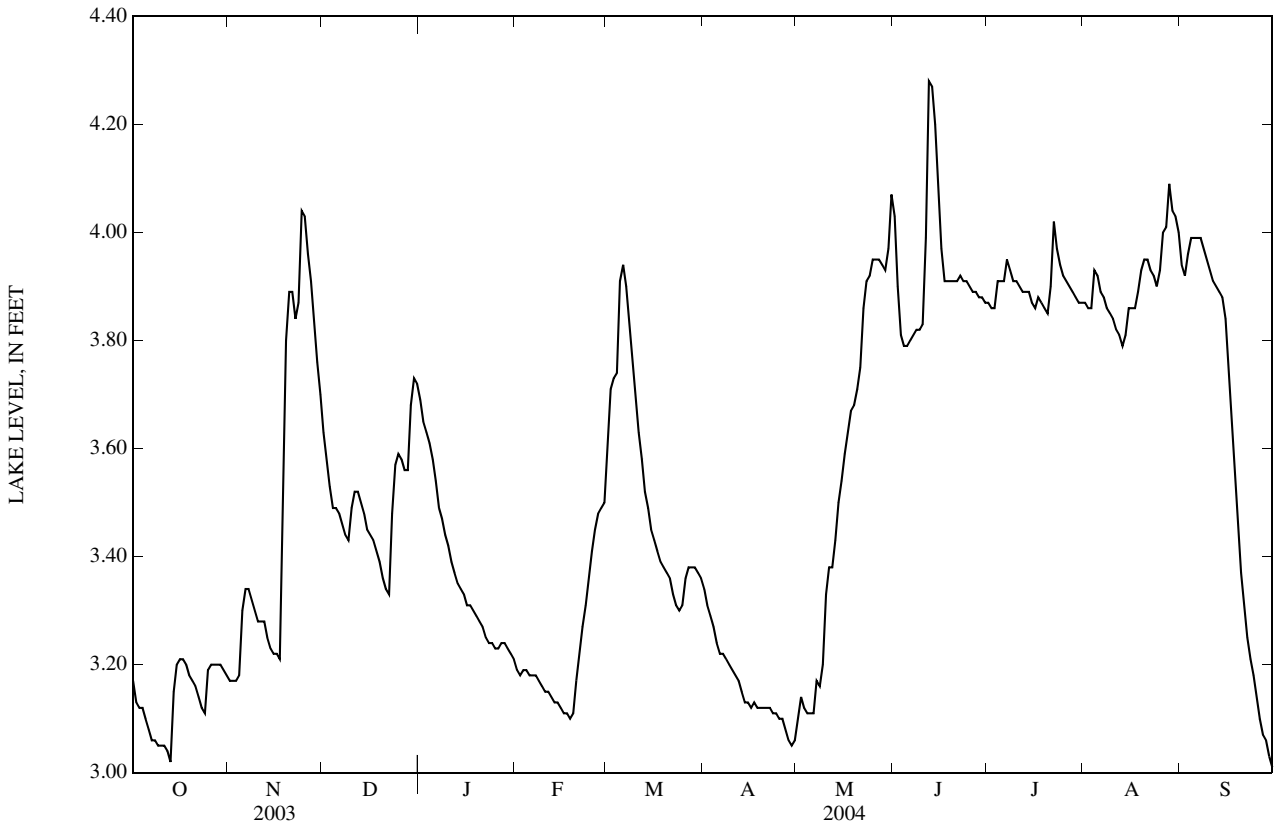
INLET AND OUTLET.--Three ditches, Kimble, Martin, and Seltenright, enter the lake on the northwest shore. Scofield Ditch enters at the west lobe. The outlet, Clark Ditch, flows from the lake at the southern end and eventually into Yellow River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.68 ft Oct. 12, 1954; minimum stage, 2.75 ft Nov. 18-20, 1953.

LAKE LEVEL, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.10	3.30	3.49	3.58	3.18	3.91	3.24	3.11	3.79	3.91	3.92	3.99
10	3.05	3.28	3.49	3.42	3.15	3.69	3.19	3.33	3.83	3.91	3.84	3.93
15	3.20	3.22	3.45	3.33	3.12	3.45	3.13	3.54	4.08	3.87	3.86	3.84
20	3.17	3.89	3.36	3.28	3.17	3.37	3.12	3.71	3.91	3.85	3.95	3.37
25	3.19	4.03	3.59	3.23	3.41	3.31	3.10	3.95	3.90	3.92	3.93	3.14
EOM	3.18	3.70	3.72	3.21	3.50	3.36	3.06	4.07	3.87	3.87	4.00	3.01
MEAN	3.14	3.51	3.51	3.37	3.23	3.53	3.16	3.56	3.93	3.90	3.91	3.60
MAX	3.21	4.04	3.73	3.69	3.50	3.94	3.34	4.07	4.28	4.02	4.09	3.99
MIN	3.02	3.17	3.33	3.21	3.10	3.30	3.05	3.10	3.79	3.85	3.79	3.01

WTR YR 2004 MEAN 3.53 MAX 4.28 MIN 3.01



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.--1954-61, 1963-74, 1976 to current year. (Formerly published as Hawks Lake near Culver.)

DATUM OF GAGE.--720.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--12.00 ft gage datum or 732.00 ft above National Geodetic Vertical Datum of 1929 as decreed on February 17, 1960, by the Marshall County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam and sill with removable boards in the outlet channel approximately 850 ft downstream from the main body of the lake.

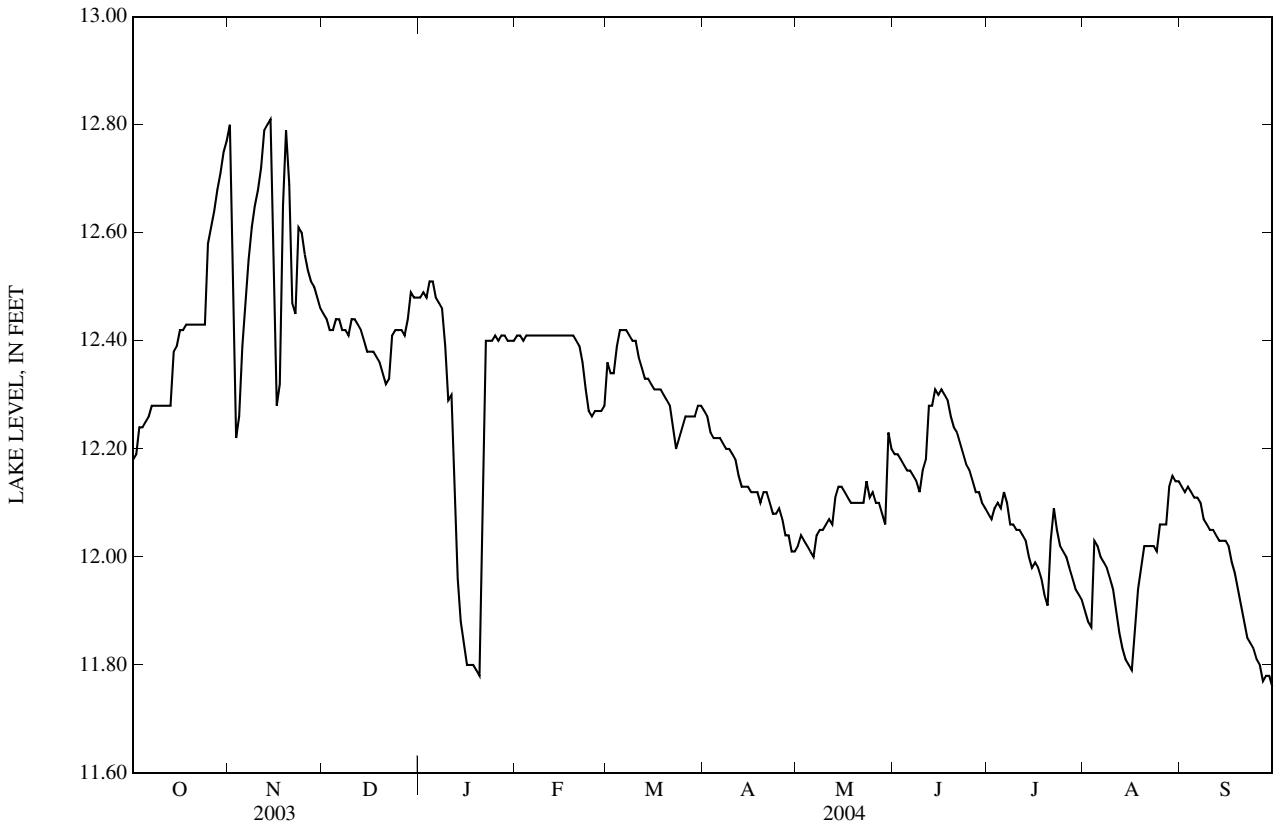
INLET AND OUTLET.--The one inlet flows into the lake from Maxinkuckee Lake and enters on the north shore. The outlet flows from the south end of the lake to the Tippecanoe River 3.7 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.05 ft June 15, 1981; minimum stage, 10.12 ft July 9, 1959.

LAKE LEVEL, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.25	12.39	12.44	12.51	12.41	12.42	12.22	12.01	12.16	12.09	12.02	12.11
10	12.28	12.68	12.44	12.29	12.41	12.40	12.19	12.06	12.16	12.05	11.94	12.05
15	12.39	12.57	12.38	11.84	12.41	12.32	12.13	12.13	12.30	11.98	11.80	12.03
20	12.43	12.69	12.34	11.78	12.40	12.29	12.12	12.10	12.24	11.91	12.02	11.91
25	12.58	12.56	12.42	12.41	12.26	12.24	12.09	12.12	12.16	12.01	12.06	11.81
EOM	12.77	12.46	12.48	12.40	12.28	12.28	12.01	12.20	12.09	11.92	12.14	11.76
MEAN	12.41	12.56	12.41	12.25	12.37	12.32	12.14	12.09	12.20	12.02	11.97	11.97
MAX	12.77	12.81	12.49	12.51	12.41	12.42	12.27	12.23	12.31	12.12	12.15	12.13
MIN	12.18	12.22	12.32	11.78	12.26	12.20	12.01	12.00	12.09	11.91	11.79	11.76

WTR YR 2004 MEAN 12.23 MAX 12.81 MIN 11.76



04099880 SIMONTON LAKE NEAR ELKHART, IN

LOCATION.--Lat 41°45'05", long 85°57'28", in NE¼NE¼NW¼ 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 National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--2.19 ft gage datum or 772.19 ft above National Geodetic Vertical Datum of 1929 as decreed on September 25, 1950, by the Elkhart County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

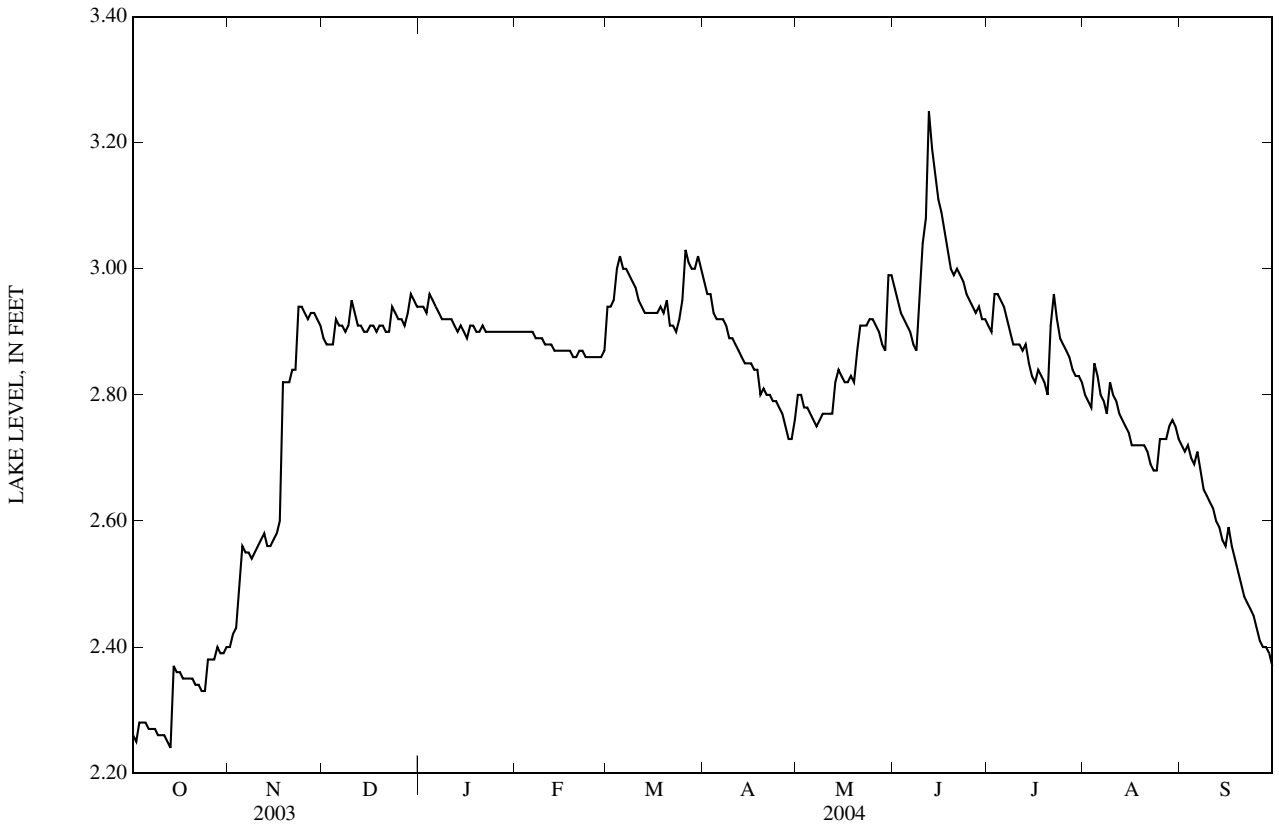
INLET AND OUTLET.--Two small drainage ditches enter the lake on the eastern shore. The outlet, Osolo Township Ditch, flows from the lake at the southeastern tip and into the St. Joseph River, 4.0 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 3.42 ft Feb. 24, 1985; minimum stage, 1.36 ft Sept. 7, 1946.

LAKE LEVEL, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.28	2.56	2.92	2.95	2.90	3.02	2.92	2.77	2.91	2.95	2.83	2.69
10	2.26	2.56	2.95	2.92	2.88	2.97	2.89	2.77	3.04	2.88	2.80	2.63
15	2.36	2.57	2.90	2.90	2.87	2.93	2.85	2.83	3.11	2.83	2.74	2.56
20	2.35	2.82	2.91	2.90	2.86	2.95	2.81	2.87	2.99	2.80	2.72	2.50
25	2.38	2.93	2.92	2.90	2.86	2.95	2.78	2.92	2.95	2.88	2.73	2.43
EOM	2.40	2.91	2.94	2.90	2.87	3.00	2.76	2.99	2.92	2.82	2.73	2.37
MEAN	2.32	2.69	2.91	2.91	2.88	2.96	2.85	2.84	2.99	2.88	2.75	2.56
MAX	2.40	2.94	2.96	2.96	2.90	3.03	2.98	2.99	3.25	2.96	2.85	2.72
MIN	2.24	2.40	2.88	2.89	2.86	2.90	2.73	2.75	2.87	2.80	2.68	2.37

WTR YR 2004 MEAN 2.80 MAX 3.25 MIN 2.24



04100180 SYLVAN LAKE AT ROME CITY, IN

LOCATION.--Lat 41°29'53", long 85°22'38", in SE¼SE¼SW¼ 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 National Geodetic Vertical Datum of 1929. 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 wall of the dam at same site.

ESTABLISHED LEGAL LEVEL.--9.20 ft present gage datum or 916.20 ft above National Geodetic Vertical Datum of 1929 as decreed on June 14, 1951, by the Noble County Circuit Court.

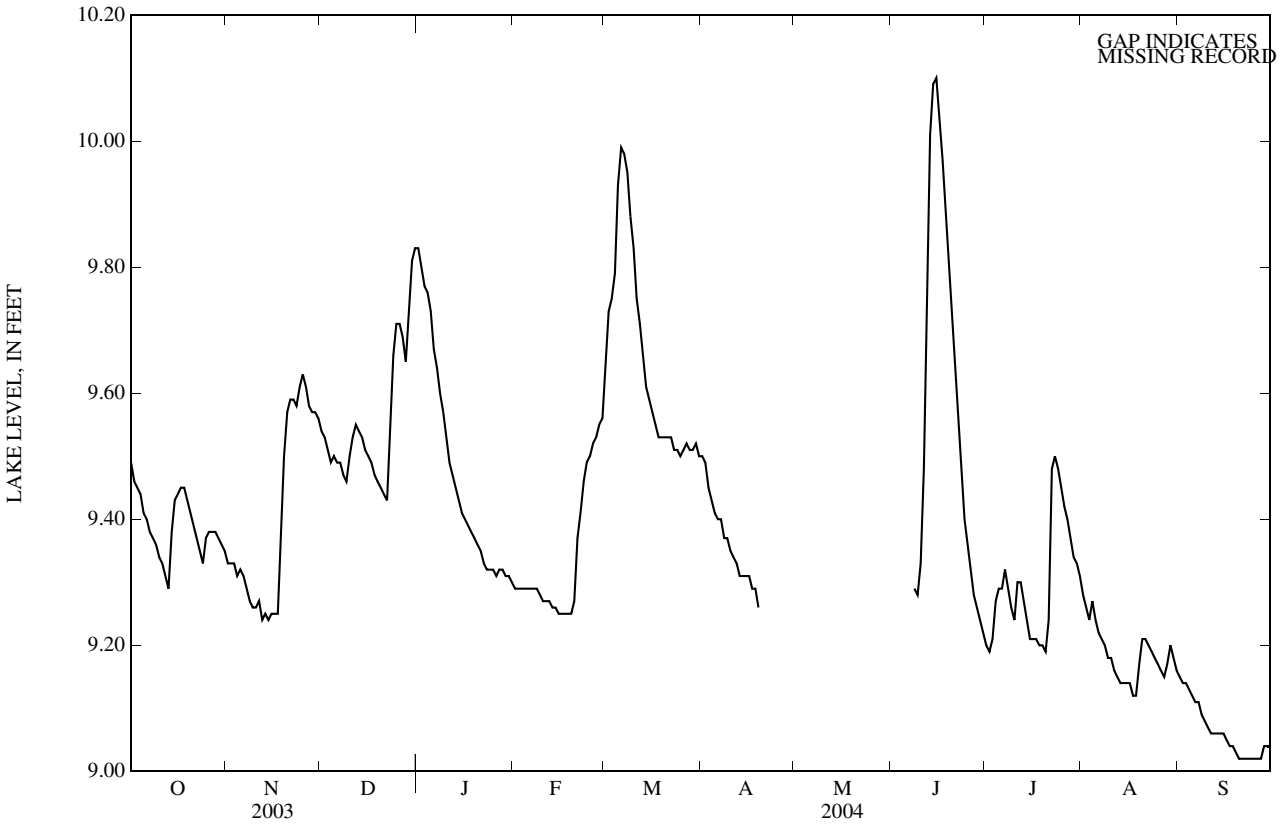
LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with movable gates.

INLET AND OUTLET.--Barr Lake, 0.2 mi upstream, empties into Sylvan Lake on the southeast shore of the northwest lobe. Oviatt Ditch and Henderson Lake Ditch both enter the lake on the extreme eastern end. The outlet flows from the lake at the western tip, into Jones Lake 2.8 mi downstream and eventually into the North Branch of the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.14 ft Aug. 22 and 23, 1996; minimum stage, below -.30 ft Oct. 3-9, and 16-18, 1994.

LAKE LEVEL, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.41	9.32	9.50	9.73	9.29	9.93	9.41	---	---	9.29	9.24	9.12
10	9.34	9.26	9.50	9.53	9.27	9.83	9.35	---	9.33	9.24	9.18	9.07
15	9.43	9.25	9.51	9.41	9.25	9.59	9.31	---	10.10	9.21	9.14	9.06
20	9.41	9.57	9.45	9.36	9.27	9.53	---	---	9.68	9.19	9.21	9.02
25	9.37	9.63	9.71	9.32	9.50	9.50	---	---	9.36	9.45	9.17	9.02
EOM	9.35	9.56	9.83	9.30	9.56	9.50	---	---	9.22	9.31	9.16	9.04
MEAN	9.39	9.40	9.56	9.47	9.34	9.65	---	---	---	9.30	9.19	9.06
MAX	9.49	9.63	9.83	9.83	9.56	9.99	---	---	---	9.50	9.28	9.15
MIN	9.29	9.24	9.43	9.30	9.25	9.50	---	---	---	9.19	9.12	9.02



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 National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary wire-weight gage is attached to the upstream side of Dukes Bridge.

ESTABLISHED LEGAL LEVEL.--5.55 ft gage datum or 885.55 ft above National Geodetic Vertical Datum of 1929 as decreed on May 6, 1968, by the Noble County Circuit Court. Jones, Steinbarger and Tamarack Lakes, all near Cosperville, have the same established level as Waldron Lake and hence the same lake levels for the period of record.

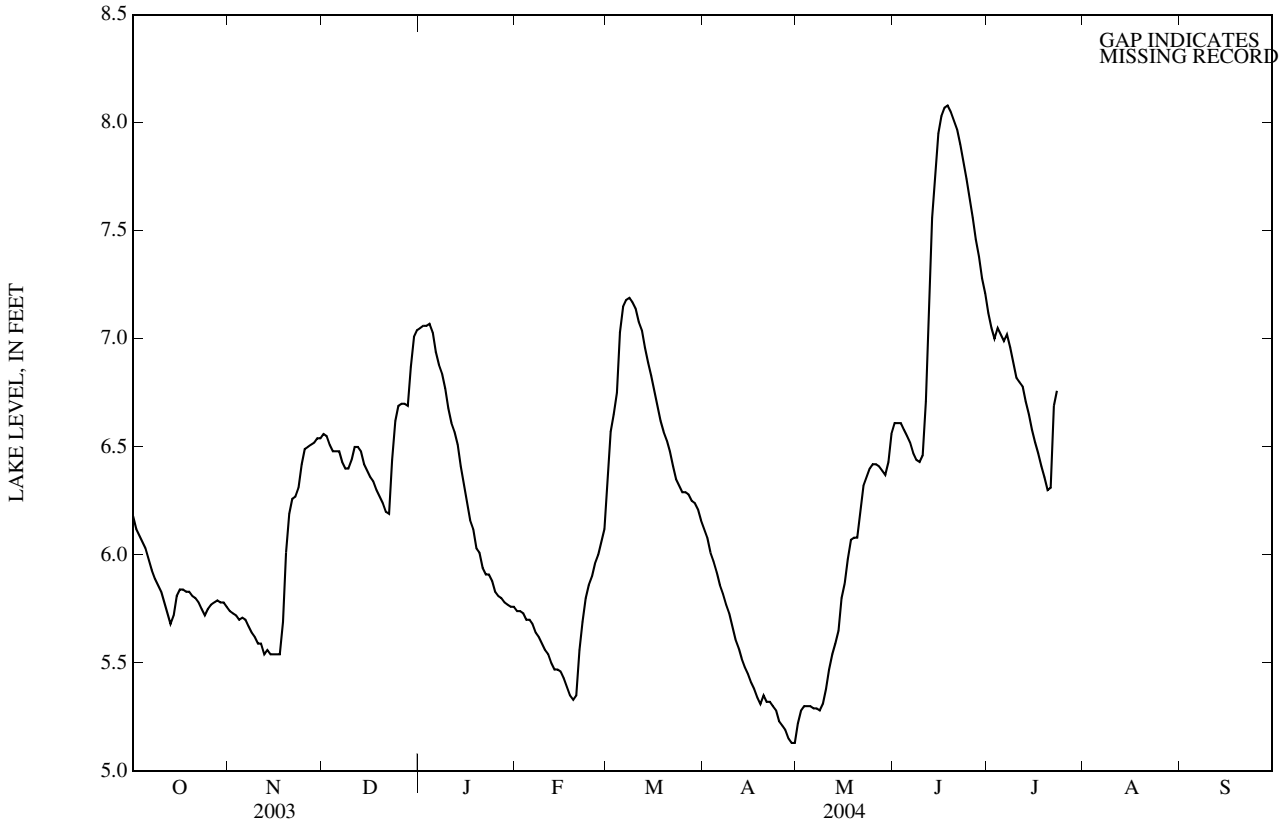
LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete dam with removable boards.

INLET AND OUTLET.--The North Branch of the Elkhart River flows through the lake, entering through Jones Lake at the north and leaving at the west end of Waldron Lake. Another inlet enters at the southeast from Steinbarger Lake, 0.1 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.16 ft Mar. 22, 1982; minimum stage, 4.44 ft Aug. 9-11, Sept. 14-17, 1964.

LAKE LEVEL, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.03	5.71	6.48	7.03	5.70	7.03	5.92	5.30	6.55	7.02	---	---
10	5.83	5.59	6.44	6.68	5.56	7.14	5.67	5.38	6.46	6.82	---	---
15	5.81	5.54	6.39	6.32	5.46	6.83	5.45	5.80	7.95	6.58	---	---
20	5.81	6.19	6.24	6.01	5.35	6.53	5.35	6.08	8.01	6.30	---	---
25	5.75	6.49	6.69	5.83	5.90	6.29	5.23	6.42	7.65	---	---	---
EOM	5.76	6.54	7.04	5.76	6.12	6.16	5.13	6.56	7.21	---	---	---
MEAN	5.85	5.93	6.51	6.34	5.65	6.66	5.52	5.85	7.29	---	---	---
MAX	6.18	6.54	7.04	7.07	6.12	7.19	6.12	6.56	8.08	---	---	---
MIN	5.68	5.54	6.19	5.76	5.33	6.16	5.13	5.22	6.43	---	---	---



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	-------	------	-	1957-2002
			BAYOU DRAIN BASIN					
03322300	Hovey Lake near Mount Vernon	Posey	6.36	253	-------	------	-	1950-69
			WABASH RIVER BASIN					
03327550	Everett Lake near 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, 1976-2002
03327650	Shriner Lake at Tri-Lakes	Whitley	.94	111	907.04	------	-	1943-2002
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, 1959-2002
03328250	North Little Lake at Silver Lake [b]	Kosciusko	2.89	12	861.73	170	+	1947-
03328350	Silver Lake at Silver Lake	Kosciusko	6.31	102	861.73	1,520	+	1947-2002
03328400	Lukens Lake near Disko	Wabash	1.76	46	763.60	1,010	+	1948-49, 1959-2002
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 1976-2002
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	+	1943-2002
03330160	Gilbert Lake near Washington Center	Noble	.37	28	--------	490	+	1954-2002
03330180	Horseshoe Lake near 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	+	1943-2002
03330243	James Lake at Oswego [c]	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	+	1943-2002
03330320	Kuhn Lake near North Webster [d]	Kosciusko	3.85	137	837.50	1,290	+	1945-
03330340	Big Barbee Lake near North Webster [d]	Kosciusko	44.7	304	837.50	5,640	+	1945-49
03330360	Little Barbee Lake near North Webster [d]	Kosciusko	49.0	74	837.50	960	+	1945-49
03330380	Shoe Lake near Oswego	Kosciusko	.34	40	841.57	------	-	1946-53, 1972,74, 1976-2002
03330400	Banning Lake near North Webster [d]	Kosciusko	.48	12	837.50	110	+	1945-
03330420	Irish Lake near North Webster [d]	Kosciusko	50.9	182	837.50	2,330	+	1945-
03330440	Sechrist Lake near North Webster [d]	Kosciusko	.58	105	837.50	2,490	+	1945-
03330460	Sawmill Lake near North Webster	Kosciusko	51.8	36	837.50	370	+	1945-2002
03330480	Tippecanoe Lake at Oswego	Kosciusko	113	768	836.40	28,380	+	1943-2002
03330495	Oswego Lake at Oswego [c]	Kosciusko	113	83	836.40	780	+	1943-
03331010	Big Chapman Lake near Warsaw [2]	Kosciusko	4.17	581	827.75	6,080	+	1945-71, 1976-

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					
03331020	Little Chapman Lake near Warsaw [e]	Kosciusko	7.13	77	827.75	1,990	+	1945-71, 1976-
03331040	Pike Lake at Warsaw	Kosciusko	41.5	203	805.64	2,830	+	1954-2002
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	+	1954-2002
03331140	Winona Lake at Warsaw	Kosciusko	32.1	562	811.06	16,680	+	1943-2002
03331160	Center Lake at Warsaw	Kosciusko	0.73	120	803.86	2,060	+	1945-2002
03331180	Palestine Lake at Palestine	Kosciusko	32.4	290	--------	1,170	+	1954-2002
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	+	1952-2002
03331320	Diamond Lake near Silver Lake	Kosciusko	3.92	79	--------	1,280	+	1954-2002
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	+	1943-2002
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	+	1946-2002
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	+	1971-2002
03331440	Lake Maxinkuckee at Culver [9]	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	+	1954-2002

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	------	-	1946-2002
04097520	Lake Pleasant near Nevada Mills	Steuben	3.18	24	961.50	3,490	+	1954-69, 1971, 1976-2002
04097550	Lake George at Jamestown	Steuben	[a]14.7	488	985.28	------	-	1946-2002
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	+	1946-2002
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	+	1946-2002
04097950	Lake Gage at Panama	Steuben	[a]17.3	332	954.25	10,140	+	1946-2002
04097960	Lime Lake at Panama [f]	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	+	1946-2002
04099250	Bower Lake near Pleasant Lake	Steuben	[a]84.6	25	948.50	280	+	1946-71, 1976-2002

Lakes in the St. Lawrence 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
			STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued					
04099260	Golden Lake near Pleasant Lake [g]	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	+	1946-2002
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 [h]	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, 1976-2002
04099600	Big Long Lake near Stroh	Lagrange	4.77	388	956.2	------	-	1954-2002
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 [i]	Lagrange	4.69	69	936.50	1,630	+	1952-66
04099670	Fish Lake near Plato	Lagrange	[a]10.6	100	936.50	4,050	+	1945-2002
04099700	North Twin Lake near Howe	Lagrange	1.54	135	843.56	2,120	+	1953-2002
04099710	South Twin Lake near Howe [j]	Lagrange	2.22	116	843.56	3,600	+	1953-70
04099740	Shipshewana Lake near Shipshewana	Lagrange	[a]6.74	202	852.04	1,350	+	1951-2002
04099760	Fish Lake near Scott	Lagrange	[a]6.21	139	814.42	2,560	+	1954-73, 1976-2002
04099780	Stone Lake near Scott	Lagrange	1.51	152	818.76	2,060	+	1954-73, 1976-2002
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, 1976-2002
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	+	1946-2002
04100040	Atwood Lake near Wolcottville	Lagrange	1.23	170	899.99	1,560	+	1948-53
04100050	Witmer Lake near Wolcottville [k]	Lagrange	36.1	204	897.36	7,040	+	1945-
04100060	Westler Lake near Wolcottville [k]	Lagrange	37.8	88	897.36	1,770	+	1945-
04100070	Dallas Lake near Wolcottville [k]	Lagrange	39.8	283	897.36	9,970	+	1945-
04100080	Martin Lake near Valentine [m]	Lagrange	4.93	26	899.45	890	+	1945-
04100090	Olin Lake near Valentine [m]	Lagrange	5.81	103	899.45	9,180	+	1945-
04100100	Oliver Lake near Valentine	Lagrange	11.1	362	899.45	15,358	+	1945-2002
04100110	Hackenburg Lake near Wolcottville	Lagrange	55.4	42	897.36	510	+	1945-2002
04100120	Messick Lake near Wolcottville [k]	Lagrange	56.4	68	897.36	1,450	+	1945-
04100130	Jones Lake near Cosperville [7, n]	Noble	70.3	114	885.55	960	+	1948-
04100140	Bixler Lake at Kendallville	Noble	5.28	120	963.65	2,090	+	1945-2002
04100150	Round Lake at Kendallville [o]	Noble	3.47	99	954.50	2,140	+	1954-
04100160	Little Long Lake at Kendallville	Noble	4.55	71	954.50	1,750	+	1954-2002
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 [n]	Noble	15.9	50	885.55	880	+	1948-
04100210	Steinbarger Lake near Cosperville [n]	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	+	1961-2002
04100260	Bear Lake near Wolflake	Noble	6.98	136	894.60	3,030	+	1943-2002
04100280	Muncie Lake near Burr Oak	Noble	42.8	47	--------	580	+	1954-2002
04100290	Silver Lake near Wolflake	Noble	.28	34	--------	220	+	1953-63

Lakes in the St. Lawrence 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
			STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued					
04100300	Skinner Lake near Albion	Noble	14.0	125	927.74	1,750	+	1945-72, 1977-2002
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	+	1956-2002
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	+	1946-2002
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, 1977-2002
04100380	Harper Lake near Washington Center [p]	Noble	2.76	11	878.25	160	+	1946-
04100390	Knapp Lake near Washington Center	Noble	6.02	88	878.25	3,040	+	1946-2002
04100400	Moss Lake near Washington Center [p]	Noble	6.12	9	878.25	80	+	1946-
04100410	Hindman Lake near Washington Center [p]	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	--------	------	-	1964-67
04100448	Papakeechie Lake near Syracuse	Kosciusko	5.52	300	--------	------	-	1964-67
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	+	1943-2002
04100470	Dewart Lake near Leesburg	Kosciusko	[a]8.05	551	867.70	9,000	+	1945-2002
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	+	1943-2002
04177210	Round Lake at Clear Lake [q]	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	+	1961-2002
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

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	+	1946-76, 1978-95
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	-----	--------	------	-	1960-2002
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, 1980-2002
05515230	Stone Lake at LaPorte [u]	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, 1980-2002

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--Continued					
05515600	Koontz Lake at Koontz Lake	Starke	[a]6.25	346	714.56	3,170	+	1943-2002
05515800	Riddles Lake near Lakeville	St. Joseph	[a]11.7	77	817.50	640	+	1946-73, 1976-2002
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 1989-00
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	------	-	1943-2002
05517600	Wauhob Lake near Valparaiso	Porter	.40	21	--------	------	-	1946-2002
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	------	-	1946-2002
05517800	Lake Eliza near Beatrice	Porter	1.70	45	738.70	------	-	1954-74, 1976-2002
05518700	Cedar Lake at Cedar Lake	Lake	8.14	781	--------	6,750	+	1943-2002
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.
[9] Formerly published as Maxinkuckee Lake at Culver

[a] Contains drainage area (5 percent or greater) that does not contribute directly to surface-water runoff.
[b] Has same control structure and level records as Silver Lake at Silver Lake.
[c] Has same control structure and level records as Tippecanoe Lake at Oswego.
[d] Has same control structure and level records as Sawmill Lake near North Webster.
[e] Has same control structure and level records as Big Chapman Lake near Warsaw.
[f] Has same control structure and level records as Lake Gage at Panama.
[g] Has same control structure and level records as Bower Lake near Pleasant Lake.
[h] Has same control structure and level records as Lake of The Woods near Helmer.
[i] Has same control structure and level records as Fish Lake near Plato.
[j] Has same control structure and level records as North Twin Lake near Howe.
[k] Has same control structure and level records as Hackenburgh Lake near Wolcottville.
[m] Has same control structure and level records as Oliver Lake near Valentine.
[n] Has same control structure and level records as Waldron Lake near Cosperville.
[o] Has same control structure and level records as Little Long Lake at Kendallville.
[p] Has same control structure and level records as Knapp Lake near Washington Center.
[q] Has same control structure and level records as Clear Lake at Clear Lake.
[u] Has same control structure and level records as Pine Lake at Laporte.

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

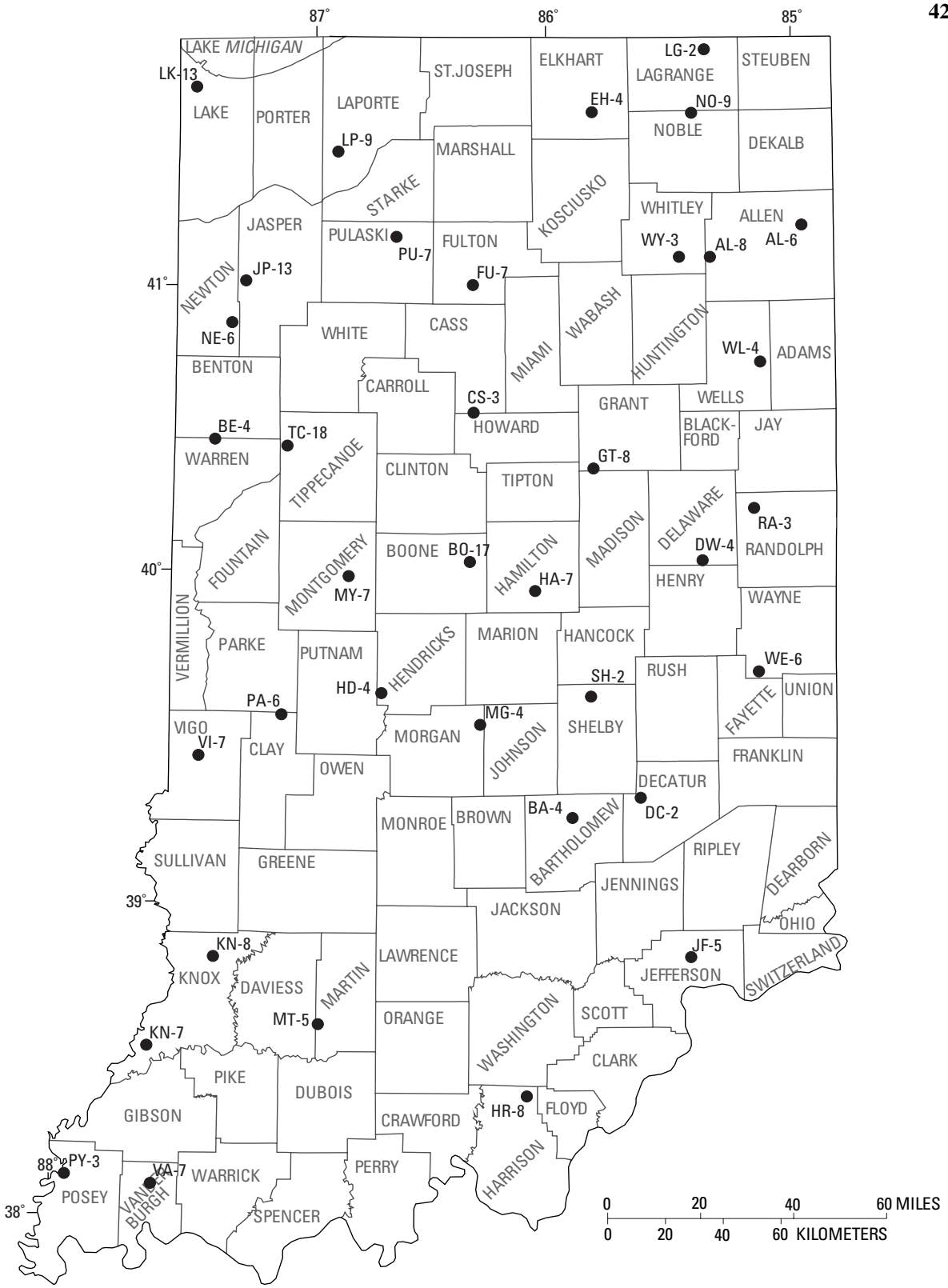


Figure 9.--Locations of ground-water wells having water-level records for Water Year 2004.

ALLEN COUNTY

410932084561101. Local number, AL 6.

LOCATION.--Lat 41°09'32", long 84°56'11", in SW¼SW¼NE¼ sec.10, T.3l N., R.14 E., Allen County, Hydrologic Unit 04100005, (GRABILL, IN quadrangle), 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 8l.5 ft, screened to 83.5 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 760 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 2.50 ft above land-surface datum.

REMARKS.--Water level affected by pumpage.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.38 ft below land-surface datum, June 15, 2004; lowest, 15.10 ft below land-surface datum, Nov. 26, 1994.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

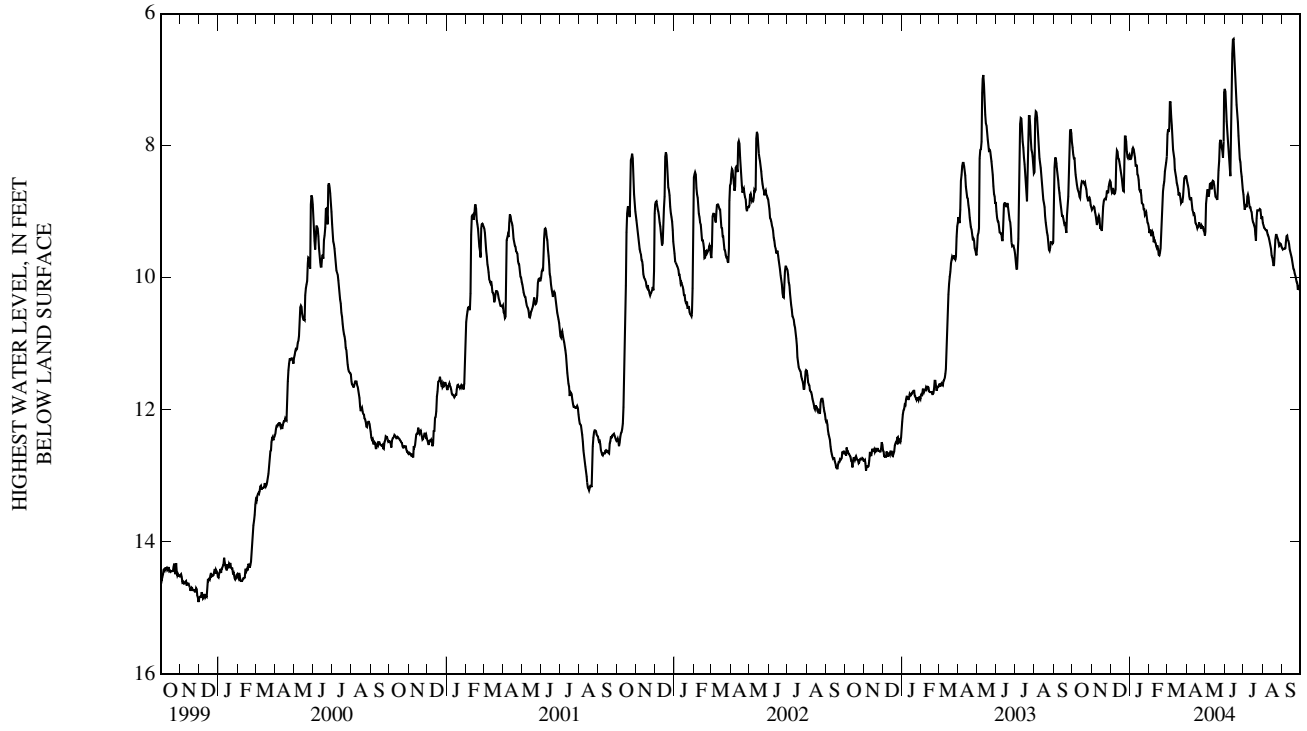
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.35	8.93	8.64	8.05	9.34	7.34	8.76	8.67	7.78	8.90	9.27	9.56
10	8.68	9.16	8.21	8.30	9.45	8.06	8.97	8.58	8.46	8.87	9.37	9.42
15	8.58	9.24	8.24	8.52	9.56	8.48	9.17	8.60	6.38	9.10	9.66	9.65
20	8.58	8.84	8.60	8.87	9.39	8.71	9.22	8.82	7.38	9.34	9.59	9.88
25	8.80	8.69	7.86	9.05	8.54	8.85	9.21	7.91	8.20	8.98	9.41	10.08
EOM	8.93	8.53	8.14	9.23	8.16	8.46	9.36	7.19	8.67	9.07	9.53	10.18
MIN	8.03	8.53	7.86	8.03	8.16	7.34	8.52	7.19	6.38	8.74	9.17	9.36

WTR YR 2004 HIGH 6.38 JUN 15

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.46	9.10	8.72	8.14	9.45	7.74	8.96	8.83	7.99	9.00	9.33	9.58
10	8.77	9.24	8.66	8.38	9.47	8.17	9.11	8.73	8.56	8.96	9.47	9.45
15	8.68	9.31	8.41	8.66	9.66	8.63	9.28	8.73	6.54	9.19	9.72	9.71
20	8.72	8.92	8.70	8.94	9.55	8.82	9.33	9.01	7.52	9.51	9.80	9.98
25	8.95	8.77	7.94	9.10	8.60	8.96	9.28	8.01	8.28	9.04	9.58	10.23
EOM	9.04	8.61	8.21	9.33	8.25	8.58	9.45	7.94	8.74	9.19	9.62	10.26
MAX	9.04	9.38	8.81	9.33	9.70	8.96	9.45	9.46	8.74	9.56	9.85	10.26

WTR YR 2004 LOW 10.26 SEP 30



ALLEN COUNTY

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, (ARCOLA, IN quadrangle), on Covington Road about 5 mi west of Interstate 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 National Geodetic Vertical Datum of 1929. 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 June 7, 2004 (discontinued). Records for WY1988, WY1989, WY1990 published as AL 7.

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, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

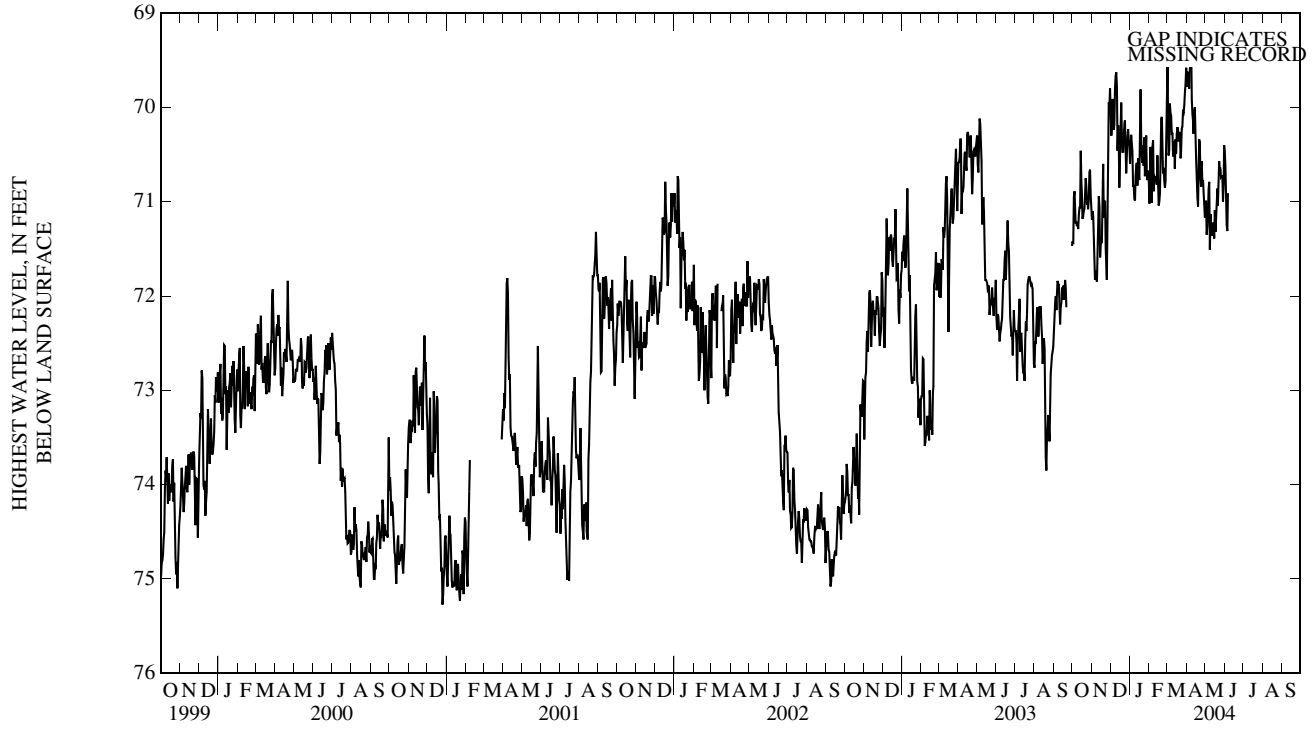
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	71.07	71.50	69.95	70.47	71.01	69.96	69.80	71.12	71.31	---	---	---
10	71.29	71.58	69.63	70.72	70.74	70.52	70.07	71.24	---	---	---	---
15	70.80	71.48	70.85	70.71	70.70	70.49	70.22	71.39	---	---	---	---
20	71.08	71.17	70.47	70.54	70.12	70.26	70.79	70.86	---	---	---	---
25	71.00	71.83	70.37	70.73	70.78	70.21	70.57	70.66	---	---	---	---
EOM	71.08	69.80	70.40	70.75	69.89	69.58	71.17	70.40	---	---	---	---
MIN	70.46	69.80	69.63	69.81	69.89	69.56	69.33	70.40	---	---	---	---

WTR YR 2004 HIGH 69.33 APR 8

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	71.42	72.25	70.55	71.28	71.53	70.94	70.36	71.91	71.94	---	---	---
10	71.51	71.99	70.23	71.76	71.15	71.14	70.91	72.11	---	---	---	---
15	71.07	71.83	71.48	71.61	71.94	71.11	70.99	71.98	---	---	---	---
20	71.57	71.70	71.39	71.33	70.67	70.80	71.84	71.55	---	---	---	---
25	71.43	72.44	70.83	71.43	71.61	70.85	71.48	71.36	---	---	---	---
EOM	71.27	70.29	71.07	71.69	70.51	70.47	71.81	70.96	---	---	---	---
MAX	71.93	72.54	71.48	71.76	71.94	71.39	71.99	72.11	---	---	---	---

WTR YR 2004 LOW 72.54 NOV 8



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, (EDINBURGH, IN quadrangle), by a cemetery on the north side of Bakalar AFB at the northern city limits of Columbus.
Owner: Bartholomew County.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 93 ft, cased to 85 ft, screened to 90 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 654.04 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 2.60 ft above land-surface datum.

REMARKS.--Water level affected by agricultural withdrawals during May - August growing season.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.77 ft below land-surface datum, May 23-24, 2002; lowest, 21.18 ft below land-surface datum, July 2, 1992.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

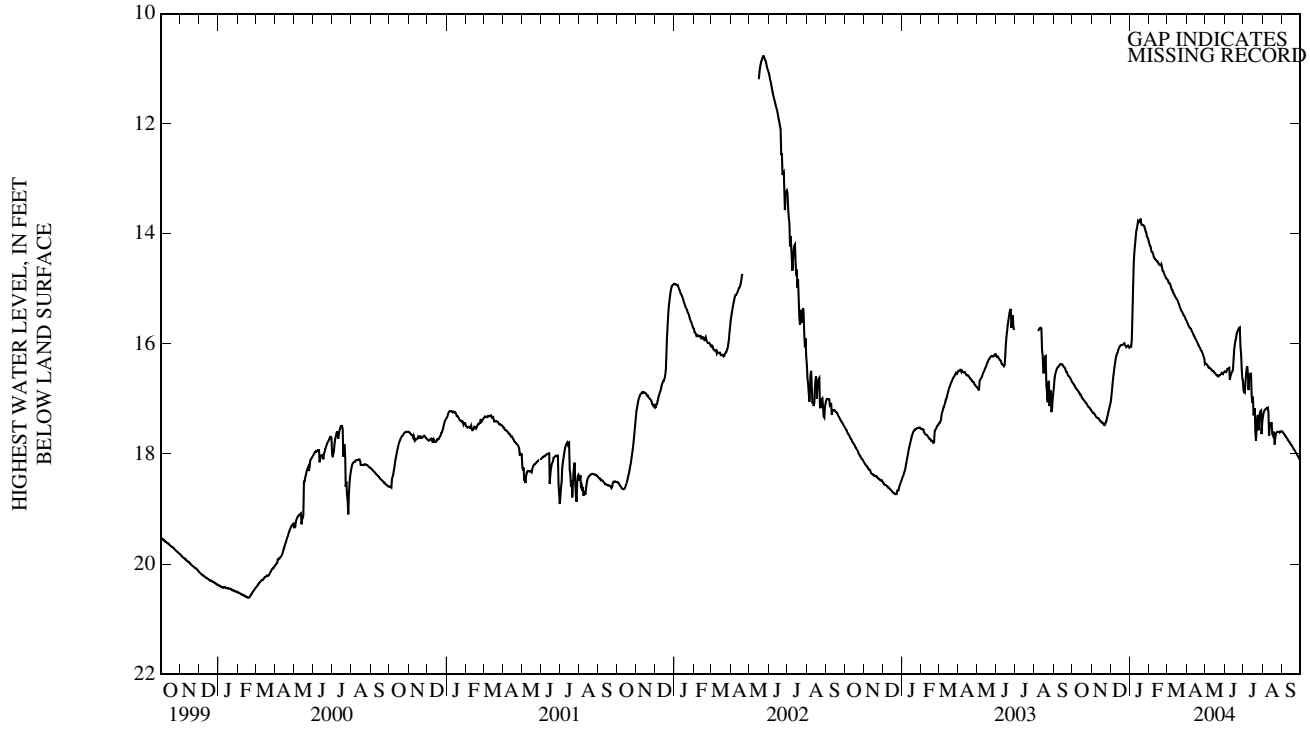
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.78	17.27	16.63	15.41	14.33	14.90	15.69	16.40	16.46	16.56	17.19	17.66
10	16.86	17.35	16.22	14.07	14.46	15.07	15.79	16.46	16.59	16.66	17.24	17.74
15	16.95	17.41	16.06	13.79	14.51	15.17	15.91	16.52	16.28	17.07	17.44	17.83
20	17.04	17.47	16.02	13.84	14.55	15.29	16.03	16.57	15.83	17.59	17.83	17.92
25	17.12	17.36	16.04	13.91	14.73	15.43	16.13	16.56	15.70	17.57	17.60	18.02
EOM	17.21	17.11	16.07	14.14	14.82	15.57	16.37	16.51	16.65	17.43	17.59	18.11
MIN	16.71	17.11	15.99	13.74	14.18	14.83	15.59	16.36	15.70	16.41	17.16	17.59

WTR YR 2004 HIGH 13.74 JAN 18

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.80	17.29	16.73	15.93	14.35	14.93	15.71	16.43	16.50	16.73	17.20	17.67
10	16.88	17.35	16.28	14.19	14.47	15.08	15.81	16.47	16.65	16.84	17.73	17.76
15	16.97	17.41	16.09	13.82	14.55	15.19	15.93	16.53	16.48	17.23	17.63	17.84
20	17.05	17.48	16.04	13.86	14.60	15.33	16.04	16.59	15.89	17.76	18.05	17.94
25	17.14	17.41	16.06	13.96	14.76	15.45	16.16	16.57	16.04	17.82	17.60	18.04
EOM	17.23	17.16	16.08	14.18	14.83	15.59	16.43	16.52	16.92	17.64	17.59	18.13
MAX	17.23	17.48	17.11	16.09	14.83	15.59	16.43	16.59	16.92	18.04	18.05	18.13

WTR YR 2004 LOW 18.13 SEP 30



BENTON COUNTY

402851087213501. Local number, BE 4.

LOCATION.--Lat 40°28'51", long 87°21'35", in SE¼NE¼SE¼ sec.31, T.24 N., R.8 W., Benton County, Hydrologic Unit 05120108, (PINE VILLAGE, IN quadrangle), 1.2 mi east of State Road 41, on north side of county road 850 S, 3.6 mi southeast of Boswell.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 310 ft, cased to 300 ft, screened to 305 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 710 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 2.19 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, 17.34 ft below land-surface datum, Mar. 17-18, 2000.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

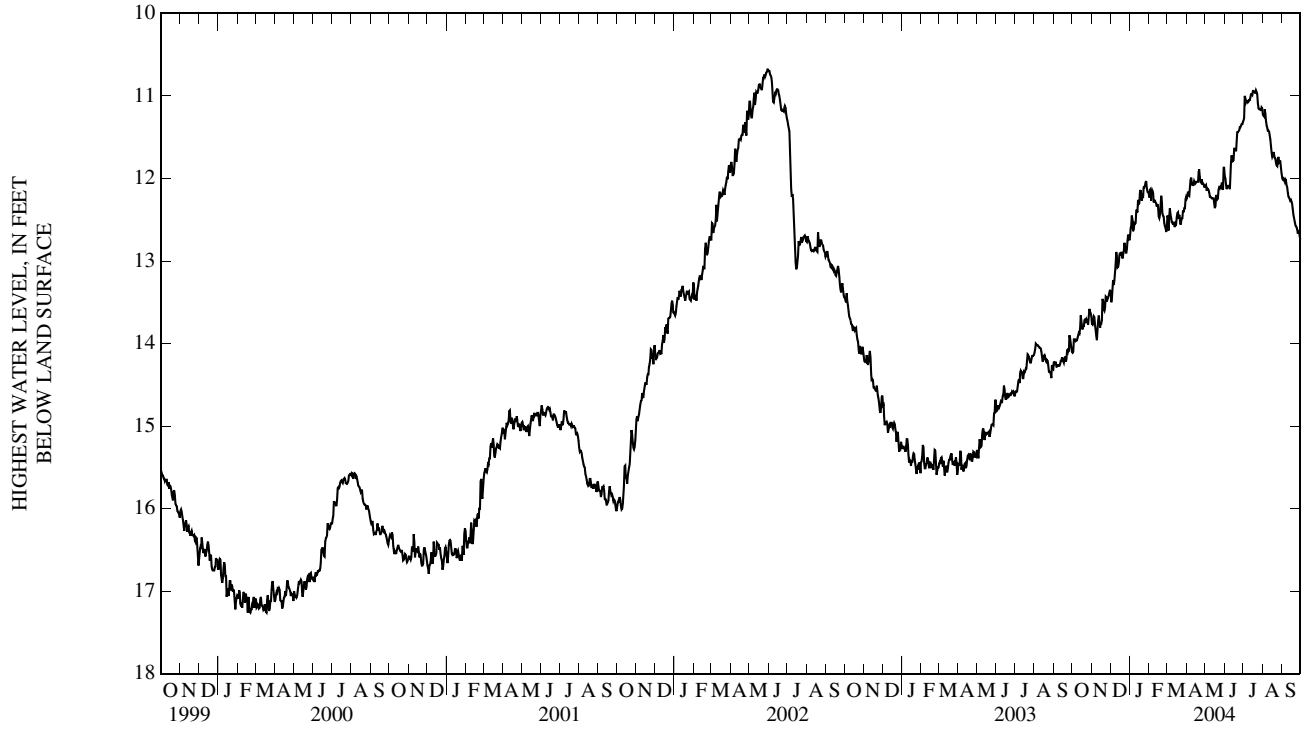
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.95	13.68	13.23	12.50	12.19	12.36	12.21	12.13	12.10	11.08	11.22	12.04
10	13.90	13.82	12.89	12.54	12.27	12.56	12.08	12.23	12.00	11.05	11.42	12.17
15	13.73	13.76	12.94	12.31	12.34	12.55	12.06	12.30	11.78	10.99	11.69	12.26
20	13.72	13.58	12.97	12.27	12.21	12.44	11.92	12.25	11.56	10.96	11.75	12.48
25	13.74	13.49	12.87	12.09	12.54	12.48	12.01	12.10	11.38	11.15	11.76	12.62
EOM	13.67	13.35	12.75	12.18	12.59	12.22	12.10	11.87	11.32	11.15	11.94	12.74
MIN	13.58	13.35	12.68	12.03	12.13	12.22	11.89	11.87	11.32	10.93	11.16	11.99

WTR YR 2004 HIGH 10.93 JUL 21

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.98	13.78	13.32	12.64	12.34	12.46	12.26	12.18	12.14	11.16	11.31	12.06
10	13.94	13.96	13.04	12.60	12.29	12.62	12.10	12.26	12.14	11.09	11.44	12.22
15	13.78	13.82	13.04	12.35	12.46	12.57	12.10	12.36	11.83	11.02	11.74	12.29
20	13.80	13.62	13.02	12.31	12.32	12.51	12.10	12.28	11.66	10.99	11.77	12.52
25	13.81	13.56	12.91	12.23	12.58	12.52	12.06	12.16	11.45	11.18	11.90	12.68
EOM	13.76	13.39	12.80	12.24	12.65	12.28	12.14	11.98	11.37	11.22	11.99	12.76
MAX	14.15	14.00	13.53	12.80	12.66	12.66	12.28	12.40	12.17	11.34	11.99	12.76

WTR YR 2004 LOW 14.15 OCT 2



BOONE COUNTY

400532086183901. Local number, BO 17.

LOCATION.--Lat 40°05'32", long 86°18'39", in SW¼SE¼NW¼ sec.16, T.19 N., R.2 E., Boone County, Hydrologic Unit 05120201, (ROSSTON, IN quadrangle), 0.6 mi north along U.S. Highway 421 from the intersection of U.S. Highway 421 and County Road 300 North at Waugh on the west side of the highway at the residence of John Sheets.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 171.8 ft, cased to 166.8 ft, screened to 171.8 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 956.50 ft above National Geodetic Vertical Datum of 1929. Measuring point: Mark on top of casing, 3.50 ft above land-surface datum.

REMARKS.--Water level may be affected by pumpage.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 45.87 ft below land-surface datum, July 11-13, 1986; lowest, 55.69 ft below land-surface datum, Oct. 3, 1999.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

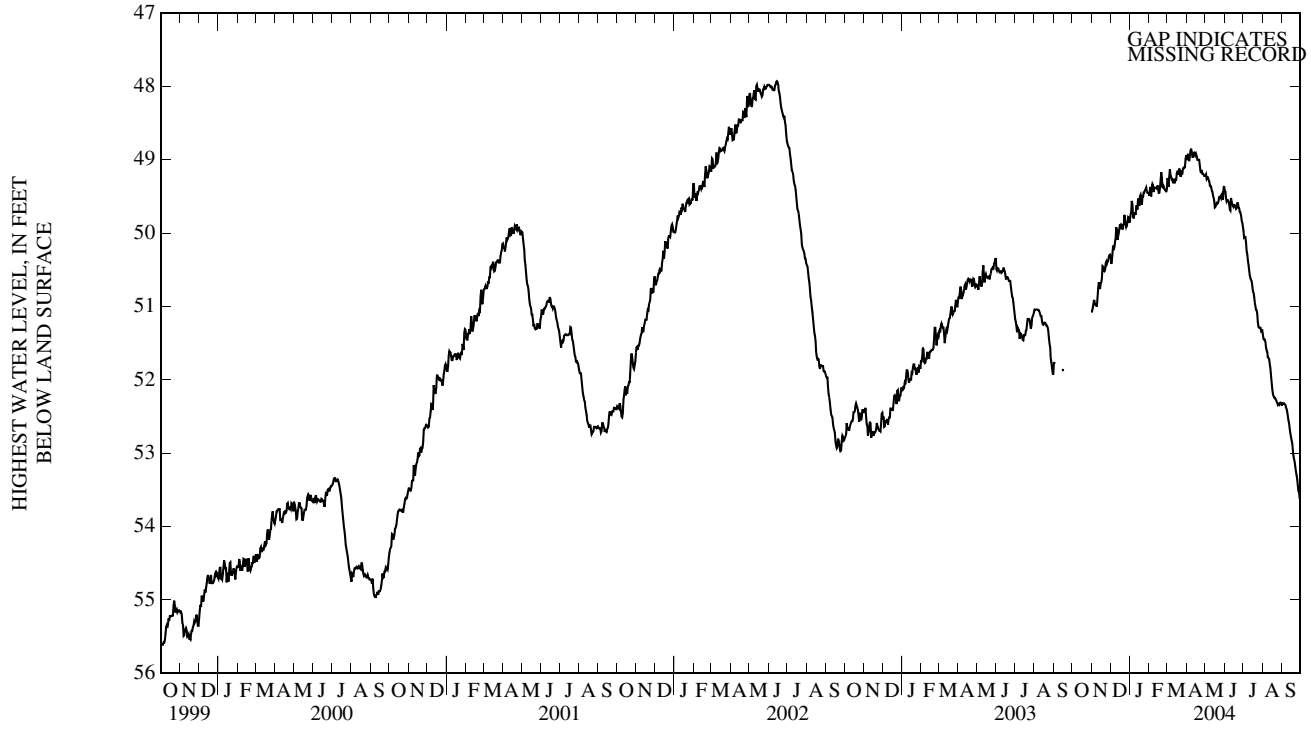
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	50.92	50.17	49.61	49.37	49.13	49.02	49.24	49.55	50.13	51.48	52.33
10	---	50.86	49.92	49.75	49.38	49.32	48.96	49.37	49.69	50.50	51.70	52.49
15	---	50.69	49.94	49.58	49.36	49.28	48.94	49.56	49.64	50.72	52.04	52.78
20	---	50.51	49.95	49.61	49.17	49.12	49.00	49.60	49.66	50.99	52.25	53.08
25	---	50.42	49.87	49.42	49.39	49.18	49.14	49.50	49.71	51.28	52.34	53.36
EOM	51.07	50.29	49.86	49.46	49.40	48.94	49.22	49.36	49.91	51.32	52.34	53.63
MIN	---	50.29	49.75	49.38	49.17	48.94	48.85	49.20	49.42	49.97	51.38	52.32

WTR YR 2004 HIGH 48.85 APR 8

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	50.98	50.26	49.77	49.54	49.23	49.05	49.30	49.58	50.25	51.56	52.34
10	---	50.99	50.07	49.79	49.40	49.34	48.96	49.41	49.71	50.57	51.71	52.55
15	---	50.76	50.01	49.63	49.45	49.30	48.97	49.65	49.69	50.79	52.13	52.83
20	---	50.53	50.00	49.62	49.28	49.23	49.08	49.62	49.70	51.04	52.31	53.12
25	---	50.48	49.92	49.53	49.41	49.20	49.19	49.54	49.72	51.31	52.34	53.45
EOM	51.10	50.32	49.89	49.50	49.44	49.00	49.26	49.42	49.97	51.38	52.34	53.68
MAX	---	51.12	50.43	49.89	49.54	49.41	49.26	49.69	49.97	51.38	52.34	53.68

WTR YR 2004 LOW 53.68 SEP 30



CASS COUNTY

403407086175701. Local number, CS 3.

LOCATION.--Lat 40°34'07", long 86°17'57", in NE¼NE¼SE¼ sec.33, T.25 N., R.2 E., Cass County, Hydrologic Unit 05120105, (YOUNG AMERICA, IN quadrangle), 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 National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 2.65 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.85 ft below land-surface datum, Feb. 2, 1968; lowest, 13.56 ft below land-surface datum, Jan. 28, 2000.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

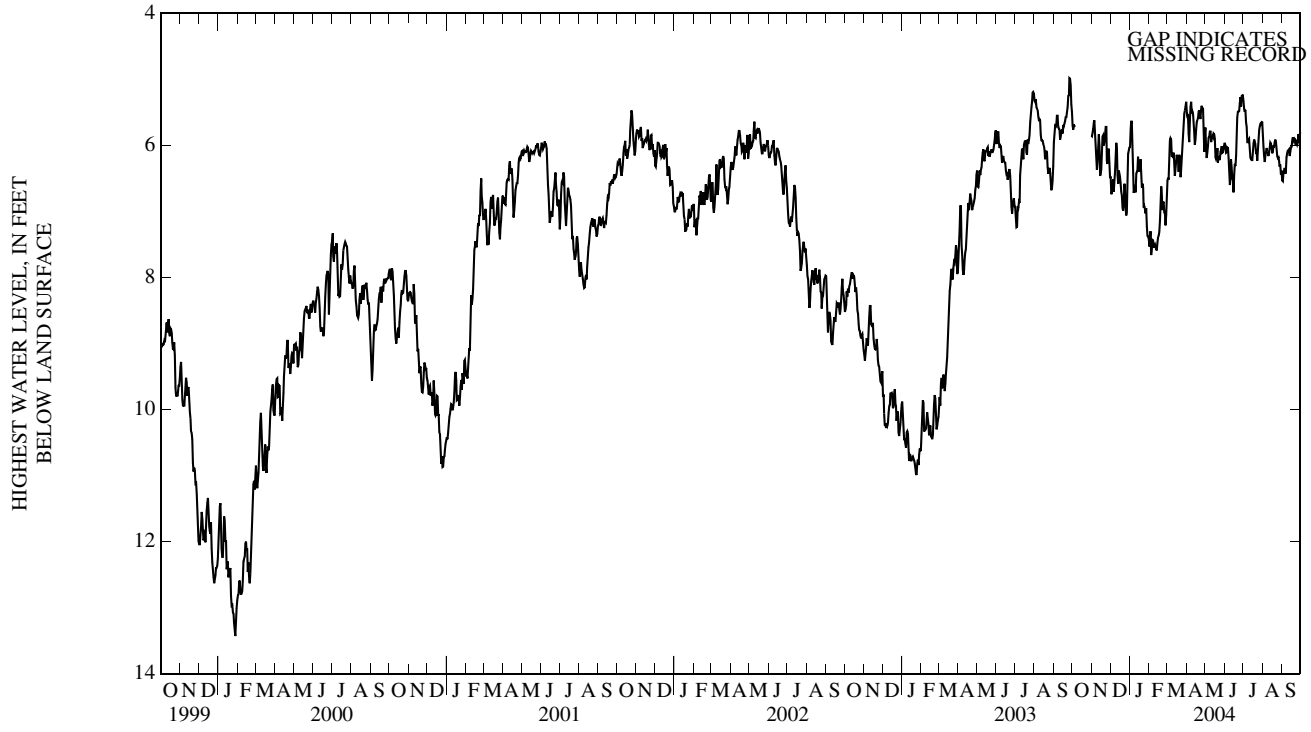
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.72	5.62	6.51	5.90	7.57	5.93	5.95	6.01	6.03	5.65	6.15	6.34
10	---	6.24	5.96	6.71	7.50	6.19	5.49	5.95	6.53	5.90	6.16	6.08
15	---	6.43	6.42	6.34	7.40	6.24	5.91	5.83	6.71	6.22	6.04	6.03
20	---	6.00	6.94	6.64	6.62	6.14	5.49	6.04	5.90	5.97	5.95	5.94
25	---	6.23	6.93	6.96	7.01	6.00	5.40	6.10	5.36	5.93	6.19	5.99
EOM	5.85	6.48	6.03	7.41	6.76	5.34	5.82	6.00	5.24	5.64	6.38	5.80
MIN	---	5.62	5.96	5.64	6.62	5.34	5.34	5.73	5.24	5.33	5.82	5.80

WTR YR 2004 HIGH 5.24 JUN 29

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.81	5.87	6.76	6.33	7.73	6.24	6.15	6.16	6.13	5.87	6.26	6.51
10	---	6.43	6.14	6.80	7.61	6.36	5.69	6.05	6.75	6.06	6.22	6.20
15	---	6.50	6.53	6.51	7.50	6.38	6.08	5.94	6.81	6.34	6.22	6.20
20	---	6.11	7.10	6.76	6.88	6.40	5.81	6.27	6.15	6.19	6.15	6.10
25	---	6.35	7.08	7.04	7.08	6.16	5.52	6.22	5.64	6.09	6.26	6.10
EOM	6.02	6.58	6.18	7.56	7.05	5.57	6.10	6.12	5.42	5.91	6.62	5.90
MAX	---	6.58	7.19	7.56	7.77	6.76	6.23	6.37	6.81	6.34	6.62	6.71

WTR YR 2004 LOW 7.77 FEB 4



DECATUR COUNTY

392022085371801. Local number, DC 2.

LOCATION.--Lat 39°20'22", long 85°37'18", in SE¼NE¼SW¼ sec.3, T.10 N., R.8 E., Decatur County, Hydrologic Unit 05120206, (FOREST HILL, IN quadrangle), 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 840.80 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 3.02 ft above land-surface datum.

PERIOD OF RECORD.--September 1966 to October 1971, September 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.06 ft below land-surface datum, Jan. 4, 2004; lowest, 9.25 ft below land-surface datum, Feb. 9-11, 1977.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

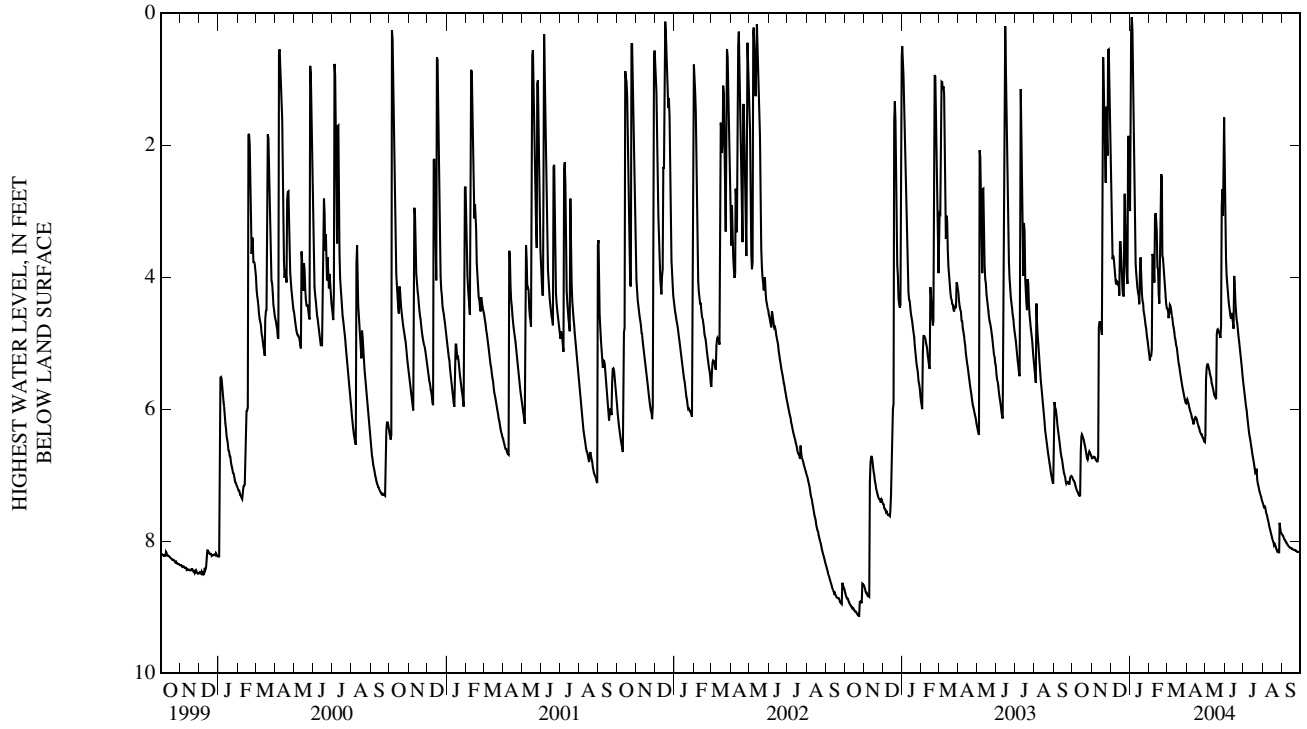
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.14	6.73	3.67	0.26	5.09	4.42	5.97	5.32	4.13	5.96	7.50	7.98
10	7.27	6.79	4.11	3.80	3.10	4.72	6.15	5.54	4.58	6.36	7.70	8.06
15	6.42	4.72	4.28	4.28	3.88	5.03	6.12	5.78	4.78	6.67	7.92	8.10
20	6.52	0.94	4.18	4.24	2.44	5.35	6.27	4.80	4.64	6.97	8.04	8.13
25	6.76	1.71	3.29	4.64	4.03	5.66	6.38	4.92	5.08	7.17	8.14	8.16
EOM	6.71	1.16	2.25	5.10	4.47	5.91	6.50	1.58	5.54	7.39	7.88	8.16
MIN	6.38	0.55	1.58	0.06	2.44	4.42	5.85	1.58	2.05	5.62	7.42	7.90

WTR YR 2004 HIGH 0.06 JAN 4

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.18	6.75	3.96	0.82	5.22	4.54	6.01	5.36	4.25	6.04	7.56	7.99
10	7.30	6.81	4.17	3.95	4.25	4.78	6.20	5.60	4.64	6.43	7.76	8.08
15	6.64	4.78	4.34	4.41	4.25	5.07	6.14	5.81	4.86	6.73	7.96	8.12
20	6.56	1.32	4.29	4.36	3.74	5.43	6.29	4.86	4.70	7.02	8.10	8.15
25	6.81	2.16	3.82	4.73	4.17	5.71	6.42	4.99	5.18	7.22	8.18	8.18
EOM	6.74	1.58	3.00	5.19	4.53	5.96	6.53	2.32	5.62	7.42	7.90	8.18
MAX	7.34	6.82	4.38	5.19	5.30	5.96	6.53	6.53	5.62	7.42	8.22	8.18

WTR YR 2004 LOW 8.22 AUG 28



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, (MOUNT PLEASANT, IN quadrangle), on property owned by Monroe Township Conservation Club, 0.6 mi east from County Road 700 S, and 8.0 mi south of Muncie.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 91 ft, cased to 89 ft, screened to 91 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 1,005 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 2.88 ft above land-surface datum.

PERIOD OF RECORD.--October 1966 to October 1971, October 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 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, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

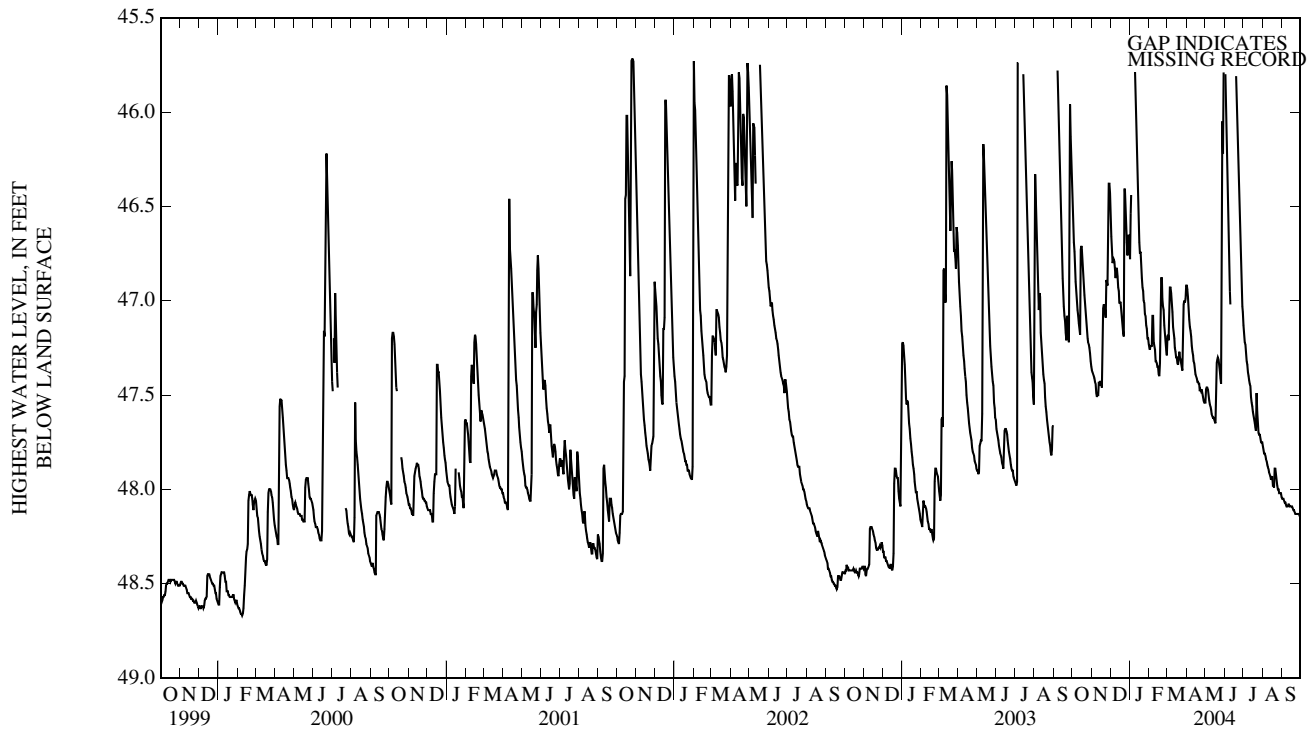
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	46.82	47.41	46.79	---	47.24	46.93	47.10	47.47	46.46	47.28	47.82	48.07
10	47.08	47.50	46.83	45.95	47.26	47.14	47.27	47.58	47.02	47.42	47.89	48.09
15	46.71	47.43	47.01	46.58	47.35	47.30	47.39	47.63	---	47.56	47.94	48.09
20	46.97	47.02	47.13	46.88	46.88	47.27	47.44	47.31	46.00	47.67	47.89	48.11
25	47.20	46.90	46.48	47.07	47.13	47.37	47.47	47.41	46.73	47.70	48.00	48.13
EOM	47.35	46.43	46.69	47.23	47.29	46.92	47.54	---	47.06	47.75	48.04	48.14
MIN	46.49	46.38	46.41	---	46.88	46.92	46.92	---	---	47.13	47.77	48.05

WTR YR 2004 HIGH 45.78 JAN 9

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	46.90	47.43	46.86	---	47.30	47.03	47.15	47.50	46.60	47.32	47.84	48.08
10	47.12	47.52	46.93	46.13	47.32	47.17	47.29	47.60	47.08	47.44	47.91	48.12
15	46.73	47.43	47.04	46.69	47.39	47.32	47.40	47.64	---	47.59	47.97	48.10
20	47.01	47.04	47.17	46.93	47.10	47.31	47.45	47.33	46.18	47.69	48.00	48.12
25	47.24	46.92	46.58	47.09	47.17	47.39	47.49	47.44	46.81	47.71	48.01	48.14
EOM	47.37	46.52	46.78	47.26	47.31	46.99	47.56	---	47.13	47.77	48.05	48.15
MAX	47.37	47.55	47.21	---	47.42	47.39	47.56	---	---	47.77	48.05	48.15

WTR YR 2004 LOW 48.15 SEP 23



ELKHART COUNTY

413121085481301. Local number, EH 4.

LOCATION.--Lat 41°31'22", long 85°48'14", in SW¼SE¼SW¼ sec.35, T.36 N., R.6 E., Elkhart County, Hydrologic Unit 04050001, (GOSHEN, IN quadrangle), at the southwest corner of Goshen Municipal Airport, at intersection of County Roads 42 and 27.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 62 ft, cased to 58 ft, screened to 60 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 818 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 2.60 ft above land-surface datum.

REMARKS.--Water level slightly affected by irrigation pumpage.

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, 16.57 ft below land-surface datum, Sept. 9, 2000.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

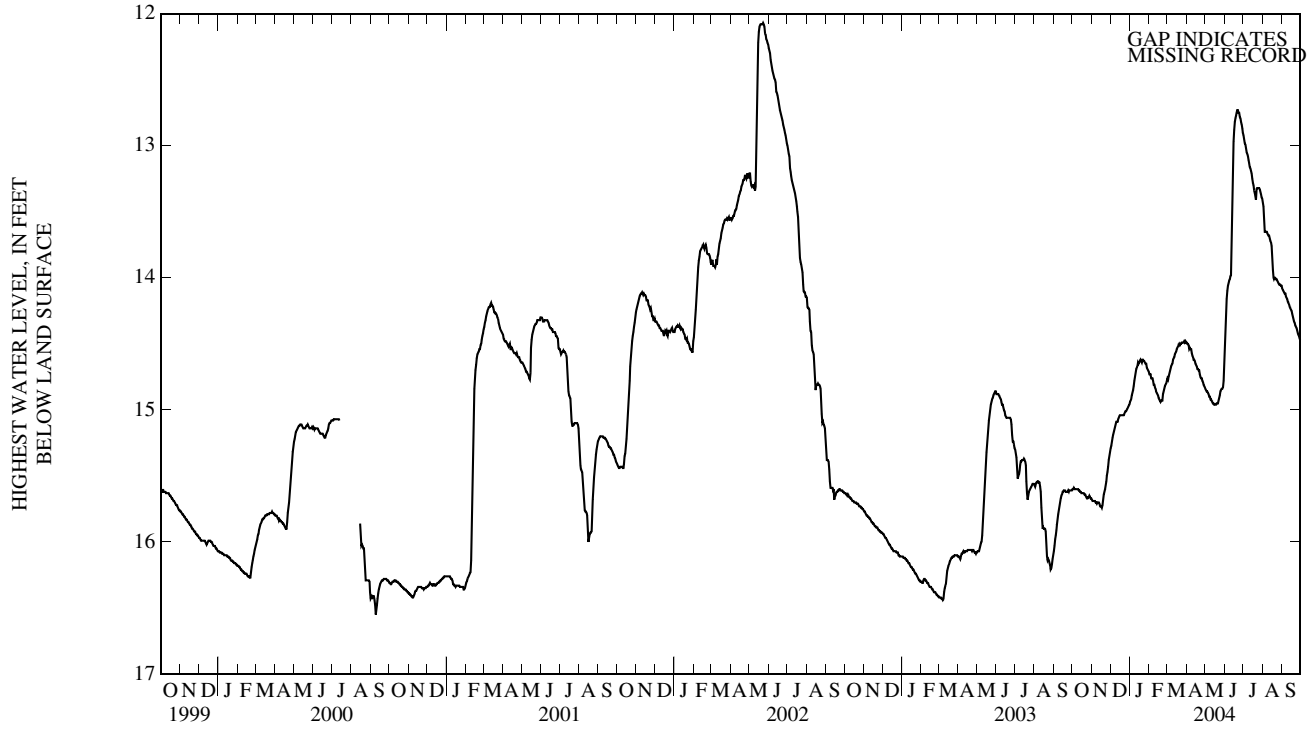
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.60	15.69	15.19	14.87	14.76	14.71	14.54	14.87	14.10	13.02	13.65	14.12
10	15.60	15.70	15.09	14.72	14.83	14.62	14.59	14.92	13.99	13.13	13.68	14.18
15	15.63	15.73	15.05	14.65	14.89	14.56	14.65	14.96	12.97	13.25	13.76	14.24
20	15.64	15.64	15.04	14.64	14.93	14.50	14.70	14.95	12.75	13.38	14.00	14.33
25	15.67	15.50	15.01	14.64	14.84	14.49	14.76	14.86	12.78	13.32	14.03	14.40
EOM	15.67	15.32	14.96	14.71	14.78	14.49	14.83	14.64	12.90	13.40	14.06	14.47
MIN	15.59	15.32	14.96	14.62	14.73	14.48	14.49	14.64	12.73	12.92	13.43	14.08

WTR YR 2004 HIGH 12.73 JUN 21

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.60	15.70	15.21	14.89	14.78	14.73	14.55	14.88	14.16	13.05	13.65	14.12
10	15.61	15.71	15.11	14.75	14.84	14.65	14.60	14.93	14.01	13.16	13.68	14.19
15	15.63	15.73	15.06	14.66	14.91	14.57	14.66	14.96	13.12	13.28	13.84	14.26
20	15.64	15.68	15.05	14.64	14.94	14.51	14.72	14.96	12.77	13.41	14.01	14.34
25	15.68	15.54	15.02	14.67	14.86	14.50	14.78	14.89	12.79	13.33	14.05	14.42
EOM	15.68	15.35	14.97	14.73	14.80	14.50	14.84	14.78	12.92	13.43	14.08	14.49
MAX	15.68	15.74	15.32	14.96	14.94	14.78	14.84	14.96	14.64	13.44	14.08	14.49

WTR YR 2004 LOW 15.74 NOV 16



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, (FULTON, IN quadrangle), 2.5 mi northwest of Fulton.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 102 ft, cased to 96 ft, screened to 102 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 776.45 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 2.50 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.35 ft below land-surface datum, Apr. 23-27, 1973; lowest, 13.21 ft below land-surface datum, Oct. 13, 1988.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

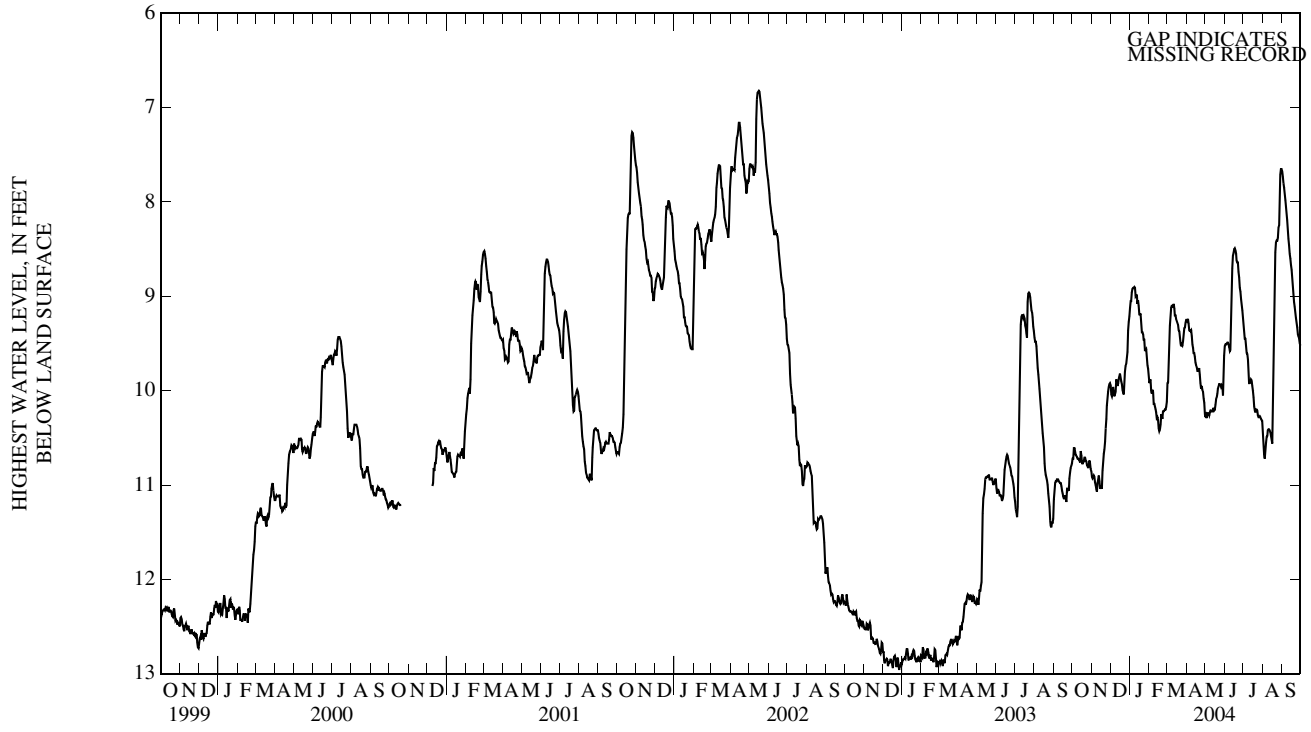
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.65	10.91	9.96	8.92	10.03	9.31	9.36	10.24	9.49	9.53	10.63	7.92
10	10.72	10.98	9.88	9.00	10.17	9.12	9.51	10.21	9.57	9.92	10.41	8.30
15	10.69	11.02	9.85	9.10	10.31	9.24	9.70	10.21	8.54	9.95	10.52	8.67
20	10.71	10.67	9.99	9.38	10.25	9.37	9.78	10.03	8.62	10.23	8.76	9.06
25	10.80	10.16	9.74	9.57	10.21	9.52	9.95	9.94	8.91	10.28	8.38	9.33
EOM	10.85	9.92	9.21	9.84	10.12	9.25	10.25	9.63	9.22	10.32	7.65	9.52
MIN	10.61	9.92	9.21	8.90	9.88	9.08	9.24	9.63	8.49	9.30	7.65	7.67

WTR YR 2004 HIGH 7.65 AUG 30

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.68	10.97	10.03	8.96	10.10	9.58	9.40	10.27	9.50	9.61	10.72	7.98
10	10.74	11.07	10.01	9.05	10.20	9.14	9.55	10.23	9.62	10.05	10.42	8.39
15	10.75	11.04	9.89	9.19	10.40	9.30	9.73	10.24	8.57	10.00	10.56	8.72
20	10.78	10.77	10.07	9.43	10.36	9.43	9.87	10.07	8.64	10.28	9.23	9.11
25	10.83	10.30	9.80	9.61	10.24	9.55	9.99	9.98	8.95	10.29	8.44	9.40
EOM	10.91	9.94	9.27	9.92	10.17	9.28	10.31	9.84	9.30	10.42	7.67	9.55
MAX	10.91	11.09	10.08	9.92	10.45	10.12	10.31	10.31	9.63	10.42	10.89	9.55

WTR YR 2004 LOW 11.09 NOV 9



GRANT COUNTY

402322085481901. Local number, GT 8.

LOCATION.--Lat 40°23'22", long 85°48'19", in NW¼SW¼NW¼ sec.1, T.22 N., R.6 E., Grant County, Hydrologic Unit 05120107, (POINT ISABEL, IN quadrangle), located on County Road 700 West right-of-way, and 1.0 mi northwest of Rigdon.
Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 35 ft, cased to 20 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 880 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 3.10 ft above land-surface datum.

PERIOD OF RECORD.--October 1966 to October 1971, July 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.07 ft below land-surface datum, July 10, 2003; lowest, 11.01 ft below land-surface datum, Jan. 13, 14, 27, Feb. 5, 2000.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

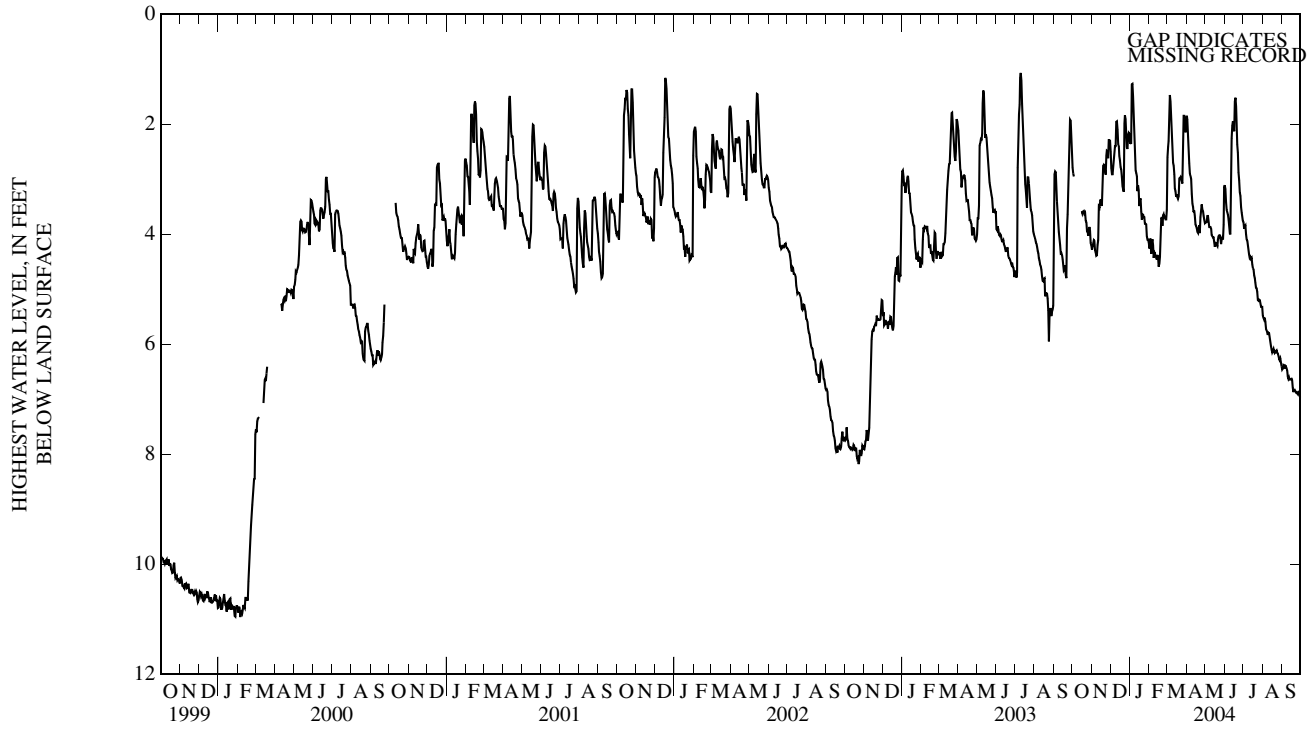
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	4.12	2.82	1.27	4.14	1.47	2.71	3.67	3.60	4.00	5.60	6.44
10	---	4.20	1.96	2.84	4.35	2.70	3.45	3.90	3.99	4.37	5.79	6.59
15	---	3.37	2.58	3.20	4.41	3.32	3.82	4.14	2.04	4.55	6.10	6.64
20	3.63	2.74	3.13	3.74	3.72	2.99	3.89	4.22	2.06	4.88	6.16	6.84
25	3.93	2.48	1.91	3.81	3.70	3.08	3.46	4.08	3.24	5.21	6.17	6.89
EOM	4.20	2.30	2.18	4.15	3.56	1.92	3.80	3.15	3.76	5.32	6.40	6.97
MIN	---	2.29	1.84	1.27	3.56	1.47	1.85	3.15	1.52	3.78	5.48	6.38

WTR YR 2004 HIGH 1.27 JAN 5

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	4.33	2.92	1.50	4.44	1.80	2.90	3.79	3.81	4.20	5.86	6.60
10	---	4.38	2.40	2.96	4.39	2.80	3.52	4.19	4.10	4.61	5.96	6.79
15	---	3.42	2.72	3.50	4.60	3.40	3.88	4.48	2.34	4.78	6.34	6.83
20	3.85	2.79	3.29	3.83	4.09	3.32	4.07	4.30	2.37	5.11	6.33	6.97
25	4.08	2.58	2.14	4.00	3.74	3.22	3.57	4.21	3.34	5.36	6.31	7.12
EOM	4.40	2.50	2.35	4.26	3.73	2.20	3.84	3.83	3.98	5.60	6.66	7.16
MAX	---	4.49	3.29	4.26	4.63	3.56	4.10	4.48	4.33	5.60	6.66	7.16

WTR YR 2004 LOW 7.16 SEP 29



HAMILTON COUNTY

400000086023201. Local number, HA 7.

LOCATION.--Lat 40°00'00", long 86°02'32", 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, Conner Prairie Farm.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 86 ft, cased to 82 ft, screened to 86 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 755.17 ft above sea level. Measuring point: Top of casing, 3.50 ft above land-surface datum. (GPS elevation provided by Hamilton County Surveyor's office).

REMARKS.--Replacement well for Hamilton 5. Well affected by pumpage.

PERIOD OF RECORD.--September 2002 to October 2003; January 2004 to September 30, 2004.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 13.18 ft below land-surface datum, Sept. 4, 2003; lowest, 16.33 ft below land-surface datum, Sept. 30, 2004.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

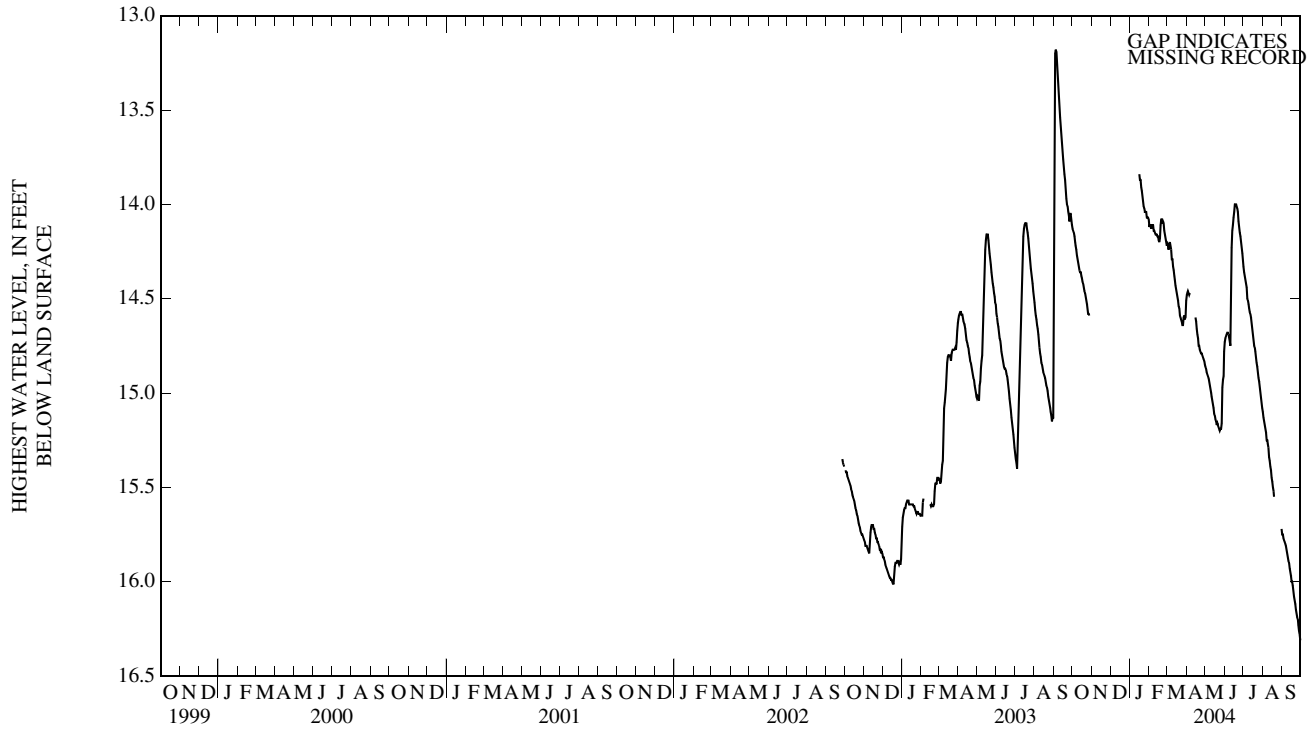
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.20	---	---	---	14.11	14.20	14.48	14.91	14.68	14.42	15.19	15.79
10	14.31	---	---	---	14.15	14.33	---	15.00	14.75	14.55	15.29	15.87
15	14.38	---	---	---	14.17	14.45	14.60	15.11	14.07	14.66	15.45	15.97
20	14.46	---	---	13.93	14.08	14.55	14.75	15.16	14.01	14.78	---	16.08
25	14.56	---	---	14.04	14.14	14.64	14.79	15.19	14.15	14.92	---	16.19
EOM	---	---	---	14.08	14.22	14.51	14.85	14.78	14.29	15.08	15.72	16.31
MIN	---	---	---	---	14.08	14.20	---	14.78	14.00	14.33	---	15.75

WTR YR 2004 HIGH 13.84 JAN 16

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.22	---	---	---	14.15	14.22	14.48	14.92	14.69	14.44	15.21	15.80
10	14.33	---	---	---	14.16	14.35	---	15.02	14.75	14.57	15.34	15.89
15	14.39	---	---	---	14.19	14.47	14.62	15.12	14.11	14.69	15.47	16.00
20	14.47	---	---	13.96	14.11	14.59	14.75	15.18	14.02	14.81	---	16.10
25	14.58	---	---	14.04	14.16	14.66	14.80	15.20	14.17	14.94	---	16.20
EOM	---	---	---	14.12	14.23	14.60	14.86	14.91	14.33	15.10	15.75	16.33
MAX	---	---	---	---	14.23	14.67	---	15.21	14.78	15.10	---	16.33

WTR YR 2004 LOW 16.33 SEP 30



HARRISON COUNTY

382323086044501. Local number, HR 8.

LOCATION.--Lat 38°23'23", long 86°04'45", in NW¼NW¼NE¼ sec.33, T.1 S., R.4 E., Harrison County, Hydrologic Unit 05140104, (PALMYRA, IN quadrangle), on Harrison County right-of-way, 2.0 mi southeast of Palmyra.
Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Mississippian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 93 ft, cased to 54 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 827 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 3.10 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.54 ft below land-surface datum, May 31, 2004; lowest, 20.29 ft below land-surface datum, Dec. 17, 1992.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

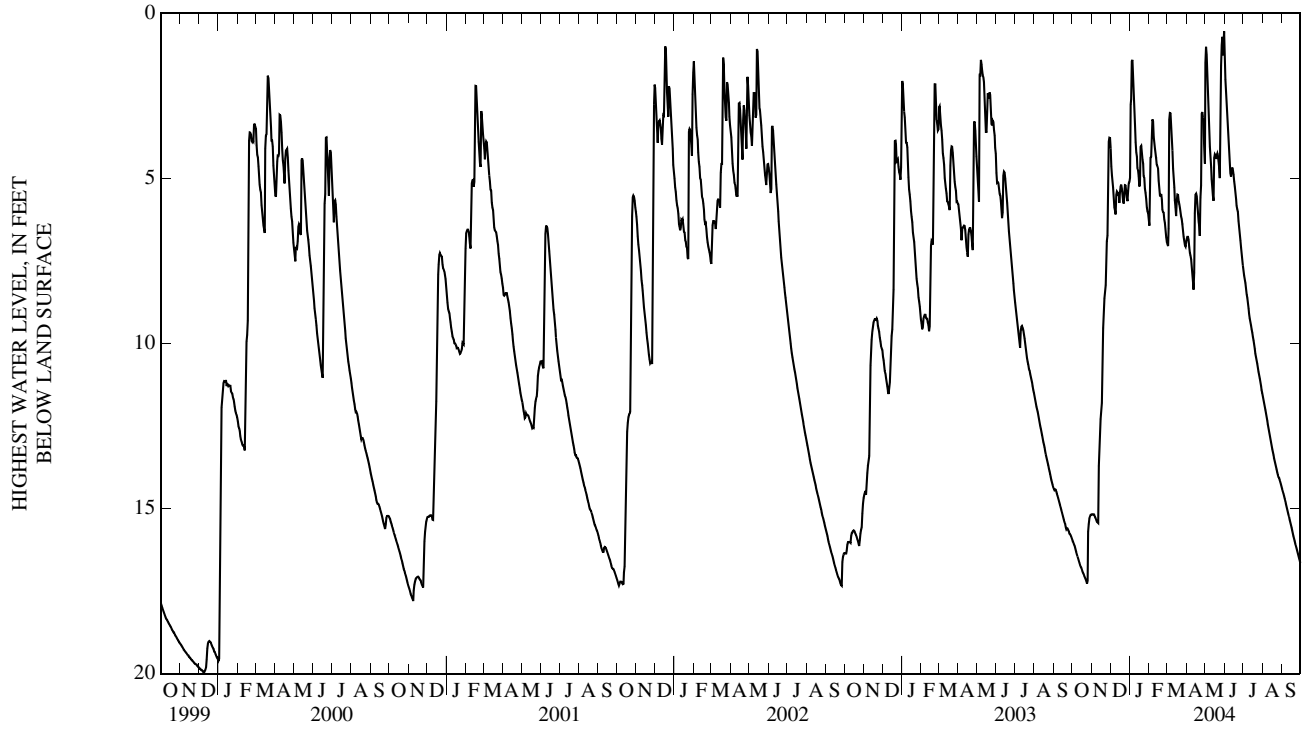
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.19	15.19	5.27	1.41	3.72	3.02	7.08	2.58	3.31	8.33	12.01	14.70
10	16.51	15.42	5.50	3.90	4.11	4.70	7.97	4.66	4.84	9.10	12.55	15.10
15	16.79	12.29	5.74	4.93	4.69	6.14	5.49	4.38	4.89	9.67	13.09	15.50
20	17.05	9.00	5.49	4.20	5.47	5.78	6.32	4.25	5.83	10.30	13.56	15.91
25	17.18	6.90	5.22	5.31	6.24	6.39	3.04	3.59	6.70	10.86	13.98	16.28
EOM	15.18	3.78	5.11	6.24	6.92	6.93	4.55	0.54	7.63	11.50	14.34	16.64
MIN	15.18	3.77	4.09	1.41	3.21	3.02	2.99	0.54	1.13	7.78	11.61	14.41

WTR YR 2004 HIGH 0.54 MAY 31

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.25	15.25	5.59	1.96	4.39	3.22	7.25	3.13	3.65	8.51	12.13	14.77
10	16.58	15.44	6.18	4.21	4.27	4.98	8.17	5.02	4.94	9.24	12.66	15.18
15	16.84	12.63	5.89	5.24	5.07	6.25	6.05	5.68	5.10	9.80	13.20	15.58
20	17.09	9.53	5.71	4.43	5.64	5.90	6.43	4.31	5.93	10.40	13.64	15.98
25	17.36	7.43	5.40	5.44	6.35	6.59	5.21	5.52	6.88	10.96	14.05	16.36
EOM	15.20	4.09	5.18	6.43	6.99	7.06	4.66	1.13	7.78	11.61	14.41	16.72
MAX	17.36	15.47	6.19	6.43	6.99	7.38	8.55	5.83	7.78	11.61	14.41	16.72

WTR YR 2004 LOW 17.36 OCT 25



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, (COATESVILLE, IN quadrangle), at the intersection of State Highway 75 and County Road 600 South on county right-of-way, and 1.0 mi south of Coatesville. Owner: U.S. Geological Survey.

AQUIFER.--Sandstone of Mississippian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 85 ft, cased to 70 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 860 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 1.92 ft above land-surface datum.

REMARKS.--Water level affected by pumpage.

PERIOD OF RECORD.--October 1966 to September 1971, November 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.65 ft below land-surface datum, Jan. 30, 1976; lowest, 29.02 ft below land-surface datum, Nov. 30, 1988.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

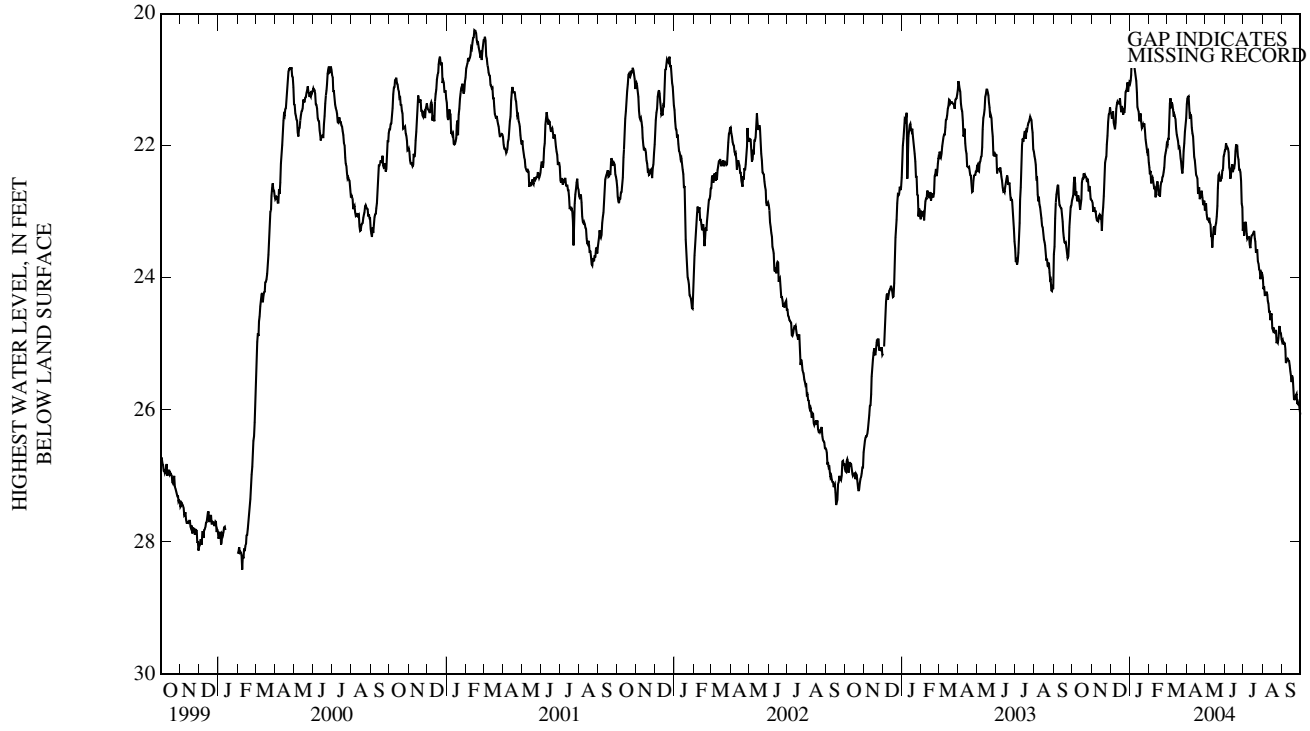
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.57	22.93	21.48	20.56	22.50	21.36	21.41	23.11	22.02	23.19	24.26	24.99
10	22.75	23.13	21.44	20.94	22.62	21.46	21.81	23.38	22.50	23.38	24.39	25.23
15	22.81	23.06	21.37	21.48	22.61	21.74	22.33	23.22	22.34	23.35	24.54	25.49
20	22.46	22.76	21.43	21.73	22.55	22.02	22.67	22.91	22.02	23.45	24.83	25.85
25	22.50	21.98	21.19	21.76	22.33	22.42	22.68	22.54	22.36	23.78	24.98	25.91
EOM	22.82	21.42	21.04	22.25	21.97	21.58	22.98	22.14	23.29	23.94	24.93	26.07
MIN	22.42	21.42	21.04	20.56	21.97	21.28	21.25	22.14	21.96	23.15	24.00	24.95

WTR YR 2004 HIGH 20.56 JAN 5

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.94	23.15	21.68	20.79	22.63	21.61	21.71	23.24	22.20	23.59	24.53	25.21
10	22.94	23.28	21.67	21.13	22.92	21.74	22.00	23.57	22.80	23.60	24.61	25.32
15	23.06	23.20	21.53	21.71	22.89	21.97	22.53	23.51	22.47	23.51	24.81	25.79
20	22.64	22.93	21.69	21.93	22.65	22.14	22.90	23.10	22.22	23.72	24.99	26.00
25	22.68	22.32	21.42	22.06	22.49	22.52	22.98	22.70	22.43	24.03	25.17	26.05
EOM	22.92	21.65	21.23	22.41	22.10	21.77	23.12	22.32	23.48	24.06	25.10	26.21
MAX	23.29	23.65	22.37	22.41	22.92	22.53	23.19	23.69	23.72	24.17	25.18	26.29

WTR YR 2004 LOW 26.29 SEP 29



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, (RENSSELAER, IN quadrangle), at southwest corner of North Newton school, and 4.6 mi northwest of Rensselaer.
Owner: Prudential Insurance Company of America.

AQUIFER.--Dolomite of Silurian/Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 5 in., depth 150 ft, cased to 106 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 700 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of well casing, 3.4 ft above land-surface datum.

REMARKS.--Water level 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, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

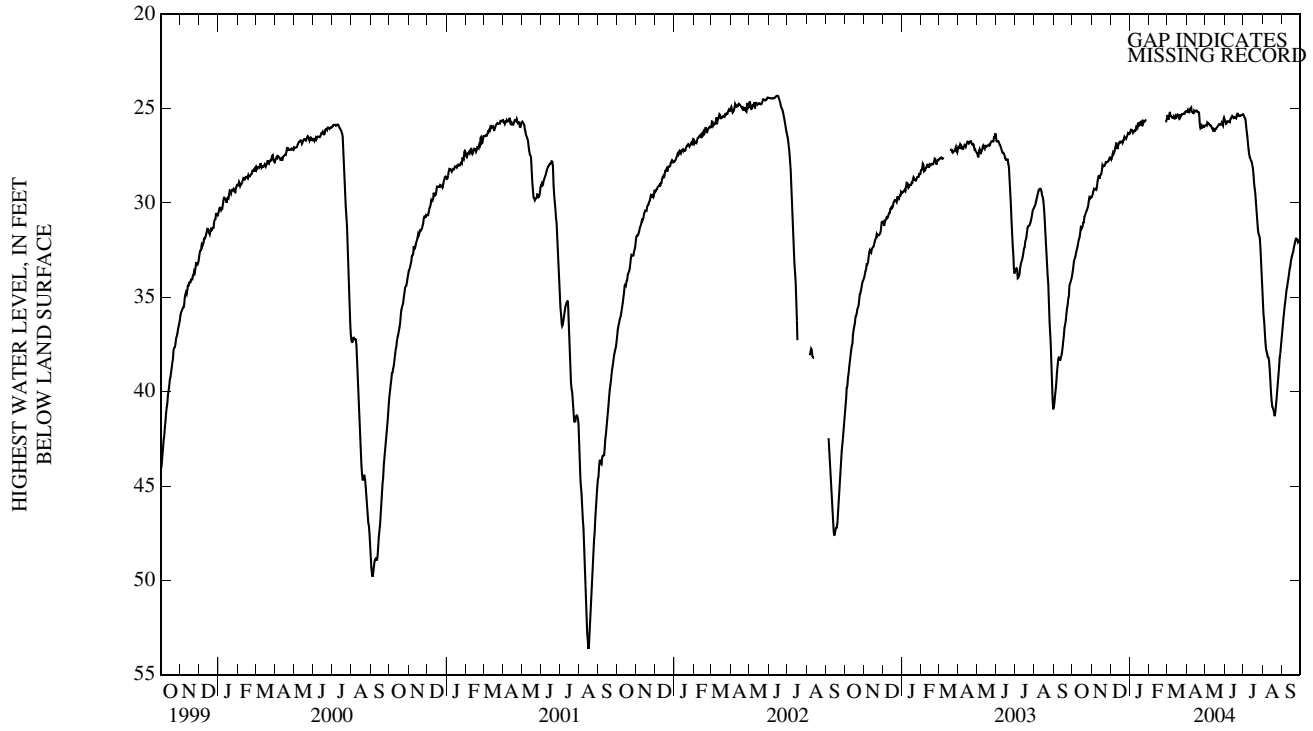
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	32.90	29.28	27.32	26.18	---	25.17	25.19	25.79	25.68	25.84	37.35	35.43
10	32.12	28.84	26.79	26.15	---	25.48	25.19	25.91	25.56	27.38	38.18	34.19
15	31.38	28.50	26.78	25.89	---	25.52	25.12	26.18	25.48	27.98	40.49	33.05
20	30.72	28.04	26.81	25.87	---	25.29	25.19	25.97	25.39	29.51	41.30	32.32
25	30.24	27.84	26.57	25.67	---	25.31	25.89	25.83	25.38	31.62	39.40	31.93
EOM	29.71	27.59	26.34	---	25.57	25.14	25.90	25.47	25.30	34.55	37.26	32.14
MIN	29.68	27.59	26.29	---	---	25.14	24.94	25.47	25.26	25.31	35.29	31.89

WTR YR 2004 HIGH 24.94 APR 8

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	33.00	29.37	27.45	26.40	---	25.42	25.34	25.95	25.84	26.20	37.75	35.79
10	32.32	29.17	27.02	26.29	---	25.63	25.24	26.05	25.73	27.56	38.37	34.43
15	31.47	28.59	26.93	25.99	---	25.56	25.24	26.30	25.61	28.17	40.79	33.34
20	31.03	28.19	26.88	26.01	---	25.49	25.39	26.08	25.52	29.91	41.39	32.53
25	30.41	28.03	26.66	25.86	---	25.43	26.02	25.94	25.47	31.72	39.92	32.10
EOM	29.75	27.64	26.45	---	25.68	25.24	26.02	25.64	25.46	35.29	37.61	32.24
MAX	33.90	29.81	27.79	---	---	25.73	26.17	26.31	25.96	35.29	41.39	37.26

WTR YR 2004 LOW 41.39 AUG 20



JEFFERSON COUNTY

384949085251901. Local number, JF 5.

LOCATION.--Lat 38°49'50", long 85°25'17", in SE¼NW¼SW¼ sec.33, T.5 N., R.10 E., Jefferson County, Hydrologic Unit 05120207, (CLIFTY FALLS, IN quadrangle), 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 857.50 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 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, 2.94 ft below land-surface datum, Dec. 17, 2001; lowest, 10.03 below land-surface datum, Nov. 30, 1999.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

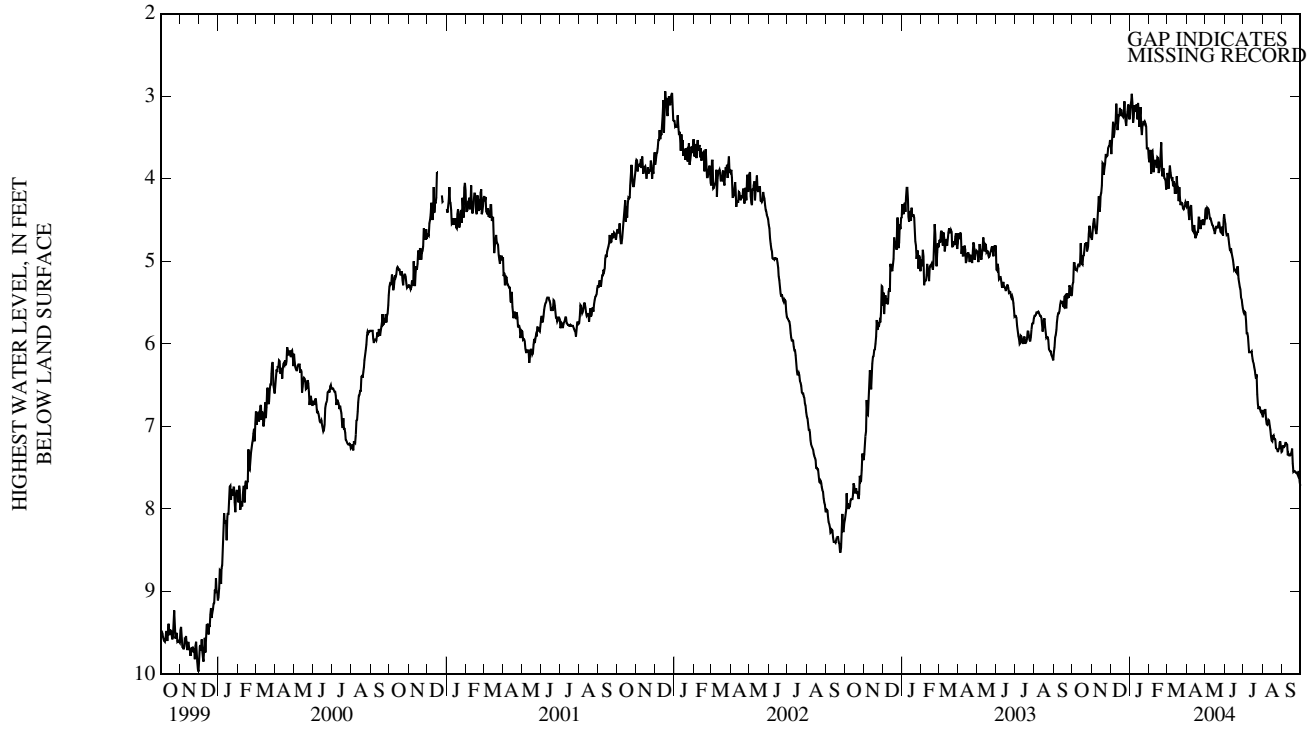
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.09	4.49	3.31	3.08	3.67	3.84	4.50	4.36	4.67	5.72	6.80	7.24
10	5.04	4.45	3.09	3.19	3.78	4.09	4.62	4.51	4.87	6.10	6.92	7.35
15	5.00	4.20	3.24	3.18	3.75	4.18	4.72	4.62	5.04	6.16	7.17	7.33
20	4.85	3.95	3.24	3.47	3.56	4.10	4.47	4.59	5.14	6.37	7.15	7.54
25	4.85	3.73	3.30	3.31	3.99	4.30	4.50	4.64	5.31	6.79	7.31	7.57
EOM	4.71	3.53	3.28	3.75	4.06	4.30	4.49	4.43	5.57	6.80	7.31	7.72
MIN	4.57	3.53	3.06	2.97	3.56	3.84	4.27	4.35	4.50	5.61	6.80	7.20

WTR YR 2004 HIGH 2.97 JAN 4

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.16	4.65	3.51	3.36	4.01	3.98	4.60	4.48	4.74	5.94	6.91	7.30
10	5.10	4.64	3.33	3.31	3.84	4.19	4.63	4.53	4.88	6.17	6.99	7.46
15	5.07	4.34	3.31	3.42	3.98	4.21	4.76	4.73	5.17	6.26	7.28	7.42
20	5.01	4.05	3.51	3.59	3.76	4.30	4.64	4.68	5.22	6.44	7.27	7.61
25	4.99	3.98	3.37	3.61	4.04	4.41	4.57	4.70	5.35	6.87	7.43	7.68
EOM	4.80	3.62	3.36	3.85	4.13	4.38	4.58	4.55	5.72	6.98	7.41	7.74
MAX	5.42	4.81	3.76	3.85	4.13	4.41	4.76	4.79	5.72	6.99	7.43	7.74

WTR YR 2004 LOW 7.74 SEP 30



KNOX COUNTY

383247087361001. Local number, KN 7.

LOCATION.--Lat 38°32'47", long 87°36'10", in SE¼SE¼NW¼ sec.2, T.1 N., R.11 W., Knox County, Hydrologic Unit 05120113, in (DECKER, IN-IL quadrangle), the right-of-way of Sixth Street Road, 9.8 mi south of Vincennes.
Owner: Michael J. Kelley.

AQUIFER.--Sand and gravel Quaternary age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 43 ft, cased to 16 ft, slotted to 19 ft, open end.

INSTRUMENTATION.--Water-level recorder. Prior to April 1968, hand-taped monthly.

DATUM.--Elevation of land-surface datum is 405 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 2.42 ft above land-surface datum.

PERIOD OF RECORD.--November 1956 to December 1972, January 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.40 ft below land-surface datum, May 14, 2002; lowest, 11.35 ft below land-surface datum, Feb. 1-13, 1977.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

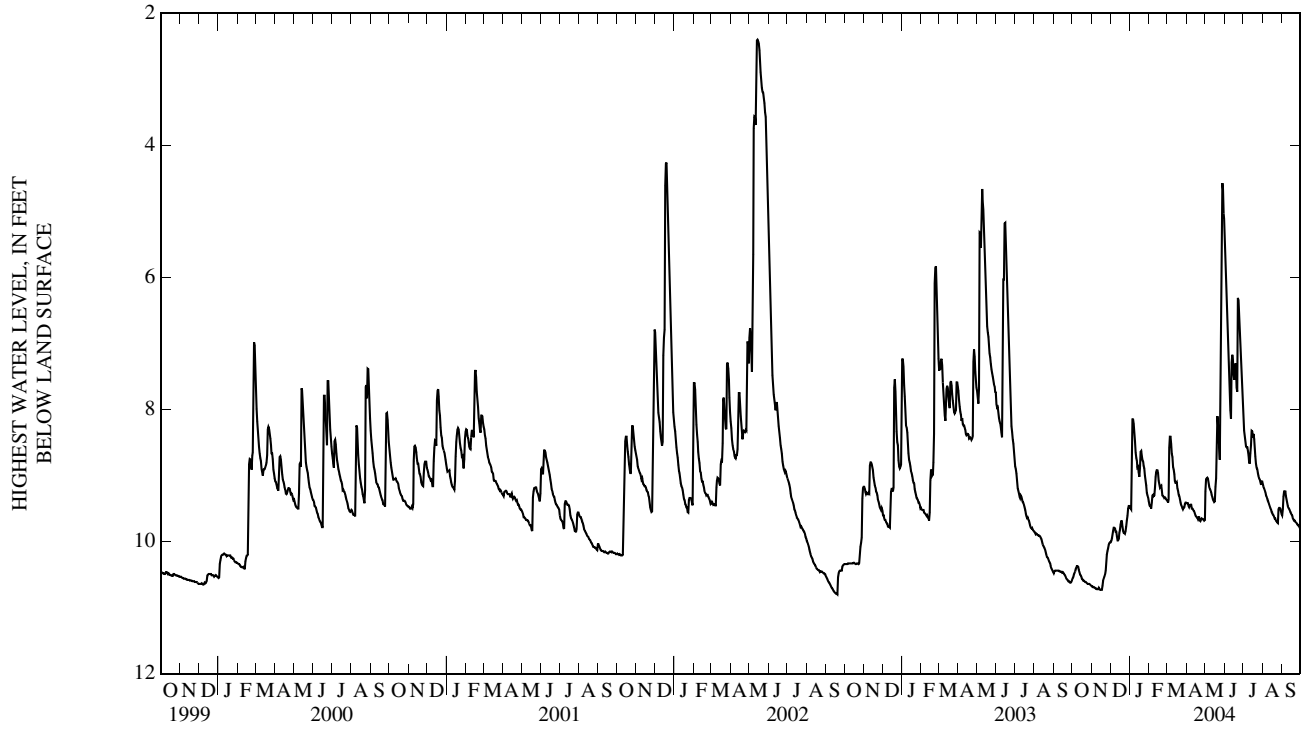
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.45	10.69	9.84	8.15	9.41	8.41	9.48	9.05	6.87	8.56	9.25	9.24
10	10.38	10.72	9.85	8.65	9.18	8.87	9.50	9.25	8.01	8.79	9.40	9.46
15	10.53	10.73	9.87	8.95	8.96	9.11	9.60	9.40	7.47	8.33	9.55	9.57
20	10.60	10.56	9.78	8.71	9.15	9.31	9.63	8.10	7.67	8.71	9.65	9.68
25	10.64	10.20	9.84	9.00	9.34	9.49	9.65	8.22	7.00	9.01	9.72	9.73
EOM	10.67	10.01	9.46	9.39	9.37	9.41	9.67	5.11	8.04	9.09	9.58	9.80
MIN	10.37	10.01	9.46	8.15	8.92	8.41	9.42	4.57	5.52	8.19	9.13	9.24

WTR YR 2004 HIGH 4.57 MAY 28

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.48	10.70	9.89	8.74	9.51	8.58	9.50	9.11	7.16	8.62	9.30	9.24
10	10.43	10.72	9.92	8.74	9.30	8.91	9.52	9.29	8.14	8.85	9.43	9.49
15	10.56	10.73	9.96	9.02	9.08	9.14	9.62	9.43	7.68	8.42	9.57	9.59
20	10.61	10.59	9.84	8.77	9.23	9.36	9.68	8.46	7.80	8.82	9.65	9.68
25	10.64	10.30	9.88	9.07	9.37	9.51	9.68	8.94	7.30	9.04	9.73	9.75
EOM	10.68	10.02	9.49	9.44	9.39	9.43	9.68	5.52	8.19	9.13	9.61	9.81
MAX	10.68	10.73	10.02	9.55	9.52	9.53	9.70	9.68	8.39	9.19	9.73	9.81

WTR YR 2004 LOW 10.73 NOV 13



KNOX COUNTY

384951087202501. Local number, KN 8.

LOCATION.--Lat 38°49'51", long 87°20'25", in M.D. 240, T.5 N., R.8 W., Knox County, Hydrologic Unit 05120111, (BICKNELL, IN quadrangle), 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 National Geodetic Vertical Datum of 1929, 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, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

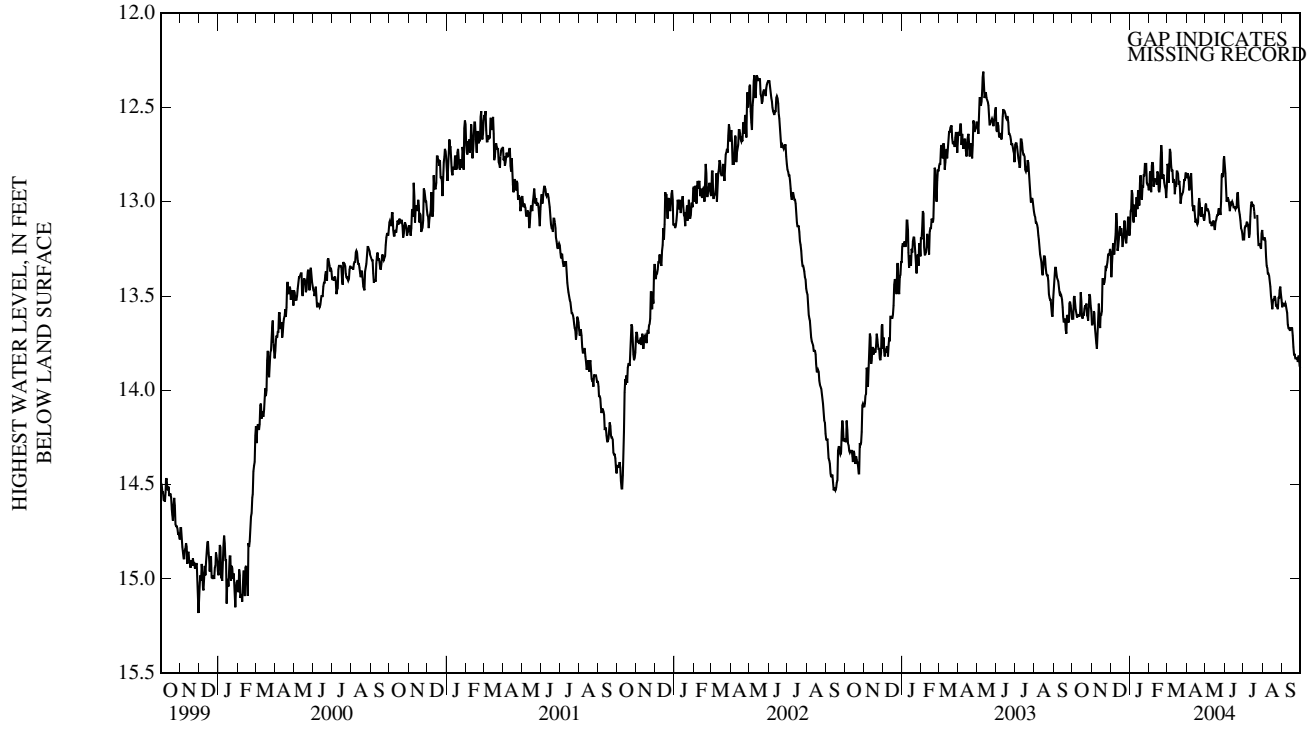
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.54	13.59	13.22	12.96	12.81	12.72	12.94	13.04	12.98	13.13	13.21	13.55
10	13.60	13.68	13.06	13.08	12.88	12.90	13.02	13.11	13.02	13.19	13.38	13.65
15	13.53	13.60	13.16	12.95	12.85	12.92	13.11	13.13	13.03	13.01	13.53	13.67
20	13.57	13.44	13.24	12.99	12.70	12.89	13.01	13.07	13.03	---	13.50	13.81
25	13.61	13.34	13.19	12.80	12.90	12.96	13.03	13.07	13.07	13.23	13.57	13.83
EOM	13.58	13.25	13.18	12.94	12.92	12.85	13.07	12.76	13.20	13.15	13.52	13.88
MIN	13.48	13.25	13.06	12.80	12.70	12.72	12.85	12.76	12.81	---	13.19	13.54

WTR YR 2004 HIGH 12.70 FEB 20

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.57	13.68	13.27	13.09	12.98	12.79	12.99	13.08	13.01	13.18	13.29	13.59
10	13.62	13.78	13.17	13.12	12.89	12.94	13.04	13.13	13.06	13.23	13.40	13.69
15	13.60	13.67	13.23	13.04	12.94	12.95	13.13	13.16	13.07	13.05	13.58	13.70
20	13.63	13.47	13.29	13.01	12.78	12.96	13.12	13.10	13.07	---	13.56	13.83
25	13.66	13.43	13.22	12.95	12.93	13.01	13.08	13.09	13.10	13.26	13.61	13.87
EOM	13.65	13.28	13.20	12.96	12.99	12.88	13.11	12.81	13.24	13.21	13.56	13.89
MAX	13.68	13.81	13.42	13.20	13.00	13.05	13.16	13.18	13.24	---	13.61	13.89

WTR YR 2004 LOW 13.89 SEP 30



LAGRANGE COUNTY

414318085200601. Local number, LG 2.

LOCATION.--Lat 41°43'18", long 85°20'06", in SW¼SE¼NE¼ sec.26, T.38 N., R.10 E., Lagrange County, Hydrologic Unit 04050001, (MONGO, IN quadrangle), on northeast corner of intersection of State Highway 120 and County Road 475 East, and 1.2 mi west of Brighton.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 5 in., depth 86 ft, cased to 80 ft, screened to 86 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 911.02 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 3.0 ft above land-surface datum.

REMARKS.--Water level slightly affected by irrigation pumpage.

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, 17.09 ft below land-surface datum, Aug. 29-30, 2003.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

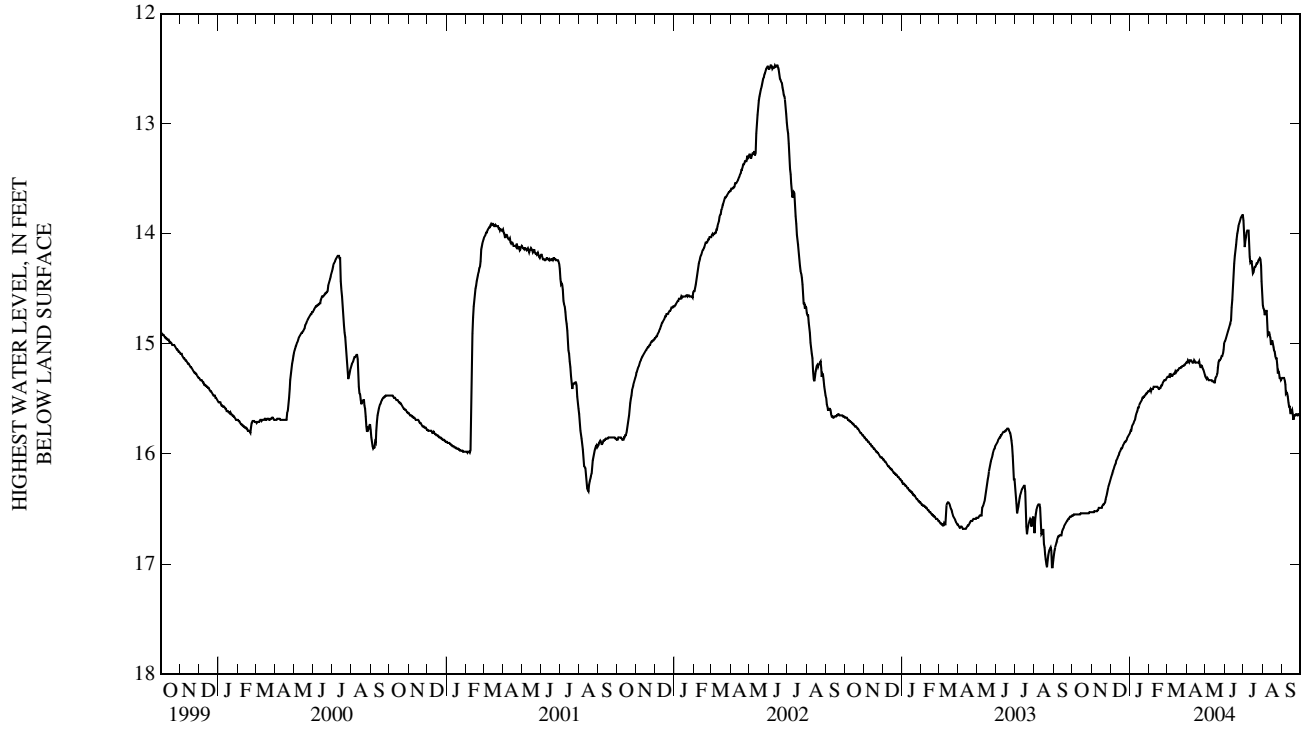
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.55	16.52	16.15	15.74	15.41	15.27	15.17	15.32	14.91	14.03	14.72	15.33
10	16.55	16.51	16.06	15.66	15.39	15.28	15.17	15.33	14.81	14.09	14.91	15.48
15	16.54	16.49	15.99	15.58	15.40	15.26	15.17	15.35	14.37	14.30	14.99	15.63
20	16.54	16.46	15.94	15.51	15.38	15.22	15.17	15.27	14.05	14.30	15.07	15.66
25	16.54	16.37	15.89	15.47	15.33	15.20	15.20	15.14	13.89	14.24	15.27	15.65
EOM	16.53	16.25	15.82	15.43	15.31	15.17	15.28	15.00	13.83	14.54	15.32	15.65
MIN	16.53	16.25	15.82	15.43	15.31	15.17	15.15	15.00	13.83	13.88	14.65	15.31

WTR YR 2004 HIGH 13.83 JUN 29

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.55	16.53	16.17	15.76	15.43	15.30	15.17	15.33	14.93	14.06	14.74	15.37
10	16.55	16.52	16.09	15.69	15.39	15.29	15.17	15.33	14.83	14.21	14.93	15.53
15	16.54	16.49	16.01	15.59	15.41	15.26	15.18	15.35	14.49	14.36	15.04	15.67
20	16.54	16.46	15.95	15.52	15.40	15.23	15.19	15.29	14.10	14.30	15.11	15.69
25	16.54	16.39	15.89	15.48	15.34	15.21	15.22	15.15	13.91	14.26	15.30	15.65
EOM	16.53	16.27	15.83	15.43	15.32	15.18	15.30	15.05	13.88	14.65	15.33	15.66
MAX	16.56	16.53	16.25	15.82	15.43	15.31	15.30	15.35	15.00	14.65	15.33	15.71

WTR YR 2004 LOW 16.56 OCT 1



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, (HIGHLAND, IN quadrangle), at the Gibson Woods Nature Preserve on the north side of Hammond.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6.0 in., depth 23 ft, cased to 18 ft, screened to 23 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 591.91 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.33 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.10 ft above land-surface datum, May 16, 2002: lowest, 5.23 ft below land-surface datum, Sept. 26, 27, 1999.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

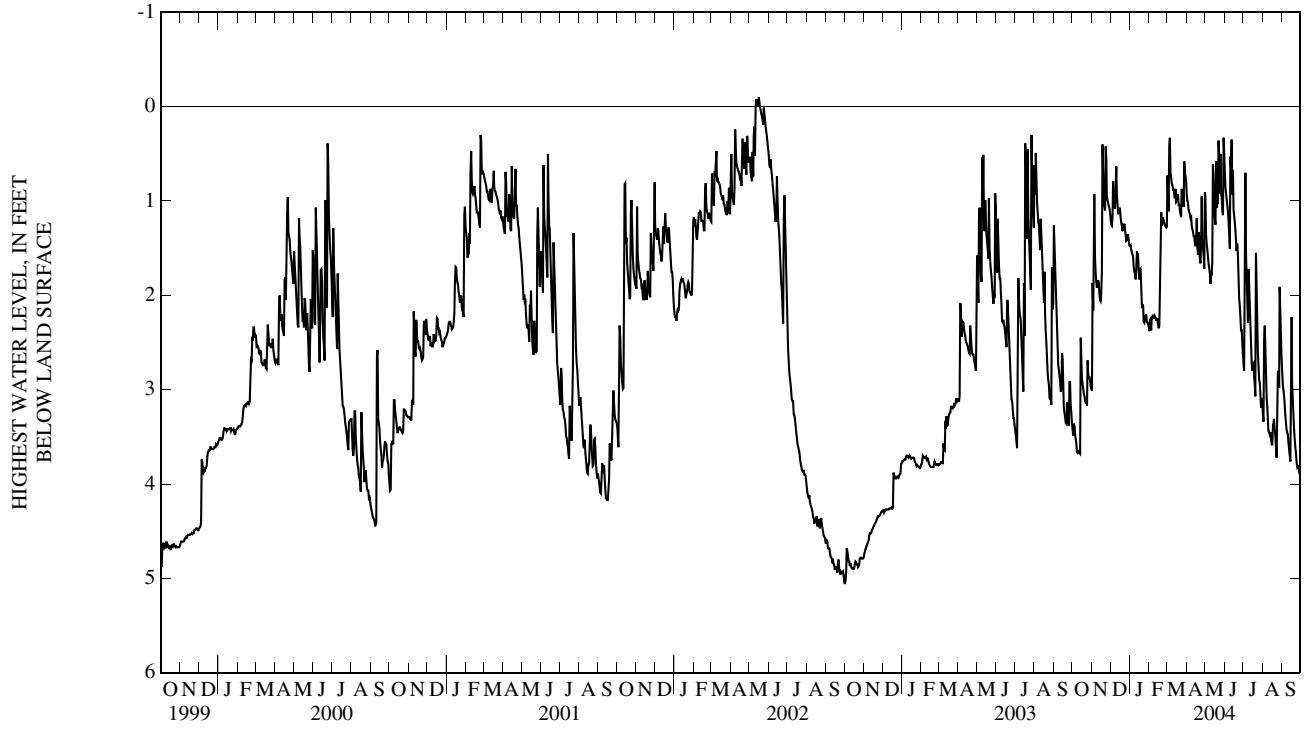
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.48	0.93	0.79	1.56	2.23	0.33	1.12	1.59	1.04	1.58	2.62	3.18
10	3.66	1.87	0.63	1.83	2.23	0.88	1.30	1.76	0.53	1.87	3.44	3.47
15	2.64	2.06	1.10	1.73	2.31	1.01	1.48	1.07	1.09	2.80	3.57	2.89
20	3.06	1.00	1.32	2.11	1.12	1.04	1.33	1.02	1.53	3.07	3.43	3.42
25	2.69	0.95	1.35	2.24	1.23	0.99	0.95	0.50	2.11	2.77	2.81	3.82
EOM	2.99	1.12	1.47	2.34	1.27	0.81	0.91	0.50	2.61	3.09	2.67	3.87
MIN	2.45	0.40	0.63	1.47	1.12	0.33	0.91	0.33	0.35	0.70	1.91	2.23

WTR YR 2004 HIGH 0.33 MAR 5

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.59	1.60	1.14	1.59	2.38	0.71	1.15	1.69	1.17	1.83	2.93	3.39
10	3.75	1.94	0.98	1.86	2.26	0.90	1.33	2.25	1.63	2.19	3.51	3.65
15	2.87	2.08	1.18	1.83	2.35	1.04	1.53	1.18	1.22	3.11	3.75	3.95
20	3.12	1.06	1.39	2.17	1.78	1.14	1.69	1.31	1.81	3.35	3.51	3.57
25	3.17	0.99	1.43	2.31	1.29	1.12	1.47	1.01	2.37	3.01	3.32	3.91
EOM	3.03	1.20	1.54	2.40	1.30	0.95	1.81	0.72	2.91	3.40	2.86	3.99
MAX	3.77	3.04	1.54	2.40	2.41	1.28	1.83	2.32	2.91	3.44	3.86	3.99

WTR YR 2004 LOW 3.99 SEP 30



LAPORTE COUNTY

412350086512801. Local number, LP 9.

LOCATION.--Lat 41°23'50", long 86°51'28", in SE¼SW¼NE¼ sec.15, T.34 N., R.4 W., LaPorte County, Hydrologic Unit 07120001, (HANNA, IN quadrangle), 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 National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 1.60 ft above land-surface datum.

REMARKS.--Water level slightly affected by irrigation pumpage

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, 8.62 ft below land-surface datum, Mar. 6, 7-8, 2003.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

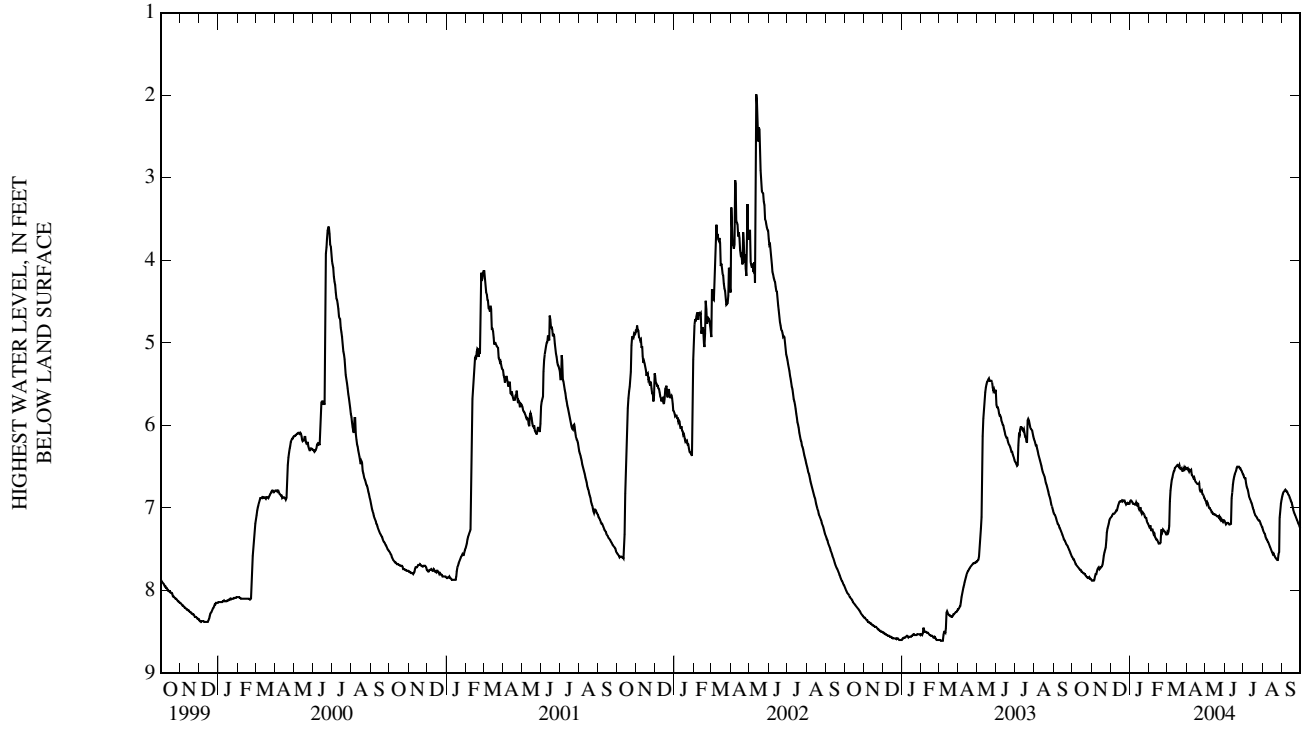
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.66	7.87	7.07	6.93	7.26	6.92	6.56	6.95	7.18	6.70	7.34	6.79
10	7.72	7.74	7.03	6.96	7.35	6.59	6.61	7.03	7.19	6.86	7.42	6.82
15	7.77	7.72	6.93	7.00	7.41	6.50	6.68	7.08	6.66	6.97	7.52	6.92
20	7.80	7.58	6.92	7.07	7.27	6.48	6.71	7.10	6.52	7.09	7.58	7.05
25	7.84	7.30	6.94	7.11	7.28	6.55	6.79	7.12	6.52	7.15	7.63	7.15
EOM	7.87	7.13	6.95	7.21	7.32	6.52	6.89	7.15	6.59	7.23	6.90	7.24
MIN	7.60	7.13	6.91	6.91	7.22	6.48	6.52	6.91	6.50	6.60	6.90	6.78

WTR YR 2004 HIGH 6.48 MAR 17

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.68	7.89	7.08	6.96	7.30	7.22	6.57	6.98	7.19	6.74	7.36	6.80
10	7.73	7.77	7.05	6.98	7.36	6.63	6.62	7.05	7.20	6.89	7.44	6.84
15	7.77	7.73	6.95	7.02	7.43	6.52	6.69	7.09	6.72	7.00	7.54	6.93
20	7.80	7.64	6.94	7.08	7.42	6.52	6.77	7.12	6.55	7.11	7.60	7.07
25	7.86	7.39	6.96	7.13	7.29	6.56	6.84	7.15	6.53	7.15	7.65	7.17
EOM	7.88	7.15	6.96	7.23	7.33	6.53	6.91	7.17	6.60	7.26	6.95	7.26
MAX	7.88	7.89	7.14	7.23	7.44	7.32	6.91	7.18	7.21	7.26	7.65	7.26

WTR YR 2004 LOW 7.89 NOV 5



MARTIN COUNTY

383659086545901. Local number, MT 5.

LOCATION.--Lat 38°36'59", long 86°54'59", in SE¼NE¼SW¼ sec.12, T.2 N., R.5 W., Martin County, Hydrologic Unit 05120208, (ALFORDSVILLE, IN quadrangle), 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 National Geodetic Vertical Datum of 1929, 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, 22.13 ft below land-surface datum, May 1-2, 2002; lowest, 34.10 ft below land-surface datum, Jan. 1, 5, 22, 23, 1960, and Dec. 18, 19, 1964.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

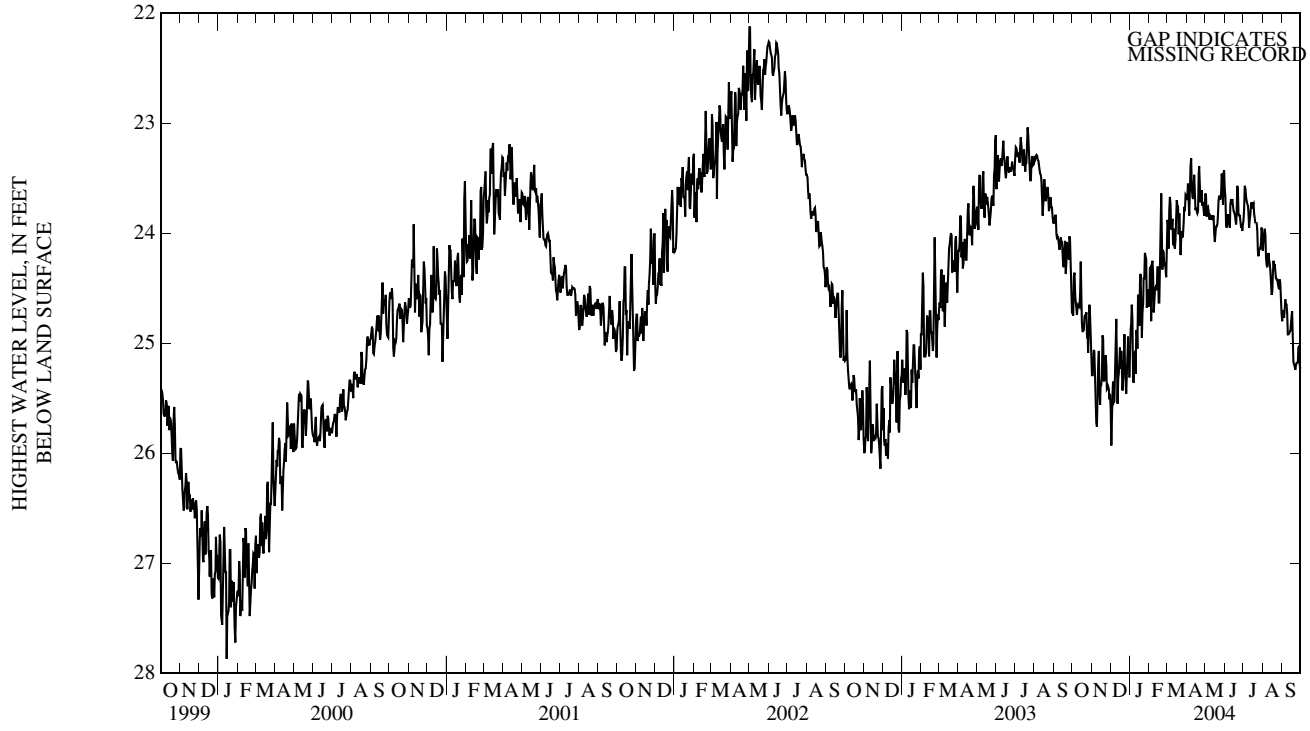
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	24.55	25.08	25.35	24.79	24.28	23.67	23.84	23.76	23.85	23.67	24.02	24.68
10	24.65	25.42	24.78	25.28	24.51	24.11	23.67	23.85	23.74	23.95	24.18	24.92
15	24.63	25.38	25.15	24.72	24.31	23.90	23.79	24.00	23.80	23.78	24.56	24.82
20	24.77	25.34	25.43	24.95	23.64	23.82	23.46	23.92	23.84	23.91	24.28	25.19
25	24.92	25.42	25.31	24.18	24.29	24.04	23.61	23.69	23.84	24.21	24.46	25.18
EOM	25.08	25.46	25.31	24.66	24.12	23.66	23.73	23.43	23.92	23.99	24.73	25.23
MIN	24.26	24.93	24.78	24.18	23.64	23.65	23.32	23.43	23.57	---	23.96	24.60

WTR YR 2004 HIGH 23.58 APR 8

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	24.62	25.38	25.54	25.34	24.81	23.80	23.95	23.84	23.97	23.89	24.23	24.81
10	24.72	25.76	25.08	25.39	24.62	24.29	23.74	23.96	23.95	24.02	24.26	25.03
15	24.84	25.56	25.41	24.99	24.63	24.18	23.92	24.12	23.89	23.86	24.65	24.95
20	25.02	25.46	25.62	25.02	23.96	24.06	23.84	23.99	24.02	23.97	24.42	25.26
25	25.18	25.65	25.46	24.71	24.40	24.15	23.80	23.76	23.89	24.26	24.53	25.29
EOM	25.29	25.59	25.35	24.73	24.40	23.72	23.84	23.63	24.02	24.16	24.84	25.31
MAX	25.29	25.93	26.07	25.57	24.96	24.39	23.96	24.19	24.05	---	24.84	25.33

WTR YR 2004 LOW 26.07 DEC 2



MONTGOMERY COUNTY

400247086482101. Local number, MY 7.

LOCATION.--Lat 40°02'47", long 86°48'21", in NE¼NW¼SW¼ sec.31, T.19 N., R.3 W., Montgomery County, Hydrologic Unit 05120110, (DARLINGTON, IN quadrangle), on the county right-of-way at the intersection of State Highway 32 and County Road 525 East, and 4.5 mi east of Crawfordsville.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 111 ft, cased to 107 ft, screened to 109 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 801 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 2.38 ft above land-surface datum.

REMARKS.--Water level 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, 42.34 ft below land-surface datum, Nov. 30, 1999.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

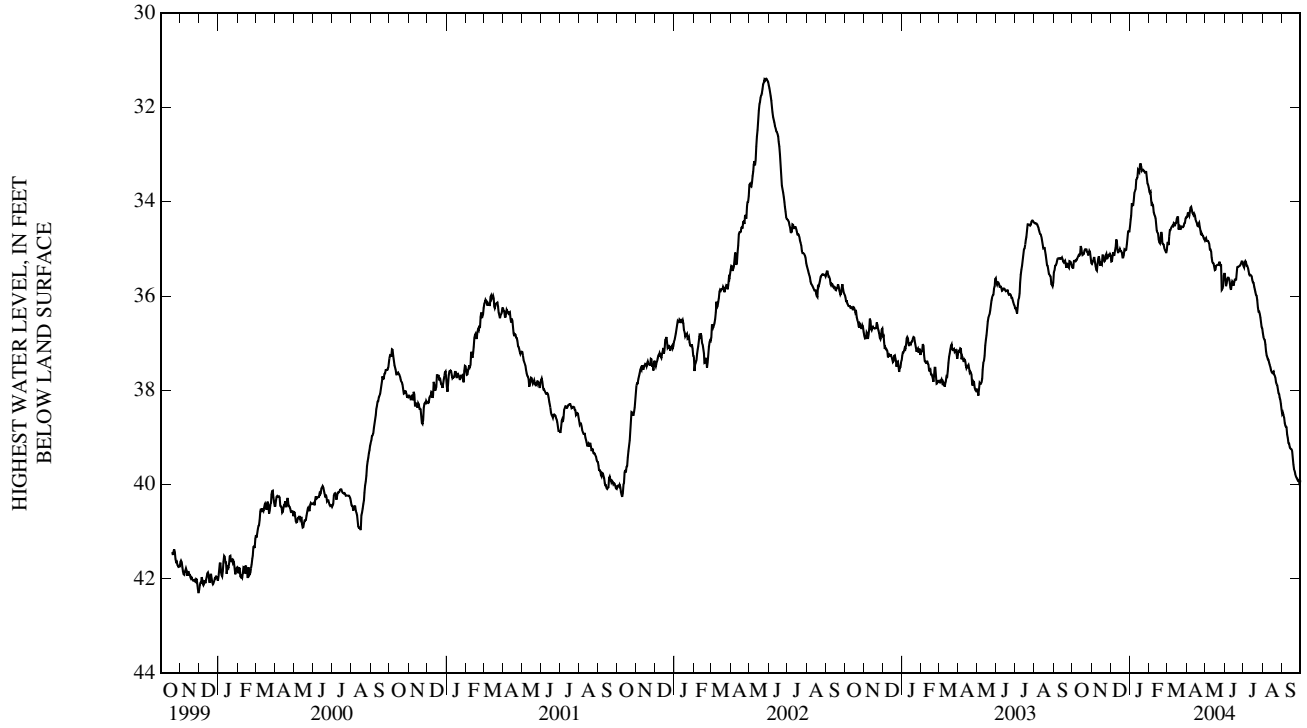
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	35.25	35.19	35.07	34.05	34.09	34.60	34.30	34.83	35.65	35.29	37.03	38.69
10	35.16	35.32	34.80	33.74	34.30	34.52	34.24	35.05	35.82	35.53	37.35	39.01
15	34.99	35.30	35.04	33.34	34.67	34.45	34.37	35.38	35.78	35.66	37.61	39.24
20	35.04	35.23	35.18	33.34	34.64	34.49	34.47	35.34	35.55	35.91	37.68	39.67
25	35.07	35.20	35.03	33.38	34.98	34.54	34.67	35.35	35.36	36.33	37.98	39.88
EOM	35.30	35.11	34.63	33.70	35.02	34.33	34.82	35.53	35.32	36.68	38.41	39.91
MIN	34.94	35.11	34.63	33.19	33.79	34.33	34.11	34.77	35.27	35.26	36.78	38.47

WTR YR 2004 HIGH 33.19 JAN 18

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	35.27	35.30	35.15	34.12	34.17	34.73	34.34	34.89	35.73	35.37	37.17	38.75
10	35.20	35.46	34.97	33.81	34.36	34.58	34.25	35.18	35.93	35.58	37.41	39.13
15	35.08	35.36	35.09	33.39	34.80	34.48	34.42	35.45	35.86	35.75	37.65	39.27
20	35.12	35.27	35.26	33.40	34.76	34.60	34.62	35.37	35.66	35.97	37.80	39.71
25	35.17	35.24	35.05	33.48	35.02	34.61	34.71	35.40	35.39	36.36	38.08	39.92
EOM	35.32	35.14	34.65	33.79	35.09	34.36	34.85	35.57	35.38	36.78	38.50	40.01
MAX	35.44	35.52	35.32	34.65	35.11	35.02	34.85	36.11	35.96	36.78	38.50	40.07

WTR YR 2004 LOW 40.07 SEP 29



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, (MOORESVILLE EAST, IN quadrangle), 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 National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 2.90 ft above land-surface datum.

PERIOD OF RECORD.--May 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.93 ft below land-surface datum, Jan. 1, 1991; lowest, 16.19 ft below land-surface datum, Feb. 10-14, 2000.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

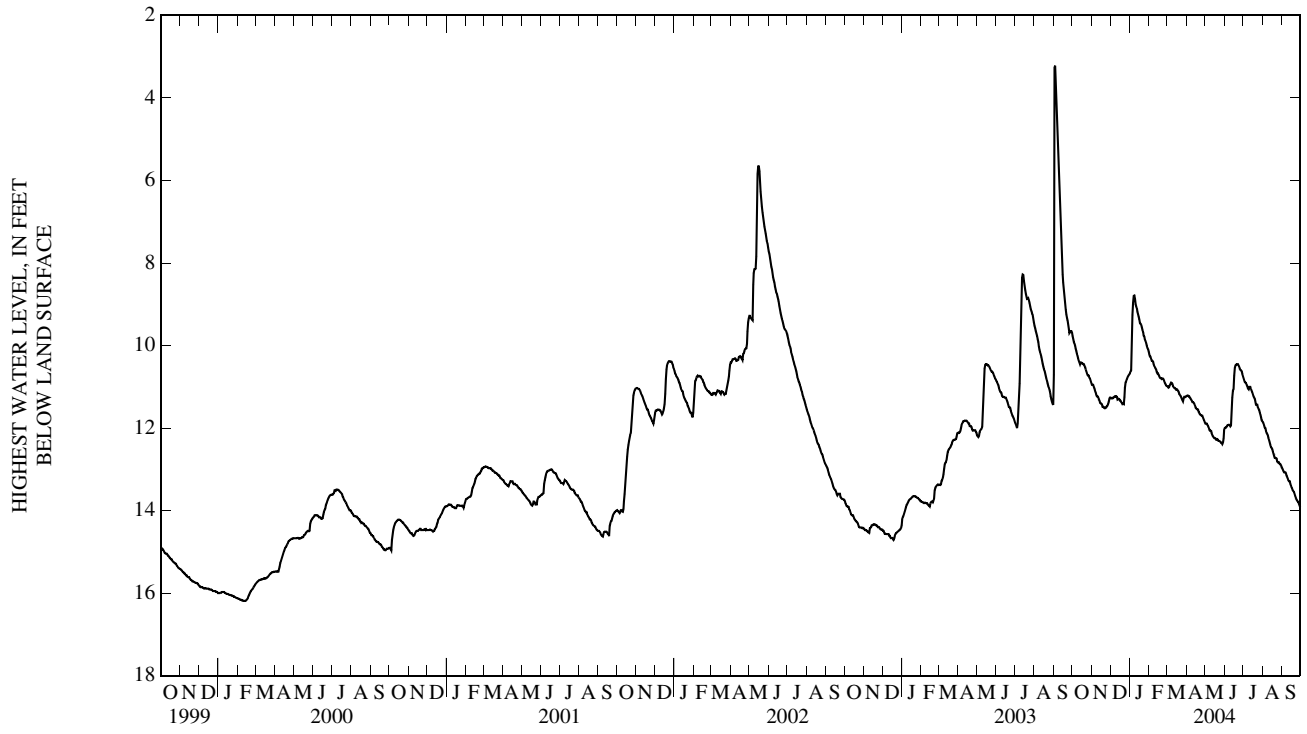
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.01	11.03	11.26	9.26	10.37	10.96	11.23	11.94	11.94	10.91	12.00	13.07
10	10.32	11.23	11.23	9.00	10.53	10.99	11.37	12.07	11.96	11.01	12.24	13.22
15	10.41	11.40	11.30	9.30	10.67	11.07	11.48	12.24	11.06	11.13	12.48	13.39
20	10.48	11.50	11.42	9.56	10.79	11.18	11.61	12.27	10.45	11.35	12.72	13.55
25	10.72	11.47	10.90	9.86	10.86	11.32	11.70	12.33	10.55	11.53	12.83	13.76
EOM	10.90	11.26	10.70	10.15	10.98	11.23	11.86	12.05	10.73	11.83	12.93	13.92
MIN	9.77	10.95	10.70	8.79	10.22	10.90	11.21	11.89	10.45	10.78	11.85	12.97

WTR YR 2004 HIGH 8.79 JAN 8

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.07	11.09	11.28	9.96	10.38	11.01	11.27	11.98	11.97	10.95	12.07	13.07
10	10.37	11.26	11.25	9.06	10.56	11.02	11.38	12.12	11.96	11.06	12.29	13.27
15	10.43	11.41	11.34	9.37	10.71	11.09	11.52	12.25	11.10	11.18	12.51	13.44
20	10.52	11.51	11.42	9.63	10.81	11.20	11.63	12.30	10.47	11.43	12.74	13.60
25	10.74	11.50	11.03	9.89	10.92	11.35	11.70	12.37	10.59	11.56	12.86	13.79
EOM	10.95	11.29	10.72	10.22	10.99	11.27	11.89	12.25	10.78	11.85	12.97	13.95
MAX	10.95	11.54	11.46	10.71	10.99	11.38	11.89	12.44	12.05	11.85	12.97	13.95

WTR YR 2004 LOW 13.95 SEP 30



NEWTON COUNTY

405105087173301. Local number, NE 6.

LOCATION.--Lat 40°51'05", long 87°17'33", in SE¼SW¼SE¼ sec.23, T.28 N., R.8 W., Newton County, Hydrologic Unit 07120002, (GOODLAND, IN quadrangle), on the right-of-way of County Road 1000 South, 1.0 mi south of Foresman.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 80 ft, cased to 76 ft, screened to 78 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 654.10 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 2.15 ft above land-surface datum.

REMARKS.--Water level may be affected by pumpage.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.98 ft below land-surface datum, July. 13, 2003; lowest, 18.82 ft below land-surface datum, Oct. 29, 1988.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

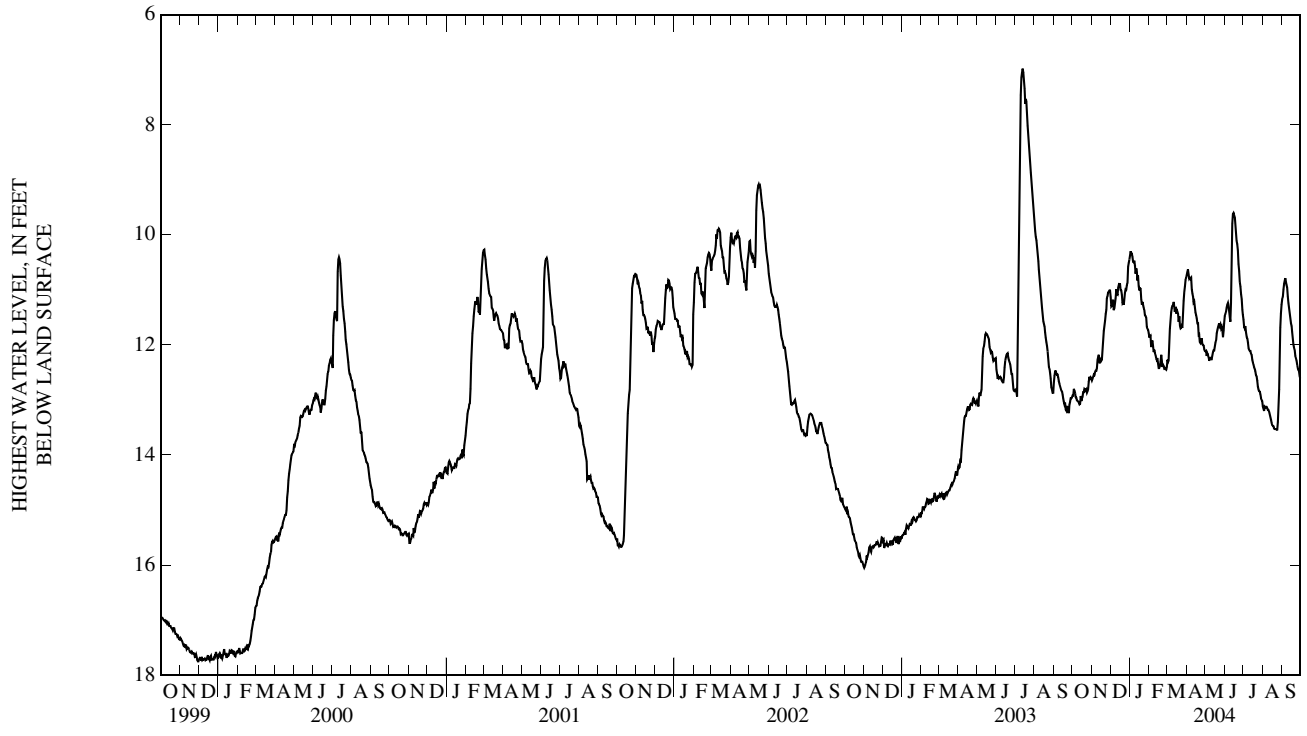
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.88	12.55	11.18	10.40	11.95	11.71	10.80	12.18	11.27	11.78	13.13	10.83
10	13.03	12.27	10.99	10.71	12.15	11.28	11.07	12.26	11.58	12.09	13.18	11.12
15	13.02	12.27	10.92	10.93	12.34	11.43	11.41	12.10	9.60	12.27	13.42	11.61
20	12.80	11.75	11.24	11.27	12.18	11.48	11.82	11.73	10.11	12.48	13.53	12.05
25	12.84	11.16	10.99	11.46	12.43	11.69	11.88	11.63	10.86	12.81	13.40	12.37
EOM	12.62	11.01	10.45	11.79	12.40	10.78	12.11	11.61	11.45	13.02	11.27	12.61
MIN	12.58	11.01	10.45	10.30	11.83	10.78	10.63	11.61	9.60	11.54	11.27	10.79

WTR YR 2004 HIGH 9.60 JUN 15

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.97	12.61	11.39	10.56	12.11	12.01	10.86	12.27	11.32	11.89	13.16	10.89
10	13.10	12.42	11.15	10.74	12.22	11.38	11.15	12.37	11.68	12.16	13.23	11.26
15	13.06	12.32	10.97	11.04	12.46	11.47	11.50	12.15	9.67	12.34	13.48	11.69
20	12.88	11.93	11.35	11.36	12.30	11.65	11.88	11.79	10.17	12.56	13.58	12.09
25	12.92	11.37	11.07	11.57	12.47	11.73	12.02	11.72	10.95	12.86	13.58	12.46
EOM	12.70	11.13	10.54	11.90	12.45	10.83	12.15	11.74	11.56	13.13	11.43	12.67
MAX	13.14	12.70	11.41	11.90	12.51	12.44	12.16	12.37	11.68	13.13	13.58	12.67

WTR YR 2004 LOW 13.58 AUG 19



NOBLE COUNTY

413106085232701. Local number, NO 9.

LOCATION.--Lat 41°31'08", long 85°23'28", in NW¼NE¼SE¼ sec.5, T.35 N., R.10 E., Noble County, Hydrologic Unit 04050001, (OLIVER LAKE, IN quadrangle), at the intersection of County Roads 175 East and 1150 North, and 2.0 mi west of Wolcottville.
Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in,. depth 44 ft, cased to 39 ft, screened to 42 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 930 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 2.60 ft above land-surface datum.

PERIOD OF RECORD.--June 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.37 ft below land-surface datum, Jan. 5, 1993; lowest, 18.61 ft below land-surface datum, Mar. 6-7, 2003.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

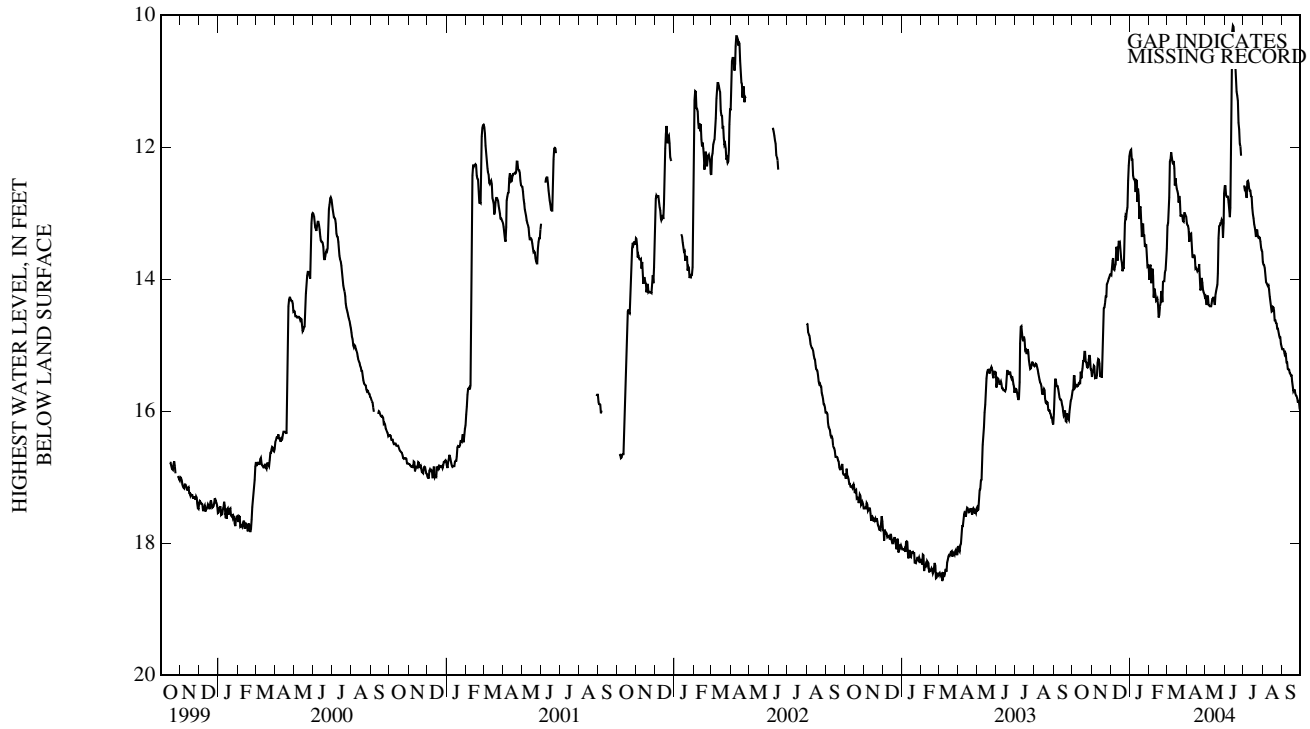
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.64	15.32	13.68	12.19	13.95	12.22	13.43	14.26	12.75	12.71	13.93	15.14
10	15.61	15.27	13.51	12.68	14.19	12.26	13.66	14.41	12.92	12.62	14.09	15.36
15	15.50	15.45	13.48	12.73	14.39	12.56	13.84	14.34	10.18	12.92	14.49	15.46
20	15.10	14.44	13.88	13.36	14.18	12.74	13.85	14.08	11.16	13.27	14.62	15.68
25	15.34	14.08	13.04	13.51	14.03	13.05	13.98	13.15	11.95	13.37	14.75	15.80
EOM	15.38	13.93	12.14	13.84	13.54	13.05	14.27	12.70	---	13.58	15.02	15.96
MIN	15.10	13.93	12.14	12.04	13.54	12.08	13.15	12.70	---	---	13.74	15.06

WTR YR 2004 HIGH 10.16 JUN 14

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.66	15.52	13.85	12.43	14.19	12.76	13.50	14.40	12.76	12.87	14.04	15.16
10	15.62	15.46	13.78	12.75	14.26	12.26	13.69	14.44	13.07	12.68	14.16	15.41
15	15.59	15.48	13.58	13.09	14.60	12.74	13.89	14.45	10.39	13.02	14.52	15.49
20	15.30	14.73	14.02	13.43	14.36	12.96	14.06	14.13	11.23	13.36	14.65	15.72
25	15.40	14.30	13.15	13.68	14.09	13.18	14.14	13.27	12.00	13.40	14.81	15.88
EOM	15.48	13.97	12.28	14.01	13.71	13.15	14.33	13.15	---	13.74	15.06	16.00
MAX	15.76	15.60	14.05	14.01	14.64	13.54	14.33	14.59	---	---	15.06	16.00

WTR YR 2004 LOW 16.00 SEP 30



PARKE COUNTY

393619087043001. Local number, PA 6.

LOCATION.--Lat 39°36'19", long 87°04'30", in SE¼SW¼SE¼ sec.33, T.14 N., R.6 W., Parke County, Hydrologic Unit 05120111, (BRAZIL EAST, IN quadrangle), 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 National Geodetic Vertical Datum of 1929. Measuring point: Top of shelf, 2.40 ft above land-surface datum.

PERIOD OF RECORD.--July 1967 to August 1971, September 1971 to September 1981 (well taped semi-annually). 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, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

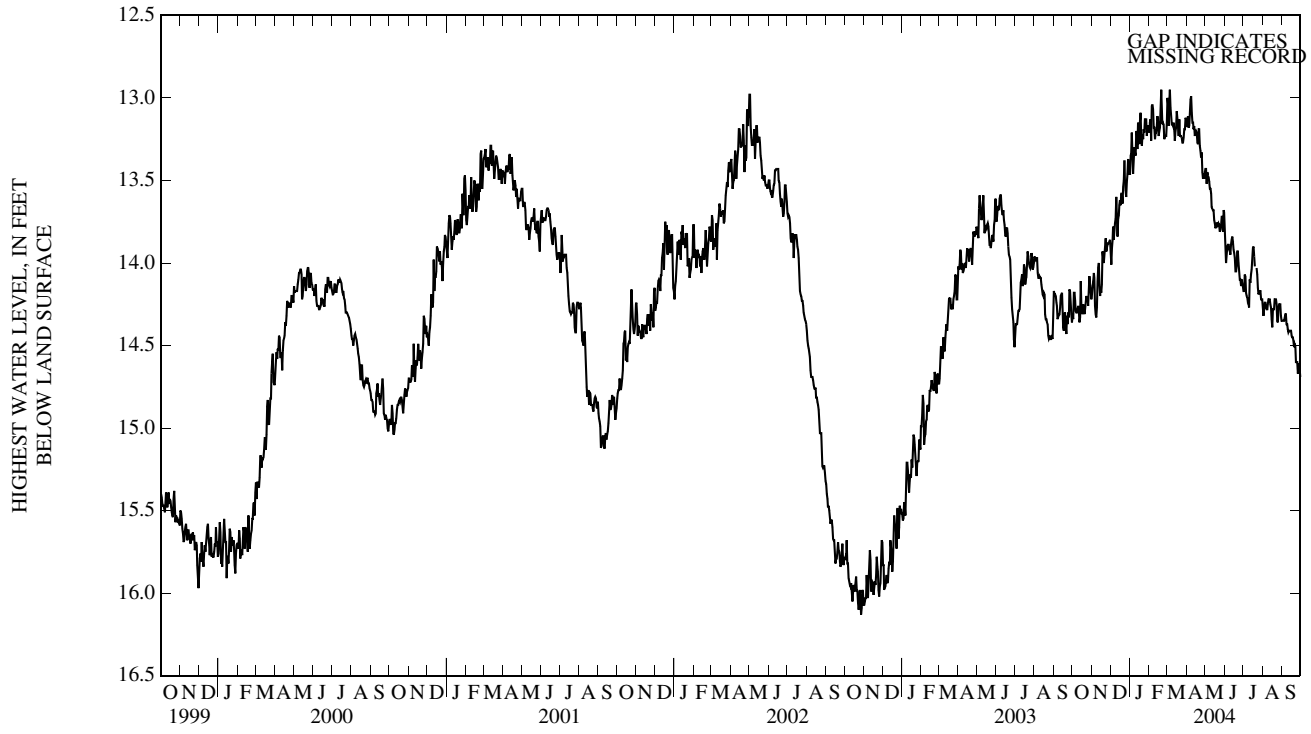
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.23	14.09	13.78	13.31	13.05	12.95	13.17	13.47	13.90	14.18	14.24	14.33
10	14.26	14.11	13.60	13.35	13.25	13.17	13.15	13.58	13.95	14.27	14.22	14.40
15	14.27	14.15	13.65	13.23	13.14	13.18	13.21	13.74	13.92	13.98	14.34	14.41
20	14.31	14.00	13.64	13.29	12.95	13.13	13.19	13.76	14.02	---	14.22	14.51
25	14.21	13.91	13.56	13.13	13.25	13.27	13.33	13.80	14.10	14.19	14.36	14.60
EOM	14.22	13.86	13.46	13.17	13.15	13.13	13.45	13.69	14.14	14.22	14.35	14.69
MIN	14.08	13.85	13.37	13.09	12.95	12.95	12.99	13.43	13.84	---	14.22	14.31

WTR YR 2004 HIGH 12.95 FEB 20

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.30	14.27	13.88	13.48	13.28	13.07	13.26	13.54	13.97	14.24	14.27	14.35
10	14.31	14.28	13.73	13.45	13.28	13.27	13.18	13.67	14.04	14.32	14.25	14.44
15	14.31	14.21	13.77	13.31	13.28	13.25	13.27	13.81	13.99	14.06	14.43	14.44
20	14.41	14.07	13.70	13.35	13.06	13.24	13.35	13.81	14.08	---	14.29	14.54
25	14.35	14.06	13.61	13.32	13.28	13.31	13.45	13.83	14.13	14.22	14.38	14.67
EOM	14.25	13.93	13.51	13.22	13.24	13.22	13.52	13.85	14.23	14.27	14.35	14.71
MAX	14.45	14.39	14.07	13.51	13.29	13.31	13.53	13.88	14.23	---	14.43	14.71

WTR YR 2004 LOW 14.71 SEP 30



POSEY COUNTY

380758087551001. Local number, PY 3.

LOCATION.--Lat 38°07'55", long 87°55'11", in NW¼NW¼SW¼ sec.31, T.4 S., R.13 W., Posey County, Hydrologic Unit 05120113, (NEW HARMONY, IN-IL quadrangle), 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 National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 3.00 ft above land-surface datum.

REMARKS.--Water level affected by Wabash River floods.

PERIOD OF RECORD.--April 1967 to September 1971, September 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.51 ft below land-surface datum, May 19, 2002; lowest, 21.40 ft below land-surface datum, Nov. 4, 8-15, 1988.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

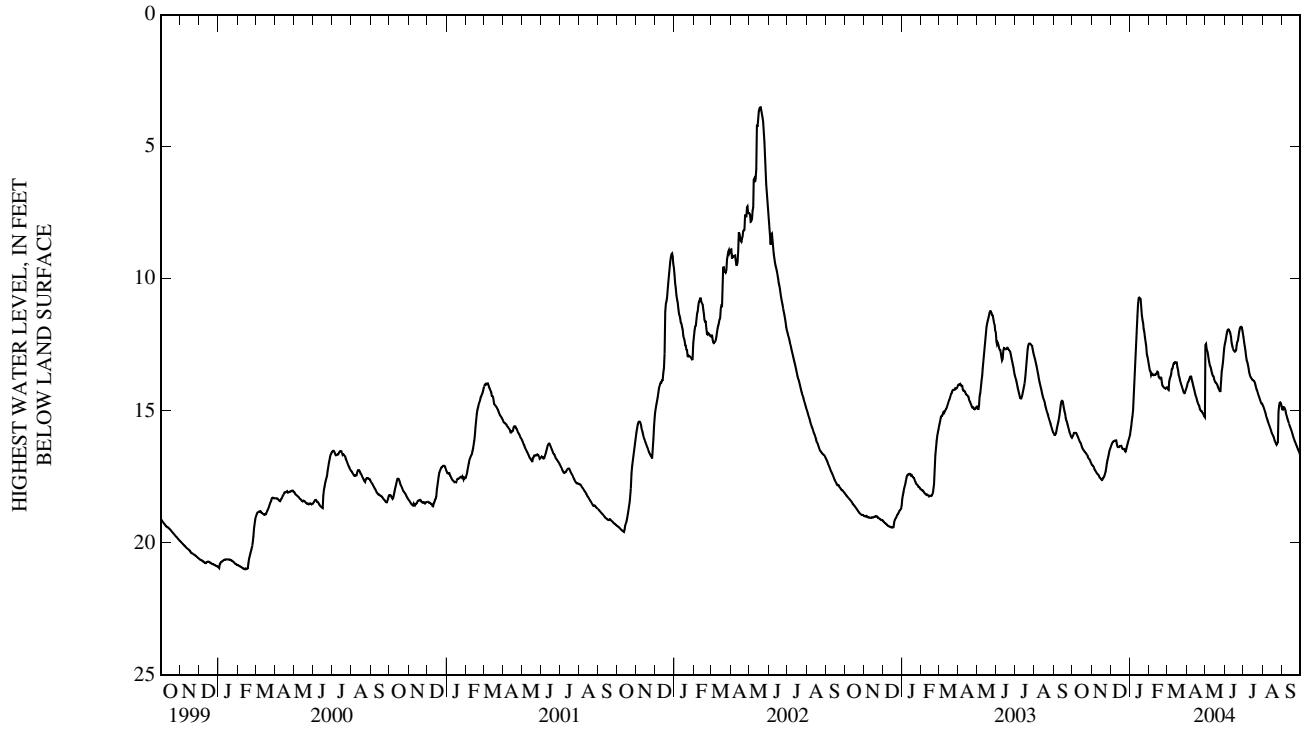
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.83	17.18	16.17	15.21	13.59	13.77	13.82	12.85	11.98	12.92	15.06	14.90
10	16.00	17.39	16.13	13.50	13.64	13.29	13.91	13.43	12.07	13.52	15.45	15.34
15	16.29	17.56	16.35	10.73	13.54	13.18	14.40	13.80	12.70	13.82	15.81	15.69
20	16.54	17.52	16.43	11.39	13.75	13.71	14.77	14.02	12.53	14.00	16.11	16.06
25	16.70	16.99	16.54	12.21	14.13	14.13	15.01	14.25	11.89	14.40	16.19	16.37
EOM	16.98	16.45	16.01	13.24	14.11	14.17	15.24	12.65	12.06	14.72	14.82	16.67
MIN	15.83	16.45	16.01	10.71	13.37	13.16	13.70	12.46	11.82	12.21	14.68	14.86

WTR YR 2004 HIGH 10.71 JAN 16

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.85	17.24	16.19	15.38	13.72	13.88	13.89	13.02	12.09	13.11	15.17	14.96
10	16.07	17.41	16.27	13.95	13.68	13.41	14.02	13.52	12.20	13.62	15.52	15.41
15	16.36	17.58	16.41	10.96	13.71	13.22	14.46	13.87	12.75	13.84	15.87	15.76
20	16.56	17.54	16.46	11.56	13.92	13.83	14.80	14.09	12.70	14.09	16.17	16.12
25	16.77	17.13	16.56	12.38	14.17	14.21	15.07	14.34	12.01	14.47	16.24	16.44
EOM	17.04	16.52	16.10	13.37	14.17	14.24	15.27	12.88	12.21	14.79	14.94	16.72
MAX	17.04	17.63	16.56	16.01	14.18	14.39	15.27	15.27	12.79	14.80	16.32	16.72

WTR YR 2004 LOW 17.63 NOV 17



PULASKI COUNTY

410739086365201. Local number, PU 7.

LOCATION.--Lat 41°07'39", long 86°36'52", in NE¼NE¼NW¼ sec.23, T.31 N., R.2 W., Pulaski County, Hydrologic Unit 05120106, (BASS LAKE, IN quadrangle), in the Winamac State Fish and Game Area, 0.8 mi southwest of Beardstown.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 105 ft, cased to 98 ft, screened to 100 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 715.26 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 2.50 ft above land-surface datum.

PERIOD OF RECORD.--August 1967 to September 1971, September 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.69 ft below land-surface datum, June 15, 1981; lowest, 12.01 ft below land-surface datum, Mar. 9, 2003.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

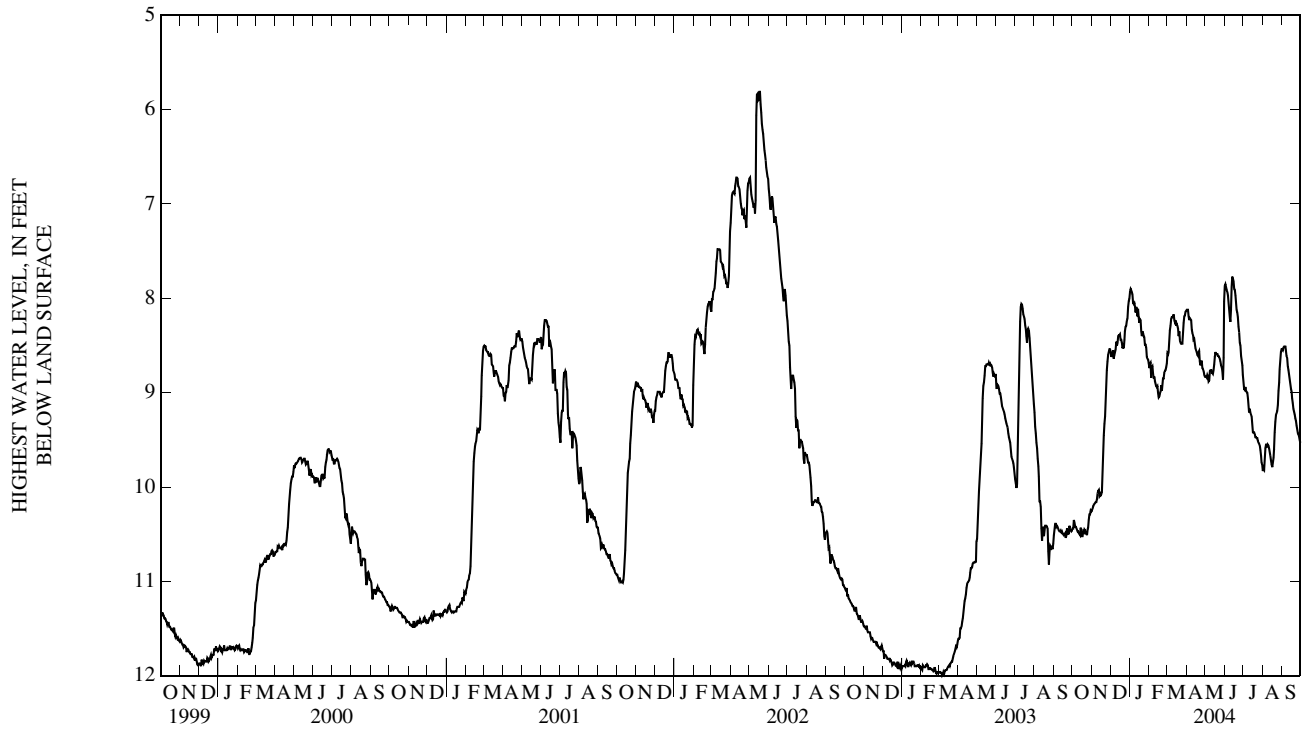
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.42	10.18	8.55	7.96	8.73	8.34	8.23	8.83	7.93	8.98	9.59	8.51
10	10.47	10.07	8.46	8.15	8.88	8.19	8.37	8.76	8.25	9.21	9.56	8.72
15	10.52	10.07	8.39	8.20	9.00	8.29	8.53	8.70	7.82	9.34	9.76	8.96
20	10.45	9.45	8.53	8.40	8.92	8.35	8.57	8.59	8.12	9.47	9.42	9.20
25	10.45	8.76	8.30	8.49	8.79	8.48	8.66	8.67	8.47	9.53	9.13	9.39
EOM	10.26	8.54	8.00	8.69	8.69	8.13	8.83	8.03	8.81	9.76	8.54	9.53
MIN	10.25	8.54	8.00	7.90	8.68	8.13	8.12	8.03	7.77	8.89	8.54	8.51

WTR YR 2004 HIGH 7.77 JUN 13

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.44	10.21	8.65	8.06	8.85	8.45	8.26	8.89	7.97	9.03	9.70	8.52
10	10.50	10.13	8.54	8.17	8.91	8.24	8.39	8.79	8.30	9.25	9.59	8.77
15	10.53	10.09	8.42	8.26	9.06	8.31	8.55	8.77	7.90	9.42	9.79	9.00
20	10.50	9.69	8.57	8.43	9.00	8.45	8.69	8.62	8.15	9.53	9.60	9.23
25	10.53	8.94	8.35	8.56	8.85	8.53	8.74	8.71	8.50	9.54	9.22	9.44
EOM	10.27	8.57	8.03	8.75	8.73	8.15	8.84	8.63	8.89	9.83	8.57	9.57
MAX	10.54	10.28	8.65	8.75	9.08	8.69	8.84	8.97	8.89	9.83	10.00	9.57

WTR YR 2004 LOW 10.54 OCT 17



RANDOLPH COUNTY

401532085085301. Local number, RA 3.

LOCATION.--Lat 40°15'32", long 85°08'53", in NE¼NE¼SE¼ sec.23, T.21 N., R.12 E., Randolph County, Hydrologic Unit 05120103, (REDKEY, IN quadrangle), 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 National Geodetic Vertical Datum of 1929. 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, 15.32 ft below land-surface datum, Oct. 22-23, 2002.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

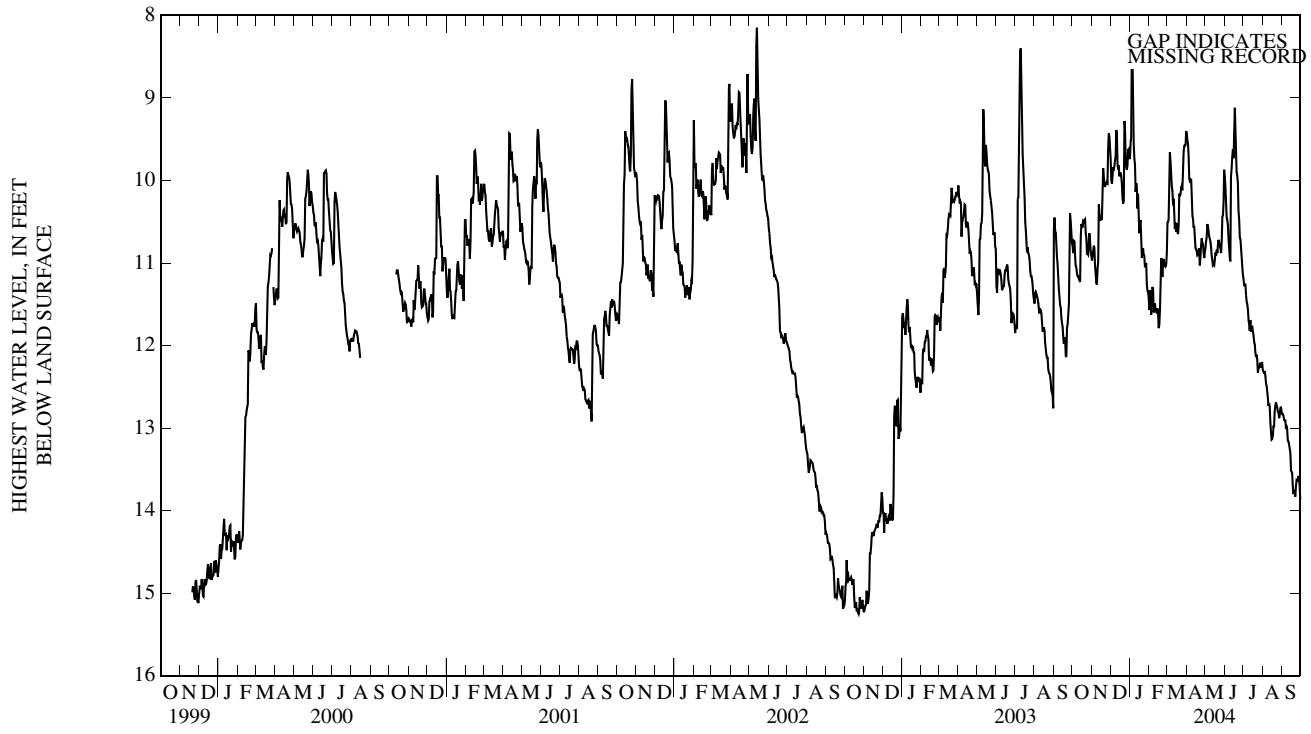
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.93	10.81	9.84	8.46	11.38	9.66	9.97	10.55	10.48	11.39	12.37	12.91
10	11.16	11.07	9.39	10.14	11.49	10.30	10.43	10.82	10.98	11.73	12.73	13.15
15	10.53	10.45	9.95	10.36	11.59	10.62	10.82	11.03	9.73	11.78	13.14	13.51
20	10.48	9.96	10.21	10.94	10.94	10.16	10.85	10.88	9.90	12.08	12.80	13.75
25	10.89	10.02	9.66	11.04	11.03	10.12	10.70	10.82	10.69	12.28	12.80	13.64
EOM	10.91	9.61	9.74	11.43	10.88	9.40	10.86	9.87	11.14	12.21	12.80	13.87
MIN	10.47	9.43	9.28	8.46	10.88	9.40	9.44	9.87	9.12	11.19	12.30	12.83

WTR YR 2004 HIGH 8.46 JAN 5

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.03	11.04	9.94	9.24	11.69	9.91	10.09	10.64	10.55	11.53	12.46	12.97
10	11.24	11.26	9.71	10.18	11.59	10.40	10.49	10.93	11.05	11.89	12.84	13.23
15	10.68	10.50	10.04	10.64	11.82	10.72	10.90	11.09	9.95	11.84	13.18	13.56
20	10.65	10.06	10.40	11.00	11.26	10.54	11.06	11.00	9.94	12.15	13.07	13.83
25	11.04	10.16	9.83	11.24	11.08	10.23	10.79	10.90	10.73	12.35	12.86	13.73
EOM	11.01	9.74	9.86	11.57	11.02	9.57	11.00	10.24	11.23	12.30	12.87	14.02
MAX	11.34	11.37	10.40	11.57	11.86	10.88	11.14	11.21	11.23	12.36	13.20	14.02

WTR YR 2004 LOW 14.02 SEP 30



SHELBY COUNTY

393943085490901. Local number, SH 2.

LOCATION.--Lat 39°39'43", long 85°49'09", in SW¼SW¼NW¼ sec.13, T.14 N., R.6 E., Shelby County, Hydrologic Unit 05120204, (FOUNTAINTOWN, IN quadrangle), on the county right-of-way at the intersection of County Roads 950 North and 200 West, 3.0 mi south of Carrollton.
Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 150 ft, cased to 128 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 816.10 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 3.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.90 ft below land-surface datum, May 27, 1968; lowest, 23.51 ft below land-surface datum, Jan. 28, 2000.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

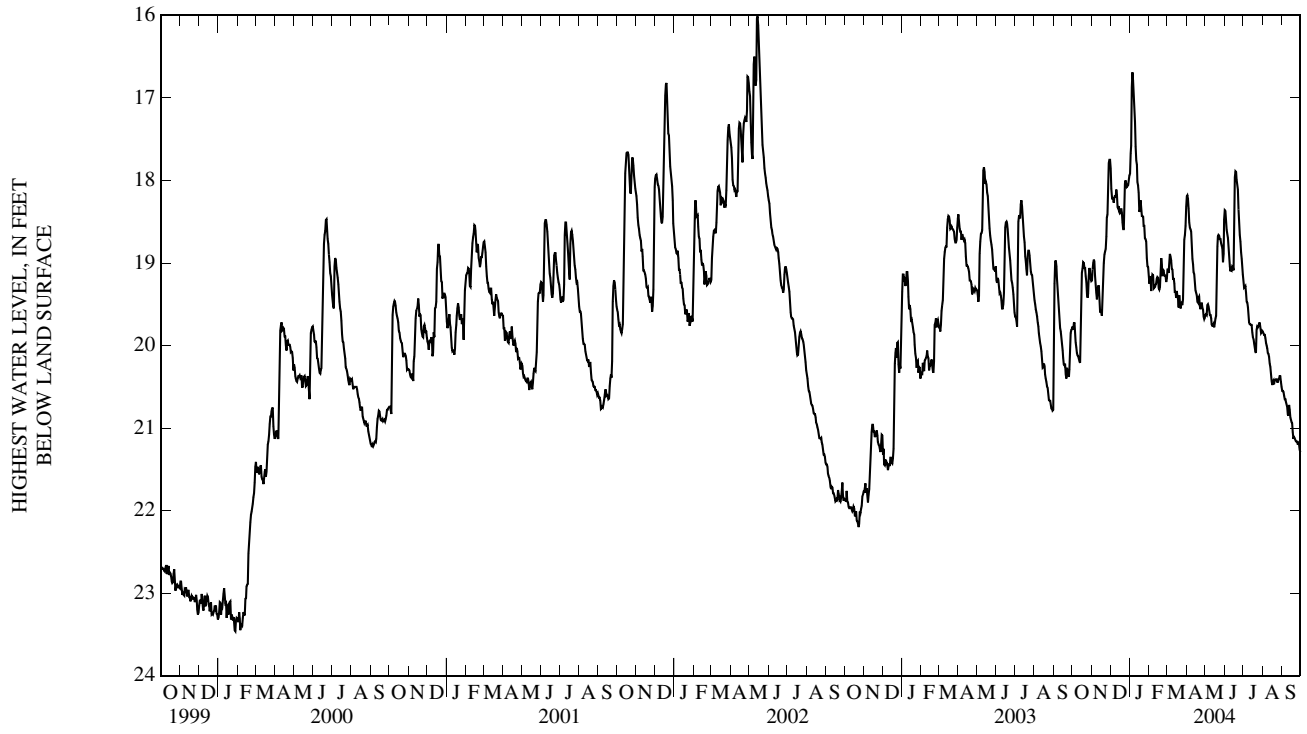
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.85	18.98	18.21	16.69	19.22	18.89	18.51	19.50	18.65	19.36	19.91	20.65
10	20.13	19.34	18.11	17.59	19.29	19.20	18.95	19.67	19.10	19.72	20.10	20.83
15	19.32	19.56	18.38	18.15	19.18	19.42	19.33	19.78	19.09	19.84	20.43	20.90
20	19.06	19.00	18.51	18.43	18.94	19.39	19.42	18.80	17.99	20.07	20.42	21.11
25	19.42	18.45	18.00	18.70	19.15	19.51	19.48	18.71	18.66	19.76	20.44	21.17
EOM	19.22	17.75	17.94	19.15	19.19	18.32	19.66	18.47	19.14	19.82	20.50	21.29
MIN	18.99	17.75	17.85	16.69	18.94	18.32	18.18	18.47	17.89	19.22	19.83	20.55

WTR YR 2004 HIGH 16.69 JAN 5

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.96	19.16	18.29	16.87	19.40	19.00	18.60	19.58	18.73	19.51	19.97	20.67
10	20.17	19.45	18.22	17.78	19.32	19.26	19.03	19.76	19.14	19.77	20.14	20.89
15	19.73	19.61	18.44	18.38	19.31	19.45	19.39	19.81	19.16	19.93	20.50	20.95
20	19.14	19.21	18.67	18.50	19.13	19.54	19.55	19.17	18.05	20.15	20.55	21.15
25	19.56	18.68	18.05	18.80	19.16	19.59	19.54	18.77	18.74	19.80	20.50	21.24
EOM	19.30	17.85	18.00	19.25	19.23	18.55	19.71	18.89	19.23	19.89	20.56	21.32
MAX	20.27	19.72	18.67	19.25	19.40	19.61	19.72	19.82	19.23	20.19	20.56	21.32

WTR YR 2004 LOW 21.32 SEP 30



402734087033402. Local number, TC 18.

LOCATION.--Lat 40°27'34", long 87°03'34", NW¼NE¼NE¼ sec.11, T.23 N., R.6 W., Tippecanoe County, Hydrologic Unit 05120108, (OTTERBEIN, IN quadrangle), 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 National Geodetic Vertical Datum of 1929, 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, 16.05 ft below land-surface datum, May 13-14, 2002; lowest, 22.79 ft below land-surface datum, Feb. 16-17, 2000.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

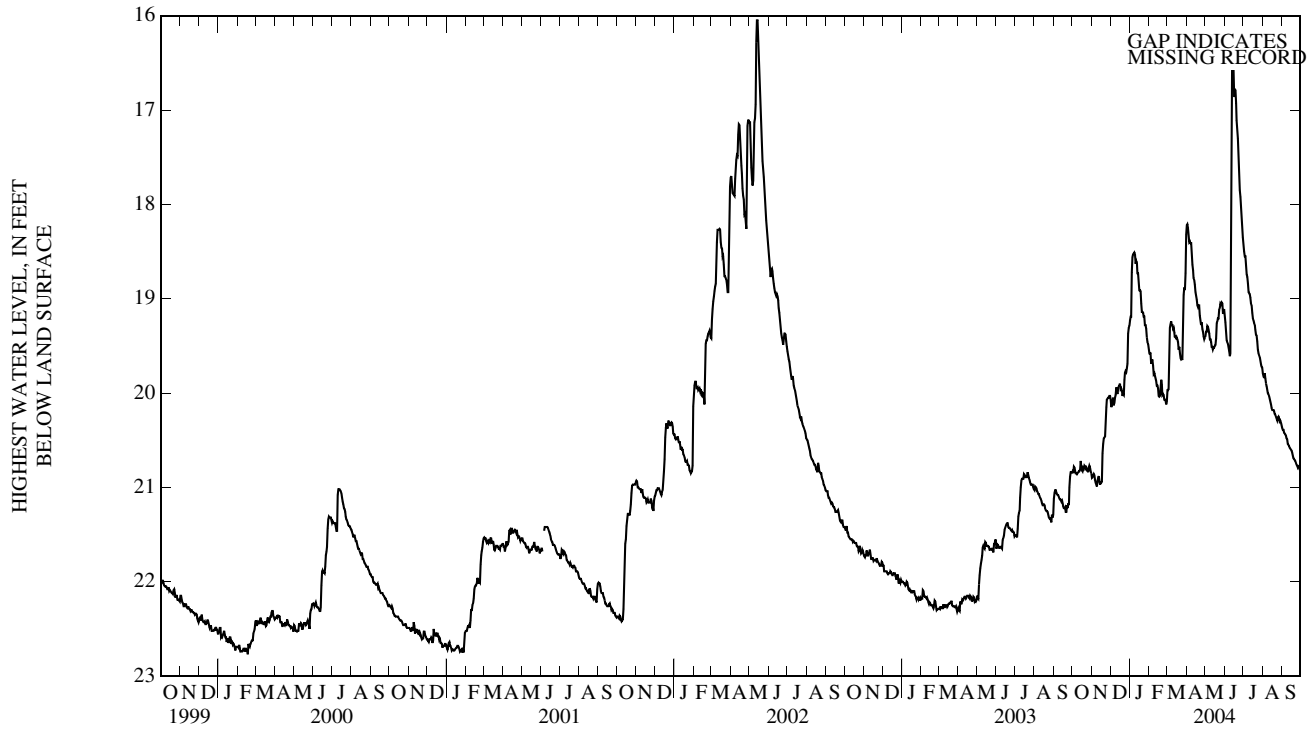
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.83	20.87	20.05	18.56	19.65	19.31	18.40	19.30	19.46	18.65	19.85	20.43
10	20.84	20.93	19.94	18.63	19.82	19.32	18.64	19.46	19.58	18.94	20.01	20.54
15	20.80	20.95	19.92	18.81	19.95	19.43	18.93	19.52	16.61	19.15	20.16	20.60
20	20.77	20.48	20.03	19.14	19.86	19.51	19.07	19.24	17.11	19.33	20.22	20.70
25	20.82	20.07	19.77	19.28	20.07	19.65	19.25	19.05	17.85	19.58	20.26	20.77
EOM	20.85	20.03	19.29	19.53	20.09	18.32	19.41	19.11	18.35	19.73	20.34	20.81
MIN	20.72	20.03	19.29	18.51	19.58	18.32	18.21	19.04	16.20	18.42	19.79	20.37

WTR YR 2004 HIGH 16.20 JUN 13

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.86	20.92	20.13	18.72	19.73	19.64	18.44	19.34	19.48	18.74	19.90	20.45
10	20.85	20.99	20.02	18.66	19.85	19.35	18.70	19.53	19.64	18.97	20.03	20.56
15	20.82	20.97	19.95	18.91	20.03	19.46	18.97	19.54	16.86	19.21	20.18	20.61
20	20.82	20.54	20.07	19.18	19.95	19.58	19.16	19.26	17.21	19.38	20.23	20.71
25	20.86	20.15	19.79	19.32	20.07	19.68	19.32	19.10	17.92	19.60	20.32	20.79
EOM	20.90	20.07	19.31	19.58	20.12	18.73	19.48	19.18	18.42	19.79	20.37	20.85
MAX	20.90	21.00	20.16	19.58	20.13	20.09	19.48	19.55	19.64	19.79	20.37	20.85

WTR YR 2004 LOW 21.00 NOV 8



VANDERBURGH COUNTY

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, (EVANSVILLE NORTH, IN quadrangle), 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 National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 4.04 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 19.27 ft below land-surface datum, June 19, 1997; lowest, 25.06 ft below land-surface datum, Oct. 29, 1988.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

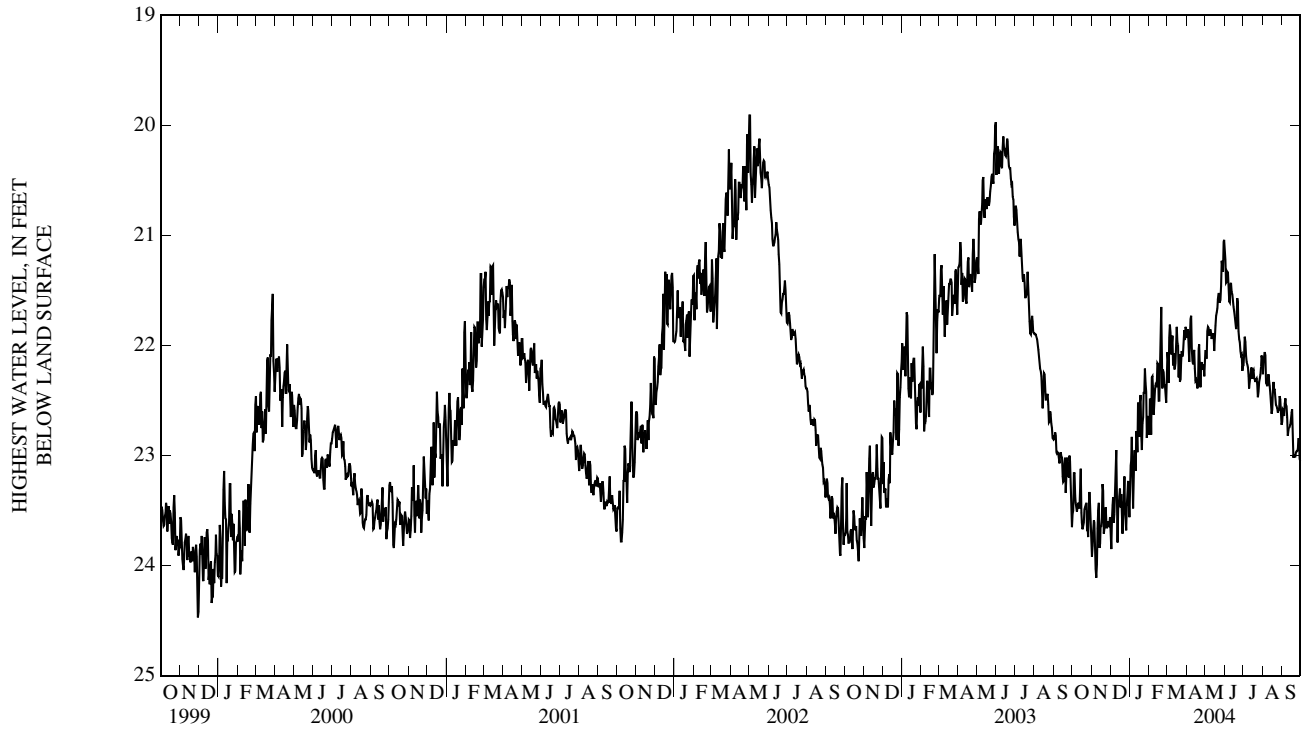
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.36	23.61	23.38	23.03	22.29	21.81	22.15	21.83	21.33	22.09	22.09	22.53
10	23.43	23.66	22.95	23.14	22.40	22.18	22.14	21.89	21.45	22.39	22.26	22.82
15	23.52	23.64	23.37	22.73	22.17	21.99	22.32	22.05	21.65	22.30	22.62	22.66
20	23.49	23.71	23.71	22.95	21.65	22.08	22.03	21.66	21.77	22.33	22.40	22.99
25	23.65	23.66	23.59	22.21	22.36	22.10	22.15	21.59	21.97	22.42	22.61	22.96
EOM	23.77	23.56	23.56	22.81	22.23	21.85	22.17	21.04	22.19	22.12	22.72	23.05
MIN	23.12	23.26	22.95	22.21	21.65	21.81	21.73	21.04	21.14	21.92	22.06	22.48

WTR YR 2004 HIGH 21.04 MAY 31

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.43	23.91	23.61	23.48	22.81	21.93	22.24	21.91	21.44	22.31	22.34	22.67
10	23.49	23.99	23.38	23.27	22.51	22.36	22.22	21.98	21.61	22.47	22.32	22.91
15	23.69	23.80	23.61	22.99	22.50	22.27	22.46	22.12	21.75	22.37	22.69	22.78
20	23.72	23.82	23.88	23.05	22.00	22.33	22.38	21.73	21.95	22.39	22.53	23.07
25	23.90	23.95	23.71	22.70	22.46	22.20	22.31	21.69	22.05	22.50	22.69	23.05
EOM	23.93	23.71	23.61	22.88	22.52	21.93	22.30	21.20	22.28	22.27	22.79	23.14
MAX	23.93	24.15	24.07	23.64	23.02	22.63	22.51	22.23	22.35	22.54	22.79	23.14

WTR YR 2004 LOW 24.15 NOV 8



VIGO COUNTY

392820087242601. Local number, VI 7.

LOCATION.--Lat 39°28'20", long 87°24'26", in SE¼SE¼NE¼ sec.21, T.12 N., R.9 W., Vigo County, Hydrologic Unit 05120111, (TERRE HAUTE, IN quadrangle), on the campus of Indiana State University, in Terre Haute.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 70 ft, cased to 67 ft, screened to 70 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 502 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 3.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 35.78 ft below land-surface datum, May. 25, 2002; lowest, 51.90 ft below land-surface datum, Sept. 29 to Oct. 1, 1972.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

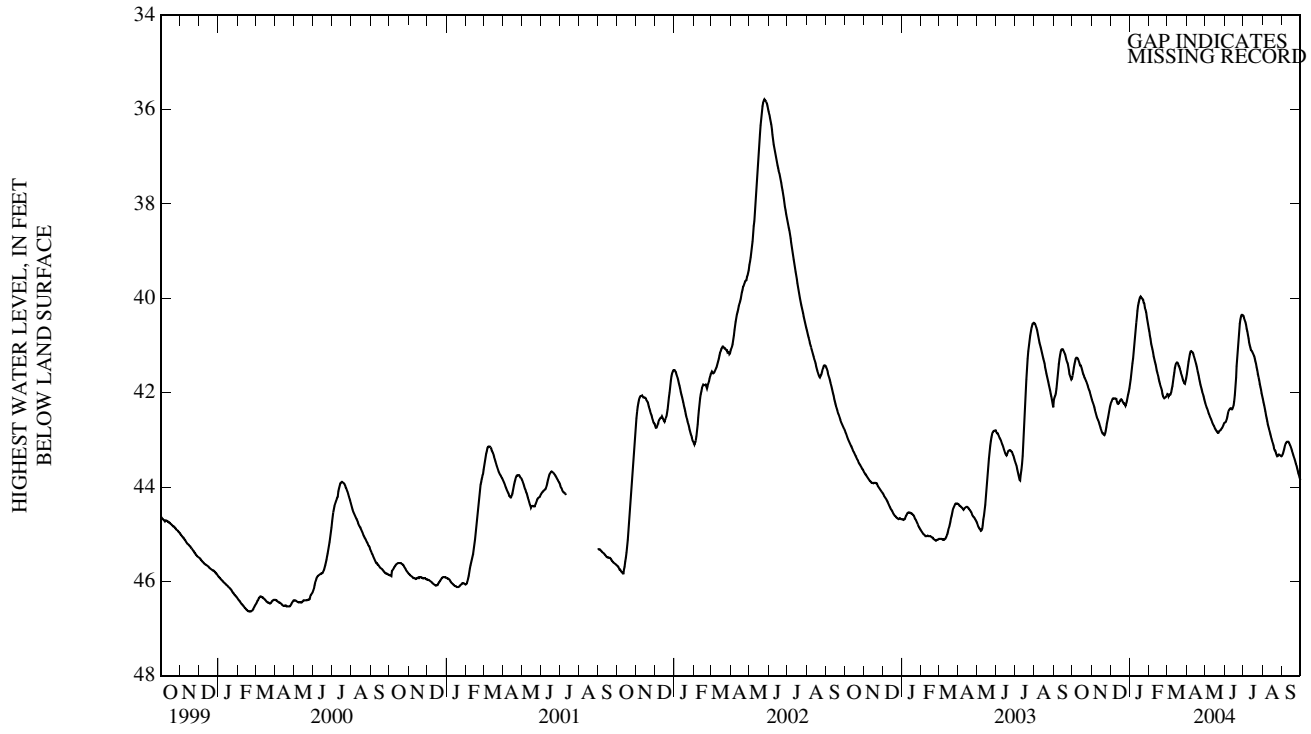
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	41.33	42.31	42.12	41.38	41.02	42.04	41.26	42.38	42.51	40.56	42.40	43.14
10	41.29	42.55	42.13	40.69	41.35	41.76	41.14	42.56	42.33	40.93	42.72	43.04
15	41.46	42.75	42.19	40.09	41.63	41.38	41.34	42.71	42.28	41.13	42.98	43.16
20	41.68	42.89	42.18	40.00	41.90	41.45	41.64	42.83	41.44	41.33	43.22	43.37
25	41.84	42.66	42.28	40.20	42.12	41.68	41.93	42.80	40.54	41.67	43.34	43.61
EOM	42.10	42.29	41.91	40.64	42.06	41.69	42.19	42.65	40.36	42.07	43.35	43.85
MIN	41.26	42.15	41.91	39.96	40.71	41.36	41.12	42.23	40.35	40.37	42.13	43.04

WTR YR 2004 HIGH 39.96 JAN 18

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	41.39	42.37	42.13	41.50	41.08	42.05	41.34	42.43	42.57	40.64	42.48	43.20
10	41.33	42.58	42.19	40.85	41.40	41.86	41.16	42.59	42.34	40.99	42.77	43.05
15	41.50	42.79	42.24	40.16	41.70	41.42	41.39	42.75	42.32	41.16	43.03	43.20
20	41.70	42.90	42.21	40.01	41.95	41.50	41.70	42.85	41.68	41.38	43.25	43.41
25	41.88	42.73	42.28	40.24	42.13	41.73	41.99	42.81	40.68	41.73	43.36	43.66
EOM	42.15	42.36	41.98	40.71	42.08	41.75	42.23	42.68	40.37	42.13	43.36	43.89
MAX	42.15	42.91	42.29	41.91	42.13	42.10	42.23	42.85	42.65	42.13	43.38	43.89

WTR YR 2004 LOW 43.89 SEP 30



WAYNE COUNTY

394426085080601. Local number, WE 6.

LOCATION.--Lat 39°44'28", long 85°08'09", in SE¼NW¼NE¼ sec.24, T.15 N., R.12 E., Wayne County, Hydrologic Unit 05080003, (CONNERSVILLE, IN quadrangle), on county right-of-way, 750 ft east of State Highway 1, and 4.0 mi south of East Germantown.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 49 ft, cased to 47 ft, screened to 49 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 888 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of collar in shelter, 3.60 ft above land-surface datum.

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

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, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MINIMUM VALUES

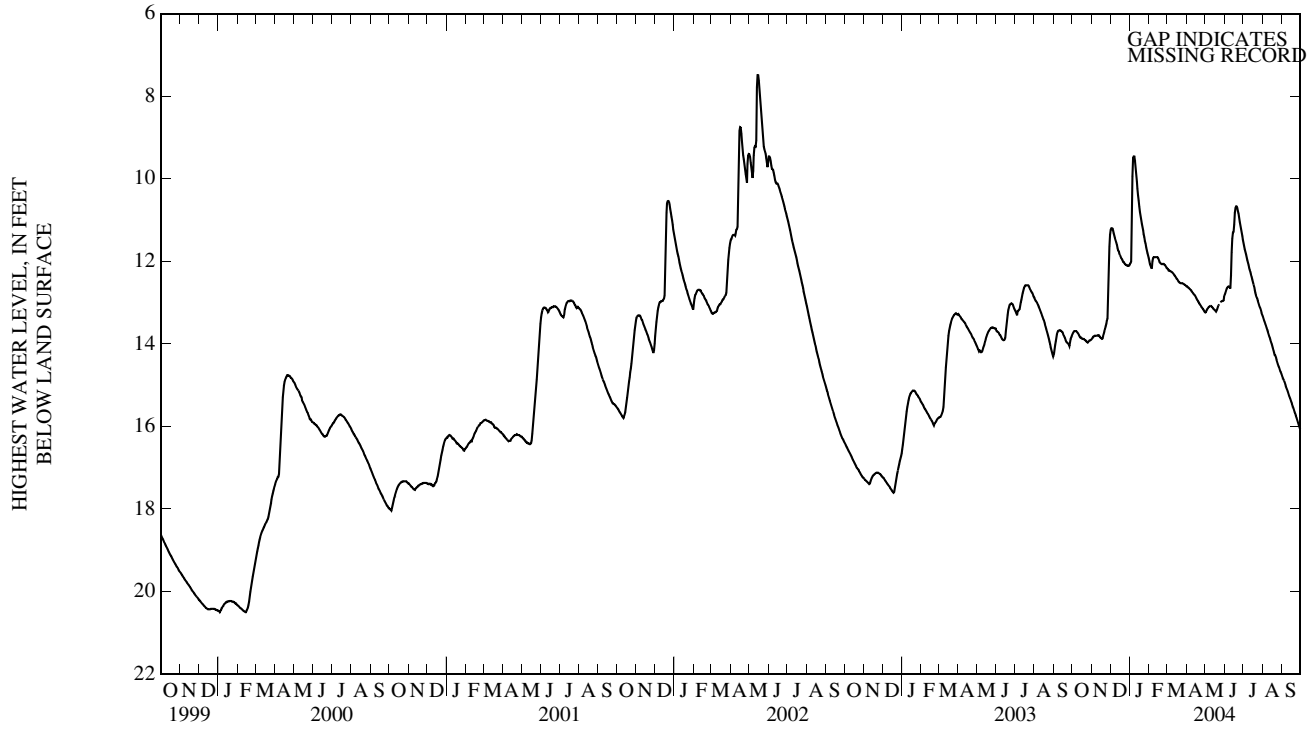
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.69	13.81	11.25	9.94	12.18	12.23	12.66	13.14	12.64	11.83	13.52	14.93
10	13.75	13.80	11.54	9.74	11.90	12.29	12.75	13.08	12.66	12.15	13.75	15.15
15	13.86	13.85	11.81	10.53	11.91	12.40	12.85	13.17	11.29	12.44	13.99	15.38
20	13.90	13.76	11.97	11.09	12.06	12.51	12.99	13.15	10.67	12.76	14.27	15.60
25	13.97	13.44	12.08	11.51	12.08	12.53	13.11	12.99	11.05	13.01	14.49	15.84
EOM	13.90	11.36	12.10	11.92	12.16	12.60	13.23	12.86	11.47	13.29	14.73	16.07
MIN	13.69	11.36	11.20	9.46	11.90	12.18	12.60	---	10.67	11.55	13.33	14.78

WTR YR 2004 HIGH 9.46 JAN 7

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.69	13.82	11.32	11.30	12.19	12.24	12.67	13.16	12.67	11.91	13.57	14.98
10	13.78	13.80	11.60	9.91	11.92	12.31	12.77	13.10	12.68	12.21	13.80	15.20
15	13.87	13.86	11.85	10.68	11.95	12.42	12.88	13.18	11.31	12.51	14.05	15.43
20	13.91	13.81	12.01	11.17	12.07	12.52	13.01	13.19	10.70	12.84	14.29	15.65
25	13.99	13.51	12.09	11.57	12.09	12.54	13.14	13.01	11.14	13.06	14.54	15.89
EOM	13.91	11.65	12.12	12.00	12.18	12.60	13.24	12.95	11.56	13.34	14.79	16.11
MAX	13.99	13.91	12.12	12.10	12.19	12.60	13.24	---	12.86	13.34	14.79	16.11

WTR YR 2004 LOW 16.11 SEP 30



WELLS COUNTY

404331085064701. Local number, WL 4.

LOCATION.--Lat 40°43'31", long 85°06'47", in SE¼NW¼NE¼ sec.12, T.26 N., R.12 E., Wells County, Hydrologic Unit 05120101, (LINN GROVE, IN quadrangle), 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 National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 2.35 ft above land-surface datum.

PERIOD OF RECORD.--January 1967 to August 1971. September 1971 to December 1981 (semi-annual tape-down readings only). January 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.70 ft below land-surface datum, Apr. 4, 1973; lowest, 26.27 ft below land-surface datum, Jan. 27, Feb. 4, 16, 2000.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

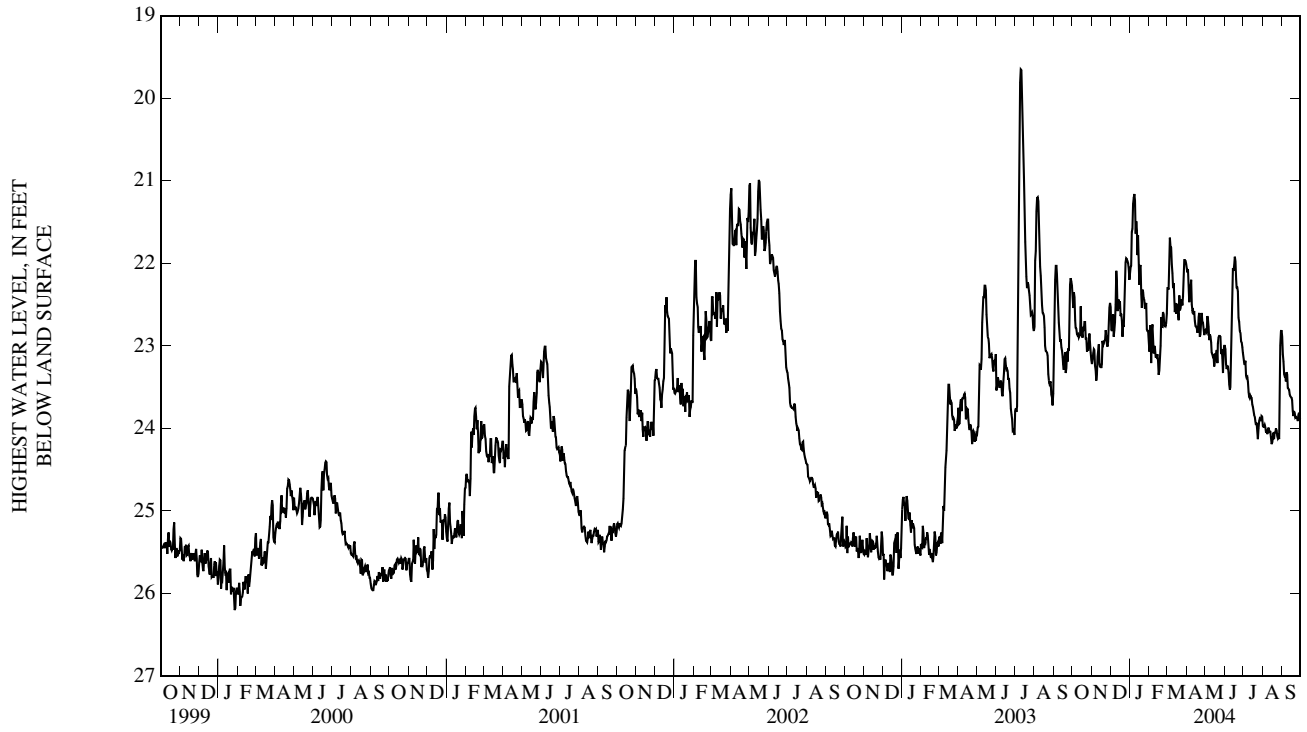
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.69	23.05	22.62	21.58	22.81	21.69	22.47	22.68	23.25	23.36	23.99	23.37
10	22.86	23.13	22.09	21.64	23.03	22.30	22.58	22.96	23.50	23.61	23.99	23.51
15	22.88	23.22	22.55	21.98	23.18	22.61	22.76	23.25	22.09	23.71	24.19	23.62
20	22.71	22.97	22.89	22.54	22.65	22.39	22.65	23.21	22.29	23.91	24.04	23.79
25	23.00	22.97	21.99	22.55	22.76	22.51	22.60	22.89	22.82	24.00	24.12	23.88
EOM	23.17	22.48	22.20	22.94	22.61	22.01	22.82	23.00	23.08	23.86	22.81	23.89
MIN	22.35	22.48	21.94	21.16	22.59	21.69	22.07	22.64	21.92	23.14	22.81	22.89

WTR YR 2004 HIGH 21.16 JAN 8

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.82	23.29	22.94	21.63	23.23	22.00	22.61	22.85	23.31	23.52	24.10	23.44
10	22.95	23.36	22.50	21.73	23.16	22.48	22.64	23.13	23.58	23.74	24.09	23.58
15	22.97	23.28	22.68	22.26	23.44	22.75	22.88	23.32	22.16	23.84	24.26	23.70
20	22.97	23.13	23.03	22.64	23.00	22.69	23.02	23.48	22.35	24.02	24.22	23.89
25	23.22	23.15	22.25	22.83	22.84	22.63	22.75	23.43	22.94	24.13	24.21	24.04
EOM	23.26	22.58	22.32	23.08	22.72	22.13	22.93	23.15	23.21	24.05	22.92	23.96
MAX	23.26	23.52	23.03	23.08	23.47	22.94	23.02	23.48	23.64	24.22	24.30	24.04

WTR YR 2004 LOW 24.30 AUG 27



WHITLEY COUNTY

410337085264201. Local number, WY 3.

LOCATION.--Lat 41°03'34", long 85°26'43", in NW¼SE¼NW¼ sec.18, T.30 N., R.10 E., Whitley County, Hydrologic Unit 05120104, (LAUD, IN quadrangle), on the county right-of-way of Evergreen Road, and 0.75 mi north of Laud.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 191 ft, cased to 187 ft, screened to 191 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 870 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 2.68 ft above land-surface datum.

PERIOD OF RECORD.--December 1966 to September 1971, August 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 49.30 ft below land-surface datum, Mar. 27, 1976; lowest, 54.03 ft below land-surface datum, Mar. 13, 2003.

HIGHEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

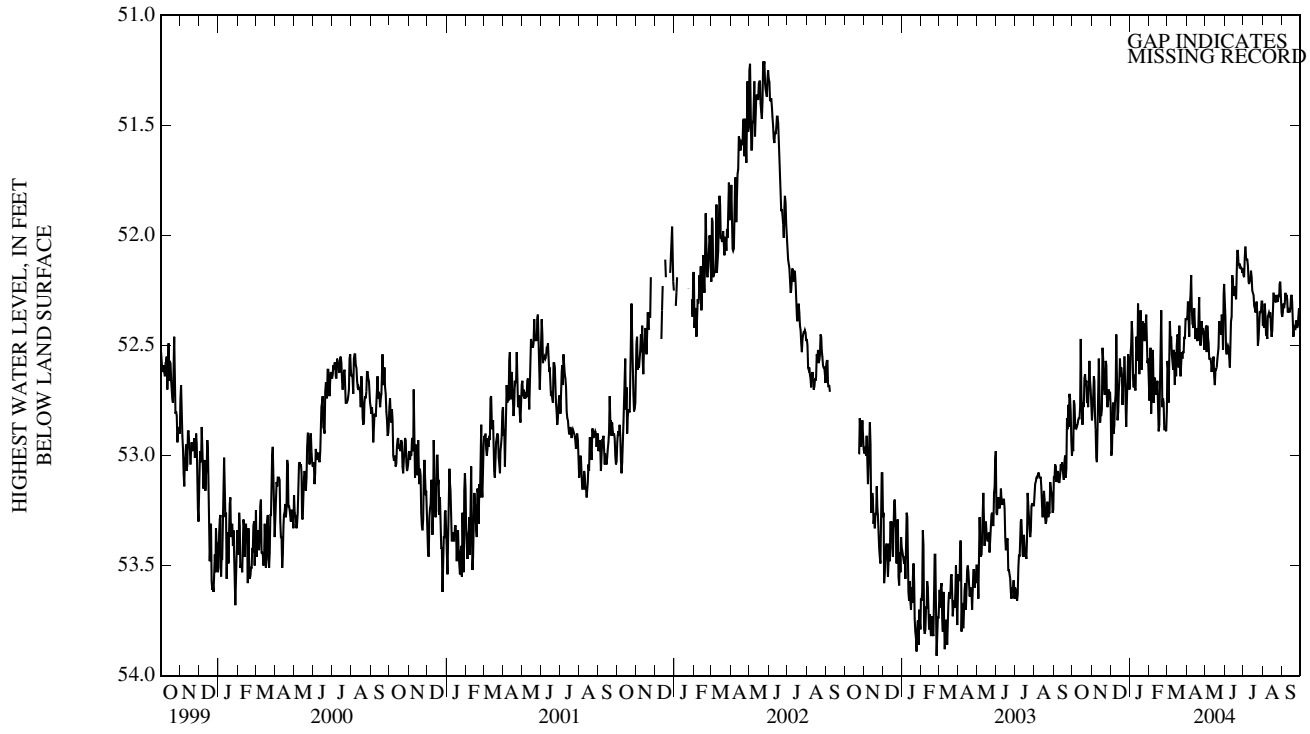
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	52.86	52.66	52.76	52.46	52.62	52.39	52.46	52.46	52.51	52.10	52.36	52.31
10	52.84	52.87	52.45	52.70	52.65	52.61	52.40	52.58	52.51	52.22	52.36	52.35
15	52.73	52.81	52.66	52.52	52.75	52.64	52.47	52.64	52.27	52.25	52.46	52.28
20	52.65	52.67	52.77	52.61	52.34	52.41	52.35	52.56	52.17	52.35	52.27	52.43
25	52.74	52.73	52.73	52.48	52.88	52.56	52.39	52.42	52.15	52.47	52.30	52.42
EOM	52.77	52.71	52.70	52.63	52.80	52.38	52.48	52.22	52.15	52.30	52.35	52.37
MIN	52.47	52.51	52.45	52.31	52.34	52.38	52.18	52.22	52.07	52.05	52.21	52.26

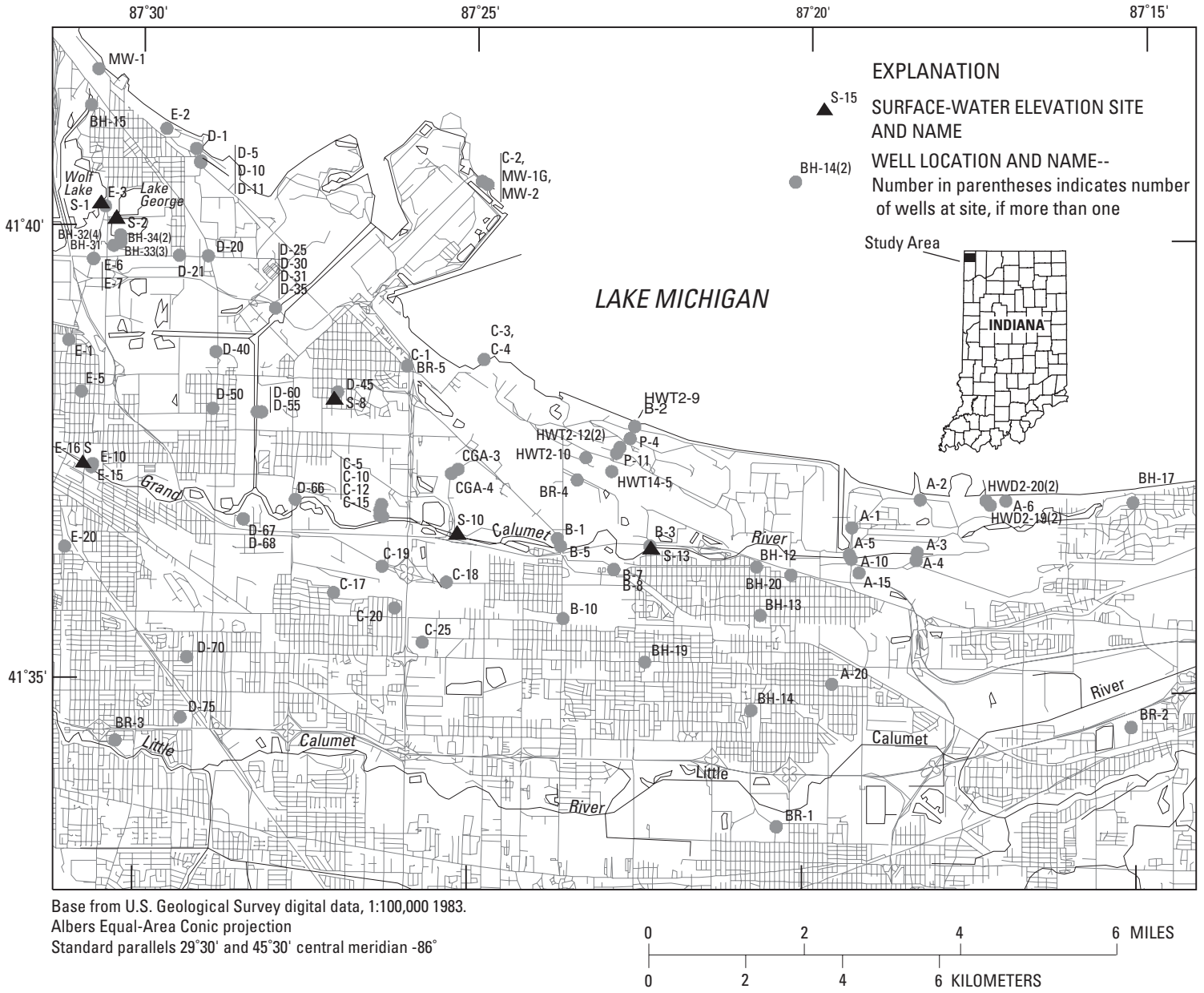
WTR YR 2004 HIGH 52.05 JUL 4

LOWEST WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	52.93	52.87	52.99	52.70	52.93	52.62	52.60	52.62	52.61	52.25	52.45	52.40
10	52.93	53.08	52.74	52.85	52.74	52.75	52.47	52.67	52.60	52.31	52.42	52.46
15	52.80	52.88	52.80	52.68	52.94	52.70	52.56	52.76	52.37	52.33	52.57	52.39
20	52.85	52.78	52.91	52.72	52.63	52.61	52.63	52.66	52.31	52.42	52.38	52.53
25	52.91	52.88	52.88	52.72	52.91	52.68	52.49	52.50	52.24	52.58	52.38	52.52
EOM	52.84	52.78	52.84	52.80	52.89	52.50	52.57	52.35	52.29	52.45	52.42	52.45
MAX	53.08	53.15	53.13	52.85	52.96	52.88	52.64	52.79	52.68	52.58	52.57	52.53

WTR YR 2004 LOW 53.15 NOV 8





Base from U.S. Geological Survey digital data, 1:100,000 1983.
Albers Equal-Area Conic projection
Standard parallels 29°30' and 45°30' central meridian -86°

Figure 10.--Locations of wells in the Northern Lake County, IN network.

MISCELLANEOUS PROJECT DATA

GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA

The following tables (1-5) list characteristics of water wells, surface-water-stage measurement sites, and results of miscellaneous measurements of ground-water level and surface-water stage in Northern Lake County, Indiana. Data presented here have been collected periodically since 1985 to provide a base of information to evaluate ground-water-flow directions and ground-water/surface-water interactions. Locations of wells and surface-water sites are shown in figure 10.

Table 1. Characteristics of observation wells in the Northern Lake County network.

USGS, U.S. Geological Survey; Auger, hollow-stem auger; SS, stainless steel; CA, Calumet aquifer; USEPA, U.S. Environmental Protection Agency; PVC, polyvinyl chloride; n.a., not applicable; ?, not known; GAA, Gary Airport Authority; USX, USX Corporation; ISPAT, ISPAT Inland Incorporated.

Well name	Well owner	Latitude/longitude	USGS site identifier	Date drilled (month-year)	Method of installation	Land surface, in feet above sea level	Open interval, in feet below land surface	Screen and casing material	Auqifer and relative vertical position of open interval in aquifer
A-1	USGS	41°36′47″/87°19′19″	413647087191901	07–85	Auger	604	18-21	SS 304	CA Top
A-2	USGS	41°37′06″/87°18′18″	413706087181800	06–87	Auger	603	34-39	SS 316L	CA Middle
A-3	USGS	41°36′31″/87°18′20″	413631087182000	06–87	Hand driven	590	3-6	SS 316L	CA Top
A-4	USGS	41°36′30″/87°18′16″	413630087182100	06–87	Auger	603	18-23	SS 316L	CA Middle
A-5	USGS	41°36′29″/87°19′21″	413629087192102	12–85	Auger	601	18-21	SS 304	CA Top
A-6	USGS	41°37′06″/87°17′01″	413706087170101	06–87	Hand driven	588	4-7	SS 316L	CA Top
A-10	USGS	41°36′26″/87°19′19″	413626087191901	07–85	Hand driven	590	12-15	SS 304	CA Top
A-15	USGS	41°36′17″/87°19′12″	413617087191201	07–85	Hand driven	591	2-5	SS 304	CA Top
A-20	USGS	41°35′03″/87°19′35″	413503087193501	12–85	Auger	614	21-24	SS 304	CA Top
B-1	USGS	41°36′37″/87°23′43″	413637087234301	08–85	Hand driven	585	9-12	SS 304	CA Top
B-2	USGS	41°37′52″/87°22′35″	413752087223500	06–87	Auger	608	43-48	SS 316L	CA Middle
B-3	USGS	41°36′33″/87°22′20″	413633087222000	06–87	Auger	594	18-23	SS 316L	CA Middle
B-5	USGS	41°36′32″/87°23′40″	413632087234001	08–85	Hand driven	589	8-11	SS 304	CA Top
B-7	USGS	41°36′16″/87°22′51″	413617087225202	06–87	Hand driven	596	8-11	SS 316L	CA Top
B-8	USGS	41°36′17″/87°22′51″	413617087225201	06–87	Auger	596	32-37	SS 316L	CA Bottom
B-10	USGS	41°35′44″/87°23′37″	413544087233700	12–85	Auger	607	17-20	SS 304	CA Top
BH-12	USEPA	41°36′20″/87°20′44″	413620087204401	06–92	Mud rotary	601	10-20	PVC	CA Top
BH-13	USEPA	41°35′48″/87°20′40″	413548087204001	06–92	Mud rotary	603	9-19	PVC	CA Top
BH-14	USEPA	41°34′45″/87°20′47″	413445087204701	06–92	Mud rotary	610	9-19	PVC	CA Top
BH-15	USEPA	41°41′20″/87°30′47″	414120087304701	06–92	Mud rotary	585	10-15	PVC	CA Top

Table 1. Characteristics of observation wells in the Northern Lake County network.—Continued

Well name	Well owner	Latitude/longitude	USGS site identifier	Date drilled (month-year)	Method of installation	Land surface, in feet above sea level	Open interval, in feet below land surface	Screen and casing material	Auqifer and relative vertical position of open interval in aquifer
BH-17	USEPA	41°37′06″/87°15′07″	413706087150701	06–92	Mud rotary	599	10-20	PVC	CA Top
BH-19	USEPA	41°35′16″/87°22′23″	413516087222301	06–92	Mud rotary	602	10-20	PVC	CA Top
BH-20	USEPA	41°36′15″/87°20′13″	413615087201301	06–92	Mud rotary	600	14-24	PVC	CA Top
BH-31	USEPA	41°39′47″/87°30′25″	413947087302501	04–93	Mud rotary	598	18-28	PVC	CA Top
BH-32-D	USGS	41°39′49″/87°30′19″	413949087301901	07–96	Auger	597	36-38.5	PVC	CA Bottom
BH-32-I	USGS	41°39′49″/87°30′19″	413949087301902	07–96	Auger	597	26.4-28.9	PVC	CA Middle
BH-32-SH	USGS	41°39′49″/87°30′19″	413949087301903	07–96	Auger	597	21.6-23.1	PVC	CA Top
BH-32-SL	USGS	41°39′49″/87°30′19″	413949087301904	07–96	Auger	597	7.4-19.9	PVC	Slag Bottom
BH-33-I	USGS	41°39′51″/87°30′19″	413951087301901	07–96	Auger	585	11.5-14	PVC	CA Middle
BH-33-SH	USGS	41°39′51″/87°30′19″	413951087301902	07–96	Auger	585	7.6-10.1	PVC	CA Top
BH-33-SL	USGS	41°39′51″/87°30′19″	413951087301903	07–96	Auger	585	2.5-5	PVC	Slag Bottom
BH-34-D	USGS	41°39′54″/87°30′19″	413954087301901	07–96	Hand driven	580	4.4-6.4	PVC	CA Top
BH-34-SH	USGS	41°39′54″/87°30′19″	413954087301902	07–96	Hand driven	581	1.8-3.8	PVC	Slag Bottom
BR-1	USGS	41°33′28″/87°20′24″	413328087202301	12–93	Mud rotary	595	135-145	PVC	Devonian
BR-2	USGS	41°34′37″/87°15′06″	413437087150601	12–93	Mud rotary	600	136-146	PVC	Silurian
BR-3	USGS	41°34′19″/87°30′17″	413419087301701	11–94	Mud rotary	595	137-147	PVC	Silurian
BR-4	USGS	41°37′17″/87°23′26″	413716087232601	11–94	Mud rotary	595	138-148	PVC	Silurian
BR-5	USEPA	41°37′32″/87°25′58″	413732087255801	06–95	Mud rotary	587	146-156	PVC	Silurian
C-1	USGS	41°38′30″/87°26′00″	413830087260000	12–85	Auger	587	4-7	SS 304	CA Top
C-2	USGS	41°40′30″/87°24′51″	414031087245000	06–87	Auger	594	13-18	SS 316L	CA Top
C-3	USGS	41°38′27″/87°25′16″	413828087251301	06–87	Auger	589	23-28	SS 316L	CA Middle
C-4	USGS	41°38′27″/87°25′16″	413828087251302	06–87	Auger	589	8-13	SS 316L	CA Top
C-5	USGS	41°36′55″/87°26′20″	413655087275202	07–85	Hand driven	584	2-5	SS 304	CA Top
C-10	USGS	41°36′50″/87°26′20″	413652087274901	07–85	Hand driven	584	1-4	SS 304	CA Top
C-12	USGS	41°36′50″/87°26′20″	413650087262000	06–87	Auger	584	13-18	SS 316L	CA Middle

GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA--Continued

Table 1. Characteristics of observation wells in the Northern Lake County network.—Continued

Well name	Well owner	Latitude/longitude	USGS site identifier	Date drilled (month-year)	Method of installation	Land surface, in feet above sea level	Open interval, in feet below land surface	Screen and casing material	Auqifer and relative vertical position of open interval in aquifer
C-15	USGS	41°36′48″/87°26′20″	413650087274802	07–85	Hand driven	583	1-4	SS 304	CA Top
C-17[1]	USGS	41°35′59″/87°27′03″	413559087270301	07–86	Mud rotary	592	18-23	?	CA Bottom
C-18	USGS	41°36′07″/87°25′22″	413607087252200	06–87	Auger	595	17-22	SS 316L	CA Bottom
C-19	USGS	41°36′17″/87°26′20″	413617087262001	12–86	Hand driven	592	2-5	SS 304	CA Top
C-20	USGS	41°35′57″/87°26′11″	413557087283901	07–85	Hand driven	593	3-6	SS 304	CA Top
C-25	USGS	41°35′27″/87°25′43″	413527087270301	07–85	Hand driven	599	2-5	SS 304	CA Top
CGA-3	GAA	41°37′22″/87°25′13″	413722087251301	pre–1985	?	590	?	PVC	CA ?
CGA-4	GAA	41°37′19″/87°25′19″	413719087251901	pre–1985	?	591	?	PVC	CA ?
D-1	USGS	41°40′52″/87°29′12″	414052087291201	07–85	Hand driven	590	8-11	SS 304	CA Top
D-5	USGS	41°40′44″/87°29′08″	414044087290801	07–85	Hand driven	588	2-7	SS 304	CA Top
D-10	USGS	41°40′43″/87°29′08″	414043087290802	07–85	Hand driven	588	7-10	SS 304	CA Top
D-11	USGS	41°40′43″/87°29′08″	414043087290801	06–87	Auger	588	17-22	SS 316L	CA Middle
D-20	USGS	41°39′41″/87°29′00″	413941087290000	07–85	Hand	588	6-9	SS 304	CA Top
D-21	USGS	41°39′41″/87°29′26″	413941087292600	06–87	Auger	584	13-18	SS 316L	CA Middle
D-25	USGS	41°39′09″/87°28′03″	413804087291102	07–85	Hand driven	588	5-8	SS 304	CA Top
D-30	USGS	41°39′07″/87°27′58″	413758087290702	07–85	Hand driven	586	6-9	SS 304	CA Top
D-31	USGS	41°39′07″/87°27′58″	413907087275901	06–87	Auger	586	12-17	SS 316L	CA Middle
D-35	USGS	41°39′06″/87°27′57″	413757087290601	07–85	Hand driven	586	4-7	SS 304	CA Top
D-40	USGS	41°38′35″/87°28′51″	413835087245101	07–85	Hand driven	584	4-7	SS 304	CA Top
D-45	USGS	41°38′12″/87°27′02″	413812087270201	07–85	Hand driven	586	6-9	SS 304	CA Top
D-50	USGS	41°38′00″/87°28′54″	413800087285401	12–85	Hand driven	585	9-12	SS 304	CA Top
D-55	USGS	41°37′58″/87°28′14″	413758087281401	07–85	Hand driven	585	5-8	SS 304	CA Top
D-60	USGS	41°37′58″/87°28′10″	413758087281001	07–85	Hand driven	587	5-8	SS 304	CA Top
D-66	USGS	41°36′54″/87°27′40″	413654087274000	06–87	Auger	587	17-22	SS 316L	CA Middle
D-67	USGS	41°36′47″/87°28′25″	413647087282502	06–87	Hand driven	589	4-7	SS 316L	CA Top

Table 1. Characteristics of observation wells in the Northern Lake County network.—Continued

Well name	Well owner	Latitude/longitude	USGS site identifier	Date drilled (month-year)	Method of installation	Land surface, in feet above sea level	Open interval, in feet below land surface	Screen and casing material	Auqifer and relative vertical position of open interval in aquifer
D-68	USGS	41°36′47″/87°28′25″	413647087282501	06–87	Auger	589	18-23	SS 316L	CA Middle
D-70	USGS	41°35′15″/87°29′15″	413515087291401	07–85	Hand driven	603	6-9	SS 304	CA Top
D-75	USGS	41°34′34″/87°29′19″	413435087291901	07–85	Hand driven	601	5-8	SS 304	CA Top
E-1	USGS	41°38′44″/87°31′04″	413844087310401	07–85	Hand driven	582	5-8	SS 304	CA Top
E-2	USGS	41°41′05″/87°29′39″	414105087293900	06–87	Hand driven	585	3-6	SS 316L	CA Top
E-3	USGS	41°40′13″/87°30′33″	414013087303300	06–87	Auger	585	8-13	SS 316L	CA Middle
E-5	USGS	41°38′10″/87°30′52″	413810087305201	07–85	Hand driven	587	9-12	SS 304	CA Top
E-6	USGS	41°39′38″/87°30′43″	413938087304301	06–87	Auger	586	17-22	SS 316L	CA Bottom
E-7	USGS	41°39′38″/87°30′43″	413938087304302	06–87	Hand driven	586	2-5	SS 316L	CA Top
E-10	USGS	41°37′22″/87°30′41″	413722087304101	07–85	Hand driven	586	6-9	SS 304	CA Top
E-15	USGS	41°37′20″/87°30′42″	413720087 304201	07–85	Hand driven	584	11-14	SS 304	CA Top
E-20	USGS	41°36′27″/87°31′05″	413627087310500	07–85	Hand driven	592	5-8	SS 304	CA Top
HWD2-19D	USX	41°37′06″/87°17′19″	413706087171901	12–93	Auger	598	47-57	PVC	CA Bottom
HWD2-19S	USX	41°37′06″/87°17′19″	413706087171902	12–93	Auger	598	6-21	PVC	CA Top
HWD2-20D	USX	41°37′03″/87°17′15″	413703087171501	12–93	Auger	617	62-72	PVC	CA Middle
HWD2-20S	USX	41°37′03″/87°17′15″	413703087171502	12–93	Auger	617	23-38	PVC	CA Middle
HWT2-9	USX	41°37′52″/87°22′35″	413752087223501	04–84	Auger	608	50-70	PVC	Slag + CA
HWT2-10	USX	41°37′32″/87°23′22″	413732087232201	04–84	Auger	589	24-44	PVC	CA Top
HWT2-12D	USX	41°37′38″/87°22′48″	413738087224803	03-91	Auger	600	49-59	PVC	CA Bottom
HWT2-12S	USX	41°37′38″/87°22′48″	413738087224801	03-91	Auger	601	14-29	PVC	Slag and CA
HWT14-5	USX	41°37′22″/87°22′55″	413722087225501	04–84	Auger	589	37-47	PVC	CA Bottom
P-4	USX	41°37′44″/87°22′39″	413744087223901	04–84	Auger	603	25-35	PVC	Slag
P-11	USX	41°37′34″/87°22′51″	413734087225101	04–84	Auger	596	15-25	PVC	CA Top
MW-1	USEPA	41°41′44″/87°30′41″	414144087304101	?	Auger	591	21-24	SS 304	CA Bottom
MW-1G	ISPAT	41°40′33″/87°24′55″	414033087245501	?	Drilled	594	?-13	PVC	Slag
MW-2	ISPAT	41°40′33″/87°24′55″	414033087245502	?	Drilled	594	?-124	PVC	Silurian

[1] This well also known as LK-13, a continuous recording water-level well operated by the USGS as part of a statewide ground-water-data network. Water levels for LK-13 are published in the U.S. Geological Survey water data reports, IN-87-1 to IN-03-1, and on page 445 of this report.

GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA

Table 2. Period of record for observation wells in the Northern Lake County network.

Well name	Period of Record		Well name	Period of Record	
	Beginning (month–year)	End (month–year)		Beginning (month–year)	End (month–year)
A-1	10-1985	07-2004	C-19	12-1986	07-2004
A-2	06-1987	07-2004	C-20	08-1985	04-2004
A-3	06-1987	03-1998	C-25	12-1985	07-2004
A-4	06-1987	07-2003	CGA-3	10-1985	03-1999
A-5	12-1985	07-2004	CGA-4	10-1985	08-1999
A-6	07-1987	04-2004	D-1	08-1985	07-2004
A-10	10-1985	04-2004	D-5	08-1985	07-2004
A-15	10-1985	07-2004	D-10	08-1985	07-2004
A-20	01-1986	07-2004	D-11	06-1987	07-2004
B-1	08-1985	09-1999	D-20	08-1985	01-1995
B-2	06-1987	07-2004	D-21	07-1987	07-2004
B-3	07-1987	06-2000	D-25	12-1985	07-2004
B-5	08-1985	07-2004	D-30	12-1985	07-2004
B-7	06-1987	07-2004	D-31	07-1987	04-2004
B-8	07-1987	07-2004	D-35	12-1985	06-2001
B-10	12-1985	07-2004	D-40	10-1985	07-2004
BH-12	06-1992	07-2004	D-45	10-1985	07-2004
BH-13	06-1992	07-2004	D-50	12-1985	07-2004
BH-14	06-1992	07-2004	D-55	10-1985	01-1995
BH-15	06-1992	07-2004	D-60	10-1985	04-2004
BH-17	06-1992	07-2004	D-66	07-1987	04-2004
BH-19	06-1992	07-2004	D-67	07-1987	07-2004
BH-20	06-1992	09-1998	D-68	07-1987	07-2004
BH-31	04-1993	09-1998	D-70	01-1986	09-2002
BH-32-D	07-1996	09-2001	D-75	01-1986	07-2004
BH-32-I	07-1996	09-2001	E-1	12-1985	07-2004
BH-32-S	07-1996	09-2001	E-2	06-1987	07-2004
BH-32-SL	07-1996	09-2001	E-3	06-1987	07-2004
BH-33-I	07-1996	07-2004	E-5	08-1985	07-2004
BH-33-S	07-1996	07-2004	E-6	06-1987	07-2004
BH-33-SL	07-1996	07-2004	E-7	06-1987	07-2004
BH-34-D	06-1996	07-1998	E-10	10-1985	07-2004
BH-34-SH	06-1996	07-1998	E-15	10-1985	07-2004
BR-1	01-1995	07-2004	E-20	08-1985	07-2004
BR-2	01-1995	07-2004	HWD2-19D	07-1995	07-2004
BR-3	07-1995	07-2004	HWD2-19S	07-1995	07-2004
BR-4	07-1995	07-2004	HWD2-20D	07-1996	07-2004
BR-5	07-1995	07-2004	HWD2-20S	07-1996	07-2004
C-1	12-1985	07-2004	HWT2-9	12-1985	07-2004
C-2	07-1987	09-1998	HWT2-10	12-1985	12-1997
C-3	06-1987	07-2004	HWT2-12D	12-1992	12-1998
C-4	06-1987	07-2004	HWT2-12S	06-1992	12-1998
C-5	10-1985	04-2004	HWT14-5	12-1985	07-2004
C-10	10-1985	04-2004	P-4	12-1985	07-2004
C-12	08-1987	04-2004	P-11	10-1985	07-2004
C-15	10-1985	03-1998	MW-1	06-1992	07-2004
C-17	07-1986	09-2001	MW-1G	10-1992	07-2004
C-18	06-1987	06-2000	MW-2	10-1992	07-2004

GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA--Continued

Table 3. Water-level records for observation wells in the Northern Lake County network, collected during water year 2004 and summary statistics.

SITE ID NUMBER: 413647087191901
STATION NAME: USGS WELL A-1 @ USX NR. BOAT SLIP, GARY, IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07	20.31	APR 07	19.85	JUL 21	19.16

WATER YEAR 2004 HIGHEST 19.16 JUL 21, 2004 LOWEST 20.31 JAN 07, 2004
PERIOD OF RECORD HIGHEST 15.72 SEP 08, 1993 LOWEST 20.31 JAN 07, 2004
RECORD AVAILABLE FROM OCT 24, 1985 TO CURRENT YEAR 64 ENTRIES

- -

SITE ID NUMBER: 413706087181800
STATION NAME: USGS WELL A-2 @ USX, NR. LAKE, GARY, IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07	17.96	APR 07	18.34	JUL 21	18.19

WATER YEAR 2004 HIGHEST 17.96 JAN 07, 2004 LOWEST 18.34 APR 07, 2004
PERIOD OF RECORD HIGHEST 14.83 SEP 08, 1993 LOWEST 19.42 APR 10, 2003
RECORD AVAILABLE FROM JUN 26, 1987 TO CURRENT YEAR 53 ENTRIES

- -

SITE ID NUMBER: 413629087192102
STATION NAME: USGS WELL A-5 @ USX, N OF GCR, @ GARY HARBOR

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07	14.99	APR 07	15.81	JUL 21	15.93

WATER YEAR 2004 HIGHEST 14.99 JAN 07, 2004 LOWEST 15.93 JUL 21, 2004
PERIOD OF RECORD HIGHEST 13.64 SEP 08, 1993 JUN 29, 2000 LOWEST 15.63 JAN 05, 2000
RECORD AVAILABLE FROM DEC 17, 1985 TO CURRENT YEAR 59 ENTRIES

- -

SITE ID NUMBER: 413706087170101
STATION NAME: USGS WELL A-6, E OF USX IN DUNES NAT LKSH, GARY IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL
APR 12	3.76

PERIOD OF RECORD HIGHEST 2.65 JUN 10, 1993 LOWEST 4.86 OCT 12, 1988
RECORD AVAILABLE FROM JUL 14, 1987 TO CURRENT YEAR 31 ENTRIES

GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA--Continued

Table 3. Water-level records for observation wells in the Northern Lake County network, collected during water year 2004 and summary statistics.--Continued

SITE ID NUMBER: 413626087191901
STATION NAME: USGS WELL A-10 @ USX, N OF GCR, @ GARY HARBOR

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL
APR 07	6.48

PERIOD OF RECORD HIGHEST 3.89 JUN 26, 1987 LOWEST 5.77 AUG 29, 2000
RECORD AVAILABLE FROM OCT 24, 1985 TO CURRENT YEAR 54 ENTRIES

SITE ID NUMBER: 413617087191201
STATION NAME: USGS WELL A15 @ GARY,IN.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM (READINGS ABOVE LAND-SURFACE INDICATED BY "+")
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 05	.32	JUL 19	1.57

WATER YEAR 2004 HIGHEST .32 JAN 05, 2004 LOWEST 1.57 JUL 19, 2004
PERIOD OF RECORD HIGHEST +.99 MAR 19, 1991 LOWEST 1.73 JAN 03, 2000
RECORD AVAILABLE FROM OCT 24, 1985 TO CURRENT YEAR 60 ENTRIES

SITE ID NUMBER: 413503087193501
STATION NAME: USGS WELL A20 @ GARY,IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 06	17.98	APR 05	17.88	JUL 19	17.91

WATER YEAR 2002 HIGHEST 17.88 APR 05, 2004 LOWEST 17.98 JAN 06, 2004
PERIOD OF RECORD HIGHEST 17.32 JUL 12, 1996 JUL 01, 1997 LOWEST 19.07 MAR 06, 1986
RECORD AVAILABLE FROM JAN 03, 1986 TO CURRENT YEAR 69 ENTRIES

SITE ID NUMBER: 413752087223500
STATION NAME: USGS WELL B2 @ USXBY HWT-2-9 @ GARY,IN.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 06	29.43	APR 07	29.23	JUL 21	28.17

WATER YEAR 2004 HIGHEST 28.17 JUL 21, 2004 LOWEST 29.43 JAN 07, 2004
PERIOD OF RECORD HIGHEST 25.92 JUN 25, 1987 LOWEST 29.53 MAR 29, 2000
RECORD AVAILABLE FROM JUN 25, 1987 TO CURRENT YEAR 52 ENTRIES

GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA--Continued

Table 3. Water-level records for observation wells in the Northern Lake County network, collected during water year 2004 and summary statistics.--Continued

SITE ID NUMBER: 413632087234001
STATION NAME: USGS WELL B5 AT GARY IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 06	4.58	APR 07	4.41	JUL 20	4.39

WATER YEAR 2004 HIGHEST 4.39 JUL 20, 2004 LOWEST 4.58 JAN 06, 2004
PERIOD OF RECORD HIGHEST 2.77 JUN 09, 1993 LOWEST 7.66 OCT 11, 1988
RECORD AVAILABLE FROM AUG 28, 1985 TO CURRENT YEAR 72 ENTRIES

SITE ID NUMBER: 413617087225202
STATION NAME: USGS WELL B7 SHALLOW @ CHASE ST. @ GARY,IN.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 06	8.54	APR 05	8.46	JUL 19	8.41

WATER YEAR 2004 HIGHEST 8.41 JUL 19, 2004 LOWEST 8.54 JAN 06, 2004
PERIOD OF RECORD HIGHEST 6.84 JUN 09, 1993 LOWEST 9.56 APR 07, 2003
RECORD AVAILABLE FROM JUN 22, 1987 TO CURRENT YEAR 56 ENTRIES

SITE ID NUMBER: 413617087225201
STATION NAME: USGS WELL B8 DEEP @ CHASE ST. @ GARY,IN.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 06	8.57	APR 05	8.49	JUL 19	8.43

WATER YEAR 2004 HIGHEST 8.43 JUL 19, 2004 LOWEST 8.57 JAN 06, 2004
PERIOD OF RECORD HIGHEST 6.88 JUN 09, 1993 LOWEST 9.57 APR 07, 2003
RECORD AVAILABLE FROM JUL 14, 1987 TO CURRENT YEAR 57 ENTRIES

SITE ID NUMBER: 413544087233700
STATION NAME: USGS WELL B10 @ BRUNSWICK @ GARY,IN.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 06	13.59	APR 07	13.15	JUL 20	13.60

WATER YEAR 2004 HIGHEST 13.15 APR 07, 2004 LOWEST 13.60 JUL 20, 2004
PERIOD OF RECORD HIGHEST 11.47 MAR 20, 1991 LOWEST 15.16 APR 08, 2003
RECORD AVAILABLE FROM DEC 10, 1985 TO CURRENT YEAR 70 ENTRIES

GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA--Continued

Table 3. Water-level records for observation wells in the Northern Lake County network, collected during water year 2004 and summary statistics.--Continued

SITE ID NUMBER: 413620087204401
STATION NAME: USEPA WELL BH-12 AT GARY, IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 06	12.68	APR 05	13.04	JUL 19	12.95

WATER YEAR 2004 HIGHEST 12.68 JAN 06, 2004 LOWEST 13.04 APR 05, 2004
PERIOD OF RECORD HIGHEST 10.80 SEP 08, 1993 LOWEST 13.27 MAR 28, 1996
RECORD AVAILABLE FROM JUN 23, 1992 TO CURRENT YEAR 37 ENTRIES

SITE ID NUMBER: 413548087204001
STATION NAME: USEPA WELL BH-13 AT GARY, IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 05	10.32	JUL 19	10.65

WATER YEAR 2004 HIGHEST 10.32 APR 05, 2004 LOWEST 10.65 JUL 19, 2004
PERIOD OF RECORD HIGHEST 9.61 MAR 24, 1998 LOWEST 11.29 SEP 03, 2002
RECORD AVAILABLE FROM JUN 23, 1992 TO CURRENT YEAR 37 ENTRIES

SITE ID NUMBER: 413445087204701
STATION NAME: USEPA WELL BH-14 AT GARY, IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 06	6.84	APR 05	6.66	JUL 19	6.56

WATER YEAR 2004 HIGHEST 6.56 JUL 19, 2004 LOWEST 6.84 JAN 06, 2004
PERIOD OF RECORD HIGHEST 2.59 JUL 12, 1996 LOWEST 9.49 MAR 27, 2000
RECORD AVAILABLE FROM JUN 23, 1992 TO CURRENT YEAR 36 ENTRIES

SITE ID NUMBER: 414120087304701
STATION NAME: USEPA WELL BH-15 AT HAMMOND, IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL
JUL 21	2.60

PERIOD OF RECORD HIGHEST 1.28 MAR 29, 1996 LOWEST 2.60 JUL 21, 2004
RECORD AVAILABLE FROM JUN 23, 1992 TO SEP 04, 2002 30 ENTRIES

GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA--Continued

Table 3. Water-level records for observation wells in the Northern Lake County network, collected during water year 2004 and summary statistics.--Continued

SITE ID NUMBER: 413706087150701
STATION NAME: USEPA WELL BH-17 AT GARY, IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 05	12.02	APR 05	11.80	JUL 19	11.40

WATER YEAR 2004 HIGHEST 11.40 JUL 19, 2004 LOWEST 12.02 JAN 05, 2004
PERIOD OF RECORD HIGHEST 10.00 SEP 08, 1993 LOWEST 13.23 OCT 11, 2001
RECORD AVAILABLE FROM JUN 23, 1992 TO CURRENT YEAR 40 ENTRIES

SITE ID NUMBER: 413516087222301
STATION NAME: USEPA WELL BH-19 AT GARY, IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 05	DRY	JUL 19	11.35

PERIOD OF RECORD HIGHEST 6.03 MAR 25, 2002 LOWEST 12.00 JUL 07, 2003
RECORD AVAILABLE FROM JUN 23, 1992 TO CURRENT YEAR 24 ENTRIES

SITE ID NUMBER: 413951087301901
STATION NAME: USGS WELL BH-33-INTERMEDIATE @ BAIRSTOW SLAG DUMP

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07	2.89	APR 06	3.26	JUL 21	2.53

WATER YEAR 2004 HIGHEST 2.53 JUL 21, 2004 LOWEST 3.26 APR 06, 2004
PERIOD OF RECORD HIGHEST 1.07 JUN 05, 2001 LOWEST 5.73 JUN 24, 1997
RECORD AVAILABLE FROM JUL 17, 1996 TO CURRENT YEAR 24 ENTRIES

SITE ID NUMBER: 413951087301902
STATION NAME: USGS WELL BH-33-SHALLOW @ BAIRSTOW SLAG DUMP

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07	2.76	APR 06	3.11	JUL 21	2.40

WATER YEAR 2004 HIGHEST 2.40 JUL 21, 2004 LOWEST 3.11 APR 06, 2004
PERIOD OF RECORD HIGHEST 1.53 JUL 31, 1996 AUG 02, 1996 LOWEST 4.66 JUN 24, 1997
RECORD AVAILABLE FROM JUL 17, 1996 TO CURRENT YEAR 22 ENTRIES

GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA--Continued

Table 3. Water-level records for observation wells in the Northern Lake County network, collected during water year 2004 and summary statistics.--Continued

SITE ID NUMBER: 413951087301903
STATION NAME: USGS WELL BH-33-SLAG @ BAIRSTOW SLAG DUMP

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07	2.58	APR 06	2.91	JUL 21	3.09

WATER YEAR 2004 HIGHEST 2.58 JAN 07, 2004 LOWEST 3.09 JUL 21, 2004
PERIOD OF RECORD HIGHEST 1.27 JUL 31, 1996 LOWEST 4.59 JUN 24, 1997
RECORD AVAILABLE FROM JUL 17, 1996 TO CURRENT YEAR 22 ENTRIES

SITE ID NUMBER: 413328087202301
STATION NAME: USGS WELL BR-1, AT IU-NW CAMPUS, GARY, IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM (READINGS ABOVE LAND-SURFACE INDICATED BY "+")
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 05	.31	JUL 19	.22

WATER YEAR 2004 HIGHEST .22 JUL 19, 2004 LOWEST .31 APR 05, 2004
PERIOD OF RECORD HIGHEST +.29 JUN 26, 2000 LOWEST 3.06 JAN 18, 1995
RECORD AVAILABLE FROM JAN 18, 1995 TO CURRENT YEAR 35 ENTRIES

SITE ID NUMBER: 413437087150601
STATION NAME: USGS WELL BR-2 @ FOUR WINDS PARK, LAKE STATION, IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM (READINGS ABOVE LAND-SURFACE INDICATED BY "+")
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 05	3.80	APR 05	2.47	JUL 19	1.52

WATER YEAR 2004 HIGHEST 1.52 JUL 19, 2004 LOWEST 3.80 JAN 05, 2004
PERIOD OF RECORD HIGHEST +1.36 JUN 26, 2000 LOWEST 7.53 APR 07, 2003
RECORD AVAILABLE FROM JAN 24, 1995 TO CURRENT YEAR 35 ENTRIES

SITE ID NUMBER: 413419087301701
STATION NAME: USGS WELL BR-3 AT RIVERSIDE PARK, HAMMOND, IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 08	1.80	APR 06	1.28	JUL 20	1.81

WATER YEAR 2004 HIGHEST 1.28 APR 06, 2004 LOWEST 1.81 JUL 20, 2004
PERIOD OF RECORD HIGHEST 1.28 APR 06, 2004 LOWEST 9.34 JUL 21, 1995
RECORD AVAILABLE FROM JUL 21, 1995 TO CURRENT YEAR 21 ENTRIES

GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA--Continued

Table 3. Water-level records for observation wells in the Northern Lake County network, collected during water year 2004 and summary statistics.--Continued

SITE ID NUMBER: 413716087232601
STATION NAME: USGS WELL BR-4, IDNR BONGI PROP, CLARK ST, GARY, I

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 06	33.62	APR 05	27.84	JUL 19	23.65

WATER YEAR 2004 HIGHEST 23.65 JUL 19, 2004 LOWEST 33.62 JAN 06, 2004
PERIOD OF RECORD HIGHEST 8.01 MAR 02, 1999 JUN 06, 2001 LOWEST 53.60 APR 08, 2003
RECORD AVAILABLE FROM JUL 21, 1995 TO CURRENT YEAR 31 ENTRIES

SITE ID NUMBER: 413732087255801
STATION NAME: USEPA WELL BR-5 @ SR-912 & US-12, EAST CHICAGO, IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07	25.26	APR 06	23.78	JUL 20	21.57

WATER YEAR 2004 HIGHEST 21.57 JUL 20, 2004 LOWEST 25.26 JAN 07, 2004
PERIOD OF RECORD HIGHEST 14.26 MAR 03, 1999 LOWEST 30.20 JUL 09, 2003
RECORD AVAILABLE FROM JUL 21, 1995 TO CURRENT YEAR 31 ENTRIES

SITE ID NUMBER: 413830087260000
STATION NAME: USGS WELL C1 @ CLINE&GUTHRIE @ GARY,IN.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07	3.88	APR 06	3.95	JUL 20	3.78

WATER YEAR 2004 HIGHEST 3.78 JUL 20, 2004 LOWEST 3.95 APR 06, 2004
PERIOD OF RECORD HIGHEST 2.04 JUN 11, 1993 LOWEST 5.30 OCT 11, 1988
RECORD AVAILABLE FROM DEC 09, 1985 TO CURRENT YEAR 71 ENTRIES

SITE ID NUMBER: 413828087251301
STATION NAME: USGS WELL C3 @ BUFFINGTON HARBOR, E. CHICAGO, IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07	10.07	APR 05	9.74	JUL 20	8.76

WATER YEAR 2004 HIGHEST 8.76 JUL 20, 2004 LOWEST 10.07 JAN 07, 2004
PERIOD OF RECORD HIGHEST 7.05 JUN 11, 1993 LOWEST 10.17 APR 09, 2003
RECORD AVAILABLE FROM JUN 24, 1987 TO CURRENT YEAR 54 ENTRIES

GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA--Continued

Table 3. Water-level records for observation wells in the Northern Lake County network, collected during water year 2004 and summary statistics.--Continued

SITE ID NUMBER: 413828087251302
STATION NAME: USGS WELL C4 @ BUFFINGTON HARBOR, E. CHICAGO IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07	10.23	APR 05	9.87	JUL 20	8.92

WATER YEAR 2004 HIGHEST 8.92 JUL 20, 2004 LOWEST 10.23 JAN 07, 2004
PERIOD OF RECORD HIGHEST 6.69 SEP 08, 1998 LOWEST 10.30 APR 09, 2003
RECORD AVAILABLE FROM JUN 24, 1987 TO SEP 05, 2002 54 ENTRIES

SITE ID NUMBER: 413655087275202
STATION NAME: USGS WELL C-5 DUPONT PROPERTY NORTH (RPD=96)

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM (READINGS ABOVE LAND-SURFACE INDICATED BY "+")
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL
APR 07	.37

PERIOD OF RECORD HIGHEST +.91 JUN 10, 1993 LOWEST 3.49 SEP 05, 2002
RECORD AVAILABLE FROM OCT 25, 1985 TO CURRENT YEAR 40 ENTRIES

SITE ID NUMBER: 413652087274901
STATION NAME: USGS WELL C-10 DUPONT PROPERTY MIDDLE (RPD=24)

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM (READINGS ABOVE LAND-SURFACE INDICATED BY "+")
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 06	1.58	APR 07	2.41

WATER YEAR 2004 HIGHEST 1.58 JAN 06, 2004 LOWEST 2.41 APR 07, 2004
PERIOD OF RECORD HIGHEST +.01 NOV 27, 1985 LOWEST 3.29 AUG 29, 2000
RECORD AVAILABLE FROM OCT 25, 1985 TO CURRENT YEAR 66 ENTRIES

SITE ID NUMBER: 413650087262000
STATION NAME: USGS WELL C12 DEEP AT EAST CHICAG0, IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 06	1.81	APR 07	.59

WATER YEAR 2004 HIGHEST .59 APR 07, 2004 LOWEST 1.81 JAN 06, 2004
PERIOD OF RECORD HIGHEST .27 NOV 28, 1990 LOWEST 3.34 AUG 29, 2000 SEP 05, 2001
RECORD AVAILABLE FROM AUG 05, 1987 TO CURRENT YEAR 51 ENTRIES

GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA--Continued

Table 3. Water-level records for observation wells in the Northern Lake County network, collected during water year 2004 and summary statistics.--Continued

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SITE ID NUMBER: 413559087270301
STATION NAME: LAKE 13 (LK 13) (ALSO KNOWN AS WELL C-17), HAMMOND, IN.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM (READINGS ABOVE LAND-SURFACE INDICATED BY "+")
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 06	1.65	APR 06	1.15	JUL 20	3.26

WATER YEAR 2004 HIGHEST 1.15 APR 06, 2004 LOWEST 3.26 JUL 20, 2004
PERIOD OF RECORD HIGHEST +2.79 FEB 27, 2001 LOWEST 4.90 OCT 12, 1988
RECORD AVAILABLE FROM JUL 18, 1986 TO CURRENT YEAR 39 ENTRIES

SITE ID NUMBER: 413617087262001
STATION NAME: USGS WELL C19 AT HAMMOND IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM (READINGS ABOVE LAND-SURFACE INDICATED BY "+")
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 06	1.57	APR 07	1.59	JUL 20	1.84

WATER YEAR 2004 HIGHEST 1.57 JAN 06, 2004 LOWEST 1.84 JUL 20, 2004
PERIOD OF RECORD HIGHEST +.61 MAR 18, 1993 LOWEST 3.83 SEP 05, 2002
RECORD AVAILABLE FROM DEC 15, 1986 TO CURRENT YEAR 51 ENTRIES

SITE ID NUMBER: 413557087283901
STATION NAME: USGS WELL C20 @ GARY,IN.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM (READINGS ABOVE LAND-SURFACE INDICATED BY "+")
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 06	+.47	APR 06	+.61

WATER YEAR 2004 HIGHEST +.47 JAN 06, 2004 LOWEST +.61 APR 06, 2004
PERIOD OF RECORD HIGHEST +1.35 NOV 29, 1990 LOWEST 5.75 MAR 04, 1986
RECORD AVAILABLE FROM AUG 28, 1985 TO CURRENT YEAR 54 ENTRIES

SITE ID NUMBER: 413527087254301
STATION NAME: USGS WELL C25 AT GARY IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 06	1.74	APR 07	1.43	JUL 20	2.17

WATER YEAR 2004 HIGHEST 1.43 APR 07, 2004 LOWEST 2.17 JUL 20, 2004
PERIOD OF RECORD HIGHEST .46 FEB 27, 2001 LOWEST 4.17 AUG 31, 1999
RECORD AVAILABLE FROM DEC 05, 1985 TO CURRENT YEAR 65 ENTRIES

GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA--Continued

Table 3. Water-level records for observation wells in the Northern Lake County network, collected during water year 2004 and summary statistics.--Continued

SITE ID NUMBER: 414052087291201
STATION NAME: USGS WELL D1 @ WHITING,IN.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 08	DRY	APR 06	10.14	JUL 20	9.38

WATER YEAR 2004 HIGHEST 9.38 JUL 20, 2004 LOWEST 10.14 APR 06, 2004
PERIOD OF RECORD HIGHEST 6.76 AUG 25, 1985 LOWEST 10.14 APR 06, 2004
RECORD AVAILABLE FROM AUG 25, 1985 TO CURRENT YEAR 70 ENTRIES

SITE ID NUMBER: 414044087290801
STATION NAME: USGS WELL D5 AT WHITING IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 08	DRY	APR 06	DRY	JUL 20	DRY

PERIOD OF RECORD HIGHEST 4.10 SEP 07, 1993 LOWEST 7.27 JUN 05, 2001
RECORD AVAILABLE FROM AUG 28, 1985 TO CURRENT YEAR 68 ENTRIES

SITE ID NUMBER: 414043087290802
STATION NAME: USGS WELL D10 @ WHITING,IN.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 08	7.33	APR 06	7.35	JUL 20	6.67

WATER YEAR 2004 HIGHEST 6.67 JUL 20, 2004 LOWEST 7.35 APR 06, 2004
PERIOD OF RECORD HIGHEST 4.12 SEP 07, 1993 LOWEST 8.38 JAN 06, 2000
RECORD AVAILABLE FROM AUG 28, 1985 TO CURRENT YEAR 76 ENTRIES

SITE ID NUMBER: 414043087290801
STATION NAME: USGS WELL D11 DEEP @ WHITING GARAGE @ WHITING,IN.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 08	7.18	APR 06	7.21	JUL 20	6.51

WATER YEAR 2004 HIGHEST 6.51 JUL 20, 2004 LOWEST 7.21 APR 06, 2004
PERIOD OF RECORD HIGHEST 4.01 SEP 07, 1993 LOWEST 7.72 JAN 06, 2000
RECORD AVAILABLE FROM JUN 11, 1987 TO CURRENT YEAR 60 ENTRIES

GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA--Continued

Table 3. Water-level records for observation wells in the Northern Lake County network, collected during water year 2004 and summary statistics.--Continued

SITE ID NUMBER: 413941087292600
STATION NAME: USGS WELL D21 @ AMOCO PARK @ HAMMOND,IN.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07	3.22	APR 06	3.07	JUL 20	3.69

WATER YEAR 2004	HIGHEST	3.07	APR 06, 2004	LOWEST	3.69	JUL 20, 2004
PERIOD OF RECORD	HIGHEST	1.48	NOV 28, 1990	LOWEST	4.74	DEC 12, 1997

RECORD AVAILABLE FROM JUL 17, 1987 TO CURRENT YEAR 59 ENTRIES

SITE ID NUMBER: 413804087291102
STATION NAME: USGS WELL D-25 DICKY ROAD AT IHC WEST (RPD=96)

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07	5.66	APR 06	5.94	JUL 20	5.22

WATER YEAR 2004	HIGHEST	5.22	JUL 20, 2004	LOWEST	5.94	APR 06, 2004
PERIOD OF RECORD	HIGHEST	1.94	JUN 09, 1993	LOWEST	6.48	APR 09, 2003

RECORD AVAILABLE FROM DEC 05, 1985 TO CURRENT YEAR 67 ENTRIES

SITE ID NUMBER: 413758087290702
STATION NAME: USGS WELL D-30 DICKY ROAD AT IHC MIDDLE (RPD=96)

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07	6.14	APR 06	6.00	JUL 20	5.12

WATER YEAR 2004	HIGHEST	5.12	JUL 20, 2004	LOWEST	6.14	JAN 07, 2004
PERIOD OF RECORD	HIGHEST	2.43	DEC 05, 1985	LOWEST	6.19	APR 09, 2003

RECORD AVAILABLE FROM DEC 05, 1985 TO CURRENT YEAR 67 ENTRIES

SITE ID NUMBER: 413907087275901
STATION NAME: USGS WELL D31 DEEP @ DICKY RD. @ EAST CHICAGO,IN.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07	6.10	APR 06	5.96

WATER YEAR 2004	HIGHEST	5.96	APR 06, 2004	LOWEST	6.10	JAN 07, 2004
PERIOD OF RECORD	HIGHEST	2.71	JUN 09, 1993	LOWEST	6.13	APR 09, 2003

RECORD AVAILABLE FROM JUL 16, 1987 TO CURRENT YEAR 56 ENTRIES

GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA--Continued

Table 3. Water-level records for observation wells in the Northern Lake County network, collected during water year 2004 and summary statistics.--Continued

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SITE ID NUMBER: 413835087245101
STATION NAME: USGS WELL D40 @ E. CHICAGO,IN.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 06	2.40	JUL 20	2.75

WATER YEAR 2002 HIGHEST 2.40 APR 06, 2004 LOWEST 2.75 JUL 20, 2004
PERIOD OF RECORD HIGHEST .15 JUN 09, 1993 LOWEST 4.55 JUN 29, 1999
RECORD AVAILABLE FROM OCT 24, 1985 TO CURRENT YEAR 70 ENTRIES

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SITE ID NUMBER: 413812087270201
STATION NAME: USGS WELL D45 AT E. CHICAGO IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07	4.78	APR 06	4.67	JUL 20	4.84

WATER YEAR 2004 HIGHEST 4.67 APR 06, 2004 LOWEST 4.84 JUL 20, 2004
PERIOD OF RECORD HIGHEST 2.93 NOV 28, 1990 LOWEST 6.87 JUN 29, 1999
RECORD AVAILABLE FROM OCT 24, 1985 TO CURRENT YEAR 69 ENTRIES

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SITE ID NUMBER: 413800087285401
STATION NAME: USGS WELL D50 AT EAST CHICAGO IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 08	7.25	JUL 20	7.26

WATER YEAR 2004 HIGHEST 7.25 JAN 08, 2004 LOWEST 7.26 JUL 20, 2004
PERIOD OF RECORD HIGHEST 5.98 JUN 10, 1993 LOWEST 7.46 SEP 08, 1992
RECORD AVAILABLE FROM DEC 13, 1985 TO CURRENT YEAR 60 ENTRIES

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SITE ID NUMBER: 413758087281001
STATION NAME: USGS WELL D60 PHILLIPS PIPELINE MIDDLE (RPD=96)

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 08	5.90	APR 06	5.83

WATER YEAR 2004 HIGHEST 5.83 APR 06, 2004 LOWEST 5.90 JAN 08, 2004
PERIOD OF RECORD HIGHEST 3.29 NOV 07, 1985 LOWEST 6.37 OCT 12, 1988
RECORD AVAILABLE FROM JUL 15, 1987 TO CURRENT YEAR 48 ENTRIES

GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA--Continued

Table 3. Water-level records for observation wells in the Northern Lake County network, collected during water year 2004 and summary statistics.--Continued

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SITE ID NUMBER: 413654087274000
STATION NAME: USGS WELL D66 @DUPONT,KENNEDY&GR.CAL.@E.CHICAGO,IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL
APR 07	5.53

PERIOD OF RECORD HIGHEST 4.76 JUN 27, 1997 LOWEST 6.68 MAR 28, 2000
RECORD AVAILABLE FROM JUL 15, 1987 TO CURRENT YEAR 51 ENTRIES

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SITE ID NUMBER: 413647087282502
STATION NAME: USGS WELL D67 SHALLOW NIPSCO SUBSTA AT HAMMOND IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 08	3.91	APR 06	3.56	JUL 20	4.38

WATER YEAR 2004 HIGHEST 3.56 APR 06, 2004 LOWEST 4.38 JUL 20, 2004
PERIOD OF RECORD HIGHEST .34 NOV 28, 1990 LOWEST 6.21 SEP 04, 2002
RECORD AVAILABLE FROM JUL 16, 1987 TO CURRENT YEAR 56 ENTRIES

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SITE ID NUMBER: 413647087282501
STATION NAME: USGS WELL D68 DEEP NIPSCO SUBSTA, AT HAMMOND, IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 08	4.09	APR 06	3.63	JUL 20	4.57

WATER YEAR 2004 HIGHEST 3.63 APR 06, 2004 LOWEST 4.57 JUL 20, 2004
PERIOD OF RECORD HIGHEST .58 NOV 28, 1990 LOWEST 6.38 SEP 04, 2002
RECORD AVAILABLE FROM JUL 16, 1987 TO CURRENT YEAR 56 ENTRIES

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SITE ID NUMBER: 413435087291901
STATION NAME: USGS WELL D-75 @ HAMMOND,IN.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 06	4.65	APR 06	4.31	JUL 20	4.75

WATER YEAR 2004 HIGHEST 4.31 APR 06, 2004 LOWEST 4.75 JUL 20, 2004
PERIOD OF RECORD HIGHEST 3.40 JUN 10, 1993 LOWEST 5.02 JUN 24, 1992 SEP 04, 2002
RECORD AVAILABLE FROM JAN 07, 1986 TO CURRENT YEAR 67 ENTRIES

GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA--Continued

Table 3. Water-level records for observation wells in the Northern Lake County network, collected during water year 2004 and summary statistics.--Continued

SITE ID NUMBER: 413844087310401
STATION NAME: USGS WELL E1 @ HAMMOND,IN.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07	3.25	APR 06	3.17	JUL 21	3.14

WATER YEAR 2004 HIGHEST 3.14 JUL 21, 2004 LOWEST 3.25 JAN 07, 2004
PERIOD OF RECORD HIGHEST 1.08 JUL 18, 1996 LOWEST 3.97 OCT 12, 1988
RECORD AVAILABLE FROM DEC 13, 1985 TO CURRENT YEAR 71 ENTRIES

SITE ID NUMBER: 414105087293900
STATION NAME: USGS WELL E2 @ WHIHALA BEACH PARK @ WHITING,IN.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 08	6.12	APR 06	5.52	JUL 20	5.25

WATER YEAR 2004 HIGHEST 5.25 JUL 20, 2004 LOWEST 6.12 JAN 08, 2004
PERIOD OF RECORD HIGHEST 2.95 JUN 09, 1987 LOWEST 6.20 JAN 06, 2000
RECORD AVAILABLE FROM JUN 09, 1987 TO CURRENT YEAR 55 ENTRIES

SITE ID NUMBER: 414013087303300
STATION NAME: USGS WELL E3 @ WOLF LAKE PARK @ HAMMOND,IN.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07	2.58	APR 06	2.49	JUL 21	2.96

WATER YEAR 2004 HIGHEST 2.49 APR 06, 2004 LOWEST 2.96 JUL 21, 2004
PERIOD OF RECORD HIGHEST .59 JUL 18, 1996 LOWEST 3.40 JUL 05, 1988
RECORD AVAILABLE FROM JUN 22, 1987 TO CURRENT YEAR 62 ENTRIES

SITE ID NUMBER: 413810087305201
STATION NAME: USGS WELL E5 AT HAMMOND IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07	5.20	APR 06	4.93	JUL 21	5.20

WATER YEAR 2004 HIGHEST 4.93 APR 06, 2004 LOWEST 5.20 JAN 07, 2004 JUL 21, 2004
PERIOD OF RECORD HIGHEST 3.60 JUL 10, 1993 LOWEST 5.98 SEP 06, 2001
RECORD AVAILABLE FROM AUG 28, 1985 TO CURRENT YEAR 68 ENTRIES

GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA--Continued

Table 3. Water-level records for observation wells in the Northern Lake County network, collected during water year 2004 and summary statistics.--Continued

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SITE ID NUMBER: 413938087304301
STATION NAME: USGS WELL E6 @ 129TH&SHEFFIELD @ HAMMOND,IN.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07	1.48	APR 06	1.13	JUL 21	1.79

WATER YEAR 2004 HIGHEST 1.13 APR 06, 2004 LOWEST 1.79 JUL 21, 2004
PERIOD OF RECORD HIGHEST .25 JUN 05, 2001 LOWEST 3.15 AUG 31, 1999
RECORD AVAILABLE FROM JUN 22, 1987 TO CURRENT YEAR 59 ENTRIES

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SITE ID NUMBER: 413938087304302
STATION NAME: USGS WELL E7 @ 129TH&SHEFFIELD @ HAMMOND,IN.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07	1.47	APR 06	1.20	JUL 21	1.85

WATER YEAR 2004 HIGHEST 1.20 APR 06, 2004 LOWEST 1.85 JUL 21, 2004
PERIOD OF RECORD HIGHEST .08 JUN 05, 2001 LOWEST 2.88 JUL 05, 1988
RECORD AVAILABLE FROM JUN 22, 1987 TO CURRENT YEAR 61 ENTRIES

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SITE ID NUMBER: 413722087304101
STATION NAME: USGS WELL E-10 SPOHN SCHOOL NORTH (RPD=24)

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 08	4.15	APR 06	3.90	JUL 20	4.47

WATER YEAR 2004 HIGHEST 3.90 APR 06, 2004 LOWEST 4.47 JUL 20, 2004
PERIOD OF RECORD HIGHEST 2.46 JUN 10, 1993 LOWEST 6.11 SEP 06, 2001
RECORD AVAILABLE FROM OCT 17, 1985 TO CURRENT YEAR 74 ENTRIES

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SITE ID NUMBER: 413720087304201
STATION NAME: USGS WELL E-15 SPOHN SCHOOL SOUTH (RPD=24)

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 08	3.09	APR 06	2.88	JUL 20	3.30

WATER YEAR 2004 HIGHEST 2.88 APR 06, 2004 LOWEST 3.30 JUL 20, 2004
PERIOD OF RECORD HIGHEST 1.48 JUN 10, 1993 LOWEST 6.50 OCT 18, 1991
RECORD AVAILABLE FROM OCT 30, 1985 TO CURRENT YEAR 61 ENTRIES

GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA--Continued

Table 3. Water-level records for observation wells in the Northern Lake County network, collected during water year 2004 and summary statistics.--Continued

SITE ID NUMBER: 413627087310500
STATION NAME: USGS WELL E20 @ EGGERS SCHOOL @ HAMMOND,IN.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 08	3.46	APR 06	2.96	JUL 20	3.84

WATER YEAR 2004 HIGHEST 2.96 APR 06, 2004 LOWEST 3.84 JUL 20, 2004
PERIOD OF RECORD HIGHEST 2.17 JUN 10, 1993 LOWEST 4.86 AUG 20, 1986 OCT 11, 1988
RECORD AVAILABLE FROM AUG 28, 1985 TO CURRENT YEAR 67 ENTRIES

SITE ID NUMBER: 413706087171901
STATION NAME: USX WELL HWD2-19D, GARY, IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07	15.10	APR 07	15.14	JUL 21	15.06

WATER YEAR 2004 HIGHEST 15.06 JUL 21, 2004 LOWEST 15.14 APR 07, 2004
PERIOD OF RECORD HIGHEST 13.26 JUL 10, 1996 LOWEST 15.77 JUL 10, 2002
RECORD AVAILABLE FROM JUL 18, 1995 TO CURRENT YEAR 23 ENTRIES

SITE ID NUMBER: 413706087171902
STATION NAME: USX WELL HWD-2-19 SHALLOW, AT GARY, IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07	DRY	APR 07	DRY	JUL 21	DRY

PERIOD OF RECORD HIGHEST 13.04 MAR 24, 1998 LOWEST 15.64 JUL 10, 2002
RECORD AVAILABLE FROM JUL 18, 1995 TO CURRENT YEAR 24 ENTRIES

SITE ID NUMBER: 413703087171501
STATION NAME: USX WELL HWD-2-20D, AT GARY, IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07	30.88	APR 07	31.28	JUL 21	31.28

WATER YEAR 2004 HIGHEST 30.88 JAN 07, 2004 LOWEST 31.28 APR 07, 2004 JUL 21, 2004
PERIOD OF RECORD HIGHEST 29.93 JUL 01, 1999 LOWEST 32.23 APR 10, 2003
RECORD AVAILABLE FROM JUL 10, 1996 TO CURRENT YEAR 22 ENTRIES

GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA--Continued

Table 3. Water-level records for observation wells in the Northern Lake County network, collected during water year 2004 and summary statistics.--Continued

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SITE ID NUMBER: 413703087171502
STATION NAME: USX WELL HWD-2-20S AT GARY, IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07	31.05	APR 07	31.45	JUL 21	31.45

WATER YEAR 2004 HIGHEST 31.05 JAN 07, 2004 LOWEST 31.45 SPR 07, 2004 JUL 21, 2004
PERIOD OF RECORD HIGHEST 30.10 JUL 01, 1999 LOWEST 32.41 APR 10, 2003
RECORD AVAILABLE FROM JUL 10, 1996 TO CURRENT YEAR 22 ENTRIES

- -

SITE ID NUMBER: 413752087223501
STATION NAME: USX WELL (B)HWT2-9 AT GARY, IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07	29.76	APR 07	29.56	JUL 21	28.52

WATER YEAR 2004 HIGHEST 28.52 JUL 21, 2004 LOWEST 29.76 JAN 07, 2004
PERIOD OF RECORD HIGHEST 25.68 JUL 24, 1986 LOWEST 29.94 MAR 29, 2000
RECORD AVAILABLE FROM DEC 10, 1985 TO CURRENT YEAR 61 ENTRIES

- -

SITE ID NUMBER: 413722087225501
STATION NAME: USX WELL (B)HWT14-05 AT GARY, IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 06	4.78	APR 05	4.79	JUL 19	4.90

WATER YEAR 2004 HIGHEST 4.78 JAN 06, 2004 LOWEST 4.90 JUL 19, 2004
PERIOD OF RECORD HIGHEST 3.01 FEB 27, 1990 LOWEST 5.46 SEP 03, 2002
RECORD AVAILABLE FROM DEC 10, 1985 TO CURRENT YEAR 47 ENTRIES

- -

SITE ID NUMBER: 413744087223901
STATION NAME: USX WELL (B)P-4 AT GARY, IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07	21.98	APR 07	22.28	JUL 21	21.44

WATER YEAR 2004 HIGHEST 21.44 JUL 21, 2004 LOWEST 22.28 APR 07, 2004
PERIOD OF RECORD HIGHEST 18.39 JUN 08, 1993 LOWEST 22.59 MAR 29, 2000
RECORD AVAILABLE FROM DEC 10, 1985 TO CURRENT YEAR 59 ENTRIES

GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA--Continued

Table 3. Water-level records for observation wells in the Northern Lake County network, collected during water year 2004 and summary statistics.--Continued

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SITE ID NUMBER: 413734087225101
STATION NAME: USX WELL (B)P-11 AT GARY, IN

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 06	10.81	APR 05	11.31	JUL 20	11.00

WATER YEAR 2004 HIGHEST 10.81 JAN 06, 2004 LOWEST 11.31 APR 05, 2004
PERIOD OF RECORD HIGHEST 8.41 JUN 08, 1993 LOWEST 11.78 MAR 27, 1996
RECORD AVAILABLE FROM OCT 12, 1985 TO CURRENT YEAR 63 ENTRIES

SITE ID NUMBER: 414144087304101

STATION NAME: USEPA WELL MW-1 AT HAMMOND, IND.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 06	13.42	JUL 21	11.95

WATER YEAR 2004 HIGHEST 11.95 JUL 21, 2004 LOWEST 13.42 APR 06, 2004
PERIOD OF RECORD HIGHEST 2.46 JUL 09, 2002 LOWEST 13.91 JAN 06, 2000
RECORD AVAILABLE FROM MAR 17, 1993 TO OCT 25, 2004 28 ENTRIES

SITE ID NUMBER: 414033087245501
STATION NAME: ISPAT INLAND STEEL WELL MW-1G, EAST CHICAGO, IND.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07	17.13	APR 07	16.14	JUL 22	13.77

WATER YEAR 2004 HIGHEST 13.77 JUL 22, 2004 LOWEST 17.13 JAN 07, 2004
PERIOD OF RECORD HIGHEST 5.80 DEC 16, 1998 LOWEST 19.56 JUL 10, 2003
RECORD AVAILABLE FROM OCT 07, 1992 TO CURRENT YEAR 22 ENTRIES

SITE ID NUMBER: 414033087245502
STATION NAME: ISPAT INLAND STEEL WELL MW-2, AT EAST CHICAGO, IND

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07	DRY	APR 07	10.80	JUL 22	13.22

WATER YEAR 2004 HIGHEST 10.80 APR 07, 2004 LOWEST 13.22 JUL 22, 2004
PERIOD OF RECORD HIGHEST 9.16 MAR 03, 1999 LOWEST 13.60 JAN 05, 2000
RECORD AVAILABLE FROM OCT 07, 1992 TO CURRENT YEAR 22 ENTRIES

GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, IN--Continued

Table 4. Location and description of surface-water stage measurement sites in Northern Lake County network measured during water year 2004.

Site name	Surface-water body	Latitude/longitude	USGS site identifier	Measurement location
S-1	Wolf Lake	41°40′16″/87°30′37″	414016087303701	Fishing pier in Wolf Lake Park, Hammond, IN.
S-8	Sewer	41°38′08″/87°27′05″	413808087270501	Sewer grate, Washington Park, East Chicago, IN.
S-13	Grand Calumet River	41°36′32″/87°22′18″	413632087221900	At Bridge Street bridge, Gary, IN.
E-16S	Grand Calumet River	41°37′19″/87°30′44″	413719087304302	Spohn School, Hammond, IN.

GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA

Table 5. Reference-point altitude and miscellaneous measurements of surface-water stage in the Northern Lake County network, water year 2002 and period of record.

ft, feet; LSD, land surface datum; --, not recorded; >, greater than

Site name	USGS site identifier	Period of record	Date	Depth to water surface below measuring point (ft)	Altitude of measuring point (ft above sea level)[1]
S-1	414016087303701	03-1986 through 07-2004	APR 04, 2004	0.97	580.52
			JUL 21, 2004	1.93	579.56
S-8	413808087270501	01-1986 through 07-2004	JAN 07, 2004	1.40	580.16
			APR 04, 2004	1.45	580.11
			JUL 20, 2004	1.46	580.10
S-13	413632087221900	10-1988 through 07-2004	JAN 06, 2004	18.22	581.78
			APR 05, 2004	18.09	581.91
			JUL 19, 2004	16.56	583.44
E-16S	413719087304302	12-1985 through 07-2004	APR 04, 2004	6.80	582.02
			JUL 20, 2004	6.32	582.50

[1] Several sites have multiple measuring points to accommodate changing site conditions.

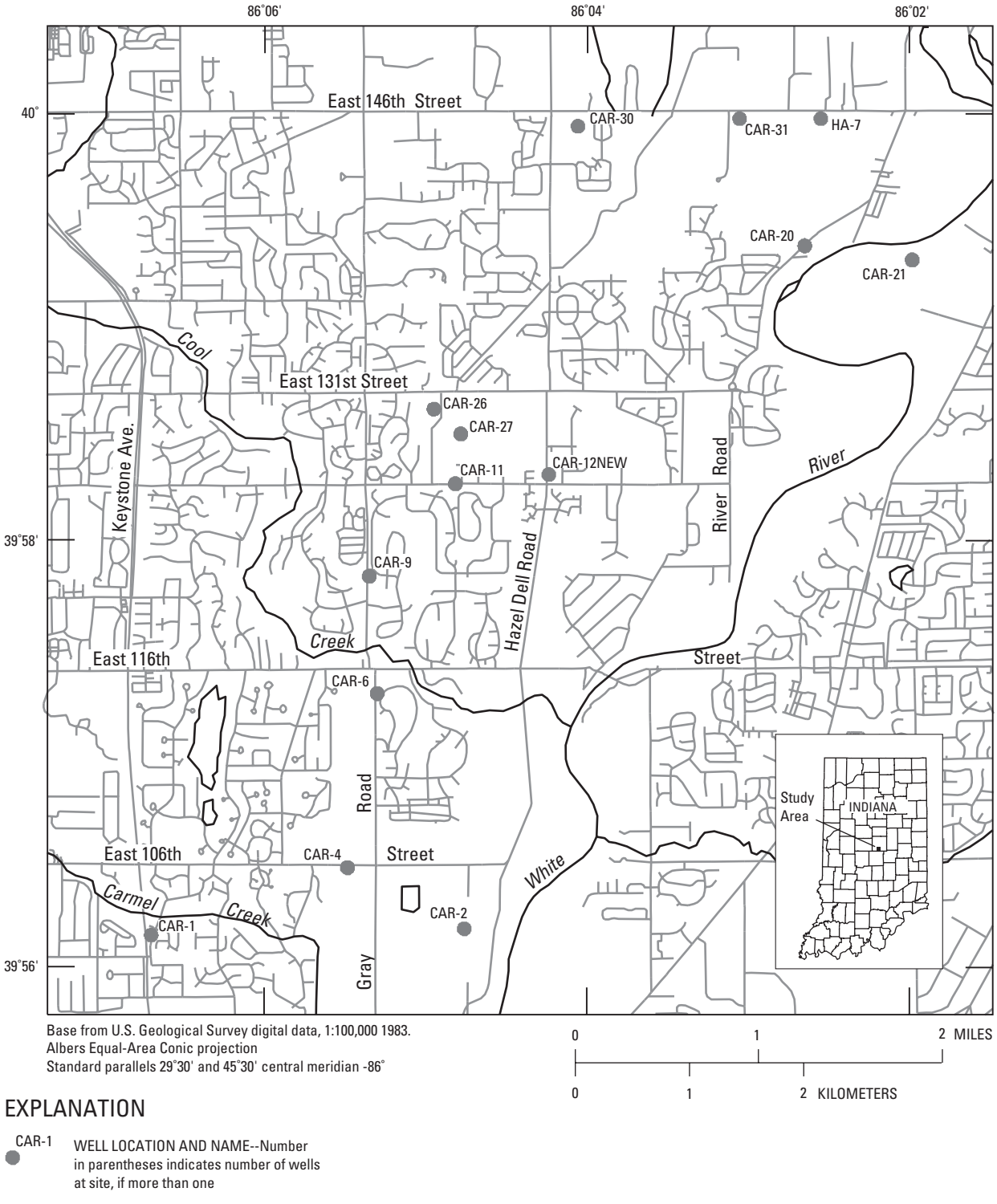

Figure 11.--Locations of wells in the Carmel, Hamilton County, IN network.

GROUND-WATER LEVELS FOR THE ALLUVIAL AQUIFER NEAR THE CITY OF CARMEL, HAMILTON COUNTY NETWORK

The following tables contain ground-water level measurements from a network of monitoring wells near Carmel, Indiana. The data were collected as part of a cooperative effort with the City of Carmel to determine ambient ground-water level conditions on an irregular basis within the alluvial aquifer near the White River. Locations of observation wells where measurements were made are shown in figure 10.

Previous water levels for this monitoring-well network were published in the 2000, 2001 and 2002 water year versions of this report.

395609086064201. Local number CAR-1.

LOCATION.--Lat 39°56'09", long 86°06'42", in NW$^1/_4$SE$^1/_4$NE$^1/_4$ sec.7, T.17 N., R.4 E., Hamilton County, Hydrologic Unit 05120201, between Keystone Avenue and Frontage Road, at 10200 North in Carmel.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel outwash deposit, White River valley-train of Pleistocene age, Atherton Formation.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 1.5 in., depth 50.1 ft, cased to 47.1 ft, screened to 50.1 ft.

INSTRUMENTATION.--None

DATUM.--Elevation of land-surface datum is 774.71 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of well casing, 0.30 ft above ground level.

PERIOD OF RECORD.--56 entries from September 1974 to current year. Measured irregularly in semi-annual status.

EXTREMES FOR THE PERIOD OF RECORD.--Highest water level, 18.69 ft below land-surface datum, April 17, 1991; lowest, 23.55 ft below land surface datum, September 5, 1986.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEARS 2003 and 2004.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 17, 2003	20.87	APR 26, 2004	20.27	AUG 16, 2004	21.17

395610086044401. Local number CAR-2.

LOCATION.--Lat 39°56'10", long 86°04'44", in NE$^1/_4$SW$^1/_4$NE$^1/_4$ sec.9, T.17 N., R.4 E., Hamilton County, Hydrologic Unit 05120201, 10300 North River Avenue, on east side at slight bend in road.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel outwash deposit, White River valley-train of Pleistocene age, Atherton Formation.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 1.5 in., depth 24.2 ft, cased to 21.2 ft, screened to 24.2 ft.

INSTRUMENTATION.--None

DATUM.--Elevation of land-surface datum is 740.23 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of well casing, 0.30 ft above ground level.

REMARKS.--Water level may be affected by nearby dewatering for mining.

PERIOD OF RECORD.--52 entries from September 1974 to current year. Measured irregularly in semi-annual status.

EXTREMES FOR THE PERIOD OF RECORD.--Highest water level, 15.22 ft below land-surface datum, April 14, 1975; lowest, dry on numerous dates.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEARS 2003 AND 2004.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 17, 2003	22.00	APR 26, 2004	DRY	AUG 16, 2004	DRY

GROUND-WATER LEVELS FOR THE ALLUVIAL AQUIFER NEAR THE CITY OF CARMEL, HAMILTON COUNTY NETWORK--Continued

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395628086052901. Local number CAR-4.

LOCATION.--Lat 39°56'28", long 86°05'29", in NW$^1/_4$NE$^1/_4$NE$^1/_4$ sec.8, T.17 N., R.4 E., Hamilton County, Hydrologic Unit 05120201, 1000 ft west of Gray Road (Hinkle Road on topographic map) on south side of East 106th Street, in Carmel. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel outwash deposit, White River valley-train of Pleistocene age, Atherton Formation.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 1.5 in., depth 23.8 ft, cased to 20.8 ft, screened to 23.8 ft.

INSTRUMENTATION.--None.

DATUM.--Elevation of land-surface datum is 744 ft above National Geodetic Vertical Datum of 1929. Measuring point, 2003 water year: top of well casing, at land surface datum. Measuring point 2004, water year: top of well casing: 0.22 ft below land-surface datum.

REMARKS.--Water level may be affected by nearby dewatering for mining.

PERIOD OF RECORD.--46 entries from September 1974 to current year. Measured irregularly in semi-annual status.

EXTREMES FOR THE PERIOD OF RECORD.--Highest water level, 5.07 ft below land-surface datum, April 23, 1982; lowest, 16.69 ft below land surface datum, October 27, 1988.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEARS 2003 AND 2004.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 17, 2003	7.42	APR 26, 2004	10.59	AUG 16, 2004	10.42

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395717086051801. Local number CAR-6.

LOCATION.--Lat 39°57'17", long 86°05'18", in NW$^1/_4$NW$^1/_4$NW$^1/_4$ sec.4, T.17 N., R.4 E., Hamilton County, Hydrologic Unit 05120201, 11500 North Gray Road, well on east side, 600 ft south of East 116th Street. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel outwash deposit, White River valley-train of Pleistocene age, Atherton Formation.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 1.5 in., depth 34.7 ft, cased to 31.7 ft, screened to 34.7 ft.

INSTRUMENTATION.--None.

DATUM.--Elevation of land-surface datum is 768.36 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of well casing, at land surface.

PERIOD OF RECORD.--55 entries from November 1974 to current year. Measured irregularly in semi-annual status.

EXTREMES FOR THE PERIOD OF RECORD.--Highest water level, 18.10 ft below land-surface datum, June 26, 1996; lowest, 23.14 ft below land surface datum, November 30, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEARS 2003 AND 2004.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 17, 2003	21.29	APR 26, 2004	20.31	AUG 16, 2004	21.17

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GROUND-WATER LEVELS FOR THE ALLUVIAL AQUIFER NEAR THE CITY OF CARMEL, HAMILTON COUNTY NETWORK--Continued

395750086052101. Local number CAR-9.

LOCATION.--Lat 39°57’50”, long 86°05’21”, in SW$^1/_4$SW$^1/_4$NW$^1/_4$ sec.33, T.18 N., R.4 E., Hamilton County, Hydrologic Unit 05120201, 12100 North Gray Road, on east side, north of entrance road into abandoned gravel pit.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel outwash deposit, White River valley-train of Pleistocene age, Atherton Formation.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 1.5 in., depth 48.38 ft, cased to 45.38 ft, screened to 48.38 ft.

INSTRUMENTATION.--None.

DATUM.--Elevation of land-surface datum is 778.74 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of well casing, at land surface.

REMARKS.--Water level may be affected by nearby dewatering for mining.

PERIOD OF RECORD.--51 entries from September 1974 to current year. Measured irregularly in semi-annual status.

EXTREMES FOR THE PERIOD OF RECORD.--Highest water level, 24.75 ft below land-surface datum, June 4, 1986; lowest, 34.09 ft below land surface datum, November 4, 1999.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEARS 2003 AND 2004.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 17, 2003	31.14	APR 26, 2004	29.76	AUG 16, 2004	30.91

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395816086044901. Local number CAR-11.

LOCATION.--Lat 39°58’16”, long 86°04’49”, in SE$^1/_4$SE$^1/_4$SW$^1/_4$ sec.28, T.18 N., R.4 E., Hamilton County, Hydrologic Unit 05120201, 5200 East 126th Street, north side, at east entrance to Clay Jr. High School.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel outwash deposit, White River valley-train of Pleistocene age, Atherton Formation.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 1.5 in., depth 59.0 ft, cased to 56.0 ft, screened to 59.0 ft.

INSTRUMENTATION.--None.

DATUM.--Elevation of land-surface datum is 789.59 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of well casing, at land surface.

REMARKS.--Water level may be affected by nearby production wells.

PERIOD OF RECORD.--52 entries from November, 1974 to current date. Measured irregularly in semi-annual status.

EXTREMES FOR THE PERIOD OF RECORD.--Highest water level, 32.77 ft below land-surface datum, April 14, 1975; lowest, 48.17 ft below land surface datum, September 23, 1999.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEARS 2003 AND 2004.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 17, 2003	47.30	APR 26, 2004	41.92	AUG 16, 2004	42.52

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GROUND-WATER LEVELS FOR THE ALLUVIAL AQUIFER NEAR THE CITY OF CARMEL, HAMILTON COUNTY NETWORK--Continued

395818086042101 Local number CAR-12NEW

LOCATION.--Lat 39°58'18". long 86°04'12". in $SW^1/_4SW^1/_4SW^1/_4$ sec.27, T.18 N., R.4 E., Hamilton County. Hydrologic Unit 05120201, Well is in ditch for Hazel Dell Road, 350 ft north of East 126th Street, and 225 ft west of the Carmel City Utility Water Department treatment plant #5. Well is half way between Carmel Utility Wells #9 and #13, and 175 ft west of line intersecting both wells. Owner: City of Carmel Utilities Department

AQUIFER.-- Sand and gravel outwash deposit, White River valley-train of Pleistocene age Atherton Formation

WELL CHARACTERISTICS.--Drilled water-table well, diameter 4.0 in., depth 73.9 ft, cased from 1.20 ft above to 69.0 ft below ground, screened from 69.0 to 73.9 ft. Well casing was shortened in Fall 2000, and placed under a manhole cover. Well measuring point was lowered 2.46 ft.

INSTRUMENTATION.--None

DATUM.--Elevation of land-surface datum was 753.69 ft above National Geodetic Vertical Datum of 1929 until construction of Hazel Dell Road in 1999. Measuring point: for 1977 through 2000 top of well casing, 1.20 ft above ground level. After 2000 measuring point is 752.43, and 1.26 ft below original land surface datum.

REMARKS.--After July 1977 water levels are affected by nearby production wells. Well was drilled July 25, 1977, but it was not used to monitor Carmel Network wells until October 1995, following the loss of well CAR-12.

PERIOD OF RECORD.-- 14 entries from July 25, 1977 to current year. Measured irregularly in semi-annual status.

EXTREMES FOR THE PERIOD OF RECORD.--Highest water level, 6.00 ft below land-surface datum, July 25, 1977; lowest, 22.14 ft below land surface datum, November 4, 1999.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEARS 2002, 2003 AND 2004.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
APR 25, 2002	18.58	MAR 17, 2003	19.95	APR 26, 2004	14.77
AUG 16, 2004	14.74				

395923086023901. Local number CAR-20.

LOCATION.--Lat 39°59'23", long 86°02'39", in $SE^1/_4NE^1/_4SW^1/_4$ sec.23, T.18 N., R.4 E., Hamilton County, Hydrologic Unit 05120201, east side of 13900 North River Avenue, just south of private drive. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel outwash deposit, White River valley-train of Pleistocene age, Atherton Formation.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 1.5 in., depth 34.6 ft, cased to 31.6 ft, screened to 34.6 ft.

INSTRUMENTATION.--None.

DATUM.--Elevation of land-surface datum is 753.45 ft above National Geodetic Vertical Datum of 1929. Measuring point, 2003 water year and previous: top of well casing, 0.24 ft above land-surface datum. Measuring point 2004, water year: top of well casing: 0.26 ft below land-surface datum.

REMARKS.--Water level may be affected by nearby dewatering for mining.

PERIOD OF RECORD.--52 entries from November 1974 to current year. Measured irregularly in semi-annual status.

EXTREMES FOR THE PERIOD OF RECORD.--Highest water level, 5.93 ft below land-surface datum, April 14, 1994; lowest, 11.90 ft below land surface datum, October 29, 1997.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEARS 2003 AND 2004.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 18, 2003	10.05	APR 26, 2004	9.60	AUG 16, 2004	9.76

GROUND-WATER LEVELS FOR THE ALLUVIAL AQUIFER NEAR THE CITY OF CARMEL, HAMILTON COUNTY NETWORK--Continued

395919086015901. Local number CAR-21.

LOCATION.--Lat 39°59'19", long 86°01'59", in NE$^1/_4$SE$^1/_4$SE$^1/_4$ sec.23, T.18 N., R.4 E., Hamilton County, Hydrologic Unit 05120201, south side of Connor Lane, 0.5 mi west of Allisonville Road, on Connor Prairie Museum property. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel outwash deposit, White River valley-train of Pleistocene age, Atherton Formation.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 1.5 in., depth 23.9 ft, cased to 20.9 ft, screened to 23.9 ft.

INSTRUMENTATION.--None.

DATUM.--Elevation of land-surface datum is 744.70 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of well casing, 1.60 ft above land-surface datum.

REMARKS.--Water level may be affected by river stage in White River, which is located 400 ft north of the well.

PERIOD OF RECORD.--55 entries from November 1974 to current year. Measured irregularly in semi-annual status.

EXTREMES FOR THE PERIOD OF RECORD.--Highest water level, 8.03 ft below land-surface datum, December 2, 1992; lowest, 14.11 ft below land surface datum, October 26, 1988.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEARS 2003 AND 2004.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 18, 2003	10.55	APR 26, 2004	10.84	AUG 16, 2004	12.37

395837086045701. Local number CAR-26.

LOCATION.--Lat 39°58'37", long 86°04'57", in NW$^1/_4$NE$^1/_4$SW$^1/_4$ sec.28, T.18 N., R.4 E., Hamilton County,Hydrologic Unit 05120201, in northwest part of Clay Jr. High School property, near southeast corner of private property, west of School Administration Building. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel outwash deposit, White River valley-train of Pleistocene age, Atherton Formation.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 1.5 in., depth 63.3 ft, cased to 60.3 ft, screenedto 63.3 ft.

INSTRUMENTATION.--None.

DATUM.--Elevation of land-surface datum is 777.81 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of well casing, 3.0 ft above land-surface datum.

REMARKS.--Water level may be affected by nearby production wells.

PERIOD OF RECORD.--54 entries from April 1976 to current year. Measured irregularly in semi-annual status.

EXTREMES FOR THE PERIOD OF RECORD.--Highest water level, 11.76 ft below land-surface datum, April 27, 1978; lowest, 24.75 ft below land surface datum, September 7, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEARS 2003 AND 2004.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 18, 2003	20.67	APR 26, 2004	17.95	AUG 16, 2004	19.24

GROUND-WATER LEVELS FOR THE ALLUVIAL AQUIFER NEAR THE CITY OF CARMEL, HAMILTON COUNTY NETWORK--Continued

395830086044701. Local number CAR-27.

LOCATION.--Lat 39°58'30", long 86°04'47", in SE1/4NE1/4SW1/4 sec.28, T.18 N., R.4 E., Hamilton County, Hydrologic Unit 05120201, on Clay Jr. High School property, well in tree line on east property line, at north end of football and track field. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel outwash deposit, White River valley-train of Pleistocene age, Atherton Formation.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 2.0 in., depth 62.5 ft, cased to 59.5 ft, screened to 62.5 ft.

INSTRUMENTATION.--None.

DATUM.--Elevation of land-surface datum is 783.07 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of well casing, 3.5 ft above land-surface datum.

REMARKS.--Water level may be affected by nearby production wells.

PERIOD OF RECORD.--54 entries from April 1976 to current year. Measured irregularly in semi-annual status.

EXTREMES FOR THE PERIOD OF RECORD.--Highest water level, 23.12 ft below land-surface datum, June 4, 1986; lowest, 39.02 ft below land surface datum, September 23, 1999.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEARS 2003 AND 2004.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 18, 2003	36.65	APR 26, 2004	30.04	AUG 16, 2004	31.34

95954086040001. Local number CAR-30.

LOCATION.--Lat 39°59'54", long 86°04'00", in SE1/4NW1/4NW1/4 sec.22, T.18 N., R.4 E., Hamilton County, Hydrologic Unit 05120201, approximately 1000 ft east of Hazel Dell Road at the Hazel Dell Christian Church, 14500 Hazel Dell Road. Owner: U.S. Geological Survey.

AQUIFER.--Sand zone in till of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 2.0 in., depth 48.0 ft, cased to 15.0 ft, screened to 20.0 ft.

INSTRUMENTATION.--None

DATUM.--Elevation of land-surface datum is 772.31 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of well casing, 0.25 ft below ground level.

REMARKS.--Replaces well CAR-22 which was destroyed in 1994.

PERIOD OF RECORD.-- 4 entries from September 2002 to current year. Measured irregularly in semi-annual status.

EXTREMES FOR THE PERIOD OF RECORD.--Highest water level, 6.95 ft below land-surface datum, March 18, 2003; lowest, 8.46 ft below land surface datum, August 19, 2004.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEARS 2003 AND 2004.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 18, 2003	6.95	APR 26, 2004	7.80	AUG 19, 2004	8.46

GROUND-WATER LEVELS FOR THE ALLUVIAL AQUIFER NEAR THE CITY OF CARMEL, HAMILTON COUNTY NETWORK--Continued

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400000086030301. Local number CAR-31.

LOCATION.--Lat 40°00'00", long 86°03'03", in $NW^1/_4NW^1/_4NW^1/_4$ sec.23, T.18 N., R.4 E., Hamilton County, Hydrologic Unit 05120201, well is 20 ft south of 146th Street, and 200 ft east of section line.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel outwash deposit, White River valley-train of Pleistocene age, Atherton Formation.

WELL CHARACTERISTICS.--Bored water-table well, diameter 2.0 in., depth 20.0 ft, cased to 15.0 ft, screened to 20.0 ft.

INSTRUMENTATION.--None.

DATUM.--Elevation of land-surface datum is 755.84 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of well casing, 0.40 ft below ground level.

REMARKS.--Replaces well CAR-23 which was removed in May 2000.

PERIOD OF RECORD.-- 4 entries from September 2002 to current year. Measured irregularly in semi-annual status.

EXTREMES FOR THE PERIOD OF RECORD.--Highest water level, 7.80 ft below land-surface datum, April 26, 2004; lowest, 14.67 ft below land surface datum, April 26, 2004.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEARS 2003 AND 2004.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 18, 2003	11.16	APR 26, 2004	14.67	AUG 16, 2004	14.10

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Conversion Factors

Multiply	By	To obtain
Length		
inch (in.)	2.54×10^{1}	millimeter (mm)
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter (m)
mile (mi)	1.609×10^{0}	kilometer (km)
Area		
acre	4.047×10^{3}	square meter (m^2)
	4.047×10^{-1}	square hectometer (hm^2)
	4.047×10^{-3}	square kilometer (km^2)
square mile (mi^2)	2.590×10^{0}	square kilometer (km^2)
Volume		
gallon (gal)	3.785×10^{0}	liter (L)
	3.785×10^{-3}	cubic meter (m^3)
	3.785×10^{0}	cubic decimeter (dm^3)
million gallons (Mgal)	3.785×10^{3}	cubic meter (m^3)
	3.785×10^{-3}	cubic hectometer (hm^3)
cubic foot (ft^3)	2.832×10^{-2}	cubic meter (m^3)
	2.832×10^{1}	cubic decimeter (dm^3)
cubic-foot-per-second-per-day [(ft^3/s/d]	2.447×10^{3}	cubic meter (m^3)
	2.447×10^{-3}	cubic hectometer (hm^3)
acre-foot (acre-ft)	1.223×10^{3}	cubic meter (m^3)
	1.223×10^{-3}	cubic hectometer (hm^3)
	1.223×10^{-6}	cubic kilometer (km^3)
Flow rate		
cubic foot per second (ft^3/s)	2.832×10^{1}	liter (L/s)
	2.832×10^{-2}	cubic meter per second (m^3/s)
	2.832×10^{1}	cubic decimeter per second (dm^3/s)
gallon per minute (gal/min)	6.309×10^{-2}	liter per second (L/s)
	6.309×10^{-5}	cubic meter per second (m^3/s)
	6.309×10^{-2}	cubic decimeter per second (dm^3/s)
million gallons per day (Mgal/d)	4.381×10^{-2}	cubic meter per second
	4.381×10^{1}	cubic decimeter per second (dm^3/s)
Mass		
ton, short (2,000 lb)	9.072×10^{-1}	megagram (Mg) or metric ton

Temperature in degrees Celsius (°C) may be converted to degrees Fahrenheit (°F) as follows:

$$°F = (1.8 \times °C) + 32$$